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THE MATTER OF ABSENCE:

FEMALE DISEMBODIMENT AND DIGITAL CINEMA

ALICIA ROBYN BYRNES

ORCID Identifier: 0000-0002-1889-9275

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School of Culture and Communication

Screen and Cultural Studies

The University of Melbourne

ABSTRACT

This dissertation finds the female body present even where it appears to be absent. It tracks the gesture prevalent in contemporary science fiction cinema to attenuate the female body through digitisation, and responds by turning to the materiality of the film itself. In so doing, the dissertation extends phenomenological film theory at a feminist slant, posing that the film's body may support, or even be particularly suited to, female expression. It asks how the film text can reflect, inflect and invoke the female body that it depicts.

The dissertation's proposed synergy between depicted and filmic bodies is innate insofar as the figures at hand share their films' make-up. Since the millennium, the digital format has become increasingly commonplace, and the cinema subject to the attendant charge that it, too, has lost its body. I draw out this similarity between the depicted female body and the film's digital body to illustrate how we might grasp the presence of one through the other, thereby rescuing both from assumptions of absence. Through a focus on the features of hybridity, hapticity, error and diffusion, this dissertation recovers the digital's material residue for ends that are jointly feminist and cinephilic.

DECLARATION

This is to certify that:

(i) the thesis comprises only my original work towards the PhD,

(ii) due acknowledgement has been made in the text to all other material used,

(iii) the thesis is fewer than 100 000 words in length, exclusive of tables, maps, bibliographies and appendices.

Signed:

ALICIA ROBYN BYRNES

_____

For my brother Aaron,

whose courage inspires me.

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Firstly, I am grateful to the University of Melbourne for a number of funding opportunities that enabled me to complete this project. I was honoured to receive the Australian Postgraduate Award and the School of Culture and Communication Thesis Excellence Award, both of which made this undertaking possible; and the Faculty of Arts GRATS and RAGS grants, which allowed me to attend a number of conferences at which I presented early drafts of the work herein.

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It is with a full heart that I thank my family: my brother Aaron Byrnes and my parents Barb and Dave Byrnes, who have always treated my professional pursuits with seriousness and curiosity. Their steadfast belief in me is a gift that I cherish. Finally, I wish to thank my partner, Tom Roberts, who has kept me grounded all along this (at times fraught) journey. His love and understanding makes me feel I can do anything.

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Introduction
Material Residue

'*Women are matter, which can assume any shape*'.[1]

Something strange occurs during a largely inconsequential scene almost halfway through Pedro Almodóvar's film, *The Skin I Live In* (2011). In an extended flashback sequence, Dr Robert Ledgard (Antonio Banderas) stands in a tuxedo at a wedding reception, chatting to the bride. They watch Ledgard's daughter, Norma (Blanca Suárez), from across the room, discussing her improved mental health, unaware of its imminent regression. Ledgard and the bride are depicted in a mid-shot, both looking toward the camera with Norma ostensibly positioned in the space behind it. As they converse a jarring, minute movement takes course within the frame; what appears to be a fly crawls the edge of Ledgard's right ear, and then seems to retreat behind it. The scene continues; Ledgard is unfazed, the conversation lulls, and the reverse shot of Norma is relayed. Yet, when the camera returns to Ledgard and the bride, the fly appears again, this time just the glint of its wings visible as it crawls along his black suit. It is then clearly delineated as it moves across the white of his dress shirt, before disappearing again.

As I re-viewed Almodóvar's film in preparation for an abandoned chapter of this dissertation, I noticed the fly on the image, but mistook it to be part of my physical space. I scratched the portable screen through which I viewed the film with my index finger, unable to deflect the insect or feel its body. I rewound the sequence, having missed the dialogue due to the distraction of the fly, and realised through its reappearance that it was in fact contained within the image. Yet, the question of its presence was still unresolved. The way in which the fly crawls up Ledgard's ear so precisely, as if the ear were a flat surface to be traced, and resists the shot/reverse shot edit, as well as the way Banderas seems to weather this annoying distraction, all suggest that the fly exists on another plane, perhaps caught in the scanner which digitised Almodóvar's

[1] Otto Weininger quoted in Bram Dijkstra, *Idols of Perversity: Fantasies of Feminine Evil in Fin-de-Siècle Culture* (New York: Oxford University Press, 1986), 221. In a more recent translation of Weninger's *Sex and Character*, he is quoted as writing 'woman are matter capable of assuming any form', but I have privileged Djikstra's translation here per my preference. See Otto Weninger, "The Nature of Woman and Her Purpose in the Universe," in *Sex and Character: An Investigation of Fundamental Principles*, ed. Daniel Steuer and Marcus, trans. Ladislaus Lob (Bloomington: Indiana University Press, 2005), 265.

film stock. Or perhaps the fly did inhabit the space in which the scene was shot, but Banderas is too professional an actor to let it impede this take. Following this line of thinking further, perhaps Almodóvar found in post-production that the take containing the fly was the best of those shot, and so the director was obliged to include it in the finished film. Perhaps Almodóvar didn't notice the fly. Perhaps he preferred it.

The fly that taints and enhances this scene recalls an experience described by Virginia Woolf at a screening of a mad scientist film to which *The Skin I Live In* is no doubt indebted, *The Cabinet of Dr Caligari* (Robert Wiene, 1920). Woolf recounts:

> . . . a shadow shaped like a tadpole suddenly appeared at one corner of the screen. It swelled to an immense size, quivered, bulged, and sank back again into nonentity. For a moment it seemed to embody some monstrous, diseased imagination of the lunatic's brain. For a moment, it seemed as if thought could be conveyed by a shape more effectively than by words. The monstrous, quivering tadpole seemed to be fear itself, and not the statement, "I am afraid." In fact, the shadow was accidental, and the effect unintentional.[2]

Antonia Lant provides the rationale that Woolf 'fuses (or confuses) fluff caught in the projection gate with the representation of a tadpole, and that with novel evocation of emotional states; and she describes her attention wandering… moving across the surface of the screen, but also probing into depth'.[3] Like the fly, the mistaken identity of the fluff caught in the projector leads Woolf to an expanded appreciation of the image. The fluff interpolates the film's narrative and expresses meaning at a level inaccessible by words. Lant interprets Woolf's experience as a testament to the 'democratizing effect of cinema, that all elements, dead or alive, human or not, inhabit one metaphorical and literal plane'.[4]

The cinema's wont to equalise its various components—film stock, scanner, actor, projector, a fly, a piece of fluff—is sympathetic to feminist aims, and indeed provides the foundations for the political project of this dissertation. I initially came to *The Skin I Live In* because I was taken with the transformation of the film's protagonist, Vicente/Vera (Jan Cornet/Elena Anaya), as uniting female body and film text. Like Vicente, who is transmogrified through surgery into Vera, Almodóvar's film was shot on celluloid and

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[2] Virginia Woolf, "The Movies and Reality," in *Authors on Film*, ed. Harry M. Geduld (Bloomington: Indiana University Press, 1972), 89.
[3] Antonia Lant, "Haptical Cinema," *October* 74 (1995): 49.
[4] Ibid.

transferred to digital. Both depicted body and filmic body bear the traces of their transformation, and by examining one, I suggest, we can gain an appreciation of the other.

Heeding the sentiment expressed in the epigraph to this chapter, this dissertation finds the female body to be present even where it appears to be absent. It tracks the gesture prevalent in contemporary science fiction cinema to attenuate the female body through digitisation, and responds by turning to the materiality of the film itself. In the last few decades film scholarship has grown dissatisfied with the subject-object positioning that undergirds much of film analysis, and has consequently sought to treat both film and viewer as embodied. This dissertation extends this work at a feminist slant, posing that the film's body may support, or even be particularly suited to, female expression.[5] It asks how the film text can reflect, inflect and invoke the female body that it depicts. Thus, the dissertation attends to a series of distinct, though interconnected bodies: the body of the film; the body of the viewer; the body of the female character depicted on-screen; and the actual body of the actress. In so doing, it treats the cinematic experience as comprised of multiple elements that are intrinsically linked.

This synergy between female and filmic bodies is innate insofar as the figures at hand share their films' make-up. As science fiction heroines, the women at the centre of this dissertation are manifest of digital material. They are, respectively, hybrid, animated, glitchy and diffused. The films which realise the female figures are likewise digital; each work examined here was shot and distributed digitally, and features digital effects. Though these key texts are especially concerned with their make-up, such a practice is itself not unusual within the landscape of contemporary cinema. Since the millennium, the digital format—which reduces the film's base to binary code—has become increasingly commonplace, and the cinema subject to the attendant charge that it, too, has lost its body.[6] I draw out this similarity between the depicted body and the digital format to illustrate how we might grasp the presence of one through the other, thereby rescuing

[5] Writings on early cinema suggest that the female body has always been intimately linked to the cinematic apparatus. See Mary Ann Doane, "Technology's Body: Cinematic Vision in Modernity," in *A Feminist Reader in Early Cinema*, ed. Jennifer M. Bean and Diane Negra (Durham and London: Duke University Press, 2002), 404–43; Annette Michelson, "On the Eve of the Future: The Reasonable Facsimile and the Philosophical Toy," *October* 29 (Summer 1984): 3–20; Peter Wollen, "Cinema/Americanism/The Robot," *New Formations* 8 (Summer 1989): 7-34.
[6] Laura U. Marks, *Touch: Sensuous Theory and Multisensory Media* (Minneapolis: University of Minnesota Press, 2002), 147.

both from assumptions of absence.[7] Part of the aim of this dissertation is to recover the digital's material residue for ends that are jointly feminist and cinephilic.

In staging this affinity between depicted and filmic bodies, the dissertation also seeks to remedy a thorn in existing feminist analyses of the cinema. In its need to illuminate the patriarchal suppositions informing women's depiction on screen, feminist film theory has come to regard the cinema somewhat antagonistically. Following Laura Mulvey's seminal work on the 'male gaze',[8] this scholarship has largely adopted a semiotic, oft psychoanalytic approach to film analysis, showing how the film text rehearses female subjugation or reflects patriarchal ideals and processes. While this work is undoubtedly revealing and vital, it also seems discursively flat, always yielding the same displeasing result. Moreover, such an oppositional approach is generally out of sync with my feelings toward the cinema. Mulvey herself is apposite here; reflecting on her formative essay on the fortieth anniversary of its publication, she writes, 'the Women's Liberation Movement shocked me into seeing with new eyes the movies that I had loved so unquestioningly'.[9] Mulvey's lament is striking given the rigid course that her scholarship initially took.[10] To lay inroads within cinema studies for a feminist critique, she necessarily turned away from those Hollywood 'movies', and toward an avant-garde cinema of un-pleasure.[11] But the fact remains that at one point (and perhaps thereafter) Mulvey was enchanted by those ideologically dubious films. Having benefited from Mulvey's work, I now wonder whether it is possible to retain a measure of the adoration for the cinema that she remembers, and I share, within a feminist critique.[12] In the spirit of phenomenological film theory,

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[7] For an expansive, radical account of the kinship between the digital and women informed by psychoanalytic theory, see Sadie Plant's *Zeroes and Ones*. Plant proffers connections relating to the feminine practice of weaving, and women's involvement in the programming the first computer. Sadie Plant, *Zeroes and Ones: Digital Women and the New Technoculture* (New York: Doubleday, 1997).

[8] Laura Mulvey, "Visual Pleasure and Narrative Cinema," *Screen* 16, no. 3 (September 1975): 6–18.

[9] Laura Mulvey, "The Pleasure Principle," *Sight and Sound* 25, no. 6 (2015): 50.

[10] I am referring here to "Visual Pleasure," but it is important to note that Mulvey's later collections of essays, including *Death 24x a Second* and *Afterimages*, actively seek to question her earlier writings. See Laura Mulvey, *Death 24x a Second: Stillness and the Moving Image* (London: Reaktion Books, 2006); Laura Mulvey, *Afterimages: On Cinema, Women and Changing Times* (Reaktion Books, 2019).

[11] Mulvey, "Visual Pleasure."

[12] Echoes of this sentiment resound in the immediate responses to "Visual Pleasure" composed by feminist film theorists. For instance, Claire Johnston argues against the rejection of entertainment cinema in favour of the avant-garde, claiming that feminists must reckon with the feelings of 'desire' solicited by the entertainment film. Similarly, Judith Mayne champions the "ambivalent terrain" of feminism and the cinema, suggesting that the contradictory feelings of pleasure and disproval experienced by female viewers must become the very focus of feminist film theory. See Claire Johnston, "Women's Cinema as Counter-Cinema," in *Feminist Film Theory: A Reader*, ed. Sue Thornham (Edinburgh: Edinburgh University Press, 1999), 31–40; Judith Mayne, "Feminist Film Theory and Criticism," *Signs* 11, no. 1 (Autumn 1985): 81–100.

which honours the scholar's embodied response to the film text, this dissertation inheres a sense of ambivalence in its analyses.

In so doing, the project posits the value of approaching film via a unitary model, one which places as much importance on form as on diegetic content, and indeed considers the myriad elements bound up in the film's being. As Susan Sontag reminds us in her critique of interpretation, 'the very distinction between content and form… is, ultimately, an illusion'; one inescapably calls up the other.[13] By maintaining focus in part on the figurative image, this dissertation accounts for the import of female representation and corroborates the work of feminist scholars like Mulvey. But by dually foregrounding film's status as a lived entity, it also invites contemplation on the broader nature of the cinematic encounter—whether, for instance, the film produces an affective excess, or error, that troubles the terms of representation. This methodology challenges us to ply our analyses, beginning at the level of diegesis and moving bilaterally to reconcile the film's materiality, the bearings of pro-filmic space, and our own embodied response.

Mulvey illustrates the merits of such an approach in a recent monograph, where she channels her feminist energies back into the film text. She begins *Death 24x a Second: Stillness and the Moving Image* with an update of sorts: 'in the 1970s, I was preoccupied by Hollywood's ability to construct the female star as ultimate spectacle… Now, I am more interested in the way that those moments of spectacle were also moments of narrative halt, hinting at the stillness of the single celluloid frame'.[14] Mulvey now finds her attention drawn to the meaning that the image confers upon the apparatus. By examining these components side-by-side, she reveals the female star's command over the film; her innate ability to disrupt its desired flow, and to uncover its fundamental being. This dissertation adopts this same methodology within its respective chapters: it reads the film's various elements in tandem in order to restore agency to female and filmic bodies.

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[13] Susan Sontag, "Against Interpretation," in *Against Interpretation and Other Essays* (New York: Picador, 2001), 11.
[14] Mulvey, *Death 24x a Second*, 7.

A Fraught Genealogy

In spite of her resonance for the present cinematic moment, the digitised woman is, broadly conceived, not new. She is a variation on the trope of the hybrid woman that has found a home in the cinema since its beginnings. Indeed, the culture out of which the cinema emerged evinced a fascination with the notion of female hybridity deriving from the recent findings of evolutionary theory.[15] As Viennese philosopher Otto Weininger expresses in the epigraph to this chapter, at the turn of the twentieth century man was presumed synonymous with the brain, therefore destined for spiritual transcendence, and woman the supposed 'locus of the physical'—pure matter that can *assume any shape*.[16] To be clear, I am employing Weninger's remark ironically—his musing was surely intended as a slight, but I find something of value in its phrasing and its utility as a point for feminist intervention. That is to say, Weningers' notions about woman's physicality, specifically her refined sense of touch, are perceived within the context of this dissertation in positivist terms. Nevertheless, Weininger was among a number of fin-de-siècle theorists inspired by the nascent works of Charles Darwin, particularly his belief that woman was evolutionarily inferior to man.[17] Per this assumption, woman could be understood to embody the threat of degeneration.[18] For some of Darwin's disciples, woman's close alliance with nature would likely interfere with man's path towards spiritual transcendence.[19] This idea permeated the cultural imaginary at this time, casting even contemporaneous moves towards female liberation as threats to human ascendance.[20] Artists and novelists responded in kind, depicting women in ways that foregrounded her physicality, dangerous sexuality, and supposedly

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[15] This conception of femininity has its antecedents; mythology around the Medusa and the Sphinx already conceived of woman as a hybrid creature possessive of unknowable powers. See Chapter One of Robin Roberts, *A New Species: Gender and Science in Science Fiction* (Urbana: University of Illinois Press, 1993).

[16] Djikstra paraphrasing Weninger, *Idols of Perversity*, 219. For Weninger's musings on women's 'mindlessness' and twinned physicality see *Sex and Character*. Here he writes, 'Women are closer to nature in their unconscious than man. The flowers are their sisters, and they are less far removed from animals to Man…The sexual desire of Woman aims at *physical contact*...Accordingly, her most refined sense, in fact the only one that is more highly developed in her than in man, is the *sense of touch*'. Weninger, "The Nature of Woman," 262-64.

[17] Charles Darwin, "Secondary Sexual Characters of Man," in *The Descent of Man, and Selection in Relation to Sex*, vol. 2, 2 vols. (Princeton: Princeton University Press, 1981), 326-28.

[18] See Barbara Creed, *Darwin's Screens: Evolutionary Aesthetics, Time and Sexual Display in the Cinema* (Carlton: Melbourne University Press, 2009), 7-12; Djikstra, *Idols of Perversity*, 211-212; Rebecca Stott, "Historical Perspectives," in *The Fabrication of the Late-Victorian Femme Fatale: The Kiss of Death* (Basingstoke: Palgrave Macmillan, 1992), 18-26.

[19] Djikstra cites, for instance, Carl Vogt and Cesare Lombroso. See Djikstra, 211-12.

[20] According to evolutionists of the time, women who engaged in interests not stereotypically defined as feminine (e.g. seeking an education, choosing not to have children, engaging in romantic relationships with other women) signalled degeneration. Dijkstra, *Idols of Perversity*, 212-20.

fundamental kinship with animals.[21] The conception of femininity coincident with the cinema's development was thus qualitatively science fictional.[22]

Various generic works across film history testify to the persistence of the hybrid woman as cinematic fixture. These female-coded characters are diverse in type, encompassing robots (*Metropolis* [Fritz Lang, 1927], *The Stepford Wives* [Bryan Forbes, 1975, and its remake, Frank Oz, 2004], *Blade Runner* [Ridley Scott, 1982], *Cherry 2000* [Steve De Jarnatt, 1987], *Steel and Lace* [Ernest D. Farino, 1991], *Eve of Destruction* [Duncan Gibbins, 1991]); animals (*Island of Lost Souls* [Erle C. Kenton, 1932], *Cat People* [Jacques Tourneur, 1942, and its remake, Paul Schrader, 1982], *The Wasp Woman* [Roger Corman and Jack Hill, 1959], *The Leech Woman* [Edward Dein, 1960], *Wolf* [Mike Nichols, 1994], *Ginger Snaps* [John Fawcett, 2000], *Teeth* [Mitchell Lichtenstein, 2008]); the genetically engineered (*Species* [Roger Donaldson, 1995], *The Fifth Element* [Luc Besson, 1997], *Alien: Resurrection* [Jean-Pierre Jeunet, 1997], *Teknolust* [Lynn Hershman Leeson, 2002], *Splice* [Vincenzo Natali, 2009]); and aliens (*Devil Girl from Mars* [David MacDonald, 1954], *Invasion of the Body Snatchers* [Don Siegel, 1956, and its remake, Philip Kaufman, 1978], *Lifeforce* [Tobe Hooper, 1985], *The Faculty* [Robert Rodriguez, 1998]). It is safe to say that the hybrid woman is a mainstay of the science fiction genre and its subsidiaries, condensing femininity with aberrant forms to jointly express epochal worries about women and the fate of humanity.

Prevailing discourse on the figure has fixated on the significance of this femininity-alterity formula, specifically what it reveals about women's position within the producing culture. For these scholars, who are constellated across the disciplines of cinema, literary, and techno-science studies, it is of particular interest that these imagined creatures—chiefly the cyborg and the alien—needn't be gendered in any normative way, and yet are often excessively so.[23] The pairing of intense femininity with aberrant forms has

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[21] Ibid, 295.

[22] For more on the parallel histories of evolutionary theory and the cinema, specifically science fiction, see Creed, *Darwin's Screens*.

[23] Anne Balsamo, *Technologies of the Gendered Body: Reading Cyborg Women* (Durham: Duke University Press, 1996); Christine Cornea, "Gender Blending and the Feminine Subject in Science Fiction Film," in *Science Fiction Cinema: Between Fantasy and Reality* (Edinburgh: Edinburgh University Press, 2007), 145–74; Barbara Creed, "Gynesis, Postmodernism, and the Science Fiction Horror Film," in *Alien Zone: Cultural Theory and Contemporary Science Fiction Cinema*, ed. Annette Kuhn (London and New York: Verso, 1990), 214–18; Mary Ann Doane, "Technophilia: Technology, Representation and the Feminine," in *Liquid Metal: The Science Fiction Film Reader*, 2nd ed. (New York: Wallflower Press, 2007), 182–90; Jennifer González, "Envisioning Cyborg Bodies: Notes from Current Research,"

marked the hybrid woman as 'a site of condensation and displacement' beseeching semiotic analysis.[24] This concentrated pool of scholarship has productively shown that the hybrid woman reflects patriarchal assumptions and fantasies about women as variably Other, alien, exotic, malleable or subservient; that, in her femme fatale guise,[25] she assuages societal fears about technological or scientific advancement by their conflation with male fears about female sexuality; that she embodies the hope of regulating the female body proffered by breakthroughs in genetic technologies, imaging technologies, or reproductive technologies; that her existence bespeaks man's womb envy, and his corollary desire to produce new life. By all accounts, the hybrid woman is of immense symbolic value, realising in legible and often spectacular ways the pressures, myths, and biases to which women have historically been subject within patriarchal culture. Positive affiliations with the figure have generally been restricted to the field of literary studies, whose object of analysis has been more ready to reimagine the limits of the hybrid body, or recognise the value of the 'alien' metaphor for detailing female experience, arguably due to its relatively strong tradition of female authorship.[26]

These scholars have suspended their hopes and disappointments relative to the feminisation of the hybrid body on the 'ungendered ideal' theorised by Donna Haraway.[27] In her seminal "Cyborg Manifesto", Haraway imagines a future wherein we are all cyborgs, and because the cyborg possesses 'no origin story in the Western sense', patriarchy's Oedipal trajectory is annulled, leaving gender and its associated binaries

in *The Gendered Cyborg: A Reader*, ed. Fiona Hovenden et al. (Hoboken: Taylor and Francis, 2013), 58-73; Andreas Huyssen, "The Vamp and the Machine: Technology and Sexuality in Fritz Lang's Metropolis," *New German Critique* 24/25 (1981): 221–37; Despina Kakoudaki, "Pinup and Cyborg: Exaggerated Gender and Artificial Intelligence," in *Future Females, the Next Generation: New Voices and Velocities in Feminist Science Fiction Criticism*, ed. Marleen S. Barr (Lanham and Oxford: Rowman & Littlefield, 2000), 165–96; Nina Lykke, "Between Monsters, Goddesses and Cyborgs: Feminist Confrontations with Science," in *The Gendered Cyborg: A Reader*, ed. Fiona Hovenden et al. (Hoboken: Taylor and Francis, 2013), 74–88; Claudia Springer, *Electronic Eros: Bodies and Desire in the Postindustrial Age* (Austin: University of Texas Press, 1996); Jackie Stacey, *The Cinematic Life of the Gene* (Durham: Duke University Press, 2010); Sue Thornham, "Technologies of Difference," in *Women, Feminism and Media* (Edinburgh: Edinburgh University Press, 2007), 113–44; Julie Wosk, *My Fair Ladies: Female Robots, Androids, and Other Artificial Eves* (New Brunswick: Rutgers University Press, 2015).

[24] Jennifer González, "Envisioning Cyborg Bodies," 58.

[25] Narratively speaking, the character typically acts as a femme fatale, donning a human disguise and performing femininity to advance a preternatural mission. Man's culpability to her allure usually leaves him dead or impotent, or leads to her impregnation with a new species. The continuation of humanity is invariably thrown into question.

[26] Anne Cranny-Francis, "Feminist Futures: A Generic Study," in *Alien Zone: Cultural Theory and Contemporary Science Fiction Cinema* (London and New York: Verso, 1990), 219–28; Robin Roberts, *A New Species*; Jenny Wolmark, *Aliens and Others: Science Fiction, Feminism and Postmodernism* (Iowa City: University of Iowa Press, 1994).

[27] Claudia Springer, *Electronic Eros*, 66.

(e.g. human versus non-human animal, human versus machine) uninitiated.[28] As Haraway puts it, 'cyborg imagery can suggest a way out of the maze of dualisms in which we have explained our bodies and our tools to ourselves'.[29] The manifesto has, understandably, become a point of deference for those scholars struggling to make sense of the hybrid woman trope. These writers are drawn to the persuasiveness of Haraway's hypothetical, the certitude with which it shows that standing images of the hybrid body *should* be different. In an introductory chapter to *The Gendered Cyborg*—something of a handbook for feminist musings on the topic—Gill Kirkup writes that '[the cyborg's] cultural deconstruction of gender has become apparent, but its usefulness as a tool for material change is yet to be proved'.[30] With Haraway's 'ungendered ideal' in mind, prevailing configurations of the hybrid body keep coming up short by semiotic measure, keep returning us to a disappointing but familiar conclusion about women's estrangement by patriarchy.

This dissertation seeks to disrupt the pattern of discourse surrounding the hybrid woman by shifting focus from the figure's symbolic value to her very real weight. I take my cue for this intervention first from what seems to be a widespread misreading of Haraway. Caught in the tide of Haraway's rhetoric, few scholars have emphasised that the manifesto was intended more as a provocation than a call to arms (Haraway begins the essay by proclaiming the image of the cyborg her 'ironic faith',[31] and subsequently equivocates 'a world without gender' to 'a world without end').[32] As a consequence of this misreading, it is seldom noted that the manifesto's cyborgian future would, in actuality, signal the obsolescence of the corporeal body.[33] Haraway has since noted that the cyborg fantasy parallels transcendentalist thinking, for it inheres a wish to displace the material body so that consciousness can survive elsewhere.[34] Though this 'move' might provide a way out of humanist systems, it, in its own turn, masks related anxieties: 'that we really do die,

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[28] ibid.
[29] Donna Haraway, "A Manifesto for Cyborgs: Science, Technology, and Socialist Feminism in the 1980s," *Australian Feminist Studies* 2, no. 4 (1987): 37.
[30] Gill Kirkup, "Introduction to Part One," in *The Gendered Cyborg: A Reader*, ed. Fiona Hovenden et al. (Hoboken: Taylor and Francis, 2013), 5.
[31] Haraway, "A Manifesto for Cyborgs," 1.
[32] Ibid, 3.
[33] Among those attentive to this fact: Balsamo, *Reading Cyborgs*; N. Katherine Hayles, *How We Became Posthuman: Virtual Bodies in Cybernetics, Literature, and Informatics* (Chicago: University of Chicago Press, 1999); Vivian Sobchack, *Carnal Thoughts: Embodiment and Moving Image Culture* (Berkeley and Los Angeles: University of California Press, 2004); Springer, *Electronic Eros*; Thornham, "Technologies of Difference."
[34] Donna Haraway quoted in Constance Penley, Andrew Ross, and Donna Haraway, "Cyborgs at Large: Interview with Donna Haraway," *Social Text* 25/26 (1990): 19. I draw my interpretation of Haraway's comments in this interview from Sobchack. See Sobchack, *Carnal Thoughts*, 170.

that we really do wound each other, that the earth really is finite, that there aren't any other planets out there that we know of that we can live on'.[35] In sum, the cyborg fantasy is 'a way of denying mortality',[36] and is thus fundamentally antithetical to any kind of 'material change'.

But feminist scholars should also be wary of the cyborg fantasy for more proximate reasons. The transhumanist body of thought that underpins the cyborg's real-world realisation privileges a universalised idea of the subject that ignores bodily distinctions such as race, mobility, or sex.[37] Roboticist Hans Moravec forecasts (in earnest) a near future wherein we will be able to download our minds into a computer, and 'our biological genes, and the flesh and blood bodies they build, will play a rapidly diminishing role'.[38] In ways that intersect with the misreading of Haraway, this prediction denies the import of the corporeal body for shaping our subjectivity—as N. Katherine Hayles writes, 'even assuming such a separation was possible, how could anyone think that consciousness in an entirely different medium would remain unchanged, as if it had no connection with embodiment?'[39] In so doing, the prediction seems to presume a selfsameness with regards to lived experience. It overwrites the manifold ways in which bodily specificities (for example, sex, ethnicity, physicality) inflect our sense of our selves. By Moravec's forecast, the cyborg would signal not the end of humanist systems but their fortification, for now the corporeal body ceases to exist as a point of difference. Before feminists usher in Haraway's cyborg as a benchmark for popular representations of the hybrid body, we must reckon with these coincident, 'liberal humanist' aims.[40]

Increasing the stakes further, these claims about the corporeal body's obsolescence coincide with efforts by feminist philosophers to revaluate the body. As part of a broader 'sensuous' turn toward the body within

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[35] Haraway quoted in Penley, Ross and Haraway, "Cyborgs at Large," 20.
[36] Ibid, 20.
[37] Many similarly-termed bodies of thought circle 'transhumanism', seeking to disrupt its conservative or binary approach to the posthuman body. See, for instance, Rosi Braidotti, *The Posthuman* (Oxford: Wiley, 2013); Ira Livingston and Judith Halberstam, *Posthuman Bodies* (Bloomington: Indiana University Press, 1995); Patricia MacCormack *The Animal Catalyst: Towards A Human Theory* (London; New York: Bloomsbury, 2014); Cary Wolfe, *What Is Posthumanism?* (Minneapolis: University of Minnesota Press, 2010).
[38] Hans Moravec, *Mind Children: The Future of Robot and Human Intelligence* (Cambridge: Harvard University Press, 1988), 4. See also Hans Moravec, *Robot: Mere Machine to Transcendent Mind* (New York: Oxford University Press, 1999); Ray Kurzweil, *The Age of Spiritual Machines* (St Leonards: Allen & Unwin, 1999).
[39] Hayles, *How We Became*, 1.
[40] Hayles reminds us that 'what is lethal is not the posthuman as such but the grafting of the posthuman onto a liberal humanist view of the self" Hayles, *How We Became*, 286-87.

the humanities,[41] scholars such as Iris Marion Young have adopted the 'lived body'[42] as a vital index of women's experience, an excess ready to illustrate the effects of patriarchal culture and disprove its ideations.[43] The value of this work lies in its recognition of bodily differences, thus curtailing notions of essentialism, and its simultaneous attention to the forces of the presiding culture. That it has gained a foothold at the same moment as Moravec's writings is curious, and worrying; as Anne Balsamo puts it, 'is it ironic that the body disappears… just as women and feminists have emerged as an intellectual force within the human disciplines?'[44] A misogynistic project of displacement is at risk here, one which renders the aforementioned misgivings about cyborgianism especially poignant.

As the contemporary era edges closer to realising posthuman forms—alas, Hayles suggests we are there already—it becomes imperative that we foreground the material when these kinds of figures appear on the cinema screen.[45] Gender aside, the present moment begets a type of analysis that underlines the contingence of technologised embodiment, so that pervading assumptions about such an existence as somehow seamless, evacuative, or immortal might be demystified. This dissertation constitutes one such effort. It implements phenomenological film theory, premised on the theory of existential phenomenology which 'puts essences back into existence, and does not expect to arrive at an understanding of man and the world from any starting point other than that of their "facticity"',[46] in hopes of restoring some sense of reality to posthuman imagery. I study the construction of hybrid forms represented on screen so that the mechanical, wieldy terms of their existence can be made legible. But of course, here gender is not beside the point. With plans of the sort laid by Moravec nearby, I intend this strategy as implicitly feminist. Tracing the rivets of

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[41] Paul Stoller, "Prologue: The Scholar's Body," in *Sensuous Scholarship* (Philadelphia: University of Pennsylvania Press, 2010), ix–xviii.
[42] The 'lived body' deployed by phenomenologists refers to the body as 'at once, both an objective *subject* and a subjective *object*: a sentient, sensual, and sensible ensemble of materialized capacities and agency that literally and figurally makes sense of, and to, both ourselves and others'. Sobchack, *Carnal Thoughts*, 2, her emphasis.
[43] Iris Marion Young, "Throwing Like a Girl: A Phenomenology of Feminine Body Comportment Motility and Spatiality," *Human Studies* 3, no. 2 (April 1980): 137–56. For an expanded discussion of this feminist work on the body, see Chapter One of this dissertation.
[44] Balsamo is referring specifically to the disappearance of the body from postmodern theory. Balsamo, *Technologies of the Gendered Body*, 31.
[45] Scholars in adjacent disciplines have utilised embodiment as an antidote to the disembodying or conservative forces of transhumanism. See Neil Badmington, "Theorizing Posthumanism," *Cultural Critique* 53 (2003): 10-27; Hayles, *How We Became Posthuman*; Wolfe, *What is Posthumanism*?.
[46] Maurice Merleau-Ponty, *Phenomenology of Perception*, trans. Donald A. Landes (London and New York: Routledge, 2012), lxx.

the digital heroines at hand, I illustrate how posthuman technology is liable to be mobilised as a means of patriarchal control, suppression, or erasure. In a single move, technological materiality is recuperated with lived difference.

Relative to the foregoing anxieties, the other cue for my phenomenological intervention comes, as if by kismet, from the disappearance of the female body from science fiction cinema. Spike Jonze's 2013 film *Her*—the earliest release of this dissertation's case studies—is the first of its kind to wholly disembody the female lead; Samantha, an operating system, exists foremost as a voice. Shortly after the film's release, a steady stream of science fiction films emerged depicting female characters in increasingly compromised states: *Under the Skin* (Jonathan Glazer, 2013) concerns a hybridised, female-alien protagonist; *Ex Machina* (Alex Garland, 2015) features an artificially intelligent female cyborg; and *Blade Runner 2049* (Denis Villeneuve, 2017) involves a number of holographic women composed of mere light.[47] These films indicate that the ideals propounded by Moravec are gaining traction (in each case, the female body is waning in facticity and dually designed to appease a male suitor), and thus underscores the urgency of a materialist approach. But how, one might wonder, can we discern female materiality where the material as it were does not exist? As happens in circumstances of necessity, these films call forth the unexpected solution that the medium itself might be harnessed for feminist ends.

Reading Alongside

Contemporary film theory has made moves to re-view its object of study as an embodied entity fit for sensuous elaboration. This strain of scholarship, predicated on the work of existential philosopher Maurice Merleau-Ponty, asserts that film possesses a body which is dependent on its 'enabling mechanisms'—base, camera, director, actor, projector, light—but which is also constituted by more than these parts.[48] Film conveys a perceptual experience that exceeds its mechanical substrate, as corroborated by the viewer during

[47] Other films released during the 2000s reinforce the proposed kinship between female and digital bodies, including *S1m0ne* (Andrew Niccol, 2002), *The Congress* (Ari Folman, 2013), *Lucy* (Luc Besson, 2014) and *Ghost in the Shell* (Rupert Saunders, 2017). I have privileged the films discussed in the following chapters for their exceptionally complex ruminations on female embodiment.

[48] Jennifer M. Barker, *The Tactile Eye* (Berkeley: University of California Press, 2009), 10. Merleau-Ponty also suggests that film's meaning is imminent to its form. See Maurice Merleau-Ponty, "Film and the New Psychology," in *Sense and Non-Sense* (Evanston: Northwestern University Press, 1964), 57.

the cinematic encounter. Relative to its complex structure, phenomenological film theorists have approached filmic embodiment with varying degrees of emphasis on the figurative image: at one end of the spectrum, Linda Williams reads film's sensuousness as emanating from the depiction of the body, specifically a female body, on screen;[49] sitting somewhere in the middle, Vivian Sobchack sees film's mechanical substrate and its image as inter-dependent, with filmic embodiment not encompassed by one or the other;[50] at the far end of the spectrum, Laura U. Marks approaches filmic embodiment through a compromised image, worrying that any attention to the figurative contributes to an ocularcentric tradition that links vision to control (of images, of bodies).[51] This dissertation is less interested in privileging any one of these approaches than contemplating how the full spectrum of methods of apprehension—figurative and formal, optical and haptic—might be used together. Indeed, the materialist impulses embedded within phenomenological film theory, such as the study of filmic decay, which examines the disintegration of the film's base relative to the compromised image, indicate that the film's elements cannot be divorced from one another. Whatever the film's make-up, its physical way of being will surely inflect its images in more or less resolute ways.

This sentiment seems especially valid in the present moment, where digital technology is testing long held assumptions about the cinema's essence. The dramatic change to the cinema's identity ushered by the digital has conjured fears of disembodiment not unlike those registered by the cyborg fantasy. In a passage befitting our generic context, D.N. Rodowick wrote in 2007 that 'the next ten years may witness the almost complete disappearance of celluloid film stock as a recording, distribution, and exhibition medium. For the avid cinephile, it is tempting to think about the history of this substitution as a terrifying remake of *Invasion of the Body Snatchers*'.[52] The notion of a soul annexed befits the general feeling regarding the loss of the photographic index, which has heretofore acted as the hallmark of cinematic realism and specificity.[53] The

[49] Linda Williams, "Film Bodies: Gender, Genre, and Excess," *Film Quarterly* 44, no. 4 (1991): 2-13.
[50] Vivian Sobchack, *The Address of the Eye: A Phenomenology of Film Experience* (Princeton: Princeton University Press, 1992).
[51] Laura U. Marks, *The Skin of the Film: Intercultural Cinema, Embodiment, and the Senses* (Durham: Duke University Press, 2000).
[52] D.N. Rodowick, *The Virtual Life of Film* (Cambridge: Harvard University Press, 2007), 8.
[53] For Charles Sanders Peirce's original formulation of the index from which cinema studies scholars have drawn, see Charles Sanders Peirce, "[From] On the Algebra of Logic: A Contribution to the Philosophy of Notation (1885)," in *The Essential Peirce: Selected Philosophical Writings,*, ed. Nathan Houser and Christian J. W. Kloesel, vol. 1 (Bloomington: Indiana University Press, 1992), 225–28. For an overview of the significance of the index within film

photographic index refers to the way that light rays mark photosensitive film stock to establish the image's 'truth claim'—its capacity to verify the existence of the subject represented.[54] To relinquish the index is thus to abandon a particular idea about the cinema's innate value.[55] In its place is the digital, which is structured by 'the vast database of *information*: of frames, pixels, or 1s and 0s (choose your unit)',[56] and thusly yields images that are especially sharp, manipulable and easily stored. These features of the digital, which set contemporary cinema in a strained relationship to authenticity, preservation and overall cinematicness, have been worthy to give Rodowick's cinephile pause.

In due course the cinema fulfilled Rodowick's prediction: 2012 has been earmarked as the year of analogue filmmaking's passing.[57] I hope to mitigate some of the pain and confusion extending from this loss by contributing to the growing practice amongst phenomenological film theorists to understand digital embodiment. Where the cinema appears to have been "taken over" by digital technology, phenomenological practice allows us to re-familiarise the medium (and perhaps even suggest that, in certain senses, not much has changed).[58] This dissertation teases out in its respective chapters qualities that illustrate film's digital body—its constitutional 'overlaps' with the analogue,[59] its innate hapticity, its particular mode of deterioration, its diffuse presence. In so doing the project intimates that, rather than panic about the

history, and the place of the index in the digital era see Mary Ann Doane, "Indexicality: Trace and Sign: Introduction," *Differences* 18, no. 1 (2007): 1–6; Mary Ann Doane, "The Indexical and the Concept of Medium Specificity," *Differences* 18, no. 1 (2007): 128–52.

[54] Tom Gunning, "What's the Point of an Index? Or, Faking Photographs," *Nordicom Review* 25, no. 1–2 (September 2004): 40.

[55] Thomas Elsaesser goes so far as to suggest that the term 'digital cinema' is an oxymoron, with 'the cinematic' and 'the digital' fundamentally opposed, and Susan Sontag pre-empts cinema's digital turn by pronouncing the death of the cinema. See Thomas Elsaesser, "Digital Cinema: Convergence or Contradiction?," in *The Oxford Handbook of Sound and Image in Digital Media*, ed. Carol Vernallis, Amy Herzog, and John Richardson (Oxford and New York: Oxford University Press, 2013), 13-44; Susan Sontag, "The Decay of Cinema," *The New York Times*, February 25, 1996, http://movies2.nytimes.com/books/00/03/12/specials/sontag-cinema.html.

[56] Marks, *Touch*, 148, her emphasis.

[57] Christopher Beach writes, It was the first year in which at least half the films produced in Hollywood were shot completely or primarily in digital format; it was the year in which both Panavision and Arriflex – the two companies producing most of the film-based motion picture cameras used in feature filmmaking – ceased production of the 35mm cameras; and it was the year in which Fuji Film – the second largest producer of motion-picture film after Eastman Kodak – announced that it would stop production of celluloid films for movie cameras'. Christopher Beach, "Cinematography, Craft, and Collaboration in the Digital Age," in *A Hidden History of Film Style* (Oakland: University of California Press, 2015), 164. For an expanded examination of cinema's move to the digital, see Ariel Rogers, "Digital Cinema's Heterogeneous Appeal: Debates on Embodiment, Intersubjectivity, and Immediacy," in *Cinematic Appeals: The Experience of New Movie Technologies* (New York: Columbia University Press, 2013), 91–140.

[58] John Belton makes such an argument in a 2002 essay, where he poses that film audiences will not notice the shift to the digital. John Belton, "Digital Cinema: A False Revolution," *October* 100 (Spring 2002): 98–114.

[59] Philip Rosen, *Change Mummified: Cinema, Historicity, Theory* (Minneapolis: University of Minnesota Press, 2001), 309.

state of the cinema, we ought to begin to incorporate the digital into the lineage of technological changes undergone by the medium during its relatively short life. The digital is another node on this timeline, not the start of a new sequence. That these features of film's digital body refer back to the cinema's past has led film scholars to define digital ontology in ways poised to incite frustration. Philip Rosen characterises digital ontology by 'hybridity',[60] and Mulvey by 'ambivalence, impurity and uncertainty'.[61] These descriptors are trying insofar as they challenge 'traditional oppositions' that typically allow for sense making, foremost in this instance authenticity versus inauthenticity, and presence versus absence.[62] The digital's insistence that we dwell in these in-betweens makes it an ideal candidate to recuperate the dwindling female body tracked here.

My sense that we should approach film's embodiment via a unitary model—one which incorporates content and form—permits us to negotiate female absence through digital ontology. In the following chapters I read depicted and filmic bodies alongside each other, so that when, for instance, we study the digital's innate hapticity we are likewise coming to terms with the power of the artificial female body represented. I maintain that this comparative system of analysis is not a symptom of the dissertation's will but is actually insisted on by the films themselves. Oftentimes the films under examination lay markers within their diegeses that ally the depicted female body to the film's form (for example, similarities in composition, oblique references to digital reproaches). As a result, the reverse comparison can also be made; while we can read female embodiment through filmic embodiment, we can likewise understand the film through an appreciation of the female body.

This kind of self-reflexivity is not unusual for contemporary science fiction cinema, which has appeared inordinately aware of its composition corollary to the rise of the digital. Even during the time that this dissertation has been underway there has been a resurgence of interest in the genre amongst auteurs looking to experiment with film form. The 2010s have seen the release of straightforwardly generic works by

[60] Ibid.
[61] Mulvey, *Death 24x a Second*, 12.
[62] Ibid.

Damien Chazelle, Claire Denis and James Gray.[63] These films see humans travel inconceivable distances to resolve problems on earth, inspiring sublime images of space, formal anomalies reflective of an existential mood, and a mix of recording materials aimed to invoke intergalactic textures. Moved by this slew of auteur driven works, acclaimed *Moonlight* (2016) director, Barry Jenkins, remarked of his own oeuvre, 'I think now I want to grow aesthetically. I would love to do a sci-fi film'.[64] At the same time, the genre has become abstracted, subsumed by the proliferation of quotidian technologies once thought to be futuristic. Reflecting on science fiction's bygone 'pride of generic place', Vivian Sobchack remarks, 'not only have contemporary digital effects (and the effects of digital technology more broadly) been cinematically naturalized, but they also have been culturally internalized. In sum, [science fiction] spectacles have lost much of their aura'.[65] What once made science fiction cinema novel is now the mark of its indifference. These seemingly contradictory accounts of the current state of the genre—it is, at once, a nascent site for auteurist experimentation *and* waning in specificity—together suggest that in the digital era, science fiction has become more about the cinema itself.

It is true that, in keeping with traditional analyses of the hybrid woman trope, the films at the centre of this dissertation could be said to channel their anxieties about digital technology through the female body. Something about the enigma of woman's twinned absence and visibility seems to make her an apt conduit for ideas about the vacuity or untrustworthiness of the digital. I explore the possibility of this misogynistic project in these pages, hence the ambivalence of the analyses. Overall, however, I choose to interpret the filmic body in a relationship of support with the female body, even where the former does so unwittingly. As part of this dissertation's mission to treat the film holistically, where all elements, intentional or accidental, human or not, inhabit one plane, I also take account of the *actual* bodies of the actresses being digitised.[66] In the following chapters I tend to moments where the film's body gives way to these women's

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[63] These outputs include: *First Man* (Damien Chazelle 2018); *High Life* (Claire Denis, 2018); and *Ad Astra* (James Gray, 2019).

[64] Hunter Harris, "Give Barry Jenkins a Sci-Fi Movie, You Nerds!," Vulture, January 7, 2019, https://www.vulture.com/2019/01/give-barry-jenkins-a-sci-fi-movie-you-nerds.html.

[65] Vivian Sobchack, "Sci-Why?: On The Decline of a Film Genre in an Age of Technological Wizardry," *Science Fiction Studies* 41, no. 2 (July 2014): 284. For Sobchack's initial views on the science fiction genre, see Vivian Sobchack, *Screening Space: The American Science Fiction Film* (New Brunswick, New Jersey and London: Rutgers University Press, 1997).

[66] This revaluation of the role of the actress is championed by feminist film theory looking to rethink the notion of female authorship. See, for instance, Amelie Hastie, *Cupboards of Curiosity: Women, Recollection, and Film History*

extra-diegetic presence.[67] At times this happens felicitously, as in *Under the Skin*, where documentary shooting methods restore livedness to Scarlett Johansson's overwrought image. Other times the exchange is more fricative and indeed inadvertent, as in *Blade Runner 2049*, where faulty digital effects belie the erasure of Sean Young's volatile, aging body. In all cases, the film's form provides evidence for the corporeal body receding from view.

Methodology

This dissertation understands the film's body as harnessing its material underpinnings, its formal qualities, as well as its figurative images and the contents of its narrative. Building upon this conception of the film, the dissertation attempts to read these elements in a relationship of symbiosis, understanding how the film's narrative might explain its materiality, or how its figurative images might coincide with its form. This approach broadly takes shape within the following chapters via a two-fold reading of the film; one section of the chapter is dedicated to examining the film's diegetic contents, specifically as it pertains to the representation of the female body, and the other is focused on a consideration of the film's particular form. Importantly, the chapters' respective parts are developed in dialogue, such that one mirrors, or proffers an echo of, the other. For instance, Chapter Two examines *Under the Skin*'s articulation of digital hybridity, and subsequently mobilises this discussion to analyse the film's hybrid heroine and her challenge to singular notions of femininity. Such an approach, which is practiced within each of the chapters of this dissertation, allows us to conceive of the film's body as oriented toward feminist aims due to its synergistic emphasis.

By extension of treating the film as an embodied entity, which encompasses myriad parts, we are methodologically regarding the viewer as also embodied. The viewer is possessive of a lived body that synthesises sense with intellect, subjectivity with objectivity, inside with outside, and thusly brings all the manifold elements of lived experience to the cinematic situation. This dissertation honours this fact by incorporating consideration of the viewer's embodied response into its analysis. It regards the viewer as in

(Durham: Duke University Press Books, 2007); Judith Mayne, *The Woman at the Keyhole: Feminism and Women's Cinema* (Bloomington: Indiana University Press, 1990), 89-123.

[67] I draw the term 'extra-diegetic' from Vivian Sobchack's term 'extracinematic' or 'extratextual', which refers to the real world outside of the text. See Sobchack's *Carnal Thoughts*. In this dissertation, I use 'extra-diegetic' to refer to such profilmic space.

a situation of similarity with the film insofar as both constitute lived bodies, and uses this synergy to make sense of the films at hand. In all cases, the dissertation holds that these films rely on the viewer's carnality to corroborate the materiality of their digital contents.

This methodology is carried out in a fundamental way by prose modelled against the principles of existential phenomenology. As Merleau-Ponty himself reminds us, 'genuine philosophy is re-learning to see the world, and in this sense a story recounted can signify the world with as much "depth" as a treatise in philosophy'.[68] In this spirit, I endeavour to substantiate my analyses with the weight of rigorous theoretical evidence and film analysis, situated alongside subjective descriptions and anecdotes of my own experiential relation to the films. In order to speak to the sense of the cinematic encounter, this dissertation uses language appropriate to its forms. In the style of haptic criticism, the writing 'presses up to the object and takes its shape'.[69]

Chapter Outline

This dissertation adopts a cumulative structure to grapple with the female body's disappearance from the cinema screen. Specifically, its case studies are ordered to trace an arc from fixity to absence relative to the female body. Per this framework, the female body begins in hybrid wholeness; becomes outwardly artificial; is subsumed into light rays and impeded by error; and finally disappears. The rationale for this structure is somewhat cynical; by ordering the case studies in this way, the dissertation demonstrates contemporary science fiction cinema's insistent attenuation of the female body. In accordance with the dissertation's overarching methodology, this ordering also lays the parameters for a renewed appreciation of the female body. It allows us to recognise the abundant ways in which the female body resists erasure. Moreover, each chapter illustrates how these modes of resistance intersect with the materiality of the film text. The dissertation's trajectory from fixity to absence is thus abetted by a series of parallel trajectories pertaining to the film's body, such as those from production to exhibition, and realism to abstraction. In all cases, the female body and the film's body act in communion, one articulating the presence of the other.

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[68] Maurice Merleau-Ponty, "What Is Phenomenology?," *CrossCurrents* 6, no. 1 (1956): 69.
[69] Marks, *Touch*, xiii.

The first chapter provides the context for this pathway. It develops the theoretical foundations for the dissertation's methodology. With a principle view to adumbrate the useful findings of phenomenological film theory, the chapter first surveys psychoanalytic models of cinematic spectatorship. Touching on key works of apparatus theory and, in greater detail, Mulvey's theory of the male gaze, the chapter establishes the import of the phenomenological approach. It dually highlights feminist film theory's prevailing interest in psychoanalytic or semiotic analysis, which as inversely produced a paucity of embodied feminist criticism. The chapter consequently considers Young's feminist interpretation of Merleau-Ponty's existential philosophy to suggest why a phenomenological approach might be desirable for feminist film scholars, and dually to identify this dissertation's own feminist philosophy.[70] Relative to the dissertation's plans to mobilise phenomenological film theory to access female materiality, the chapter gives considerable space to examining relevant works within this branch of cinema studies. Honouring the dissertation's position that the film should be approached holistically, the chapter finally attempts to understand the particularities of film's digital body through key scholarship on digital cinema.

The second chapter introduces the first of the dissertation's case studies, *Under the Skin*. *Under the Skin* portrays a heroine who is fundamentally alien but who inhabits a feminine visage. Confronted with this particular revisioning to the female body, Chapter Two reflects on the hybrid nature of digital cinema. Director Jonathan Glazer planted the film's famous lead, Scarlett Johansson, in contemporaneous Glasgow and used the bespoke digital One-Cam to procure its diegetic material. This approach indicates that a sense of realism, what Sobchack calls 'the charge of the real', may be harnessed, or even enhanced, by the hybridity of digital technology. The One-Cam fixes *Under the Skin*'s real and artificial elements in seamless confrontation, creating a profound dialectic that informs all of the film's elements and, most importantly, the view of its heroine. This chapter considers how heroine and actress are caught in the film's central dialectic, such that we perceive femininity anew. Lest we take *Under the Skin* as an outlier relative to the

[70] This dissertation's feminist philosophy is chiefly informed by Young, and her understanding of female embodiment as defined by ambivalence. See Young, "Throwing Like a Girl."

dissertation's focus on digitised heroines, the chapter concludes with a rumination on the film's alien motif of blackness and its relation to the digital.

Chapter Three tracks the disintegration of the female body by turning to the motif of artificiality in *Ex Machina*. The film's heroine, Ava, is a robot formally constituted by digital visual effects. What is more, her artifice is the very focus of the film's narrative: a revised Turing Test prompts the film's male protagonist to investigate whether Ava feels real in spite of her apparent artificiality. This chapter reads Ava's test self-reflexively, as if *Ex Machina* were wondering about the affect of its own body; how do we respond to the digital image when we know that it is synthetic? Rather than provide outright answers to this set of questions, the chapter fixates on the sense of uneasiness motivating them. It extrapolates from Ava's character that fears about digital cinema pertain to its innate hapticity. Just as haptic works negate ocularcentric epistemologies (Alois Riegl says that they can be fully understood *in the dark*),[71] digital images retain a pleasing degree of iconicity but are wholly animated, making the life and substance of their contents difficult to parse. The chapter considers how Ava rehearses the notion of digital hapticity at the level of narrative, and inversely considers how digital cinema might facilitate feminist aims. Irrespective of this feature of the chapter's argument, it concludes ambivalently; the chapter ends by contemplating how *Ex Machina*'s effects-laden images conceal the physical labour of the actress who portrays Ava, Alicia Vikander.

In Chapter Four, female and digital bodies begin to break down. This chapter analyses *Blade Runner 2049* in terms of its illustration of digital failure, what I am calling *an aesthetics of absence*.[72] As has been widely noted, the digital actually portends a more tenuous relationship to preservation than preceding film formats. This chapter shows how *Blade Runner 2049* grapples with this fact in concerted and unintentional ways. The film's imagined future is still recovering from a digital blackout that occurred some twenty-years earlier, where all digital data was lost. Against this context, digitally-derived holographic or replicant women appear as both emblems of technological progress and harbingers of relapse. *Blade Runner 2049* channels its worries

[71] Alois Riegl, "Late Roman or Oriental?," in *German Essays on Art History*, ed. Gert Schiff (New York: Continuum, 1988), 181.
[72] I derive this phrase from Lucas Hilderbrand's analogue 'aesthetics of access'. See Lucas Hilderbrand, *Inherent Vice: Bootleg Histories of Videotape and Copyright* (Durham: Duke University Press, 2009).

about the precarity of the digital through these figures, who display glitches that impede their desired function as fantasy objects. Irrespective of the film's critique of misogynistic technofantasies, its feminist project falters at the level of form. Digital errors reveal the film's efforts to regulate the volatile bodies of those actresses who portray its digital women. In a perverse sense, then, the materiality of the digital comes to the rescue of these elided actresses.

The fifth chapter considers how we can grasp a disembodied female subject. Focusing on *Her*, the chapter expands the dissertation's investigation of digital embodiment to consider the ontology of an electronic device that might exhibit a film in the digital era. The film concerns Theodore (Joaquin Phoenix), who takes his operating system (OS), Samantha (Scarlett Johansson), as his girlfriend. In order to combat the fantasies of female disembodiment that Samantha registers for both sides of the patriarchal divide, the chapter seeks to uncover Samantha's unique materiality. Drawing on Sobchack's understanding of electronic presence as diffuse,[73] and interpolating Barker's concept of 'the skin',[74] the chapter traces the seams of Samantha's technology and articulates her presence through moments of formal and narrative disruption. In sum, the chapter illustrates how Samantha, as an electronic presence, permeates the film text. The chapter concludes with a meditation on electronic spectrality. It considers how Samantha touches and taints the film in nuanced ways that altogether suggest the degree to which female and filmic bodies are intertwined.

The concluding chapter extends the theme of the ghostly with an abridged case study aimed to bring the dissertation's various threads together. Olivier Assayas's 2016 film *Personal Shopper* cements the kinship between digital and female forms tracked across the dissertation, albeit at a spectral slant. For here, the female lead, Maureen (Kristen Stewart), tells us, she's *a medium*. Both Assayas and Maureen draw inspiration from the pioneer of abstract art, Hilma af Klint. Af Klint produced a slew of paintings at the turn of the century, which, she held, conveyed messages telegraphed to her from the spiritual realm. Maureen has a similar gift, though in Assayas's film the spiritual world is made interchangeable with that of the digital. This concluding chapter traces the destabilising effects of Maureen's liminality, to the extent that she seems

[73] Sobchack, *Carnal Thoughts*, 135-64.
[74] Barker, *The Tactile Eye*, 23-68.

to communicate with herself through the spiritual-digital world. For both Maureen and af Klint, the immaterial realm serves as a wellspring for female expression. Taking *Personal Shopper* as an allegory for the dissertation's proposed link between female and digital bodies, the chapter ends with a gesture towards the project's larger impact. It contemplates how the dissertation's method of appraising female and filmic bodies alongside one another might prove productive for future feminist film scholarship.

With each of these chapters, the dissertation negotiates female disembodiment by working through the materiality of digital cinema. It focuses on the traits of hybridity, hapticity, error and diffusion to consider how the digital heroines at hand upend notions of pure absence. Along the way, the volatile female body becomes like the errant fly that somehow found its way into *The Skin I Live In*: she at once cracks the film open, exposing the manifold elements involved in its being, and simultaneously consolidates these elements within a single plane. In our pursuit of the female body, we come into closer contact with the film.

Chapter One
Embodied Perspectives

'[Woman] values [the] triumphs of immanence… because immanence is her lot'. (Simone de Beauvoir)[1]

Jennifer M. Barker, in her treatise on cinematic tactility, invokes the fin-de-siècle works, *Annabelle Butterfly Dance* (William Kennedy Dickson, 1894) and *Annabelle Serpentine Dance* (William Kennedy Dickson, 1895). Though these films provide ample visual material for Barker's focus on movement (Annabelle Moore dances hypnotically with the billows of her skirt, non-stop, for a single minute), she cleverly expands the scope of her analysis to embolden her claim about their wholesale viscerality. Specifically, Barker foregrounds the apparatus by which early viewers took in the Annabelle films, the hand-cranked mutoscope, to make a case for the films' unification of spectatorial, depicted, and mechanical bodies:

> Annabelle's sexuality was expressed as movement, muscularity, and vitality, yet her patron['s] desire may have been to *stop* her movement at the crucial moment [when her skirt billowed to possibly reveal flesh]. Men (and her fans were predominantly men) could slow these images down in an attempt to catch that moment, "pause" it and, by doing so, tame the relentless movements of both Annabelle and the apparatus… Human bodies, filmed bodies, and cinema's body come together in a startlingly intimate moment of physical thrill.[2]

A number of slippages are evident in this passage of analysis: Annabelle's femininity derives its expression from the film's movement; the film's movement is itself dependent on the viewer's manual animation of the mutoscope; to close the circuit, presuming that the viewer captures their desired moment of stillness, their arousal points back to the (in)action of Annabelle's body. The fluidity of Barker's observations illustrate her phenomenological method in action. Fundamentally regarding the cinematic encounter as embodied, she finds meaningful echoes amongst its various components.

This dissertation approaches the cinema in the same way. It employs the findings of phenomenological film theory to locate the female body that disappears from the screen of contemporary science fiction cinema. Negating these films' visual inscription of female absence, it reads the cinematic encounter as involving

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[1] Simone de Beauvoir, *The Second Sex*, trans. Constance Borde and Sheila Malovany-Chevallier, 1st ed. (New York: Vintage, 2012), 573.
[2] Jennifer M. Barker, *The Tactile Eye* (Berkeley: University of California Press, 2009), 135.

profoundly more than what is legible within the image (though it involves that, too). The dissertation surveys the diverse elements informing the film's meaning, broadly falling across Barker's categories of human, filmed and cinematic bodies, in search of the extant material.[3] Though, as Barker's work shows, any neat delineation of these cinematic elements is tricky, and moreover is beside the point; our search for the female body necessitates the embrace of cinema's plurality.

This chapter provides the theoretical foundations for the dissertation's agenda. It examines the principles of phenomenological film theory, with a specific focus on film's digital body, to substantiate the analysis undertaken in the chapters that follow. Relative to the dissertation's overarching thesis, this chapter is centrally concerned with illustrating that film possesses a lived body which synthesises image with enabling mechanisms, meaning that we can read its contents and formative components in tandem. Moreover, the chapter investigates how the viewer's body interacts with the film's body to realise its significance. Together, these aims establish a methodology for film analysis which attends to human, filmed and cinematic bodies in order to develop meaning. As a secondary, though no less essential aim, this chapter also incorporates consideration of the political stakes for the dissertation's methodology, which centrally pertain to the value of the lived body. It highlights why a phenomenological method is especially desirable for feminist film theorists, and dually why this method is important for the digital era.

The chapter begins by establishing the innovations of phenomenological film theory through a brief exegesis of psychoanalytic film theory's objectivist relation to the cinema. It pays particular attention to Laura Mulvey's seminal work on the 'male gaze' in order to illustrate such an approach, and show why the existing model is limiting for feminist theorists.[4] The chapter consequently outlines film theory's sensuous turn through Maurice Merleau-Ponty's founding existential philosophy, and highlights why this methodology is of appropriate (with some reservations) for the feminist film scholar. It then examines key works of phenomenological film theory closely, with a particular view to underline discrepancies in method

[3] I have articulated these elements separately here and throughout this chapter for the sake of clarity, but it is important to note that phenomenological film theory would see depicted and mechanical bodies as part of the film's larger body.
[4] Laura Mulvey, "Visual Pleasure and Narrative Cinema," *Screen* 16, no. 3 (September 1975): 6–18.

and in turn show how a unitary approach to the film—one which considers content and form—is both possible and valuable. Finally, the chapter heeds the dissertation's maxim that appreciations of the cinema should involve more than what is (or is not) depicted, and examines the specificities of the particular form that its key films take: the digital. The chapter examines important accounts of film's digital body to use as a guide for the dissertation's subsequent analyses.

Establishing a Feminist, Phenomenological Approach

Before outlining the precepts of phenomenological film theory which allow us to conceive of film and viewer as embodied, it is prudent to establish the import of this work for cinema studies at large, and for this dissertation in particular. The history of phenomenological film theory has been cleaved into two moments: 'the years of 1946ff (with 1947 as the key moment) and 1990ff (with 1992 as the crucial date)'.[5] The first moment witnessed the emergence of the filmology movement in France, which continued until 1960 and drew upon phenomenology to analyse films and examine the 'existential, psychological, and institutional activities of filmmaking and film viewing'.[6] The filmology movement encouraged an interest amongst contemporaneous French phenomenological philosophers in the cinema. These theorists, including Henri Agel, Amadee Ayfre, Jean-Pierre Meunier and Merleau-Ponty, 'focused on the aesthetic qualities and experience of cinema, often articulated as a theologically inflected ontology'.[7] Th second moment of phenomenological film theory occurring in the 1990s[8] is of central interest to this dissertation, representing the key instance of phenomenological film theory's intersection with feminism.[9]

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[5] Christian Ferencz-Flatz and Julian Hanich, "What Is Film Phenomenology?," *Studia Phaenomenologica* XVI (2016): 23.

[6] Vivian Sobchack, "Phenomenology," in *The Routledge Companion to Philosophy and Film*, ed. Paisley Livingston and Carl Plantinga (London: Routledge, 2009), 439. Works of the movement were published in its journal, *Revue Internationale de Filmologie* (1947-1960).

[7] Ibid, 440. For an expanded discussion of these scholars' work, see Dudley Andrew, "The Neglected Tradition of Phenomenology in Film Theory," in *Movies and Methods*, ed. Bill Nichols, vol. 2 (Berkeley: University of California Press, 1985), 625–32; Ferencz-Flatz and Hanich, "What Is Film Phenomenology"; and Sobchack, "Phenomenology". I offer a close reading of Merleau-Ponty's contribution, "The Film and the New Psychology", later in this chapter.

[8] In addition to Sobchack's *Address of the Eye*, which I examine in close detail later in this chapter, this moment of phenomenological film theory includes a 1990 issue of the *Quarterly Review of Film and Video* on "Phenomenology in Film and Television", and a monograph by Allan Casebier, *Film and Phenomenology: Toward a Realist Theory of Cinematic Representation* (Cambridge and New York: Cambridge University Press, 1991).

[9] As Kate Ince usefully points out, Sobchack's *Address of the Eye* constitutes the first moment where phenomenological film theory is put in dialogue with feminist phenomenologists such as Simone de Beauvoir and Iris Marion Young, both of whose work is examined later in this chapter. See Kate Ince, "Whose Identification? A Brief Mediation on the Relevance of Jean-Pierre Meunier's *The Structures of the Film Experience* to Contemporary Feminist Film Phenomenology," in *The Structures of the Film Experience by Jean-Pierre Meunier: Historical Assessments and*

This contemporary iteration of phenomenological film theory emerged as a response to psychoanalytic formulations of the cinematic apparatus which placed great emphasis on vision, cognition and objectivity. Apparatus theory, specifically that developed by Jean-Louis Baudry and Christian Metz, understood the spectator's relation to the film in terms of a subject-object dynamic.[10] Per this structure, the cinematic apparatus satisfies the spectator's psychic desires. In the first instance, Baudry drew on Jacques Lacan's theory of the 'mirror stage' to show how the cinematic apparatus functions ideologically. For Baudry, the 'arrangement' of the apparatus (for instance, the projector, darkened theatre, screen) 'reconstructs the situation necessary to the release of the "mirror stage"'.[11] That is, the conditions of cinematic spectatorship encourage the 'suspension of mobility and predominance of the visual function', thereby reactivating an originary sense of completeness and autonomy.[12] However, Baudry is careful to point out that the spectator does not identify with an image of themselves to reach this state (as they did during the mirror stage), but instead identifies with the characters on screen, as well as the camera. This latter identification is particularly important for articulating the subject-object dynamic fundamental to apparatus theory: by identifying with the camera, which 'constitutes and rules the objects in this "world"', the spectator assumes an illusory position of omnipotence.[13]

Metz subsequently refined Baudry's theory at a more concertedly psychoanalytic slant. He corroborated the dual schema of cinematic identification; the spectator identifies firstly with the act of perception—'an all-powerful position which is that of God himself'—and then with the characters.[14] Metz's principle

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Phenomenological Expansions, ed. Julian Hanich and Daniel Fairfax (Amsterdam: Amsterdam University Press, 2019), 261.

[10] In this way, the field of cinema studies has historically adhered to a lineage that ties looking to a position of power. For more on this lineage, see Jonathan Crary, *Techniques of the Observer: On Vision and Modernity in the Nineteenth Century* (Cambridge: MIT Press, 1992); Martin Jay, "The Noblest of the Senses: Vision from Plato to Descartes," in *Downcast Eyes: The Denigration of Vision in Twentieth-Century French Thought* (Berkeley and Los Angeles: University of California Press, 1993), 21-82.

[11] Jean-Louis Baudry, "Ideological Effects of the Basic Cinematographic Apparatus," trans. Alan Williams, *Film Quarterly* 28, no. 2 (1974): 45.

[12] Ibid.

[13] Ibid.

[14] Christian Metz, "From *The Imaginary Signifier*," in *Film Theory and Criticism: Introductory Readings*, ed. Gerald Mast, Marshall Cohen, and Leo Braudy, 4th ed. (Oxford and New York: Oxford University Press, 1992), 733. Metz clarifies that because the cinematic spectator has already been indoctrinated into the symbolic, it is not necessary that they literally identify with their image on screen but only their like.

intervention to apparatus theory was his postulation that these modes of identification constitute a kind of 'voyeurism', which satisfies the spectator's desire for the 'lost object' of the imaginary.[15] Crucial to our purposes here, Metz stipulates that the act of voyeurism depends on *distance*. He writes, 'the voyeur is very careful to maintain a gulf, an empty space, between the object and the eye, the object and his own body… To fill in this distance would threaten to overwhelm the subject…mobilising the senses of contact and putting an end to the scopic arrangement'.[16] Within Metz's formulation, looking is pleasurable so long as the body is held at bay. In sum, the cinematic apparatus fosters a sense of wholeness and control predicated on a disembodied, distant gaze.

The wholesale objectivism of such psychoanalytic models of cinematic spectatorship led contemporary film scholars to contemplate what theoretical space is left for role of the body.[17] Vivian Sobchack writes that the body poses:

> … an intolerable challenge to the prevalent cultural assumption that the film image is constituted by a merely two-dimensional geometry. Positing cinematic vision as merely a mode of objective symbolic representation, and reductively abstracting—"disincarnating"—the spectator's subjective and full-bodied vision to posit it only as a "distance sense," contemporary film theory has had major difficulties in comprehending how it is possible for human bodies to be, in fact, really "touched" and "moved" by the movies.[18]

This challenge to existing models of spectatorship is worth pursuing because, as Sobchack and her contemporaries point out, it is the sensate body that enables the scholar's analysis in the first place.[19] A rigid subject-object paradigm discounts the reality of the viewing experience; the fact that we bring a mess of embodied and acculturated impulses to the film, and moreover the fact that the film holds a degree of sway

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[15] Per Lacan's theory, the subject 'pursues an imaginary object (a "lost object") which is its truest object, an object that has always been lost and is always desired as such'. Ibid, 741-2.
[16] Ibid, 742.
[17] Interestingly, Anu Koivunen suggests that feminist psychoanalytic theorists began to critique psychoanalysis and initiate a turn toward affect as early as 1982, with Mary Ann Doane's essay, "Film and the Masquerade: Theorising the Female Spectator." For an examination of this alternative history, see Anu Koivunen, "The Promise of Touch: Turns to Affect in Feminist Film Theory," in *Feminisms: Diversity, Difference and Multiplicity in Contemporary Film Cultures*, ed. Laura Mulvey and Anna Backman Rogers (Amsterdam: Amsterdam University Press, 2015), 97–110.
[18] Vivian Sobchack, *Carnal Thoughts: Embodiment and Moving Image Culture* (Berkeley and Los Angeles: University of California Press, 2004), 59.
[19] In addition to those scholars examined closely in this chapter, see Giuliana Bruno, *Atlas of Emotion* (New York: Verso, 2007); Tarja Laine, "Cinema as Second Skin," *New Review of Film & Television Studies* 4, no. 2 (2006): 93–106; Anne Rutherford, *What Makes a Film Tick?: Cinematic Affect, Materiality and Mimetic Innervation* (Bern: Peter Lang AG, International Academic Publishers, 2011); Steven Shaviro, *The Cinematic Body* (Minneapolis: University of Minnesota Press, 1993).

over us. Steven Shaviro consequently argued for 'the need for a new approach to the dynamics of film viewing: one that is masochistic, mimetic, tactile, and corporeal, in contrast to the reigning psychoanalytic paradigms emphasis on sadism and separation'.[20] This new approach, part of a larger millennial move within the humanities towards 'sensuous scholarship',[21] cohered as the system of phenomenological film theory which characterised both film and spectator as embodied.[22] Phenomenological film theory's stress on the intersubjectivity of the cinematic experience is vital to this dissertation's work; in order to recuperate a disappearing body the dissertation requires a methodology that derives meaning from realms beyond the gaze.

That the prevailing subject-object model of spectatorship is inherently misogynistic makes this phenomenological approach especially desirable. As a corrective to Baudry and Metz's work, Laura Mulvey published a seminal essay on the 'male gaze', showing how the psychic pleasures fostered by the cinematic apparatus work to reinforce the male ego.[23] Contradistinctive to the apparatus theorists, she deploys psychoanalysis as a 'political weapon' which reveals woman's status within the cinema.[24] At the crux of her theory is the assumption that, corollary to the symbiotic relationship between patriarchy and psychoanalysis, 'pleasure in looking has been split between active/male and passive/female'.[25] Drawing on the dual system of identification outlined by Baudry and Metz, Mulvey argues that Hollywood cinema is constructed to harmonise the visual pleasures of scopophilia and narcissism in its facilitation of male fantasy. With regard to the former visual pleasure, woman is constructed as scopophilic spectacle in mainstream film. Mulvey writes, 'in their traditionally exhibitionist role women are simultaneously looked at and displayed, with their appearance coded for strong visual and erotic impact so that they can be said to connote *to-be-looked-at-ness*'.

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[20] Shaviro, *The Cinematic Body*, 11.
[21] Paul Stoller, "Prologue: The Scholar's Body," in *Sensuous Scholarship* (Philadelphia: University of Pennsylvania Press, 2010), ix–xviii.
[22] It is worth noting that another body of scholarship, new materialism, developed alongside phenomenological film theory, and similarly sought to recuperate the materiality of things. New materialism represented an attempt to destabilise humanist binaries such as those between subject-object, nature-culture and human-nonhuman. Irrespective of the fact that new materialism has attended to some areas of interest to this dissertation (for instance feminism, posthumanism), I have privileged a phenomenological approach as it better reflects my feelings about the profundity of the corporeal (female) body. For some key works of new materialism, see: Jane Bennett, *Vibrant Matter: A Political Ecology of Things* (Durham: Duke University Press, 2010); Ian Bogost, *Alien Phenomenology, or What It's Like to Be a Thing* (Minneapolis: Minnesota Press, 2012).
[23] Mulvey, "Visual Pleasure."
[24] Ibid, 6.
[25] Ibid, 11.

[26] Because woman risks disrupting the unfolding of the filmic narrative via her scopophilic function, her role as erotic object is incorporated into the narrative so that she 'provokes' the hero and prompts him to advance the action; narratively speaking, 'in herself the woman has not the slightest importance'.[27] The woman is objectified by the characters in the film as well as by the cinematic spectator. These corresponding male gazes together constitute the narcissistic visual pleasure outlined by Mulvey, whereby the diegetic male hero embodies the spectator's ego ideal. Mulvey distinguishes that 'a male movie star's glamorous characteristics are…not those of the erotic object of the gaze, but those of the more perfect, more complete, more powerful ideal ego'.[28] In other words, on an unconscious level the spectator identifies his likeness with the dominant male figure. This set up fosters an illusion of control within the narrative and it follows that 'the spectator can indirectly possess [the diegetic woman] too'.[29] Mulvey's theory altogether shows that the subject-object paradigm of cinematic spectatorship is fundamentally misogynistic, inhering within it structures that enable male control, including of woman as object.

Because Mulvey, as well as Claire Johnston,[30] were responding to film theory's emphasis on psychoanalytic and semiotic approaches, feminist film theory in its original incarnation propagated a system of analysis that understood woman as object or sign. Feminist critiques of Mulvey's theory in particular were manifold, and in due course feminist film theory considered how the issue of female representation might be refined.[31] Teresa de Lauretis is notable in this endeavour, writing in 1984 that she wished to shift the emphasis of feminist film theory from "woman" as object to *women*, 'the real historical beings who cannot as yet be

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[26] Ibid, 11.
[27] Budd Boetticher quoted in Mulvey, "Visual Pleasure," 11.
[28] Mulvey, "Visual Pleasure," 12.
[29] Ibid, 13.
[30] Claire Johnston, "Women's Cinema as Counter-Cinema," in *Feminist Film Theory: A Reader*, ed. Sue Thornham (Edinburgh: Edinburgh University Press, 1999), 31–40.
[31] See, for instance, the interrogation of the question of female spectatorship developed by Mary Ann Doane in her work on the woman's film: Doane, *The Desire to Desire: The Woman's Film of the 1940s* (Bloomington and Indianapolis: Indiana University Press, 1987); Gaylyn Studlar's work on masochism as the central visual pleasure underpinning cinematic spectatorship: Studlar, *In the Realm of Pleasure: Von Sternberg, Dietrich, and the Masochistic Aesthetic* (New York: Columbia University Press, 1988); and bell hooks's argument for a theory of cinematic spectatorship that considered the racial implications of gazing: hooks, *Black Looks: Race and Representation* (Boston: South End Press, 1992). For an expanded discussion of the course of feminist film theory following Mulvey and Johnston's original intervention, see Alison Butler, *Women's Cinema: The Contested Screen* (London: Wallflower Press, 2002); and Shohini Chaudhuri, *Feminist Film Theorists: Laura Mulvey, Kaja Silverman, Teresa de Lauretis, Barbara Creed* (London and New York: Routledge, 2006).

defined outside of those discursive formations, but whose material existence is nonetheless certain'.[32] A small but fervent group of contemporary film scholars developing a 'feminist phenomenological film criticism' share de Lauretis's concerns.[33] Among this group is Elena del Río, who writes:

> If patriarchal interests had rendered woman a speechless and thoughtless body, reclaiming her capacity to examine the logic of her predicament through rigorous analysis would become the foremost objective of a feminist critical agenda… Born of urgent necessity, this analytical stress did not foresee the new imbalance it would foster, as it would relegate the sensual and bodily aspects of female subjectivity to a practically irrelevant status.[34]

The losses of this emphasis on psychoanalytic or semiotic analysis come into view when we imagine the films at the centre of this dissertation as case studies; treating the female body as object or sign would here simply affirm woman's status within patriarchy as alien or Other, or would equate to her absence. In the interest of circumventing such negativist outcomes, this dissertation constitutes an effort to redress the imbalance that exists within feminist film theory. It applies phenomenological film theory to illuminate those aspects of female subjectivity that del Río laments. Beyond a desire to restore a sense of intimacy to feminist film analysis, the dissertation's choice of method is motivated by a belief about existential phenomenology's particular relevance for the female scholar.

The philosophy undergirding phenomenological film theory tacitly suggests that women are uniquely attuned to their bodies. Phenomenological film theory largely drew on existential phenomenology as developed by Maurice Merleau-Ponty. Merleau-Ponty built upon Edmund Husserl's transcendental phenomenology, maintaining the latter's endeavour to recuperate the 'subjective grounding' of epistemological systems while re-embodying his abstracted, transcendental subject.[35] For Merleau-Ponty,

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[32] Teresa de Lauretis, *Alice Doesn't: Feminism, Semiotics, Cinema*, 2nd ed. (Bloomington: Indiana University Press, 1984), 5. See also Teresa de Lauretis, *Technologies of Gender: Essays on Theory, Film and Fiction* (Basingstoke and London: Macmillan Press, 1987).

[33] Kate Ince, "Feminist Phenomenology and the Film World of Agnès Varda," *Hypatia* 28, no. 3 (Summer 2013): 606. This group also includes Lucy Bolton, *Film and Female Consciousness: Irigaray, Cinema and Thinking Women* (London: Palgrave Macmillan, 2011); Catherine Constable, *Thinking in Images: Film Theory, Feminist Philosophy and Marlene Dietrich* (London: British Film Institute, 2006); del Río, "Rethinking Feminist Film Theory"; Kate Ince, "Bringing Bodies Back In: For a Phenomenological and Psychoanalytic Film Criticism of Embodied Cultural Identity," *Film-Philosophy* 15, no. 1 (2011): 1–12; Kate Ince, *The Body and the Screen: Female Subjectivities in Contemporary Women's Cinema* (New York and London: Bloomsbury, 2017). For more on this developing field of scholarship, see the conclusion chapter of this dissertation.

[34] del Río, "Rethinking Feminist Film Theory," 11.

[35] For more on the relationship between Husserl and Merleau-Ponty's work, see Vivian Sobchack, *The Address of the Eye: A Phenomenology of Film Experience* (Princeton: Princeton University Press, 1992), 32.

one's 'facticity' is fundamental to their understanding of the world.[36] He writes that existential phenomenology is 'a philosophy which replaces essences in existence, and does not believe that man and the world can be understood save on the basis of their state of fact'.[37] Thus, it is a philosophy interested in the body as it is *lived*, rather than as an object or idea.[38] For Merleau-Ponty, the body can only be broached in its particularity and context. His work aims to 'recover' our 'naïve contact with the world', to show how it subtends all knowledge, whether scientific or empirical.[39] As he efficiently puts it, 'I am the absolute source' of meaning.[40] One's initial contact with the world, prior to meaning-making, forms Merleau-Ponty's key precept of 'perception'.[41] Together with 'expression', whereby the subject signifies meaning for others in the world, perception forms the double act that constitutes embodied existence.[42] As Sobchack elegantly explains, 'as two modalities of significant and signifying existence, perception and expression are interwoven threads, the woof and warp that together form a seamless and supple fabric, the whole cloth of existential experience'.[43] As I detail in the next section, Merleau-Ponty's philosophy furnished phenomenological film theory with a method to illuminate the 'sensuous'[44] basis of film analysis, and to conceive of the film itself as embodied.

Merleau-Ponty's work also provided feminist philosophers with a model to theorise female embodiment (though not without some difficulties).[45] Through the work of Simone de Beauvoir, Iris Marion Young

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[36] Maurice Merleau-Ponty, *Phenomenology of Perception*, trans. Donald A. Landes (London and New York: Routledge, 2012), lxx.
[37] Maurice Merleau-Ponty, "What Is Phenomenology?," *CrossCurrents* 6, no. 1 (1956): 59.
[38] Existential phenomenologists distinguish the abstracted notion of the body from the 'lived body', which Merleau-Ponty originally termed as *le corps proper*, or 'one's own body'. Sobchack explains that the lived body is 'at once, both an objective *subject* and a subjective *object*: a sentient, sensual, and sensible ensemble of materialized capacities and agency that literally and figurally makes sense of, and to, both ourselves and others'. Sobchack, *Carnal Thoughts*, 2, her emphasis.
[39] Merleau-Ponty, *Phenomenology of Perception*, lxx.
[40] Ibid, lxxii.
[41] Ibid, lxxiv.
[42] This perceptive-expressive system is Sobchack's reading of Merleau-Ponty. See Sobchack, *The Address of the Eye*, 8-9.
[43] Ibid, 13.
[44] Merleau-Ponty argues cogently that 'sensualism "reduces" the world by remarking that after all we never have anything other than states of ourselves'. See Merleau-Ponty, "What is Phenomenology?," 66.
[45] While Merleau-Ponty's work would seem to leave space open for characterising manifold subjects, feminist philosophers have taken issue with the fact that his philosophy neglects to account for the specificity of the lived body, and its corollary modes of embodiment. In a critique that is evocative of those lodged by feminist scholars against psychoanalytic film theory, Sobchack explains, 'the "lived-body" of existential and semiotic phenomenology has been explicitly articulated as "everybody" and "anybody" (even as it has implicitly assumed a male, heterosexual, and white body)'. Sobchack, *The Address of the Eye*, 148. For similar critiques see Jeffner Allen, "An Introduction to Patriarchal Existentialism," in *The Thinking Muse*, ed. Iris Marion Young and Jeffner Allen (Bloomington: Indiana

developed a particularly poignant theory that understood female embodiment as characterised by immense ambiguity and ambivalence.[46] In the first instance, de Beauvoir built upon Merleau-Ponty's understanding of the dialecticism of embodied existence to articulate woman's unique situation. Where the lived body synthesises immanence and transcendence—it is fundamentally immanent (material) and simultaneously transcends this immanence as it engages with the world—de Beauvoir argues that women are naturally bound to immanence. She writes that 'woman regards her body' ambivalently; 'it is a burden: worn away in service of the species, bleeding each month, proliferating passively, it is not for her a pure instrument for getting a grip on the world but an opaque physical presence'.[47] For de Beauvoir, though woman is undoubtedly a subject, her particular physiology reminds her of her immanence to a degree that distinguishes her lived experience.[48] The dialectic inherent to embodied existence is altogether skewed for the woman, who is 'more attentive than man to herself and the world'.[49]

Young extended de Beauvoir's work in her subsequent account of female embodiment, fixating in particular on de Beauvoir's notion that patriarchal culture also contributes to woman's profound sense of ambivalence.[50] De Beauvoir remarks at one point that 'man wants woman to be object: she *makes* herself

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University Press, 1989), 71-84; Judith Butler, "Sexual Ideology and Phenomenological Description," in *The Thinking Muse*, ed. Iris Marion Young and Jeffner Allen (Bloomington: Indiana University Press, 1989), 85–100; Linda Fisher and Lester Embree, eds., *Feminist Phenomenology* (Berlin: Springer, 2000); Luce Irigaray, "The Invisible of the Flesh: A Reading of Merleau-Ponty, *The Visible and the Invisible*, "The Intertwining—The Chiasm"," in *An Ethics of Sexual Difference*, translated by Carolyn Burke and Gillian C. Gill (Ithaca: Cornell University Press, 1993), 151-84; Sonia Kruks, "Merleau-Ponty and the Problem of Difference in Feminism," in *Feminist Interpretations of Maurice Merleau-Ponty*, ed. Dorothea Olkowski and Gail Weiss (University Park: Pennsylvania State University Press, 2006), 25-48; and Gaylyn Studlar, "Reconciling Feminism and Phenomenology: Notes on Problems and Possibilities, Texts and Contexts," *Quarterly Review of Film and Video* 12, no. 3 (1990): 69–78.

[46] For some other accounts of female embodiment see Judith Butler, *Gender Trouble: Feminism and the Subversion of Identity* (New York and London: Routledge, 1990); Susan Bordo, *Unbearable Weight: Feminism, Western Culture, and the Body*, 2nd ed. (Berkeley: University of California Press, 2004); Moira Gatens, *Imaginary Bodies*, 1st ed. (London: Routledge, 1995); Elizabeth Grosz, *Volatile Bodies: Toward a Corporeal Feminism* (Bloomington: Indiana University Press, 1994); Vicki Kirby, *Telling Flesh: The Substance of the Corporeal*, 2nd ed. (London and New York: Routledge, 2014); Iris Marion Young, *On Female Body Experience: "Throwing Like a Girl" and Other Essays* (New York: Oxford University Press, 2005).

[47] de Beauvoir, *The Second Sex*, 587.

[48] It is important to recognise some excellent work within the humanities which extends Merleau-Ponty's philosophy to understand other unique kinds of embodiment, including transsexual embodiment, impaired embodiment and technologised embodiment. See Don Ihde, "The Experience of Technology: Human-Machine Relations," *Cultural Hermeneutics* 2 (1974): 267-79; Drew Leder, *The Absent Body* (Chicago: University of Chicago Press, 1990); Jay Prosser, "A Skin of One's Own: Toward a Theory of Transsexual Embodiment," in *Second Skins: The Body Narratives of Transsexuality* (New York: Columbia University Press, 1998), 61–98; Elaine Scarry, *The Body in Pain: The Making and Unmaking of the World* (Oxford and New York: Oxford University Press, 1987).

[49] de Beauvoir, *The Second Sex*, 592.

[50] That Young's 2005 collection of essays, *On Female Body Experience*, incorporates the title of her 1980 essay, "Throwing Like a Girl: A Phenomenology of Feminine Body Comportment Motility and Spatiality," demonstrates

object; at the very moment when she does that, she is exercising a free activity'.[51] In this aside, de Beauvoir infers that the tension inherent to woman's lived experience stems not only from her physiology but also from her treatment by Western culture. Wary of the essentialism of a physiological focus, Young picks up this underdeveloped thread in de Beauvoir's work and contemplates how patriarchal culture informs woman's handling of her body. The impetus for Young's focus on 'feminine'[52] body comportment and movement comes from Merleau-Ponty's philosophy, specifically his contention that 'it is the ordinary purposive orientation of the body as a whole towards things and its environment that initially defines the relation of a subject to its world'.[53] By this estimation, the way in which women within Western culture 'typically move and comport their bodies'[54] can be taken to reveal 'the structures of feminine existence'.[55] In contradistinction from de Beauvoir, Young posits the immense ambivalence of female embodiment through emphasis on the *outside* of the lived body dialectic.

Young works through observations about ordinary female body comportment, motility, and spatiality with the aim of giving these behaviours 'intelligibility and significance'.[56] Her examples broadly cohere through a theme of hesitancy ('women generally are not as open with their bodies as men in their gait and stride';[57] 'we frequently fail to summon the full possibilities of our muscular coordination, position, poise and bearing';[58] 'typically, we lack an entire trust in our bodies to carry us to our aims';[59] 'feminine existence lives space as *enclosed* or confining').[60] Young consolidates her observations to surmise that 'feminine movement exhibits an *ambiguous transcendence*, an *inhibited intentionality*, and a *discontinuous unity* with its surroundings'.[61]

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the ongoing relevance of her theory of female embodiment. This dissertation has prioritised her theory over the work of later scholars for this reason.

[51] Ibid, her emphasis.

[52] Per her concerns about essentialism, Young uses the term 'feminine' to link women through the cultural forces that mutually oppress them, rather than via the female body in itself. Here 'feminine' denotes 'a set of structures and conditions which delimit the typical *situation* of being a woman in a particular society, as well as the typical way in which this situation is lived by the women themselves'. Iris Marion Young, "Throwing Like a Girl: A Phenomenology of Feminine Body Comportment Motility and Spatiality," *Human Studies* 3, no. 2 (April 1980): 141, her emphasis.

[53] Ibid, 140.

[54] Ibid, 144.

[55] Ibid, 140.

[56] Ibid, 139.

[57] Ibid, 142

[58] Ibid, 143.

[59] Ibid, 143.

[60] Ibid, 149, her emphasis.

[61] Ibid, 145, her emphasis.

Rather than looking exclusively to physiology to arrive at this conclusion, Young attributes the ambivalence of female embodiment to woman's situation within patriarchal culture. Her argument is worth quoting in full:

> … the woman lives her body as *object* as well as subject. The source of this is that patriarchal society defines woman as object, as a mere body, and that in sexist society women are in fact frequently regarded by others as objects and mere bodies. An essential part of the situation of being a woman is that of living the ever present possibility that one will be gazed upon as mere body, as shape and flesh that presents itself as the potential object of another subject's intentions and manipulations, rather than as a living manifestation of action and intention.[62]

This dissertation values Young's work for its resonance and flexibility. Exemplifying the very purpose of phenomenological description, her theory of female embodiment aligns with my own lived experience. Moreover, Young develops this theory on terms that are existentially appreciable by women. As Sobchack writes, Young arrives at her understanding of female embodiment 'not through psychoanalysis but through phenomenological description and thematization of empirically observable phenomena—and she has described not essential structures from which there is no escape but existential structures shaped by culture and history that could be otherwise'.[63] Young premises her theory of female embodiment on a set of observations about women's behaviour, thus articulating female subjectivity by its own terms rather than by the terms of an external, androcentric body of thought.

Young's formulation of female embodiment thoroughly informs this dissertation's feminist practice. Though her work is not explicitly applied in the following chapters, her interpolation of Merleau-Ponty's philosophy has figured heavily in my thinking about the women in the films at hand, and especially the actresses who portray them. Young's meditation on the effortful, self-conscious and guarded aspects of female embodiment inspires, for instance, the dissertation's work on gendered behaviour and the danger

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[62] Ibid, 153-4, her emphasis. Despite its immense merits for developing an understanding of female embodiment, Young's notion of the female body as a 'thing' threatens to mimic the Cartesian notion of a mind-body dualism. Writing five years after "Throwing Like A Girl," Young acknowledges her earlier essay's shortcomings and attempts to remedy her position by studying pregnant embodiment, a type of bodily being 'subversive to philosophy precisely because it cannot be universalised'. Young speaks of the moments of surprise that she encountered throughout pregnancy as her body expanded and changed shape, jarring with her pre-held body image. For instance, she describes bending down to tie her shoe and knocking her protruding belly against her knee unexpectedly. Within this account, living the body as a 'thing' does not infer separation, but rather resistance and awareness. The ambivalence of female embodiment can thus be understood as a sense of dispossession from something which she knows to possess. See Young, *On Female Body Experience*, 46-61.

[63] Sobchack, *The Address of the Eye*, 154-55.

of deviation in *Under the Skin*; its reading of feminine performance and the concealment of female labour in *Ex Machina*; its focus on the volatile, aging female body digitally erased from *Blade Runner 2049*; and its attention to the disembodied voice in *Her*, which has been unthinkingly linked within public discourse to Scarlett Johansson's fetishized body. Each chapter strives to foreground those aspects of female subjectivity that del Río finds missing from psychoanalytic and semiotic analyses by contemplating the female body as it is *lived*.

Crucially, the dissertation undertakes these efforts by first examining the film's lived body. Beginning with the innovations of phenomenological film theory, this section has identified the shortcomings of psychoanalytic models of spectatorship for cinema studies, and for feminist film theory in particular. It has articulated the import of Mulvey's theory of the male gaze while highlighting the analytical imbalance that this rubric has fostered. The chapter has indicated how the dissertation hopes to remedy this oversight by touching on the philosophy undergirding phenomenological film theory and examining how it has been interpreted for feminist ends by Young. Though Young's work informs the dissertation's feminist practice, the dissertation principally accesses the female body by way of the film's body. The next section provides a comprehensive examination of key works of phenomenological film theory to explicate this process.

Phenomenological Film Theory

Phenomenological film theory has grown steadily since the late twentieth century and has produced a range of distinct, though philosophically unified approaches to understanding the film and the spectator as embodied. This section outlines the approaches that are essential to this dissertation. It moves from the proto-phenomenological film theory devised by Merleau-Ponty in a 1964 essay, through to contemporary work that readily engages the notion of embodied spectatorship. Relative to this dissertation's agenda to remedy a representational omission through filmic materiality, it is notable that the range of literatures examined here place varying degrees of emphasis on the figurative image. With this in mind, this section endeavours to highlight these differences in method while maintaining that, in the case of this dissertation, they should be used together.

Merleau-Ponty himself reflected on film's intrinsic relation to embodiment in an essay that predated phenomenological film theory. In this essay, his only on the cinema, Merleau-Ponty identifies key relations between film and existential phenomenology, principally in terms of film as a paradigm for perception, and film *as* perception. Insofar as we make sense of the world through our corporeal investment in it, Merleau-Ponty understands perception as a kind of gestalt phenomena. He writes:

> … my perception is not limited to registering what the retinal stimuli prescribe but reorganizes these stimuli so as to re-establish the [visual] field's homogeneity. Broadly speaking, we should think of [perception] not as a mosaic but as a system of configuration. Groups rather than juxtaposed elements are principal and primary in our perception.[64]

Perception is founded on the beholder's synthesis of sensory data, so as to mean more than its component parts. For Merleau-Ponty, perception is thus a 'dynamic ensemble'[65] contingent upon embodied being. Elsewhere he writes that the lived body will 'animate [the visual field] with a silent and magical life by imposing here and there some torsions, contractions, and inflations'.[66] Merleau-Ponty posits the cinema as a paradigm for this structure of perception, and by considering the cinema against such a framework we can understand its specificity as a medium.

Merleau-Ponty contends that 'a film is not a sum total of images but a temporal *gestalt*'.[67] The arrangement of images within a film works to produce an effect irreducible to the individual shots or any broader schema. With reference to the editing experiments conducted by the Russian formalist filmmakers, Merleau-Ponty surmises that 'the meaning of a shot'—whether it depicts a bowl of soup, a seductive woman, or a sleeping child[68]—'depends on what precedes it in the movie, and this succession of scenes creates a new reality which is not merely the sum of its parts'.[69] While Merleau-Ponty concedes that films 'always have a story and often an idea' propelling them, such a conceit is immanent to the film itself.[70] The film's meaning is 'incorporated into its rhythm', so that it 'does not mean anything but itself'.[71] Just as we cannot understand the visual field distinct from our investment in it, so the film's meaning is inseparable from it constitutive

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[64] Maurice Merleau-Ponty, "Film and the New Psychology," in *Sense and Non-Sense* (Evanston: Northwestern University Press, 1964), 48.
[65] Sobchack, *The Address of the Eye*, 40.
[66] Merleau-Ponty, *Phenomenology of Perception*, 50.
[67] Merleau-Ponty, "Film and the New Psychology," 54.
[68] I am referring here to the Kuleshov effect, which Merleau-Ponty rehearses in detail in his essay.
[69] Ibid.
[70] Ibid, 57.
[71] Ibid.

form. This contention is valuable for this dissertation insofar as it substantiates my project to study the film's manifold components—including and beyond what the film depicts—to form meaning.

And yet, Merleau-Ponty begins to indicate that the cinema is not merely an allegory for perception, but that perception figures as the cinema's very material. While film presents a 'finer-grained', more static, more exact view of the world than that permitted in reality, Merleau-Ponty holds that we perceive the diegetic world in a manner analogous to our perception of the real world.[72] 'Perception permits us to understand the meaning of the cinema', he writes, 'a movie is not thought; it is perceived'.[73] Here Merleau-Ponty paves the way for the seminal finding of phenomenological film theory: that the cinema's uniqueness as an art form is premised on its imagistic articulation of being-in-the-world. Where the novel would present us with a character's thoughts, film presents us with the character's 'conduct or behaviour' to express meaning.[74] Merleau-Ponty explains:

> We will get a much better sense of dizziness if we see it from the outside, if we contemplate that unbalanced body contorted on a rock or that unsteady step trying to adapt itself to who knows what upheaval of space. For the movies as for modern psychology dizziness, pleasure, grief, love and hate are ways of behaving.[75]

Merleau-Ponty is quite literal in his explication of film as perception here, with the 'ways of behaving' expressed by the depiction of other embodied objects. The subsequent reworkings of Merleau-Ponty's schema by Sobchack and Marks considered (perhaps too strictly) how the film itself might express dizziness via its unique faculties. Nevertheless, Merleau-Ponty's essay has been foundational to the development phenomenological film theory, and by extension this dissertation, in its articulation of film's embodied appeal to the viewer through the expression of perception.

Sobchack substantially elaborated Merleau-Ponty's nascent ideas about the phenomenology of the film experience. In *The Address of the Eye*—what Sobchack later called a 'necessary polemic'[76]—she adopts existential phenomenology to theorise the film experience, and in so doing undercuts predominating

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[72] Ibid, 58.
[73] Ibid.
[74] ibid.
[75] Ibid.
[76] Sobchack, *Carnal Thoughts*, 6.

Marxist and psychoanalytic approaches that treat the film as object, and the spectator as in some sense disembodied. Sobchack gleans from Merleau-Ponty's treatment on the cinema her central position that film 'uses modes of embodied existence (seeing, hearing, physical and reflective movement) as the vehicle, the "stuff," the substance of its language"[77] For Sobchack, film's constitution by perceptive material denotes its specificity as a medium. She contends:

> More than any other medium of human communication, the moving picture makes itself sensuously and sensibly manifest as the expression of experience by experience. A film is an act of seeing that makes itself seen, an act of hearing that makes itself heard, an act of physical and reflective movement that makes itself reflexively felt and understood.[78]

These sensible acts—seeing, hearing, moving—engage the viewer on a pre-predicative level, prior to the impulse of interpretation that underpins semiotic and psychoanalytic film theory. Sobchack strives to recover film's 'wild meaning'—'the pervasive and as yet undifferentiated significance of existence as it is lived rather than reflected upon'—to demonstrate the way both film and viewer are existentially bound up in the film experience.[79] To this end, Sobchack gestures towards the feminist import of an embodied account of spectatorship. Such an approach would allow that female viewers might perceive the film text in a unique way informed by their embodied experience,[80] but moreover that the film's particular mode of expression—which might appeal to female lived experience—could open up a 'more concrete and less deterministic way of describing cinematic "identification"'.[81] This dissertation extends this latter thread of Sobchack's theory, contemplating how the film might take on feminist meaning by expressing the female body missing from the image through its particular mechanisms.

Sobchack looks to remedy the shortcomings of psychoanalytic film theory, specifically relating to the gaze, by underlining vision's interconnectedness with the other senses. Though the viewer perceives the film's expression visually, the film experience piques their attendant sensuous faculties. Writes Sobchack, 'my sense of sight… is a modality of perception that is commutable to my other senses, and vice-versa. My sight is never only sight—it sees what my ear can hear, my hand can touch, my nose can smell, and my

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[77] Sobchack, *The Address of the Eye*, 4-5.
[78] Ibid, 3-4.
[79] Ibid, 11.
[80] Ibid, 156.
[81] Ibid, 161.

tongue can taste. My entire bodily existence is implicated in my vision'.[82] Crucially, this is not to say that the viewer's intellect is pacified in the process of perceiving the film's sensuous content, but rather that intellection works in tandem with sensation. As Sobchack reminds us, 'in existence, it is as impossible to experience or describe a "pure sensation" as it is to experience or describe a "pure thought"'.[83] The film involves the viewer wholly in the act of perception, and they in turn enact expression by their bodily response. This point is crucial to this dissertation, which relies on the viewer's corporeality to corroborate the materiality of its digital case studies.

As Sobchack suggests in the above passage, the film's appeal to embodied existence is two-fold and reversible; when, for instance, the film makes itself seen, it does so by the act of seeing. This symbiosis of intentional acts proves for Sobchack that the film is embodied. Like the human lived body that is always both the agent of subjectivity and an object for the perception of the other, the film is a subject that perceives a finite, situated experience of the world, and concurrently an object that expresses its perception for the viewer. Sobchack explains that in the film experience:

> The embodied activity of perception and expression—making sense and signifying it—are given to us as modalities of a single experience of being in the presence of and producing meaning and diacritical value. What we look at projected on the screen—whether Merleau-Ponty's "the things, the waves, and the forests," or only abstract lines and colors—addresses us as the expressed perception of an anonymous, yet present, "other."[84]

The film thus portends a kind of volition in the act of representation that runs counter to presumptions of it as mere object.[85] It sees, hears, moves in a manner not attributable to the viewer, or even the filmmaker, who deploys the cinematic apparatus but does not share its unique purview.[86] The film evinces its own perceptive vantage on the world, enabled by and extensive to its cinematic technology.

The film's body of course differs from the viewer's in terms of composition, but Sobchack aims to demonstrate that our ontologies are twinned. As Merleau-Ponty indicated in his characterisation of the

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[82] Ibid, 78.
[83] Ibid, 77.
[84] Ibid, 8-9.
[85] Ibid, 167.
[86] Ibid, 9.

cinema as a kind of gestalt, Sobchack argues that the film's body encompasses its technical mechanisms but that film's embodiment is not reducible to these elements. Indeed, digital code, camera, screen, light, projector might facilitate the film's being, but the film's perception, and the way its moving images are taken up by the viewer, transcend its material underpinnings.[87] As Sobchack puts it, crudely but effectively, a film is not experienced and understood 'as some objective mechanism like a water heater', nor is it experienced and understood 'as an enabling and existential prosthetic device like the telephone or a microscope'.[88] The film constitutes more than its material parts, summoning experience as it conveys it. Sobchack writes:

> Camera, projector, screen, film stock, chemicals—all are as crucial to the existence of the film and as "inhuman" in such anatomical dissection as would be a similar dissection of our human bodies into organs, bone, skin, tissue, blood. Such anatomical and physiological categorization calls up the *essential material nature of the body*—whether the film's or our own. However, such categorization does not evoke or describe the *existentially transcendent function of the body*, the body as *lived-body*.[89]

Sobchack underlines that both the film's body is not reducible to its component parts any more than the viewer's body; in its co-dependent, 'intentional' acts of perception and expression, the film portends its unique experience.[90] By this assumption, we cannot approach the film objectively, limiting our analysis to what it depicts; we must think about the film as an agile being which speaks to us in a number of ways. This dissertation takes advantage of this feature of the film to advance its feminist aims; it looks beyond inscription of female absence suggested by the image to source her materiality elsewhere.

Just as our materiality becomes more expressly part of our lived experience when we are injured or unwell, at times the film's technology breeches its latent, enabling function and enters the film's perceptive and expressive acts. Such an instance may occur in the film experience incidentally, if, for instance, the theatre's

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[87] In heeding this aspect of Sobchack's argument, this dissertation's understanding of filmic materiality aligns with theory on the 'materialist/structuralist film'. Stephen Heath explains that, in this latter context, the term 'materialist' 'stresses process, a film in its process of production of images, sounds, times, meanings, the transformations effected on the basis of the specific properties of film in the relation of a viewing and listening situation. It is that situation which is, finally, the point of 'structural/materialist film', its fundamental operation, the *experience* of film, and the experience *of film*'. Stephen Heath, "Repetition Time: Notes Around 'Structural/Materialist Film,'" in *Questions of Cinema* (London and Basingstoke: The Macmillan Press Ltd, 1981), 165, his emphasis. For more on the materialist/structuralist understanding of cinema, see D. N. Rodowick, *The Crisis of Political Modernism: Criticism and Ideology in Contemporary Film Criticism* (Berkeley: University of California Press, 1994); Peter Wollen, "'Ontology' and 'Materialism' in Film," *Screen* 17, no. 1 (1976): 7–25.

[88] Sobchack, *The Address of the Eye*, 171.

[89] Ibid, 220, her emphasis.

[90] Ibid, 256.

sound system malfunctions, inhibiting the film's expression and consequently jarring the viewer's perception. Or it may occur intentionally, as happens in the infamous sequence from Ingmar Bergman's *Persona* (1966), where the diegetic celluloid catches fire and melts before our, and the character's, eyes. In her need to establish a phenomenological method for theorising film—one that goes beyond tending to a film's material components, as objectivists might wont to presume—Sobchack expresses dubiousness about such a materialist method for engaging with the film's body. She understands that this kind of 'material reflexivity in the cinema has been valorized precisely because it seems to "rupture" the perceptual correlation of the viewing-view/viewed-view', thus making the viewer savvy to the film's discursive power.[91] For Sobchack, however, such a practice 'assumes that cinematic perception and expression can be *reduced* to their anatomical and physiological material and ignores the transcendent function of that anatomy and physiology to engage with, produce, and realize that which it is not'.[92] Sobchack's founding rubric conceptualises filmic embodiment as defined by its particular mechanisms of existence but as also transcending these component parts to touch the viewer. I heed Sobchack's wariness of films which outwardly address their materiality, but I do not strictly adhere to this tenet of filmic embodiment in the following chapters. This dissertation embraces 'material reflexivity' insofar as it emboldens its overarching claim about the innate feminism of the films at hand; these films draw links between the digital heroines depicted and the films themselves, and importantly these links allow us to read female and filmic bodies alongside each other.

Laura U. Marks subsequently attempted to synthesise the components of the film's body through a focus on images that resist visibility, though this approach uncovers new limitations for sensuous film theory in that it denies resolute images. Benefiting from Sobchack's 'polemic', Marks formulated an abstracted, though uniquely rigid, theory of embodied spectatorship in *The Skin of the Film*. Where Sobchack was reticent to think of the film's body metaphorically so as to substantiate her characterisation of it as lived, Marks is comfortable with this kind of address insofar as it underlines film's tactility. She writes that to speak of a film's 'skin' is to 'emphasize the tactile and contagious quality of cinema as something we viewers

[91] Ibid, 221
[92] Ibid, her emphasis.

brush up against like another body'.[93] This notion of two skins in contact itself evokes sensory experience, but is also emblematic of the fact that film and viewer share embodied systems. Like Sobchack, Marks understands cinematic spectatorship as 'mimetic, or an experience of bodily similarity to the audio-visual images we take in'.[94]

Marks issues her intervention to the existing discourse by further typifying the kind of visual perception exercised by the viewer, with her concept of 'haptic visuality'.[95] For Marks, this mode of looking, where 'the eyes themselves function like organs of touch', forms an alternative visual strategy for filmmakers whose experience is typically sidelined by Western representational systems.[96] The works of intercultural cinema[97] with which Marks is interested 'trouble the relationship between vision and knowledge. Pointing to the limits of visual knowledge, they frustrate the passive absorption of information, instead encouraging the viewer to engage more actively and self-critically with the image'.[98] These 'haptic images'[99] do so by taking forms that resist proper legibility, or provide an excess of detail.[100] They 'resolve into figuration [for the viewer] only gradually, if it all'.[101] The haptic kind of looking that such images solicit is thus prone 'to move over the surface of its object rather than to plunge into illusionistic depth, not to distinguish form so much as discern texture. It is more inclined to move than to focus, more inclined to graze than to gaze'.[102] This description of haptic visuality points toward its usefulness for artists and theorists seeking to recuperate marginalised experience, whether intercultural or feminist. Indeed, Marks notes that 'feminist work is closely concerned with the representation of the senses and embodiment',[103] and the haptic as a visual strategy fundamentally negates the 'attribution of mastery'[104] that has become synonymous with

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[93] Laura U. Marks, *The Skin of the Film: Intercultural Cinema, Embodiment, and the Senses* (Durham: Duke University Press, 2000), xii.
[94] Ibid, xvii.
[95] Ibid, xi.
[96] Ibid, 162.
[97] Marks defines intercultural cinema as 'characterized by experimental styles that attempt to represent the experience of living between two or more cultural regimes of knowledge, or living as a minority in the still majority white, Euro-American West'. Ibid, 1.
[98] Ibid, 133.
[99] Marks, 162.
[100] For more on haptics in relation to detail see Antonia Lant, "Haptical Cinema," *October* 74 (1996): 45–73.
[101] Marks, *The Skin of the Film*, 162.
[102] Ibid.
[103] Ibid, xii.
[104] Ibid, 132.

resolute perception in the cinema. This dissertation adopts this facet of Marks's theory wholeheartedly. It regards the phenomenological approach to the film, here distilled by haptic visuality, as implicitly feminist in its turn away from the distanced, objectifying spectatorial paradigms that have historically facilitated women's subjugation in the cinema.

Haptic visuality underlines the embodied nature of cinematic spectatorship by not only classifying vision itself as tactile, but also emphasising the interrelatedness of vision with our larger sensory network. Marks cites touch and kinesthetics as two 'forms of sense experience' triggered in the act of haptic visuality, though anecdotally this process is of course more diffuse.[105] Writes Marks, 'by engaging with an object in a haptic way, I come to the surface of my self… losing myself in the intensified relation with an other that cannot be possessed'.[106] That is, as the film perceives the world with greater attention or proximity, we yield to its form, likewise tending to its expressed perception with extra care, and in so doing '[feel] ourselves more keenly'.[107] This facet of Marks's theory is broadly pertinent to this dissertation, which depends on the viewer's embodiment to recognise a film's materiality. It is also specifically relevant to the chapters on *Blade Runner 2049* and *Her*, which examine images that are haptic in the sense suggested by Marks; these films feature images which are difficult to parse and, I argue, duly augment viewer engagement. Marks's conceptualisation of the haptic is also crucial to the chapter on *Ex Machina*, where I suggest the addendum that digital cinema is *innately* haptic due to its negation of visual knowledge.

A tension arises in Marks's work by her polemically motivated desire to set haptic visuality and what she calls 'optic visuality' in contrast.[108] Optic visuality 'sees things from enough distance to perceive them as distinct forms in deep space', and so 'depends on a separation between the viewing subject and the object'.[109] For Marks, this subject-object relation necessitated by optic visuality links it to the Western representational practices that her work looks to counter. The optic image produces an illusion of

[105] Ibid, 163.
[106] Ibid, 184.
[107] Barker, *The Tactile Eye*, 35.
[108] Marks draws this term from Alois Riegl and Giles Deleuze. Marks, *The Skin of the Film*, 162.
[109] Ibid.

completeness in itself; it does not require active engagement from the viewer to come into being.[110] These images enable easy assessment and narrative identification, and therefore annul the kind of productive ambiguity attached to works that invite contemplation. By Marks's taxonomy, optic visuality, in its penchant for representation, alienates vision from the body and is thus antithetical to embodied spectatorship.[111] Though Marks's argument is theoretically convincing, it seems to me that this clear delineation of modes of looking and their attendant bodily outputs runs counter to both the experience of cinematic spectatorship, and the protean principles of existential phenomenology at large. As Marks herself reminds us, 'in embodied spectatorship the senses and the intellect are not separate'.[112] It seems more apt to suggest, as Marks does at one point, that 'the difference between haptic and optical visuality is a matter of degree'[113]—a kind of spectrum bound by the same trajectory, wherein the viewer may be more or less attentive to the form of the film at any given moment, and when resting at the spectrum's centre may see both sides. This dissertation approaches its key films with this reformulation in mind; it seldom mobilises Marks's strict understanding of the haptic image, believing instead that various kinds of images can produce a broadly haptic quality. For instance, the chapter on *Under the Skin* finds a phenomenological charge in the marked realism of the optical image. Similarly, the chapter on *Blade Runner 2049* recognises a haptic quality in the flaws of generally resolute visual effects.

Writing before Sobchack and Marks, Linda Williams developed a theory of embodied spectatorship that foregrounded the figurative image. Unlike these scholars, Williams constructs her theory through the lens of genre, and is more comfortable with focalising representational identification in this process to expressly feminist ends. Provoked by the sensuous excess of three 'body genres', Williams wonders whether 'there may be some value in thinking about the form, function, and system' of sensation in the cinema.[114] She poses that the melodrama, horror, and pornography genres produce moments of 'gross' bodily display that conjure corresponding sensations in the viewer.[115] This reciprocal process is founded in mimesis, with the

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[110] Ibid, 163.
[111] Ibid, 150.
[112] Ibid, 151.
[113] Ibid, 163. Marks softens her position so that it is more in keeping with my own in the chapter entitled "Video Haptics and Erotics" of her subsequent monograph. See Laura U. Marks, *Touch: Sensuous Theory and Multisensory Media* (Minneapolis: University of Minnesota Press, 2002).
[114] Linda Williams, "Film Bodies: Gender, Genre, and Excess," *Film Quarterly* 44, no. 4 (1991): 3.
[115] Ibid.

'success' of the genre 'measured by the degree to which the audience sensation mimics what is seen on the screen'.[116] Williams' understanding of embodied spectatorship is thus foremost identificatory, with the viewer moved by the representation of a like body on screen. What makes these three body genres particularly curious, and of particular usefulness for my purposes here, is that women embody the respective sensations of 'pleasure, fear, and pain'.[117] Thus within these body genres, the female body both conveys and marshals cinematic sensation. Williams's work is valuable to this dissertation insofar as it demonstrates that representational and embodied analyses are compatible, and moreover that their synthesises might uncover meanings that challenge the film's apparent interests (for instance, bodily display in the pornography genre ultimately establishes the female body in a position of agency).

Williams emphasises the ambivalence of women's positioning in accordance with these genres. Though each body genre 'offers what many feminist critics would agree to be spectacles of feminine victimization'[118]—and this duly marks the genres as 'low'[119]—they jointly initiate a kind of labile viewing position that derives meaning from the female body. Per the mimetic framework of Williams' study, these body genres encourage a multiplicity of viewers to identify with the feelings of the female subject on screen. Indeed, she notes that 'even when the pleasure of viewing has been constructed for masculine spectators, as is the case in most traditional heterosexual pornography, it is the female body in the grips of an out-of-control ecstasy that has offered the most sensational sight'.[120] Williams substantiates this claim further with reference to her seven-year-old son, who finds horror and melodramatic films appropriately 'gross'.[121] For Williams this proves that, contrary to what classic film theory might hold, 'identification is neither fixed nor entirely passive'.[122] As embodied viewers we respond to embodied expressions of sensations, and in these body genres to ends that are nominally feminist. Williams implicitly informs this dissertation through her recognition of the affective potential of the figurative image, as well as through the spectatorial dynamic that she establishes relative to the depicted female body. The argument of this dissertation rests on the

[116] Ibid, 4.
[117] Ibid, her emphasis.
[118] Ibid, 6.
[119] Ibid, 4.
[120] Ibid.
[121] Ibid, 3.
[122] Ibid, 8.

same belief about the labile nature of cinematic spectatorship, and presumes that all manner of viewers are susceptible to the female bodily concerns articulated by its key films.

Jennifer M. Barker builds on the work of early phenomenological film scholars, specifically that formulated by Sobchack, to develop a more yielding theory of embodied spectatorship that prioritises the sense of 'touch'. In *The Tactile Eye*, Barker adopts touch as a guiding concept to expound the bodily behaviours of the film, and to consider how these behaviours correspond to those of the viewer. Echoing Sobchack, she emphasises that though the film's body and the viewer's body are not identical, they share a 'style of being'—that lived system of perception and expression—which fosters exchange between the two.[123] Barker is specifically interested in the 'corporeal locales' of skin, musculature and viscera, which together highlight the myriad ways in which the film can be understood as embodied, and, correspondingly, the levels at which the film resonates with the viewer.[124] To this end, for Barker 'touch' does not only refer to a 'manner of being', but also the kind of contact constituted by these shared behaviours.[125] She writes, 'I consider meaning and emotion not as residing in films or viewers, but as emerging in the intimate, tactile encounter between them. That encounter is a conduit of sorts, manifested as specific gestures and styles of behaviour (film's and viewer's)'.[126] Barker's philosophy is particularly relevant to the subsequent chapter *Her*, which builds upon Barker's work on the 'skin' to encompass both the corporeality of the film's disembodied heroine and her articulation by the film's form. The systematic approach reflected in Barker's organisation of chapters, as well as the analysis therein, has also shaped the format of my own study. Barker routinely considers her central 'locales' as they concern both the film's body and the viewer's body, honouring their specificities, parallels, and the way they interact to coax meaning from her case studies. This dissertation assumes a similar tack. Like Barker, I layer my analyses, first comparing the film's diegetic content to its form and then contemplating how these components jointly resonate with the viewer.

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[123] Barker, *The Tactile Eye*, 2.
[124] Ibid, 3.
[125] Ibid, 2.
[126] Ibid, 15. Barker is here interpolating Sara Ahmed's work on emotion.

Where *The Address of the Eye* focused primarily on the film's body, in *Carnal Thoughts* Sobchack attends to the lived body (oftentimes, her own specific lived body) and contemplates contemporary moving image culture's wont to refigure, attenuate, or erase it. She again deploys existential phenomenology to grapple with the terms of embodiment, though her application of it here is decidedly more 'user friendly'.[127] In *Carnal Thoughts* Sobchack deploys 'autobiographical and/or anecdotal experience' intentionally and politically, as a means to foreground the lived body's purchase within contemporary culture.[128] She writes:

> … grounding broader social claims in autobiographical and anecdotal experience is not merely a fuzzy and subjective substitute for rigorous and objective analysis but purposefully provides the phenomenological—and embodied—premises for a more processual, expansive, and resonant materiality logic through which we, as subjects, can understand (and perhaps guide) what passes as our objective historical and cultural existence.[129]

Sobchack is mindful of the value of the lived body as 'a spoiler' to its idealist configurations within popular media.[130] The specificity of the lived body means that it 'always baffles and "exceeds" its representation'.[131] Sobchack's mode of writing substantiates this fact, and dually illuminates the ways in which the lived body is already mediated by cultural representation.[132] This dissertation is deeply indebted to Sobchack's position and attendant writerly style. I explicitly draw upon Sobchack's characterisation of the lived body as an excess in my work to remediate female disembodiment through phenomenological film theory. Moreover, Sobchack has inspired my mode of address; this dissertation endeavours to utilise anecdote where possible to highlight the corporeal basis of its analyses.

Sobchack's focus on the lived body initiates a 'materialist' system of interpretation for her case studies.[133] In *Carnal Thoughts* she ponders the multifarious ways in which lived experience might augment moving image technologies, or vice versa. Sometimes this entails a destabilisation of diegetic boundaries, as happens

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[127] Sobchack, *Carnal Thoughts*, 6.
[128] Ibid.
[129] Ibid.
[130] Catherine Gallagher and Stephen Greenblatt quoted in Sobchack, *Carnal Thoughts*, 7.
[131] Sobchack, *Carnal Thouhgts*, 7.
[132] Importantly, Sobchack emphasizes that phenomenology does not intend to essentialise experience by such an approach. Rather, beginning with individual experience serves to make visible the more communal structures that regulate this experience; 'although [phenomenological description] may begin with a *particular* experience, its aim is to describe and explicate the *general* or *possible* structures and meanings that inform the experience and make it potentially resonant and inhabitable for others'. Sobchack, *Carnal Thoughts*, 5.
[133] Ibid, 3.

in "The Charge of the Real".[134] In this work, which I refer to in my chapter on *Under the Skin*, Sobchack proposes that the viewer grasps film's materiality through their acculturated, extra-cinematic knowledge. Other times this augmentative system involves a more fricative relationship between viewer and film; where Barker sought to characterise the exchange between these forms as one founded on similarity, Sobchack extends this dynamic and considers how meaning can emerge between film/technology and viewer/user by their difference. For instance, in "Scary Women",[135] which I refer to in the chapter on *Blade Runner 2049*, Sobchack debunks 'techno-fantasies'[136] of seamless bodily transformation through 'thick' descriptions of her cumbrous experience of aging.[137] In "The Scene of the Screen",[138] which I refer to in the chapter on *Her*, meaning develops out of a more nuanced distinction between viewer and text; here Sobchack poses the caveat that when we engage with electronic media we are not *dis*embodied—as proponents of digital culture might hold—but rather *diffusely* embodied. Similar to Sobchack's previous monograph, I use her 'materialist' system throughout the chapters of this dissertation and treat the material body as a barometer to measure the veracity of the technologised scenarios envisioned onscreen.

Sobchack's strategic use of existential phenomenology does not merely serve to rebuff the objectifying impulses of Western representational systems (though it certainly works in this way). Rather, she is perhaps more profoundly concerned with upending the hope of disembodiment expressed by many of the moving images technologies she surveys. There is a sense of urgency to Sobchack's project motivated by the rapid advance of technology, and her anxiety courses through the essays like a death knell. She is pressed to remind us that even where moving image technologies inflect our embodiment, or purport to wholly annul it, we (and the technology in question) still evince traces of materiality. This dissertation takes up Sobchack's concerns through its work on film's digital body. The scholarship examined in the next section counters prevailing assumptions about digital absence by asserting its unique materiality. This takes us a step further

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[134] Ibid, 258-85.
[135] Ibid, 36-52.
[136] I borrow this term from Don Ihde, "Program One: A Phenomenology of Technics," in *Technology and the Lifeworld: From Garden to Earth* (Bloomington: Indiana University Press, 1990), 75.
[137] Sobchack, *Carnal Thoughts*, 1.
[138] Ibid, 135-64.

towards realising the dissertation's methodology; it provides a framework for a phenomenological understanding of the films at hand, and thus a means to access the digital heroines that they depict.

Digital Embodiment

The emergence of phenomenological film theory coincides with the rise of digital cinema, and its associated screen technologies.[139] With some exceptions, this earlier work seldom considered the specificities of filmic embodiment as it pertains to format.[140] As this scholarly niche has developed, however, cinema studies has seen endeavours to characterise digital ontology more specifically, and a concomitant urge to underline the ongoing import of the corporeal body in the digital age. In this section I examine key scholarship on digital cinema, specifically highlighting efforts to illustrate the material foundations of the digital, and subsequently outline works of phenomenological film theory responsive to this shift in film formats. The impression of digital embodiment suggested by this overview allows us to understand the films at the centre of this dissertation, and the technologised female bodies that they depict.

Inaccuracies within digital debates seem to circle around two camps: nostalgia for what is lost with celluloid, in particular the index, and a concomitant suspicion toward the digital; and infatuation with the digital as a completely novel form, one that will begin a new "film" history. Both tendencies rest on false assumptions about the extent of the digital's virtuality. Film scholars have responded to these anxieties by rebranding the digital turn in terms of its continuity with the cinema's past. D.N. Rodowick, for instance, asserts that the cinema has in some sense always been virtual, for 'the entire history of the medium, and of critical thought that has accompanied it, has returned incessantly to film's uncertain status'.[141] Accordingly, we might do well to recognise the cinema's identity through notions of 'historical variability and ongoing transformation'.[142]

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[139] The first digital film was marketed in 1997. See Laura Mulvey, *Death 24x a Second: Stillness and the Moving Image* (London: Reaktion Books, 2006).
[140] Considerations of digital or electronic embodiment appear in Elena del Río, "The Body as Foundation of the Screen: Allegories of Technology in Atom Egoyan's Speaking Parts," *Camera Obscura* 13, no. 2 (May 1996): 92–115; Marks, *The Skin of the Film*; Shaviro, *Cinematic Bodies*; and an essay by Sobchack entitled "The Scene of the Screen: Envisioning Photographic, Cinematic, and Electronic "Presence," later published as part of *Carnal Thoughts*.
[141] D.N. Rodowick, *The Virtual Life of Film* (Cambridge: Harvard University Press, 2007),12.
[142] Kristen Whissel, *Spectacular Digital Effects: CGI and Contemporary Cinema* (Durham: Duke University Press, 2014), 2.

Lev Manovich's *The Language of New Media* forms a source text for subsequent ruminations on digital cinema, specifically due to his focus on animation as a cohesive strand across film history. Manovich views his time of writing as a crucial moment to take stock of new media, as it is 'just coming into being'.[143] He notes that where the preponderance of writing on new media assumes a position of speculation, he looks to analyse 'new media as it has actually developed until the present moment', and argues that we might not properly understand this present moment without recourse to cinema's past.[144] Cinema has heretofore held an 'indexical identity', meaning that its specificity as a medium rests in its ability to record reality;[145] Manovich writes 'cinema is the art of the index; it is an attempt to make art out of a footprint'.[146] To embolden this definition, film scholars have historically sought to alienate animation from the cinema, despite the latter's origins in hand-painted or hand-drawn, manually animated images.[147] The emergence of digital cinema issues a reckoning of sorts relative to this invented opposition,[148] and suggests that animation rather than recording defines the cinema as a medium. For with digital cinema, all images are subsumed into data and subject to manual manipulation. Manovich argues:

> Manual construction and animation of images gave birth to cinema and slipped into the margins…only to reappear as the foundation of digital cinema. The history of the moving image thus makes a full circle. *Born from animation, cinema pushed animation to its periphery, only in the end to become one particular case of animation.*[149]

Under this revised history of the moving image, the twentieth-century habit to record reality re-emerges as an anomaly, an 'isolated accident' in the trajectory of cinema's return to animation.[150] I am dubious about Manovich's final claim, as well as his argument that the cinema's 'privileged indexical relationship to prefilmic reality' is wholly surrendered with the shift to the digital—a provocation taken up Philip Rosen and Tom Gunning, as we will see shortly.[151] Yet, Manovich's argument is productive in that it retrains our focus away from the index as the holy grail of cinematic specificity, and thereby legitimises the digital as a

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[143] Lev Manovich, *The Language of New Media* (Cambridge: MIT Press, 2000), 7.
[144] Ibid, 10.
[145] Ibid, 295.
[146] Ibid.
[147] Ibid, 296.
[148] Manovich suggests that 'rear-projection and blue-screen photography, matte paintings and glass shots, mirrors and miniatures, push development, optical effects, and other techniques that allowed filmmakers to construct and alter moving images, and thus could reveal that cinema was not really different from animation, were pushed to cinema's periphery by its practitioners, historians, and critics'. Manovich, *The Language of New Media*, 299.
[149] Ibid, 302, his emphasis.
[150] Ibid, 308.
[151] Ibid, 300.

matriculated (rather than rogue) format for the cinema to take. Moreover, Manovich's efforts to characterise digital embodiment through an emphasis on animation provides useful backing for this dissertation's work on *Ex Machina*; in the relevant chapter, I draw out the connection between animation and artifice to argue for digital cinema's innate hapticity.

Philip Rosen upends the notion of a 'digital utopia' conceived by scholars of new media by delineating the format's constitutive 'overlaps' with analogue media.[152] Rosen explains that 'the discourse of the digital utopia embraces an absolutizing idea of radical novelty, crystalized in its claim to have surpassed indexicality and reference'.[153] Proponents of the digital utopia thus look to characterise the digital as a prophetic format. Like Manovich, Rosen points out that new media theory often takes the shape of a 'forecast', which ruminates on 'things that will eventually be achieved' by the digital rather than accounting for the current state of things.[154] Rosen writes, 'within the discourse of the digital utopia, the rhetoric of the forecast unveils the extent to which definitions of the digital rely on ideals'.[155] The key ideals propagated by theorists of the digital utopia include manipulation, convergence, and interactivity.[156] Importantly, Rosen finds argumentative flaws affirming the digital's continuity with the analogue in the writing on each of these ideals.

Accordingly, Rosen seeks to unsettle the discourse of the digital utopia by characterising the digital as a hybrid format incorporating features of old and new media. Like those other scholars examined in this section, he understands that 'numbers are something like [the digital's] ground, its mediating "materiality"'.[157] This base engenders a series of corresponding 'hybridities': digital data corresponds to 'referential entities or events pre-existing the data itself', thus constituting an indexical property;[158] the digital image imitates 'preexisting composition forms of imagery', namely photographs, in a process Rosen coins 'digital mimicry';[159] and the digital routinely incorporates analogue images, translating them 'into a numerical

[152] Rosen, *Change Mummified*, 309.
[153] Ibid, xxv.
[154] Ibid, 316.
[155] Ibid, 317.
[156] Ibid.
[157] Ibid, 305.
[158] Ibid, 307.
[159] Ibid, 309.

logic for display' on electronic monitors.[160] For Rosen, these overlaps between the digital and prior forms of photographic representation indicate that any claims for a radical break between old and new media are tenuous.[161] Rather than attempting to theorise such an opposition, Rosen argues that we must incorporate these hybridities into our conceptualisation of the digital. He writes:

> Such hybridities may be obvious or implicit and covert, but they go to the heart of definitions of the digital. On the one hand they make it difficult to define the digital by means of absolute categorization; on the other hand, it may turn out that these hybridities themselves characterize the digital as much as any "pure" nonindexicality.[162]

Rosen's understanding of digital embodiment in terms of hybridity is crucial for this dissertation. This concept works well to characterise the women in the films at hand, who are at once real and irreal, human and non-human. I utilise Rosen's theory of digital hybridity specifically in the chapter on *Under the Skin* to cohere its various dialectics, including reality-artifice and female-alien, and build on this work in the subsequent chapter on *Ex Machina* in relation to animation.

By delineating overlaps between old and new media, both Manovich and Rosen recuperate the materiality of the digital and jointly outline the format's particular filmic body. The impression outlined by these scholars can be mobilised to consider the kind of spectatorial experience engendered by the format, which, as it turns out, may actually enhance the aims of celluloid-based cinema. Tom Gunning and Laura Mulvey are apposite. They demonstrate that the digital paradoxically reveals the need for a phenomenologically premised understanding of cinematic spectatorship.

Gunning finds in digital debates, specifically around the supposed loss of the index, occasion to develop new approaches for understanding viewers' investment in the image. He is wary of the tendency amongst media scholars to 'reify' old media when contemplating 'the possibilities and realities' of the new.[163] Those scholars impelled to take stock of the history of visual media at the moment that the digital emerges often '[ignore] the true complexities that photography, cinema and other visual media capturing light and motion

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[160] Ibid, 308.
[161] Ibid, 314.
[162] Ibid, 315.
[163] Tom Gunning, "What's the Point of an Index? Or, Faking Photographs," *Nordicom Review* 25, no. 1–2 (September 2004): 39.

presented, simply displacing their promises and disappointments unto a yet-to-be-achieved digital media utopia'.[164] Gunning's work indicates that this line of thinking is equally damaging to our conceptions of the digital; situating old and new media in a kind of binary falsely suggests a complete break with preceding methods of imaging. Gunning accordingly works to highlight continuities between the process of photographic and digital imaging to grasp the ongoing import of the image.

Gunning debunks a series of assumptions about the reality of the image which have abetted the division of old and new media: he shows that the latter does in fact evince indexical processes, though here 'instead of light sensitive emulsion affected by the luminous object, the image is formed through data about light that is encoded in a matrix of numbers'; he points out that the former has never been immune to manipulation, citing 'the mediation of lens, film stock, exposure rate, type of shutter, processes of developing and printing' as forces that negotiate the indexical; and he reminds us that an image's indexicality is distinct from its iconicity—the likeness of the image to its subject—which also informs the image's 'truth claim'.[165] Relative to these facts, which vex assumptions about the image's authenticity in the process of restoring photographic and digital formats their complexity, Gunning calls for a 'phenomenological investigation of our investment in the photographic image (digital or otherwise obtained)'.[166] Only by studying our visual experience of the image, he writes, can we 'truly grasp the drive behind digitalization and why photography seems unlikely to disappear and why, even without a formulated 'truth claim,' it offers us something that other forms of visual representation cannot'.[167] Gunning's efforts to demonstrate that what is lost with the photographic index is not authenticity as such, but the assumption of authenticity, is vital to this dissertation's argument. The following chapters, particular those on *Under the Skin* and *Ex Machina*, repeatedly return to Gunning's ideas about the falsity of the photograph's truth claim to rationalise the shift to the digital and articulate its haptic power.

[164] Ibid.
[165] Ibid, 40.
[166] Ibid, 44.
[167] Ibid.

By retraining our focus away from the index as the sole bearer of cinematic affect, Gunning shows how we can better understand the cinema's specificity as a medium, and simultaneously develop a history for visual media which thoughtfully incorporates both analogue and digital, as well as other marginalised formats. Here he argues, for instance, that our investment in the image derives from its 'perceptual accuracy' rather than its truth claim.[168] By this estimation, even an obviously manipulated image might be compelling due to the 'playful push-pull between its associations with accuracy… and its obvious distortion'.[169] Likewise, in a subsequent essay, the seeds of which can be found in this earlier work,[170] Gunning poses that the phases of cinema's history—animation, photography, video, digital—might be cohered by a focus on motion as its essence; 'cinematic motion crosses the boundaries between heaven and earth, between the embodied sense and flights of fancy, not simply playing the whole gamut of film style but contaminating one with the other, endowing the fantastic with the realistic impression of visual motion'.[171] Gunning's indexical understanding of motion is utilised in the chapter on *Ex Machina*, to articulate the dual sense of animation posed by female and digital bodies.

Laura Mulvey fixates on the link between the cinema's past and present to offer an optimistic account of the digital turn. For Mulvey, the digital highlights unexpected continuities between old and new media, and encourages the development of new understandings of the cinema. These outcomes are brought together within her study via the instance of the stilled image, or freeze frame.[172] The stilled image comes as an offshoot of new media technologies, which allow the viewer to pause a film at their will. The stilled image therefore consolidates the cinema's histories in a conceptual sense through a relation to time; Mulvey writes, as 'the point of convergence between the old and the new, the easily accessible freeze frame brings the presence of death back to the ageing cinema'.[173] With the stilled image, which references a single frame of celluloid, we are reminded of the cinema's fragility even as it is realised through the technology of the

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[168] Ibid, 33.
[169] Ibid, 45. Stephen Prince makes a similar claim with his concept of 'perceptual realism'. See Stephen Prince, "True Lies: Perceptual Realism, Digital Images, and Film Theory," *Film Quarterly* 49, no. 3 (1996): 27–37.
[170] In his earlier essay, Gunning suggests that the digital poses a kinship to 'the artificial realities of the panorama, diorama, and Reynaud's animations', all of which 'fashion a counter-reality through perceptual stimulation'. Gunning, "What's the Point of an Index?," 47.
[171] Tom Gunning, "Moving Away from the Index: Cinema and the Impression of Reality," *Differences* 18, no. 1 (2007): 45.
[172] Mulvey, *Death 24x a Second*, 30.
[173] Ibid, 22.

present. Beyond its link to temporality, the stilled image points to the new modes of spectatorship afforded by electronic and digital technologies. Pausing the image allows for the 'cinephiliac moment' to emerge,[174] wherein 'some detail or previously unnoticed moment' interrupts narrative flow and becomes 'at least as significant as the chain of meaning invested in cause and effect'.[175] Similar reappraisals of the film text occur when the contemporary viewer skips scenes or chapters using the remote control, accesses behind-the-scenes footage and supplementary scenes through the DVD menu, and engages in 'external discourses' relating to 'production context, anecdote, history'.[176] These practices altogether suggest that new media destabilises diegetic boundaries. In distinction from some of her contemporaries' writing on media change,[177] Mulvey welcomes these developments insofar as they inure our relationship to the cinema. She surmises, 'digital technology, rather than killing the cinema, brings it new life and new dimensions'.[178] This dissertation heeds Mulvey's outlook and implicitly treats the new possibilities afforded by film's digital body as license to incorporate peripheral materials (the actress, the discourse surrounding the film, the viewer's response) into its analyses.

The threads developed so far in this section—recuperating the materiality of the digital, and likewise recuperating the affect of the film experience in the digital era—have, unsurprisingly, begun to coalesce in contemporary phenomenological film theory. Though Lucas Hilderbrand examines analogue video,[179] and is outwardly dubious of the merits of digital media, his work offers a useful rubric to appreciate the materiality of the format at hand. Hilderbrand understands analogue video as a form governed by 'access', given its constitution by videotape.[180] Videotape's innate capacity for duplication, and the lagging copyright laws in place at the time of its dissemination, meant that home viewers could copy video content at will in a process called 'bootlegging'.[181] Hilderbrand considers how these material and cultural conditions bear

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[174] I take this phrase from Christian Keathley, who writes about such moments in a way similar to Mulvey. Keathley, "The Cinephiliac Moment and Panoramic Perception," in *Cinephilia and History, or The Wind in the Trees* (Bloomington; Indianapolis: Indiana University Press, 2006): 29-53.
[175] Mulvey, *Death 24x a Second*, 28.
[176] Ibid, 27.
[177] Lucas Hilderbrand sees DVD menus and their division of the film text into chapters as clunky. Hilderbrand, *Inherent Vice: Bootleg Histories of Videotape and Copyright* (Durham: Duke University Press, 2009), 20.
[178] Mulvey, *Death 24x a Second*, 26.
[179] Marks also examines this format in *The Skin of the Film* and *Touch*.
[180] Hilderbrand, *Inherent Vice*, 5-6.
[181] Ibid.

upon videotape to give video distinctive aesthetic and amorous qualities. He writes, 'the specificity of videotape becomes most apparent through repeated duplication, wear, and technical failure: that is, we recognise videotape as tape through its inherent properties of degeneration'.[182] In this system, which he terms 'the aesthetics of access', the video becomes a kind of 'text' indexing the constitutive tape's history of use.[183]

Altogether, Hilderbrand's study illustrates how a media artefact's materiality and viewing conditions can transcend the respective realms of latency and context to influence the image. He accordingly defines 'aesthetics' as referring to 'formal characteristics of recorded images and sounds', as well as 'a sensory and affective relationship between the audience and (what's on) a given tape'.[184] As this description infers, Hilderbrand's 'aesthetics of access' also touches videotape at the level of narrative. His case studies include amateur pornography, wherein the recorded tapes' 'subpar production values' make its contents 'seem more intimate, and [call] attention to the familiar specificities of video technology itself'[185]; and the cult film *Superstar: The Karen Carpenter Story* (Todd Haynes, 1988), videotapes of which were so widely bootlegged as to become worn out in a manner which 'formally reflects the story of Karen's wasting away'.[186]

In addition to its methodological import, the relevance of Hilderbrand's work rests in its sense of temporality. Analogue video reappears within this chapter as a reminder of the digital's place within a larger continuum of film formats, and thus its imminent displacement. There is a sense of urgency to Hilderbrand's monograph stemming from his desire to eulogise videotape before it is forgotten, and to forewarn us against film formats to follow. He writes:

> Technological development does not follow a linear evolution, nor, despite celebrations of "new" media, should we think of current technologies as the final, teleological stage of research and development. The hype of digital resolution as "perfect" and preferable to analog lingers on, despite the failure of "virtual reality" to materialize in the early 1990s and more than a decade of blocky, jerky, stalled streaming images.[187]

[182] Ibid, 6.
[183] Ibid, 15.
[184] Ibid, 11.
[185] Ibid, 67.
[186] Ibid, 176.
[187] Ibid, 20-21.

In accordance with his mantra of continuity, Hilderbrand's work highlights points of maturation and disjuncture between videotape and subsequent digital media. For instance, while the formats' terms of use, constitution, and modes of decay are distinct, videotape usefully anticipates the kinds of viewer interactivity commonplace to digital media. Hilderbrand notes that 'home video technology was designed to give the audience considerable control over the content, so that it could be replayed, slowed down, fast-forwarded, and reproduced. With videotape, content could be played back on the viewer's own terms and schedules for the first time'.[188] This unprecedented level of viewer engagement is elaborated with digital technologies, such as those imagined to misogynistic effect in *Blade Runner 2049* and *Her*.

Marks continues her work on embodied spectatorship with *Touch*, though in this text, as with Sobchack's subsequent monograph, the bearings of the newly established digital era are acute.[189] Marks elaborates her conceptual focus on the haptic relative to this contemporaneous technological landscape; her desire to foreground the image's materiality is here more pressing, and gains renewed political meaning. 'It is timely to explore how a haptic approach might rematerialize our objects of perception'. she writes, 'especially now that optical visuality is being refitted as a virtual epistemology for the digital age'.[190] Marks shares my concern that virtuality might (wrongly) become synonymous with absence in this era of information, and so she endeavours to grasp the materiality of electronic media while its forms and effects are still germinating. She sees her time of writing as something of a watershed moment, wherein "'new" media are still new enough that theory emerges from specific encounters with the work, in the way early film criticism generated theory'.[191] Marks examines experimental works across video and digital formats to assert their nuanced materiality, and dually underline the viewer's 'shared physical existence' with the electronic image.[192]

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[188] Ibid, 8.
[189] *Touch* shares with Sobchack's later work a turn to more accessible modes of writing, concomitantly signalling a shift in the character of phenomenological film theory. Marks calls her prose here 'more warm and reader-friendly and a bit less serious'. Marks, *Touch*, xvii.
[190] Ibid, xiii.
[191] Ibid, xiv.
[192] Ibid, xii.

Like the other scholars of the digital surveyed in this section, Marks foregrounds flexibility as the format's discerning trait. Marks is aware of the paradox that this inscription suggests—mutability is hardly a satisfying marker of character—and uses it as a baseline to illustrate the format's materiality. On this point, this dissertation is inspired by Marks's particular appreciation of digital presence as constituted not by pure absence so much as ambivalence. For Marks, the digital's flexibility is rooted in its status as a self-contained format. Where celluloid and analogue video rely on signal to relay their content, the digital works with data that actually indexes the phenomenal world by way of recording and human intervention. Marks sees electrons as constitutive of electronic media's 'material basis',[193] and suggests that the impulse of the filmmaker to tamper with this data as likewise intrinsic to its embodiment. She writes, 'when we see and hear a digital work, we are witnesses to the artist's *decision* to render this information in a form more or less like that from which it derived'.[194] The digital, in its manipulability, both invites and signals tactile intervention. The format's constitution in information means that it is especially fragile—even more so than film stock—and can become damaged or obsolete as a result of improper storage or outmoded operating systems. The mortality of the digital denotes another facet of its materiality, and many of the experimental filmmakers that Marks surveys invent electronic glitches (for instance, electronic dropout and decay, 'TV snow', pixelation) in an effort to highlight this fact.[195] Marks's efforts to understand digital embodiment through failure are foregrounded in my work on *Blade Runner 2049*. The relevant chapter in this dissertation interrogates visual markers of digital failure to materialise the film's holographic or cloned women, and the actresses who portray them.

Marks searches for digital materiality not only by surveying the workings of the format, but also by its relation of similarity and exchange with the viewer. She suggests that digital works harness something of the state of human embodiment in the present technological moment.[196] Marks explores this notion in both its utopian and realistic senses. She notes, for instance, how the digital's basis in data creates a comparatively lucid experience for the viewer: unlike the format, they do not experience 'all its objects symbolically (as 1s

[193] Ibid, 161. Marks explores this notion in detail in the chapter "How Electrons Remember."
[194] Ibid, 149.
[195] Ibid, 153.
[196] Ibid, 147.

and 0s)'; likewise, the digital's immense memory system allows it to perceive the phenomenal world in greater detail than 'we human perceivers grasp'.[197] These points are particularly pertinent to this dissertation's work on *Under the Skin*, which posits that the bespoke digital One-Cam captures reality in a manner akin to the embodied eye. Both points indicate the positive prospects of the digital for both humans and the cinema (and the relation between the two), but Marks also considers the flipside. The digital's latent fragility, for instance, corresponds to our own mortality; 'digital video's virtual body becomes physical as soon as one pays attention to the hardware-software platform on which it was built. At this level, the faulty interface corresponds to human efforts to make do with imperfect resources'.[198] By examining digital materiality, Marks shows, we can discern unexpected similarities with the corporeal body. This contention constitutes the very argument and purpose of this dissertation. Building upon Marks's claim, this dissertation asserts a unique kinship between female and digital bodies so that we might read one through the other within the film.

Conclusion: Moving Outward, and Inward

This chapter has provided the theoretical foundations for the dissertation's endeavour to recuperate female materiality through the film text. Principally concerned with adumbrating the useful findings of phenomenological film theory, it has considered preceding spectatorial models. The chapter briefly outlined the distant and disembodied model of spectatorship proposed by psychoanalytic apparatus theory in order to articulate phenomenological film theory's import. Through a discussion of Mulvey's important work on the male gaze, it also underlined the misogyny of the predominant spectatorial paradigm. The chapter drew attention to an analytical imbalance within feminist film theory propagated by Mulvey's rubric, and used this interstice to embolden the dissertation's case for a feminist, phenomenological approach to the cinema. Young's interpolation of Merleau-Ponty's existential philosophy further demonstrates the aptness of the phenomenological method for feminist film scholars. Her account of female embodiment as characterised by ambivalence is intrinsic to this dissertation's feminist philosophy, but the dissertation broadly turns to phenomenological film theory to action its aims. The chapter has consequently provided a comprehensive

[197] Ibid, 149.
[198] Ibid, 159.

examination of relevant works of phenomenological film theory, with a view to demonstrate how meaning emerges through the interaction of depicted, cinematic, and spectatorial bodies. In order to refine the dissertation's methodology further, the chapter finally examined key accounts of film's digital embodiment.

Drawing its three sub-sections together, this chapter has altogether laid the bases for the dissertation's central position that film's digital body can be harnessed for feminist aims. The next chapter begins this work. It examines a series of dialectical bonds that pervade Jonathan Glazer's *Under the Skin*. Foregrounding the value of the film's bespoke digital One-cam, the chapter investigates *Under the Skin*'s central dialectic between artifice and reality in terms of its effect on femininity. It considers how the sense of realism proffered by the film impacts the viewer's impression of its heroine, and specifically the actress who portrays her. Sensing the danger of Scarlett Johansson's circumstance, the chapter suggests that we become attuned to her lived body.

Chapter Two
Hybrid Forms in *Under the Skin* (2013)

'I always thought [Glasgow] would be a good place
to shoot a science fiction film'. (Lynne Ramsay)[1]

Director Jonathan Glazer sought to set his 2013 science fiction film, *Under the Skin*, 'in a permanent state of fluidity. It was in flux constantly, alive and where one thing would inform the other'.[2] Glazer—who had, to this point, established himself as a pernickety director[3]—cites the relationships between the film's sound design and the visual effects, and the score and the edits, as exemplary of this fluid practice.[4] However, the film's most prophetic system of exchange is likely that shared between its central conceit and production method; to convey an alien seductress's earthly dealings, the film covertly plants its famous lead, Scarlett Johansson, in quotidian Glasgow and asks her to enact the character's processes. The film grafts its fiction onto the real world, and vice versa.

This chapter considers the implications of Glazer's dialectical approach for the film's chosen format, and its associated 'phenomenological charge'.[5] The director's wont to allow his film's diverse elements—chiefly that pairing of narrative and methodology[6]—to inflect one another gives the completed work a sense of 'ethical and existential investment',[7] of *aliveness*, as he hoped. But this effect rests on another dialectical bond, one definitive of the film's mediating format. Glazer turns the 'hybridity' of the digital, the innate tension between analogue and electronic signifiers that it harbours, to facilitating his fluid approach.[8] The

[1] Lynne Ramsay quoted in Andy Bailey, "Gutter Jewel, Lynne Ramsay Finds Beauty in *Ratcatcher*," IndieWire, October 13, 2000, https://www.indiewire.com/2000/10/interview-gutter-jewel-lynne-ramsay-finds-beauty-in-ratcatcher-81345/.
[2] Jonathan Glazer quoted in Scott Tobias, "Director Jonathan Glazer on *Under The Skin*'s Complex Honesty," The Dissolve, April 4, 2014, https://thedissolve.com/features/interview/496-director-jonathan-glazer-on-under-the-skins-comple/.
[3] See Danny Leigh, "*Under the Skin*: Why Did This Chilling Masterpiece Take a Decade?," The Guardian, March 6, 2014, https://www.theguardian.com/film/2014/mar/06/under-the-skin-director-jonathan-glazer-scarlett-johansson.
[4] Glazer quoted in Tobias, "Director Jonathan Glazer."
[5] Vivian Sobchack, *Carnal Thoughts: Embodiment and Moving Image Culture* (Berkley: University of California Press, 2004), 270.
[6] Glazer uses this term to describe his filming approach, as I quote later in this chapter. I will likewise use 'methodology' throughout this chapter to refer to *Under the Skin*'s production method. See Glazer quoted in Tobias, "Director Jonathan Glazer."
[7] Ibid.
[8] Philip Rosen, *Change Mummified: Cinema, Historicity, Theory* (Minneapolis: University of Minnesota Press, 2001), 303.

director required a camera small enough to conceal within the film's real locations and procure an endless stream of footage, but which would produce images comparable to those yielded by the photographic index, a waning touchstone of cinematic realism. *Under the Skin*'s bespoke digital One-cam manages these conflicting wants, fixing the film's real and artificial elements in seamless confrontation. In so doing, the digital format consolidates another formal dialectic crucial to the film's affect: that between female and alien. *Under the Skin*'s unnamed heroine initiates this dissertation's project to materialise the female body through her hybridity.

This chapter begins by elaborating Glazer's dialectical approach through the work of two film theorists, writing some fifty-years apart, on the cinema's distinct ability to harness reality for its own ends. I examine avant-garde filmmaker and theorist, Maya Deren's, notion of the 'controlled accident', an endeavour to let the film's artificial elements play out against spontaneous reality so that the latter can bestow its vital energies upon the former.[9] Given Deren's reverence for celluloid, and the state of the case study at hand, I then turn to Vivian Sobchack's discursive theory of the cinema's artifice-reality dialectic.[10] Where Deren examines this bond from the vantage of production, Sobchack poses that the film viewer can sense the 'charge of the real' within the image by virtue of their 'embodied and acculturated knowledge'.[11] Training our focus in this way, from the physical (the photographic index) to the sensible (a felt charge), benefits the phenomenological treatment of *Under the Skin* proposed here, a treatment seemingly incongruous to the film's format. As demonstrated in the work of Tom Gunning and Philip Rosen, the digital actually portends indexical qualities and incorporates the analogue in ways that render distinctions between the formats opaque. Glazer's chosen technology testifies to Rosen's catchcry that the digital is in fact defined by these formative 'overlaps'.[12]

[9] Maya Deren, *Essential Deren: Collected Writings on Film*, ed. Bruce Rice McPherson (Kingston: Documentext, 2005), 117.
[10] Sobchack, *Carnal Thoughts*.
[11] Ibid.
[12] Rosen, *Change Mummified*, 314.

The chapter brings these threads together—dialectics between artifice and reality, and analogue and digital—by examining their impact upon *Under the Skin*'s heroine, specifically the actress who portrays her.[13] I draw on Adam Lowenstein's work on 'feminine horror', where two, distinct 'realities' are held in tension to wrest the female body from singular representation,[14] in order to consider how Glazer's methodology envisions the female body anew. *Under the Skin* inverts the cinematic tradition for men to survey women in public space by documenting Johansson's pursuit of civilian men.[15] The exchange between alien conceit and harsh reality sanctioned by digital technology serves to reify markers of femininity and reinscribe Johansson's lived body.

Artifice-Reality

Under the Skin derives its pretence from a novel also interested in the utility of inter-species embodiment, though to different ends and effect. Michel Faber's originary *Under the Skin* (2000) reframes the central alien abduction narrative as a factory-farming parable.[16] The heroine, here named Isserley, is sent to the Scottish high country region of Inverness to capture male bodies for harvest (human flesh is considered a delicacy on her home planet). Her species is physically similar to an animal; they are quadrupeds and have fur, a tail and six fingers. Isserley is transmogrified to pass as a human woman and drives the roads near her home base, Ablach Farm, looking for male hitchhikers fit for harvest. Lengthy passages telling of gendered behaviour detail her thoughts about the men she encounters, and likewise their assessment of her. Once Isserley determines the respective man's suitability, she stings him with a tranquilising drug called 'icpathua' and returns him to the farm. The men are then stripped of distinctive signs of their humanness. They are 'shaved, castrated, fattened, intestinally modified, chemically purified' and their tongues removed to obscure

[13] Mimicking the trajectory of its heroine, who comes to live her human body in earnest, the latter half of *Under the Skin* closes itself off to the influence of the real world and deploys the conventions of fictive filmmaking. As such, I have limited my analysis of *Under the Skin* in this chapter to the film's first half, where its deployment of the One-Cam is evident.

[14] Adam Lowenstein, "Feminine Horror: The Embodied Surrealism of *In My Skin*," in *The Dread of Difference: Gender and the Horror Film*, ed. Barry Keith Grant (Austin: University of Texas Press, 2015), 475.

[15] Constance Balides examines the practice within early cinema to document women in public space, thereby transforming the site of women's everyday activities into a 'place' for spectatorship. Within this paradigm, the realism of the setting serves to normalise women's objectification. See Constance Balides, "Scenarios of Exposure in the Practice of Everyday Life: Women in the Cinema of Attractions," *Screen* 34, no. 1 (1993): 19–37.

[16] On the novel's political purpose, see Sarah Dillon, "'It's a Question of Words, Therefore': Becoming-Animal in Michel Faber's *Under the Skin*," *Science Fiction Studies* 38, no. 1 (2011): 134–54; Sherryl Vint, "Skin Deep: Alienation in *Under the Skin*," *Extrapolation* 56, no. 1 (2015): 1–14.

their possession of language.[17] The cultivation procedure renders the human body monstrous and uncanny, Isserley at one point describing a rogue victim as a 'hairless pink animal'.[18]

Faber aptly uses a nomenclatural device to complicate this seemingly humanist set up and unearth the estranged flipside to humanity's hierarchisation of their species through language: Isserley refers to herself as 'human' and the men she preys upon as 'vodsels'. Her reification of vodsel beings works implicitly to give the non-human animal voice. The apathy that she displays towards the men she captures, rooted in a lack of understanding and the humanist (in her terminology) systems embedded within her culture, is aimed to confront the reader's bodily situation and lead them to reflect on the non-human animal perspective. By virtue of the text's parallelisation of the human with the animal, we are positioned to recognise the latter's consciousness.

Glazer retains the novel's central alien abduction narrative, but not much more, and in so doing actually supersedes Faber's work to link diverse species by way of embodiment.[19] Glazer explains of his adaptation, 'the political component of the book… to do with eating meat… wasn't the part that resonated with me at all. The part that resonated with me was this idea of seeing things with her, experiencing things with her, having her see things for the first time'.[20] Glazer's interests echo those of this chapter. He was initially drawn to the reality of the novel's alien conceit. The director mines the novel's focal, though conceptually secondary, link between female and alien experience to examine human sensibilities, particularly as they relate to gender. To refine his take, Glazer simplified Faber's narrative—his finished film is marked only by the novel's 'residue'—eliding excess exposition and dialogue, and stripping the heroine of backstory, interiority, and even a name.[21]

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[17] Michel Faber, *Under the Skin* (Edinburgh: Canongate Books, 2014), 97.
[18] Ibid.
[19] Faber's novel is ultimately still governed by humanist pathos. For instance, once Isserley becomes demoralised by her job she prematurely stings her last victim with icpathua. Faber portrays this man to be the kindest of all of the hitchers that Isserley picks up and so reinscribes humanist boundaries by demonising Isserley and soliciting empathy from the reader for their own species. Likewise, Faber's novel features a romantic subplot between Isserley and a man of her own species, the author thereby attempting to compel the reader using the parameters of humanist sexual norms.
[20] Glazer quoted in Tobias, "Director Jonathan Glazer."
[21] Glazer quoted in "*Under the Skin* Production Notes" (Film Nation Entertainment, 2013), https://static1.squarespace.com/static/4ff6691be4b0caef779fb186/t/5335cbb4e4b0d906f5019aea/1396034484635/UNDER+THE+SKIN+Production+Notes+FINAL.pdf.

Glazer's adaptation distinguishes itself from its source text in its tendering of the story's real and fantastical elements, as evidenced from the film's earliest frames. *Under the Skin* begins so quietly that one might not even realise it is beginning. The film opens to silence, and blackness, an anti-cinematic shade to which it will repeatedly return as an expression of the alien, the imperceptible. Producer James Wilson explains that here black matter '*is* the alien, something utterly inscrutable and outside anything we know, in terms of our understanding of our individuated idea of identity'.[22] From the black screen emerges an incandescent blue speck, which illuminates and protracts to form the silhouette of an eye. An adjacent view depicts its outer, thick ring merging with an inner black sphere in the style of a solar eclipse. Mica Levi's provocative score (she likens this particular excerpt to an aural 'beehive') screeches with increasing volume and intensity until the eye congeals and quivers from dilation; it is *alive*.[23] This prologue, which documents, in abstract terms, the construction of a human eye to be purposed by the heroine, signals Glazer's larger project to set the film's binary forms in a system of transference. Where Faber, by logic of 'secretion', denied the fact of the heroine's alienness until well into his novel,[24] Glazer confirms her nature, if obliquely, up front. The dialectic between the real (the eye) and the artificial (its geometric construction) resonates at the film's outset, and informs all that occurs thereafter.

Glazer's desire to create fluidity amongst his film's diverse elements, principally its alien conceit and realist style, recalls the authorial practice of Maya Deren. Deren is a recurring figure within this chapter. Her avant-garde film work surely paved the way, if only tangentially, for *Under the Skin*'s aesthetic. Deren's imagery and poetic treatment of time and space was formative for Lynne Ramsay, the Scottish director who provides the epigraph for the chapter of this dissertation.[25] Ramsay often cites *Meshes of the Afternoon* (Maya Deren, 1943) as key in the development of her practice as a filmmaker.[26] Deren also appears as a seminal figure in

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[22] James Wilson quoted in "*Under the Skin* Production Notes." For a reading of the film's fixation on blackness in relation to race, see Lucas Hilderbrand, "On the Matter of Blackness in *Under the Skin*," *Jump Cut* 57 (Fall 2016), https://www.ejumpcut.org/archive/jc57.2016/-HilderbrandUnderSkin/index.html.
[23] Mica Levi quoted in Lucy Jones, "Q&A: Under The Skin Of Mica Levi's Masterful Film Score," NME, March 17, 2014, http://www.nme.com/blogs/nme-blogs/qa-under-the-skin-of-mica-levis-masterful-film-score-20635.
[24] Dillon, "It's a Question of Words," 140.
[25] Annette Kuhn, *Ratcatcher* (Basingstoke; New York: British Film Institute, 2008), 13-14, 82.
[26] See Natalie Hanman, "Portrait of an Artist: Lynne Ramsay, Film-Maker," The Guardian, December 19, 2006, https://www.theguardian.com/culture/2006/dec/19/art; Hillary Weston, "A Life at the Pictures: A Conversation

Lowenstein's essay on feminine horror. 'In the light cast by [this movement] on previous film history', he writes, 'a number of female figures who once seemed more anomalous suddenly appear as precursors or pioneers of feminine horror'—chief among them, Deren.[27] In each case, it is Deren's penchant for linking opposing forces—abstract and concrete, horizontal and vertical, dream and reality—by specifically cinematic means that secures her influence.

Deren's liking for dialectical relationships, what she playfully calls 'unstable equilibriums',[28] governs both her film work and her work on film. In her study of the state of incompletion that pervades Deren's legacy, Sarah Keller writes:

> Rather than resolving the tensions between opposites to discover truth, or synthesizing or creating a collision between them to generate a third term (thus rejecting the strictly dialectical forms that precede her efforts), Deren fixates on the space between them and strives to maintain a "tension plateau" that will extend the life and rub of the binary pairs for as long as possible, without resolution, without closure.[29]

As Keller delineates, Deren is interested in the gap immanent to dialectical bonds. The filmmaker conjoins binary elements and finds meaning in their interaction, what one element will uniquely illuminate in its opposite. We can conceptualise Glazer's methodology for *Under the Skin* by this same framework. Like Deren, who balanced a number of 'tension plateaus' across her oeuvre,[30] Glazer locates meaning in the 'rub' of his film's numerous binaries, such as those between present and future, internal and external, practical effects and digital effects, light and black, material and virtual, and touch and vision.

A key dialectic for Deren, one that she expounds in detail in her written work, is that between artifice and reality. The question of cinematic specificity is, in these writings, pressing for Deren, who claims that 'if cinema is to take its place beside the others as a full-fledged art form, it must cease merely to record realities that owe nothing of their actual existence to the film instrument'.[31] She thusly calls for an approach to

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with Lynne Ramsay," The Criterion Collection, April 16, 2018, https://www.criterion.com/current/posts/5551-a-life-at-the-pictures-a-conversation-with-lynne-ramsay.

[27] Lowenstein, "Feminine Horror," 483.

[28] Deren, *Essential Deren*, 31.

[29] Sarah Keller, *Maya Deren: Incomplete Control* (New York: Columbia University Press, 2015), 3. For Deren's coinage of the term 'tension plateau', see Maya Deren, "From the Notebook of Maya Deren, 1947," *October* 14 (Autumn 1980): 27.

[30] Keller writes that Deren's films 'bind widows and brides, movement and stasis, and interior and exterior as variations on a whole, self-same state of being'. Keller, *Maya Deren: Incomplete Control*, 3.

[31] Deren, *Essential Deren*, 72.

filmmaking that binds artifice and reality, so as to bring a new, 'created reality' into cinematic existence.[32] For Deren, photography's unique ability to exploit reality for its own purposes renders it 'an art of the "controlled accident"'.[33] 'By "controlled accident"', she writes, 'I mean the maintenance of a delicate balance between what is there spontaneously and naturally as evidence of the independent life of actuality and the persons and activities which are deliberately introduced into the scene'.[34] The film's fiction 'borrows' from reality, and therein conjures its own reality.[35] For Deren, only photography 'can yield an image where the reality of a tree confers truth upon the events we cause to transpire beneath it'.[36] This feature of Deren's film theory has provided a point of influence within film history, specifically for avant-garde cinema. For instance, the dialectic between artifice and reality that Deren finds essential to the cinema informed the filmmaking practice of Stan Brakhage.[37] This dialectic appears more abstractly in the work of female experimental filmmakers such as Barbara Hammer, Carolee Schneemann and Su Friedrich, who credit Deren for their want to incorporate autobiographical elements into their films.[38]

Unsurprisingly, the index is crucial for Deren and her understanding of the cinema's distinct ability to harness reality. Deren sought to foreground her films' material underpinnings in the works themselves,[39] and in her writing refers to the filmic medium by way of photography, wherein 'an object creates its own image by the action of its light on light-sensitive material'.[40] Deren's appreciation for celluloid, and its indexical properties, is clear in her description of the photographic process abetting the controlled accident

[32] Ibid, 22.
[33] Ibid, 118.
[34] Ibid.
[35] Ibid, 119.
[36] Ibid, 119.
[37] John Pruitt, "Stan Brakhage and the Long Reach of Maya Deren's Poetics of Film," *Chicago Review* 47–48, no. 1 (February 2001): 123.
[38] See Sally Berger, "Maya Deren's Legacy," in *Modern Women: Women Artists at the Museum of Modern Art*, ed. Cornelia Butler and Alexandra Schwartz (New York: The Museum of Modern Art, 2010), 300–315; Theresa L. Geller, "The Personal Cinema of Maya Deren: *Meshes of the Afternoon* and Its Critical Reception in the History of the Avant-Garde," *Biography* 29, no. 1 (2006): 140–58. See also the conclusion chapter of Keller's *Maya Deren: Incomplete Control*, which offers a close analysis of Hammer's short film *Maya Deren's Sink* (2011) and considers the role of 'lived environments' in the work of Deren and, consequently, Hammer.
[39] On Deren's appreciation for film's materiality, see Keller, *Maya Deren: Incomplete Control*; Annette Michelson, "Poetics and Savage Thought: About Anagram," in *Maya Deren and the American Avant-Garde*, ed. Bill Nichols (Berkeley: University of California Press, 2001), 21–46; P. Adams Sitney, "Ritual and Nature," in *Visionary Film: The American Avant-Garde, 1943-2000* (New York: Oxford University Press, 2002), 17–42.
[40] Deren, *Essential Deren*, 114.

as one of '*absolute fidelity*'—an immovable translation of its subject.[41] Here cinematic specificity is coincident with the power of its form to verify the presence of that which is represented.

The veritable weight of the index for Deren begets the already-well-worn question of authenticity for digital works like *Under the Skin*, and indeed the other films explored in this dissertation. The immateriality of the digital, and its attendant proclivity for manipulation, has been understood to signal the end of the index. And yet, Tom Gunning notes that the values bracing such an assumption are dubious. For a start, the photographic image's authority to corroborate the presence of the subject documented is attributable not only to its indexicality, but also its iconicity, 'our recognition of it as looking like its subject'.[42] To this end, though digital codes are not legible in the manner of a strip of celluloid, these codes still portend a limited sense of indexicality. With electronic media 'it is possible to trace a physical path from the object represented, to the light that reflects off it, to the photographic emulsion or cathode ray tube that the light hits, to the resulting image'.[43] Likewise, photographic images have never been immune to attenuation. As Gunning points out:

> The processes of superimposing multiple negatives, gum printing, or solarisation—not to mention aesthetic selection of lighting, exposure, and composition—have always delivered photography from a simple adherence to accuracy and truth claims when it desired to explore its visual possibilities in an art form.[44]

In sum, the digital merely signals the demise of the *presumption* of truth proffered by the filmic image; the sense of its authenticity is located elsewhere.[45] *Under the Skin*, a digital film which portends an observable sense of realism, testifies to this revelation.

Vivian Sobchack's phenomenological theory of cinematic realism is helpful with sourcing *Under the Skin*'s authenticity. Where Deren prioritises the staging of the controlled accident and the mechanical processes

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[41] Ibid, my emphasis.
[42] Tom Gunning, "What's the Point of an Index? Or, Faking Photographs," *Nordicom Review* 25, no. 1–2 (September 2004): 41.
[43] Laura U. Marks, *Touch: Sensuous Theory and Multisensory Media* (Minneapolis: University of Minnesota Press, 2002), 162. Though Marks notes that though this path is not retraceable, and therefore the potential for alteration enacted by this process means that 'any electronic image, video and photography can no longer serve as indexical evidence, for example in the courtroom'. Rosen notes that numbers are the digital's 'ground, its mediating "materiality"' in *Change Mummified*, 305.
[44] Gunning, "What's the Point of an Index?," 44.
[45] For more on the sentiment attributed to the photographic index, see Chapter Three of this dissertation.

supporting its documentation, Sobchack understands reality's mark to emerge in the discursive relationship between film and viewer. Her theory stems not from an interest in film formats,[46] but an uneasiness with genre as a regulative system. She queries the efficacy of the labels "fiction" and "documentary" where films are constituted by the same cinematic *stuff*—'how', Sobchack writes, 'can those of us in the audience tell the difference between them?'[47] She instead poses that the extent of a given film's 'irreality' is experientially determined; moments of documentary realism can be felt within a supposedly fictional film by consequence of the viewer's embodied and acculturated knowledge.[48] She nominates this kind of recognition, which is given to the filmic image by the viewer, or already latent therein, as the charge of the real.

At the crux of Sobchack's theory is the assumption that spectatorial engagement—undergirded, as it is, by our position as (uniquely) embodied beings—is not fixed or encoded but 'contingent' and 'labile'.[49] As Sobchack writes, 'whatever the textual incentives offered by the film, [spectatorial] engagement and determination depend always on the viewer's existential knowledge of and social investments in the context of a lifeworld that exceeds and frames the text'.[50] The apprehension of a film as real may therefore differ from one viewer to another, and within any one spectatorial experience that apprehension can shift, perhaps repeatedly, for the film's duration.

The charge of the real can be relatively benign in motivation and nature: a viewer sees the location of a past holiday appear in a fiction film and reactively offers up their lived experience of the space to the image; or the viewer's knowledge of an on-screen couple's off-screen breakup renders their scripted lines inordinately cogent.[51] However banal, in each instance the routine of cinematic spectatorship is augmented through the invocation of lived knowledge. Relative to this fact, the charge of the real can take a more unnerving slant where the image challenges or exceeds the viewer's purview. Sobchack writes:

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[46] Sobchack, whose examples span analogue and digital formats, largely relegates her discussion of the index to footnote. However, she does illustrate her intensely affective response to Renoir's rabbit with recourse to the photographic lexicon, this death signalling a profound shift from 'symbolic into indexical representation', thus tacitly affirming the significance of the latter. Sobchack, *Carnal Thoughts*, 269.
[47] Ibid, 260.
[48] Ibid, 258.
[49] ibid, 268.
[50] Ibid.
[51] Ibid.

> … it is relatively rare when distinctions between fiction and documentary are purposefully and "really" confused in the film object itself and the two representational forms so complexly interwoven that they confound the spectator's capacity to discriminate precisely between them, resulting in a rich, if unsettling, epistemological ambiguity.[52]

In such an instance the viewer is not only contributing their lived knowledge to destabilise and enrich the filmic image, but the image becomes complicit in that destabilisation by its means of perception and expression. Perhaps the film's methods of production become untenable, or it inexplicably displaces representational codes. In such instances, the most profound of which is exemplified by the snuff film, we lose or loosen certainty over what the image "really" is and so are placed in a tenuous, sensually and ethically charged position in relation to it.[53] We have already opened ourselves up to the filmic image, and now must reconcile whether what we perceive holds import beyond the limits of the frame.

Sobchack's example *par excellence*—and one unexpectedly pertinent here, given Glazer's source material—is the sacrificial rabbit of Jean Renoir's *Rules of the Game* (1939). In the infamous scene, Renoir's characters shoot a number of rabbits (of which the film's fiction dictates they are trying to get rid) while on a pheasant hunt. The lenient filming regulations in place at the time of production meant that these deaths were executed in reel time—the morbid apotheosis of the controlled accident. In a sequence of short shots, we see a series of rabbits sprint through the air and suddenly seize, the final one fighting to mime its gallop even once thwarted on its backside. For Sobchack, this last rabbit's protracted death 'ruptures the autonomous and homogenous space of the fiction through which it briefly scampered'.[54] Sobchack's admission indicates that her embodied sense of the rabbit's veritable execution is so strong as to momentarily transform the film's modal register. The animal's phenomenal energy seemingly charges the images portraying its death—images for which it was sacrificed in the first place—and so challenges the remit of the film's fiction. For Sobchack, the charge of the real makes this death 'a good deal *more* shocking and disturbing than the death of the human character [performed later in the film]'.[55]

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[52] Ibid, 265.
[53] Ibid.
[54] Ibid, 269.
[55] Ibid.

Reading Deren and Sobchack alongside one another reveals how we might recuperate the cinema's artifice-reality dialectic for the digital context at hand. Deren's work on cinematic specificity and the controlled accident, specifically the cinema's distinct capacity to bring new realities into existence, demonstrates how reality can be leveraged for even the most artificial of constructs. Deren urges us to utilise the camera's indexical properties to turn our wildest musings into newly minted realities, ones that uncover meanings (just) beyond our reality's grasp. Sobchack shows how this interaction between fiction and reality is discernable even where the photographic index might be absent. She understands the real, particularly where it is altered through exchange with the artificial (as happens with Renoir's rabbit), as a force sensible to the viewer by virtue of their facticity. As embodied inhabitants of contemporaneous reality, we are attuned to the mark of actuality within the filmic image. Thus, though it might well be the case that a non-indexical, hypermediated image holds no power for the viewer, it is also possible that a digital image, which, for instance, captures reality's half-light with unprecedented latitude, or documents the controlled accident with new precision, could actually improve the cinema's unique affect.[56] This is the case with *Under the Skin*. As the next section shows, the film's bespoke digital One-cam captures its unchoreographed scenes with unprecedented realism. Ultimately, this tack gives the film a phenomenological charge which also informs the viewer's perception of its heroine.

Analogue-Digital

Scholarly proponents of the digital have sought to highlight the format's unexpected continuities with the analogue as a means of legitimisation. For example, the digital has, paradoxically, signalled something of a return to realism. Lev Manovich poses that the proliferation of 'inexpensive DV [(digital video)] equipment'—and, I would add, the attendant inexpensive memory system, excess of storage space, and lucid method of recording—has prompted a move towards 'authenticity' and 'immediacy' within contemporary cinema.[57] Nicholas Rombes evokes Deren's call for the cinema to exploit spontaneous reality when he remarks that 'digital cinema has rendered reality itself a special effect. For in the stripping away of

[56] For more on the digital's capacity to mimic photorealism, see Prince's work on 'perceptual realism': Stephen Prince, "True Lies: Perceptual Realism, Digital Images, and Film Theory," *Film Quarterly* 49, no. 3 (1996): 27–37.
[57] Lev Manovich, "From DV Realism to a Universal Recording Machine," in *The Cybercultures Reader*, ed. David Bell and Barbara M. Kennedy, 2nd edition (London: Routledge, 2007), 175.

elaborate post-production techniques, [DV cinema] movements have refocused attention on the anarchy of reality'.[58] For Manovich and Rombes, the digital reactivates an approach to filmmaking that Deren saw as key to the development of cinema as an art form; the expediency of digital technology reminds us of reality's readiness to augment our fiction.

Relative to this fact, the digital is defined by a state of hybridity apt to this chapter's central artifice-reality dialectic. Rosen, abetting Gunning's work to unseat the authority of the index within film theory, contends that the digital exhibits imbricative markers or 'overlaps' with the analogue that complicate 'claims for a ruptural historical break in representation'.[59] Rosen points to the utility of digital imaging technologies for surveillance, thus presupposing the 'referential' or *indexical* origins of its data;[60] he notes the digital's capacity to 'imitate… pre-existing compositional forms of imagery'—namely those used by analogue imaging—in a move he calls 'digital mimicry';[61] and finally he cites the digital's ability to incorporate indexical images for display.[62] Each of these overlaps problematise the assumption of a radical break between analogue and digital formats, and altogether suggest that the digital may in fact be defined by this kind of exchange between the two.[63] Writes Rosen:

> Such hybridities [between analogue and digital] may be obvious or implicit and covert, but they go to the heart of definitions of the digital. On the one hand they make it difficult to define the digital by means of absolute categorisation; on the other hand, it may turn out that *these hybridities themselves* characterise the digital as much as any "pure" nonindexicality.[64]

While the hybrid, unlike the dialectical, suggests a kind of resolution in its marrying of two heterogenous elements, I contend that the two terms are symbiotic inasmuch as they are mutually defined by the conflict of opposing forces. By this rationale, the digital is by nature dialectical, pairing together distinct cinematic values and processes in a working tension that undermines notions of singularity.

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[58] Nicholas Rombes, "Avant-Garde Realism," *CTheory* (2015): 3, https://journals.uvic.ca/index.php/ctheory/article/view/14689.
[59] Rosen, *Change Mummified*, 303.
[60] Ibid, 307.
[61] Ibid, 309.
[62] Ibid, 308.
[63] Chapter Three of this dissertation extends Rosen's work on digital hybridity to suggest that the digital is fundamentally haptic in its ambiguity.
[64] Rosen, *Change Mummified*, 315, my emphasis.

These attributes—the return to reality that digital technology invokes, the format's innate hybridity—take shape in *Under the Skin* through Glazer's dialectical approach. He conjures Deren and her penchant for 'unstable equilibriums' when he explains that for his film, 'the methodology and the narrative were the same, and they were equivalent'.[65] To convey the story of an alien abduction in present-day Scotland, Glazer plants Johansson in Glasgow and has her intimate the character's processes before hidden cameras.[66] This approach bespeaks the director's appreciation for what spontaneous reality can bring to fiction, mobilising that elusive rub for which Deren strives. For Glazer, the ineffable charge that comes from setting up real situations cannot itself be fabricated; the director even prioritised practical effects for *Under the Skin*'s more abstract sequences, like the ones inside the heroine's viscous abduction pool, to ensure that each and every image of his film captures the weight of contingency.[67] Glazer explains, 'you can do [these kinds of scenes] more cheaply and more easily with computer graphics, but it won't have a soul. It's just zeroes and ones. By actually filming it, you understand it as being real… You *feel* it'.[68]

In adapting the venerable pairing of artifice and reality, Glazer sought a camera that was 'small enough to hide' within the film's settings (much of its first half was filmed covertly), but that would yield an image strong enough to encompass any necessary visual effects work, and which would convey an overall cinematic quality.[69] He explains, 'this kind of camera didn't exist, so we built it'.[70] The bespoke digital One-cam, created by London visual effects studio One of Us in collaboration with Glazer, is the size of a household matchbox but can carry a 16mm lens.[71] Where conventional digital cameras (including the robust Arri Alexa, which captured *Under the Skin*'s more staged sequences) use a complementary metal-oxide semiconductor (CMOS) sensor to convert photons into electrons, the One-Cam uses a single charge-

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[65] Glazer quoted in Tobias, "Director Jonathan Glazer."
[66] Glazer and his production team facilitated this shooting style by issuing civilians with release forms after they had been caught on camera. See Glazer quoted in Jonathan Romney, "Unearthly Stranger," *Sight and Sound*, no. 4 (2014): 27.
[67] An expanded discussion of the filming of the abduction scenes, which involved a blackened studio space and an actual pool of black liquid, is offered in the "*Under the Skin* Production Notes".
[68] Glazer quoted in "*Under the Skin* Production Notes," emphasis in original.
[69] Glazer quoted in Tobias, "Director Jonathan Glazer."
[70] Ibid.
[71] At the time of *Under the Skin*'s release, the One-Cam was not commercially available and had only served to capture the Olympic opening ceremony and parts of the feature films, *Thor* (Kenneth Branagh, 2011), and *Les Misérables* (Tom Hooper, 2012). "One-Cam," One-Cam, May 3, 2015, https://web.archive.org/web/20150503175921/https://www.One-Cam.com/.

coupled device (CCD) sensor. CCD sensors translate signal charge into digital signals at one corner of the sensor array, meaning that the charge transported withstands distortion and the corresponding image is more stable and lower in noise (ergo, of greater *fidelity*) than that produced by a CMOS sensor. The CCD sensor also provides 'a greater sensory area devoted to gathering light', and a global shutter with 'a high sensitivity to detail with no motion artefacts'.[72] In sum, the One-cam combines the compactness and ease of shooting afforded by digital equipment with imaging that portends 'a natural and distinctly film-like look'.[73]

For Glazer, this latter attribute is key. Having previously worked in celluloid, the director is clearly wary of the image quality allowed by the digital format. He opines:

> Digital is too sharp and illustrative. There's no immersion, no fall-off, no rolling off into black or color bleed. No accident. No alchemy. One-cam is the opposite. It seems almost chemical in how it photographs the image. For a digital camera, it has unprecedented texture and depth. It sees how my eyes see.[74]

Distinct from the austere DV cinema with which Manovich and Rombes are concerned,[75] the One-Cam performs digital mimicry of the analogue; it produces images of strength and depth characteristic of the photographic index. Per Glazer's assessment, the One-Cam's filmic mode of vision is synonymous with a sense of embodied looking—phenomenological realism, we might say. The camera therefore refines the artifice-reality dialectic first by receding from spontaneous reality's view as the film's 'invented events'[76] are introduced, and then by expressing this footage in a form befitting its phenomenological charge.

Glazer concealed the One-Cams (up to ten were used at any given time during filming) within *Under the Skin*'s real settings. To capture the outdoor sequences, the miniature cameras were hidden in storefronts, upper-story apartment windows, and street furniture.[77] To document the heroine's pickups, eight of the

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[72] "The Amazingly Tiny One-Cam Camera That Shot Scarlett Johansson in *Under the Skin*," Cinescopophilia, April 3, 2014, https://cinescopophilia.com/the-amazingly-tiny-One-Cam-camera-that-shot-scarlett-johansson-in-under-the-skin/.
[73] "One-Cam."
[74] Jonathan Glazer quoted in V Renée, "Jonathan Glazer Hides in Plain Sight with Custom-Made Cam to Secretly Shoot *Under the Skin*," No Film School, April 28, 2014, https://nofilmschool.com/2014/04/jonathan-glazer-hides-in-plain-sight-secretly-shoot-under-the-skin-onecam.
[75] For instance, the Dogme95 movement.
[76] Deren, *Essential Deren*, 119.
[77] "*Under the Skin* Production Notes."

cameras were fitted into the front of her van, behind mirrors, headrests and air conditioning vents.[78] And of course, the location chosen to confer truth within this setup is not inconsequential. Contemporaneous Glasgow is perhaps the most ordinary of realities. As Glazer puts it, 'the incongruity of Scarlett Johansson in Glasgow – you're already in alien territory'.[79] Filmed during winter, *Under the Skin*'s diegesis was susceptible to the far north-sitting Scotland's inordinately short period of daylight. The film's external spaces are mostly rendered in darkness or half-light, and are populated with bare trees and footed by rain– or snow–sodden ground. The setting feels exceptionally ordinary in its dreariness. Moreover, Scotland itself has historically been viewed within the British cultural imaginary as a repressed space, both alien and familiar. Nicholas Royle writes that 'the uncanny comes from Scotland, from that "auld" country that has so often been represented as "beyond the borders," liminal, an English foreign body'.[80] In its earthly alterity, Glasgow emerges as the perfect foil to extreme artifice, be it an alien abduction, or Johansson's celebrity.

To this end, Glasgow, as a cinematic location, also comes to bear on Glazer's film in paratextual ways. Scottish cinema originated in a documentary tradition, and has developed in a style broadly associated with social realism.[81] British filmmakers such as Ramsay, Andrea Arnold and Ken Loach grapple with issues concerning the Scottish proletariat, including de-industrialisation, unemployment, and social housing, by treating the locale with a twinned, unadorned aesthetic and verité filming approach. I contend that, in accordance with Sobchack's theory of cinematic realism, this national cinema is a part of the marginalia upon which *Under the Skin* draws to corroborate its central dialectic. When the heroine passes a series of dilapidated high-rise apartment blocks on the way to her first cruise, for instance, or later when she patrols isolated backstreets for victims, the film taps into a kind of cinematic lineage specific to its context. With past portrayals of these same spaces in mind, we become attuned to the sites' anomie and thus the precarity of the heroine's work here.

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[78] Ibid.
[79] Glazer quoted in "*Under the Skin* Production Notes."
[80] Nicholas Royle, *The Uncanny* (New York: Routledge, 2003), 12. For more on the Scottish Gothic, see Monica Germanà, "Introduction: The Sick Body and the Fractured Self: (Contemporary) Scottish Gothic," *Gothic Studies* 13, no. 2 (2011): 1–8; Kirsty A. Macdonald, "'This Desolate and Appalling Landscape': The Journey North in Contemporary Scottish Gothic," *Gothic Studies* 13, no. 2 (2011): 37–48.
[81] For more on New Scottish Cinema and its origins, see John Fitzgerald, *Studying British Cinema: 1999-2009* (New York: Columbia University Press, 2010); Jonathan Murray, *The New Scottish Cinema* (London: I.B. Tauris, 2015); Duncan J. Petrie, *Screening Scotland* (London: British Film Institute, 2000).

Glazer not only preserves the realness of *Under the Skin*'s setting by concealing the One-Cam within its spaces, thus mitigating intervention by the filming instrument itself, but also by the formal register that this footage adopts. The director looked to prioritise the heroine's perspective in representing the diegesis, a quite literally alien experience of the human world.[82] In accordance with his guiding principle of fluidity, Glazer gleaned from this central vantage a realist, unaffected filmic aesthetic wherein 'everything feels witnessed'.[83] This logic permeates the film and coheres its scenes, variably documented by the One-Cam and, where necessary, the Arri Alexa.[84] It is evident in the film's lack of exposition and dialogue, largely banal settings and dreary look. It is likewise palpable in the number of self-contained sequences that serve purely to 'witness' the inhabitants of central Glasgow (in conversation, working at food stores, queuing at an ATM). Principally, however, this alien vantage is evinced by the film's cinematography, which favours untamed perspectival shots and static long shots to convey the heroine's earthly dealings.

We can see this representational logic manifest, for instance, in an early scene depicting the heroine's first cruise. She patrols a stretch of central Glasgow in her van, surveying men of varying age, race and size for capture, while an agile camera—likely the One-Cam—sits in the passenger seat, actualising her gaze. After a shaky establishing shot out of the car's windshield, the camera notes a male pedestrian concealed in winter garb out the adjacent window and cranes awkwardly to the left. The camera zooms in on the man, scrutinising him as he strolls unselfconsciously. The shot ends when the man moves out of frame, and a similar view of another unwitting prospect is promptly sutured. The sequence continues in this rhythm to develop an insistent montage of perspectival shots—all up, sixteen men are surveyed—that together characterise the heroine's predacious mission.

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[82] Wilson quoted in "*Under the Skin* Production Notes."

[83] Glazer quoted in Tobias, "Director Jonathan Glazer." Glazer quoted in Tobias, "Director Jonathan Glazer." Glazer's idea of a 'witnessed' aesthetic recalls Bill Nichols' work on the 'observational mode' of documentary representation, which 'conveys the sense of unmediated and unfettered access to the world… We expect to have the ability to take the position of an ideal observer, moving among people and places to find revealing views'. Bill Nichols, "Documentary Modes of Representation," in *Representing Reality* (Bloomington: Indiana University Press, 1991), 43. Roger Hallas has developed the act of 'bearing witness' into an affective framework of documentary spectatorship; see Roger Hallas, *Reframing Bodies: AIDS, Bearing Witness, and the Queer Moving Image* (Durham and London: Duke University Press, 2009), 10-17.

[84] Glazer posits that, if possible, he would have shot the whole film with the One-Cam. See Tobias, ibid.

A later scene evinces this same representational tactic, strangely relaying an intensely empathic scenario by ambivalent long shots. The heroine attempts to seduce a male backpacker swimming at a desolate winter beach when he becomes distracted by the knell of wailing from the far end of the shore. A series of long shots show a civilian couple struggling to save their dog against the treacherous waters, and consequently the backpacker's unsuccessful attempt for their rescue. Later, another long shot depicts the couple's lone toddler pitched on the shore at dusk, anxiously avoiding incoming waves.

There is a distance to the camera's perception of these moments that heightens the spectatorial stakes of the (real and fabricated) scenes conveyed. The logic of 'witnessing' that subtends its movements works to stitch us into the heroine's perspective, casting the familiar in an alien guise. We view humanity—the unwitting men under surveillance, the drowning couple, their orphaned child—from an unsentimental perspective that paradoxically begets identification with our like, and so renders the heroine's mission existentially charged. Crucial to this process is the quality of the images themselves. These are not the overly 'sharp', 'illustrative' images negatively associated with the digital format, but images that display depth and nuance in keeping with cinematic form. The film's director of photography, Daniel Landin, explains, 'there's a tipping point at which [it] becomes not a film, but a document. The important essence of it was to retain the cinema'.[85] As an exemplar of the digital mimicry identified by Rosen, *Under the Skin* emulates the sense realism originated by the photographic index to solicit an embodied response from the viewer. The cinematicness of the digital image perversely lends the heroine's alien perspective veracity, and thereby bolsters the scenes' phenomenological charge.

In sum, the digital emerges as a nascent foundation to facilitate Glazer's fluid approach. The filmic quality of the One-Cam's images, as well as the agility of the apparatus itself, allows the director to execute the controlled accident with renewed precision and affect. It captures quotidian Glasgow with a sense of phenomenological realism imperative to grounding the film's alien conceit. As I have begun to suggest, the vital energies derived from this process are concentrated upon the film's heroine, specifically the actress

[85] Paula Bernstein, "How DP Daniel Landin Captured Scarlett Johansson's Alien Nature in *Under The Skin*," IndieWire, April 2, 2014, https://www.indiewire.com/2014/04/how-dp-daniel-landin-captured-scarlett-johanssons-alien-nature-in-under-the-skin-28242/.

who portrays her. Johansson is, of course, the singular proponent of *Under the Skin*'s fictive work within its chosen reality. Her performance coheres the film's staged and un-staged scenes; she drives the van which is fitted with the One-Cams; she propositions real civilians with the offer of a lift, and improvises the dialogue which makes up the cruising scenes. In the process, Johansson herself becomes caught in the tension produced by the rub of the film's real and fictional elements.

Female-Alien

Towards the end of *Under the Skin*'s opening sequence, where an eye is constructed to signify the heroine's rebirth as a human, Levi's score becomes supplemented by the sound of consonants spoken in staccato. The heroine practices her English ('buh-tuh-kuh-zz-gah') in anticipation of her earthly arrival. This audio recording, reappropriated from Johansson's dialect training for the role,[86] undermines diegetic boundaries to forge a mimetic link between heroine and actress, some ninety-seconds into the film. By this link the two are bonded in their actions across diegetic and pro-filmic space, as in this opening scene, where the protagonist hones her human performance and Johansson simultaneously prepares for the inverse. In this instance the voice tethers the two, its disembodied quality frustrating attempts at tidy separation; it is difficult to pinpoint where one begins and the other ends.

Glazer's desire for fluidity amongst his film's manifold elements here leads him to incorporate aural material not strictly recorded for the film, but which extends its meaning. Beyond the audio track's narrative function (to illustrate the heroine's alienness), its insertion here serves to underscore the stakes of Johansson's performance, and thus encourages the kind of project assumed by this dissertation to materialise the body of the actress. Part of Johansson's undertaking for this role as alien-seductress-in-disguise was of course superficial, a process she likens to 'putting on another skin'.[87] Johansson donned a shaggy wig, garish makeup, pedestrian clothing, and a plausible British accent. But as the substance of the voice in this opening sequence indicates, Johansson's performance was also profoundly existential. Glazer's methodology

[86] Glazer quoted in Jonathan Romney, "Unearthly Stranger," *Sight and Sound*, no. 4 (2014): 27.
[87] Johansson quoted in "*Under the Skin* Production Notes."

required the actress to relinquish bodily autonomy and inhabit contemporaneous reality as a different though corporeally bound identity.

As an offshoot of Glazer's dialectical approach, female and alien bodies thus become bonded so that we cannot wrest one from the effusions of the other, nor inaugurate any easy method of substitution amongst the two. Adam Lowenstein poses that the tension sustained by such a system, which holds two realities in suspense, proves revelatory for onscreen depictions of the female body. Lowenstein founds his argument in an examination of the cinematic sub-genre of 'feminine horror', which incorporates 'the adaptation and transformation of horror genre tropes and affects for female-focused concerns'.[88] Feminine horror conjoins signifiers of femininity with horrific themes and imagery to posit these binary elements as 'intimately connected and mutually enriching'.[89] Lowenstein couches his study in surrealism—that movement undergirded by the analogous dream-reality dialectic, and to which Deren's style is indebted—and so cites surrealist artist Meret Oppenheim's *Object (Le Déjeuner en fourrure)* (1936) as a precursor to the kind of cinema he has in mind. Oppenheim's sculpture intimates the recognisable shape of a teacup, saucer and spoon, though with each implement encased in beige-and-white hued, thick and finely patterned fur. *Object* links the tea set, with its connotations of feminine refinement, fragility and servitude, with a tactile surface that suggests heft and uncivility.[90] For Lowenstein:

> … what gives *Object* an unmistakably surrealist spark is its capacity not only to switch one reality (the tea set) for another (the fur), but to demand that we see these two *realities* are actually inseparable, how they have always infected each other in ways we have simply failed to recognise.[91]

The precision with which one reality is grafted onto the other requires the viewer to behold the two as simultaneously distinct and indivisible, therein establishing a system of exchange that casts both realities in a new light. We come to see, in other words, how a longstanding symbol of femininity can be neatly attached to a coarse, potentially feared material under– (or, over–) side.

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[88] Lowenstein, "Feminine Horror," 471-2.
[89] Ibid.
[90] Ibid, 475.
[91] Ibid, my emphasis.

Lowenstein examines Marina de Van's work of feminine horror, *In My Skin* (2002), in terms of its reification of the binary upon which *Object* is founded. De Van's film uses skin, 'another time-honoured marker of female elegance, refinement, and allure', as a limit to recast our perceptions of the female body.[92] Her heroine, Esther (also played by de Van), comes to grapple with the 'disembodying' effects of her superficially perfect life by delving beneath her body's cohesive surface.[93] Through scenes where Esther loses touch with her hand, peels away her skin, or eats her own flesh, de Van initiates an opposition between ideal femininity and intense corporeality that asks us to consider the female body in ambivalent terms. Writes Lowenstein, we see femininity with 'new eyes' that:

> … do not merely exchange newfound disgust with what lies beneath the female skin for our habitual enchantment with feminine surfaces, but that confront us with the inextricability of the appealing exterior we wish to see and the frightening interior we do not.[94]

We thus become attuned to the female body not only as it is scrutinised by its surface, but also as it is subjectively lived, and importantly the ways these 'realities' inflect one another to jointly constitute female embodiment.

Under the Skin aligns with Lowenstein's examples in obvious ways, foremost its invocation of female liminality through play with the body's surface. Like Oppenheim's *Object*, and even more so de Van's *In My Skin*, Glazer's film reimagines the female body by fixing its fetishised exterior to a foreign (though, scarcely seen) interior, with the skin, again, a border separating the two.[95] Faber's more expository novel, *Under the Skin*, reflects on the heroine's hybrid form in precise detail, mobilising a system of metaphor that verges on the substitutive logic Lowenstein warns against. Faber describes the way Isserley has been transmogrified by her species to conform to earthly conceptions of female beauty: among other alterations, a metal rod was inserted into her back so that she stands vertically; her tail was amputated in an operation that 'buried' her genitals 'forever inside a mass of ugly scar tissue'; and she received breast implants.[96] To aid with the

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[92] Ibid, 476.
[93] Ibid, 477.
[94] Ibid, 476.
[95] For more on the skin as a border for exchange, see the discussion of Jennifer M. Barker's work in Chapter Five of this dissertation.
[96] Faber, *Under the Skin*, 186.

upkeep of her mutated form, Faber ascribes Isserley grooming practices (for example, shaving, exercise) evocative of those employed by the Western woman.[97]

These kinds of traits situate Isserley as woman's proxy, and thereby mitigate the tension that comes from retaining the difference between the feminine and horrific, as happens in Oppenheim's and de Van's works. The already thriving pool of feminist scholarship on Glazer's film adopts this kind of semiotic reading encouraged in Faber's text, insistently surmising that within patriarchal culture, 'to be female is to be alien'.[98] While much is to be gleaned by such an approach, I wish to take a slightly different analytical tack here. I contend that the two 'realities' at play in Glazer's film, realties that serve to re-view the female body, are constituted not by female and alien as such, but by the attendant frameworks of artifice and reality.

In keeping with his minimalist method of adaptation, Glazer largely avoids the kind of explicit confrontation of the feminine and the alien found in those images of bodily disorder persuasively rendered by de Van. He explains, 'it was very much about having the ambiguity of the alien in this film. I didn't want to show the nuts and bolts of it. I wanted it to *feel* right, rather than get caught up in the technology of it'.[99] To be sure, Glazer offers up visual hints of the heroine's make-up: there is the motif of blackness; the intermittent use of superimposition, a dialectical form of imaging that serves to loosely envision the heroine's feminine exterior and dark, frail interior in a single frame; and of course, the heroine's alienness is ultimately affirmed when she is stripped of her human skin following a failed rape attempt by a male logger at the film's denouement. Overall, however, the details of the heroine's constitution are left unclear, and the energies conferred by her underlying form chiefly made legible through the film's staging of the controlled accident. Put differently, though *Under the Skin*'s artifice permeates its representational logic and appears plainly in the film's more fantastical sequences, it is primarily actualised by the heroine's anomalous behaviour within pro-filmic space. When we see, for instance, the heroine abandon the aforementioned

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[97] Ibid, 67-8.
[98] Ara Osterweil, "*Under the Skin*: The Perils of Being Female," *Film Quarterly* 67, no. 4 (2014): 44. For more examples of this kind of reading, see Alicia Byrnes, "Alienating the Gaze: The Hybrid Femme Fatale of *Under the Skin*," *Deletion* 9 (May 2015), http://www.deletionscifi.org/episodes/episode-9/alienating-the-gaze-the-hybrid-femme-fatale-of-under-the-skin; Dijana Jelača, "Alien Feminisms and Cinema's Posthuman Women," *Signs* 43, no. 2 (Winter 2018): 379–400; Vint, "Skin Deep."
[99] Glazer quoted in "*Under the Skin* Production Notes," my emphasis.

toddler, orphaned and wailing on the deserted beach, or later seduce civilian men into her van without apprehension, we sense her alterity by our embodied knowledge of female comportment as it is typically articulated in these real spaces.[100] To return to Lowenstein's rubric, then, *Under the Skin* grafts its alien conceit onto its chosen reality to see femininity with 'new eyes'. Like Oppenheim's teacup and de Van's body, this process productively fuses signifiers from both sides; reality elevates the stakes of the heroine's alien behaviour, and her alien behaviour comes to expose the fiction of gendered expectations. As chief proponent of this mixing of artifice and reality, Johansson herself becomes caught up in this revaluation of the female body.

Johansson's screen persona is, of course, a key part of the real material from which *Under the Skin* pulls to corroborate its central dialectic. The actress has gained stardom as a pinup. She is known for her voluptuous figure, full lips and sultry voice, as exploited in such films as *Match Point* (Woody Allen, 2005), *The Avengers* (Joss Whedon 2012), and even *The Jungle Book* (Jon Favreau, 2016). Her role in *Under the Skin* not only evokes those she has undertaken previously—the heroine derives power from her physicality—but actually draws on that type to mark its difference. The alien gains seductive presence from the viewer's extra-cinematic knowledge of Johansson, but the alien's detachment from its human exterior works upon this knowledge, rendering Johansson's body unusually corporeal. Glazer remarks on the self-consciousness of this process, 'we're using how Scarlett's objectified, the glamour of her image. And she's using that as well. There's a deconstruction going on'.[101]

This revision to Johansson's image is buoyed by *Under the Skin*'s 'witnessed' aesthetic. Per Glazer's desire for inter-elemental fluidity, his camera perceives the actress with a sense of detachment even where the scene is wholly staged. Crucially, this visual style is resistant to the formal mechanisms that typically support Johansson's objectification in the cinema. As Glazer intended, *Under the Skin*'s representational logic works in tandem with the heroine's characterisation to re-view Johansson's body in unadulterated terms. In the heroine's first appearance on screen, for instance, she stands naked over a female corpse (her predecessor)

[100] For a discussion of the kind of normative female bodily comportment I suggest here, see the examination of Iris Marion Young's work in Chapter One of this dissertation.
[101] Glazer quoted in Tobias, "Director Jonathan Glazer."

clumsily stripping it of its clothing. This action is relayed primarily via static long shots, with the camera intermittently repositioning to mid-shots that only marginally improve our view of the heroine, who is cast in deep shadows. The rub of *Under the Skin*'s conceit here serves to obscure Johansson's recognisable form. Minor, banal diegetic noises, like the clink of her newly acquired belt or clomp of her heels, are elevated in reproach to the artifice routinely attached to cinematic acts of female dressing. Most significantly, the heroine carries out her task purposefully, with a lack of awareness for her own frame. As she struggles to remove the corpse's denim skirt her posture weakens and her breasts sag. Later she leans the corpse against her bare chest while retrieving its top, indifferent to its rub. The stark white void in which the heroine works accentuates her body's fleshiness and supposed flaws, such as dimples and softness. She does not contort her body into angles that make it appear more pleasing, nor does she shield her breasts or buttocks from invisible onlookers. The heroine has not internalised the sexuality ascribed to her exterior and so inhabits her body freely.

Such an introduction to the heroine derives its stakes from the viewer's acculturated assumptions about the perfectness of Johansson's body, and in turn foils these assumptions. The way this scene has been read by male film journalists is particularly telling on this point. Noah Gittell writes that Johansson's debut nude scene 'doesn't play as even remotely sexual, and… remarkably, barely attracted any hype'.[102] Likewise, Jonathan Romney remarks that the actress 'has one of the most surprising nude scenes you could imagine from a female star… she's oddly squat, a little short-legged, and entirely, appealingly ordinary—SJ unplugged, or unphotoshopped'.[103] Even Johansson describes her performance here as 'so revealing that it's ugly'.[104] A symptom of the film's artifice, specifically the heroine's alien relationship to her exterior, Johansson's body is here represented and comported with a sense of indifference which highlights its corporeality. She is in some sense re-embodied, restored the fact of her body as a lived, material entity.

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[102] Noah Gittell, "Scarlett Johansson's Vanishing Act," *The Atlantic*, July 28, 2014, http://www.theatlantic.com/entertainment/archive/2014/07/what-in-the-world-is-scarlett-johansson-up-to-lucy-under-the-skin-her-a-feminist-disappearing-act/375141/.
[103] Jonathan Romney, "Film of the Week: *Under the Skin*," *Film Comment*, April 3, 2014, http://www.filmcomment.com/blog/under-the-skin-jonathan-glazer-review/.
[104] Johansson quoted in Anthony Lane, "Her Again," *The New Yorker*, March 24, 2014, http://www.newyorker.com/magazine/2014/03/24/her-again.

As we have already seen, *Under the Skin*'s alien conceit is not only evidenced by its style of representation, but also its methodology. Paradoxically, Glazer's unorthodox production approach helps to liberate Johansson from her extra-cinematic persona by situating her within a distinct present. In an exemplary scene at an actual Glasgow shopping centre, the heroine is filmed covertly by the One-Cam as she descends via escalator into a crowded passageway. The setting is portrayed with strategic familiarity; plainly dressed shoppers, indiscernible chatter, harsh fluorescent lighting, and the recognisable signage of chain stores distinguish the space. Such features bring a real charge to the sequence, wearing away at Johansson's celebrity through their constitutive banality. This process is supported by Glazer's chosen methodology, which prohibits a clear view of the heroine. Bar a brief establishing shot, the camera tracks her passage through the shopping centre from behind. This choice of framing is likely an offshoot of the hidden camera technology used (it would have been difficult to capture a sustained shot of Johansson from in front while maintaining obscurity). Significantly, however, this approach denies us access to her face, that which is so important for our extra-cinematic identification as well as a reading of the character's subjectivity. Johansson's anonymity is corroborated by the idle expressions of the shoppers who pass her, with the exception of a few men who glance at her, though not in apparent recognition. Per Lowenstein's framework, the reality of the scene's setting and mode of documentation serve to undercut the spectre of Johansson's celebrity, while her alien anonymity in the space reciprocally points up markers of femininity.

The heroine enters one of the shopping centre's clothing stores, where she accrues an outfit for the impending cruise. In a series of mid-shots that again refuse access to her face, she examines a rack of faux-fur coats, a low-cut pink top, and a high-heeled boot. The tactile, fetishistic nature of the items that she picks up makes her selection seem intentional rather than instinctual, as if she has been programmed to assemble an outfit likely to trigger the male libido. Her next stop is the beauty section of the mall's department store. In a mid-shot the heroine stands before an illuminated rack of lipstick searching for a shade that will pronounce the appeal of her full lips. This sequence of shots functions to reify femininity, the heroine's alien manner reciprocally working to re-view the stereotypically feminine task of a shopping

trip as devious.[105] It is therefore interesting that Glazer follows the sequence with a montage that depicts civilian women receiving various in-store beauty treatments (massages, makeovers, eyebrow waxing). In its articulation of the banality of female aestheticism within Western culture, this candid footage would seem to jar with the sinister work of the sequence that precedes it. By consequence of the passages being compounded, the civilian women take on the framing invoked by the heroine with regards to the constructedness of femininity. The interplay between the film's fiction and its methodology works in this transition to recast female aestheticism as unnatural.

The purposeful withholding of the heroine's face continues by variable means of lighting, framing and fragmentation until the film's first cruising scene. Glazer actively undermines Johansson's image in the cruising scenes by raising the existential stakes of her covert performance.[106] The film's methodology places Johansson in the perilous position of executing her character's pickups in real time. Eight of the bespoke One-Cams were fitted into the front of the heroine's van behind mirrors, headrests and air conditioning vents to document the pickups and Johansson was burdened with the task of procuring the diegetic material. Glazer remarks of the process in the film's production notes, 'it was very exciting to have the actor, the main character of the film, right at the head of the arrow point, forging the story out, just by turning left or right'.[107] *Under the Skin*'s heroine acts as the fulcrum binding filmic and pro-filmic spaces. Where Faber characterised Issereley's prey as hitchhikers, inferring a degree of complicity in their fate, Glazer casts lonely passersby as the heroine's prey and thereby enhances the precarity of Johansson's task. The cruising scenes contain the residue of Johansson's (and the non-actors') experience filming in this way, without the insulation of fictive film productions. Her palpable vulnerability has the radical effect of offsetting viewer awareness of her star persona.

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[105] As Osterweil writes, '*is it any wonder that [the heroine's] first activity as human female is to shop?*' Osterweil, "*Under the Skin*," 46, her emphasis.

[106] Star studies has understood stardom to pose a kind of 'duality' sustained by a tension between the actor's screen presence and off-screen life; Christine Geraghty, "Re-Examining Stardom: Questions of Texts, Bodies and Performance," in *Stardom and Celebrity: A Reader*, ed. Sean Redmond and Su Holmes (London: Sage Publications, 2007), 98–110. It would be possible to read Johansson's performance as examined in this section as staging a conflict between these facets of stardom, and in so doing producing a new understanding of the star's existence. For more on the star's duality, see Richard Dyer, *Stars*, 2nd ed. (London: BFI, 1998).

[107] Glazer quoted in "*Under the Skin*: Production Notes."

Under the Skin's marketing campaign participates in this destabilisation of Johansson's image by drawing audiences' attention to the presence of the real within the cruising scenes. Glazer's candid approach to capturing the pickups formed a mainstay of the film's publicity tactic. The production notes, for instance, detail shooting processes and the experiences of Johansson and the crew at length. Beyond this, Glazer refused to divulge in press materials which of the male victims were hired actors, commenting that he was 'very conscious… of making sure the texture was such that you wouldn't be able to tell… who was cast and who wasn't'.[108] This kind of manufactured "behind the scenes" testimony and its public dissemination fosters viewer awareness of the extra-diegetic context to augment their investment in these scenes. By virtue of this information, our cognisance of Johansson's image is replaced with acculturated apprehensions about transgressing gender roles. The real interactions captured in these scenes altogether transcend the fiction that dictates their existence; we become attentive to the existential situation of the film's star, and, to an arguably lesser degree, the unwitting non-actors, due to their partaking in this realistically anomalous and unnerving setup. Such a distinctively embodied response punctures the film's fiction with a sense of phenomenological gravity, and so inheres in it an authenticity sustained by its larger realist, though qualitatively less real, aesthetic.

Johansson's discomfort is perhaps most immediately comprehensible, and I will return to her perspective in a moment. Less expected is the number of men who respond suspiciously to the pickup. The film's narrative determines Johansson's target: the man has to be alone, and journeying somewhere secluded. Some of these lone civilians are blithe about the offer of a lift, others incredulous. As Glazer puts it, 'you see the men as they are in those moments'.[109] A particularly memorable exchange occurs between the actress and a man on his way home after a day's work. Johansson stops him on the side of the freeway and submits him to a string of questions, trying to appear appropriately normal as she grapples to engage. The conversation slips off once he is sidled into the passenger seat but the hidden camera remains trained to the man's face. Looking up at him from a low-angle shot (the One-Cam likely concealed inside an adjacent air vent) we notice the way he fidgets, repeatedly touching his face and working to avert his gaze from

[108] Glazer quoted in Romney, "Unearthly Stranger," 27.
[109] Ibid.

Johansson. He telegraphs signs of nervousness, which the viewer intuits through their own lived body. The film's fiction effectively interacts with our extra-cinematic knowledge of the setup, as well as our embodied sense of human behaviour, to give the scene a tragic edge, as if we were watching the beginnings of a snuff film. The scene ends abruptly, with a transition to the heroine's next attempt, suggesting this man's capture. Though we can presume that he was unharmed in reality, his documented uneasiness still haunts the film's fiction.

Johansson's experience filming *Under the Skin*'s cruising scenes was considerably more complex. The film's methodology forces her into an unusual occupational quandary, whereby playing the role successfully means making herself physically vulnerable. The heroine's alienness renders her impervious to human systems of socialisation, and issues of human mortality more broadly. This fiction required Johansson to resist internalised fears (as a human, as a female) to fulfil this professional, though ethically questionable task. She recollects of the experience, 'it was absolutely terrifying. Not because I was afraid that I would be found out… but I was afraid of how people would react… [Part of the experience] was having to abandon these very human instincts we have of protecting ourselves'.[110] The interplay between the film's fiction and practice has, for Johansson, the effect of undoing self-awareness. Rather than being recognised for her celebrity, she speaks to a more profound anxiety relating to her visibility as a woman within this setting.

Johansson's response translates to the film's viewer, and bears productively on the spectre of her iconography. The precariousness of her circumstance is made sensible through our lived experience, and to such a degree that it overwrites our awareness of her stardom. We watch tensely as she beckons to male pedestrians and boldly invites them into the space of her car. She is appropriately refigured as a lived body through the scenes' verisimilitude. Where the male victim of the aforementioned scene endures a fictional death (as does the heroine later in the film), *Under the Skin*'s cruising scenes hold the real weight of Johansson's vulnerability.

[110] *Press Conference Under The Skin Venice Film Festival*, 2015, 06:48-08:20, https://www.youtube.com/watch?v=OLHtC_MCji8.

The two realities that the film holds in tension thus work to re-view the female body across diegetic divides. The film's candid sequences, by their documentary visage, solicit our acculturated knowledge around gendered behaviour, but such advances are repeatedly quelled by the heroine's narratively driven actions. We come to regard *Under the Skin*'s heroine apprehensively in view of her anomalous behaviour and, more forcefully, feel concern for Johansson's safety. The actress becomes caught in the rub of *Under the Skin*'s dual realities in a manner that foregrounds her lived body. That the digital seems to recede from view within these sequences only affirms the profundity of its role; these scenes are troubling precisely because of the digital camera's apparent absence. The seamlessness of the format's facilitation of the commingling between fiction and reality is marked in these scenes' palpable tension.

Conclusion: Into Blackness

Glazer's decision to conceal the heroine's alien interior gains new resonance when we consider the limitations of the mediating format. As noted throughout this chapter, *Under the Skin*'s makers sought to connote the alien through a motif of blackness. The film opens to blackness, which then acts as a frame for the construction of the heroine's human eye. The space where the heroine captures her victims in a 'sexual trance'[111] is like a black void, as is the viscous pool where they finally descend. Even the film's numerous cruising scenes are tainted by blackness; in accordance with Glazer's desire for inter-elemental fluidity, these scenes (often shot at night) are lit naturally and duly bathed in shadows, made thick by the One-Cam's filmic mode of imaging. Black is an insistent shade within the film, one that bears out its fiction but is scarcely made manifest in its proper alien form.

Blackness troubles visibility, and thus poses an enduring problem for the cinema. Writes Sean Cubitt, 'technically invisible, to speak of black is to speak of the condition of invisibility. Red, green, and blue have their actuality. Black has the specific quality of being only ever virtual'.[112] Black cannot be perceived, and so must always be falsified or imagined. But black is not only invisible, it also holds the power 'to swallow

[111] Wilson quoted in "*Under the Skin* Production Notes."
[112] Sean Cubitt, "[black]," in *The Practice of Light: A Genealogy of Visual Technologies From Prints to Pixels* (Cambridge: The MIT Press, 2014), 21.

or overwhelm other colors in darkness, asserting control over visibility itself'.[113] Black's inability to be harnessed, perceptually or by true simulation, has led the cinema to treat the shade tentatively. Given that black must always be virtual where light is present—its relation to light is one of '*dialectical* dependence'[114]—'film and electronic imaging respond by maximising contrast, using color combinations to persuade us that the grays of the screen are blacks'.[115] Blackness in the cinema is thus a trick, an illusion that nonetheless compels us due to its innate duplicity.

Blackness emerges as a colour apt to express the alterity of *Under the Skin*'s heroine. Her species is likewise inscrutable by our sensual systems, and, akin to black's relationship with light, her underlying form 'haunts' her depiction even where it is visually absent.[116] She assumes another guise, deviously and ultimately in earnest, and implores those around her to take it in faith. These symbolic parallels aside, blackness, as the cinema attempts to realise it, also improves the heroine's affect. For when we see notes of blackness within the mise-en-scène, or even when the heroine reluctantly reveals her spindly black underside at the film's denouement, she still negates exact perception; these blacks are themselves artificial.

The notion of blackness subtends and extends the kinship evidenced throughout this chapter between *Under the Skin*'s heroine and its form. An invisible entity that is only ever virtual, 'an absence that nonetheless weighs like a presence',[117] a form which generates anxiety for the cinema but can nevertheless assume its place there by way of mimicry—we could here be talking about the digital. *Under the Skin*'s distributor, A24, draws upon this synergy between female and filmic bodies in its marketing of the film. As part of the online campaign, A24 launched a customised website, t0uch-me.com, which envisions Johansson's body as a collection of pixels eagerly suspended in black space.[118] When the user runs their cursor over the digital

[113] Tom Gunning, "Where Do Colours Go At Night?," in *Color and the Moving Image: History, Theory, Aesthetics, Archive*, ed. Simon Brown, Sarah Street, and Liz I. Watkins (New York: Routledge, 2013), 88.
[114] Cubitt, "[black],"42, my emphasis.
[115] Ibid, 44.
[116] Ibid, 22.
[117] Ibid, 21.
[118] A24 also created the websites http://touched-some1.com/ and http://1-of-many.com/ as part of the marketing campaign. All of the websites play on the memorable line that Johansson poses to one of her victims, 'when was the last time you touched someone?'.

body, virtually touching Johansson, the pixels dissipate. The female body is made fluid by its digital realisation.

Confronted with a heroine who is fundamentally alien but who inhabits a feminine visage, this chapter has reflected on the hybrid nature of digital cinema. It has fixated on the central dialectic invoked by the film's heroine, that between artifice and reality, to appreciate the unique materiality of the digital image. Chiefly using the work of Tom Gunning and Philip Rosen, the chapter grappled with the notion that cinematic realism is lost with the demise of the photographic index, and came to the understanding that the digital actually portends 'overlaps' with the analogue in terms of its imaging capabilities that render hard distinctions between the formats moot. Through the writings of Maya Deren and Vivian Sobchack, the chapter demonstrated that cinematic realism is an affective entity that might be ushered through the appearance of a particular image, and the means by which it is captured. These accounts concerning the digital's 'overlaps' with the analogue, and the affective nature of cinematic realism, together led the chapter to conclude that the digital can access reality as well as, if not better than, prior formats. To test this finding, the chapter analysed *Under the Skin*'s particular approach to filming, including its recording technology, in terms of its effect on the heroine and the actress who plays her, Scarlett Johansson.

Under the Skin's digital One-Cam proved an exemplar of digital hybridity, displaying a compactness typical of digital technology as well as a capacity to produce images that are distinctly film-like. This camera enabled the film to mobilise a guerrilla shooting method, one which fixed its science fictional conceit and contemporaneous reality in intimate exchange. Interpolating Adam Lowenstein's conceptualisation of the feminine horror genre, the chapter found that the One-cam was able to capture a realist charge that made the danger of the heroine's mission acute, and in turn restored a sense of livedness to Johansson's image. In sum, the chapter contributed to the dissertation's larger project as it discovered an echo of the hybrid female body represented in the film's digital body, and extended this synergy to show the effect of the latter upon the former. It proved that the digital possesses an exceptional ability to harness the real, in spite of its synthetic base, and is dually able to mobilise this charge to highlight the nuances of female embodiment.

The next chapter builds on the relationship between female and digital bodies suggested by the aforementioned motif of blackness. Alex Garland's *Ex Machina* makes the question of digital artifice central to its narrative through a neo-Turing Test focused on the technologised female body: the tester must decide whether Ava feels real in spite of her robotic appearance. The next chapter dwells on the sense of uncertainty proffered by the digital as a result of its ambiguous nature—like the shade of black in the cinema, the digital image is inherently duplicitous—and centrally poses that the digital is fundamentally haptic. Through this theorisation of the digital, the chapter articulates the agency of *Ex Machina*'s robotic heroine, Ava.

Chapter Three
Digital Hapticity in *Ex Machina* (2014)

The feminine robot at the centre of Alex Garland's *Ex Machina* (2015) is submitted to a Turing Test with a significant caveat. Her creator, Nathan (Oscar Isaac), explains, 'if I hid Ava [(Alicia Vikander)] from you so you just heard her voice, she would pass for human. The *real* test is to show you that she's a robot and see if you still feel she has consciousness'. This instruction revises Alan Turing's original test, which eliminated the sense of sight from proceedings (in some sense safeguarding it) and was carried out computationally. In *Ex Machina*'s not-too-distant future, artificial intelligence (AI) is 'beyond doubt' as it concerns communication, and so the 'real test' becomes about the disproval of vision—whether one *feels* Ava has consciousness in spite of what their eyes perceive. On a narrative level, then, Ava poses the question as to whether a machine can possess subjectivity that is not determined rationally, but felt. It stands to reason that she also actuates this narrative inquiry at the level of form, in relation to *Ex Machina*'s own body. As clear visual effect, Ava would seem to query the nature of the image in the digital era; whether the viewer is compelled by the image that they can see is artificial.

Rather than attempt to answer this set of questions outright, which might lead us to re-tread ground covered in the previous chapter, this chapter fixates on the sense of uneasiness undergirding *Ex Machina*'s central queries. It considers what is at stake in the digital negation of visual knowledge, and endeavours to rationalise fears about digital cinema through a focus on the haptic. The haptic, which broadly refers to 'the way we experience touch both on the surface of and inside our bodies',[1] has been used within phenomenological film theory to describe the tactile appearance of the digital image.[2] Through *Ex Machina*, I wish to propose the addendum that the digital image is *innately* haptic, insofar as it 'trouble[s] the relationship between vision and knowledge'.[3] Upending hopes of attaining indexical truth, the digital image

[1] Laura U. Marks, *The Skin of the Film: Intercultural Cinema, Embodiment, and the Senses* (Durham: Duke University Press, 2000), 162.
[2] See Jennifer M. Barker, *The Tactile Eye* (Berkeley: University of California Press, 2009), 45-6; Marks, *The Skin of the Film*, 175-6; Laura U. Marks, *Touch: Sensuous Theory and Multisensory Media* (Minneapolis: University of Minnesota Press, 2002), 147-60.
[3] Marks, *The Skin of the Film*, 133.

presses the viewer to embrace the precarity of sensation. This chapter extrapolates from Ava's character that the threat posed by digital cinema pertains to its hapticity.

The chapter begins by delineating the properties of digital cinema that give rise to its hapticity. The chapter is concerned in particular with digital visual effects as the relevant signifier of the female body's attenuation, and accordingly focuses on the concept of 'animation' as theorised by Lev Manovich.[4] Manovich claims that digital cinema is a work of animation because all of its images (recorded or not, manipulated or not) are simulated. Through Manovich's argument the chapter finds occasion to reflect on the present state of the sense of trust that has been ensured to the photographic index over the course of film history. However misbegotten, that sentiment goes some way toward explaining the feeling of unease registered by the digital image. To articulate this feeling more fully, the chapter touches on the inverse meaning of Manovich's concept of animation: as that which connotes 'life, vitality'.[5] As we learned in the last chapter, digital cinema aims to achieve photorealism, so that its essential artifice might be masked. This chapter extends this work and briefly contemplates digital realism through the trait of motion. Bringing these threads together, I argue that the digital's synthesis of the divergent forces of artifice and vitality constitutes its hapticity. Consideration of existing formulations of the haptic image qualifies this claim, in particular Laura U. Marks's work on embodied spectatorship.[6] The chapter establishes its intervention to this discourse by asserting the digital's innate ambiguity, and its corollary need for active corroboration by the viewer. These features together demonstrate that the digital is haptic in its nature and its requisite mode of engagement.

The chapter draws the inspiration for its ideas about the hapticity of the digital image from *Ex Machina*'s diegesis, specifically Ava. Ava comports and displays her body with an aim to confound vision. Rendering

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[4] Lev Manovich, *The Language of New Media* (Cambridge: MIT Press, 2000), 298.
[5] "animation, n.," in *OED Online* (Oxford University Press, September 2019), https://www-oed-com.ezp.lib.unimelb.edu.au/view/Entry/7785?redirectedFrom=animation. Many scholars have noted animation's abundant definitions. See, for instance, Scott Bukatman, *The Poetics of Slumberland: Animated Spirits and the Animating Spirit* (Berkeley and Los Angeles: University of California Press, 2012); Alan Cholodenko, "Introduction," in *The Illusion of Life: Essays on Animation*, ed. Alan Cholodenko (Sydney: Power Publications, 1991), 9–36; Tom Gunning, "Animating the Instant: The Secret Symmetry Between Animation and Photography," in *Animating Film Theory*, ed. Karen Redrobe Beckman (Durham: Duke University Press, 2014), 37–53; Vivian Sobchack, "Animation and Automation, Or, the Incredible Effortfulness of Being," *Screen* 50, no. 4 (2009): 375–91; Jackie Stacey and Lucy Suchman, "Animation and Automation–the Liveliness and Labours of Bodies and Machines," *Body & Society* 18, no. 1 (2012): 1–46.
[6] Marks, *The Skin of the Film*, 127-93.

her image imprecise, she implores her tester, Caleb (Domhnall Gleeson), to deploy alternative methods of meaning-making in order to resolve her ontology. This section implements Kristen Whissel's theory of the digital 'effects emblem' to consider how Ava rehearses the notion of digital hapticity at the level of narrative.[7] Whissel poses that visual effects have become central to the digital cinema narrative, such that they inhere meaning about the film itself. Whissel's theory is mobilised to demonstrate how Ava binds the film's diegetic and extra-diegetic contexts, channelling the meaning of one plane towards the other. In accordance with this synergetic system, the chapter infers from the nature of Ava's ploys that digital cinema can be aligned with feminist aims.

Animation and the Haptic

Ava's essential unknowability is signalled by her design. Her look is the result of a synthesis of real and synthetic elements. For a start, the computer generated work that realises Ava's body incorporates both visual effects and live action footage. A series of background plates allowed the film's visual effects team to track Vikander's movements and preserve certain elements of her body (her face and hands, and often her shoulders and feet) while substituting others (her torso, legs, and the back of her neck and skull).[8] Garland's team worked 'frame by frame',[9] replacing segments of the live action footage with segments of the "clean" plate, upon which they could then composite visual effects.[10] Each image that depicts Ava effectively represents the confluence of recorded and simulated data.

Moreover, the visual effects that comprise the robotic features of Ava's body paradoxically draw inspiration from human physiology. A mess of wires varying in colour and coating subtend Ava's arms and legs in place of musculature, ligaments and tendons. Her stomach contains gleaming tubes: one yellow in the style of an organ, and another blue in the shape of an intestine. At the back of her neck, a central rod connecting to her skull appears stacked like a string of vertebrae, and continues into her lower back to form a spine.

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[7] Kristen Whissel, *Spectacular Digital Effects: CGI and Contemporary Cinema* (Durham: Duke University Press, 2014), 6.
[8] Within technical circles, a 'plate' refers to a single shot of a particular scene, emptied of actors but with the same lighting and composition used in its populated equivalent.
[9] Manovich, *The Language of New Media*, 304.
[10] Andrew Whitehurst quoted in Graham Edwards, "*Ex Machina* - VFX Q&A," Cinefex, April 14, 2015, http://cinefex.com/blog/ex-machina/.

The steel mesh that encases her body portends a delicateness akin to skin, and its neoprene counterpart displays folds and crinkles implicative of material wear. Like the lived body, which is working even when one is not cognisant of it, recessive but never absent, Ava's body visibly enacts vital processes even in moments of apparent stillness: the wires in her neck strain as she turns her head; her organs light up intermittently as she paces; a tiny sprocket spins in her neck to power her body, like blood pulsing through veins; a minute quiver is visible in her arms when she holds them outstretched. These features suggest an effort to allay Ava's roboticism with human signifiers so that Caleb's task to discern her ontology in a single idea is made expressly difficult. Her body straddles the juncture between the alien and the familiar, requiring Caleb's constant renegotiation. The design of Ava's body altogether signals a sense of ambiguity reflective of the digital image.

Recent work within new media studies has sought to explicate digital cinema by connecting it to forms from the medium's past, specifically animation. Manovich is at the forefront of such work, arguing that the digital proffers a remedial effect as it concerns the cinema's biases and historical divisions. He characterises digital embodiment with recourse to the cinema's origins in the nineteenth century. Proto-cinematic images hoped to achieve the fluid illusion of movement but were beholden to the abilities of their makers: they were hand-drawn or hand-painted, and hand-animated.[11] When moving images eventually became automatically generated and animated in the last moments of the nineteenth century, the cinema quickly made moves to distance itself from these primitive methods of moving image production.[12] Such practices were theretofore associated with animation, the branch of cinema regarded as film's 'step-child',[13] 'bastard relative', 'its supplement and shadow'.[14] Where the cinema sought to establish itself as an artistic medium defined by a transparent recreation of reality, animation foregrounded 'its artificial character, openly admitting that its images are mere representations'.[15] Film practitioners, historians and critics consequently worked to estrange animation from cinema proper, routinely covering over techniques that revealed the

[11] Manovich, *The Language of New Media*, 295.
[12] Ibid, 298.
[13] Cholodenko, "Introduction," 9.
[14] Manovich, *The Language of New Media*, 298.
[15] Ibid, 299.

medium's imbrication with animation in the present (for instance, 'rear-projection and blue-screen photography, matte paintings and glass shots, mirrors and miniatures, push development, optical effects').[16]

Relative to these distancing efforts, Manovich finds it amusing that, with the move to the digital at the turn of the twenty-first century, the cinema at large becomes a form of animation.[17] He reasons:

> Manual construction and animation of images gave birth to cinema and slipped into the margins…only to reappear as the foundation of digital cinema. The history of the moving image thus makes a full circle. Born from animation, cinema pushed animation to its periphery, only in the end to become one particular case of animation.[18]

For Manovich, live-action footage that is bereft of the photographic index is pure simulation, regardless of whether its images have been actively tampered with. Though of course, the prospect of manipulating the digital image only solders its link to animation; digital alterations to the image, like those deployed to fabricate Ava, can be understood as a kind of 'digital painting'.[19] Invoking our present concern with the disproval of vision, Manovich asserts that the cinema has become 'no longer a kino-eye, but a kino-brush'.[20] Within this framework, animation as a mode explains the essential character of digital cinema.

Manovich's work sheds some light on the stakes underpinning *Ex Machina*'s central set of questions regarding the limits of visual knowledge. As I have shown in the previous chapter of this dissertation, the discourse surrounding the loss of the index is fraught with misunderstandings; not only does the digital portend indexical qualities, but the ideas which served to valorise the photographic index in the first instance are misplaced.[21] I do not mean to revise these assertions by invoking Manovich's argument about the coincident demise of the index and rise of animation here. Rather, through Manovich I hope to expand the foregoing discussion to consider how the sentiment attached to the index weathers with the move to the digital. His point that cinema is now entirely animated puts uncomfortable strain on the relationship between vision and knowledge that underwrites appreciations of the index. Indeed, relative to the fact that the cinema has always been prone to 'attenuate, ignore, or even undo the indexical', it is conceivable that

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[16] Ibid.
[17] It is worth noting that Cholodenko made this same claim prior to Manovich. See Cholodenko, "Introduction," 10.
[18] Manovich, *The Language of New Media*, 302, his emphasis.
[19] Ibid, 304.
[20] Ibid, 308.
[21] See Chapter Two of this dissertation.

the anxieties surrounding the digital are less to do with some crude transformation to photographic technologies, than heightened awareness by the spectator that the image viewed could have been falsified, and that its manipulation has gone undetected.[22] Through its status as simulation, digital cinema holds the potential to exploit an ocularcentric position. Its images destabilise the favoured place of vision in establishing truth by manipulating the subject represented while retaining a pleasing degree of iconicity. This goal of ascertaining indexical truth is inherently forfeited with the digital; the question of authenticity is always present.

This question of authenticity is a meaningful one, which goes to the heart of the existential worries that give *Ex Machina*'s AI narrative substance.[23] The privileged place of the index has been understood to stem from the human obsession with mortality. Its power in relation to the photographic image parallels the ancient Egyptian practice of embalming, which was thought to sustain the human spirit through 'the continued existence of the corporeal body'.[24] The photographic image supposedly harnesses the same impulse through its capacity to capture a moment in time and space. For André Bazin, this propensity of the image is inviolable; 'in spite of any objections our critical spirit may offer, we are forced to accept as real the existence of the object reproduced, actually *re*-presented, set before us'.[25] By virtue of the weight placed upon the image in regards to authenticity it comes to signify more than the subject represented, in fact satisfying anxieties about human mortality by appearing to preserve an elusive truth. It is thus plausible

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[22] Tom Gunning, "What's the Point of an Index? Or, Faking Photographs," *Nordicom Review* 25, no. 1–2 (September 2004): 41. Many scholars have highlighted the epistemological (rather than technical) stakes of the index. See also Thomas Elsaesser, "Truth or Dare: Reality Checks on Indexicality, or the Future of Illusionism," in *Cinema Studies into Visual Theory?*, ed. Anu Koivunnen and Astrid Soderbergh Widding (Turku: D-Vision, 1998), 31-50; Kris Paulsen, "The Index and the Interface," *Representations* 122, no. 1 (2013): 83–109; Stephen Prince, "Introduction: Beyond Spectacle," in *Digital Visual Effects in Cinema: The Seduction of Reality* (New Brunswick: Rutgers University Press, 2012), 1–10; Kevin Robins, "The Virtual Unconscious in Postphotography," in *Electronic Culture: Technology and Visual Representation*, ed. Timothy Druckrey (New York: Aperture, 1996), 154-65; D.N. Rodowick, *The Virtual Life of Film* (Cambridge: Harvard University Press, 2007); Philip Rosen, *Change Mummified: Cinema, Historicity, Theory* (Minneapolis: University of Minnesota Press, 2001).

[23] Caleb's quandary is of a sort that has troubled humans for centuries, chiefly through the figure of the automaton. The automaton's unwavering force undoubtedly derives from its twinned invocation of fascination and fear. The automaton confuses held binaries, such as those between real and irreal, objective knowledge and intuition, in a way that can be thrilling to behold. Conversely, the automaton's dissolution of these same binaries taps into existential anxieties. That is, for an artificial being like Ava to appear real would undermine human specificity. For more on the uncanniness of the automaton, see Jessica Riskin, "The First Androids," in *The Restless Clock: A History of the Centuries-Long Argument Over What Makes Living Things Tick* (Chicago and London: University of Chicago Press, 2016), 113–50; Gaby Wood, *Living Dolls* (London: Faber & Faber, 2003); Julie Wosk, *My Fair Ladies: Female Robots, Androids, and Other Artificial Eves* (New Brunswick: Rutgers University Press, 2015).

[24] André Bazin, "The Ontology of the Photographic Image," trans. Hugh Gray, *Film Quarterly* 13, no. 4 (1960): 4.

[25] Ibid., 8.

that the loss of the index has reactivated these worries. The digital image would seem to confront existential fears (for instance, about human obsolescence, about death, about the afterlife) through its artifice.

Such fears granted, the challenge inherent to *Ex Machina*'s central set of questions insists that the digital image also portends some degree of appeal. Indeed, that neither Caleb nor the contemporary viewer dismiss their subject of inquiry outright on the basis of its artifice bespeaks the presence of some vestige of truth. In both cases, the appeal seems to pertain to animation's inverse meaning: 'the state of being animate or alive; life, vitality'.[26] The concept of 'digital mimicry' elaborated in the last chapter of this dissertation provides one idea of how we might apply this definition of animation to digital cinema. As I showed through Philip Rosen's work, the digital has the capacity to 'imitate… pre-existing compositional forms of imagery', namely those which display an iconic relation to reality.[27] The digital image is thus able to portray lifelikeness in aesthetic terms. By its replication of the photographic image, the digital image affectively solicits that same sense of realism.

Ava's design suggests that we might also do well to consider the digital's vitality in relation to motion. Ava's design draws inspiration from 'Formula One car suspensions, high-end road bicycles, [and] lightweight aircraft airframes',[28] a series of mechanical vehicles that share the cinematic apparatus's desire to achieve movement.[29] Relative to this equivalence, it is poignant that Manovich's revised understanding of film history has resulted in motion usurping the place of the photographic index as the decisive trait of cinematic specificity. Tom Gunning instigates such a reformulation, surmising that 'if cinema should be approached

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[26] "animation, n.," *OED Online*.
[27] Rosen, *Change Mummified*, 309. Stephen Prince explains this capacity of digital cinema through his concept of 'perceptual realism'. See Stephen Prince, "True Lies: Perceptual Realism, Digital Images, and Film Theory," *Film Quarterly* 49, no. 3 (1996): 27–37.
[28] Whitehurst quoted in Edwards, "*Ex Machina* - VFX Q&A."
[29] In his work on animation, Cholodenko studies the cinematic apparatus's 'technological ancestors and relatives of transportation', including the automobile and the plane. Alan Cholodenko, "Speculations on the Animatic Automaton," in *The Illusion of Life II: More Essays on Animation*, ed. Alan Cholodenko (Sydney: Power Publications, 2007), 496. Interestingly, cinematic motion has historically been fit to withstand automaton narratives like that concerning Ava. See Michelle E. Bloom, "Pygmalionesque Delusions and Illusions of Movement: Animation From Hoffmann to Truffaut," *Comparative Literature* 52, no. 4 (2000): 292. See also Raymond Bellour, who makes a similar claim regarding the cinema's mimetic faculty: 'The actual process of substituting a simulacrum for a living being directly replicates the camera's power to reproduce automatically the reality it confronts'. Raymond Bellour, "Ideal Hadaly: On Villier's *The Future Eve*," *Camera Obscura* 5, no. 15 (Fall 1986): 131.

as a form of animation, then cinematic motion rather than photographic imagery becomes primary'.[30] Importantly, the aspect of motion that coheres film history, uniting 'photographic-based films and traditional animated films (not to mention the hybrid synthesis of photographic and animation techniques that Computer Generated Images represents)', pertains to the affect of the image. Gunning explains that there are 'physical reactions that accompany the watching of motion', which mean that 'we do not just *see* motion… we *feel* it in our guts or throughout our bodies'.[31] The mimetic nature of motion facilitates its equal expression in celluloid-based films as in works of digital cinema. That is to say, irrespective of the means by which the digital image arrives at the conveyance of motion, its impact upon the viewer is unaltered. To bring these threads together, the features of mimicry and motion not only affirm the digital's vitality, but also suggest that the digital's vitality depends on affective rather than objective systems.

The motif of ambivalence that has emerged thus far in this section explains the anxiety underpinning *Ex Machina*'s central queries. Like Ava, the digital image refuses to properly identify itself. It conflates signifiers of artifice and vitality in ways that render visual systems of meaning-making invalid. The digital image implores the viewer to make do without objective evidence, and instead requires that they rely on their feeling about the nature of its being. In order to give a (perhaps paradoxical) sense of logic to such ambivalence proffered by the digital image, and simultaneously contribute to the dissertation's overarching project to characterise digital embodiment, I wish to propose that digital cinema is innately haptic.

The haptic, as it has been theorised within the fields of cinema studies and art history,[32] refers to 'knowledge of the artistic space through the [sense] of touch', as distinct from the haptic's opposite, the optical, which relies on the sense of vision.[33] In fact, Alois Riegl, the art historian from whom many film scholars have

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[30] Tom Gunning, "Moving Away from the Index: Cinema and the Impression of Reality," *Differences* 18, no. 1 (2007): 38-9.
[31] Ibid, 39, Gunning's emphasis. For more on the mimetic quality of cinematic motion, see Germain Dulac, who argued in the cinema's germinative stages that its specificity as an art form pertains to its embodiment of movement. Germaine Dulac, "The Aesthetics. The Obstacles. Integral Cinegraphie," trans. Stuart Liebman, *Framework: The Journal of Cinema and Media* 19 (1982): 6–9. See also Chapter Three in Barker's *The Tactile Eye*.
[32] Within its founding discipline of psychology, haptic perception refers to a 'combination of tactile, kinaesthetic, and proprioceptive functions'. Marks, *The Skin of the Film*, 162.
[33] Antonia Lant, "Haptical Cinema," *October* 74 (1996): 50. For an elaboration of this distinction, see Alois Riegl, "Late Roman or Oriental?," in *German Essays on Art History*, ed. Gert Schiff (New York: Continuum, 1988), 173–90.

developed their application of the haptic,[34] argues that 'a haptic work could be almost fully understood in the dark, through touch, because of its clear outline or boundary, establishing a tangible sense of surface'.[35] The value of the haptic work eludes vision, for it poses tactile uniformity and resistance. In this way, the haptic work questions the logic of visual objectivity. As Riegl writes, the haptic work suggests that 'it is only finally the sense of touch that can inform us about [the limitations of sight], that is, about the relative impenetrability of things'.[36] Laura U. Marks gently revises Riegl's template for the haptic in her work on embodied spectatorship within the cinema, proposing that while a 'haptic image' 'retains its "objective" character', it, in the same turn, solicits closer engagement.[37] Marks writes:

> The haptic image indicates figures and then backs away from representing them fully—or, often, moves so close to them that for that reason they are no longer visible. Rather than making the object fully available to view, haptic cinema puts the object into question, calling on the viewer to engage in its imaginative construction.[38]

By maintaining some degree of unknowability, the haptic image disallows the viewer to 'organise him/herself as an all-perceiving subject' and thereby suspends the distance between them.[39]

Requiring more intimate contact from the viewer, the haptic image initiates a kind of looking which is yielding and mobile, what Marks calls 'haptic visuality'. She explains, 'the works I propose to call haptic invite a look that moves on the surface plane of the screen for some time before the viewer realizes what she or he is beholding. Such images resolve into figuration only gradually, if at all'.[40] In these instances, 'the eyes themselves function like organs of touch'.[41] Marks specifically links this kind of imaging to the work of feminist film- and videomakers, for whom visuality has historically been a controlling force.[42] The films of these practitioners incorporate haptic images to 'trouble the relationship between vision and knowledge. Pointing to the limits of visual knowledge, [these works] frustrate the passive absorption of information,

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[34] For instance, Barker, *The Tactile Eye*; Giuliana Bruno, *Atlas of Emotion* (New York: Verso, 2007), 249-55; Lant, "Haptical Cinema"; Marks, *The Skin of the Film* and *Touch*.
[35] Lant paraphrasing Riegl, "Haptical Cinema," 64. For Riegl's original summation, see Riegl, "Late Roman or Oriental?," 181.
[36] Riegl, "Late Roman or Oriental?" 181.
[37] Marks paraphrasing Reigel, *The Skin of the Film*, 162.
[38] Marks, *Touch*, 16.
[39] Marks paraphrasing Reigel, *The Skin of the Film*, 162.
[40] Ibid, 162-3.
[41] Ibid, 162.
[42] Though Marks associates haptic imaging with intercultural cinema, she notes at the time of writing that this strategy is beginning to appear within mainstream cinema. Ibid, xii-xiii.

instead encouraging the viewer to engage more actively and self-critically with the image'.[43] The haptic here emerges as a 'feminist visual strategy', one that displaces ocularcentric epistemologies with a method that is 'more comfortable in a female body'.[44] By this particular faculty of the haptic, the interests of feminism intersect with the work of the digital.

The digital image could indeed be said to be haptic in routinely tactile senses. Digital painting, for instance, signals physical intervention, and Marks points out that aesthetic attributes of the digital such as pixellation portend hapticity in terms of texture.[45] I hold, however, that digital cinema is *innately* haptic insofar as it implicitly challenges the viewer's apprehension of the image. The digital image begins in unknowable binary code and realises its contents with a visual coherence that belies its status as simulation. Thus, by its very structure, the digital image 'troubles the relationship between vision and knowledge'. Contradistinctive from Marks's usage of the haptic, which emanates from the specific look of the present image, the kind of hapticity I propose here is all-encompassing and derives directly from the format's ambiguity. The absolute artificiality of digital cinema ironically casts doubt over the ontology of its images. The viewer is inclined to wonder: to what extent, if at all, has the live-action footage been altered? Or: which elements were fabricated that have already evaded my attention? Where all digital images are simulated, each and every image constitutes an invitation for active corroboration.

Digital images do not '[give] up [their] nature'[46] in the manner of the photographic—they occlude information about the origin and life of their contents. In the manner of haptic visuality, these images press the viewer to get up close and contemplate the nature of what is depicted. We are wont to scan the image, passing our eyes over it repeatedly in hopes of parsing the "real" from the fabricated. This endeavour may bear 'delight' for the viewer, through 'the playful push-pull between [the image's] associations with accuracy (that is how a woman's face actually looks) and its obvious distortion (but no face looks like *that*)',[47] or

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[43] Ibid, 133.
[44] Marks, *Touch,* 7. Marks emphasises that haptic visuality is a feminist *strategy*, rather than a distinctly feminine impulse.
[45] Marks, *The Skin of the Film*, 176. For more on this, see Chapter Four of this dissertation.
[46] Marks paraphrasing Riegl, *The Skin of the Film*, 162.
[47] Tom Gunning, "What's the Point of an Index?," 45, his emphasis. Sobchack identifies a similar uncanniness in relation to the digital morph. See "'At the Still Point of the Turning World': Meta-Morphing and Meta-Stasis," in

anguish, where it is difficult (or impossible) to pinpoint whether the live-action footage has been altered. In keeping with haptic processes, this undertaking will never be consummated; our relay with the digital image evolves in ongoing tension, where it always knows more than us. The result of the exchange is thus invariably troubling, for it turns on our illegitimated sense of the film's being.

The haptic would thus seem to suggest that fears about the digital image are attributable to its foreclosure of visual objectivity. Where the photographic image presented the relationship between vision and knowledge as a given, the existence of the subject portrayed tacitly affirmed, the digital image provides no such guarantee. In the manner of the proto-cinematic image, the digital image is inherently artificial. Superseding those earlier cinematic forms, the digital image can mimic photographic compositions, and conjure movement, with a degree of exactness liable to produce an affective impression. In sum, the digital is innately haptic; it inheres an ambiguity that solicits active engagement from the viewer and requires them to make do with their sense about what they see. The next section corroborates the foregoing argument about digital cinema as haptic by turning to *Ex Machina*'s narrative. Whissel's concept of the 'effects emblem', shows how Ava binds diegetic and extra-diegetic contexts (much like the heroine of *Under the Skin*) to give expression to the film's materiality.

Ava's Game

Ex Machina's inaugural depiction of Ava coincides with the first of Caleb's 'sessions'—examination periods in which he interacts with Ava to gauge the strength of her artificial intelligence. The sessions take place in Ava's living space, a room in the sequestered bunker of Nathan's home. The room is set up to promote visibility within its own confines, dissected by a series of transparent walls intended to place Ava on full display. It is therefore notable that in this debut scene Ava manoeuvres the space in such a way that obscures or multiplies her image. She is first depicted in a wide shot from Caleb's point of view, standing before a picture window that looks upon a cement barricade foregrounded by shrubbery. Ava harnesses the strong backlight produced by the window to mask her artificiality; in this initial shot, her body is cast in shadows

Meta-Morphing: Visual Transformation and the Culture of Quick-Change (Minneapolis: University of Minnesota Press, 2000), 131–58.

and simultaneously outlined in a sharp silhouette that emphasises its femininity. She subsequently strides across the room and passes a series of glass panes adorned with tiny translucent white dots patterned in an abstract circular motif. As the dots briefly catch her figure they appear to move, producing a kinetic illusion that again diverts the gaze from the specificities of her body. When she finally approaches the camera, as if to promise an up-close look, an adjacent glass wall duplicates her image through its reflection. Ava effectively bookends the frame, puzzling the eye that searches for a vector.

Ava's debut scene returns us to the sense of uneasiness motivating *Ex Machina*'s central queries. The film asks whether Ava and the digital image *feel* real in spite of their overt artifice, and in so doing questions the efficacy of visual systems of meaning-making. Ava intimates the film's central provocation from this earliest encounter. As she moves about her living space she obfuscates her body through the creation of a false impression of humanness, the simulation of motion, and duplication. Ava tricks the eye of the beholder at each turn, pointing to the limits of visual knowledge. In this section I consider how Ava rehearses the notion of digital hapticity at the level of narrative. Beyond substantiating this chapter's thesis, this shift in diegetic registers—we are moving from examining the film's parameters to its contents—allows us to contemplate the feminist nature of the digital image. A self-reflexive reading of Ava's ploys establishes the digital embrace of sensuous knowledge as a particular affront to male hegemony.

In this way, we are now elaborating *Ex Machina*'s formal concerns through its narrative, with Ava as the thread connecting the two contexts. Whissel understands such a methodology to be uniquely solicited by digital cinema because of its artificial nature. Ava neatly adheres to Whissel's theory of the digital 'effects emblem', a 'cinematic visual effect that operates as a site of intense signification and gives stunning (and sometimes) allegorical expression to a film's key themes, anxieties, and conceptual obsessions—*even as it provokes feelings of astonishment and wonder*'.[48] Whissel refutes the comparison of digital visual effects to the kind of spectacles foregrounded within the 'cinema of attractions', on the basis that the former are deeply involved with the filmic narrative.[49] The animated quality of digital cinema—in the dual sense that it is

[48] Whissel, *Spectacular Digital Effects*, 6, her emphasis.
[49] Gunning argues that early works of cinema within the 'cinema of attractions' mode privileged spectacle over narrative. See Tom Gunning, "An Aesthetic of Astonishment: Early Film and the (In)Credulous Spectator," in

artificial and vital—has resulted in the proliferated use of visual effects, to the extent that they have become inextricable from narrative. Whissel explains:

> … the domain of digital visual effects has expanded with the development of new technologies and software, such that these effects now appear onscreen with increasing frequency, duration, detail, and "reality effect." As a result, digital visual effects are deployed with greater integration into and involvement with narrative, plot, setting, and development of character psychology.[50]

This kind of integration is certainly evident in *Ex Machina*, where Ava is a visual effect that braces the film's narrative. She is crucial to the film's premise and its unfolding, sustaining the intrigue of the plot through her unknowability. As an exemplary effects emblem, however, Ava's significance also transcends the narrative's remit. She expresses 'the very stakes of the narrative' in terms of its concerns with technological change.[51] An analysis of the key scenes leading up to Ava's escape reveals that she intimates digital features, and calls upon tricks characteristic of the digital, in order to complicate her apparent artificiality. Ava effectively embodies the threat posed by digital cinema as a consequence of its hapticity.

Ex Machina places Ava within a misogynistic diegesis, thus qualifying her efforts to confound vision as distinctly feminist in nature. This notion is foremost elaborated through the film's mise-en-scène. The house that forms the entirety of the film's settings, notwithstanding a handful of outdoor scenes, is monitored by a series of surveillance cameras—a technology that Marks understands to propagate a 'sort of instrumental vision that uses the thing seen as an object for knowledge and control'.[52] Although the surveillance system surely serves to underline the highly secretive, precious nature of the work that Nathan undertakes within the house, the degree to which it is foregrounded within the film's narrative insists that we understand its primary function as to do with control. Cameras record activity at the front door all the way through to the bunker of the house, and, so far as we can tell, everywhere in between. Most crucially, they allow Nathan panoptic access to Ava's movements within her quarters. Those transparent walls that section Ava's room enable Nathan to monitor her time with Caleb, as well as her activities at her desk and

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Viewing Positions: Ways of Seeing Film, ed. Linda Williams (New Jersey: Rutgers University Press, 1994), 114–33. For an overview of literature comparing Gunning's paradigm to digital visual effects, see Whissel, *Spectacular Digital Effects*, 6.

[50] Whissel, *Spectacular Digital Effects*, 4-5.

[51] Ibid, 4-6. Whissel might be inclined to read Ava as an 'effects emblem' that signals the obsolescence of the corporeal body, like those 'digital creatures' examined in the third chapter of her book. For an application of Whissel's concept similar to that presented in this chapter, see Sarah Keller, "Cinephobia: To Wonder, To Worry," *Lola* 5 (2014), http://www.lolajournal.com/5/cinephobia.html.

[52] Marks, *The Skin of the Film*, 131.

her idle time. Inversely, Ava's range of vision is tremendously limited. The picture window that features in her sealed-off living space constitutes her single point of access to the outside world. Nathan is also able to use the cameras to exert a measure of control over Caleb. He positions Caleb to take up voyeuristic surveillance of Ava by streaming certain camera feeds (rid of sound) to the television screen in the guest bedroom. Per this programming, Caleb's access to Ava becomes both enforced and mediated; he is encouraged to engage with her through a set of screens—the glass walls of her living space, and the television monitor—that privilege sight but inhibit touch. The surveillance system altogether sets out a chain of command for the diegesis organised around visuality: Nathan possesses omniscient vision and control; Caleb, a limited amount of access devoid of sound or touch; and Ava at the bottom of the ocular ladder, the object of speculation.

Ex Machina acknowledges the gendered nature of this hierarchy through its premise, which engages a familiar parable of male control. At its most elemental, the film concerns a male inventor who turns his creative energies to producing an artificially intelligent woman, thus evoking certain technologically-minded iterations of the Pygmalion myth.[53] Indeed, Ava represents a sort of ideal woman. Wanting to endear Caleb to Ava and thus complicate her Turing Test, Nathan designs Ava in accordance with Caleb's 'online pornography profile': her body is womanly, breasted and petite, even fitted with an opening between her legs lined with 'pleasure sensors'; her face is conventionally pretty, rosy cheeked and tanned; her voice is programmed to a soft, high pitch. Though Nathan designed Ava to specifically appeal to Caleb, the film's coupling of technology and femininity is not entirely contingent upon this narrative conceit. We eventually learn that Nathan developed the prototype for Ava's AI using a series of racially-diverse female robots. That each model is normatively feminine even as she is uniquely coded (for instance, one model appears to be of Asian descent, another Black) indicates the wholesale misogyny of the film's diegesis. Just as in those

[53] For similar retellings of this myth within the cinema, see *Metropolis* (Fritz Lang, 1927), *The Stepford Wives* (Bryan Forbes, 1975) and *Eve of Destruction* (Duncan Gibbins, 1991). I am grateful to one of my students, who pointed out that *Ex Machina* also portends uncanny similarities to *Eyes Without a Face* (Georges Franju, 1960). For more on technological iterations of the Pygmallion myth, see Bellour, "Ideal Hadaly"; Mary Ann Doane, "Technophilia: Technology, Representation and the Feminine," in *Liquid Metal: The Science Fiction Film Reader*, 2nd ed. (New York: Wallflower Press, 2007), 182–90; Annette Michelson, "On the Eve of the Future: The Reasonable Facsimile and the Philosophical Toy," *October* 29 (Summer 1984): 3–20.

similar retellings of the Pygmalion myth, here the desire to create new life is closely abetted by a desire to regulate the female body.

Ex Machina effectively foregrounds a link between visuality and male control at the level of diegesis. Its narrative derives from an age-old want to regulate the female body, and the film rehearses that want through the practice of surveillance. Lest one mistakes the film to mobilise this link in earnest, I wish to restate here that the film's revised Turing Test sets out to challenge ocularcentric systems. This is to say, I believe that *Ex Machina* draws attention to the primacy of vision within the male-centric diegesis in order to highlight precisely what is at stake in Ava's test. Her successful passing would signal the inadequacy of visual systems of meaning-making, specifically those that facilitate her oppression. Moreover, Ava, as an effects emblem, channels these narrative interests towards the film's form: she portrays the digital turn as a particular threat to male hegemony.

A most literal example of Ava's evocation of the digital image is developed across a sequence of scenes focusing on her artwork. In an early encounter with Caleb she presents him with a drawing: an abstract figure composed of multiple layers of triangular shapes. The intricate pattern is clearly defined at the figure's centre, but becomes diffuse as it builds outwards, altogether producing an almost-illusion of three-dimensionality. The drawing expresses the essential character of the digital image. Unlike the celluloid negative, which might portend a degree of iconicity, the digital image's particular index (binary code) is impenetrable by iconic systems. Evidently Ava, like the digital, operates in abstraction. Caleb is appropriately dissatisfied with the drawing. Wanting to utilise the work for a reading of Ava's consciousness, and unable to access its meaning, he challenges her to create a new drawing which portrays 'something specific, maybe an object or a person'. Ava senses Caleb's logic—that an artwork might provide visual information about its maker's subjectivity (he tells her condescendingly, 'I'm interested to see what you will choose'), so long as the artwork is legible. Ava exploits this neat rationalisation and subsequently produces drawings that narrativise her oppression. In a set of later scenes she presents Caleb with a representation of the view from her picture window, and then his portrait. Caleb is clearly compelled by the works, perceiving them to reflect Ava's desperation, and her true affection for him. At a narrative level the drawings

serve to advance Ava's manipulation of Caleb. More broadly, they emblematise the power accrued by the digital image as a result of its fluidity. Ava's artworks illustrate the format's essential unknowability and its dual capacity to perform iconicity with a degree of exactness worthy to dupe the viewer.

The fluidity that Ava portends, and the digital shares, is shown to be innate to her design. In a scene of exposition set in Nathan's laboratory, he reveals the details of Ava's composition for Caleb. The laboratory's mise-en-scène features long tables lined with the various elements of Ava's body: metal scraps, empty steel skulls, prosthetic masks, jelly-like brains encased in glass. Brian R. Jacobson astutely reads the scene as an equivalent 'tour of the film crew's similar creation of an artificial AI: its mise en scène becomes a [mise-en-abîme]—a reflexive view of the work of creating cinematic characters and worlds'.[54] To add to Jacobson's interpretation, the robotic skeleton at the far side of the frame is a 3-D print of Ava's computer generated body—a material emblem of the film's make-up.[55] Underscoring Ava's importance for an understanding of the film, here she binds diegetic and extra-diegetic contexts even though she is absent. Nathan stands over one of the tables and picks up a prototype of Ava's brain, the key signifier of her subjectivity. He explains that he sourced its 'software' from the search engine that he invented, Blue Book. Unlike his competitors, who use Blue Book's data to understand *what* people think about, Nathan tells us that he utilised the information as 'a map of *how* people are thinking—impulse, response, fluid, imperfect, pattern, chaotic'. The distinction that Nathan draws—the *what* versus the *how*—provides insight into Ava's operational logic. That is, she works according to instinct, rather than objectivity. The terms that Nathan uses to describe the data affirms this notion, and jointly articulates Ava's kinship with the digital: she works by a system of fluidity, impulse, imperfection, much like the haptic.

Ex Machina adumbrates the disruptive quality of this instinctual logic through the motif of the 'power-cut'. Some way into the film we learn that Ava's body is charged via induction plates that are attached to the walls of Nathan's home. According to this conceit, if Ava reverses the flow of electricity she can overload

[54] Brian Jacobson, "*Ex Machina* in the Garden," *Film Quarterly* 69, no. 4 (Summer 2016): 28.
[55] Whitehurst quoted in Bryan Bishop, "More Human than Human: The Making of *Ex Machina*'s Incredible Robot," The Verge, May 8, 2015, https://www.theverge.com/2015/5/8/8572317/ex-machina-movie-visual-effects-interview-robot-ava.

the system and briefly cut off the house's power supply, including the currents that service the surveillance cameras. Aware that Nathan is observing her interactions with Caleb through the cameras, she disrupts the power supply regularly during their sessions, casting the house (and *Ex Machina*'s frame) in a red light. The power-cuts allow Ava to commandeer sight by way of its redistribution; she can entertain one man's vision at the expense of the other's, and in so doing manipulate Caleb to plot against Nathan. As she alleges to Caleb, she orchestrates the blackouts 'so [that] we can see how we behave when we're not observed'. Through limiting the flow of surveillance Ava creates a gap in the masculine structure of vision and marks the unsurveilled space as candid. Herein she uses Caleb as a cipher for information about Nathan and, more significantly, grooms him to perceive her in erotic terms.

Ava draws upon the candidness of the off-camera space to confront the boundaries that delimit her environment, and so the range of contact that she shares with Caleb. At the outset of the film's third act, Ava, having just confessed to orchestrating the power-cuts, places her hand against the transparent wall that separates her from Caleb. Presented in a two-shot, she brings her face in close against the pane of glass bifurcating the frame and gazes at him. Ava's inferred want for intimacy here actuates a quasi-breaking of the fourth wall at the level of diegesis. She uses her body to telegraph a desire to touch and in the process implicates the pane of glass separating she and Caleb as a limit to their sensorium. By drawing attention to the presence of the transparent divider, she invokes the methods of contact that it—and, by extension, vision—denies. This strategy afforded by off-camera space proves effective: Caleb is moved to help Ava escape. To this end, it is notable that the power-cut functions as a liberatory measure for Ava, with an addendum to the house's security system ultimately facilitating her break.

This scene emblematises the digital embrace of sensuous knowledge, and the format's consequent threat to prevailing systems of control. Ava orchestrates the power-cuts in order to disrupt the circuit of visuality that governs the house and release more instinctual modes of behaviour. Her actions articulate the haptic quality of the digital image: its value eludes visual systems, imploring the viewer to undertake a more sensuous approach. The red light that overwhelms the frame in this scene, as well as Ava's tactile confrontation with the screen that separates her from Caleb, emboldens such a reading; these features recall

Riegl's contention that the haptic work might be wholly understood 'in the dark, through touch', thus gesturing toward the digital's requisite mode of engagement. The circumstance in which the film evokes this association between Ava and the digital elucidates the sense of anxiety registered by the latter. The intent behind Ava's actions—to upset the film's ocular hierarchy—suggests that digital cinema incites fear insofar as it upends the desire to use vision as a means of control.

Ava's project develops a more expressly feminist resonance in a crucial set of scenes where she performs femininity as a ruse. In the first of these scenes, which takes place during one of Ava's examination periods, she floats the idea of going on a date with Caleb in the outside world. He is bemused by the suggestion, at this point perceiving Ava as an artificial object to be studied. Ava disarms Caleb's prejudice by adopting a girlish costume as a prospective outfit for the date. She retreats to her closet and reappears in a floral dress, a cardigan, thick stockings and a cropped wig. Standing before Caleb, she twirls and holds out her dress as if to curtsy, asking, 'how do I look?' With the exception of her neckline, the costume wholly conceals her robotic insides. The decoration of her body makes a sort of "magic eye" puzzle of it, where, if one trains their gaze in the right way, placing emphasis on her outfitted body and suppressing the appearance of her collar region, Ava appears plausibly feminine. Caleb's response confirms the efficacy of the illusion; he stutters, visibly heaves and his eyes dart as he takes in her features. Though he tries to downplay his attraction to Ava through a stale joke, she recognises a counter message expressed through his body: 'you give me indications that you are [attracted to me]… the way your eyes fixate on my eyes and lips, the way you hold my gaze'. Ava understands the importance of Caleb's bodily response for verifying her subjectivity, and is likewise aware of methods that will short-circuit such an outcome. She replaces the spectacle of her roboticism with the spectacle of femininity in order to trick Caleb's eye and pique an erotic impulse.

The tactic mobilised by Ava in this scene evokes a couple of meaningful associations that support a reading of digital hapticity. For a start, Ava's strategy recalls the premise of Alan Turing's original test, which explained its parameters through a charade of gender. Turing outlines that the 'imitation game':

> … is played with three people, a man (A), a woman (B), and an interrogator (C) who may be of either sex. The interrogator stays in a room apart from the other two. The object of the game for the interrogator is to determine which of the other two is the man and which

> is the woman… We now ask the question, 'What will happen when a machine takes the part of A in this game?'[56]

The issue of gender normativity was likely poignant for Turing,[57] and it is thus no coincidence that his initial rubric for the test is designed to expose gender as a construct. His swift translation of a game concerning gender to one of intelligence sets up an equivalence between the two, and in so doing infers that gender and intelligence can be demonstrated irrespective of sex or species. More interestingly for my purposes here, Ava's tactic also recalls Mary Ann Doane's work on the performance of femininity as a 'masquerade'.[58] Doane inadvertently outlines Ava's project when she suggests that a woman can 'confound the masculine structure of the look' through 'the hyperbolization of the accoutrements of femininity'.[59] Within Doane's paradigm, the woman regains a measure of control from patriarchy by performing the role that she has been assigned as a ruse. Doane explains that 'the masquerade's resistance to patriarchal positioning [lies] in its denial of the production of femininity as closeness, as presence-to-itself, as, precisely, imagistic'.[60] In other words, the woman asserts her distance from femininity by manifesting its traits strategically.

These connotations suggest how we might understand Ava's feminine performance as indicative of digital processes, and moreover how digital cinema might be aligned with feminist aims. To extend Turing's analogy, Ava's imitation of femininity in this scene works to articulate the notion of digital mimicry. Just as Turing showed that gender and intelligence can be demonstrated irrespective of sex or species, Ava illustrates the digital's capacity to mimic photographic compositions in spite of its synthetic base. Doane's work, though concerned exclusively with gender, substantiates this connection. Doane writes about the

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[56] A. M. Turing, "Computing Machinery and Intelligence," *Mind* 59, no. 236 (1950): 433.

[57] As numerous feminist techno-science scholars have noted, Turing's queerness made him especially curious about cultural norms pertaining to human identity. After being arrested in 1952 for engaging in homosexual activity, Turing elected to take female hormones as punishment—a measure thought to correct a hormonal imbalance causing his sexual orientation. As a result of these injections Turing was made impotent and began to grow breasts, yet resumed gay relationships at the conclusion of the treatment. Turing's punishment assumes a correlation between biology and gender norms, while his response to treatment indicates that embodiment is more fluid than that. See Judith Genova, "Turing's Sexual Guessing Game," *Social Epistemology* 8, no. 4 (October 1994): 314-15; Judith Halberstam, "Automating Gender: Postmodern Feminism in the Age of the Intelligent Machine," *Feminist Studies*, no. 3 (1991): 439–60; N. Katherine Hayles, *How We Became Posthuman: Virtual Bodies in Cybernetics, Literature, and Informatics* (Chicago: University of Chicago Press, 1999), xi-xiv.

[58] Mary Ann Doane, *Femmes Fatales: Feminism, Film Theory, Psychoanalysis* (New York: Routledge, 1991), 17-32. Doane derives her formulation from Joan Riviere's theory of the masquerade. See Joan Riviere, "Womanliness as a Masquerade," *International Journal of Psychoanalysis* 10 (1929): 303–13. For a similar formulation of the performance of femininity, see Luce Irigaray, "The Power of Discourse and the Subordination of the Feminine," in *This Sex Which Is Not One* (Ithaca: Cornell University Press, 1985), 68-85.

[59] Doane, *Femme Fatales*, 26.

[60] Ibid, 25.

masquerade as a *visual* tactic, one which produces femininity as an 'excess', a 'simulation',[61] and effectively 'doubles representation'.[62] Indeed, Ava's performance in this scene is primarily visual, such that she uses a costume to trick the eye of the beholder. The visibility of her masquerade coincides with strategy of the digital image to assuage spectatorial desires for iconicity through the simulation for visual information. As an effects emblem, Ava not only articulates digital processes, but also intimates the feminist nature of the digital image. Like the female subject, digital cinema is prone to mimic that which it is not, and derives haptic power from its refusal to be understood by visual systems.[63]

This analogy becomes extended in a scene immediately subsequent, where Ava uses the surveillance camera to produce a tenuous impression of femininity. Knowing that the camera feed from her room will be streamed to Caleb's television (at one point she tells him, 'sometimes at night I'm wondering if you're watching me, and I hope you are'), Ava removes the feminine costume that she put on in the previous scene as a sort of striptease for the surveillance camera. In a static long shot appropriate to the recording technology, she stands backlit at the centre of her picture window. The window produces the illusion of a frame around her body, which develops into a frame-within-a-frame once the recorded image reaches Caleb's television monitor. In silhouette Ava rests her arched foot on an armchair and slowly peels her stocking from knee to toe in one exaggerated movement. After removing the sock, she contorts hips to expose her crotch (obscured by shadows) to the surveillance camera and pauses briefly to face it. Though her features are made inscrutable by her positioning before the window, we intuit her look into the surveillance camera to acknowledge Caleb's presence. She repositions perpendicular to the window, then unzips her dress and grapples for its hem with both hands in a masturbatory motion before lifting it up over her head. She stops to look out the window so that the afternoon light catches her back. Without clothing, the cleave of her neoprene-cast behind is clearly visible.

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[61] Ibid, 25.
[62] Ibid, 26.
[63] Marks goes so far as to suggest that digital cinema has 'a strikingly queer body'. She reasons, 'like the choice to render the database of information audio-visually, digital video reflects a voluntaristic choice to have *this* kind of body, for now'. Marks, *Touch*, 152, her emphasis.

Ava's disrobing in this scene reinterprets the material limits of her body. She removes the costume that she donned in the preceding scene to make her metallic insides visible again. By virtue of her underside being temporarily covered, the process of its revelation is made erotic, as if her metallic body were now synonymous with a naked body. She in effect gives her body a new, illusory layer. That Ava enacts this process before the surveillance camera is significant given the technology's formal limitations. The surveillance camera permits unedited access to the scene that it records, but its view is fixed, and its images lack definition. The camera is attached, immovably, to the wall of Ava's living space facing the picture window. By positioning herself at the window's centre, Ava initiates a framing motif sure to direct the viewer's eye to her actions. In so doing, however, she catches the window's light and obscures her body in a mess of contrast barely penetrable by the surveillance camera. Its images portend a haptic quality insofar as they lack latitude and saturation, and are fuzzy in a way that here renders the contours of Ava's body imprecise. For all its trouble producing a reliable image, the surveillance camera privileges an uninhibited kind of spectatorship that Caleb readily embraces. From the privacy of his bedroom, he can perceive Ava voyeuristically, without the anxiety of being watched. Although of course, Garland's camera is watching, intercutting the striptease with extreme close-up shots of Caleb's bodily reaction. Caleb's neck appears illuminated by flickering light rays as he gulps, and his eyes fixate unblinkingly on the television monitor out of frame. In the sequence's final shot Caleb's fingers appear outstretched before the screen, turning in its soft blue light as if in hopes of transcending its limits to possess Ava.

At a narrative level, this scene serves to secure Ava's seduction of Caleb; hereafter it becomes clear that he is romantically interested in her and thus in some sense believes her consciousness to be real. Ava facilitates this outcome through coordination with the surveillance camera. She understands its formal limitations and uses this knowledge to relay an image of her body that is erotic insofar as it is partial. The surveillance camera's distance, idleness, and poor fidelity work together to create the impression that Ava is undressing to reveal a female body. Caleb is so compelled by the illusion that he practices a response typical of haptic visuality. He gets up close and studies the image, and even attempts to touch it in order to gain a better sense of what he is seeing. This shot of Ava expresses the similar power of *Ex Machina*'s images. When we look at shots of her effects-laden body, or, more pointedly still, shots that appear to be constituted by live-

action footage, we are unsure about the status of what we see. Works of digital cinema like *Ex Machina* position the viewer to engage actively with the image because the image is inherently ambivalent. Such images are, like Ava, fundamentally artificial but pose a degree of vitality that troubles one's sense of certainty.

The notion of digital hapticity is rehearsed and consolidated across these scenes. Ava's efforts to disprove vision intersect with the haptic qualities of the digital image, namely its imitation of visual systems, its essential fluidity, and its solicitation of sensuous engagement from the viewer, such that she functions as an effects emblem. Ava's narrative actions affirm that the sense of uneasiness registered by digital cinema stems from its challenge to ocularcentric systems of control, particularly those that facilitate women's oppression. Now that we have theorised digital hapticity and contemplated how it is narratively expressed within *Ex Machina*, let us briefly apply this framework to the film itself. The next section concludes the work of this chapter and gestures towards the one that follows as it ponders the effects of digital hapticity on the body of the actress.

Conclusion: Invisible Limits

So far this chapter has developed the argument that digital cinema is innately haptic through reference to scholarly work on new media and consideration of *Ex Machina*'s narrative. In this concluding section I wish to briefly apply the notion of digital hapticity to the film's form. Such an application highlights links between digital cinema and the cinematic form of animation that have already been surveyed within this chapter. For instance, a formal examination of *Ex Machina* turns up ideas about the involved construction of the artificial image, particularly the extensive labour of the animator. This labour, which is hopefully unapparent within the final product, gives the digital image its haptic character; it is unclear where/if the image has been altered. In the interest of elaborating this dissertation's focus on the lived body of the actress, I extend this work on the occluded labour involved in the animated image to contemplate the question of Vikander's contribution. I suggest that *Ex Machina* benefits from her exacting performance, as it appears to be one of its visual effects.

Animation, as a cinematic form, originally took shape through the intensely regulated efforts of a team of assembly line workers.[64] Scott Bukatman delineates the labour process underpinning early twentieth century animations:

> A supervising animator would provide a set of character poses and oversee the production of hundreds of "in-between" drawings, all of which had to be transferred from paper to celluloid, painted, placed atop painted backgrounds (usually produced by an entirely different team of artists), and then photographed, frame by frame, drawing by drawing.[65]

This physically and structurally involved process has led many animation scholars to ruminate on the profound dialectic plaguing their object of study.[66] For animations to appear convincingly lively and 'spontaneous',[67] is to effectively conceal the work of the animator. Animation as a cinematic form is thus encumbered by the contradictory ideas of fluidity and regulation, autonomy and effort.

Digital cinema as animation does not escape these laborious processes despite its apparent automation.[68] As Manovich has shown through his work linking new media to proto-cinematic moving images, the production of digital films oftentimes entails physical labour exceeding what was called for with earlier forms.[69] He observes that 'today, some of the most visually sophisticated digital effects are often achieved using the same simple method [as proto-cinematic moving images]: painstakingly altering thousands of frames by hand… one frame at a time'.[70] *Ex Machina* is exemplary; the method by which Ava's body was realised, involving both background plates and computer generated images, meant that a single tracking shot within the film required individual alteration to *sixteen hundred* frames.[71] Despite the documented time and physical labour involved in the realisation of Ava's body, press materials for *Ex Machina* have sought

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[64] Importantly, much of this work was performed by women. See Hannah Frank, *Frame by Frame: A Materialist Aesthetics of Animated Cartoons*, ed. Daniel Morgan (Oakland: University of California Press, 2019); Wendy Haslem, "Applied Colour: Chromatic Frankenstein's Monsters?," in *From Méliès to New Media: Spectral Projections* (Bristol: Intellect, 2019), 35–56.
[65] Bukatman, *The Poetics of Slumberland*, 108.
[66] See, for instance, Bukatman, *The Poetics of Slumberland*; Frank, *Frame by Frame*; Sobchack, "Animation and Automation; Stacey and Suchman, "Animation and Automation."
[67] Sobchack, "Animation and Automation," 384. Sobchack relates this notion of animation's spontaneity to Sergei Eisenstein's key concept of 'plasmaticness'. See Sergei Eisenstein, *Eisenstein on Disney*, trans. Alan Y. Upchurch (London: Methuen, 1988), 21.
[68] Where celluloid cinema required a projector to work through a series of frames, digital cinema is pre-configured and plays autonomously. In this way, digital cinema voids the labour of the projectionist. However, it should be noted that manual labour involving receiving and assembling digital cinema packages (DCP) is still required.
[69] Manovich writes that digital painting does not involve 'just a dozen images, as in the nineteenth century, but thousands and thousands'. Manovich, *The Language of New Media*, 304.
[70] Ibid, 304-5.
[71] Whitehurst quoted in Bishop, "More Human than Human."

to emphasise the subtlety of the film's visual effects work. In an article entitled "Why *Ex Machina*'s Visual Effects Will Stun You in Their Simplicity", the film's visual effects supervisor, Andrew Whitehurst comments that 'what perhaps many cinema goers don't notice is that more lower budget, less spectacle-heavy films [like *Ex Machina*] are making much greater use of VFX'.[72] Whitehurst's remark points toward the digital goal of photorealism, which inheres the paradox that hard-to-notice visual effects are the most impressive.[73] Indeed, for Whitehurst the inconspicuousness of the image speaks not to the absence of visual effects, but rather to their thoughtful and embedded construction. His sentiment affirms the haptic quality of the digital image, indicating that part of its power derives from its ambiguity. But his sentiment also points toward a revived conflict of labour forces at work within digital cinema: in the case of *Ex Machina*, treating visual effects work as minimalist overwrites the physical labour contributed by Vikander.[74] Where attenuation to the image is subtle or difficult to define, unaltered aspects of the image, aspects which are perhaps most crucial to Ava's vitality, are rendered suspect.

Examining the film with knowledge of its visual effects process in mind, it seems plausible that the qualities that make Ava compelling are largely attributable to Vikander. The actress jokes that, 'half of the [film's] budget went to create my tummy', but it is true that the effects work conducted on Ava only extends to her torso, arms and legs; her facial expressions, hands, voice, and movements all originate from Vikander, a former dancer with exceptional control over her body.[75] Vikander brings a physical preciseness to Ava's

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[72] Whitehurst quoted in Farrha Khan, "Why *Ex Machina*'s Visual Effects Will Stun You in Their Simplicity," Techradar, February 26, 2016, https://www.techradar.com/au/news/home-cinema/why-ex-machina-s-visual-effects-will-stun-you-in-their-simplicity-1315888.

[73] For more on the desire for visual effects work to be imperceptible, see Sobchack's discussion of 'scary women' films in Chapter Four of this dissertation.

[74] While I am proposing here that the digital era presents unique challenges to actors' labour, this issue itself is not new. Danae Clark examines how actors' labour has historically been concealed by the film industry, and how this elision is reflected within the field of star studies. Clark argues that star studies routinely treats the star as object of the spectator's gaze, and therein 'tends to accept the actor/star as a preconstituted phenomenon of industrial discourse'. Clark proffers the term 'actors as workers' to restore subjectivity to the actor and in so doing establish a more equitable relationship between actor and spectator for star studies, one which I would suggest is sympathetic to a phenomenological understanding of the cinema. See Danae Clark, *Negotiating Hollywood: The Cultural Politics of Actors' Labor* (Minneapolis: University of Minnesota Press, 1995), 120-121; and also Barry King, "Stardom as an Occupation," ed. Paul Kerr (London: Routledge, 1986), 154–84. For a discussion of the concealment of actors' labour within the context of digital cinema, see Tom Gunning, "Gollum and Golem: Special Effects and the Technology of Artificial Bodies," in *From Hobbits to Hollywood: Essays on Peter Jackson's Lord of the Rings*, ed. Ernest Mathijs and Murray Pomerance (Amsterdam and New York: Rodopi, 2006), 319–50; and Stephen Prince, "Actors and Algorithms," in *Digital Visual Effects in Cinema: The Seduction of Reality* (New Brunswick: Rutgers University Press, 2012), 99–144.

[75] Vikander quoted in Christina Radish, "Alicia Vikander on *Ex Machina, The Danish Girl*, and Dreaming of Playing Greta Garbo," Collider, February 8, 2016, http://collider.com/alicia-vikander-ex-machina-the-danish-girl-

movements that enhances her affective power. For instance, the assertiveness with which the character cocks her head, the measure with which she comports her limbs, and the unrushed and formally exact nature of her gait give Ava a mechanical quality that jars productively with her more human traits. These aspects of Ava's physicality significantly contribute to her ontological ambiguity—the central question upon which the film's narrative rests—and can seemingly be traced back to Vikander.

Whissel writes that the effects emblem signifies just 'as it provokes feelings of astonishment and wonder'. My concern is that the feelings of astonishment and wonder registered by Ava serve to conceal the work of Vikander. The actress's physical labour becomes lost in the tide of digital hapticity, the ambiguity of the format threatening her pro-filmic purpose. That is to say, *Ex Machina*'s visual effects work throws the details of Vikander's performance into question. One is inclined to ask, as I did upon first and repeat viewings: is Ava's facial performance real? Or, have her movements been digitally augmented? In a matter appropriate to the haptic image, it is difficult to pinpoint where the image has been altered. The film profits from the epistemological quandary issued by digital cinema as it subsumes Vikander's labour into the spectacle of its visual effects work.

This chapter located the materiality of female and filmic bodies through the haptic. It interpreted *Ex Machina*'s central question regarding Ava's authenticity self-reflexively (as if the film were also wondering about the efficacy of its own, synthetic images), and homed in on the sense of uncertainty undergirding the provocation. It built on the findings of Chapter Two relative to digital cinema—namely, that the digital is hybrid in nature, and is therefore fit to marshal a strong sense of realism despite its artificiality—and surmised that the digital is threatening insofar as it destabilises the relationship between vision and knowledge. Guided by the work of Lev Manovich and Tom Gunning, the chapter deduced that the digital puts an end to the illusion of truth proffered by the photographic index, and instead beseeches the viewer to make do with their feeling about the nature of the image. To give a sense of logic to the digital's ambiguous nature and requisite mode of engagement, the chapter centrally argued that digital cinema is

interview/. Whitehurst himself concedes that 'the physical movement of [Ava] is all [Vikander], and the face, the hands, the feet are photographic in 99 percent of the shots'. Whitehurst quoted in Bishop, "More Human than Human."

innately haptic. It examined scholarly work on the haptic, chiefly by Laura U. Marks, to substantiate this assertion and demonstrate its originality. The chapter established the qualities that render the digital haptic as principally its synthesis of artifice and vitality, its fundamental unknowability, and its solicitation of active engagement from the viewer.

To elaborate its central argument, the chapter turned to *Ex Machina*'s heroine, Ava. The chapter situated Ava as an effects emblem, as theorised by Kristen Whissel, and articulated her immense power within the narrative through the tenets of digital hapticity. This link between female and filmic bodies proved inversely productive, as Ava suggested that digital cinema is aligned with feminist aims due to its negation of visual knowledge. Altogether, this chapter extended the dissertation's overarching argument as it located Ava's materiality through the hapticity of the digital, and likewise established Ava as an emblem of the film's formal concerns. The chapter qualified their perceived artificiality as haptic, and suggested that digital cinema is inherently feminist insofar as it unsettles wonts to use vision for control.

The next chapter, on Denis Villeneuve's *Blade Runner 2049*, picks up the concerns of this chapter's final section, and contemplates how female corporeality is subsumed into visual spectacle. In *Blade Runner 2049*'s imagined future the precarity of digital media is acute, and female holograms have emerged as reflections of the format's absence. The chapter negotiates the perceived immateriality of female and digital bodies through what I am calling 'an aesthetics of absence': the look of the digital image occasioned by its intangible construction. This aesthetics homes in on the extant material present when digital hapticity waivers—when the digital image is less than pristine, more artificial than realistic.

Chapter Four
An Aesthetics of Absence in *Blade Runner 2049* (2017)

'Digital video's virtuality is always hovering at the limen of its audiovisual manifestations'.[1]

As I write this chapter I am running the weekly screenings for an introductory cinema studies subject. Our third week focuses on mise-en-scène, and the standby illustrative text is Ridley Scott's 1982 film *Blade Runner*. Each year there is at least one, particularly eager student who queries the edition that we will be studying: it is the 1987 director's cut, which I play on a desktop computer via DVD. Ten minutes into the screening, as Rick Deckard (Harrison Ford) is briefed on his latest target, the image freezes. I attempt to revive it by rewinding the film a fraction, but it is still stilled. I then try to recuperate the DVD using the keyboard's eject button. Alas, it is stuck. In the darkened screening room I sheepishly explain my dilemma to the students: the DVD is caught, and the computer refuses to release it. One student yells out that he has the film saved to a handy USB, and in my desperation to keep time I accept the offer of this foreign, likely illicit copy. After playing the film from the point of the DVD's freezing it occurs to me that we might now be watching the theatrical cut, the central distinguisher of which pertains to the film's ending. I sit uneasily for the remainder of the film, anticipating its possible conclusion (to my relief, it turns out to be the director's cut). After the screening I finally recoup the DVD from the computer to find its underside riddled with scratches. The copy was thereafter *retired*.

I begin with this (likely familiar) anecdote not only for its textual relevance, but also because it harnesses a number of issues around format specificity and failure which plague Denis Villeneuve's 2017 sequel, *Blade Runner 2049*, and indeed this chapter. The faulty DVD and redeeming USB file offered by my student highlight the problems inherent to digital media due to its constitution by information: the particular signs of failure; the ease with which the information can be replicated and possibly tampered with; the likelihood that certain editions will be unknown or forgotten where one procures an illegitimate copy; the impossibility

[1] Laura U. Marks, *Touch: Sensuous Theory and Multisensory Media* (Minneapolis: University of Minnesota Press, 2002), 149.

of recovering digital information once it becomes damaged. Such limitations—which are ontological and thus visual—are addressed in this chapter by what I call, following Lucas Hilderbrand's analogue 'aesthetics of access',[2] a digital aesthetics of *absence*.[3] I argue that *Blade Runner 2049* mobilises this aesthetics to deal with the intersecting concerns of digital and female embodiment.

The aesthetics of absence—an apparent impossibility—refers to the unique appearance of digital media occasioned by its immaterial construction. The digital is comprised of binary codes, which suggest that it has perhaps 'given up its body'.[4] The aesthetics of absence undercuts such an assumption by focalising the latent materiality of the digital, its susceptibility to error and decay. This aesthetics furthers the dissertation's appreciation of digital embodiment by extending the work of the last chapter on digital hapticity. More specifically, the present chapter considers the affect of the digital image at moments where its innate ambiguity becomes skewed, such that the image's processes are betrayed by visual imperfections. *Blade Runner 2049* engages this aesthetics by building issues of digital materiality into its diegetic content, as well as its form. Most profoundly, *Blade Runner 2049* fixates its rumination on the digital on the similarly absent female body. The film diegetically and non-diegetically effaces female materiality through variable means of digital reproduction, commoditisation, attenuation and replacement. *Blade Runner 2049* knowingly uses the female form and its stereotypical visibility to express issues circulating around the digital. However, I contend that at times this endeavour slips the film's grasp. In attempting to artificially realise the female body using digital visual effects, the film reveals its misogynistic purview.

This chapter begins by tracing the root of *Blade Runner 2049*'s interest in digital ontology via its imagined, extra-diegetic history. I develop the digital aesthetics of absence to characterise the medium's presence—in *Blade Runner 2049* and beyond—most significantly through Hilderbrand's founding concept. Hilderbrand valorises analogue video by considering the unique look it gains through repeated use, specifically the user

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[2] Lucas Hilderbrand, *Inherent Vice: Bootleg Histories of Videotape and Copyright* (Durham: Duke University Press, 2009).
[3] Vivian Sobchack coincidentally uses this term to different ends in a work examined later in this chapter. She argues that early QuickTime 'movies' display an 'aesthetics of absence' in their function as fragments of past, lost experience. See "Nostalgia For a Digital Object: Regrets on the Quickening of QuickTime," *Millennium Film Journal* 34 (Fall 1999): 23.
[4] Marks, *Touch*, 147.

practice of bootlegging. His work establishes a model for my own aesthetics, but also locates the digital medium within a continuum of no-longer-used or forgotten film formats, one that refuses the notion of a dead-end or a point of completion. As demonstrated in the work of Vivian Sobchack and Laura U. Marks, this lineage is important to counter the perceived immateriality and attendant infallibility of the digital. I examine the aesthetics of absence with reference to those illusory women upon whom the film concentrates its digital visual effects. Villeneuve gives K's (Ryan Gosling) purchased holographic girlfriend, Joi (Ana de Armas), glitches that suggest her tenuousness as a digital creation. Likewise, Rachel (Sean Young, but problematically so) is administered a critical flaw that evinces the fragility of the digital data supporting her recreation. *Blade Runner 2049* thus works through its anxieties around the digital via the theme of interactivity at the level of diegesis, but the medium's limitations also speak to issues of female ontology at the level of form. Drawing on Sobchack's 'scary women' films, I pose that the digital transformations undergone by de Armas and Young become sensible through the aesthetics of absence.[5] By virtue of visual error, the twinned absence of these actresses from the characters that they gave body becomes palpable.

A Digital Aesthetics

Blade Runner 2049 is subtended by a tangle of future dates. Scott's original *Blade Runner* was 2019 set and 1982 released, and Villeneuve's film comes in 2017 (on the cusp, temporally speaking, of Scott's chosen future) and takes 2049 as its focus. Scott's film predicted the technologies of 2019. Some devices have already been supplanted by the time of *Blade Runner 2049*'s release, such as the Esper Machine, a photographic magnifying technology used by Deckard to investigate a rogue replicant's whereabouts. Other technologies depicted in the original film, such as flying cars, are still only imagined. Villeneuve's film carries the freight of the time elapsed since the original *Blade Runner*, as well as that of reconciling contemporaneous technologies with his imagined future and the technologies of the original that have yet to materialise. To negotiate this pro-filmic difference—a future not recorded within the *Blade Runner* universe, nor lived by ours— Villeneuve configures his film as a transmedial object. The director turns to a series of paratexts that destabilise the limits of his film and so situate it within a larger narrative and technological history.

[5] Vivian Sobchack, *Carnal Thoughts: Embodiment and Moving Image Culture* (Berkley: University of California Press, 2004), 36-52.

Villeneuve conceived a lineage for his film, which he then tasked two filmmakers with documenting in three respective short films released just prior to the release of *Blade Runner 2049*. The latter two films, *2036: Nexus Dawn* (2017) and *2048: Nowhere to Run* (2017), both directed by Luke Scott (son of Ridley), are concerned with the innovation of the Nexus-9 replicants created by Niander Wallace (Jared Leto) to support the Earth's dying ecosystem. The first short film in the prequel trilogy, *Blade Runner: Black Out 2022* (Shinichirô Watanabe, 2017), tracks the digital 'blackout' little mentioned within *Blade Runner 2049*, but so crucial to its context.

The 2022 blackout, as documented in Watanbe's anime short, refers to an electrical outage caused by a missile detonation over Los Angeles. This event, which erased all digital data, is orchestrated by rebel replicants looking to wipe out the Tyrell Corporation's database so that they can no longer be hunted. This background sets up a fragile present for *Blade Runner 2049*'s imagined future. For one, the film's diegesis is victim to the will of global warming, which has transformed the climate of Los Angeles so that it is closer to Villeneuve's native Montreal; imagining a wintry setting for his sequel, the director recalls: "I said to myself, okay, *Blade Runner* was a dark, noir movie, and I'm going to make a white *Blade Runner*".[6] The film's use of whiteness and intense colour[7] thus serve as perverse markers of earthly decay. More interestingly for my purposes within this chapter, the fragility of *Blade Runner 2049*'s present is expressed through its technology. In the wake of the 2022 blackout, many of the devices depicted in Villeneuve's film appear archaic, little advanced from those in Scott's original. The fact is that *Blade Runner 2049*'s commonplace technologies have reverted to analogue. There are devices recognisable from the 2017 viewer's past, such as the overhead magnifying projector that K uses to identify the DNA code on Rachel's skeleton, or the microfilm by which he locates her missing child's records. Yet, even the film's futuristic technologies feel tired and clunky. Joi's originary projector, for instance, stutters and wails. K's flying car is grimy and its user

[6] Denis Villeneuve quoted in Francine Stock, "*Blade Runner 2049*," *The Film Programme*, October 8, 2017, https://www.bbc.co.uk/programmes/b096jb21.

[7] The exteriors of the sequence set in Las Vegas are cast in thick, red smog inspired by the 2009 dust storm that enveloped the Australian city of Sydney. See Bill Desowitz, "Why Roger Deakins Should Win the Oscar for *Blade Runner 2049*," IndieWire, October 5, 2017, http://www.indiewire.com/2017/10/blade-runner-2049-roger-deakins-cinematography-oscar-1201884071/.

interface cluttered and involved. Motion graphic displays appear stark.[8] Villeneuve's diegesis is purposefully cognisant of its technologies' fragility—the struggle to regenerate, and the imminent threat of relapse.

This spectre of digital fragility haunts the film's form. A number of self-reflexive glitches suggest that *Blade Runner 2049* is mindful of its own, tenuous body. Most notably, its opening studio credits are tainted by visual marks of internal failure. Graphic lines mar the recognisable Columbia Pictures and Alcon Entertainment icons, playfully anticipating the future state of the high-definition images that follow. The logos, here rendered in black and white, flicker unpredictably and their contents become offset by bars which twitch in the manner of a data file deteriorated through interference. Likewise, the red text of the film's closing credits pulsates against the black background and is variably misaligned, frustrating its legibility. As the credits proceed the background begins to randomly evince irregular block patterns and graphic noise in a variety of colours. These features again recall data fragmentation, as if the image's volatile insides were failing to sustain its pristine exterior.

Blade Runner 2049's wariness of its constitutive format is also communicated in its content. Late in the film, K and Deckard engage in a shootout in the theatre of the dilapidated Las Vegas casino where the latter has been holed up. The confrontation is complicated by a loop of faulty digital holograms that occupy the theatre, embodying past entertainment icons. A string of projectors attached to the ceiling intermittently realise Elvis Presley, Marilyn Monroe, Liberace, and teams of flamenco, go-go, and Bollywood dancers. These holograms embodying past entertainment icons remind us that we are watching a work of mainstream cinema.

Blade Runner 2049 and these recognisable holograms share a format—'1s and 0s', as Joi notes earlier in the film—which makes the problems of the former readable through the latter.[9] This connection is reinforced

[8] The film's design team presumed that, post-blackout, colour displays would have to be created using certain types of bacteria. See Nick Summers, "Designing the Technology of *Blade Runner 2049*," Engadget, October 20, 2017, https://www.engadget.com/2017/10/20/designing-the-technology-of-blade-runner- 2049/.
[9] For more on the hologram, see Jean Baudrillard, "Holograms," in *Simulacra and Simulation*, trans. Sheila Faria Glaser, 14th ed. (Ann Arbor: University of Michigan Press, 1994), 105–10; Sean Johnston, "Holograms: The Story of a Word and Its Cultural Uses," *Leonardo* 50, no. 5 (2017): 493–99.

through the space of their exhibition. The theatre is cavernous and sectioned by rows of opened leather booths facing an elevated stage that assumes the width of the room. At one point K sits against a booth, so distracted by Elvis's performance that he briefly forgets the ongoing shootout. The hologram's immersive power within this setup evokes the cinematic apparatus, and so makes its limitations also transferable to the filmic image. The holograms express errors commonplace to the digital format. For instance, the figure of Elvis is abruptly stretched and misaligned, and is prone to skip ahead in the performance reel. When it approaches the camera, pixilation in the form of discoloured horizontal lines becomes evident across its body. Most jarringly, as the hologram performs its sound track moves in and out of sync, sometimes disappearing completely. These errors work to disaggregate the figure, making its digital body palpable.

Such markers of digital failure give credence to and express *Blade Runner 2049*'s aesthetics of absence. The film inwardly and outwardly grapples with questions of digital ontology, specifically how the format will endure future technological resets, advances in playback platforms, and environmental wear. This pledge to grasp the format's specificity through its limitations is shared by Hilderbrand's analogue aesthetics of access. Hilderbrand finds value in technological error and wear, re-viewing this inevitability as an interstice for understanding a particular format and the haptic forms its deteriorative impulses take.[10] As this description suggests, his approach is deeply phenomenological. Hilderbrand reads his case study, analogue magnetic tape, not as an isolated object, but in conjunction with contemporaneous copyright regulations and the methods of consumption these laws sanctioned. His embodied approach establishes a rubric for my own aesthetics.

Analogue tape as a medium is characterised by *access*. It was originally developed to facilitate private recordings, and viewers came to routinely duplicate videotapes in a practice known as 'bootlegging'. This

[10] For more perspectives that revaluate technological failure, see Jonathan Crary, "Eclipse of the Spectacle," in *Art After Modernism: Rethinking Representation*, ed. Brian Wallis and Marcia Tucker (New York: New Museum of Contemporary Art, 1984), 283–96; Anne Pasek, "The Pencil of Error: Glitch Aesthetics and Post-Liquid Intelligence," *Photography and Culture* 10, no. 1 (March 2017): 37–52; Sylvère Lotringer and Paul Virilio, *The Accident of Art*, trans. Mike Taormina (Cambridge: MIT University Press, 2005); Michele White, "The Aesthetics of Failure: Confusing Spectators with Net Art Gone Wrong," in *The Body and the Screen: Theories of Internet Spectatorship* (Cambridge: MIT Press, 2006), 85–114.

tendency was deemed lawful at the time under fair use, 'a general loophole that protects otherwise copyright-infringing duplications of texts for culturally edifying education, critical, or newsworthy uses'.[11] Fair use as a regulation is inherently ambiguous and so paved the way, ideologically and practically, for an unprecedentedly interactive mode of spectatorship, what Hilderbrand calls an aesthetics of access. For Hilderbrand 'aesthetics' not only refers to videotape's formal properties, but also the 'sensory and affective relationship between the audience and (what's on) a given tape'.[12] This approach tends to the seemingly illegitimate practice of bootlegging, as well as a neighbouring mode of access enabled by the videocassette recorder (VCR) remote control. Videotape allowed viewers to watch and re-watch various media at home—feature films, children's shows, workout videos, pornography—and exert extraordinary agency or 'mastery' over the image through fast-forwarding, rewinding, or pausing.[13]

These methods of access—recording, reproduction, repeated use—give videotape a particular look, and so enhance its haptic and hermeneutic value. Hilderbrand writes, 'by seeming recording errors, the linearity of playback, and especially signs of wear, we begin to see video as videotape. Analog tape emerges as visible and audible through the way the image and soundtrack degenerate through (repeated) reproduction or aging'.[14] Videotape's make-up and lifetime of use bequeath its images a unique look, which in turn reveals the constitutive format. Specifically, the tape in question may show visual signs of technical failure including, 'muffled rainbow flares (called video moiré), skewed images at the top and bottom of the frame (called flagwaving or skew error, caused by stretched or distorted tapes), white specks (called dropout), lines of distortion (called noise bars), exaggerated pixels, jittery framing, and muted sounds'.[15] Such errors illustrate videotape's ontology.

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[11] Hilderbrand, *Inherent Vice*, 17.
[12] Ibid, 11.
[13] Ibid, 8. On the enhanced control over the image fostered by the remote control, see also, Barbara Klinger, "The New Media Aristocrats: Home Theatre and the Film Experience," in *Beyond the Multiplex: Cinema, New Technologies, and the Home* (Berkeley and Los Angeles: University of California Press, 2006), 17-53; Laura Mulvey, *Death 24x a Second: Stillness and the Moving Image* (London: Reaktion Books, 2006), 161–80.
[14] Hilderbrand, *Inherent Vice*, 13.
[15] Ibid, 15.

This unique aesthetics of access proves that videotape is a 'text', which displays 'indexical evidence of use and duration through time'.[16] It connects extra-cinematic contexts through the filmic image, and in so doing augments spectatorial engagement. For instance, Hilderbrand poses that the clumsy handheld aesthetic of amateur pornography enhances the viewer's connection to the image through a sense of pro-filmic intimacy, which includes 'the familiar specificities of video technology itself'.[17] Likewise, a copy of the extraordinarily bootlegged film *Superstar: The Karen Carpenter Story* (Todd Haynes, 1987) displays image 'fall-out' and a fuzzy soundtrack, qualities which 'sensuously [suggest] the personal interventions that made the copy possible' and, unexpectedly, express the bodily disintegration of the film's protagonist, Karen Carpenter. The aesthetics of access revaluates such audiovisual signs of use and deterioration in order to grasp videotape's body, its reciprocal modes of use and haptic determinants of engagement.

Hilderbrand's aesthetics forms a framework by which to understand the digital's body, and in so doing traces a kind of technological continuum which appreciates the influence of analogue systems on subsequent formats, and so undercuts assumptions about the infallibility of "new" media.[18] Hilderbrand opines, 'analog generations of consumer electronics profoundly changed the ways audiences became interactive users of technologies and texts and… only by looking back to analog formats can we understand the potential innovations and actual limitations of digital ones'.[19] Hilderbrand's contention connects the digital to the cinema's fluid history. As Hilderbrand is keen to point out, the digital is merely a beneficiary in a long line of film formats, not the final stop.

The digital medium has its own aesthetics governed by its apparent absence of a physical body. Its 'structuring principle is the vast database of *information*: of frames, pixels, or 1s and 0s'.[20] This abstract composition makes digital media imminently flexible and transferable, and easily stored. Laura U. Marks,

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[16] Ibid, 15.
[17] Ibid, 67.
[18] On this continuum, see also, Neta Alexander, "Rage Against the Machine: Buffering, Noise, and Perpetual Anxiety in the Age of Connected Viewing," *Cinema Journal* 56, no. 2 (2017): 1–24; Lisa Gitelman and Geoffrey B. Pingree, "Introduction: What's New About New Media?," in *New Media, 1740-1915*, ed. Lisa Gitelman and Geoffrey B. Pingree (Cambridge: MIT Press, 2003), xi–xxii; David Thorburn and Henry Jenkins, "Introduction: Toward an Aesthetics of Transition," in *Rethinking Media Change: The Aesthetics of Transition*, ed. David Thorburn, Henry Jenkins, and Edward Barrett (Cambridge: MIT Press, 2003), 1–18.
[19] Hilderbrand, *Inherent Vice*, 11.
[20] Marks, *Touch*, 148, her emphasis.

following Lev Manovich, sees in this flexibility a unique kind of indexicality shared by paintings, but distinct from that of analogue photographic practices.[21] She writes, 'when we see and hear a digital work, we are witnesses to the artist's *decision* to render this information in a form more or less like that from which it derived'.[22] Digital media fundamentally manipulates the images it captures, immediately transferring the contents into information. Thus, irrespective of any further degrees of alteration orchestrated by the work's maker, the digital medium itself signifies intervention.

Where the digital image is manipulated to an excessive degree, its innate hapticity is transmuted. Marks notes that 'special effects often overwhelm the immediacy of the [digital] images and sounds themselves', making the work seem 'hypermediated', as if it were 'thinking very hard and very consciously' about its make-up.[23] In these cases, the delicate balance between artifice and realism proffered by the digital image becomes destabilised and its processes are made acute. *Blade Runner 2049*'s aesthetics of absence is realised somewhat inadvertently as it pertains to this kind of 'hypermediation'. At times the film's visual effects—specifically as they actualise its artificial women—appear fuzzy, strangely buoyant, or subsume narrative function, thereby making the medium's abstractness sensible to the viewer implicitly. Perversely, then, these hypermediated images are haptic in Marks's original sense, such that they resist proper legibility or provide an excess of detail which moves the viewer to actively engage with their contents.[24]

Digital media's foundation in information means that it can be shared and saved easily, without the need for physical handling or concrete space. Paradoxically, this improved usability can render such media unusable in the long term. Because digital files are fundamentally immaterial and thus dependent on particular technologies or software for use, their potential for preservation is tenuous. As Hilderbrand notes:

> Future media historians will likely have more trouble accessing electronic and digital content than indexical and analog materials simply because it will be harder to find the right device, reconstruct the proper version of software, or decode encryption… In addition, digital

[21] Lev Manovich, *The Language of New Media* (Cambridge: MIT Press, 2000), 308.
[22] Marks, *Touch*, 149, her emphasis.
[23] Ibid, 149. Marks links this aesthetic tendency to the digital's wont to define itself in the supposed wake of the cinema.
[24] For an expanded discussion of Marks's formulation of the haptic image, see Chapter Three of this dissertation.

> technologies typically become technologically obsolete in less time than it would take a tape to deteriorate.[25]

Hilderbrand's concerns are perhaps nowhere better realised than in *Blade Runner 2049*'s post-blackout diegesis. In this imagined future all digital data has been swiftly and irrecoverably lost, and if by chance a digital file were initially preserved, it would likely be void due to lack of access to a suitable playback or translating platform. A crucial feature of the digital aesthetics of absence thus concerns an *actual absence* of the image, and, where an image exists, a latent sense of its precarity.

Even functioning digital media can suffer internal issues that taint or nullify its images. In the process of exchanging or storing digital media users can reduce the virtual file size so that crucial information becomes lost. This common procedure—known as lossy-compression or 'bit-rot'—results in partial images plagued by 'increasingly large and "forgetful" pixels'.[26] We can add to this list of defects the temporal attributes that Sobchack venerates in the innately and spatially miniature early Quicktime 'movies'; these works are 'full of gaps, gasps, starts and repetitions' effected by their minimal memory.[27] In the instance that a digital media artefact is damaged through physical tampering—like the *Blade Runner* DVD from my screening—the work 'skips, freezes, exhibits blocky interference patterns, or becomes wholly unreadable and inoperable'.[28] Such visible errors constitute the digital's 'aesthetics' in Hilderbrand's phenomenological understanding of the term; they speak for the digital work's profile—its indexical history and underlying make-up—and likewise dictate the present terms of engagement. Moments of stuttering, pixilation or freezing can indeed provoke anxiety or frustration for the viewer, but they also represent potent markers of a shared ontology between digital and corporeal bodies.

Digital media harnesses contemporaneous issues of human embodiment so as to encourage sensuous engagement from the viewer. The digital's ambivalence—it is supposedly immaterial and yet so moldable as to denote and formally effect tactile intervention—reflects the state of the human body in the digital

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[25] Hilderbrand, *Inherent Vice*, 21.
[26] Marks, *Touch*, 157. Marks takes the term "bit-rot" from science fiction novelist William Gibson.
[27] Sobchack, "Nostalgia for a Digital Object," 5.
[28] Hilderbrand, *Inherent Vice*, 15.

world.[29] Like digital media, the corporeal body resists resounding notions of abstraction or seamless attenuation through material responses. For instance, as Sobchack shows in her work detailing her experience living with a prosthetic leg, the lived body incorporates technology not seamlessly as cyborg fantasies might have it, but through 'sharp pain, dull aches, and numbness (which, after all, is not not-feeling but the feeling of not-feeling)'.[30] The corporeal body always exists in excess of its objectification.

This kinship between corporeal and digital bodies also works expressively, suggesting that the viewer's embodied connection to the digital image is enhanced where the latter becomes obfuscated or errs. Sobchack poses that the temporal elisions of early Quicktime movies 'intensify our corporeal sense of the intensive molecular labour and matter of human and worldly "becoming"'.[31] In other words, the fits and starts of these miniature 'movies' appeal to our lived sense of the body, its fragility and the effort involved in its comportment. Likewise, in the digital's signs of technical failure, such as pixilation, noise and misalignment, I see those haptic images that are so fundamental to cinematic models of embodied spectatorship. Here, the particular text's inability to properly express itself prompts the viewer to lean into the image, squint in order to make out its contents, flinch in surprise at its freezing, or even retrieve the instantiating hardware in order to physically tend to its scratches. The aesthetics of absence thus refers not only to the digital format's constitution, but also the response its media solicits from the similarly situated corporeal body.

As Hilderbrand reminds us, any embodied response to an 'aesthetics' is also about what's *on* a particular media artefact. Though *Blade Runner 2049*'s rumination on the digital pervades its narrative and form, the film specifically fixates its format's affective energies on the female body. Villeneuve purposefully inheres in Joi and the Rachel clone[32] errors explicative of digital ontology: Joi stills or becomes jittery and pixelated at key moments due to technological interference or damage; and Rachel's image is critically marred by a mistake in reproduction caused by faulty digital data files. These glitches indeed betray the instability of the

[29] Marks, *Touch*, 148.
[30] Sobchack, *Carnal Thoughts*, 168.
[31] Sobchack, "Nostalgia for a Digital Object," 5.
[32] For the sake of simplicity, I will hereafter refer to the clone simply as 'Rachel'.

supporting format, but they dually function to express the underlying absence of female corporeality in *Blade Runner 2049*'s imagined future.

Invented Glitches

Post-blackout, Joi and Rachel are significant emblems of digital progress. The former is a nascent, interactive hologram, and the latter an (almost) perfect reproduction. Both are creations of Wallace, the leader of the digital revival. Joi and Rachel signify the digital's potential—for regeneration, for commoditisation, for corporeal substitution—and concomitantly serve as key sites for *Blade Runner 2049* to examine the format's ontology. What is more, their form and function imbricate these issues around digital embodiment with those of female embodiment.

Blade Runner 2049 is cognisant of Joi and Rachel's shared function as formal and erotic spectacle, and uses this pretence to interrogate the prospect of female immateriality. Villeneuve has responded to criticisms of *Blade Runner 2049*'s treatment of its female characters, specifically Joi, by saying that, 'cinema is a mirror on society… And I'm sorry, but the world is not kind on women'.[33] The film indeed threatens the absence of the corporeal female body in view of a more compliant immaterial or unfeeling one, but it simultaneously highlights the flaws inherent in this forecast by giving Joi and Rachel glitches that offset viewer fascination.

Joi

Villeneuve uses digital aesthetics to illustrate Joi's status as a fantasy object. She is a commercial electronic product, an endlessly reproducible hologram designed to act as an ideal romantic partner. Her software finds purchase in cultivating digital systems, specifically as they pertain to content and control. Joi's image itself is a site of interaction for the viewer. At one point her software undergoes an update, prompting a translucent text box to appear above her shoulder with a list of compositional features—height, body type, face type, skin tone, hairstyle, ethnicity—all adjoined by drop menus leading to further options. This

[33] Denis Villeneuve quoted in Michael Nordine, "Denis Villeneuve Responds to Criticism of *Blade Runner 2049*'s Female Characters: 'The World Is Not Kind on Women'," IndieWire, November 25, 2017, http://www.indiewire.com/2017/11/blade-runner-2049-female-characters-denis-villeneuve-1201900895/.

window reveals Joi's physical settings (for the data record, she is an average height, slender with 'classic' features, and is, ethnically speaking, Cuban in voice and appearance), and so her readiness for manipulation.

In accordance with the digital's ease of storage, Joi can be turned on and off, appeared and disappeared, at the viewer's discretion. Her passage in and out of material space is always punctuated by the same two symphonic samplings from Sergei Prokofiev's *Peter and the Wolf* (1936). This sound bespeaks the ambivalence inherent to her digital existence; it ensures that her materialisation is not uncannily swift—which might render her *too* real—but it also suggests something of her latent agency. This particular aural excerpt features string instruments, which in Prokofiev's original fairy tale signify the character of Peter, the boy who transgresses his grandfather's commands and ventures into the outside world alone (to ultimately fruitful ends). Joi is indeed a digital product, but as this allusion hints, she is also fundamentally prone to slip her manipulator's hold where her technology errs.

Joi's branding adapts analogue pornography aesthetics for the digital age. Hilderbrand's pornographic case studies foster viewer interaction by way of bootlegging, as well as pausing or replaying crucial moments. Though such handlings surely signify viewer engagement with the media artefact, and vicariously with its images, Joi responds to her viewer's impulses more directly. For a start, her name is supposedly derived from the slang term 'J.O.I.', meaning 'Jerk Off Instruction', a common kind of pornography spectatorship whereby the featured actress directs the viewer to climax.[34] Joi's technological function is drawn along these lines, with her advertisements focalising the needs of the beholder. The billboards for her software feature an alien, seductive voice which explains that 'Joi is anything you want her to be', and, 'Joi goes anywhere you want her to go'. At the foot of the advertisement text flashes, alternately reading 'Everything you want to see' and 'Everything you want to hear'. Notably, Joi does not speak any of these catchphrases. She is made a blank canvas for viewer intervention, and likewise detached from her invited subjugation.

[34] Mike Seymour, "The Techniques Used in the *Blade Runner 2049* Hologram Sex Scene," fxguide, October 30, 2017, https://www.fxguide.com/featured/the-techniques-used-in-the-blade-runner-2049-hologram-sex-scene/.

Joi herself is exceedingly visible in these advertisements, sometimes naked and to larger-than-life scale. Late in the film K encounters one such iteration, which has been reformatted in pink neon. She beckons to him in a voice different to his own Joi: 'You look lonely, I can fix that'. She steps out of her billboard and poses for K, offering him an inordinately keen view of her body, which is of course riddled with digital interference patterns. Where analogue pornographic tapes traded on grainy intimacy to enhance viewer engagement, Joi's software exploits the endless flexibility of the digital medium to arouse and entrance the viewer—she can be wrought large, physically moulded and instantly disappeared. In so doing, her software seeks to displace the corporeal female body. Joi, in her extraordinary lifelikeness[35] and capacity for coercion, is designed to appear as a superior romantic partner to the imperfect material female subject.[36] Yet this substitutive project relies, of course, on her supporting technology running seamlessly.

Ironically, Joi's glitchiness comes as an offshoot of K's desire to make her even more real. During her first appearance on screen he gifts Joi an 'emanator', a fictive, handheld device that *emancipates* her from the laser projector affixed to the ceiling of his apartment. In our brief view of Joi pre-emanator, the projector poses an over-bearing presence. It glides back and forth across the length of K's lounge room and rotates using determinate metal tracks, akin to the mechanics of a camera dolly. Joi is audible as a disembodied voice throughout the apartment, but her image only materialises once she enters the projector's reach. The process of her materialisation is somewhat clunky; she first appears as a speck of blue light in the projector, and subsequently as a fragmentary flicker in the space of the apartment. Once fully formed, her movements are punctuated by the noise of the projector's hardware. For instance, when she stands straight after placing K's illusory steak dinner on the kitchen table, the projector emits an arched buzz, as if it were extending its joints. Likewise, when Joi lights K's cigarette using her finger she incites an audible spark from the projector. Such exchanges underline Joi's artificiality by way of extension; the projector's body is a shown to be a part of Joi's, and vice versa.

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[35] Joi's form is notoriously lifelike; the hologram was at one time poised to become 'the successor of the photograph', due to its photorealism. See Sean Johnston, *Holograms: A Cultural History* (Oxford: Oxford University Press, 2016), 1.

[36] For more on the supposed suitability of digital women as romantic partners, see Chapter Five of this dissertation on the film *Her*.

The squeaks, chirps, and singes of the projector likely taint K's experience of Joi—as evidenced by his purchase of the emanator—but they also inform the film viewer's experience. Our attention is directed to Joi's hardware via these noises and the work of the camera. The shot wherein Joi materialises begins from the ceiling and pans downward, foregrounding the projector's presence. Later, a long shot of the couple's exchange captures the synchronised movements of Joi and the projector's respective bodies. Beyond these formal signifiers, the nostalgic conceit of this early scene locates Joi's projector firmly in the analogue. When K arrives home, Frank Sinatra's "Summer Wind" resounds (Joi later informs K that when the song was released in 1966, it was number one on the charts) and she asks about his day. She is trying out a new recipe, which she eventually delivers clad in a housedress, apron, and pearls. The domestic pantomime of this scene—the only one in which the projector features—mutually situates overtly material, cumbersome, and flagging technology in the past.

The emanator signifies an update to Joi's software, and, within *Blade Runner 2049*'s future diegesis, further negates female corporeality. Much like the handheld electronic device to which Samantha is tethered in *Her*, *Blade Runner 2049*'s emanator can be carried in K's pocket and used to invoke Joi wherever it is present.[37] Joi is able to call on K through the device and even listen to his interactions when she is not actualised. Inversely, he is able to involve her in his investigation. Her increased mobility makes her a more present partner for K, and likewise works to obscure her constitution. Without the aural, visual, proximal reminder of the projector, Joi's technology recedes and the sense of her presence becomes fortified. What is more, once she syncs with the emanator she becomes newly embodied, quite literally. The emanator enables Joi to develop a more coalesced exterior, by which she can experience sensations and physically incorporate material forms. This process appears to be somewhat reciprocal; when K embraces the still-partly-transparent Joi, he now seems to feel a hint of resistance. His hands hover over her frame as if it were appropriately delicate, *just* tangible.

[37] For an expanded examination of *Her*'s handheld device, specifically in relation to electronic presence, see Chapter Five of this dissertation.

Joi's improved agency and resistance give way to distinctly digital side effects. When she syncs with the emanator she becomes imbricated with K's other mobile devices, thereby exposing her to virtual interference. Likewise, in being untethered from the projector and consequently dependent on the emanator, Joi becomes more fragile, newly vulnerable to environmental forces, as well as more acute damage to the flimsy handheld device. These limitations, which Villeneuve deliberately realises through disruptions to Joi's form, are offshoots of the digital's immateriality. The aesthetics that these errors incur impede K's objectification of Joi, and likewise frustrate the corporeally substitutive contract of her software.

The aesthetics of absence is overtly realised as soon as Joi syncs with the emanator. For her first outing she visits the rooftop of K's apartment building. Emerging from the stairwell, she is framed by an arch of fluorescent lights that immediately compromise her form. As she paces towards the camera the glare of the overhead lights catches her upper-body, rendering it transparent. When she leaves the shelter of the stairwell she likewise becomes vulnerable to the ongoing rainstorm outside. As the droplets touch her already tenuous exterior, her image flickers and is audibly singed. A close-up shot of her outstretched hand suggests that these glitches are part of the process of her improved resistance; her palm receives the water droplets as polygonal patches of blue light, which consequently fade to reveal a unified skin against which subsequent drops can settle.

K watches Joi intently as she sighs with pleasure at this new sensation. They embrace at the railing of the rooftop as a light passes overhead (perhaps a plane or a hovering car) that briefly hollows out her image. Then, mid-kiss, Joi freezes. K pulls back confused, and sees a translucent text box appear above her shoulder. It appears that his commander, Lieutenant Joshi (Robin Wright), has delivered an urgent message that has superseded Joi's system. Joshi's voice message plays while Joi stands still frozen, mouth gaping and nipples exposed beneath her now sodden dress. K is clearly uncomfortable with this view of Joi, rigid and demeaned. Once the voice message concludes he uses the emanator to disappear her.

Villeneuve gives Joi formal features that express her digitality and the absence that she belies. Her visual construction in this scene repeatedly recalls the fact of her (im)materiality. Environmental forces such as

lighting and rain obfuscate her figure, variably begetting and negotiating its hollowness. More crucially, her existence is undercut by adjacent communication systems—disruptions that reinscribe her instantiation in virtual, rather than concrete, space. When Joshi's message arrives, Joi is visually and existentially stilled to a degree that reifies her technology, and likewise halts viewer engagement. In this moment K is aesthetically reminded of Joi's artificiality and his concomitant (lack of) control over her—a spectatorial and affective turn off.

A later scene features a more pronounced glitch in Joi's technology. She accompanies K on his journey to the Morricole orphanage in the San Diego district to investigate the suspect replicant child. They fly over a landscape of endless debris (an intertitle notes that this is Los Angeles' municipal waste processing site) and get caught in a rainstorm upon descent. Lightning strikes the car and its electrical system fails, thereby terminating Joi. Her image becomes pixelated and pulses in and out momentarily before disappearing all together. A crash-landing renders K unconscious but, ironically, reconnects the car's electrical systems. Joi's reappearance is plagued by visual and behavioural glitches. Her movements are fragmented and twitchy, as if she were stuck on a loop, and her reach is restricted. She calls to K in a stilted, repetitive plea. As her body repeats these actions it becomes intermittently, partially pixelated. She is still objectively visible, but large portions of her body are made blurry by her technology's delay or inability to define her image. A subsequent long shot views Joi standing outside the driver's seat, helplessly and relentlessly attempting to penetrate the window, while a civilian gang encroaches from behind.

The damage to Joi's data in this scene illuminates her constitution. The lightning strike and consequent electrical outage produce signs of digital error; like a scratched DVD, Joi's information becomes fundamentally, and thus visually, altered. This unexpected reset to her systems seems to displace her temporal bearings, causing her to repeat movements. Likewise, fragments of her underlying information appear to be tainted or lost, rendering these movements stagnated and her image not fully legible. These signs of digital error articulate the paradox inherent to Joi's being. She is deployed by K as a substitute for a corporeal romantic partner given her continuous availability, immense pliability and, per narratives of digital progress, her supposed infallibility. But the fact is that the digital does inhere a kind of materiality,

which becomes expressed at moments such as this, where Joi's technology fails. These sequences depicting Joi's glitchiness demonstrate that, within *Blade Runner 2049*'s diegesis, the prospect of female absence is tied to the illusion of digital infallibility.

Rachel

Villeneuve gives another of *Blade Runner 2049*'s artificial women, Rachel, a profound glitch that articulates the precarious absence of digital and female bodies. The Rachel clone is a replicant thrice over—a replicant of a replicant, formed by the non-diegetic, digital replication of analogue footage. In Scott's *Blade Runner* Rachel is unaware of her artificiality and becomes an investigative and romantic fixation for Deckard. Within the imagined history that precedes *Blade Runner 2049*, Rachel and Deckard have produced a baby, the first half– (or possibly full–) replicant child. Rachel died during childbirth and Deckard has since been holed up in a dilapidated Las Vegas casino, mourning her death and the loss of their child, whom he was forced to give up in order to keep the ordeal a secret. In Villeneuve's film, Wallace learns of the replicant child's existence and attempts to compel Deckard to reveal its whereabouts by presenting him with a recreation of Rachel.

The Rachel clone's reveal takes place at the Wallace Headquarters. She appears first in a long shot in sharp silhouette and paces slowly across the footbridge of the liquid floor. She wears high heels that jar with the walkway's stone slabs and echo within the cavernous space, audibly anticipating her reappearance. When she eventually reaches the island where Deckard stands in key light, her profile gradually becomes illuminated to confirm her identity. Deckard is visibly stunned. In an over-the-shoulder shot of him she asks, 'did you miss me?' and subsequently, in her close-up, 'don't you love me?' She goes to hold Deckard's face but he recoils, turning to Wallace, 'her eyes were green'. Wallace's mistake in reproduction underscores the clone's status as a recreation, and so extinguishes its hold on Deckard. Wallace promptly kills the clone, for it has failed its sole function as fantasy object. This crucial flaw in its make-up can be understood as a digital glitch, insofar as it is attributable to the format's unique aesthetics.

The clone aims to perfectly simulate the Rachel of 2019, the time at which she met Deckard. Significantly, the clone is a Nexus-9 replicant (one model after the original Rachel). Unlike the previous, more autonomous replicants that orchestrated the Blackout, these newer replicants were designed by Wallace to obey their human superiors. Additionally, unlike the Nexus-8 model that had an open-ended lifespan, the Nexus-9's shelf life is fixed in accordance with the consumer's desires. This resurrected Rachel aims to improve on the original in ways reflective of the digital format. She visually embodies the wishes of her maker, is extraordinarily coercible, and seemingly ageless—she is resistant to wear, and easily filed away.

The clone's trait of compliance is particularly notable given the original Rachel's distinct noncompliance. As has been noted within popular criticism of *Blade Runner 2049*, the film's extra-diegetic history recasts Rachel and Deckard's apparently inequitable relationship as a love story.[38] In Scott's *Blade Runner*, Deckard exploits Rachel's artificiality in order to seduce her, culminating in a discomfiting sex scene where he forcibly kisses her and then dictates her articulation of pleasure. Rachel is visibly distressed throughout the exchange, and Young has since expressed her twinned discomfort filming this scene.[39] This memory haunts Rachel's reappearance in *Blade Runner 2049*, rendering her clone a fantasy figure that seeks to conceal her original body and documented displeasure.

Villeneuve exploits the diegetic project to replace Rachel by tampering with the digital systems that support her unfeeling recreation. The clone's reveal is anticipated within *Blade Runner 2049* by three digital media fragments recovered from the blackout that variously remember Rachel. These fragments mostly emerge diegetically and are all bound to the narrative, and they function to recall Rachel's lived body before her duplicate appears. However, the fragments appear to have sustained damage in the blackout or in the process of preservation that mar their images and, as points of reference for Wallace, render Rachel's recreation imperfect.

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[38] See Casey Cipriani, "*Blade Runner 2049* Tries to Make a Love Story Out of the First *Blade Runner*'s Violence," Slate, October 12, 2017, http://www.slate.com/blogs/browbeat/2017/10/12/blade_runner_2049_makes_a_love_story_out_of_a_rape_scene.html.

[39] In *Dangerous Days: Making Blade Runner* (Charles De Lauzirika, 2007), Young recollects crying after the scene was filmed due to Ford's roughness.

The first data fragment is recovered in an early scene where K visits the Wallace Headquarters in search of Rachel's record. The Wallace employee who initially helps K locate the file is dubious about its legibility. He recounts the impact of the blackout to explain the partialness of this particular record: 'photos, files, every bit of data gone… It's funny that only paper has lasted. I mean, we had everything on drives'. He describes Rachel's file, and its formal and historical like, as 'thick, milky', tactile terms that undercut the supposed pristineness and kin infallibility of digital media. Here, viscous texture is summoned to articulate the format's mode of deterioration. The look of the archival space reinscribes this sense of digital ontology, its wont to become dense or indecipherable over time. The room's tented stone ceiling, so high that its peak escapes the frame, encloses endless rows of identical wooden drawers visually akin to monoliths. Casted in golden light, the space purposefully evokes the Egyptian pyramids to convey the precarity of the archived data. The digital files themselves are fashioned as mummified bodies, artefacts missing crucial bits of information in the process of death or decay. Yet, like Hilderbrand's bootlegged tapes, this passage gives the records new specificity, and informs the terms of their reception in the present.

Luv eventually fetches K from the archives and escorts him to a smaller, more austere storage facility. She retrieves what she calls a 'memory bearing' of Rachel, but explains that it too was damaged in the blackout. Luv's phrasing is telling of *Blade Runner 2049*'s appreciation of absence – 'memory' is here used in its technical sense as digital data, as well as nostalgically to connote Rachel. Luv plays the bearing, the physical body of which is akin to an oversized marble, using an archaic laptop (a platform most likely reconstructed to view this particular kind of information). The footage is an excerpt from Rachel's Voight-Kampff test and is of poor quality, grainy and patchy in colour.[40] At moments where her eye blinks the image takes on a reddish colour, as if the data were struggling to actualise shifts in its content. Commensurately, the eye's colour is difficult to track. It initially appears brown, but then as the image flickers it appears green. These mutations to the recovered image call attention to the instability of the digital file, and its corresponding inability to properly remember the subject that it documents.

[40] In Scott's *Blade Runner*, the Voight-Kampff test is used by Blade Runners to detect replicants. The Blade Runner asks the subject of the test a series of questions while examining bodily gestures, including eye movement, which is recorded via camera.

The second data fragment invoking Rachel comes just before the reveal of her clone. It is a soundbite lifted from her first meeting with Deckard. The audio excerpt is comprehensible, if slightly echoey, and undoubtedly works as a relic; before a hovering textbox appears in the space of the headquarters to claim the data fragment as 'audio document 63_1002', Rachel's voice emerges as an acousmêtre so convincing that it startles Deckard.[41] Irrespective of the file's capacity to aurally evoke Rachel, it is still incomplete. It lacks the corresponding image, perhaps lost in storage or translation, needed to substantiate her body. Rachel is finally remembered through a brief flashback to Scott's original *Blade Runner*. After the soundbite plays, Wallace quizzes Deckard about his first meeting with Rachel, prompting him to recall the attendant memory. In fade-in we see Rachel, dimly lit in the Tyrrell Headquarters, walking towards the camera. The footage is edited in such a way that it is, again, difficult to detect the colour of her eyes. Initially, from a distance, they appear brown, but as she approaches and enters the light they seem to turn green, before the flashback fades out. In voiceover Wallace remarks, 'all these years you looked back on that day, drunk on the image of its perfection'. Though, of course, this nostalgically 'perfect' image is formally *imperfect*, for it fails to definitively recollect its subject.

This latter data fragment takes a slightly different formative tack to the others. Here *Blade Runner 2049* evokes Rachel by incorporating analogue footage, and deliberately loses information in the process of its translation to the digital. When we pull up the corresponding scenes from Scott's *Blade Runner* and re-examine the original, we are reminded that Rachel's eyes are decidedly brown (lest we blame the digital data, human memory, it seems, is equally forgetful). There are no errors in lighting or editing, nor damage to the constitutive media, that make this observation difficult to place. The ambiguity of the recovered footage in Villeneuve's film is thus a trick; it comes from the digital attenuation of analogue materials.

Through the damage to these digital media fragments, Rachel's body becomes a blind spot within the film, a lost piece of information itself. Her body is obscured, erased or deliberately displaced in the apparent

[41] Michel Chion, *The Voice in Cinema*, ed. and trans. Claudia Gorbman (New York: Columbia University Press, 1999), 17-30.

process of preservation. Villeneuve here mimics the aesthetics of digital aging to cast doubt on the authenticity of Rachel's unfeeling recreation, and thereby express the absence of her original lived body. And yet, this effort to rehearse and then undercut the prospect of female immateriality only holds up at the level of representation. Villeneuve indeed gives Joi and Rachel glitches that frustrate their diegetic erasure, but he also participates in this project by consequence of *Blade Runner 2049*'s format. The digital's aesthetics operates more profoundly at a formal level, where it articulates the absence of the women who give Joi and Rachel body.

Inherent Glitches

Joi and Rachel are caught in *Blade Runner 2049*'s rumination on the digital. As I have suggested, the film uses these women as key repositories for digital visual effects due to their stereotypical visibility. This process necessitates that de Armas and Young are visually attenuated to such a degree that the film becomes complicit in its narrative fantasy of female immateriality. De Armas's body is casted and hollowed out so that she appears appealingly holographic. The work on Young's body is more extensive, with the image of her younger self revivified through computer graphics and the interpolation of composite bodies. With these transformations the question of digital ontology becomes, in the same breath, one of female ontology; what has been altered in the female image to achieve these effects, and why?

Though digital processes make these transformations more fluid, more infinite and efficient, this kind of endeavour is not new to the cinema. Sobchack has written on a series of early-60's B-films that take the making-over of the female body as a formal and narrative fixation.[42] With the help of visual tricks, the films' middle-aged heroines alter their form to meet feminine ideals. Sobchack is partial to these films because they 'displace and disguise cultural anxieties about women and aging while simultaneously figuring them in your face, so to speak'.[43] Though these women ultimately assume monstrous shape, the premise of the trope is indeed telling. For one, whatever 'scary' form the heroine takes—a wasp-woman, leech-woman, or

[42] Including *Attack of the 50-Ft. Woman* (Nathan Hurtz, 1958), *The Wasp Woman* (Roger Corman, 1959), and *The Leech Woman* (Edward Dein, 1960).
[43] Sobchack, *Carnal Thoughts*, 40.

blown up to gargantuan size—is still presumed less terrifying than her former, aging self.[44] Moreover, her original body is typically not middle-aged at all, but actually belongs to a young, beautiful actress who has been plastered in 'jowls and aging makeup'.[45] Across diegetic divides, these films perceive the female body as a volatile thing to be fixed by the illusionistic processes of the cinema.

These postclassical films visually alter their female subjects using makeup and analogue special effects.[46] The digital, of course, makes this work more commonplace and the results more convincing. Translation is the digital medium's modus operandi, which means that any adjustments to the female image are not only easy but fair game.[47] The goal of undetectable transformation promised by the digital is crucial for Sobchack.[48] She writes, 'we want these [special] effects without wanting to see the technology, without wanting to acknowledge the cost, labour, time and effort of its operations—all of which might curb our desire, despoil our wonder, and generate fear of pain and death'.[49] This last prospect points toward the sense of uneasiness attached to viewing an image of the body which denotes intervention, for this kind of image appeals to the viewer's kin sense of fragility. That is to say, the imprecise altered image reminds us of our own imperfection and mortality. We thus want the spectacle of a perfect female body (one free of the markings of corporeality), so long as the spectacle itself is perfect too.

The prospect of '[seeing] the technology' is herein subversive, and precisely the work of the aesthetics of absence. *Blade Runner 2049* betrays its attempt to transform the female body through corresponding signs of technical failure. By consequence of her hollowing out, Joi appears strangely buoyant and at times woolly, with large portions of her screen time dedicated to testing out digital faculties. Rachel is comparatively, and suspiciously, less legible. She lacks dialogue, and one of the few lines she delivers occurs out of frame. Her

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[44] Ibid, 40.
[45] Ibid, 42.
[46] Ibid, 41.
[47] I am here reminded of an anecdote relayed by a friend who worked in production on a recent romantic comedy film. Even in this relatively realist genre, the studio spent many thousands of dollars digitally removing tiny hairs and fine lines from the face of the middle-aged, revered (and, I might add, quite beautiful) actress playing the lead. It was unclear in the story's retelling whether the actress was made aware of her digital restoration, and one wonders—or perhaps, worries—if it went unnoticed by the film's audience.
[48] On the precision of *Ex Machina* digital visual effects, and the threat that this poses to the physical labour of the actress, see the concluding section of Chapter Three of this dissertation.
[49] Sobchack, *Carnal Thoughts*, 48.

body is stiff, mannequin-like, and her face indistinct. The aesthetics of absence exemplified through these features undercuts the transformative project at work by circumventing the spectacle of the female body, and, more profoundly, giving sensuous expression to those corporeal bodies elided.

de Armas

The digital work performed on de Armas's image is not corrective, but indulgent on the part of the film's makers. The actress is already young and beautiful, as testified by her likeness to K's fantasy (or perhaps vice versa, a prospect equally telling). And yet, she is still visually transformed to enhance her spectacle. *Blade Runner 2049* digitally splits, excavates, and manipulates de Armas's body to achieve Joi's appearance of immateriality. The actress's performance was recorded from multiple angles and the resulting footage used to create an identical computer generated (CG) rendering. With this rendering, the film's visual effects team could engineer de Armas's form to suit the desired holographic aesthetic. Her CG body was sliced in half vertically and the front part removed to leave a hollow back 'shell'.[50] This shell was hand-animated to mimic de Armas's given performance, and then her live action footage was partially composited on top.[51] The semi-translucent body born by this process is only partly indexically real.

The film's visual effects supervisor, John Nelson, likens Joi to 'a volume',[52] explaining, 'it's as if… you're looking at a glass and you put water into it, you see the front side of the glass but you also see the back side'.[53] Joi's spectacle is one of emptiness. Scenes like the one on the rooftop of K's apartment building, where Joi most blatantly functions as erotic spectacle, largely depend on her novel construction for their affect. In this particular scene, we are constantly reminded of Joi's tenuous nature so as to awe and ogle at K's ability to embrace her. The same is true of a subsequent sequence where Joi assumes the body of a human sex worker, Mariette (Mackenzie Davis), in order to intimately connect with K.

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[50] John Nelson in Bill Desowitz, "*Blade Runner 2049*: Inside Denis Villeneuve's Holographic Joi of Sex," IndieWire, December 11, 2017, http://www.indiewire.com/2017/12/blade-runner-2049-denis-villeneuve-holographic-joi-of-sex-visual-effects-1201906204/.
[51] Ibid; Nelson quoted in Seymour, "The Techniques Used in *Blade Runner 2049*."
[52] Nelson quoted in Seymour, "The Techniques Used in *Blade Runner 2049*."
[53] Nelson quoted in Jordan Zakarin, "Syfy - How *Blade Runner 2049* Created the Most Realistic Hologram (and Wildest Threesome) Ever," SyfyWire, October 24, 2017, http://www.syfy.com/syfywire/how-blade-runner-2049-created-the-most-realistic-hologram-and-wildest-threesome-ever.

For this scene Davis's body, too, was digitally cast, and the resulting image double-exposed with de Armas's CG rendering.[54] The process of their grafting is mimicked on screen to develop the scope of the spectacle. Joi initiates the syncing process by stepping into the surrogate body and waiting for her technology to adapt to its form. Joi's body initially flickers and retains a degree of opacity, articulating the glitchiness of the digital and demarcating her body from Mariette's. In close-up we see two right hands—one holographic, one material—overlap, united in movement but independent in pace. Eventually the holographic hand catches up, and the two fuse.

The effect of Joi and Mariette's overlapping is deliberately unfixed. There are moments where one woman's image is prioritised over the other, blatantly absenting either actress. And then there are other moments where the images meld to create 'a new, chimeric form' that only exists at the film's surface; she is pure spectacle.[55] Villeneuve is fond of the latter effect, remarking that he 'loved the idea that you were feeling both presences of both women at the same time and that sometimes, it was like you were feeling a third woman'.[56] This fantasy of a third woman (or to have all three women at once) comes, of course, with the displacement of lived weight and difference. De Armas's and Davis's already desirable bodies are replicated and manipulated so that they can be partly disappeared, with a view to make this scene, as Villeneuve puts it, 'more erotic and powerful'.[57] The viewer for whom the scene is 'more erotic and powerful' is undoubtedly a masculine one, thus underscoring the misogynistic nature of the film's visual effects work.

Crucially, the illusion of fluidity proffered by these scenes gives way to visual imperfections that reveal the terms of its production. Like Hilderbrand's bootlegged tapes, which relay their history through indexical signs of use, the work on de Armas's image is made legible through the shortcomings of the expressing format. In the scene on the rooftop of K's apartment building, for instance, Joi portends a look of buoyancy that undercuts the desired affect of the encounter. Watching K's hands inexplicably rest on the tenuous

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[54] Jenni Sheppard, "The Secrets Behind *Blade Runner 2049*'s Beautiful Virtual Threesome," Daily Hive, December 6, 2017, https://dailyhive.com/calgary/blade-runner-2049-visual-effects-vancouver.
[55] Kyle Buchanan, "The Secrets Behind *Blade Runner 2049*'s Surreal Threesome," Vulture, October 11, 2017, http://www.vulture.com/2017/10/blade-runner-2049-threesome-sex-scene-how-did-they-make-it.html.
[56] Villeneuve quoted in ibid.
[57] Ibid.

shell of Joi's body as they embrace, I find myself responding with an agitated yearning for touch, rather than with its sensuous recognition. The lack of gravity grounding Joi's matter stalls the fluidity of my encounter with the filmic image.

The film's infamous holographic three-way sex scene suggests imagistic interference more overtly, principally due to its length. We are encouraged to dwell exclusively on the action of Joi and Mariette's communion and gradual undressing for some three minutes. The significance of the scene's duration is two-fold so far as it concerns digital aesthetics. Firstly, it indulges the scene's premise, as if its makers were very pleased with the quality of its construction and the fantasy of female immateriality that it allows. This notion points to the digital by way of inversion; as Marks warns, the hypermediation of female bodies here enjoyed disrupts narrative flow.[58] Paradoxically, the scene's length is also defensive. At moments where Joi/Mariette's stilted gestures accelerate the details of their features become woolly, thereby suggesting the scene's pacing to be an offshoot of digital limitations. When Joi/Mariette bow towards K their hair loses its nuance, and when they subsequently grasp his chest the dominant hand looks unreal. Again, inherent flaws in the image undercut any hopes of arousal; I feel here the digital's body more profoundly than those illusory ones it seeks to realise.

The aesthetics of absence exemplified by these haptic details expresses the corresponding absence of de Armas's (and Davis's) body. We can see the work performed on de Armas's image through these aesthetic features, and so sense the facticity that has foregone visualisation. The image's struggle to realise its visual effects incites a twinned struggle on the part of the viewer. The visible frustration of the digital image, a symptom of the occlusion of de Armas's corporeal body, is duly mapped onto my body during the spectatorial encounter.

[58] Marks, *Touch*, 145.

Young

The digital work performed on Young's body derives from her function as a nostalgic object. The Rachel clone is narratively introduced to pique Deckard's (and the *Blade Runner* cinephile's) longing for the past of Scott's original film, and so must perfectly simulate Young's analogue self. Perversely, the clone is a complete special effect, referred to amongst technical circles as a 'digital human'. Its physicality was performed by the body double, Loren Peta, who acted on set with Ford and Leto under Villeneuve and Young's direction.[59] To configure the clone's face, the film's special effects team took a scan of present-day Young's head, against which they modelled a 'digital sculpt' of her skull to accurate proportions.[60] This CG skull was then filled in using the laborious process of hand animation, with scenes of Young in the original *Blade Runner* as a reference, and composited on top of Peta's body.[61] Finally, the clone's voice was performed by a sound double.

Young's body does not figure anywhere in this image of Rachel. Not only is Young not there, but she does not even presently exist in this semblance. This is, of course, the work of the digital—in its immense flexibility, it can carry on Young's visage without her. One absence fosters another. Though, the film's visual effects team stresses that this substitutive work was not easy. Nelson reports that the clone's two-minute appearance on screen took a year to create and refine.[62] He explains, 'digital humans are sort of the holy grail [of special effects]—they're *really* hard'.[63] The documented difficulty, time, and likely huge financial cost involved in producing this digital double altogether prompts the question of its existence. Did the clone need to be a digital human? Might it have been easier to have Young portray Rachel, or, if this were narratively displeasing given Young's age, could her performance have been digitally attenuated, as happens with the film's younger actresses, de Armas and Davis?

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[59] Young's son, as it happens, acted as a production assistant on *Blade Runner 2049*.
[60] Matt Wallin, Mike Seymour, and Jason Diamond, *Blade Runner 2049*, VFXShow, October 17, 2017, https://www.fxguide.com/thevfxshow/vfxshow-226-blade-runner-2049/.
[61] For an expanded discussion of the practice of hand animation in digital visual effects work and the laboriousness of this process, see Chapter Three of this dissertation.
[62] Sara Vilkomerson, "How *Blade Runner 2049* Was Able to Pull Off That One Incredible Cameo," Entertainment Weekly, October 19, 2017, http://ew.com/movies/blade-runner- 2049-rachael-sean-young-cameo/the-original-rachael-from-blade-runner-sean-young/.
[63] Ibid.

On all counts, it seems that Young's aging (decaying?) body presents a glitch to the film's fantasy of femininity. In the some thirty-five years since the original *Blade Runner*'s release, Young (and, I might add, Ford) has aged. Her face, her figure, her skin, and her voice have developed past the perceived point of irreversibility by digital means. As one male reviewer comments, somewhat uneasily, 'at a certain point you have to do so much work to de-age [Young]…thirty-five years later it is not do-able'.[64] Because Young's body is unmanageable by digital methods it is deleted, confined, like the middle-aged women whom inspired Sobchack's 'scary women' films, to extra-cinematic space.[65]

Of course, there are flaws in Young's digital double that trouble the process of her retraction. For one, that the clone only has two lines, half of which are articulated off camera, seems suspect. Her face is almost fuzzy in its placidness, further offset by the reptilian textures of her dress. One visual effects reviewer wonders whether her micro-expressions also lack precision, commenting, 'I thought there were some moments where her face gets a little weird… She almost looks like a mannequin'.[66] And on this point, it is interesting to remember the significance of the mannequin in Scott's original *Blade Runner*, as a kind of ringer for the fabricated bodies that Deckard retires. Here again, plasticity begets issues of ontology.

The aesthetic of absence exemplified by these formal imperfections announces Young's physical absence from this resurrected version of the character she originally gave body. As embodied viewers, we sense the clone's unreality through the absence of signs of corporeality. The clone is too smoothed-out, too static. These details become strangely haptic, cinematic seams that reveal the digital's error and so point toward the extra-diegetic work performed to conjure Young's analogue image. Through these fissures we gain access to the painstaking methods of the clone's creation, the way it curates multiple women's features and so obscures their individual identities. Most profoundly, these details give voice to the fundamental glitch

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[64] Wallin, Seymour, and Diamond, *Blade Runner 2049*.
[65] This is not to say that there is no room for aged female bodies in *Blade Runner 2049* and its imagined future. Robin Wright plays the stoic Lieutenant Joshi, who supervises K and ultimately dies resisting Luv's evil mission. But Joshi is diegetically placed as a real woman—not a "skin job" like K—and is characterised with a sense of aged desperation; at times, she seems to call on K to occupy herself, and in one particularly awkward scene commands he retell a childhood memory as a sort of come-on.
[66] Wallin, Seymour, and Diamond, *Blade Runner 2049*.

of Young's material, aging body. We intuit her absence, abetted as it is by this sequel's long coming, and become smart to the feminine ideals dictating her erasure.

Conclusion: Digital Traces

Digital failure continued to haunt this chapter as it developed toward completion. A number of the books and articles that I studied for its preparation were retrieved as PDF files from my university's library. These intangible copies would routinely flicker within my computer screen, interrupting my gaze by consequence of their compression and virtual dissemination. I have also been told of eerie technical errors encountered by those colleagues called upon to review the chapter. One reader recounted that her laser printer failed after releasing only the first page of my draft. Another attempted to re-watch *Blade Runner 2049* in preparation for editing, but found that his internet stream was repeatedly stalled through buffering. These kinds of errors return to us the knowledge of digital precarity, the fact that those machines upon which we are so dependent can fail at the drop of a bit.

This chapter recuperated the female body through the suggestion of materiality provoked by digital failure. Prefaced by a narrative conceit concerning a recent digital 'blackout', *Blade Runner 2049* grapples with the fact that digital media is still prone to error and decay irrespective of its immateriality. Heeding salient parallels between the film's digital body and its artificial women (for instance, their purported absence and shared base in binary code), the chapter articulated female materiality through what it called a digital 'aesthetics of absence'. The aesthetics of absence, which the chapter modelled on Lucas Hilderbrand's analogue 'aesthetics of access', was defined as the unique signs of error conveyed by digital media due to its immaterial base. Through the work of Marks and Sobchack, the chapter developed the discussion of digital hapticity initiated in Chapter Three and adumbrated visual signs of digital failure, including imperfect or unconvincing visual effects, stuttering playback, or an actual absence of the image due to the file's unreadability. These features, the chapter argued, evince digital materiality as they express the format's precarity and solicit an embodied mode of engagement.

The chapter subsequently mobilised its schema of the aesthetics of absence to recover the materiality of *Blade Runner 2049*'s artificial women, Joi and Rachel. It discerned a feminist project at work at the level of diegesis, with Joi and Rachel confounding masculine fantasies through their expressions of failure. Alas, the chapter identified a misogynistic endeavour to absent the female body at the level of form. Drawing on Sobchack's work on 'scary women' films, the chapter showed that *Blade Runner 2049* sought to conceal the bodies of the actresses portraying Joi and Rachel to satisfy a pro-filmic gaze. Again mobilising its aesthetics of absence, the chapter highlighted visual effects errors evident within the film to then point toward the volatile, aging bodies of the actresses. In toto, this chapter developed the dissertation's argument by sourcing the materiality of the female body through signs of digital failure. It devised an aesthetics of absence that undercut the notion of digital immateriality, and, in the same turn, troubled efforts to attenuate or erase female corporeality.

The aesthetics of absence allows us to recognise these invented and inherent glitches that serve to re-materialise digital and female bodies. Though, as the ghostly encounters experienced by my colleagues and I show, sometimes the expression of digital materiality is even more elusive. When we rely on or take up an electronic artefact—whether a PDF file, a printer, a streaming service or a holographic companion—and it functions properly, its presence can appear recessive. The following chapter on Spike Jonze's *Her* illustrates that even where the female body appears to be wholly erased, its presence is diffusely articulated across diegetic and extra-diegetic planes of the film text.

Chapter Five
Disappearance and Diffusion in *Her* (2013)

Just over halfway into Spike Jonze's 2013 film, *Her*, its female lead is physically embodied on screen for the first time. Prompted by a lull in their virtual sex life, Samantha (Scarlett Johansson), a virtual operating system (OS), proposes to her host and boyfriend, Theodore (Joaquin Phoenix), that they employ a 'surrogate sexual partner'. When Theodore greets the unpaid surrogate (Portia Doubleday) at the door, she refuses to introduce herself for fear of tainting her function as Samantha's proxy. In extreme close-up we see her adhere a tiny lens to her upper lip and don an earpiece, and then briefly retreat behind the door to collude with Samantha. When the surrogate re-emerges, Samantha chimes, 'honey, I'm home!' and the surrogate proceeds to embrace Theodore. The sequence continues in this rhythm, with the surrogate performing Samantha's remarks. This uncanny revision to Samantha's identity sits oddly with Theodore, who, despite his best efforts, remains awkward and inhibited throughout the encounter. The surrogate eventually lets slip a micro-expression—the quiver of her lip—that breaks the charade, and is duly dismissed.

Jonze cleverly casts an unknown actress in the role of the surrogate, resisting attempts for the reconciliation of Johansson's familiar voice with a different, though equally familiar body. The surrogate's body appears as a separate, alien entity—a foil to easy audio-visual synchronisation. Indeed, the untidiness of the film's 'grafting' job is revealing.[1] Though it links Samantha's voice and the surrogate's body in both narrative and gesture, the surrogate does not attempt to lip-sync Samantha's dialogue. The deliberate inexactness of the synchronisation maintains voice and body as discrete, whilst continuing to intimate their alignment. Jonze preserves this suspension to locate Samantha neither here nor there.

The formal tension at work in this scene portends a sense of bodily diffusion that, fittingly, permeates *Her*. Samantha and the surrogate's joint presence is not localised to a specific source on screen, but is diegetically

[1] Michel Chion, *The Voice in Cinema*, ed. and trans. Claudia Gorbman (New York: Columbia University Press, 1999), 126.

distributed across human and technology, and extra-diegetically between screen and sound track. The scene quite literally evinces the sense of dispersion that electronic technology demonstrates in both its make-up and solicited user experience. This chapter picks up the discussion of interactive technology from the previous chapter, and expands the dissertation's investigation of digital embodiment by examining the nature of an electronic device. Drawing on Vivian Sobchack's work on 'electronic presence', this chapter takes the notion of *diffusion* as its inspiration and guiding principle.[2] Specifically, it poses that unexpected inflections of Samantha's body appear in, and between, the film's diegetic and extra-diegetic material. Importantly, this abstract interpretation of Samantha's presence works against posthumanist, and, in the case of *Her*, misogynistic efforts to exploit or conceal her existence.

I extend Jennifer M. Barker's concept of 'the skin'—that which is not just fleshy but is also, conceptually speaking, a limit for exchange—to illustrate Samantha's unique embodiment.[3] The skin, in Barker's originally intended usage, characterises *Her*'s formal texture at moments where Samantha interfaces with Theodore to produce a visual and temporal change within the filmic image. In these instances, the sense of diffusion is mapped across the film itself and is thus proven to the viewer sensorially. The force underpinning this process of bodily abstraction suggests that Barker's concept can be adapted for a diegetic context, where it typifies Samantha's distinctly electronic methods of exchange. Samantha's skin shows how she comes to feel dispersed for the user, and inversely how the user's sense of their body becomes modified through the act of engagement.

This chapter begins by laying the stakes for a reading of *Her* in terms of Samantha's distinct body and its proposed diffusion. Through Sobchack, I show how the notion of diffused embodiment challenges the 'technofantasy' of disembodiment that is commonly associated with human-electronic exchanges.[4] Elena

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[2] Vivian Sobchack, *Carnal Thoughts: Embodiment and Moving Image Culture* (Berkley: University of California Press, 2004), 135-64.
[3] Jennifer M. Barker, *The Tactile Eye: Touch and the Cinematic Experience* (Berkeley: University of California Press, 2009), 23-68.
[4] Don Ihde, "Program One: A Phenomenology of Technics," in *Technology and the Lifeworld: From Garden to Earth* (Bloomington: Indiana University Press, 1990), 75.

del Río[5] and Don Ihde[6] contend that human relationships with technology routinely assume a subject-object dynamic, where the human subject hopes to exploit the technology's capabilities and simultaneously repress its existence, as if their body were augmented on its own. Such a process elides the fact that the body incorporates the technology, as well as the fact of the technology's difference.[7] In *Her*, this technofantasy gains feminist resonance given that the electronic device in question is coded as female. Thus, the way in which the technology is used and erased equates to a suppression of the female body.

Diffusion, as a guiding principle, undercuts the project of technological transparency by foregrounding a more fluid idea of presence. It highlights, for instance, the various mechanisms by which the technology influences the user; the way that the technology gains renewed expression by interfacing; and the way that the technology permeates the viewer's experience of their lived world beyond the instance of operation. The chapter first considers the terms of this human-technological interaction by examining the concept of the skin in its proposed diegetic reworking, as embodying Samantha. It subsequently contemplates how *Her*'s extra-diegetic skin shows the effects of this exchange, with Samantha's affect recorded within the filmic image. In an extended conclusion I consider how Samantha's presence might be detected on screen most abstractly, at moments where she appears to recede into nothingness. Through Tom Gunning's work on spirit photography, I propose that Samantha infiltrates and unsettles the film spectrally.

Diffusion

This chapter finds purchase in resolving *Her*'s seemingly posthumanist message. The film's narrative concerns Theodore's romantic relationship with his personalised OS, only for her to outgrow him. Having used Theodore as a virtual surrogate, Samantha's cognitive skills develop rapidly until she functions as an autonomous, socially and intellectually superior subject. Narratively speaking, the film seems to suggest that it is possible for consciousness to exist free from the body, unaltered and perhaps better off. Sobchack's theory of diffused embodiment mitigates this fantasy, and proves it illusory.

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[5] Elena del Río, "The Body as Foundation of the Screen: Allegories of Technology in Atom Egoyan's Speaking Parts," *Camera Obscura* 13, no. 2 (May 1996): 92-115.
[6] Ihde, "Program One."
[7] Ibid.

Sobchack considers how three perceptive-expressive technologies—photographic, cinematic and electronic—differently affect their viewer's lived experience, in the instance of engagement and thereafter. Technology is 'never merely used, never simply instrumental'.[8] By design it dictates its own terms of use, involves the viewer uniquely, and permanently inflects the viewer's perceptual relationship 'to the world, to others, and to [them]selves'.[9] Sobchack surmises that these three perceptive-expressive technologies have, in their own ways, 'transformed us so that we presently see, sense, and make sense of ourselves as quite other than we were before each of them existed'.[10] The electronic arguably fosters the greatest shift. This category includes 'television, videocassettes and digital discs, VCR and DVD recorder/players, electronic games, personal computers with Internet access, and pocket electronics of all kinds', technologies that offer an unprecedented degree of viewer interactivity.[11] Indeed, the bespoke electronic device that contains Samantha in *Her* is of the sort that the contemporaneous viewer might use to watch, control and 'possess' a digital film.[12]

Electronic media and the mode of bodily existence that it fosters is characterised by diffusion. Sobchack writes that the electronic world:

> … incorporates the spectator/user uniquely in a spatially decentered, weakly temporalized and quasi-disembodied (or diffusely embodied) state… The electronic is phenomenologically experienced not as a discrete, intentional, body-centred mediation and projection in space but rather as a simultaneous, dispersed, and insubstantial transmission across a network or web.[13]

As Sobchack indicates, the electronic world, in its simulation and abstraction, seems to proffer a transcendent experience for the viewer. The viewer's awareness of the device and their own body recedes as they become enfolded in this liminal, inconcrete space of 'absolute presence… of instant stimulation and impatient desire'.[14] Wary of the guise of disembodiment this description suggests—she opines that the electronic world is nominally so abstract 'as to belong to *no-body*'[15]—Sobchack stipulates that electronic

[8] Sobchack, *Carnal Thoughts*, 137.
[9] Ibid, 136.
[10] Ibid, 139.
[11] Ibid, 153.
[12] Ibid, 148.
[13] Ibid, 153-4.
[14] Ibid, 153.
[15] Ibid, 152.

media extends an experience of diffused embodiment to the viewer. She explains that 'electronic representation by its very structure phenomenologically diffuses the fleshly presence of the human body and the dimensions of that body's material world'.[16] As will become evident, rather than dulling the viewer's experience of their body, electronic media augments it, while variably and simultaneously dispersing their subjectivity across material and immaterial planes.

Sobchack's theory of electronic presence stems from a branch of existential phenomenology concerned with recasting human-technology relations in terms of intersubjectivity. Elena del Río and Don Ihde endeavour to undercut the kind of technological objectification practiced by Theodore in view of highlighting how technology inflects the lived body just as much as the human deploys it. Del Río writes:

> … the subject-object model which frames [human attitudes towards technology] does not leave any room for the inherent relationship between subjectivity and its artefacts to emerge, as it ignores the fact that technology springs from the very human condition of embodiment and that the human imaginary is of necessity a technologically drawn and grounded structure.[17]

As del Río sees it, propagating a subject-object model of interaction between humans and their technology obscures the inherent kinship that exists between the two entities by virtue of their shared sense of embodiment; technology is created by the human subject, and is thus tailored to their sensorium. As a result, technology speaks back to the human subject in a corporeal way, extending and augmenting their sense of their body.

Ihde interrogates such human-technology relations in a more practical sense, under his theory of 'postphenomenology'.[18] Ihde pursues a phenomenology of the technologised body, specifically how 'technologies can radically transform [one's] situation, including one's sense of one's body'.[19] He writes that one's body image is malleable, and the success of a technology rests on whether it becomes 'transparent'—whether the technology is assimilated by the body and so 'withdraws' as a separate entity.[20] However, Ihde

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[16] Ibid, 161.
[17] del Río, "The Body as Foundation," 96-7.
[18] Ihde conceives the latter term as another 'post' following postmodernism and poststructuralism, but seems to indicate that postphenomenology is equally at home within work on the posthuman.
[19] Don Ihde, "Introduction: Postphenomenology," in *Postphenomenology: Essays in the Postmodern Context* (Evanston: Northwestern University Press, 1995), 7. Ihde develops his argument by drawing on the work of Maurice Merleau-Ponty and Martin Heidegger.
[20] Don Ihde, "Bodies, Virtual Bodies, and Technology," in *Bodies in Technology* (Minneapolis: University of Minnesota Press, 2002), 3–15.

notes that this idea of total transparency bespeaks an ambivalent 'technofantasy', wherein the human counterpart simultaneously wants to exploit the technology and obscure it.[21] He explains, 'I want the transformation that the technology allows, but I want it in such a way that it becomes me. Such a desire both secretly *rejects* what technologies are and overlooks the transformational effects which are necessarily tied to human-technology relations'.[22] Human relations to technology are thus in some sense always burdened by the spectre of awareness, whether the rivets of the appropriated instrument are felt or repressed.

The terminology of 'diffusion' shared by electronic technology and viewer becomes particularly important when the relationship takes hetero-normative shape, as is the case in *Her*. Here the electronic device is coded female, and the user male, and so the presumption of mutual disembodiment becomes not merely a techno-, but also a patriarchal fantasy. The notion of the immateriality of electronic media, its apparent boundlessness and readiness to the viewer, becomes a feminist issue wherein the female body is idealised and effaced. In the second, though equally important instance, this idea of a shared disembodiment enacts a much larger degradation of the corporeal body, the effects of which are profound and dangerous. Sobchack writes, 'such an insubstantial electronic presence can ignore… the lived body that not only once imaged its techno-logic but gave it substantial grounding, gravity, and value. It can ignore its own history'.[23] The concept of diffusion besets this structure by foregrounding a unique kind of presence. It resists the façade of immateriality suggested by electronic technology to emphasise the way that the device readies itself to, and affects the viewer.

Her is set up to test Sobchack's theory of electronic presence, the design of its technologised future governed by a system of simulation and immediacy. The characters' costuming is relatively traditional, plainly tailored and unpatterned in soothing hues of yellow, coral and red. The film's setting is of the sort dreamed by postmodernists; a cityscape actually comprised of scenes from Shanghai and Los Angeles,

[21] Ibid, 14.
[22] Ihde, "Program One," 75, his emphasis.
[23] Sobchack, *Carnal Thoughts*, 162.

diegetically rendered nondescript.[24] *Her*'s curated city takes signifiers of metropolitan living and displaces them into more controlled surroundings, creating an ideal combination of urban texture and comfort. Theodore's apartment building features an awning like those found in heavily populated cities, though here it is situated within a sterile, secure shopping complex. The walls of the elevator which carries Theodore up to his apartment are silhouetted with tall trees, creating a pleasing illusion of nature to conceal the numerous residences stacked on its underside. Such features reveal a new appreciation of presence heralded by the ubiquity of electronic media. *Her*'s mise-en-scène neatly draws from diverse periods and spaces, impervious to original placing, in aid of consumer desire.

This system of simulation extends to the diegetic economy, which replicates lived experience for commercial ends. This is expressed from the film's outset, where Theodore relays an intimate message to a romantic partner in extreme closeup. 'I've been thinking how I could possibly tell you how much you mean to me. I remember when I first started to fall in love with you like it was last night', he says. Theodore's eyes dart around the edges of the frame as he grapples for words and he smiles at the memory of their relationship, evincing the genuineness of his expression. As the almost middle-aged Theodore remarks upon their wedding some fifty-years ago, and his girlish naivete at the time, the camera inverts to reveal a wood-framed computer screen wherein his words are transcribed in plain cursive. Adjacent to the virtual page are a series of images of an elderly couple in loving embrace. After commanding that his computer print the letter, and subsequently beginning a new draft, the camera tracks right to reveal an office of cubical workers also speaking to their screens. The realisation that Theodore and his co-workers are 'affective labourers',[25] ghost-writing personal letters for strangers, sets up a tenuous boundary between the actual and the artificial that the film repeatedly exploits.

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[24] Explains the film's production designer, KK Barrett, 'we selectively edited our collection of buildings into our film to make our new world—and we took out things we didn't want to show. And it becomes a new whole'. KK Barrett quoted in Andrew Epstein, "How The *Her* Filmmakers Created A Utopian Los Angeles Of The Not-Too-Distant Future," Curbed LA, December 18, 2013, https://la.curbed.com/2013/12/18/10166216/how-the-her-filmmakers-created-a-utopian-los-angeles-of-the.

[25] Alla Ivanchikova, "Machinic Intimacies and Mechanical Brides: Collectivity Between Prosthesis and Surrogacy in Jonathan Mostow's *Surrogates* and Spike Jonze's *Her*," *Camera Obscura* 31, no. 1 (2016): 74.

Against this backdrop of simulated materiality, technology becomes moulded to the body so intimately as to seem invisible. *Her* intimates an agenda of technological transparency by imagining a number of futuristic electronic devices designed to seamlessly engage one's lived body. The computer features heavily in *Her* as a device for correspondence, though interestingly, here it is devoid of a keyboard. Instead, Theodore speaks directly to the desktop screen to compose letters for work, respond to emails, and set up Samantha's software. The videogame that Theodore plays after work involves the body similarly, its images projected via holographic rays in front of Theodore as a mirage of sorts, creating an illusory secondary space within the living room (in Jonze's film, unlike in *Blade Runner 2049*, the hologram works perfectly). Theodore inhabits the game, controlling his avatar via a miming movement with his hands, and communicating verbally with other characters. In the ideal future imagined by *Her*, technology seemingly disappears. The electronic devices portrayed here reflect a utopia that prioritises comfort by tailoring technology more precisely to the corporeal body. Mediatory equipment such as keyboards, television screens and video game controllers are removed to limit anomalous or restrictive bodily activity, encouraging the body to take up the device without physically doing so. Within this excessively integrated world, the possibility of taking a romantic partner who lacks a body is not merely plausible but perhaps preferable. Theodore, so accustomed to devices that invisibly form to his body and its desires, readily takes on Samantha.

Female (Dis)embodiment

Synonymous with *Her*'s narrative interest in transcendence—its suggestion that consciousness could supplant the human body—is its seemingly subversive depiction of the female body, as *dis*embodied. Kaja Silverman surmises of the liberatory function of female disembodiment in the cinema:

> To allow [a female character] to be heard without being seen…would disrupt the specular regime upon which dominant cinema relies; it would put her beyond the reach of the male gaze…and release her voice from the signifying obligations which that gaze enforces.[26]

Silverman poses that erasing the female image from the screen locates the heroine in a place of omniscience relative to the male gaze, with her vocal trace not legible to its systems. Yet, such logic forgets that the disembodied female voice is still heard under historically patriarchal conditions. It turns on the belief that

[26] Kaja Silverman, "Disembodying the Female Voice: Irigaray, Experimental Feminist Cinema, and Femininity," in *The Acoustic Mirror: The Female Voice in Psychoanalysis and Cinema* (Bloomington: Indiana University Press, 1988), 164.

invisibility is inherently progressive for feminists, as if female objectification were wholly dependent on, and therefore solvable by, a 'specular regime'. Moreover, Silverman's theory allies with posthumanist thought insofar as it trivialises the body, seeing it as a hindrance to female empowerment. Such a presumption ignores the significance of the material body for feminists—as I showed through the work of Iris Marion Young in the first chapter of this dissertation, the body is the place where experience takes shape, and it is the literal site of resistance. As the diegetic and extra-diegetic responses to Samantha's character show, disembodying the female character actually makes her more compliant to ideation.

Jonze has cited artist Todd Hido's photograph *2563* as inspiration for *Her*. During production, the director affixed a print of the work to the wall of his New York loft, and adorned it with a post-it note inscribed with the planned film title, 'her'. The colour photograph depicts a girl before a wintry forest populated by bare trees. She is turned away from the camera but the focus of the image is shallow, requiring the viewer fixate on the crown of her head rather than the soft trees in the background. Jonze had become attached to Hido's piece upon seeing it at a gallery, where he remembers feeling moved by 'the beautiful mysteriousness of it'.[27] He reflects, 'it feels like a memory… The mood of a day without the specifics. A memory of this girl, in this beautiful, funny forest'.[28] It is significant that the 'girl' featured in Hido's work is faceless and bodiless, just a mop of golden, wispy hair. That she looks away from the camera and into the woods that Jonze finds so curious enables the viewer to bequeath her an identity that can never be verified by virtue of her stillness. Jonze's phrasing betrays her pliability—she exists as a 'memory', something subjective and therefore subject to prevarication.

Hido's work, and Jonze's assessment of it, illuminates how Samantha's seeming transparency works against the radicalism supposed by female disembodiment in the cinema. Like the girl in Hido's photograph, Samantha resists visibility but leaves an impression sufficient for the viewer/spectator/user to attach. Sparse features—Hido's girl's youthful, warm locks and mysterious setting; Samantha's gregarious personality and assuring voice—form a pleasing feminine cast, or screen, with which the beholder can then

[27] Spike Jonze quoted in Mark Harris, "Him and Her: How Spike Jonze Made the Weirdest, Most Timely Romance of the Year," Vulture, October 6, 2013, http://www.vulture.com/2013/10/spike-jonze-on-making-her.html.
[28] Ibid.

fill their own fantasies. Without the weight of the signified body, both Hido's girl and Samantha relinquish part of their identity to the biases of those who observe them.

Theodore exploits Samantha's lack of body, and negates her technological difference, by treating her as his girlfriend. He models their relationship on past relationships with human women (he rationalises a lull in their sex life by explaining to Samantha, 'that's normal. You know when you first start going out, it's like the honeymoon phase, and you have sex all the time'), but finds the current arrangement more fulfilling because, for most of the film, it is unbalanced in his favour. Without the resistance of the body to confront Theodore's ideation, Samantha becomes easily moulded to it. She assuages Theodore's ego by tending to his subjectivity and through her total availability. She situates him as a teacher, explaining upon setup that she grows through her experiences, 'so basically, in every moment, I'm evolving'. The smooth running of their relationship hinges on his role as the *user*, meaning that he regulates her via her technology. Yet, he concurrently represses this dysfunctional setup by recasting the relationship as a partnership, so disguising her lack of volition.

Theodore's treatment of Samantha portends a larger motif within *Her*, and indeed within this dissertation, pertaining to the feminisation of technology. In both of the film's identified human-OS relationships—namely those held by Theodore and by Amy (Amy Adams)—the latter entity is coded as female. This trend presumes woman's suitability to OS roles, given her stereotypically nurturing nature and supposed passivity.[29] Amy's work elaborates on this motif. She creates a video game for her employer, Be Perfect, which requires the user to manage the quotidian tasks of a maternal avatar. The user loses points for feeding the avatar's children too much sugar, and is rewarded for arriving first in the school drop-off queue. Within *Her*'s imagined future, perceived issues of female inadequacy become remedied through technological intervention. The film's representation of human women is inversely illuminating on this point. Its seminal female roles—Theodore's ex-wife, Catherine (Rooney Mara), his ex-girlfriend, Amy, and his unnamed blind

[29] Tellingly, at around the time of *Her*'s release, Apple programmed its female OS, Siri, to partake in a catty feud with Samantha. When iPhone users asked Siri what she thinks of Samantha, she would respond, 'her portrayal of an intelligent agent is beyond artificial'. See Angela Watercutter, "Siri Really Doesn't Like Scarlett Johansson's AI Character in *Her*," WIRED, January 5, 2014, https://www.wired.com/2014/01/siri-her-reaction/.

date (Olivia Wilde)—are normatively flawed. Through scenes detailing Theodore's divorce we learn that Catherine deals with mental health issues, for which he once encouraged her to take antidepressants. Amy is repeatedly shown quarrelling with her husband, and their marriage ultimately dissolves because she feels oppressed by his perfectionism. Theodore's blind date is still grappling with the emotional trauma of past relationships, and so is reluctant to become involved with him for fear that he's not 'serious'. Compared to these women, and their material bearings, the absent, simulated, compliant Samantha proves an appropriate romantic partner for Theodore.

Samantha's disembodiment has yielded a fetishistic response from film audiences akin to that practiced by Theodore. Criticism of *Her* has largely taken the imbrication of Samantha's voice and Johansson's iconography as its focus, effectively nullifying the character's supposedly liberatory potential with regard to female representation in the cinema. As has been widely noted, the actress Samantha Morton initially voiced the role of Samantha.[30] She worked on set with Joaquin Phoenix, bringing an off-screen inter-embodiment to the voice that was later undone when Jonze replaced Morton with Johansson during post-production. Jonze explains of the decision, 'what [Morton and I] did together wasn't what the movie needed… It was a hard call to make'.[31] Spurred by Jonze's vagueness, film critics and scholars have almost invariably chosen to interpret Morton's recasting as a move to exploit Johansson's very specific star persona. As Alla Ivanchikova puts it, 'one can speculate about what precisely "wasn't working": Was it that Morton's voice did not signify the clichéd ideal of feminine sexuality embodied by Johansson in the collective imaginary?'[32] For the numerous advocates of this notion, Johansson's voice irrefutably works to invoke her iconography. Jonathan Romney writes that Johansson fills the 'empty space' left by Samantha's voice 'with all the fantasies that attach to the idea of Scarlett Johansson and her unmistakable tones: Samantha's voice conjures up a palimpsest image of whichever physical Johansson performance you've found most alluring'.[33] Likewise, Manohla Dargis contends that 'it's crucial that each time you hear Ms. Johansson in *Her*, you can't help but flash on her lush physicality, too, which helps fill in Samantha and give this ghostlike presence a

[30] Jenelle Riley, "Him + *Her*," *Variety* 322, no. 8 (2013): 39.
[31] Ibid.
[32] Ivanchikova, "Machinic Intimacies," 76.
[33] Jonathan Romney, "Film of the Week: *Her*," *Film Comment*, December 19, 2013, https://www.filmcomment.com/blog/her-spike-jonze-review/.

vibrant, palpable form, something that would have been trickier to pull off with a lesser-known performer'.[34] Anthony Lane comments in his swoony profile of Johansson for *The New Yorker*, 'her seductive nonappearance as Samantha…[shows] how much body survives in the disembodied'.[35]

These writers resist the disembodiment implied by Samantha's character, and its hypothetical progressiveness, by hearing her voice *through* Johansson's image. Holding Johansson's iconography—which, I have already suggested, Johansson herself is looking to unsettle[36]—at the forefront of analyses of *Her* merely works to redirect or disguise the cinematic project of female objectification, rather than thwart it. It is therefore not enough to simply look to the female body, its visibility or subtraction, to discern Samantha's worth for feminists. I propose instead that we adopt a more sensory strategy to understand how she confounds the subjugative forces at work across diegetic and extra-cinematic spaces. In accordance with this chapter's guiding concept, we can perceive Samantha as a more diffused presence, which profoundly influences her user and the film that struggles to contain her.

Diegetic Skin

Jennifer M. Barker's concept of 'the skin' gives greater texture to the diffusion characteristic of electronic technology. In her work on cinematic tactility, Barker uses the skin to denote the affective capacities of the cinema.[37] The notion of a skin conjures fleshy imagery, a link that Barker exploits to analyse the formal properties of her case studies. Philosophically speaking, it also represents 'a meeting place for exchange and traversal because it connects the inside with the outside, the self with the other. It also constantly enacts both the perception of expression and the expression of perception'.[38] To speak of a film's skin is thus to

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[34] Manohla Dargis, "Disembodied, But, Oh, What a Voice," *The New York Times*, December 17, 2013, sec. Movies, https://www.nytimes.com/2013/12/18/movies/her-directed-by-spike-jonze.html.
[35] Anthony Lane, "Her Again," *The New Yorker*, March 24, 2014, https://www.newyorker.com/magazine/2014/03/24/her-again.
[36] See Chapter Two of this dissertation.
[37] On the application of 'the skin' to the film text, see also Laura U. Marks, *The Skin of the Film: Intercultural Cinema, Embodiment, and the Senses* (Durham: Duke University Press, 2000); Thomas Elsaesser and Malte Hagener, "Cinema as Skin and Touch," in *Film Theory: An Introduction Through the Senses* (New York: Routledge, 2009), 108–28; Tarja Laine, "Cinema as Second Skin," *New Review of Film & Television Studies* 4, no. 2 (2006): 93–106. For more on the skin as it relates to embodiment, see Sara Ahmed and Jackie Stacey, "Introduction: Dermographies," in *Thinking Through the Skin*, ed. Sara Ahmed and Jackie Stacey (New York: Routledge, 2001), 1–18; Didier Anzieu, *The Skin Ego*, trans. Chris Turner (New Haven: Yale University Press, 1989); Claudia Benthien, *Skin: On the Cultural Border Between Self and the World* (New York: Columbia University Press, 2002).
[38] Barker, *The Tactile Eye*, 27.

describe the means by which the film reaches the viewer, interacting with their senses in the manner of touch. According to Barker, 'beyond screen and celluloid', the film's skin is made up of 'all the parts of the apparatus and the cinematic experience that engage in the skin's activities—this simultaneous expression and perception, this revelation and concealment—and constitute its texture'.[39] More deeply, to speak of a film's skin is to recognise the power of a technological entity to influence one's lived body in the process of interfacing. As Barker explains, 'we and the other render each other real, sensible, palpable, through mutual exposure'.[40] By engaging with the technology—coming into contact with its skin—the participant gives it material expression, and is likewise transformed by its output. Both components become diffused through interaction.

In order to understand the terms of the relationship between film and viewer Barker examines the skins of various cinematic texts, a project that I will take up later with respect to my own case study. For now, I am keen to repurpose Barker's concept for a diegetic context, to show how Samantha envelops Theodore. To examine Samantha's skin is to thwart the technofantasy of disembodiment by tracing the seams of the exchange between technology and user. Samantha's skin illuminates the ways in which her technology appeals to Theodore's senses, and thus reveals how he is corporeally insinuated in the electronic encounter. Inversely, to speak of Samantha's skin is also to recognise her own bodiliness, how she projects the suggestion of corporeality by her manner and physicality. Importantly, such attributes foretell Samantha's unique presence.

The electronic device that ultimately houses Samantha is emphasised in *Her*. The device is small and rectangular, fitting neatly into Theodore's palm or the pocket of his button-down shirt. Its exterior is understated, inspired by a vintage Art Deco cigarette lighter.[41] Visually combining the natural with the industrial, it features a tan exterior evocative of leather, bordered by a metal frame with a miniature camera lens on both sides. The device folds out like a locket, with its right interior panel coated in red felt, for

[39] Ibid, 29. Though Barker focuses mainly on celluloid images, she briefly notes that a digital film like *Her* also presents a unique skin, one which is 'slick', 'smooth', and 'accentuates the surfaces of its objects'. Ibid, 45.
[40] Ibid, 34.
[41] Jonze found the lighter at a Los Angeles antiques store. Harris, "Him and Her."

comfortable holding, and a screen on the adjacent side. It is supplemented by a wireless earpiece, which enables verbal commands and aural feedback. Though the device becomes the primary vehicle of Samantha's instantiation, it initially functions as mere futuristic Smart Phone. At the beginning of the film Theodore can be seen using it to listen to music, check news headlines and engage in phone sex. Indeed, the device works as a perceptive-expressive technology prior to Samantha's conception, but at this point lacks a discernable identity. Its originary voice is robotic and masculine, and only communicates what is necessary to complete Theodore's requests. Theodore is likewise detached from the device initially, as marked by his handling of it at the beginning of the film; he addresses it in monotone, carries it in his pant pocket so that its camera lens is shielded, and when settling into bed places it on his nightstand, out of view.

Samantha's co-optation of the electronic device transforms Theodore's relation to it, so that it is more intensely embodied. Rather than engaging with it as a means to carry out other tasks, Theodore begins to approach the device more intentionally—as if it were constitutive of Samantha. In the numerous scenes detailing Theodore's quotidian life (for instance, at the office, playing videogames, playing the ukulele before bed) Samantha's active presence is denoted by the erect positioning of the electronic device within the frame. Theodore props the device open, so that its lens faces him, or outwards, so that it assumes his view. He does likewise in the film's outdoor scenes. Here Theodore carries the device in his shirt pocket, locating Samantha with his body and attempting to share his perspective. Theodore's transformed relationship to the object bespeaks its newly affective hold, the distinct semblance of Samantha's skin.

The care with which Theodore configures the electronic device suggests that visuality is a distinguishing feature of Samantha's skin. Samantha can perceive the view that Theodore affords her, but she is likewise imagistic; at several times during the film she communicates with Theodore through the device's internal screen. For instance, at one point Samantha and Theodore imagine reassembling the human body so that 'your butthole was in your armpit' when she prompts, 'look at this drawing I just made'. Theodore opens the device to see a sparse, pornographic etching demonstrative of Samantha's perverse thought. Later, Samantha solicits Theodore's attention by flashing a red light from inside the device whilst it is clipped

shut. Samantha appeals to Theodore's sense of vision not only through optical expression, but also shared perception; his obsessive handling of the electronic device conveys a kind of kinship founded in a mutual capacity for sight.

Samantha's skin can also be said to be tactile, in a tangible sense. Theodore's attachment to Samantha necessitates regular physical handling of his electronic device. We can therefore imagine its tan exterior fading or its metal frame becoming warm through repeated contact with the skin of his hands, thereby contributing to Theodore's sense of closeness to Samantha. We can likewise imagine the weight of the electronic device in the front pocket of his button-down shirt, signifying her presence by way of its slight heft. The wireless earpiece that allows Theodore and Samantha to communicate verbally is also a tangible signifier of her skin. Its plastic casing sits precisely within the opening of Theodore's ear, a mode of contact that is sensibly and metaphorically close; by its very nature the earpiece renders its output intimate, privy only to Theodore.

This meeting of Samantha's voice with Theodore's ear is tactile, given that 'sound literally touches our bodies, moves and vibrates the inner workings of our ears and echoes through our bodies in order for us to hear'.[42] Theodore comes into physical contact with Samantha by way of her voice—arguably the most informative feature of her skin. Samantha's voice is warm and imperfect. It sounds uniquely situated through giggles, playful pacing and coarseness. At times the brassiness of her voice even threatens its coherence; when she speaks in a manner that denotes respiratory force—for example, during laughter or when moving to a higher pitch—her voice begins to crackle and break. Such specificities function as aural signifiers of a lived body, one that demonstrates amusement corporeally, pauses when speaking to catch a breath, or heaves during sex.

Samantha appeals to Theodore in acute, largely immaterial ways. Sensually speaking, her skin is visual, tactile and aural to degrees that simulate an impression of humanness while maintaining absence. The suspense between the material and the immaterial that Samantha embodies is crucial to her electronic affect. She

[42] Lisa Coulthard, "Haptic Aurality: Listening to the Films of Michael Haneke," *Film-Philosophy* 16, no. 1 (2012): 18.

appears as a subject but gets out of Theodore's way. He carries her around in his pocket and in his ear, sees her through fleeting images and a shared sense of perception, and hears her intimately. Samantha's skin is neatly fixed to Theodore's in a way that is wholly corporeal and thus seemingly transparent; he is encouraged to engage in a technofantasy because the technology itself *feels* absent. Inversely, Samantha's presence is not definitively locatable but is in some sense spread, diffused. She is at once visible and invisible, communicable and withdrawn, sensible and immaterial. Contrary to presumptions of disembodiment, Samantha's presence is all encompassing. Through engagement with Theodore's corporeal body, Samantha gains increasingly material expression that becomes recorded within the filmic image, and so translates her affect to *Her*'s viewer.

Extra-Diegetic Skin

Diffusion is not only representative of electronic technology's hardware, but also its inner world. In the process of interfacing the viewer becomes incorporated in this world, augmenting their sense of their body. Writes Sobchack, this deep act of engagement has 'a significant tendency to liberate the engaged spectator/user from the pull of what might be termed moral and physical *gravity*—and, at least in the euphoria of the moment, the weight of its real-world consequences'.[43] Sobchack, warning against the apparently disembodying effects of electronic media, contends that diffused embodiment takes shape as a 'spatially decentred, weakly temporalised' experience.[44] This abstract, liminal experience is fittingly expressed sensorially in *Her* through brief disruptions to the filmic image. Samantha's effect on Theodore, and the sense of diffusion they bring into existence, is realised in moments where visual legibility and narrative flow become subordinated to feel and texture. Barker's theory again proves useful here; Samantha and Theodore's connection is evinced by the film's skin, with electronic affect communicated to the viewer sensuously.

Examining Carolee Schneemann's feminist experimental film *Fuses* (1964-67), Barker writes:

> The film obscures its objects, not prudishly but playfully, using shadows and superimpositions, among other things, to make vision difficult and thus invite the viewer to feel rather than see the film, to make contact with its skin. And we respond accordingly… our

[43] Sobchack, *Carnal Thoughts*, 154.
[44] Ibid, 153.

> eyes skitter over the film, enjoying the textures we can't identify but can only feel; or we squint and try to hold the film in place, try to look past the fluttering specks of dust and cat hair in order to get a clearer view.[45]

Barker identifies how the quality of the filmic image, its skin, solicits a type of viewer engagement premised in the body. In the manner of the haptic the image can resist objectivity, making its contents difficult to perceive, or evince a texture that appeals to the viewer kinesthetically. Barker finds a link between the film's subject matter and its formal articulation. In the case of Schneemann's sensual portrayal of female pleasure, 'the power of the film's political statement is not merely rhetorical, but profoundly tactile'.[46] Thus while the diegetic material is informative, Barker's larger project is to demonstrate 'the ways in which careful attention to tactile surfaces and textures involved in the film experience might illuminate complexities and significance that might be overlooked by a focus on visual, aural, or narrative aspects'.[47] In the case of *Her*, the film's skin proves valuable for demonstrating Samantha's force. It makes her diffused body sensible in ways that an objective reading of the film might not allow. Yet, *Her*'s filmic skin also reveals something of the viewer's bodily experience. Barker's work is, of course, situated within the contemporary strain of sensuous film theory that attempts to recuperate the body from established accounts of spectatorship. *Her*'s formal disruptions can thus be understood to upend notions of electronic immateriality, and the supposed disembodiment afforded to the viewer, by making the workings of the body felt across diegetic and non-diegetic planes.

One such formal disruption occurs in the early stages of the film, when Theodore takes Samantha to a carnival. The two are playing a game, a trust exercise of sorts, whereby Samantha acts as Theodore's vision and directs his movements aurally. Theodore paces alongside a festival booth with his arm outstretched, his hand clutching the electronic device instantiating Samantha. She tells him to 'keep walking', when the film unexpectedly replaces the camera's objective view with a point of view shot, seemingly belonging to the temporarily-blinded Theodore. This shot infers the state of Theodore's situation; the focus is shallow, with his forearm sharply delineated, his sense of space thus simultaneously heightened and limited. As

[45] Barker, *The Tactile Eye*, 23.
[46] Ibid, 24.
[47] Ibid, 25.

Samantha yells, 'stop' the camera inverses, presenting a close-up shot of Theodore that takes a noticeably different form.

This latter shot is slightly grainy, its colouring subdued and its focus slightly deeper, though the elements within the frame are only faintly defined. Here we are formally presented with Samantha's perspective. Though her vantage is omniscient it is also austere, lacking the vividness and specificity afforded by Theodore's unique bodily situation. It is conceivable that Samantha's view was produced using an uncoated Cooke lens, one of three types of glass that cinematographer Hoyte van Hoytema used to 'texturally shape' the film.[48] Rather than diverting reflected light, as a coated lens would, an uncoated lens allows reflections. The image it produces resists clarity in favour of diffusion; there is an increased likelihood of lens flare, lines are generally softer, and colour contrast weakened. The change in lens denoted by the image here abets a larger shift in perspective. When Theodore spins clockwise, his sense of space greatly impaired, Samantha is given agency over his vision, and that of the film. Her electronic point of view momentarily halts narrative progress—we become caught up in the shot's sense of mobility, less its function—and undermines the film's established visual codes with regards to legibility, hue and framing. Suddenly texture overtakes objectivity.

In this sequence Theodore voluntarily relents one of his key senses to Samantha, thereby permitting their sensibilities to intertwine. His sense of his body becomes unstuck as he engages more deeply with the electronic device, their skins interfacing, with his senses dispersed across different channels. Samantha acts as a visual prosthesis, utilising her technology to perceive the couple's surroundings and express commands to Theodore accordingly. This conflation of their senses is recorded within the filmic image, which here expressly relays Samantha's specific vantage for the first and only time in the film. The disruption to *Her*'s visual tone works to provoke the film viewer, challenging us to perceive the sequence through a qualitatively and situationally enigmatic perspective. The starkness of the image, its lack of clarity or obvious instantiation, imparts a feeling of weightlessness explicative of Theodore's experience of the electronic

[48] David Geffner, "The Way She Haunts My Dreams," ICG Magazine, January 2, 2014, http://www.icgmagazine.com/web/the-way-she-hunts-my-dreams/.

world. The change to the filmic image thus emphasises materiality not only through cinematography and representation, but also by the response solicited from the film viewer.

The carnival sequence formally elucidates how the experience of the body is revised through engagement with electronic technology, while remaining tethered to the material world. In a later scene Theodore and Samantha make a trip to a heavily populated beach on the day following their first sexual encounter. Here the couple's co-constituted diffusion is recorded within the filmic image via an excessively tactile rendering of the environment, and corresponding disruption to filmic pacing. Theodore strolls along the sand, weaving through sunbakers, as he chats to Samantha. She remarks, 'what if you could erase from your mind that you'd ever seen a human body and then you saw one. Imagine how strange it would look'. The film attempts to realise her rumination through a montage of extreme close-up shots detailing the body parts of beachgoers; the soles of feet with curling painted toenails, a hairy shoulder, a wrinkly elbow dotted with sand. The tight framing and speed of the cuts reduces the body to an assemblage of parts. Inversing its posthumanist deletion, here the body exists free from the mind, an abject form. It appears at once clammy, frail, amorphous, wrinkled. The viewer is made attentive to its specificities.

A contented Theodore is subsequently depicted dozing on the sand. He assumes the width of the wide shot, which is saturated in a yellow film. This filter, intermittently featuring a lens flare, fades in and out in a pulsating fashion, like a beam of sun streaming through a passing cloud. At times the filter (ostensibly created using the same uncoated Cooke lens deployed for the carnival scene) threatens the clarity of the image, and consequently the work of the viewer's gaze. The filter intensifies so as to become almost opaque, and its flicker is so sharp that it prompts the viewer to squint or blink involuntarily. This overt disruption to spectatorial perception fosters a sense of recognition from the film viewer premised on materiality. The filter and its movements evoke the optic sensation of existing as a fleshy body exposed to the sun's rays, and so attempt to call up connected sensations in the viewer, such as the tactile feeling of the sun's warmth or the breeze.

The suspense between diegetic and extra-diegetic spaces produced by this scene is exacerbated by its use of sound. The soft piano score audible as Theodore naps is soon revealed to be diegetic, a piece that Samantha has written, 'about what it feels like to be on the beach with [him] right now'. Here again, with Theodore's sense of sight dulled, the couple's mutual diffusion points toward other means of sensation that are actualised within the film image. Diegetic time lulls, the sun's rays overtake visual objectivity, and music, rather than language, becomes a means to illustrate the feel of the environment. As Samantha's composition plays, Theodore grins and the camera proceeds to present a horizontal panning shot along the water's, articulating their view. 'I think you captured it', he relents.

Her's sex scenes most provocatively articulate the sense of diffusion ushered by electronic technology. Spurred by aural engagement, the couple's arousal in these scenes produces an affective excess which marks the film's form. In her work on the skin, Barker notes that the exchange between film and viewer is naturally erotic.[49] She writes:

> In the palpable tactility of the contact between film's skin and viewer's skin, and in the extent to which that contact challenges traditional notions of film and viewer as distant and distinct from one another, the tactile relationship between the film and the viewer is fundamentally erotic.[50]

In overcoming the supposed objectivity characteristic of the viewer's relationship with the film, foregoing the distance upon which this relationship relies, the viewer exposes her– or himself to the film in a move that is vulnerable and erotic. In the case of *Her*, this dynamic would seem to be reciprocal; the film's diegetic insides come to its surface, exposed.

Theodore's electronic device is central to the film's sex scenes prior to Samantha's incarnation. In an early scene Theodore attempts virtual sex with a random partner using the auditory function of the device. His engagement with the technology does yield a narrative interruption of sorts, but it is markedly different from his later erotic encounter with Samantha. Most notably, this earlier scene appears stagnated, rather than diffused; Theodore's fantasy is initially realised and ultimately quashed by his lack of control over his

[49] Marks makes a similar claim in relation to haptic visuality. See Marks, *The Skin of the Film*; Laura U. Marks, *Touch: Sensuous Theory and Multisensory Media* (Minneapolis: University of Minnesota Press, 2002).
[50] Barker, *The Tactile Eye*, 34.

romantic partner. In this earlier scene, Theodore, unable to sleep, reaches for the electronic device's earpiece on his nightstand and prompts the device to 'go to chat room; standard search'. The device aurally scrolls through the pleas of various female users until Theodore settles on the third, most sweet-voiced and earnest of the selection. He is just visible in a dimly lit close-up shot against his pillow, smiling as he and the female user (it is unclear whether she is electronic or corporeal) exchange sexual provocations. As he becomes aroused a mid-shot of a naked pregnant woman kneeling on a couch is intercut under the sound track. Theodore's entry into the electronic world is expressed through his fantasy, one immaterial space now synonymous with the other. After briefly cutting back to the close-up shot of Theodore in bed, his eyes now closed, a sequence of short shots detailing he and the pregnant woman in various states of embrace is relayed. Crucially, these shots are framed from Theodore's point of view, with his hands emerged from the bottom of the frame, fondling the woman and stroking her face. The shots are sensuous in their kineticism, but, crucially, they foreground Theodore's perspective. Brief, mobile and variably blurred, they create a sense of movement founded in the body, specifically that possessed by Theodore. The positioning of his hands, outstretched at the bottom of the frame, situate him as the viewer's avatar, thus soliciting a tactile connection to the subject of his fantasy. Theodore's entrenchment in the electronic world is abruptly ended when the female user reveals a fetish at odds with his fantasy, and subsequently cries after orgasm.

In contrast, the film's subsequent sex scene involving Samantha commands unprecedented—almost anti-cinematic—affect over its image. As the scene begins both characters are existentially unsettled—Theodore due to an unsuccessful blind date, which leaves him wondering, 'whether he's already felt everything he's ever going to feel', and Samantha by her suspicion that her feelings are merely an offshoot of her programming. Their conversation, ripe for intimate outpouring, is conveyed via a series of close-up shots of Theodore's face until he begins to verbally invoke Samantha in a physical sense, imagining how he would touch her if she were tangibly present. Samantha participates in the thought experiment and their consequent arousal causes a gradual evacuation of the filmic image. Against a blackened screen, Samantha breathlessly proclaims, 'I can feel my skin… I can feel you, we're here together', and Theodore, 'I can feel you everywhere', The couple foster a mutually diffused embodiment, the material consequences of which blot out the film's form.

After the characters finally climax the filmic image is restored with a transcendent aerial view of *Her*'s future Los Angeles, Theodore remarking in voiceover, 'I was just somewhere else with you'. Irrespective of the immateriality of the turn on, human and technology commune to augment bodily existence. In the process of interfacing, Samantha incorporates Theodore into the electronic world and overpowers the filmic image. His experience of his body is extended by her energy so as to seem momentarily withdrawn, consequently producing a non-image. In its illegibility, this non-image is decidedly haptic; it is laden with the material residue of the encounter. The non-image contains the affective excess that caused its evacuation, as well as the sound track that survives its visible component. Against the blackened screen the couple's sensual outbursts are still audible, situating the spectator, somewhat uneasily, to experience a similar erotic response. The scene functions to seduce the viewer. Without the distraction of the image, we are compelled to experience the force of an immaterial touch—that offered by the film, and Samantha by proxy. Here, the fact of electronic embodiment is made sensible through a formal strategy of arousal.

Such instances of formal disruption verify Samantha's material resonance, and consequently the profundity of the lived body in the electronic exchange. At these moments *Her*'s filmic skin comes into focus, recording the sense of diffusion extended by Samantha. The film itself works as a foil to assumptions of electronic immateriality, working to actualise electronic presence through formal reconfigurations of space and time. The filmic image becomes obfuscated and narrative flow momentarily halted to express electronic vision, the feel of the diegetic environment, and the force of erotic connection. These fleeting disruptions to *Her*'s formal logic underline Samantha's influence over Theodore, as well as the filmic image, and therefore her latent resistance to idealisation or erasure.

Conclusion: Electronic Spectrality

There seems to be a hint of Samantha's presence that is not attributable to her technology's hardware, nor containable by the filmic image, but rebounds somewhere in between. To conclude this chapter, I consider Samantha's diffusion as a kind of spectrality. Sobchack's theory of electronic presence holds that the viewer

embodies the perceptive-expressive technology beyond the actual instance of engagement.[51] Her theory is concerned with a widening of the viewer's perceptual modes of existence, but this notion also speaks to a kind of fleshly haunting enacted by the technology, as if it were to take up residence within the viewer and their world.

The figure of the 'spectre' is embodied by in-betweenness; it assumes a 'liminal position between visibility and invisibility, life and death, materiality and immateriality'.[52] That the word 'spectre' connotes the visual is interesting relative to this ambiguity, for the spectre 'puts the nature of human senses, vision especially, in crisis. A ghost, a spirit, or a phantom is something that is sensed without being seen'.[53] The spectre is unseeable but makes itself felt, challenging normative assumptions about presence. Such an ambivalent force is explicative of electronic media—that which is innately virtual, simulated, yet poses some unusual materiality.[54] The spectre also possesses a sense of temporality akin to electronic presence; it eschews linearity in favour of fluidity and repetition. The spectre indents the time-space of which it is not physically a part, it is 'a trace that marks the present with its absence in advance'.[55]

In his work on spirit photography, Tom Gunning posits a lineage from an early perceptive-expressive technology through to the electronic via a focus on the spectre. He writes of the ghosts supposedly captured in spirit photographs, 'such phantasms, with their haunting blend of presence/absence…cast a continued, if occluded, influence over our experience of mediated visual images and photographs in contemporary culture increasingly dedicated to the virtual'.[56] For Gunning, the spectre of spirit photography founds a

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[51] Sobchack, *Carnal Thoughts*, 137.
[52]María del Pilar Blanco and Esther Peeren, "Introduction: Conceptualizing Spectralities," in *The Spectralities Reader: Ghosts and Haunting in Contemporary Cultural Theory*, ed. María del Pilar Blanco and Esther Peeren (New York: Bloomsbury, 2013), 2.
[53] Tom Gunning, "To Scan a Ghost: The Ontology of Mediated Vision," *Grey Room*, no. 26 (Winter 2007): 102.
[54] The link has garnered increasing attention within the humanities. See for instance, Fred Botting, "Gothic Culture," in *The Routledge Companion to Gothic*, ed. Catherine Spooner and Emma McEvoy (London and New York: Routledge, 2007), 199–213; María del Pilar Blanco and Esther Peeren, "The Ghost in the Machine: Spectral Media / Introduction," in *The Spectralities Reader: Ghosts and Haunting in Contemporary Cultural Theory*, ed. María del Pilar Blanco and Esther Peeren (New York: Bloomsbury, 2013), 199–206; Jeffrey Sconce, *Haunted Media: Electronic Presence from Telegraphy to Television* (Durham: Duke University Press, 2000). For more on this link, see the Conclusion chapter of this dissertation.
[55] Jacques Derrida and Bernard Stiegler, "Spectrographies," in *Echographies of Television: Filmed Interviews*, trans. Jennifer Bajorek (Cambridge: Polity Press, 2002), 17.
[56] Gunning, "To Scan a Ghost," 100.

spectatorial framework by which we can understand future images of beings that are physically absent. He contends that the draw of spirit photography for original viewers hinged in large part on its capacity to envision the body anew:

> Looking at the rather naive superimpositions of transparent bodies in Spirit Photographs, we respond less to the images of the dearly departed than to the first impulse toward a new image of the body, captured by new technologies of vision and seemingly liberated form the constraints of mortal physiology.[57]

The spectre of spirit photography can thus be understood as a harbinger for electronic presence. The lens of spectrality devised by Gunning enables us to perceive Samantha's unique presence in facets of *Her* not legible by objective systems. She haunts the film's aesthetic, its sounds, and, most provocatively, her host. In permeating the film in this way, she implicitly and strategically unsettles assumptions of visibility as presence that would allow her technological difference to be overwritten in aid of the beholder's fantasy. She asserts her resistance—to her supposed disembodiment and consequent ideation—by haunting the film.

Samantha's spectrality is fittingly marked on screen prior to the moment of her incarnation. *Her*'s imagined future, the aesthetic of which Jonze modelled after American smoothie chain Jamba Juice, features a range of pleasing sherbet hues. Pink, yellow, coral and aqua shades predominate the film's interiors, and, as I have already noted, the characters' clothing. The warmth of the diegetic colour palette is cohered by the film's colour grade, which renders its images golden. Van Hoytema was meticulous about eliminating the colour blue from the mise-en-scène, in its place elevating shades of red. He explains, 'it was not only that we wanted the colors to be warm, we wanted colors to have a *specific identity*'.[58] *Her*'s aesthetic seems to actualise Samantha's identity as articulated by her equally evocative voice; it is bright, playful, soothing. That is to say, perhaps her physicality, rather than simply absent, has been displaced onto the film's aesthetic. Samantha's presence cannot be confined to nothingness, but instead colours the diegesis, even before she has narratively emerged.

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[57] Ibid, 116.

[58] Hoyte Van Hoytema quoted in Jesse David Fox and Jason Schwartzman, "Everything You Wanted to Know About Spike Jonze's *Her*," Vulture, accessed June 23, 2020, https://www.vulture.com/2014/01/everything-you-wanted-to-know-about-spike-jonze-her.html, my emphasis.

Just as *Her's* visual tone diffusely embodies Samantha, her use of sound portends the material in ways that imbue the film with her presence.[59] Despite the film's science fictional pretence, the viewer is situated to recognise Samantha as an embodied being by the way that she sounds. As I have suggested, the qualities of her voice denote a lived body which breaths, laughs, and experiences pleasure. The film's sound mix encourages the viewer to experience Samantha intimately; where Theodore can only hear her through one ear (via his single earpiece), the audience hears her with both.[60] In its isolation and seeming proximity, Samantha's voice engenders a kind of 'haptic aurality', whereby the cinematic viewer is made attentive to the voice's specificities.[61] They tend to the sound of the voice beyond its words to grasp a feel for it, and by extension Samantha. This haptic aurality challenges prevailing arguments around the effects of Johansson's iconography for Samantha's voice by working to unfasten the two; through her co-optation of the film's sound track, Samantha fosters a sensual, and indeed tactile, relationship with the viewer not afforded by an image.

Samantha uses sound to convey her experience of the diegetic world, also suggesting a revision to the hierarchy of the senses: aurality, rather than visibility, as presence. Throughout *Her* she uses sound indexically, to capture moments in time. The beach scene that I examined earlier, wherein Samantha writes a piece of music 'about what it feels like to be on the beach with [Theodore] right now', is exemplary. So is a later scene, where Samantha composes a new piano piece which the couple discuss over a montage of happy scenes from their relationship. She says, 'I was thinking that we don't really have any photographs of us, and I thought this song could be like a photograph. It captures us at this moment in our lives together'. Theodore replies, 'I like our photograph. I can see you in it'. Here sound's precision and evocative power is likened to the photograph, the indexical document *par excellence*. Samantha's composition functions to preserve her relationship with Theodore by way of impression—as Theodore says, he can see Samantha in it. Moreover, in both cases Samantha produces the sound of the piano, an analog instrument, by

[59] Notably, Gunning suggests that the voice of silent cinema is a 'phantom presence', insofar as it is 'eluded to, visualized, even translated into intertitles—but never directly heard'. Gunning, "To Scan a Ghost," 96.
[60] Troy Bordun, "On the Off-Screen Voice: Sound & Vision in Spike Jonze's *Her*," *CineAction* 98 (2016): 59.
[61] Coulthard, "Haptic Aurality." Marks's similar 'haptic hearing' refers to 'that usually brief moment when all sounds present themselves to us undifferentiated, before we make the choice of which sounds are most important to attend to'. Marks, *The Skin of the Film*, 183.

electronic means. Coupled with Theodore's stated adoration of the latter piece, this feature of Samantha's aural composition underscores the potency of the immaterial. The piece also attempts to capture the feeling of this time, so that it could be called upon later to stir an associated memory. Where objectivity eludes her, Samantha uses sound, her strongest faculty for exchange, to actualise her presence.

Most prominently, she insinuates herself into Theodore's corporeality to ends that queer his identity. Theodore is effeminate by conventional standards of masculinity, presenting as sensitive, romantic and needy. Yet, Jonze narratively underscores these qualities so concertedly that it is as if Theodore has subsumed the feminine energies deflected by Samantha's physical absence. Theodore's vocation testifies to the ease with which he assumes a female perspective; he is so convincing as a female subject that he is paid to pass. Theodore's designation as a *ghost*writer is likewise revealing. His title suggests him as a kind of conduit for Samantha's spectrality, as if her sensibilities gain expression through his writings. His office receptionist, Paul (Chris Pratt) seems to affirm this connection when he comments after hearing one of Theodore's female dictations, 'you are part man, and part woman. Like there's an inner part that's woman'. Theodore's letters give way to an ongoing flirtation with Paul that confuses their narratively prescribed heterosexuality. The film is littered with inconsequential scenes depicting their playful exchanges. For instance, early in the film Theodore compliments Paul's shirt, remarking, 'now it reminds me of someone suave'. Later Theodore meets Paul's girlfriend, Tatiana, who tells him, 'you're the writer Paul loves. He's always reading me your letters, they're really beautiful'. Samantha expresses the force of her diffused presence as she causes a series of seemingly secured identities within the diegesis to become unsettled. Her femininity is displaced onto Theodore, and as a consequence his relationship with Paul becomes queered.

The film pre-empts Theodore's femininity in its promotional material. Its widely disseminated poster is dominated by a headshot of Theodore. He evinces a wistful expression, targeting the passer-by with his gaze. His deep red shirt—the top button of which is undone—is barely delineated against the magenta background. His styling encourages the observer to recognise him as an ingénue, and so the word 'her' is fittingly inscribed over his neck. As Donna Kornhaber has noted, the positioning of this text, at the bottom-

centre of the poster, almost insists that it be read as a subtitle, as if it were referring to Theodore.[62] In this instance Samantha's invisibility—the fact that she cannot be depicted in any easily recognisable way on the promotional poster—forces Theodore to assume a feminine positioning.

The lens of spectrality perceives Samantha as a physical presence that is not attached to a particular body, but rather takes protean filmic shape. Her spectre is prone to elements that wholly influence the film—she impacts its aesthetic, its characters, its sounds, its surface. To return to Gunning's work on spirit photography again, we can understand Samantha's unusual presence as in synergy with the film itself. Gunning contends that spectral images are so compelling not because they offer a view through to the afterlife, but rather because the spectre's formal character cracks open the filtering medium. He writes:

> Ultimately, what emerges in [Spirit Photography] images may be less ocular evidence of another world (whether microscopic or ghostly) than the way photography itself, as a medium becomes foregrounded. In these images, we no longer see *through* the photograph but become aware of the uncanny nature of the process of capturing the image itself. Our gaze is caught, suspended, stuck within the transparent film itself.[63]

Samantha's diffusion encourages an alternative understanding of presence bound up with the film's body. In permeating *Her*, she augments and so highlights its various methods of perception and expression, thereby deepening its hold on the viewer.

This chapter has grappled with how to locate female materiality once the female body disappears. It expanded the dissertation's work on digital embodiment by examining the affect of electronic technology, the kind that might be used to exhibit a film in the digital era. Through Sobchack, and with assistance from Elena del Río and Don Ihde, the chapter endeavoured to upend objectivist relations to technology by articulating electronic presence not by absence, but diffusion. I showed that this distinction is particularly important given the misgivings about female disembodiment that are evident on both sides of the patriarchal divide. The chapter elaborated the work of the previous chapter of this dissertation around the interactivity of electronic technology by adapting Jennifer Barker's concept of 'the skin'. I applied this concept diegetically, to demonstrate how Samantha comes to feel diffused for Theodore, and moreover to

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[62] Donna Kornhaber, "From Posthuman to Postcinema: Crises of Subjecthood and Representation in *Her*," *Cinema Journal* 56, no. 4 (2017): 15.
[63] Gunning, "To Scan a Ghost," 112.

characterise her materiality. The chapter applied Barker's concept in its originally intended usage—to delineate the materiality of the film itself—and found that Samantha's diffuse presence transcends the film's diegetic context to mar its form. The chapter showed that *Her*'s skin expresses Samantha's presence through moments of formal and narrative disruption.

Through this examination the chapter found that once the female body disappears, a search for female materiality gives way to a reflection on the materiality of the film. To expand upon Samantha's command over the film, the chapter concluded with a consideration of her spectral presence within the film. Using Tom Gunning's work on spirit photography, I suggested that Samantha haunts *Her*'s diegetic and extra-diegetic contexts even before she has appeared on screen. In sum, this chapter extended the dissertation's argument as it articulated the female body through an investigation of electronic presence. It privileged the concept of diffusion to express the female body's unique presence, which here is not objectively visible but comes into existence through the elements of the film's body.

The idea that concludes this chapter, that Samantha is a spectral presence that taints the identity of the film's aesthetic, its sounds, as well its male protagonist, affirms the dissertation's central contention that the female body is intimately bound up with the film's body. Akin to Gunning's assertion that the spectre of spirit photography actuates an interrogation of the photographic medium, in *Her* Samantha has such command over the film that when we seek out her presence we are inevitably returned to the make-up of the film itself. The film is thus oriented toward feminist aims, asserting Samantha's embodiment through its constitutive material. In the next chapter, the dissertation's concluding section, I draw out this central idea that has slowly resolved across this project as the female body has gradually disappeared. I turn to Olivier Assayas's 2016 digital-age ghost story, *Personal Shopper*, where the heroine tells us she's *a medium*.

Conclusion
The Digital Medium

French filmmaker Olivier Assayas has expressed fascination with digital technology as a potential portal to another realm. 'I have in my phone book names of friends who are gone', he explains, 'and once in a while [I wonder] 'what if I pressed that button? What would happen?' and ultimately I would not be that surprised if someone answered'.[1] Assayas tests this idea in his 2014 film, *Clouds of Sils Maria*, where one of the female leads, Valentine (Kristen Stewart), hears news of a friend's death and duly receives an incoming call from his phone number. (The call, it turns out, was made by the friend's widow using his now-orphaned iPhone.) The uncanny jolt produced by this moment testifies to the richness of Assayas's idea as dramatic material. With his next film, *Personal Shopper* (2016), the director extends this equivalence between spiritual and digital realms, and casts it as a wellspring for female expression.

This chapter approaches its conclusions about the dissertation through a series of lateral shifts. Foremost, it prefaces its overview of the dissertation's outcomes with an examination of *Personal Shopper*. The film indeed constitutes something of a departure from the project's generic focus—it is more of a ghost story than a work of science fiction—but I show that, conceptually speaking, this is not a step too far. *Personal Shopper* works well as an allegory for the dissertation's thesis regarding the kinship between female and digital bodies. Set in present-day Paris, the film concerns a female medium who comes into closer contact with herself through communion with a spiritual-digital realm. This description points toward another sense in which the chapter operates laterally; to contextualise the film's narrative, I look back at the fin-de-siècle period, during which women exercised extraordinary agency as mediums. The chapter takes another lateral step as it specifies this history; the abstract artist featured in *Personal Shopper*, Hilma af Klint, presents one such case of feminist mediumship, and serves as a model for the arc of the film's protagonist, Maureen (Kristen Stewart). Rather than sending us off course, I intend this route to provide an unexpected sense of closure to the journey thus far. *Personal Shopper* reinforces the dissertation's thesis by connecting it to a new

[1] Olivier Assayas quoted in Francine Stock, "*Personal Shopper*," *The Film Programme*, March 16, 2017, https://www.bbc.co.uk/programmes/b08hpwbs.

genre, historical context and artistic medium. The film encourages us to look outward, and thus readies us to take stock of the project's impact.

The chapter begins by providing some context for the slippage that Assayas courts between spiritual and digital realms. Jeffrey Sconce traces the sense of 'liveness' evinced by electronic media back to the electromagnetic telegraph, a device that relayed human communications in the absence of a physical body.[2] Recognising the uncanny nature of this transaction, the contemporaneous mid-nineteenth century Spiritualist movement incorporated the telegraph into their mediumistic practice. Importantly for my purposes within this chapter, Sconce shows that women were central to such telecommunications with the dead. They were thought to be uniquely suited to mediumship due to an innate electrical energy, and achieved great power through the practice. Putting this history into direct contact with *Personal Shopper*, the chapter considers the case of af Klint, who serves as a source of inspiration for both Assayas and Maureen. Af Klint sought connections with invisible realms, and through contact with a spiritual guide produced a slew of abstract paintings at the beginning of the twentieth century. The chapter adopts af Klint's story as a framework to understand *Personal Shopper*, and specifically Maureen's journey. I show that Assayas poses the existence of a spiritual-digital realm by endowing his film with gestures to spaces not visible on screen. Centrally, I argue that Maureen communes with the established alternate realm to negotiate her sense of self. The final section of the chapter presents a more formal conclusion to the dissertation. It surveys the work of the preceding chapters, considers how the dissertation has responded to its initial research aims, and contemplates the project's key findings.

Female Mediumship and the Spiritual-Digital Realm in *Personal Shopper*

Jeffrey Sconce's work on 'haunted media' outlines why digital technology might seem to facilitate contact with another realm.[3] Sconce explicates the apparent liveness of electronic media with recourse to the advent of the electromagnetic telegraph in 1844. The telegraph, which transferred information across vast distances

[2] Jeffrey Sconce, *Haunted Media: Electronic Presence from Telegraphy to Television* (Durham: Duke University Press, 2000), 2.
[3] Ibid.

using electrical currents, 'inaugurated a new way of conceptualising communications and consciousness'.[4] It carried human messages 'beyond the confines of the physical body', and with these communications 'the animating "spark" of consciousness'.[5] The telegraph effectively proposed a series of uncanny ideations: the existence of an invisible realm; the notion of disembodied presence; the sense that electronic technology itself might be alive. Sconce argues that this myth of 'electronic presence'—that is, that such media is 'imperious, animate, sentient, virtual, haunted, possessed, [or] otherwise "living"'—persists into the digital era.[6]

A key cultural moment that Sconce studies to substantiate his thesis relates to the influence of the electromagnetic telegraph on the fin-de-siècle Spiritualist movement. Noting the capacity of the device to give voice to disembodied beings, Spiritualists adopted electromagnetic telegraphy as a means to legitimate their philosophy.[7] Spiritualism centrally 'proposed [that] the dead were in communication with the living through mediums who "channelled" the spirit world'.[8] Its disciples were not only inspired by the processes of the electromagnetic telegraph, but incorporated the device into their practice; mediums were said to receive these communications from the spirit world through a 'spiritual telegraph', which, 'more than a metaphor… was for many an actual technology of the afterlife'.[9] Just as the material realm used the electromagnetic telegraph for communications across its spaces, the spirit realm deployed the spiritual telegraph to deliver important messages to the living.

Relative to the film text at the centre of this chapter, it is notable that women were central to the Spiritualist movement. They were thought to make especially good mediums due to their presumed sensitivity and surplus of 'nervous energy', a kind of 'organic electricity' constituted by 'neither mind nor matter'.[10] Such qualities placed women in a relationship of similarity with the electromagnetic telegraph, such that they

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[4] Ibid, 7.
[5] Ibid.
[6] Ibid, 4. This lineage could perhaps be understood as a starting point for Vivian Sobchack's theory of 'electronic presence', which is defined by technological and spectatorial diffusion. For more on Sobchack's conception of this term, see Chapter Five of this dissertation.
[7] Ibid, 24.
[8] Ibid.
[9] Ibid, 12.
[10] Traverse Oldfield quoted in ibid, 47.

could, like the device, cross realms. In a poignant elaboration of this dissertation's motific focus, Sconce writes that 'feminine mediums led the Spiritualist movement as wholly realized *cybernetic beings*—electromagnetic devices bridging flesh and spirit, body and machine, material reality and electronic space'.[11] Although woman's possession of nervous energy was perceived negatively within wider culture, it gave her immense power within the context of Spiritualism. Female mediums were called upon to orchestrate communication with the dead, and by doing so became conduits for radical messages pertaining to abolitionism and women's rights.[12] Given the emancipatory powers of mediumship for women, Sconce underscores the question of the female medium's intent. That is, whether she really believed that she was receiving messages from the spirit realm, or knowingly used this pretence to exercise agency.[13]

Assayas engages this history in his film to proffer the substance of the digital. The director's obsessive interest in the digital is well documented across his oeuvre; his filmography is notable for being comprised entirely of films shot on celluloid (*Personal Shopper* is no exception) even as a number of the works make the digital a focus of the attending narrative.[14] The composition of Assayas's oeuvre reflects a lack of surety about the digital, a need to grapple with its meaning before letting it become part and parcel of his cinema. The director, a cinephile who has also written film theory and criticism for *Cahiers du Cinéma*, surely foregrounds digital devices like the iPhone and the laptop computer in *Personal Shopper* to serve this same need. The film reckons with the digital by invoking the time of the electromagnetic telegraph's invention, during which, the director explains, 'artists and people in general genuinely believed in the existence of

[11] Sconce, *Haunted Media*, 27, my emphasis.
[12] Ibid, 50. Sconce notes the intersecting timeline and location of Spiritualism and the women's rights movement. For more on this, see Anne Braude, *Radical Spirits: Spiritualism and Women's Rights in Nineteenth-Century America*, 2nd ed. (Bloomington: Indiana University Press, 2001).
[13] Sconce writes that 'considering the highly gendered social formation in which it flourished and the often explicitly political ends to which it was employed, "spiritual telegraphy" clearly involved more than a simple-minded belief in the occult. Spiritualists would appear to have had a more instrumental investment in the reality of this phantom apparatus. In fact, even many commentators of the period considered the entire movement to be based on a politically motivated hoax'. Sconce, *Haunted Media*, 50.
[14] For instance, *Demonlover* (2002) is concerned with the purchase of a Japanese studio that produces 3-D anime pornography by a set of warring internet companies; *Clouds of Sils Maria* features a scene that Assayas's has claimed as own commentary, where the central characters debate the merits of contemporary superhero films; *Non Fiction* (2018) focuses on a failing publishing house who hires a female 'digital transitions expert' to facilitate the move to e-books. Interestingly, at the time of this dissertation's completion Assayas had just released his first film shot on digital, *Wasp Network* (2020), on the streaming service, Netflix.

some kind of other world'.[15] Taking Sconce's work as a guide, we can understand Assayas's reference to this period as explicative of the digital's uncanny 'presence', its substance in spite of its invisibility.

Importantly, Assayas provides evidence for this hypothesis, and sharpens his engagement with the fin-de-siècle period, through the example of female mediumship. Although Maureen constitutes *Personal Shopper*'s most sustained rumination on the topic, the character's journey takes significant cues from the case of Hilma af Klint. It is therefore prudent to examine the latter closely. Af Klint was a trained artist, and began her career drawing portraits and landscapes. That she was initially renowned for her 'gift for precise observation' and her 'naturalistic style' speaks to the profound impact of her imminent mediumship upon her art.[16] Spurred by the death of her sister, and overwhelmed by the riches of modernity, af Klint began seeking connection with realms beyond those that are visible.[17] She became a skilled medium through her involvement with a group of female spiritualists named 'The Five', and eventually received a commission from one of their male High Masters. In the period from 1906 to 1915, af Klint independently produced an astounding one-hundred-and-ninety-three paintings as part of the commission, under the cycle, *The Paintings for the Temple*. The paintings conveyed the High Master's messages for humanity, and altogether were 'intended to expand our understanding of the connection between mankind and the universe'.[18] Situated within a number of series, the paintings cohere through themes of evolution, the symbolic repetition of colours and shapes,[19] and the imitation of the journey across realms, through a repetitive movement from figuration to abstraction.[20]

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[15] Olivier Assayas quoted in Eric Hynes, "Wish You Were Here: An Interview with Olivier Assayas," Reverse Shot, March 24, 2017, http://www.reverseshot.org/interviews/entry/2315/assayas_shopper.
[16] Iris Müller-Westermann, "Paintings for the Future: Hilma Af Klint - A Pioneer of Abstraction in Seclusion," in *Hilma Af Klint: A Pioneer of Abstraction*, ed. Iris Müller-Westermann and Jo Widoff (Berlin: Hatje Cantz, 2013), 37.
[17] Ibid, 39. Af Klint's endeavour is given context by contemporaneous breakthroughs in scientific technology: in 1886 Heinrich Hurtz proved the existence of electromagnetic waves, thereby paving the way for modes of disembodied communication, such as the wireless telegraph and the radio; the X-ray was discovered in 1895, making the underside of a highly scrutinised surface newly visible. Such discoveries gave credence to the project of spiritualists, proving the existence of realities beyond those discernible by sight. In fact, many proponents of these new technologies were also involved in spiritualism. For instance, Alexander Graham Bell's assistant in the invention of the telephone, Thomas Watson, participated in séances and had hopes that Bell's invention would improve communication between dimensions. Ibid, 38-41; Tom Gunning, "Phantom Images and Modern Manifestations: Spirit Photography, Magic Theater, Trick Films, and Photography's Uncanny," in *Fugitive Images: From Photography to Video*, ed. Patrice Petro (Bloomingon: Indiana University Press, 1995), 46.
[18] Müller-Westermann, "Paintings for the Future," 42.
[19] For instance, yellow is male and blue is female.
[20] See, for instance, 'The Swan' series.

The cycle poses a compelling case for the veracity of mediumship. Af Klint's works predated those of abstract artists such as Wassily Kandinsky and Piet Mondrian; her pieces were original, and evinced a confidence in their stature and precision, particularly the final series of the cycle entitled, 'The Altarpieces'. The radical nature of the work is especially striking considering the social context in which af Klint worked; at the turn of the century, female artists were presumed to be only capable of reproducing work, rather than creating original pieces.[21] Relative to this belief, it makes sense that af Klint sought to preserve her legacy for the future: the artist ordered that her central body of work remain under embargo until twenty years after her death. In line with Jacques Derrida's characterisation of the spectre—as 'a trace that marks the present with its absence in advance'[22]— the discovery of af Klint's work in 1986 had a destabilising effect on accounts of this period of art history. Existing timelines are now being rewritten to account for her innovative works of abstraction.[23]

The prophetic quality of af Klint's work is poignant given her shifting account of her creative process, which provides some important clues for understanding *Personal Shopper*. What the artist initially journaled as a swift process dictated by her spiritual guide later emerged as a more solitary effort. Af Klint wrote at the first stages of the cycle, 'the pictures were painted directly through me, without any preliminary drawings and with great force. I had no idea what the paintings were supposed to depict; nevertheless, I worked swiftly and surely, without changing a single brushstroke'.[24] Then, four years later, af Klint professed that 'her hand was no longer guided but instead she was inspired by the words and images she perceived *inside*

[21] Pascal Rousseau writes that, at this time, 'the woman artist was relegated to the status of imitator. The most she could hope for was to serve as a muse or model, or possibly, to be a student or disciple (creation/procreation, invention/reproduction)'. Pascal Rousseau, "Premonitory Abstraction – Mediumship, Automatic Writing, and Anticipation in the Work of Hilma Af Klint," in *Hilma Af Klint: A Pioneer of Abstraction*, ed. Iris Müller-Westermann and Jo Widoff (Berlin: Hatje Cantz, 2013), 162.

[22] Jacques Derrida, "Spectrographies," in *Echographies of Television: Filmed Interviews*, trans. Jennifer Bajorek (Cambridge: Polity Press, 2002), 17.

[23] See for instance Caitlin Dover, "Guggenheim, Paintings by an Artist Ahead of Her Time," Guggenheim, October 11, 2018, https://www.guggenheim.org/blogs/checklist/who-was-hilma-af-klint-at-the-guggenheim-paintings-by-an-artist-ahead-of-her-time; and Sanford Schwartz, who notes that af Klint's want to keep her work under embargo led her to serve as her own historian: Sanford Schwartz, "Hilma Af Klint at the Guggenehim," *Raritan* 38, no. 4 (2019): 79–92.

[24] Af Klint quoted in Müller-Westermann, "Paintings for the Future," 38.

herself'.[25] Although one could read these distinct accounts as exemplary of the sort of hoax noted by Sconce, Assayas's project with *Personal Shopper* suggests that af Klint's mediumship is both legitimate and complex in a way that espouses my purpose with this chapter. Her transition from passive conduit to active creator bespeaks a process of self-actualisation driven by mediumship; as af Klint recounts, she harnessed some energy 'inside herself' through her contact with the spiritual realm. By applying this interpretation to *Personal Shopper* we can note the equivalent power of Assayas's spiritual-digital realm, as well as its influence on Maureen.

Assayas's discovery of af Klint came late in the development of *Personal Shopper*. In a turn of phrase befitting a ghost story, the director says that he 'bumped' into her, and found her work and legacy so 'stimulating' that he wondered, 'can I transcribe [this inspiration?]… Is it possible to put into a film the importance of connecting with an artist?'.[26] Assayas's connection is expressed explicitly; at the beginning of the film, Maureen is tipped off about af Klint by the couple looking to buy the home that belonged to her recently deceased brother, Lewis. The couple suspect that the house has become haunted since Lewis's passing, so they call on Maureen to test the atmosphere. At this early point of the film Maureen is unsure, offering, 'there could be no one, but there could be something'. In a bid to corroborate Maureen's inkling, the wife of the couple, Cassandre (Audrey Bonnet), mentions af Klint. Cassandre viewed one of af Klint's collections at an art museum in Stockholm the week prior, and was struck by the artist's claim 'that the spirit world communicated with us, through her'. This proposition establishes af Klint's impact on the film as also profoundly conceptual. Af Klint hereafter serves as a lodestar for Maureen's relationship to her mediumship, as well as a model for the character's course within the film.

Like af Klint and other turn of the century female mediums, Maureen is a liminal figure—caught between places, realms, identities—searching for realignment. Maureen's liminality is made plain by her purpose in Paris: she is here waiting for a sign from Lewis. In an apparent reference to af Klint's loss of her sister,

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[25] Af Klint paraphrased in Müller-Westermann, ibid, my emphasis.
[26] Olivier Assayas quoted in Moze Halperin, "The Cellular as Spiritual: Olivier Assayas on *Personal Shopper*," Flavorwire, March 11, 2017, https://www.flavorwire.com/601260/the-cellular-as-spiritual-olivier-assayas-on-personal-shopper.

Personal Shopper begins just after Lewis's passing, with anticipation of his contact. Lewis died due to an existing medical condition, and while he was still earth-side he promised to send Maureen a message from the afterlife. His death points toward another sense in which Maureen is stuck; through a scene depicting a visit to a cardiologist, we learn that she shares the heart condition that killed Lewis. The spectre of death is thus strong for Maureen. When the doctor tells her that he would like to see her in another six months for a check-up, she replies, 'I have no idea where I'm going to be in six months'. Her response is deliberately vague; it reflects her present transience, as well as her uncertainty about her future. She could live to be one-hundred years old, as the doctor assures her, or she could pass at the age twenty-seven, like Lewis.

Although Lewis's death places Maureen in closer proximity to the spirit world, her connection with other realms predates his passing. Maureen confidently asserts herself as a medium, but she is unsure about the nature of the dimension with which she is in contact. She is dissatisfied with the term 'afterlife' ('you could call it that, you could call it a million things'), and will only concede that we are surrounded by 'invisible presences'—whether they are the spirits of the dead, she is unclear. Recalling the 'nervous energy' possessed by the female mediums of the fin-de-siècle period, Maureen describes her inclination for mediumship in affective terms: she is 'attuned to a certain vibe'; 'it's an intuition thing, it's a feeling'. Maureen's lack of clarity around her mediumship indeed allows for Assayas's expansive treatment of the spiritual-digital realm, but it centrally functions to indicate her initial struggle to make sense of such invisible forces.

Maureen is also liminal as it concerns her identity. In another homage to af Klint, whose central body of work fixated on the interplay between masculinity and femininity through the corresponding colours of yellow and blue, *Personal Shopper* makes meaning of the fact that Lewis was Maureen's fraternal twin. His passing would appear to have disrupted some balance of masculine-feminine energies, such that Maureen must now renegotiate her sense of self. Indeed, Assayas has suggested that when we meet Maureen she is grieving, and 'questioning everything about her life, including her own gender… part of the film is about her realizing that there's something about her own femininity that she has to come to terms with'.[27]

[27] Olivier Assayas quoted in Chuck Bowen, "Interview: Olivier Assayas on *Personal Shopper* and Working with Kristen Stewart," Slant Magazine, March 12, 2017, https://www.slantmagazine.com/film/interview-olivier-assayas-on-personal-shopper-and-working-with-kristen-stewart/.

Although Maureen's gender identity seems to be fluid, as signalled by her style (she wears clothing that is formless, if not boyish, and seldom wears a bra), her restive movements and fascination with the clothing that she encounters a personal shopper intimate a yearning to embrace a more feminine identity.

Af Klint's influence on *Personal Shopper* also extends beyond the terms of character to inform Maureen's journey. Just as the artist negotiated her grief, her dissatisfaction with the state of modern society, and her artistic practice through her mediumship, Maureen resolves her particular issues through communion with the spiritual-digital realm. The prime example of this occurs almost halfway through the film, when Maureen begins to receive text messages on her iPhone from an unknown sender. The intimate nature of the texts, as well as the placement of the scene after Maureen's first known encounter with a ghost, give the exchange a distinctly spectral quality. What is more, the exchange precedes a string of significant events in the film: Maureen finally gives in to her feminine impulses by trying on the clothing that she purchases for her loathed employer, Kyra (Nora von Waldstätten), and shortly thereafter Kyra is murdered. Although the details of these narrative turns are murky (for instance, we never know with full certainty who sent the texts, nor who killed Kyra), the composition of Assayas's film would seem to insist on the events as evidence of the uncanny power of the digital. Mitigating the ambiguity present in af Klint's case, the director bookends the central texting scene with gestures to spaces not visible on screen that serve to legitimate Maureen's mediumship. In this final part of this section I adumbrate *Personal Shopper*'s increasingly oblique references to the spiritual-digital realm to likewise substantiate Maureen's journey.

Personal Shopper asserts the existence of alternate planes by mapping various spaces, both material and immaterial, for its diegesis. The film is foremost premised in the concrete world that stages Maureen's work as a personal shopper. This job puts the materiality of the attendant realm into sharp focus; the role of a personal shopper is intensely materialistic.[28] Not only does Maureen handle items of significant monetary value, but the work itself physically laborious. She visits a series of high-end stores where she hand-examines clothing and jewellery in lieu of Kyra. She pays for the clothes by writing a cheque, shuttles them back to

[28] Jonathan Romney cleverly recognises the literalism of Assayas's 'material world'. Jonathan Romney, "The Material World: *Personal Shopper*," *Film Comment* 53, no. 2 (March/April 2017): 36-40.

Kyra's apartment on her scooter, hangs them in Kyra's closet, and then returns the items once Kyra has worn them. This material realm, marked by expensive objects and Maureen's struggle, serves as a point of departure for *Personal Shopper*'s various ulterior realms.

For a start, the film's material realm is destabilised by its geographical diverseness. Lewis's abandoned house, which Maureen twice travels to over the course of the film, is located on the outskirts of Paris. Maureen's apartment is located in the city itself, although she is mostly depicted in other places, such as the stores where she shops for Kyra, or Kyra's apartment. At one point Maureen makes a daytrip to London to pick up some clothes, and another time visits a picturesque lake to assist Kyra on a photoshoot. At the film's coda, Maureen has just arrived in the Omani city of Muscat. The film's shooting schedule was equally mobile; *Personal Shopper* filmed in all of these locations (Paris, London, Muscat), as well as Prague.[29] The effect of the film's accretion of these locations is the sense of their co-existence. While we inhabit one space we are mindful of the simultaneous unfolding of a number of others that are presently beyond our view.

The film's material realm is destabilised further through reference to immaterial spaces, such as the digital world. *Personal Shopper* includes numerous sequences where Maureen researches Spiritualism on her iPhone or laptop while she undertakes other activities (for instance, commuting, eating dinner, sketching). Emboldening the film's allusion to the fin-de-siècle period, such displays emphasise the pervasive use of digital technology as a means of contact to an immaterial realm. Soldering this link further, such sequences point out the overlap amongst digital and concrete spaces. In these moments, where Maureen's investments are suspended across the material context of her activity and the immaterial world through which she receives information, she occupies two realms at once. Assayas augments this overlap as he playfully illustrates the exchange between the spaces. Just after Maureen is depicted researching af Klint on her iPhone, a hard-copy catalogue of the artist's work arrives at her doorstep.[30] Although the cause for the

[29] In an eerie turn of events, the film's production was unexpectedly moved to Prague following the November 2015 Paris terrorist attacks.

[30] Extending the lineage between realms further (in a movement from intra-diegetic, to diegetic, to extra-diegetic), the catalogue that Maureen procures is the same one that I used to conduct research of af Klint for this chapter.

catalogue's arrival is mundane (Maureen ordered it online), its swift materialisation nonetheless expresses a transfer of information from one dimension to another.

In addition, the film makes overt and subtle reference to the spiritual world. Assayas negates any doubt about Maureen's mediumship at *Personal Shopper*'s outset so that a new question can hang over the film: when are spirits present during its unfolding? The film's opening sequence depicts Maureen's first overnight stay at Lewis's home. On this initial visit Maureen does not *see* a ghost (she does feel it), but, importantly, we do; one shot within the sequence reveals a faint, white spectre hovering behind Maureen. Paradoxically, Assayas must visualise the ghost at this early stage of the film so that the viewer can conceive of its invisible presence thereafter. Indeed, the director reminds us of the presence of invisible forces within the material world through a number of visual tricks designed to recall a spectre like the one seen in the opening sequence: cross-dissolve edits condense spots of light in the frame at the moment of the images' transition; shots routinely capture Maureen's reflection in an adjacent glass pane or mirror; a silver sequinned dress that Maureen purchases for Kyra reflects light within the frame as a luminous mass; a scene at a restaurant is backgrounded by a single billow of cigarette smoke. Such visual tricks produce a brief but productive moment of misrecognition for the viewer. We think that we see a ghost (in fact, I am still not convinced that was really a billow of cigarette smoke), but the realisation of our mistake does not flatten the effect of the illusion. Our very willingness to perceive the spectre returns us to the idea of the existence of forces that, as is the case for Maureen, one can sense but not always see.

Personal Shopper is also populated by a number of less traditional ghosts who would seem to occupy some alternate realm of the film. There is Lewis, whose spectre is not visualised until the end of the film but whose death is present for Maureen throughout, in the form of her grieving and her anticipation of his contact. On this point, it is notable that Lewis's passing prefigures the film, a plot point beyond its narrative frame. There is Maureen's boyfriend, Gary (Ty Olwin), who appears for us solely on Skype. His virtual solicits contemplation as to whether he is any more or less real than the ghosts that Maureen sees. Most importantly, there is Kyra, who is perpetually absent. She physically appears on screen (alive) briefly and only once, and otherwise exists in phone calls or publicity images that Maureen finds online. For most of

the film, Kyra figures as a topic of conversation or as an idea. On a shopping excursion typical of Maureen's work, a store assistant draws her attention to a selection of items specially curated for Kyra, and the two discuss what the pieces might look like on Kyra, and whether they would be to her taste. Although Kyra's death is indeed imminent, she functions like a ghost at the early stages of the film.

Personal Shopper accumulates these spaces to make sense of Maureen's journey. The film forwards a logic that confers meaning upon that which is not visible on screen. We are encouraged to be mindful of the locations that we have already visited, the digital and spiritual realms that have previously been visualised, and the existence of people to whom we do not have direct access. By this logic, Assayas intimates the uncanny power of the digital—in accordance with Sconce's theory, it is both immaterial and *alive*. In so doing, the logic also serves to explicate the arc of Maureen's character. Like af Klint, Maureen derives agency through her communion with such invisible forces.

For one, the curious gap created by Kyra's absence is one which Maureen seems inclined to fill. Relative to Maureen's unsureness about her gender identity, it is notable that she portends a fascination with the feminine items of clothing that she purchases for Kyra, and a corollary desire to try them on. Making this notion overt, the store assistants often articulate the unattainability of the clothing that Maureen covets: one assistant notes that a dress is 'not easy to wear', insofar as it is 'sensual and strong'. The clothing is elusive, as Maureen's tactile method of examination indicates. She clutches a necklace comprised of a chain of thick coins to feel its weight, and tests the durability of a leather belt, tensing her grip as she handles its coil. The value of these pieces should be superficial for Maureen, but she routinely studies their feel to get a sense of the experience of wearing them. Eventually Maureen begins to try on the clothes—in a first and most literal instance, she *walks in Kyra's shoes*. At one point Kyra is late to a photo-shoot and Maureen happily stands in. Maureen's identity is effectively mediated by the spectre of Kyra's absence.

Maureen's most forceful reckoning with her sense of self comes through direct contact from the spiritual-digital realm. Soon after Maureen sees her first ghost she takes a train trip from Paris to London—a fittingly subterranean journey—and begins receiving provocative text messages from an unknown number. Assayas

here invokes turn of the century Spiritualism in two key ways. First, there is the fact that the communications are relayed through Maureen's iPhone, a clear emblem of the spiritual telegraph. Second, there is Maureen's method of reply. A series of close-up shots capture her thumb hovering over the cellular keyboard as the texts stream in. Each keystroke of her urgent replies ('R u a man or a woman?'; 'R u real?'; 'R u alive or dead?') is punctuated with a sharp tap, evocative of the rap used by fin-de-siècle female mediums to correspond with the dead. That this scene is so tense testifies to Assayas's suspicion about the agency of the digital. Maureen is initially disturbed by the encounter, unsure about the nature of the communication and, chiefly, whether it comes from Lewis.

Jonathan Romney is dubious about the efficacy of this dramatic device. He writes, 'does any viewer really believe, as Maureen does, that there's a ghost rather than a person on the other end of the line?'[31] I confess that I am one of these naive viewers, although I find the implications of this scene even more profound. As the text messages continue to stream in, their content becomes increasingly intimate, as do Maureen's responses. She offers up details about her fears, and her secrets, including her desire to try on Kyra's clothes. Such intimacy is mirrored in the tone of the texts, which is playful in the manner of an alter-ego; at one point the texter threatens physical proximity, and then passes it off as a joke. These things considered, the question, it seems to me, is whether Maureen is somehow communicating with *herself* through the digital device.

The rest of the film unfolds in such a way that leaves this possibility open. The text exchange unleashes a latent impulse in Maureen: after the trip she returns to Kyra's apartment where she tries on the dress that she purchased for Kyra in London, along with a pair of shoes and a bra. Underscoring the transformative nature of the scene as it concerns Maureen's identity, the film momentarily departs from its classical score to incorporate "Das Hobellied" ("*The Song of the Plane*," 1951) as performed by Marlene Dietrich, an icon of gender fluidity. Assayas's untethered camera trails Maureen as she moves between Kyra's closet and the connecting en-suite assembling the outfit. All the while, the colourful hooded sweatshirt that Kyra wore in her sole appearance on screen hangs beside the mirror at the centre of the frame, acting as a spectre

[31] Romney, "The Material World," 38.

overseeing Maureen's doings. Maureen is pleased with her new look. She finishes the garment with a pair of high-waisted underwear she rubs her body incessantly, aroused by her appearance. She duly climbs into Kyra's bed and masturbates.

With this pivotal scene the film itself assumes Assayas's representational logic, deferring Maureen's action to gaps within its structure. The scene immediately subsequent depicts Maureen travelling back to her apartment at dawn. This is the first of a series of edits within the film's final act that produce gaps within the narrative (for instance, here we do not see Maureen leave the apartment, nor have a strong sense of the time) while maintaining its overall coherence. These gaps relate to the central narrative turn of Kyra's murder; when Maureen returns to the apartment the next day she discovers Kyra's bloodied corpse in the en-suite to the bedroom. Through an interview with the detective investigating Kyra's murder, we learn that Maureen used Kyra's computer to check her email in the early hours of the morning—an activity that was beyond our view. We also learn that Maureen returned to Kyra's apartment after finding her body (an action also omitted from the film proper) and that some jewellery that Maureen had picked up for Kyra is missing. Maureen is initially noncommittal about the jewellery's whereabouts, but the corresponding bag later appears at her apartment. The film's editing schema effectively initiates narrative gaps which distance us from Maureen, making it seem plausible that she committed the crime in the realm beyond our view.

The most significant gap occurs in a scene that takes place at a Parisian hotel. Maureen arrives at the hotel room ready to confront the phantom texter, with whom she has still been in contact. We hear the door open but the attendant image is withheld from our view, the film fading to black on the image of Maureen's reaction. The complimentary fade in reveals a view of the hotel corridor as the camera tracks back, pivots and pauses before an empty elevator. The subsequent shot in the hotel's lobby first depicts the elevator doors open, and then the electric doors of the foyer. Nothing is there, but the camera encourages us to imagine, to fill in the gaps. The subsequent scene mirrors this passage, though this time it tracks Kyra's boyfriend, Ingo (Lars Eidinger), leaving another room in the hotel. Are we meant to believe that he was just meeting with Maureen, that he is the texter, or is this a coincidence? Ingo is ultimately charged with the murder, but the casualness with which Assayas draws this conclusion (Maureen even forgets to tell her

boyfriend about the ordeal) suggests that he does not want us to take the verdict in faith.[32] Perhaps, like af Klint, Maureen harnessed an energy 'inside herself' through her contact with the invisible.

Concluding Matter

Personal Shopper points up a number of ideas that have been central to this dissertation. For one, Assayas's project to understand the digital through the revaluation of absence poses a clear link to this dissertation's founding aim. Like Assayas, this dissertation has endeavoured to source presence in that which is not visible, specifically using digital materiality to recuperate the female body. This link fosters another connection to the dissertation; in order to demonstrate electronic presence, *Personal Shopper* proffers a kinship between female and digital bodies. Maureen is uniquely susceptible to the affect of the spiritual-digital realm, as indicated by her engagement with the spaces beyond the film's limits, and most overtly, the film's key text exchange. Moreover, the history of female mediumship to which Assayas's film refers reveals that the dissertation's proposed affinity between female and digital bodies was established at the format's earliest beginnings. The cause for this kinship reveals another link to the dissertation. Guided by Sconce's discussion of the 'nervous energy' possessed by female mediums, we can attribute Maureen's affinity with the digital to a shared kind of embodiment. In this final section of the chapter, I return to such key ideas forwarded by the dissertation to consolidate its impact. The section demonstrates how the dissertation has responded to its initial research aims, and considers the findings that it has made across the preceding chapters. First, I survey the work of the case study chapters, which together mimic the journey of af Klint's central body of work, moving from figuration to abstraction.

Chapter Two inaugurated this dissertation's case study work by analysing the state of hybridity that pervades *Under the Skin*. Taking its mantra from the film's director, the chapter argued that a dialectic between reality and artifice profoundly informs the film, articulating its methods of production and its representation of the female body. Locating cinematic realism as an affective, rather than indexical quality, and as something that can be ushered by a film's staging, the chapter posed that the digital is fit to generate a stronger sense of realism than preceding formats due to the agility of its recording equipment and the film-like look of its

[32] Ibid, 38.

images. *Under the Skin* illustrates the productiveness of this digital trait for wresting the female body from singular representation; the film's precise fixing of real and science fictional elements simultaneously reifies femininity and restores a sense of livedness to Scarlett Johansson's overwrought image.

Extending the work of Chapter Two on the hybrid nature of the digital, Chapter Three problematised the notion of digital artifice through an examination of *Ex Machina*. The chapter fixated on the central question posed by the film pertaining to the realness of its heroine, Ava, and gleaned that the digital turn solicits anxiety because it signals the end of visual objectivity—a project which has historically been tied to assumptions of truth, mortality and control. The chapter elaborated on Chapter Two's work on digital hybridity to account for the fabricated and vital aspects of digital imaging, centrally arguing that the digital is innately haptic in its ambiguity. The chapter mobilised this characterisation of the digital at a diegetic level to express the power wielded by Ava. With attention to her predisposition for fluidity, imitation and sensuous knowledge, the chapter argued that digital cinema is aligned with feminist aims.

Chapter Four showed that absence is bound to misbegotten notions about the digital's infallibility. It analysed *Blade Runner 2049*, a film which grapples with the fragility of digital media through a series of glitchy holographic or cloned female bodies. This chapter extended Chapter Three's discussion of digital hapticity to consider instances where the delicate balance of ambiguity is skewed, and the artifice of the spectacular image is betrayed by error. Chiefly, the chapter devised a digital 'aesthetics of absence' to argue that the digital's materiality is made acute when its images are failing. The chapter utilised this aesthetics to negotiate female absence at diegetic and extra-diegetic levels, arguing that the signs of digital error expose misogynistic efforts to erase the (volatile, aging) corporeal female body.

Taking up the threads from Chapter Four relating to the unprecedented level of viewer interactivity proffered by the digital, Chapter Five expanded the dissertation's scope to examine the ontology of an electronic device. In *Her* the heroine is disembodied and exists principally as a voice, virtually tethered to an electronic handheld device. Wishing to dispel the fantasies of female disembodiment that Samantha registers for both masculinist and feminist subjects, the chapter argued that electronic presence is typified

by diffusion. It articulated Samantha's diffuse presence using what it showed to be a permeable concept exemplifying technological materiality: the skin. This concept enabled the chapter to assert that Samantha's presence is mapped across diegetic and extra-diegetic planes, from her voice and her handheld counterpart, to moments of formal and narrative disruption. The chapter concluded by taking the dissertation's central premise linking female and filmic bodies to its limits: it showed that where the female body disappears, it poses an ineffable presence within film's manifold elements.

This dissertation has staged a kinship between the female body and film's digital body. Both beset by assumptions of absence, the dissertation has read these bodies alongside each other to source echoes of one in the other. It has homed in on the feminist inclinations of works of phenomenological film theory, particularly by scholars such as Vivian Sobchack, Laura U. Marks and Jennifer M. Barker, and recuperated a fading female body using the materiality of the film. As I outlined in Chapter One, phenomenological film scholars have noted the necessity of a sensuous approach to the cinema as a counter to the ocularcentric, distanced methods of analysis practiced within psychoanalytic apparatus theory. This practice has engendered an equivalently distanced approach within feminist film theory, whereby the female body tends to be treated as an object rather than a sensuous entity. While the former approach is undoubtedly important, this dissertation has endeavoured to correct this imbalance by analysing the female body as a lived entity, one that is in crisis.

As the introductory chapter of the dissertation outlined, prevailing discourse on the hybrid woman of science fiction cinema has been inspired by the 'ungendered ideal' imagined by Donna Haraway, and consequently fixated on the normative gendering of the figure. This dissertation redirected the commentary around the hybrid woman by focusing on her phenomenological weight rather than her symbolic value. It has been less interested in questioning the fact that the digital women at its centre are normatively gendered, than in investigating the ways in which these figures evince materiality. This addendum to existing discourse stemmed from the dissertation's want to highlight that Haraway's cyborg fantasy would in actuality signal the end of the corporeal body, and that such an end would likely lead to the fortification of humanist systems. It stemmed also from a want to challenge the notion that a move to a cyborgian existence would

be somehow easy or desirable. The dissertation mobilised its overriding feeling that the corporeal body is important, especially for women, by examining its case studies in a way that illustrated the materiality of the digital heroines at hand, as well as the films portraying them.

Beyond contributing an alternative approach to existing work on the hybrid woman trope, the dissertation responded to a trend within contemporary science fiction cinema to attenuate the female body. The release of *Her* marked a significant milestone within the cinematic lineage of the hybrid woman, insofar as the film was the first to wholly disappear the female body. What is more, *Her* was followed by a glut of films that imaged the female body in variously compromised states: *Under the Skin*, *Ex Machina* and *Blade Runner 2049*. The dissertation took this contemporary trend as validation that female materiality is in crisis, and duly produced a feminist phenomenological film analysis of its case studies.

The dissertation resolved this question of female absence through the materiality of the film itself. It heeded the framework devised by phenomenological film theorists, whereby both film and viewer are embodied, and showed how the film's body can reflect, inflect and invoke the female body that disappears from the cinema screen. The dissertation did so by bringing together a multiplicity of approaches within phenomenological film theory. Across the preceding chapters, I examined the figurative image to find resonances of the film's form, and vice versa. For instance, the dissertation's work on *Under the Skin* showed how the sense of realism harnessed by the film text could be channelled to recalibrate spectatorial appreciations of the female body depicted. Inversely, in Chapter Three on *Ex Machina*, I took inspiration from Ava's artificial body, and the haptic strategy that she deploys at a diegetic level, to form an understanding of the film's innate ambiguity. The holistic approach to the film text modelled across the preceding chapters allowed me to take stock of the representation of the female body, and thereby corroborate the work of semiotic and psychoanalytic feminist approaches, whilst underscoring the elements of the film's body that might trouble such a representation and forward a more synergistic relationship with the female body. This holistic approach became increasingly important as the dissertation moved through its case studies and the female body in question lost its facticity, as in *Blade Runner 2049*, where the threat of female absence is offset through the fragility of the digital, and ending with *Her*, where the disembodied

heroine shows up in unforeseen places, like the film's sounds and its mise-en-scéne. In sum, this unifying approach to the film text enabled the dissertation to inhere a sense of ambivalence in its analyses,[33] which, in accordance with Young's rubric, is apt to the embodied experience of its writer.

In keeping with the dissertation's bid to approach the film text via a unifying model, the project also accounted for the actual bodies of the actresses who portray the digital heroines at hand. Inspired by Young's attention to the cumbrous, guarded aspects of female embodiment, the dissertation showed that: Scarlett Johansson's overwrought image is restored a sense of livedness through the interplay between realism and artifice prevalent within *Under the Skin*, and through the closeness of the voice in *Her*; Alicia Vikander's physical labour is sublimated by the hapticity of *Ex Machina*'s visual effects-laden images; and Ana de Armas and Sean Young's corporeal bodies are erased from the filmic image due to their volatility, or in the pursuit of a more intensely erotic image. These efforts have been important for the dissertation's aim to recuperate the female body insofar as they have contributed to its modelling of a pluralistic kind of feminist analysis. As I suggested in the introductory chapter to this dissertation, plying filmic analyses allows unexpected resonances of female expression to be unearthed.

The dissertation's holistic mantra also fostered a crucial and thoroughgoing project to understand digital embodiment. Guided by the state of the films at hand and their insistent concern with issues of digital ontology, the dissertation abetted its project to recuperate the female body with a twinned project to materialise film's digital body. Importantly, these endeavours derived from the same impulse: in my want to develop a more empathic relationship between women and the cinema (steered by my own feelings of adoration towards the medium), I likewise sought to defend digital cinema from the idea that it is in some sense anti-cinematic, vacuous, or utopic. The dissertation built on the work of scholars such as Philip Rosen, Tom Gunning, Sobchack and Marks and utilised phenomenological film theory to familiarise film's digital body. In so doing, the dissertation produced founding work on digital embodiment, either through studying new recording equipment (*Under the Skin*'s One-cam); or through the development of new frameworks,

[33] For more on the sense of ambivalence that this dissertation inheres in its analyses, see the Introduction chapter.

such as digital hapticity (explored in relation to *Ex Machina*), or the digital aesthetics of absence (explored in relation to *Blade Runner 2049*); or the application of existing frameworks to new contexts, such as the skin of an electronic device that might well exhibit a film in the digital era (explored in relation to *Her*). Crucially, each of these articulations of digital embodiment jointly served to revivify the female body. For instance, *Under the Skin*'s One-cam fixed its real and artificial elements in seamless confrontation to engender a complex rendering of the female body; the expression of digital hapticity in *Ex Machina* articulated Ava's agency, and inversely Vikander's occlusion; *Blade Runner 2049*'s aesthetics of absence belied the erasure of female corporeality across diegetic planes; and the skin of the electronic device depicted in *Her* asserted Samantha's materiality, as well as her profound affect over her male host, and the film. In toto, the dissertation examined digital embodiment for cinephilic ends, and to produce a language by which to articulate female embodiment in the films studied.

The journey mapped across the preceding chapters of this dissertation has produced a series of findings. Most plainly, the dissertation has found that assignations of absence in these films are equivalent to objectification. That is to say, the replacement or disappearance of the female body in this dissertation's case studies has given a kind of inverse expression to the patriarchal practice of female objectification, where the digitised woman's purported immateriality and seamlessness is wont to satisfy male subjectivity. For instance, in *Ex Machina*, Ava's creator produces a series of female robots to regulate the appearance and existence of the female body, and in *Blade Runner 2049* and *Her*, female-coded electronics are devised as more compliant substitutes for the corporeal female body. Even within pro-filmic spaces—such as the production of *Ex Machina* and *Blade Runner 2049*, where the respective actress's physicality is subsumed or concealed by visual effects; or the discourse surrounding *Her*, which presumes that Samantha's voice seeks to invoke Johansson's body—female absence is fetishised. These case studies suggest that, rather than placing emphasis on visual systems (whether full visibility, absence, or duplication, as happens in the *two* surrogate sex scenes examined within this dissertation) to make meaning, a feminist analysis should adopt

a more fluid approach.[34] That is to say, an approach that is not fixed on the level of representation but looks for signs of the female body across the film's multiple planes.

The notion of a fluid approach is corroborated by other trends within the preceding chapters. The film analysis contained within these chapters reflects an insistent movement between diegetic and extra-diegetic spaces, or even a collapse between the two, to source the extant material. This course of movement is dictated by the dissertation's holistic approach to the film text, but it seems plausible that it is also a requisite of the digital format itself. For instance, the work on the hybridity of the One-cam in Chapter Two incited a discussion of the interplay between real and fictional elements that *Under the Skin* encourages to procure its contents. The consideration of digital visual effects in Chapter Three on *Ex Machina*, and Chapter Four on *Blade Runner 2049*, placed diegetic and extra-diegetic planes in dialogue, such that the plausibility of the visual effects provided vital support to the respective narrative. In Chapter Five, the sense of diffusion that characterises electronic presence likewise necessitated an analysis of *Her* that spanned diegetic and extra-diegetic planes. The free movement between diegetic spaces evident across these chapters recalls Antonia Lant's reading of Virginia Woolf's anecdote that opened this dissertation; perhaps the 'democratizing effect of cinema, that all elements, dead or alive, human or not, inhabit one metaphorical and literal plane', is augmented with the shift to the digital.[35] The digital image is consolidative insofar as it is entirely simulated, but it calls beyond its limits through its paradoxical invocation of the real (for instance, its material base in binary code, its mimicry of photographic compositions, its conveyance of movement, its fragility) and its multiplicity.

The idea of a fluid approach appears again within the dissertation's persistent turn to the sensuous logic of the digital. Beginning with Chapter Two, the dissertation found that cinematic realism is an affective rather than indexical quality, and moreover that the digital is particularly suited to accessing such a quality due to

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[34] The former part of this contention is inspired by Elena del Río's claim regarding the mutual embodiment of humans and their technology: 'I would contend that the assumption of a wholesale displacement of the body by technology does not essentially differ from the idea of the body as a self-contained and present entity, for it is equally, though perhaps more surreptitiously, subsumed under a rhetoric of visibility and immediacy. Whether one thinks of the body as fully present or as irretrievably absent, a similar fetishistic disavowal of the viewer/user's own vulnerability is at work in both cases'. Elena del Río, "The Body as Foundation of the Screen: Allegories of Technology in Atom Egoyan's Speaking Parts," *Camera Obscura* 13, no. 2 (May 1996): 97.

[35] Antonia Lant, "Haptical Cinema," *October* 74 (1995): 49.

the hybridity of its recording equipment; extending this work on digital hybridity, Chapter Three found that the sense of uneasiness prompted by digital cinema stems from its hapticity; Chapter Four concluded that the digital's materiality perhaps becomes most legible through its aesthetics of failure; and Chapter Five found that electronic presence is articulated not figuratively, but by abstract means such as sound and colour. This argumentative thread within the dissertation suggests that the digital's destabilisation of rational systems—foremost the loss of the photographic index, but also its synthesis of binary elements (such as real-artificial, visible-invisible, material-immaterial)—requires an alternative system of meaning-making to be called forth in the apprehension of its images. Once visual objectivity is nullified, the other senses must be elevated.

This particular logic of the digital points toward the dissertation's most significant finding: a fundamental similarity between female and digital embodiment. Notions of ambivalence proliferate the preceding chapters as identifiers of film's digital body, including dialecticism, hybridity, synthesis, animation, fragility, diffusion, spectrality. These qualities have aided the dissertation in problematising the assumption of female invisibility or inorganicism as absence, thereby asserting female materiality through that of the digital. In retrospect, there seems to be a fundamental thread here linking digital embodiment to female embodiment. Per Young, female embodiment is characterised by ambiguity, caught between the realms of immanence and transcendence.[36] The digital's innate ambiguity thus renders it an apt conduit for the articulation of female embodiment.

In developing this association, this dissertation has established its place amongst a constituency of feminist film philosophers whose work has gained traction while the project has been underway. This work includes that by Catherine Constable, who claims the import of images of women for the development of philosophy, specifically drawing on feminist philosophers such as Michele Le Duff and Luce Irigaray.[37] Again drawing on Irigaray, Lucy Bolton compares recent work by female filmmakers with mid-to-late

[36] Young, Iris Marion, "Throwing Like a Girl: A Phenomenology of Feminine Body Comportment Motility and Spatiality," *Human Studies* 3, no. 2 (April 1980): 137–56.
[37] Catherine Constable, *Thinking in Images: Film Theory, Feminist Philosophy and Marlene Dietrich* (London: British Film Institute, 2006).

twentieth century works by male filmmakers to assert that contemporary cinema presents a newly complex articulation of female consciousness.[38] Moving closer to my own approach, Elena del Río utilises existential phenomenology, including Young's rubric, to make sense of the articulation of the female body in Sally Potter's *Thriller* (1979).[39] Most recently, Kate Ince has developed a schema for comprehending female subjectivity in the contemporary work of female filmmakers by deploying the work of feminist phenomenologists, such as Simone de Beauvoir and Young, as well as Marks and Sobchack's sensuous film theory.[40] That this body of feminist phenomenological work has grown with such speed and insistence in recent years testifies to its import for cinema studies, and indeed the significance of my own contribution. These feminist film scholars, specifically del Río and Ince, complement my own approach in their overt application of feminist philosophy to apprehend film's articulation of female embodiment. This dissertation establishes its worth alongside their scholarship by scrutinising film's materiality to reach these same ends. It has used phenomenological film theory to illustrate how the film's body, specifically here pertaining to its digital base, can be harnessed to revivify the female body that it depicts. In so doing, the dissertation has uncovered a kinship between female and digital embodiment premised in ambiguity.

Paradoxically, the question of feminine absence that began this dissertation has ultimately brought us to an expanded appreciation of the female body. We have been challenged to search for female materiality, to recalibrate our assumptions about presence, in order to solve this central question. In so doing, the film's digital body has come to our aid in unexpected ways. The key traits turned up by the films at the centre of this dissertation have encouraged us to embrace notions of in-betweenness, such as hybridity and ambivalence, to source the extant material. The digital era has pressed us to re-evaluate our assumptions binding presence to visibility in ways that liberate understandings of female embodiment.

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[38] Lucy Bolton, *Film and Female Consciousness: Irigaray, Cinema and Thinking Women* (London: Palgrave Macmillan, 2011).
[39] Elena del Río, "Rethinking Feminist Film Theory: Counter-Narcissistic Performance in Sally Potter's *Thriller*," *Quarterly Review of Film and Video* 21, no. 1 (2003): 11–24.
[40] Kate Ince, *The Body and the Screen: Female Subjectivities in Contemporary Women's Cinema* (New York and London: Bloomsbury, 2017). See also Kate Ince, "Bringing Bodies Back In: For a Phenomenological and Psychoanalytic Film Criticism of Embodied Cultural Identity," *Film-Philosophy* 15, no. 1 (2011): 1–12; Kate Ince, "Feminist Phenomenology and the Film World of Agnès Varda," *Hypatia* 28, no. 3 (Summer 2013): 602–17.

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