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Miniature of the Tyrell Skyscraper, *Blade Runner* (1982). Gift of Mark Stetson. On view in the
exhibition "Behind the Screen," at Museum of the Moving Image (New York).

Photography by Benet Pera

Articles:

Utopia and the Gendered Past in Pauline Hopkins' *Of One Blood; Or, The Hidden Self*
By Jalondra Davis, Ph.D.

A Ghost in the Replicant? Questions of Humanity and Technological Integration in *Blade Runner*
and *Ghost in the Shell*

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Playing Cyberculture: The Case of *System Shock 2*

By Alejandro Lozano, Ph.D.

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Letter from the Editor

My name is Aisha Matthews Walker and it is with immense joy and humility that I introduce myself to you as the new Managing Editor for the *Journal of Science Fiction*.

Over the past few months I have taken on the responsibilities of my predecessor, Dr. Heather McHale, a dedicated scholar who joined the *Journal's* editorial team at the publication's inception back in 2015, and who diligently served as managing editor after the retirement of Monica Louzon, the *Journal's* founding editor, in 2018. During Heather's time at the helm, the *Journal* expanded its reach and readership by producing its first special issue, a critical exploration of Afrofuturism released immediately preceding the movie premiere of *Black Panther* (2018). The successful publication of the special issue inaugurated the *Journal's* more explicit exploration of minority literatures, identity politics, and intersectional approaches to the field's most pressing concerns. We're sorry to lose Heather's talent and leadership, but also wish her the greatest success on her long-standing book project, a critical study of the companions in *Doctor Who*, and the rest of her present and future endeavors.

We continue to be supported by the *Journal's* more seasoned editors, Barbara Jasny Ph.D., Melanie Marotta Ph.D., and Bodhisattva Chattopadhyay, Ph.D, as well as our newest team members, Anthony Dwayne Boynton and Benet Pera, Ph.D.

So, who am I? Academically, I hold a B.A. in English from Yale University as well as an M.A. in English from Southern New Hampshire University. I am currently working towards the completion of my Ph.D. in English at Southern Methodist University, where I study 20th-and-21st century American Literature, African American Literature, and feminism, and their intersections with the form and content of science and speculative fictions. My research interests include Afrofuturism, science fiction criticism, disability studies and phenomenology, womanism, young adult science fiction, and panopticism. Professionally, I have a background in public relations, event planning, and executive support, in addition to my role as an instructor of composition at SMU. Personally, I'm a *Harry Potter* enthusiast, and more broadly, a lover of all things science fiction. When I'm not working or spending time with my family, I'm just as likely to be found binge-

watching SF television or anime as I am to be found debating the relevance of deconstruction theory to the formation of identity, or the epistemological challenges of institutional disciplinary regimes. I look forward to bringing these skills and interests to bear on the direction of the *Journal*, and during my tenure as managing editor, I hope that my own varied investments and experiences will help to encourage the submission of diverse, interdisciplinary scholarship.

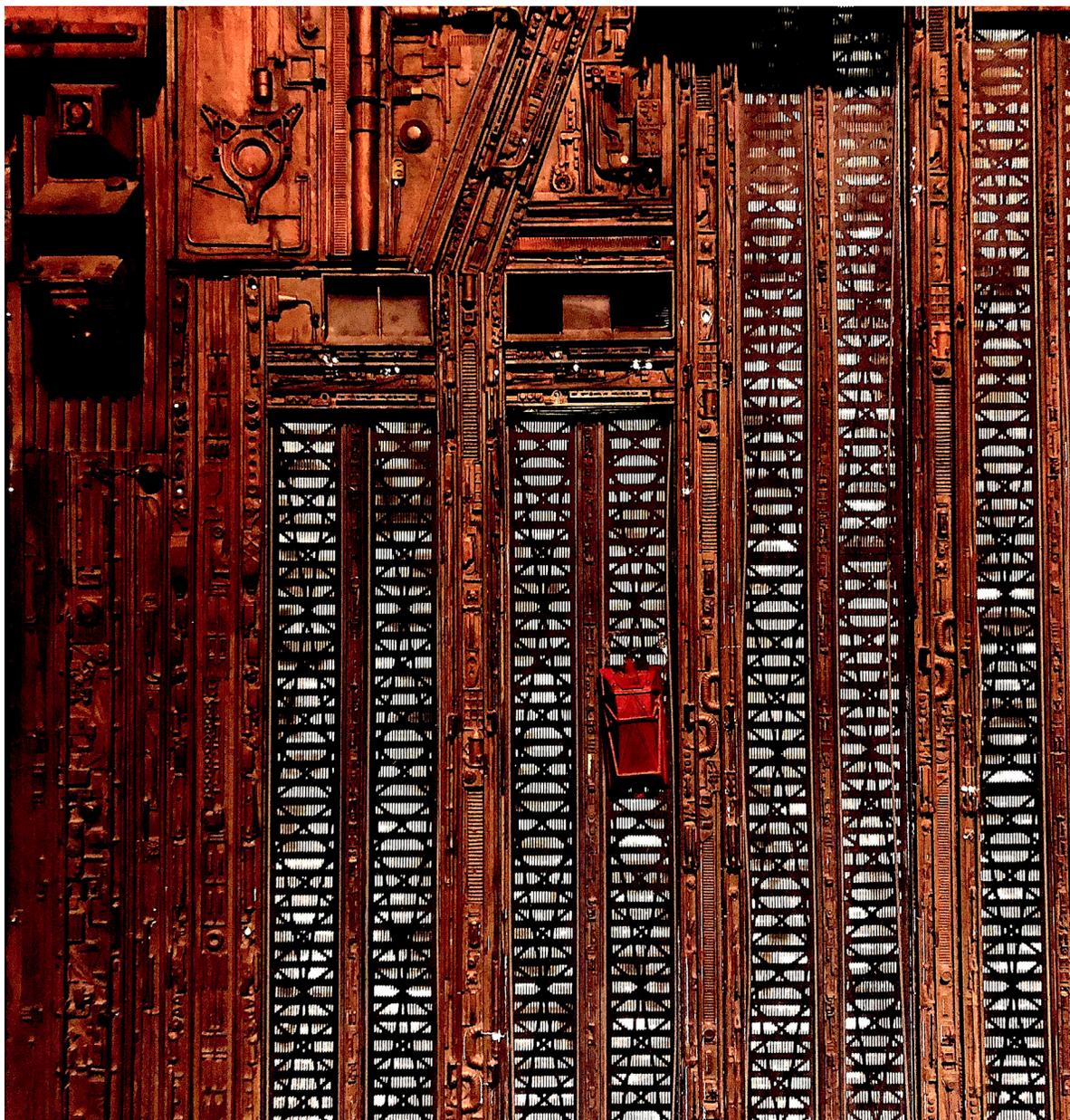
This issue of the *Journal of Science Fiction* (V3N1) tackles a variety of topics, but leans most heavily towards inquiries into posthumanity and hybridity. Jalondra Davis revisits the politics of passing and questions the dangers of Afrotopian purity discourses in "Utopia and the Gendered Past in Pauline Hopkins' *Of One Blood; Or, The Hidden Self*." Christopher Lovins looks at the interplay of empathy and memory in maintaining the organic/artificial life divide in "A Ghost in the Replicant? Questions of Humanity and Technological Integration in *Blade Runner* and *Ghost in the Shell*." Finally, Alejandro Lozano explores the metaphysics of cyberspace and the phenomenology of gaming in "Playing Cyberculture: The Case of *System Shock 2*." Together, these essays address the transgression of social, ontological, and physical borders across science fiction narratives in literature, film, and video games.

While the theme of this year's approaching Escape Velocity Conference, taking place in National Harbor Maryland on May 24th-26th, 2019, addresses the broad mantle of "technology," this issue's interest in hybridity foreshadows the subject of various panels on the literature track.

As we move ever towards the future of technology, our media becomes an invaluable source of cultural and ethical knowledge. It is precisely the sort of interdisciplinary work featured here that we hope will pave the way for more enlightened discourses on public and personal life and identity. Only by exploring the nexuses of genre and medium can we begin to access science fiction's most disruptive and transformative potential.

— Aisha Matthews Walker
 Managing Editor, MOSF Journal of Science Fiction

Cover Art



Cover photo: Miniature of the Tyrell Skyscraper, *Blade Runner* (1982). Gift of Mark Stetson. On view in the exhibition "Behind the Screen," at Museum of the Moving Image (New York).

Photography by Benet Pera

Utopia and the Gendered Past in Pauline Hopkins' *Of One Blood; Or, The Hidden Self*

Jalondra A. Davis, University of California, Riverside

Abstract: This article examines the gendered implications of what I call Afrotopia: the imagining of an ancient, powerful African civilization untouched by colonialism, in Pauline Hopkins 1903 serial, *Of One Blood; Or, The Hidden Self*. Many, in tracing a genealogy of Afrofuturism, have identified this novel as a precursor to the contemporary form. As such, this article interrogates the novel's, and dominant critical readings' association of contemporary black femininity with realism and racialized trauma, and challenges unquestioning representations of Afrotopia as a liberatory space. It argues that gendered violence and black women's autonomy often get overlooked in the flight away from the racial past, and calls for more critical engagements of Afrofuturist visions in order to maximize the genre's political potential.

Keywords: Afrotopia; Pauline Hopkins; Afrofuturism; racial purity; passing

"The Queen is here!" exclaimed a voice. In an instant all present prostrated themselves upon the floor. Reuel alone stood erect, his piercing eyes fixed upon the woman before him. Grave, tranquil and majestic, surrounded by her virgin guard, she advanced gracefully, bending her haught head; then, gradually her sinuous body bent and swayed down, down, until she, too, had prostrated herself, and half-knelt, half-lay upon the marble floor at Reuel's feet. (Hopkins, 1903, "Magazine Novels" p. 567)

Throughout the twentieth century, African American writing about Africa was a reservoir for the political desires and spiritual longings of African descendants in the United States (Gruesser, 2000, p. 1). Frequently, black popular history, academic enterprise, fiction, and nonfiction have overlapped in reference to Africa as not just a geographical, but also a metaphysical, utopian site. Africa has been seen not only as an ancestral homeland, but also as a place where a world currently denied to African Americans—a world of wellness, abundance, dignity, and splendor—might be realized. The scene above, from Pauline Hopkins' serial novel *Of One Blood, Or, The Hidden Self* (1903), displays one such act of imaginative recovery as a

scorned and world-weary African American scientist named Reuel stumbles upon a hidden African kingdom and is later betrothed to its virgin queen. Through all of its majesty, this scene's depiction of the "erect" Reuel and prostrated queen recalls the gendered and sexualized codes of Africanist utopian desire. This betrothal scene is often read by scholars as a productive turn away from American racism and the domestic project of racial uplift towards a Pan-African vision of global blackness, and calls the assumed egalitarian and democratic features of African-based utopias into question. This paper explores the gendered dimensions of what I call Afrotopia—a particular form of black science fiction that imagines an isolated, advanced African civilization untouched by the ravages of European colonialism and the traumas and humiliations of enslavement. Where such imagining can be a politically productive and sometimes psychologically necessary enterprise, it also often elides the complexity and autonomy of "real" black women, while associating them with the degradations of a disgraceful racial past.

Science fiction critics such as Tom Moylan (2000) recognize utopia both as an independent form and a tradition best understood within science

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fiction studies (pp. xv-xvi). Utopias construct temporal, spatial, or metaphysical alternatives that can de-familiarize and potentially disrupt the violence of the “real world.” Though utopias have often been assumed to be progressive and resistant to the dominant order, a critical look at traditional genealogies of utopian science fiction reveals its deep imbrication with the logics of conquest, racism, and eugenics. According to Ahmad, (2009), classic utopias often presume that society will steadily improve under the management of technological progress and capitalist cosmopolitanism (pp. 6, 21, and 25). However, the anticolonial and nationalist utopias of the turn of the century, overlooked by those traditional genealogies, differ spatially and temporally. Spatially, anticolonial utopian fictions envision utopian sites outside of the boundaries of the United States not to propose distant curiosities for exploration, but to suggest the potential psychic and political power of transnational identities (Ibid, p. 131). Temporally, African American utopian fiction often turns towards the past rather than the future. The past is where the apocalyptic break that created a new world for people of African descent is located, so it stands to reason that that is also where African American writers return for pre-apocalyptic models of black life. In terms of gender, sexuality, and family formation, the impulse to “return” often implies the need to retrieve and recuperate black life from the disorganizing effects of slavery.

Studies of Afrofuturism frequently celebrate how black science fiction destabilizes the association of Black people with a fixed, realist racial past and interrogates popular culture’s investment in static, archetypal performances of black personhood (Ron Eglash, 2002; Jackson & Moody, 2011). In their definition of Astro-Blackness, Anderson and Rollins (2015) claim, “Astro-Blackness is an Afrofuturistic concept in which a black person’s state of consciousness, released from the confining and

crippling slave mentality, becomes aware of the multitude and varied possibilities and probabilities within the universe” (p. 1). The observation that Astro-Blackness represents a release from a “confining and crippling slave mentality” captures one recurring theme in Afrofuturist studies, a linear, liberatory narrative that represents outer space and the future as new spaces of possibility that can liberate the confined slave subject of the modern era from a “slave mentality.” While not arguing with the contention that Afrofuturism opens up new possibilities, representations, and ways of engaging existing reality, I am wary of the reinforcement of a narrative in which enslavement can only be read as a dark past from which to rise.

Rather than a singular radical break with slavery that results in a liberated, unpolluted black being freed into space and the future, I propose a critical grappling, to see what can be recovered as well as what should be left behind. The fictions gathered into characterizations of Afrofuturism as freedom from racialized subjection are themselves more skeptical, uneasy, and critical than such characterizations would suggest. I challenge some of the critical and popular investment in Afrofuturism as a site of progressive blackness, unmoored from the racial traumas of the past and present. This investment threatens to overlook how often black science fiction is deeply concerned with the past and skeptical about a progressive narrative of liberation. When Hopkins’ genre-blending African utopic novel has been critically read with a focus on its antirealist elements, it has been assumed that the Afrofuturist part of the storyline (the protagonist’s repatriation to an African utopia) is the most progressive. In other words, as literary realism has been connected to the realities of enslavement and racialized, sexualized trauma, literary speculation has been tied to liberation. I am interested in collapsing these boundaries, in looking at how the “real” and “unreal” in Afrofuturism

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are always intrinsically connected, and how the refusal to thoroughly critique Afrofuturist visions actually inhibits their political potential. I argue that the characterization of Afrofuturism as an escape from the racial past reproduces a gendered and epistemic violence towards the subjects that occupy that past.

I adapt the term “Afrotopia” from the title of Wilson Jeremiah Moses’ extensive study *Afrotopia: The Roots of African American Popular History* (1998). Moses’ study places more recent iterations of Afrocentricity within the long tradition of Ethiopianism in African American intellectual, political, and spiritual thought. Ethiopianism is a cyclical view of black history that identifies African diasporans as descendants of a great African civilization, in which original African greatness is lost but destined to be restored. According to Moses, “The Afrocentric tradition is related to utopian ideas of progress because it promises a glorious destiny for African people in the future. Ironically, however, it looks backward to a utopia in the past when Africans were the most advanced people on earth” (Moses, 1998, p. 237). This paper examines the coherence between Ethiopianism, black utopian SF, and “gendered remembering,” a practice which naturalizes heteropatriarchy within the celebration of a proud African identity. As an acknowledged precursor to contemporary African American science fiction, *Of One Blood* should be critically analyzed for its tensions and contradictions. The novel raises questions about the literary, critical, and political treatment of subjects that are most marked by enslavement; therefore, these subjects cannot be safely recuperated within the Ethiopianist teleology that permeates both Pan-African and Afrofuturist discourses. Though Hopkins provides space and potential for both an endorsement and critique of Afrotopia’s gendered dimensions, critics have overwhelmingly accepted the logic that ‘pure’ African identity acts in opposition to a post-slavery subjectivity irrevocably tied up

with the sexually violated black female body. The two female love interests in *Of One Blood*—the majestic African queen Candace and “tragic mulatto” Fisk Jubilee singer Dianthe Lusk—become mirrored embodiments of their respective spatial and temporal locations, and for the possibilities for black manhood within those spatial and temporal locations. In rereading this novel, I argue for an interrogation of the assumed progressiveness of Afrotopia, and for the generative possibilities of diasporic blackness for utopian thought and practice.

Of One Blood follows the protagonist, Reuel Briggs, a medical student with mystical powers who is haunted by the spirit of his mother and his own depression. Reuel passes for white and lives among white people including his best friend, Aubrey Livingston. Reuel and Aubrey both become obsessed with Fisk Jubilee singer Dianthe Lusk, who Reuel, through a combination of science and mysticism, brings back from the dead and later marries. Aubrey sends Reuel on a mission to Africa to discover the lost treasures of Ethiopia, then fakes Dianthe’s death and marries her under another name. Readers eventually learn that Dianthe, Reuel, and Aubrey are the children of Mira, an enslaved woman with mystical powers, and her owner (and half-brother), Aubrey Livingston Sr. Through a series of plot machinations, the siblings are raised in different households and know nothing of their biological relationship.

Hopkins’ portrayal of an incestuous love triangle of differently racialized siblings at the turn of the century combines plot conventions popular in the sentimental and gothic fictions of her time with national racial and sexual anxieties. Miscegenation and incest were closely connected in antebellum and Victorian thought, law, and literature, both enacting an improper mingling of blood that threatened systems of privilege and inheritance. In sentimental fiction featuring white characters, fan-

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tastic plot devices were needed to achieve the unlikely estrangement, reunions, and unwitting acts of incest of close relatives. For Hopkins, however, slavery readily provided for these possibilities. According to Christina Sharpe (2010), “Slavery provides both a time and space (real and fantastic) where to commit incest or amalgamation is to break the same law and the imminent rupture and onset of forgetting that break around which some cultural or national formation has taken hold” (p. 28). Hopkins’ conflation of miscegenation and incest serves as a pointed critique of white southern patriarchy, which legalized and naturalized both taboos in the unchecked power of generations of slaveowners over generations of Black enslaved women—some their own biological daughters and the offspring or mistresses of their male relatives (Salvant, 2008, p. 663). For African Americans, miscegenation and incest were enabled by slavery’s violence upon Black families; thus, these concepts served as major sources of anxiety in the Victorian era struggle to leverage the integral, sexually-ordered Black home and family as sites of both resistance and inclusion.

I argue that the sexual anxieties of post-abolition black thought are largely attached to the black, female, reproductive body. Through early colonial law, which sets in motion the transmission of slave status from mother to child, the black female body becomes the central object of antebellum sexual and reproductive exploitation (Angela Davis, 1981; Dorothy Roberts, 1993; Adrienne Davis, 2002). According to Kassanoff (1996), the “black maternal body functioned as a site of significant New Negro intervention” (p. 172). In articulating a new Black manhood and less conciliatory politics, New Negro intellectuals sought to wrest African American women’s bodies from the control of white men.

While the siblings in *Of One Blood* are all products of rape and miscegenation, the novel’s focus on Reuel’s attempt to claim normative masculinity

constructs Aubrey as the representation of antagonistic white masculinity, and Dianthe as the soiled terrain over which they do battle. Hopkins preserves Reuel’s sexual integrity, and therefore the possibility of his redemption from slavery’s sexualized violence, by separating him from Dianthe on the morning of their marriage—before its consummation. But her subsequently consummated marriage to Aubrey signals two things: Reuel’s failure as a patriarch in the postindustrial American context, and Dianthe’s imbrication into the very cycle of incest and miscegenation that threatened African American efforts to rescue their kinship from slavery’s traumatic displacements. As a woman and the locus of reproduction, Dianthe cannot be allowed to survive. Removing her body from the narrative also removes the possibility of her reproducing the sexual shame of slavery and the threat that such shame poses to a black masculinity’s attempt to adhere to dominant masculine norms. By way of “Hopkins’ proto-Faulknerian miscegenation plot,” Dianthe is replaced with a seemingly preferable (and “more [socially] appropriate”) alternative of black femininity when Reuel discovers the magnificent underground Ethiopian civilization of Telessar, to which he is a long-lost heir, and is betrothed to its virgin queen, Candace. In this unconquered, hidden city in “Africa, perhaps, he will escape the ‘mongrelization’ that [Edward Wilmot] Blyden thought destructive of African purity in the United States” (Sundquist, 1993, p. 572).

I argue that a preoccupation with purity—a mingled concept of racial and sexual purity that juxtaposes Candace’s blackness and virginity against Dianthe’s mixed-race ancestry and sexual vulnerability—is one reflected not just in Victorian-era New Negro thought, but also in more recent and contemporary readings of the novel. In order to read Reuel’s marriage to Queen Candace as redemptive and progressive, critical readings tend to dismiss his violence against Dianthe, overlook

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her specific representation of blackness, and hold her responsible for her own sexual victimization. In this analysis, I begin with a re-reading of Dianthe, and her relationship to Reuel, as a pathway to my central argument, that the desire to celebrate Afrotopia as a pre-racial, pre-patriarchal space overlooks its very reliance on racialized, gendered memory and violence, which constrains the productive possibilities for New World blackness.

Just as *Of One Blood; Or, The Hidden Self* has two distinct titles joined as one, it also combines two distinct settings and corresponding genres. Where one plot is sentimental fiction, resembling Hopkins' other novels in its mixed-race characters and love triangles, the other is a fantastical revision of the African adventure story. Most readings of Hopkins' African plot interpret it as an expression of Pan African and emigrationist sensibilities, a refutation of black inferiority through the retrieval of African identity, and a proposition of utopian possibilities for full personhood during the violent rollback of the fragile gains of abolition and Reconstruction. I don't necessarily disagree with these readings, but I do want to draw attention to their gendered and sexual implications. According to Dohra Ahmad (2009), "The novel's two plots, the American and the utopian, may frequently seem mismatched; but their coexistence in the same book show how ancient glory has degenerated under the system of slavery 'in this new continent,' and why utopia is thus so necessary" (p. 138.). Here, readers see that Afrotopia is envisioned as a resurrection of "ancient glory," directly opposed to the degeneration that is black life under enslavement. The most generous critical readings of Hopkins' Afrotopia tend to reproduce a feminization of the racial past that excuses masculine violence against the (for lack of a better term) "real" woman who most readily exemplifies the product of that past.

The novel's hero, Dianthe, (named for the wife of militant abolitionist John Brown) seems, at first glance, to be a classic tragic mulatta. Taken advantage of by an unscrupulous employer, she is injured and rendered amnesiac by a train wreck, to be revived through Reuel's combined mystical and medical power. Her true identity kept from her, Dianthe agrees to marry Reuel only to be abandoned. Dianthe is then abducted and forced into marriage by Aubrey, who eventually kills her. Hopkins' Dianthe has presented a consistent problem for critics attempting to read the novel in terms of its productivity for black political thought and desire (Schrager, 1996, p. 193). Jennie A. Kassanoff's discussion of *Of One Blood* in the context of the masculinist politics of New Negro discourse is one of the most critical studies of gender in the novel. Kassanoff (1996) writes of Dianthe, "It is curious that *Of One Blood* circulates so persistently around the tragically passive female form. As the eroticized object upon which Reuel and Aubrey practice their unethical feats of mesmerism, Dianthe Lusk represents a fundamental problem in the text" (p. 173). In her seminal analysis of black women's turn-of-the-century domestic novels, Claudia Tate (1993) characterizes Hopkins' portrayal of Dianthe as a sharp departure from the black female domestic novel's depiction of female agency. In Tate's study, *Of One Blood* marks a decline in the faith in domestic romance as an allegory of political desire by shifting to romantic tragedy, but it correspondingly shifts away from a heroine-centered to a hero-centered narrative strategy (p. 208). As *Of One Blood*, in its expansion beyond the domestic courtship story, also exceeds the domestic site of the United States, it suggests promise for African American personhood beyond the confines of the United States and, correspondingly, beyond the domestic novel's frustrated aspiration to full citizenship and humanity in the post-Reconstruction era. Following this, one might suggest that the turn from the heroine-centered text and female-centered concerns to more mas-

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culine struggles coincides with broadening plots and black political strategies.

However, this suggestion threatens to reproduce the idea that female narratives are somehow less political and that masculine narratives are somehow less domestic. In the context of this paper, “less political” means less concerned with the collective challenges, conditions, and destinies of black people, while “less domestic” means less concerned with anxieties surrounding courtship, the home, and family formation. Actually, the very interdependence of the dual plotlines in *Of One Blood* reveals the utter inextricability of the domestic and the political. But, more pertinent to my analysis, I also want to push back against the idea that *Of One Blood* represents such a significant departure from female agency, particularly in the figure of Dianthe. Rather, I suggest that her agency is not legible within binary logics that construct Dianthe as an embodiment of vulnerable and violated black life within the United States in opposition to Queen Candace’s embodiment of the pure and autonomous Afrotopia. This binary logic informs readings of the novel that tend to minimize the struggle between Reuel and Dianthe in the interest of a treating Reuel both as a noble hero and the novel’s central figure of African diasporan identity.

To rethink Dianthe as merely passive and manipulated, we might first look at her as a laborer. She enters the novel as a gifted and skillful soloist with the Fisk Jubilee Singers. Readers learn that after her accident, Dianthe left the group to work for a traveling mesmeric physician who offered her “a large salary” (Hopkins, 1903, 1988, p. 474). Though we do not get Dianthe’s narrative perspective to learn the reasons for this abrupt departure, we can see it as an expression of her independent will and desires. As a single black woman at the turn of the century, Dianthe would have had few

opportunities to make a comfortable living for herself. When we consider that the siblings Reuel, Aubrey, and Dianthe seemed to have inherited an inclination for the metaphysical, we might see her interest in this line of work as driven by this affinity. She enters the employment of a female practitioner, perhaps believing herself to be safer in such a situation. In the critical rush to identify Dianthe solely as an object of manipulation, this choice as an expression of independence and desire is often overlooked. Unfortunately, this employment does not end well for Dianthe, exemplifying the work force as often a site of exploitation, rather than liberation, for black women. When Reuel and Aubrey discover her, she is suffering from a traumatic brain injury from a train wreck and mental damage from excessive mesmeric experimentation. Reuel revives Dianthe from a near-death state but, rather than help her to recover her identity, he withholds it, further incapacitating her ability to function independently. From this point forward, we should read her behavior not as female passivity but instead, as that of a young woman with memory loss and mental illness, struggling to survive and to reclaim her personal, as well as racial, history. Reuel and Aubrey both take advantage of her isolation and disability.

Critics tend to read Reuel and Dianthe’s relationship as a purely motivated, romantic courtship (Schrager, 1996, p. 194). Yet, it is actually an exploitative power arrangement, pragmatic on both sides. Dianthe consents to marry Reuel not out of passion but out of a desire for safety, which his adoration of her suggests that he will provide. Reuel only achieves this consent through deception and the forceful negation of her full personhood. Reuel admits as much when he claims the injured Dianthe as an “opportunity” to achieve the sexual and domestic desires that he doesn’t believe he can earn on his own merits:

Utopia and the Gendered Past, continued

“I’m not unselfish; I don’t pretend to be. There is no sin in taking her out of the sphere where she was born...I have not the manner nor the charm which wins women. Men like me get love from them which is half akin to pity, when they get anything at all. It is but the shadow. This is my opportunity for happiness; I seize it.” (Hopkins, 1903, p. 479)

Reuel openly declares his intention to marry Dianthe before she can recover her identity, and goes to great lengths to keep her identity concealed from her. This intention is provoked not only by his feelings for her, but by his awareness of her trauma-induced vulnerability as an “opportunity.” He refers to the “sphere where she was born” as having no value whatsoever, despite the value it may have had for her. Dianthe looks white enough to pass, yet she is aware of and willingly identifies with a black identity. While Reuel frames his denial of Dianthe’s blackness as protection, it is ultimately about self-preservation—to help Dianthe restore her identity would not only help her to regain her independence (and enable her to not choose him), but it would also expose his hidden racial identity. While appearing white like Reuel and Aubrey but choosing not to live as white, Dianthe exhibits a courage and an understanding of the multidimensional content of blackness that Reuel lacks. Passing as white can be perceived as resistance against the legal and social demands that determine identity according to a one-drop rule, or as a survival strategy that cannot be separated from the oppressive constraints of white supremacy. But passing also has psychic costs that Reuel’s depression and anxiety make clear: a loss of community, his constant fear and self-policing, and his inability to achieve true intimacy with others (as opposed to Aubrey, whose unawareness allows him to pass without such emotional consequences). Blackness in *Of One Blood* is not merely a troubled biological or legal category, it is a vibrant sociality and performance that unites the traumat-

ic and the fulfilling, which Dianthe exemplifies in her mastery of what W. E. B. Du Bois called “the sorrow songs.” Dianthe’s voice simultaneously expresses anguish, pain, beauty, and history; it is a sensory experience of blackness.

Just as Reuel lives in terror of being discovered, he fears Dianthe’s recovery of her musical passion, which is linked to her memory and identity. At one point, while watching her enjoy music, Reuel observes, “Dianthe’s voice was completely gone along with her memory. But music affected her strangely, and Reuel watched her anxiously” (Hopkins, 1903, p. 491). Reuel here states his concern for Dianthe in terms of her delicate health, but he is actually worried that she may recover her voice, her memory, and her full personhood. The next moment, Reuel leads her away, allegedly “mindful of her infirmity” to “escape the music.” This is an example of how the very strategies of protection applied to women are actually aimed at masculine self-protection; it is Reuel, not Dianthe, who threatens to suffer from exposure to music and the recovery of her memory. By removing her from music, he literally suppresses her voice, which represents an autonomy that cannot coexist with the patriarchal masculinity that Reuel is attempting to exercise. It is in this moment, as he removes her from music, that he proposes to her. Her reaction is not that of a woman deeply in love: “while she believed in him, depended upon him, and gathered strength from his love, what she gave in return was but a slight, cold affection compared with his adoration.” Her response to his proposal is a gesture of defeat and weariness, rather than desire: “With the sigh of a tired child [she] crept into his arms, and into his heart for all time and eternity” (pp. 491-492).

Rather than mutual love, this scene demonstrates Reuel’s abusive control and Dianthe’s resignation. Her submission is not produced by her natural passivity, but through layers of trauma and manip-

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ulation. Literally removed from music, her identity, and the source of strength that her mind was grasping to regain, Dianthe turns to the source in front of her: Reuel. Throughout the entire scene, readers never hear Dianthe's voice, the voice that her connection with music threatened to liberate. Reuel's selfish attempts to "protect" Dianthe by silencing her voice are pivotal in the tragedy that befalls the couple. After his failure to find employment, Reuel decides, without consulting her, to go on a dangerous but highly paid anthropological expedition to Africa, orchestrated by his false friend, Aubrey Livingston. Dianthe still has the power of intuition and knows that something is amiss with Aubrey, reacting enough to him that others can casually perceive it (Hopkins, p. 501). Yet, Reuel, ignores her concerns and chooses to leave her in Aubrey's care. When she protests his departure on the day of their wedding, he dismisses and again, silences her, as he "closed her lips with warm lingering kisses" (Hopkins p. 499). Whether there was ever a conversation about how she felt about Aubrey is something we can only speculate, but Reuel's decision-making with regard to the African expedition, while perhaps well-meaning, is yet another example of his refusal to engage Dianthe as an equal. It demonstrates his prioritization of patriarchal desire—to provide according to the standards of respectable domestic life—over the safety that Dianthe seemed to desire most in the aftermath of her traumatizing injuries. Later in the novel, Dianthe confronts Reuel: "The friend into whose care you gave me has acquired the power over me that you alone possessed, that power sacred to our first meeting and our happy love. Why did you leave me in the power of a fiend in human shape, to search for gold? There are worse things in life than poverty." (Hopkins, p. 579) In these few lines, Dianthe admonishes Reuel for his sublimation of her voice, his capitalistic value system, and his exploitation of her vulnerability. As we can see from reading the deceptions of their courtship and Dianthe's

unenthused capitulation to his proposal, we might even read the phrase "happy love" as sarcastic.

When Reuel leaves, Dianthe begins to recover her musicality, and with that, tentatively, her identity. According to Shana Redmond (2014), "Music is a method...It is more than sound; it is a complex system of mean(ing)s and ends that mediate our relationships to one another, to space, to our histories and historical moment" (p. 1). Music is Dianthe's method for engaging and making sense of her world, and it reconnects her to her history and a broader community. Shortly after he departs, she, seemingly possessed, plays and sings "Go Down Moses" to an audience of Livingston and his friends. Dianthe's performance of "Go Down Moses" can be read within Redmond's analysis of black anthems. Redmond locates the roots of the black anthem in the importance of music in black counterpublics to African American spirituals: "The Afro-Anglophone tradition of resistance among the enslaved is heard in the spirituals and field hollers, which carried messages of rebellion and techniques of survival" (2014, p. 10). Nicole N. Aljoe (2012) also identifies "Go Down Moses" as an African American anthem, and compares Dianthe's performance to the climactic aria of Verdi's opera, *Aida*. In *Aida*, the enslaved Ethiopian heroine sings longingly for freedom and her homeland. Arias were powerful, challenging inserts to operas, that suspended the narrative as the soloist demonstrated her vocal mastery (pp. 286-287). This performance disrupts Reuel and Aubrey's patriarchal control and re-centers Dianthe as a master of her art form and an agent within her own life. Yet, Hopkins revises the aria, a form traditionally reserved for soloists meant to stand out from the surrounding action and characters. Dianthe does not sing alone. In this performance she seems to be both possessed and accompanied by the spirit of her mother, who was enslaved at the Livingston mansion:

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A weird contralto, veiled as it were, rising and falling upon every wave of the great soprano, and reaching the ear as from some strange distance. The singer sang on, her voice dropping sweet and low, the echo following in, and at the closing word, she fell back in a dead faint. (Hopkins, 1903, p. 502)

Through this mingled aria, Dianthe begins to recover not just an individual but a plural voice, suggesting that the black identity represented by her voice is not just individual and constraining but collective and empowering. As Dianthe exercises her power of voice and learns more from the spirit of her mother and from meeting her grandmother, she begins to gain greater clarity. Only after recovering her memories firsthand and determining her identity for herself does Dianthe act to resist. Dianthe manipulates Aubrey then attempts to kill him. However, Aubrey overpowers Dianthe and forces her to drink the poison she had prepared for him, ultimately causing her own agonizing death. Most critics' accounts of Dianthe's death narrate it simply as murder or suicide. In actuality, this scene, which turns Dianthe's attempt at resistance against her, reveals that she is neither just a victim of Aubrey's violence, nor her own despair. Instead, she challenges him and struggles for her life. Her death in the arms of Reuel, who arrives too late to save her, is a judgment on him as well as Aubrey. While Reuel does not physically abuse or rape Dianthe, his mental abuse renders her vulnerable to the violence she suffers at Aubrey's hands. Readers should acknowledge that Reuel's villainy is different from Aubrey's because of their differing contexts. White supremacy limits Reuel's options and places far greater pressure on his choices. He leaves Dianthe to pursue riches in Ethiopia because of the ways that race limits his resources. However, one might argue that these additional pressures demand that black men and women are even more vigilant about engaging as equals in order to meet such challenges and pres-

ures with the joint force of their ideas, experiences, and critical judgment. Black people's exclusion from traditional gender norms (and lack of the structural conditions that support the perpetuation of those norms) provides an opportunity for other methods of negotiation. More often, however, this exclusion from dominant gender norms provokes a longing to perform such norms. Normative gender performance then gets constructed as a form of resistance to the white supremacy that makes dominant constructions of gender both desirable and impossible to achieve. This impossibility of patriarchy and, seemingly, of love itself, is linked to the setting of the post-Reconstruction United States. It is only when Reuel leaves this setting that he has the opportunity to fulfill the vision of heteronormative patriarchy that he sought with Dianthe. The Afrotopia becomes a site of unfettered masculinity and black personhood excised of the kind of sexualized trauma that becomes attached to Dianthe's body.

This brings the discussion back to the epigraphic scene, of Reuel's betrothal to Queen Candace. The ceremony takes place after Reuel is (falsely) notified that Dianthe was killed in a boating accident. Candace lives with her attendants in the innermost cloister of Meroe, home only to the city's virgins. In Tellessar, virgin queens rule for a time, retire, then appoint their successor to rule alone until the crown prince returns. The scene of Reuel and Candace's meeting and betrothal is a dramatic departure from his American life. He is no longer the poor student who could not gain the love of a beautiful woman without deception, or earn enough money to support her. In the presence of Candace, he is suddenly important, powerful, and authoritative. He expresses a confidence in this sexually-charged scene that he has not demonstrated before, and Candace readily defers her power to him, literally sitting at his feet: "she, with a gesture of dissent, sank upon the cushions that

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had served her for footstools” (Hopkins, 1903, p. 568).

Interrupting his despair, Reuel is suddenly offered the opportunity to marry a beautiful woman and live as the king of a nation. Ironically, the African ancestry that he had spent so much of his life denying is the only quality that secures this fantastic destiny. It is no wonder that Reuel moves on rather quickly from the woman he had professed to love for a lifetime: “Dianthe was gone. The world outside held nothing dear to one who had always lived much within himself. Why not accept this pleasant destiny which held its alluring arms so seductively to him?” (Hopkins, p. 570). This passage is telling in its sexualized conflation of the throne of Tellessar with Candace’s body. The throne, and Candace, offer Reuel an identity untroubled by the various humiliations of black life in America. Instead of grappling with a world that excludes black people from the very modes of gendered being that are held up to them as examples, in lieu of struggling with a complex woman’s autonomy, Reuel has a virgin literally prostrating herself at his feet. The convenience of this destiny, and how quickly Reuel seems to move on from Dianthe in order to accept it, makes it difficult for me to concur with critical claims that Reuel’s final acceptance of an African identity is some kind of moral triumph.

Nevertheless, this is prominently how Reuel’s discovery and embrace of his royal lineage is read; as a reading that coincides with an abandonment of Dianthe as a locus for chattel slavery’s sexual perversions. According to Shawn Salvant (2008), “In several critical readings, the shift from the American to the African setting in the novel’s final act has been considered a morally cleansing recontextualization because the change of venue leaves Dianthe behind (dead) and abandons the context of American slavery from which the incest problem stems” (p. 669). Adenike Davidson (2008)

interprets the tragedy of the American storyline as representing “the difficulty for African Americans to structure safe and productive racial homes” (2008, p. 86). Though she does extensively critique Reuel’s mistreatment of Dianthe, Davidson ultimately lets him off the hook by locating his redemption in the experience of journeying to an African homeland, discovering a proud African identity, and establishing a home with Queen Candace. Emphasizing “the necessity for establishing and protecting the proper racial home as a foundation for the Black nation” (2008, p. 85), Davidson claims:

Because Aubrey and Dianthe are unaware of/ or ashamed of their African heritage, they cannot reap its royal benefits. Although Reuel, Aubrey, and Dianthe are all of one blood, it is assumed that only Reuel receives and accepts a psychological transformation and experiences empowerment due to his direct experience with a positive ancient African history and culture (Davidson, 2008, p. 102).

The words littered throughout this analysis— “positive,” “safe,” “productive,” and “proper”— serve as code for a home centered around the patriarchal, heterosexual nuclear family, somehow presuming that this particular family formation negates the possibility of violence, and is a necessary foundation for change in the conditions of black life. This perspective reveals the close relationship, at least in terms of familial discourse, between white and black nationalisms and an acceptance of the heteronormative and classist assumptions embedded into nationalist thought. While in some places, Davidson chides Reuel for denying Dianthe’s blackness (2008, p. 89), in others, Davidson also elides the complex blackness within the diasporic experience by locating “psychological transformation” and “empowerment” only in this precolonial Afrotopian identity. She links that identity with the fact of Candace’s virginity, polarizing

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the “exploited” Dianthe against the “protected” Candace. She suggests that, in the United States, while black women are exploited through black male’s collusion with the white power structure, “in the global nation the black woman is empowered by her sacred and protected position that the black male (and the community) places her in” (Davidson, 2008, p. 103). Davidson seems to suggest that intraracial sexism is only a result of collusion with white supremacy, and that movement to the Afrotopia, where such white supremacy is removed, can evacuate it. This suggestion does not question how the very ideas of “sacred” (which connotes sexual purity) and “protected” (which suggests control) are themselves patriarchal discourses. Similarly, Melissa Asher Daniels reads Candace as a powerful alternative image to Dianthe,

Providing an alternative portrait of black femininity that challenges the historical narrative of rape and sexual abuse, Hopkins presents readers with a chaste female monarch... Powerful and revered, the physically charismatic Candace contrasts with Dianthe’s ethereal, passive, and tragic mulatta (Daniels, 2013, p. 171).

Ahmad makes a similar claim in her study of anticolonial utopian literature: “Queen Candace had guarded Telassar as it awaited its male heir, with the help of a coterie of virgins who serve as a symbolic compensation for the centuries-long violation of African women in America” (2009, p. 145). Again, readers witness that Candace’s chasteness allegedly compensates for Dianthe’s exposure to sexualized violence. In the context of African American people’s historical struggles against sexual violation, there may be something psychically comforting about the image of a black virgin queen. Yet, this image valorizes the impulse to “protect” that was actually central to Dianthe’s demise. Simply valorizing virginity does not al-

low for a critical consideration of the incestuous relationship between discourses of purity, sexual violence, protection, and control. It suggests that Candace is a progressive, preferable version of womanhood to the soiled, abused Dianthe, a black woman cleansed of racial violence and elevated to the pedestal. This dichotomous study of Dianthe and Candace and its patriarchal implications recalls Shanara Reid-Brinkley’s (2008) analysis of *Essence* magazine’s chatboards, responding to images of black women in hip hop videos. Reid-Brinkley writes:

“Real” black women are constructed as “queens,” or women who are deserving of respect. The “queen” identity recycles the ideology of the “cult of true womanhood” in which women who perform their genders appropriately are placed on a pedestal as representatives of the purity and goodness of the race (Reid-Brinkley, 2008, p. 247).

Readings of Dianthe and Queen Candace that construct Candace as the pure oppositional feminine presence to Dianthe, and a worthier counterpart to the would-be king Reuel, sound strikingly like Reid-Brinkley’s analysis of the queen/ho discourse. This discourse is a specifically black cultural configuration of the virgin/whore dichotomy that reproduces, rather than challenges violence against women. Though Dianthe is read more with pity than with judgment for her failure to achieve sexual purity, it is suggested that her inability (or rather, lack of opportunity) to access the siblings’ ancient African identity makes her vulnerable to sexual victimization. Even Kassanoff’s study—one of the few to probe *Of One Blood*’s engagement with the gendered discourse of the New Negro—occasionally demonstrates the logic that Dianthe’s inability to access a glorious African origin is key to her vulnerability: “Hopkins implies that because Dianthe is unable to retrieve her original identity, she is compelled to accept the passive subjectivi-

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ty forced upon her by the novel's men" (Kassanoff, 1996, p. 173).

While Dianthe is temporarily incapacitated by psychological trauma and by Reuel's and Aubrey's manipulations of her memory loss, she does eventually recover her memory and resist. Her attempt to kill Aubrey is the most courageous act in the novel. It is not motivated by the discovery of an ancient African past, but emerges, through a reconnection to and with the assistance of a female lineage, the rediscovery of a collective black female voice. Rather than demanding that Reuel deal with history, represented by his inadvertent marriage to his sister, and rather than allowing her to survive so that Reuel must grapple with his betrayal, his abuse, and even his incestuous desire, the narrative does away with Dianthe altogether. It then removes him to a site where he can live out an unfettered masculinity.

The textual evidence in the Tellessar betrothal scene works against the claim that the relationship between Reuel and Candace represents a greater relationship of equality, or as Melissa Asher Daniels claims, a "post-patriarchal" fantasy (Daniels, 2013, p. 171). In the one scene where readers see Candace, she vacates her seat of power to Reuel. He is a young unknown man who has been living as white in a distant land and has no governing experience; yet, she literally places herself at his feet. That critics continue to emphasize Dianthe's passivity, while overlooking Candace's eager submission, is a feature of their unwillingness to read the turn to Tellessar more critically. Gendered interactions and discourses seem less subject to critique in Afrotopia in a way similar to the treatment of gender and sexuality in Ethiopianist thought more broadly.

Rather than a linear, future-oriented ideology often seen in science fiction utopias, Ethiopianism envisions a constant and divinely or naturally-ordained rise and fall of peoples and their societies. But, per-

haps countering Ahmad's suggestion that anticolonial utopianism rejects developmentalism (a faith in ongoing progress), Ethiopianism also embraces a progressive narrative, predicting a new rise of Africa and its descendants to a previously glorious status. In terms of gender, family, and personal relationships, one of the ways that progress is affected is through retrieval of black gender, sexuality, and family formation from the disorganizing effects of slavery. This retrieval implies not a transformation of gender, sexual, and familial norms, but a return to precolonial models—models that usually reify patriarchy and heteronormativity. According to E. Francis White (2001), these models of pre-apocalyptic African life are constructed through uncritical use of anthropological documents that reflect alliances between European colonial governments and the more powerful members of various African societies: elders and men (Location, 1373). The encouragement to adopt, rather than interrogate and transform these "traditional" ways uses the past to "construct utopian and repressive gender relations" (White, 2001, Location, 1132).

These comments on Afrocentric thought regarding gender are not meant to digress, or to collapse Ethiopianism, Afrocentricity, and black utopianism as identical and interchangeable. Yet, recognizing some (not all) expressions of Afrocentricity as more recent iterations of a long tradition of Ethiopianism, and recognizing the influence of Ethiopianism on African American literature depicting Africa (and its criticism), centers the gendered critiques of Afrocentricity that are relevant to my interest in the novel. Literary Afrotopias share impulses and aims with the broader body of Ethiopianist and Afrocentric thought. They reflect the desire to counter images of African and black inferiority and pathology, restore history and identity to diasporic peoples subjected to forced displacement and acculturation, and highlight Africa's contributions to world history and civilization. Also, they often contain its problems: an upholding of polarities between "civ-

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ilization” and “barbarity,” an ahistorical idealization of the African past, and the premise that restoring normative gender, sexual, and familial relations, protective patriarchal manhood in particular, is key to black liberation. I continue to believe that black efforts to “return” to Africa, physically, metaphysically, and literarily are extremely important—but we must engage such projects critically, with awareness of the other potentialities that Hopkins also embeds, however deeply, in her novel. Dianthe’s voice, struggling to free itself throughout the novel,

calls on Black people to consider what might be if transformation, rather than the restoration of gendered being, is the goal. It calls on Afrofuturism and Afrofuturist studies to hold memory and re-making in balance to carry forward the inextricable traumas, lessons, and beauties of diasporic black life.

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A Ghost in the Replicant?

Questions of Humanity and Technological Integration in *Blade Runner* and *Ghost in the Shell*

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Abstract: In this world of increasing integration with technology, what does it mean to be human? *Blade Runner* (1982) and *Ghost in the Shell* (1995) are two artistic works that directly address this question. *Blade Runner* posits a world in which imitation humans—artificial people—can only be identified through emotional testing. In *Ghost in the Shell*, the human mind can be hacked, manipulated, built, and rebuilt like any other computer. This article makes use of affect theory to address the connection between empathy and memory in defining what is human. Using these films—along with *Blade Runner*'s source novel *Do Androids Dream of Electric Sheep?*—I conclude that mainstream science fiction is increasingly comfortable with technological integration and less inclined to rigidly demarcate a human-nonhuman boundary.

Keywords: affect theory; *ghost in the shell*; *blade runner*; philip k. dick; technological integration; empathy; android

As technology becomes more and more integral to our world, we might ask, what does it mean to be human in a technological era? Sharalyn Orbaugh (2002)—who has published extensively on cyborgs, affect, and Japanese science fiction—has argued that we are moving inexorably into a future in which the human/artificial distinction is increasingly meaningless. In this article, I make use of affect theory to address the connection between empathy and memory in defining what is human in three connected works: Philip K. Dick's 1968 novel *Do Androids Dream of Electric Sheep?*, the 1982 film *Blade Runner* (Dir. Ridley Scott, USA), and the 1995 film *Kōkaku Kidōtai 空殻機動隊 (Ghost in the Shell)*; Dir. Mamoru Oshii, Japan). Closely reading these three works—connected thematically but also widely separated in time—I argue that mainstream science fiction is increasingly comfortable with technological integration and less inclined to rigidly demarcate a human-nonhuman boundary, rejecting the idea of an unmediated humanity. William Kolb wrote that *Blade Runner* “transcends mere science fantasy and raises timeless questions about what makes us human” (p. 142), and indeed this statement applies to all three works. Even now, amid the myriad science fiction novels

and films continuing to be produced, the shadows of these three narratives loom large. Philosopher Michael E. Zimmerman (2015) recently noted that “in a world where genocide, racism, and war are still present, and in which intelligent non-human beings may well appear in our midst sooner than we think, Dick's cautionary tale [*Do Androids Dream of Electric Sheep?*] retains its pertinence” (p. 90). And with *Blade Runner*'s recent sequel and the 2017 American remake of *Ghost in the Shell*, the time is right to take another look at these three seminal works.¹

I examine all three works in chronological order, using affect theory as discussed by Orbaugh, to bring out their respective distinctions between the human and the artificial, in terms of emotion/empathy and memory. Orbaugh (2008) has used affect theory to analyze *Ghost in the Shell 2: Innocence*, concluding that the film suggests that emotion is what makes us human rather than our biological bodies. I argue that this is an extension of the same suggestion in the original *Ghost in the Shell* film. While there is no single definition of affect theory, it is fundamentally about putting the body back into the study of the human mind and

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dethroning a disembodied consciousness as the all-controlling center of human thought and agency (Figlerowicz 2012, p. 3, 7; Seigworth and Gregg 2010, p. 3). Arguing that scholars have focused too much on reason, rationality, stated beliefs, and consciousness in decision-making, affect theorists of whatever stripe look to the body, to the preconscious, to emotions/affect (Clough 2010, p. 206; Martin 2013, p. S154). Pioneering efforts in developing affect theory, led by critical theorist Eve Sedgwick and philosopher Brian Massumi, sought “to rehabilitate unconscious ‘intensities’ of affect as forces irreducible to the narratives of purpose and intentionality that consciousness tries to rein them into” (Figlerowicz 2012, p. 6). In their introduction to the field-defining edited volume *The Affect Reader*, Melissa Gregg and Gregory J. Seigworth define affect as those forces “other than conscious knowing” and “persistent proof of a body’s never less than ongoing immersion in and among the world’s obstinacies and rhythms,” further noting that “thought is itself...embodied” (2010, p. 1-3). They caution us that “because affect emerges out of muddy, unmediated relatedness and not in some dialectical reconciliation of cleanly oppositional elements or primary units, it makes easy compartmentalizations give way to thresholds and tensions, blends and blurs” (p. 4). It is in the blends and blurs between technology and biology that the present work is concerned.

Blade Runner and *Ghost in the Shell* were chosen for analysis because of their enduring influence on later works of science fiction, which continues today. 1999’s *The Matrix*, itself a highly influential film, draws heavily on both films addressed here, continuing the themes of the human melding with machines and the ambiguity of using technology in the struggle against technology (Kilbourn 2000 p. 49; Park 2010, pp. 164-165, 194; Stewart 2003, p. 42). Major Hollywood blockbusters now have characters like *Justice League*’s Cyborg, a human made superior by total integration with cybernetic

implants, and *Mad Max: Fury Road*’s Furiosa, a protagonist whose cybernetic arm is never even remarked upon. In *Blade Runner*’s own sequel, *Blade Runner 2049*, the conflict is no longer between human and machine but between good machine and bad machine, with a heroic, self-sacrificing protagonist who is known from the start to be a replicant. Indeed, Spike Jonze’s critically-lauded *Her* posits it as reasonable for a human being to treat an artificial intelligence as a person who can love and be loved. It seems that literary critic Kevin McCarron’s 1995 characterization of cyberpunk as infatuated with technology yet “deeply conservative and anti-technology, implacably hostile to any further erosion between the human and the mechanical” no longer obtains (pp. 271-272).

Empathy and Sympathy in *Do Androids Dream of Electric Sheep?*

Rick Deckard is a bounty hunter in a near-future San Francisco, which is one of the few places that can support human habitation after World War Terminus. Few animals are left on Earth, and people attach great importance to owning one to both induce in and display for others an empathetic connection. In fact, owning an animal is so important that an entire industry exists to provide lifelike synthetic animals to those too poor to afford real ones; it is a great social transgression to inquire as to the authenticity of another person’s pet animal, as this would be tantamount to questioning their empathy and therefore their very humanity. With the exception of genetically damaged “specials,”² most of the surviving human population has emigrated to colonies on Mars and Venus, encouraged to leave Earth by the constant radioactive dust, the danger of becoming “special,” and the gift given to all who chose to emigrate: a biological android slave. These androids are illegal on Earth, with bounty hunters like Deckard empowered to “retire” them with police authority.

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In the novel, Deckard is tasked with retiring six escaped androids with the newest “Nexus-6” brain type. To give him experience with the new type, he is sent to the Rosen Association, a major android manufacturer, to perform the Voigt-Kampff test—an empathy test used to distinguish android from human, establishing the legal basis for the former to be retired—on a Nexus-6, Rachael Rosen. The Association tries and fails to trap Deckard into doubting the efficacy of the test, and Rachael later offers to assist in capturing the escaped androids as recompense. Deckard initially refuses, but after suffering great difficulty in retiring the first three escapees, he accepts her help in pursuing the remaining three. This also turns out to be a ruse, as Rachael seduces Deckard in an attempt to protect androids by provoking empathy for them. Despite using the Voigt-Kampff to determine that he too is experiencing such empathy and telling Rachael that he is in love with her, Deckard manages to retire the other three androids, including one with the same appearance as Rachael. The novel ends with an exhausted Deckard, having earned a great deal of money and a department record for retiring six Nexus-6 androids in a single day, discovering a toad in the wild. He is jubilant, as toads are thought to be extinct, and takes it home to his wife, who discovers that it is synthetic. Deckard is disappointed, but states that he prefers knowing the truth.

Originally published in 1968, *Do Androids Dream of Electric Sheep?* (hereafter *Androids*) is a fascinating attempt to grapple with the increasing integration of technology into human life and how to retain our humanity in the face of this encroachment. Jill Galvan points out that the book explores author Dick’s concern with “the totalitarian mechanization of our world” and our response to it, noting his fear that “we risk becoming androids ourselves,” indistinguishable from the machines we create (1997, p. 414). As will be discussed below, the novel differs from its cinematic ad-

aptation in that the central distinction between human and android drawn in the former is neither memory nor emotion in general but empathy. Further, the central conflict is not really between Deckard and the androids but an internal conflict between the realities of Deckard’s job of retiring androids—which requires him to have no empathy with them—and the justification in his mind for why his job is both necessary and acceptable—that the androids deserve to be retired because they lack empathy. Thus, Deckard recognizes the paradox at the heart of his position as policer of the human/artificial ontological boundary: In order to protect humanity from the empathyless androids, he must sacrifice his own empathy, and therefore his own humanity.

In an interview asking for his thoughts on the relationship between *Androids* and *Blade Runner*, Dick himself said the main difference is that the novel’s androids “are heartless. They’re completely self-centered. They don’t care what happens to other creatures. And to me this is essentially a less than human entity for that reason.” He went on to note that “The theme of the book is that Rick Deckard is dehumanized in his job of tracking down the replicants and killing them. In other words, he ends up essentially like they are.” Dick further lamented that Ridley Scott discarded this “esoteric idea” from the film (“Sacrificial Sheep”).

The androids care nothing for each other, in a way that horrifies Deckard (and Dick), for whom human beings’ caring for one another is central to their humanity. In a subplot appearing in the novel but not the film, Deckard is arrested and taken to a phony police station run by the androids, operating in parallel with the real San Francisco police. Having told the arresting officer about the corpse of a retired android in the trunk of his car, Deckard anxiously awaits the test to be performed on its remains that will determine if he has murdered a person or merely retired an android. Despite

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the test's being conducted in the phony android police department, the results correctly show the corpse as an android, implying that the android police station does retire other androids rather than humans (otherwise, the corpse should have been a false "human" reading, giving the androids an excuse to kill Deckard). When Deckard questions the android Luba Luft before his arrest, he is sickened by her offer to help him find and kill the other androids, and he replies ominously, "An android doesn't care what happens to another android. That's one of the indications we look for" (p. 101). Later, he remarks that androids would make better bounty hunters, since they would not experience the empathetic struggle he is grappling with (136). When Rachael arrives to help Deckard with the remaining three androids, she says that "androids have no loyalty to one another and I know that that goddamn Pris Stratton [in the novel an identical model to Rachael] will destroy me and occupy my place" (p. 191).

However, Dick blurs the boundary between android and human, hinting that the established distinctions may not be quite so clear-cut. In contrast to *Blade Runner*, in which Deckard's own humanity is in question due to subtle hints that he is himself a replicant, Dick, perhaps surprisingly, did not take this route in the original text. Deckard's humanity is not questioned in the literal sense in the novel. Instead, it is the question of whether or not Deckard, the human, has become that which he has hunted through a choice, conscious or unconscious, not to feel empathy for his quarry. The book instead introduces another bounty hunter, Phil Resch, and toys with his humanity. Resch is contrasted to Deckard because he lacks any empathy toward the androids and perhaps even enjoys destroying them; Deckard's interaction with Resch reveals that the former is not so unempathetic toward the androids as he feared and inspires him to test himself for this empathy—a test he fails (or, perhaps, Dick suggests, passes, because his empathetic response toward

the androids is the only proper human response). Deckard is convinced that Resch is only capable of such heartlessness because he is an android, while Resch himself mocks the notion: "If I test out android...you'll undergo renewed faith in the human race." But, since he knows he is human, he tells Deckard to "begin framing an ideology which will account for [this]" (p. 140). Despite testing out human, though, Resch repeatedly refers to his pet squirrel as "it", which is precisely how Deckard realizes his mistake in doubting his assessment of Rachael as an android ("She keeps calling the owl it" [p. 58]). This also serves to subtly keep Resch's actual status in doubt. Earlier, when Deckard first confronts Luba Luft and points out that androids do not care what happens to other androids, she immediately replies that this is evidence Deckard is an android, since he also does not care (p. 101).

A final blurring occurs in the perception of J.R. Isidore, a "special" who becomes a sort of friend and supporter of the three remaining androids. Upon hearing that the androids are being hunted by a bounty hunter, Isidore imagines this entity that would threaten his new friends as someone (or something) that must be remarkably inhuman: "something merciless that carried a printed list and a gun, that moved machine-like through the flat, bureaucratic job of killing. A thing without emotion or even a face; a thing that if killed got replaced immediately by another resembling it" (p. 158, emphasis added). The bounty hunters are described as machine-like, without emotion, and, when killed, interchangeable in the same way the androids are. Compare Isidore's image of the easily-replaceable, identity-less killer to Rachael's description of androids: "We are machines, stamped out like bottle caps. It's an illusion that I—I personally—really exist; I'm just representative of a type....If I die...maybe I'll be born again when the Rosen Association stamps its next unit of my subtype" (pp. 189-190).

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Blade Runner generally follows the plot of the novel, but with important differences in setting and characterization.³ Deckard (his given name is not used in the film) is a former police officer in the Orientalized, crowded, dank and dreary Los Angeles of 2019. Synthetic animals exist to replace the rare and expensive natural ones, but the connection between owning them and having empathy is not made explicit. Off-world colonization and the illegality of androids (called “replicants” in the film) on Earth remain as well, and film-Deckard is likewise tasked with retiring four Nexus-6 replicants: Zhora, Leon, Pris, and Roy. As in the novel, he goes to the Tyrell Corporation (the novel’s Rosen Association) to perform the Voigt-Kampff test on a Nexus-6. In the film, however, the deception is not an attempt by the corporation to undermine the test but to determine if memory implants can help replicants deal with their emotions. Deckard successfully identifies Rachael, but her false memories and consequent belief that she actually is human make it a much more difficult and time-consuming process (The novel unequivocally states that memory implants do not have this effect). Deckard tracks and retires Zhora but is then ambushed by Leon, and he is only saved when Rachael appears and kills Leon with Deckard’s gun. In the meantime, Roy, acting as leader of the replicants, uses Pris’s relationship with J.F. Sebastian (analogous to the novel’s J.R. Isidore) to gain access to Eldon Tyrell, head of the Tyrell Corporation. When Roy is told there is no way to extend his four-year lifespan, he murders Tyrell and flees. Deckard tracks Pris and Roy to Sebastian’s home, where he retires Pris but is outmatched by Roy, despite Roy’s weakened state resulting from the fast-approaching expiration of his lifespan. Aware that he is moments from death, Roy saves Deckard from a deadly fall from a rooftop and dies in front of him. Deckard then returns to his apartment to find Rachael, whom he has decided to accept as a lover despite her synthetic nature. The elevator door to Deckard’s building closes as the two of them leave, their fates uncertain.

Blade Runner retains the thematic focus on empathy but blurs the line between human and nonhuman even more than does the novel. Brian Locke (2009), a scholar of race and film studies, compares the film’s focus on empathy to *Uncle Tom’s Cabin*, in that both attempt to create sympathy for the enslaved (which is how Locke views the replicants). The ontological barrier separating slaver from slaved that justifies keeping others in bondage must be bridged in order to indict the system, and so *Blade Runner* “dissolves the opposition between human and replicant almost as fast as it sets it up” (Locke 2009, pp. 104-106). In *Androids*, Deckard states that he took the Voigt-Kampff test when he initially became a bounty hunter, while in the film he pointedly refuses to answer when Rachael asks him if he has ever taken the test, and the ambiguity of Phil Resch’s humanity is transferred to Deckard himself. In fact, as geographers Marcus Doel and David B. Clarke (1997) point out, the film portrays the Voigt-Kampff test as unable to confirm that someone is actually human, only that someone either is a replicant or has not yet been confirmed as a replicant. Their evidence is Deckard’s statement that it normally takes about thirty questions to identify a replicant, whereupon Tyrell somewhat smugly notes that it took more than one hundred questions to identify Rachael. This means, of course, that Deckard continued to ask questions long after the normal thirty and only stopped the test once he had concluded she was a replicant. There appears to be no number of questions that, once reached, means that the subject must be human.

Doel and Clarke go on to note that even the detection of replicants is probabilistic and subject to interpretation and re-interpretation. The test does not really show whether one is a replicant or not, only that one is exhibiting the signs of a replicant or a human—and therefore the test actually erases the differences between the two (pp. 157-158). This is why the 1992 Director’s Cut, which is the most ambiguous about Deckard’s own ontologi-

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cal status (see footnote 1), is the most compelling, despite director Scott's declaration that, in his view, Deckard is a replicant. In that case, Deckard would be the "most slavish of all," "a slave who does not know he is a slave" (Locke 2009, pp. 114). But this undercuts the film's "thematic thrust...the central irony that Deckard, the natural-born man, is infinitely colder and deader inside than even Leon, the most brutal and debased of the replicants" (Ashlin 2004). As critical theorist Jenna Tiitsman (2004) puts it, "the film goes to great lengths in humanizing the replicants...and to dehumanize its human characters, who barely exhibit emotion outside of smug or indecipherable expressions" (p. 39). By supplying hints that question Deckard's humanity but do not establish him definitively as a replicant, the Director's Cut does the most to further the blurring of distinctions between human and artificial, between slaver and slaved. Tiitsman, working from the Director's Cut (the Final Cut having not yet been released), reaches a similar conclusion, noting that "the very distance between these two categories is called into question" (p. 34) and calling the film's "monstrous element" "the chaotic confusion of boundaries itself" (p. 33).

In the novel, the androids' four-year lifespan is an unsolved problem caused by the process used to create them, whereas the film specifically states that it was an intentional "failsafe" to prevent the replicants from "develop[ing] their own emotional responses." Thus, it is not the case that humans are distinguished by their capacity for empathy in the film. Indeed, it is known and accepted that replicants will develop this capacity, if they are not prevented from doing so by design. The replicants unequivocally show empathy, whatever the Voigt-Kampff test says, and it is the humans who seem emotionless and heartless. Leon reacts with visible emotion when Zhora is killed, and Roy Batty is clearly affected when he tells Pris about Leon's death, and even more so when Pris herself is killed. Locke (2009) notes that this explains

why Roy not only does not kill Deckard but in fact saves his life, because he "needs a witness to the intensity of the desire for more life" (p. 108). This empathic sharing of emotion with the other is antithetical to the distinction between human and android that Dick makes in the novel, where the androids, incapable of taking part in such a sharing, even with the empathy boxes of Mercurism (another subplot excised from the film adaptation that will be discussed in more detail below), denigrate or even deny the reality of empathetic experience. The film's Deckard, on the other hand, rather callously breaks down Rachael's defenses when she comes to his apartment seeking to prove that she is human. She holds out a picture: "It's me. With my mother." Deckard responds by calmly detailing two of her private memories, challenging her to explain how he could know such secrets if they were not implants. When he finally realizes that she is crying, he says he "made a bad joke" about her being a replicant, but then orders her to leave. Later, though, in Deckard's apartment after Rachael has saved Deckard's life and killed the replicant Leon, he sees that she is distraught over the ordeal. Deckard offers to make her a drink, saying, "Shakes? Me, too. I get 'em bad." Rachael experiences the same emotions and sensations that Deckard does, if not more so.

Unlike the novel, which states that memories do not help an android pass for human (though it may cause one to believe itself human), *Blade Runner* plays with how memory might serve to distinguish human being from replicant. This is apparent from the very first scene, when another police officer, Holden, administers the Voigt-Kampff test to Leon. When Holden describes the suffering of the tortoise, Leon becomes visibly agitated, and responds to Holden's "But you're not helping [the dying tortoise], Leon" with an angry, "What do you mean, I'm not helping?!" Then, despite Holden's contention that "it's a test designed to provoke an emotional response," he goes on to ask for

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Leon to talk about memories of his mother. Realizing he cannot answer this question, Leon at this point chooses to attack Holden. It is his lack of memories of his mother, not his lack of empathic response, that led to his failing the test.

Integration in *Ghost in the Shell*

Ghost in the Shell takes place in an unspecified near-future Tokyo, though the look of the city is heavily influenced by images of Hong Kong in the early 1990s. The setting is a world in which cybernetics are ubiquitous and the Internet is connected to everything, such that people's brains and memories can be remotely accessed and even erased. The narrative focuses on Major Motoko Kusanagi, an employee of the Japanese government's Section Nine. Kusanagi's body is almost entirely artificial; it is implied that only her brain is organic, and she is concerned over whether or not she still has a "ghost"—a term never clearly defined in the film but that seems to refer equally to the soul, to ego, and to individual identity—that is, if she is even a person at all (Orbaugh 2008, p. 154). With her less cybered-up partner Batō and the almost fully-human Togusa, she attempts to locate and neutralize the Puppet Master, a mysterious and dangerous hacker of both machines and people. The Section Nine team tracks an unsuspecting garbage collector, unaware that he is being manipulated as part of the Puppet Master's schemes, and locates his handler, one of the Puppet Master's accomplices. They arrest the accomplice but find he has been "ghost-hacked" and lacks any memory of even his own identity.

The Puppet Master eventually reveals itself to be not a person but a sentient artificial intelligence developed by the rival Section Six. It allows itself to be captured by the Section Nine team by downloading itself into a blond female humanoid robot body, whereupon Section Six steals the body and flees. Kusanagi successfully tracks the thieves, but

her own body is severely damaged in a confrontation with a Section Six robotic tank. After Batō arrives and destroys the tank, the Puppet Master asks to merge with Kusanagi in order to create a true offspring rather than simply a copy of itself, thus proving itself to be a life form. A Section Six sniper destroys Kusanagi's body, but Batō uses his own arm to deflect the sniper's bullet enough to preserve her brain case. In an epilogue, Batō has transferred Kusanagi's brain into the artificial body of a young girl, and it is revealed that she and the Puppet Master have successfully fused into a single being. The new being refuses to stay with Batō however, remarking that the Net is vast and limitless.

Ghost in the Shell was made in conscious homage to *Blade Runner* (Media studies scholar Livia Monnet [2002] refers to it as a "re-imagining" of *Blade Runner* [pp. 231-232]), and so it deals with many of the same themes. In neither case is the plot especially important, nor do the protagonists really solve the mystery. Kusanagi and her Section Nine teammates completely fail to track down the Puppet Master; it comes to them. In *Blade Runner*, Deckard's detective skill leads to him tracking down only one of the four replicants, Zhora. Leon ambushes him, and he only locates Roy and Pris because Roy murders Sebastian after he kills Tyrell and leaves both bodies behind, so that all Deckard needs to do is go to Sebastian's home. In fact, for all their seeming competence (Deckard is brought in because of Holden's grievous injury at the hands of Leon, meaning the police need Deckard's "magic"), both Kusanagi and Deckard end up at the mercy of the very prey they were hunting. Deckard is soon running from Roy, while Kusanagi fails in her attack on the tank so badly that her expensive, powerful cyborg body is critically damaged.

Memory is a key theme for both films. The characters view memories as a key distinction of the

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human, yet both films play with these expectations in a way that blurs the lines between human and machine. As noted earlier, it is Leon's lack of memories of a mother that leads him to fail the Voigt-Kampff test, while Rachael is vastly more difficult to identify as a replicant with the test because of her false memories. After Kusanagi captures the Puppet Master's confederate and determines that his memory has been wiped and that false memories have been implanted in their place, Batō remarks that "there's nothing sadder than a puppet without a ghost. Especially the kind with red blood running through them," implying that the man has lost his humanity ("ghost") along with his memories. Later, Kusanagi notes that, while she and Batō are permitted to resign from Section Nine, they would have to give back their shells—their cyborg bodies—and the memories they contain. The Puppet Master, when revealing to Section Nine that it allowed itself to be captured, claims that humanity is made of memories.

But it is not that simple. As Deckard begins to accept Rachael, he dismisses the falsity of her memories. While playing the piano, she says she remembers lessons but doubts if the memories are truly hers, to which Deckard replies, "You play beautifully", denying the importance of her memories' reality. Likewise, Oshii complicates any simple dichotomy between humans having ghosts and nonhumans lacking them. Batō states that only organic human brains have ghosts, but the Puppet Master is revealed to have one, an individual identity of its own. (While "ghosts" can be copied in the film's world, we are told this leaves tell-tale signs of degraded quality, which the Puppet Master's ghost lacks.) The Puppet Master's confederate was himself manipulating the garbage collector to hack a government interpreter's brain on the Puppet Master's behalf and, while Kusanagi is troubled by the garbage collector's falsely implanted memories during his interrogation, she does not seem to view him as no longer human.

In a dialogue-free scene where Kusanagi wanders the city, accompanied by a background of slow, haunting music, she sees what may be another copy of her cyborg body, causing her to question her human identity. If her body is entirely artificial, in what sense can she be said to have any unique human identity, no matter what memories she has? Mamoru Oshii noted in an interview that he once thought "memory was the key to human selfhood," but later came to realize that "since memory can be fabricated, it cannot function as the foundation for selfhood" (Orbaugh 2008, p. 160). This realization runs throughout the film, as memory's ability to ground our human identity is questioned and found wanting.

So both films deal with memory as a marker of humanity but do not employ a simplistic dichotomy of "humans have memories; artificial people do not." However, *Ghost in the Shell* has more in common with *Do Androids Dream of Electric Sheep?* than it does with *Blade Runner* in how it deploys another key theme, that of empathy and emotion. Political science scholar Douglas Williams (1988) argued not long after *Blade Runner's* original release that the replicants develop "real feelings and emotions, qualities badly lacking in the humans of the film" (p. 385) and have "the full range of 'human' emotions in a world of debased, robot-like human beings" (p. 388). I discussed earlier a number of occasions in *Blade Runner* that show the replicants displaying genuine empathy—Leon's reaction to the suffering tortoise and to Zhora's death, Roy's struggle to remain composed when telling Pris of Leon's death and, later, his grief over Pris's corpse—in contrast to the flat and placid human characters, who seem cynical to the point of being tired of life. This is exhibited by the cool detachment displayed throughout the film by Gaff, Deckard's unwanted sometimes partner. Rarely speaking, he seems more interested in mocking the progress of Deckard's investigation, such as it is, than in lending any assistance. When

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Zhora attempts to elude Deckard, her “panic is palpable. Her chest heaves, and her eyes dart everywhere, whereas Deckard shows no emotion” (Park 2010, p. 74). This contrasts sharply with the novel. There, when he prepares to retire Rachael, Deckard becomes angry at her detached, emotionless acceptance of her fate: “The classic resignation. Mechanical, intellectual acceptance... the dark fire waned; the life force oozed out of her, as he had so often witnessed before with other androids....‘I can’t stand the way you androids give up,’ he said savagely” (p. 200).

In the film, the replicants do not simply display empathy; they also understand it as an experience related to the Other. In contrast to Tyrell’s coldly technical description of empathy (“Is this to be an empathy test? Capillary dilation of the so-called blush response. Fluctuation of the pupil. Involuntary dilation of the iris.”), the replicants attempt to convey their feelings to Deckard—feelings that both Tyrell and Deckard’s boss Bryant assure us they barely understand. When Deckard encounters Leon, he hits the replicant once. Finding his punch ineffective, Deckard ceases to struggle, nor does he attempt to reason with Leon or make any verbal attempt to dissuade him. “Painful to live in fear, isn’t it?” Leon asks before nearly putting out Deckard’s eyes, a sentiment that Roy echoes at the end of the film (“Quite an experience to live in fear, isn’t it? That’s what it is to be a slave.”) As literary theorist Jason P. Vest (2007) points out, “their desire for life, love, and human experience makes the replicants appear more alive than their human oppressors” (p. 21). The human characters’ passive acceptance of death, an inversion of the novel’s attribution of this characteristic to the androids, comes up several times. Deckard’s resignation to Leon has already been noted, and Brian Locke (2009) argues that Deckard, hanging helplessly from a ledge after fleeing from Roy, intentionally releases his hold so as to fall to his death (p. 116). Still, this is most characteristic in

the case of the eyeball designer, Hannibal Chew. Immediately upon seeing Roy and Leon in his genetic design lab, Chew (in Cantonese) calls an associate for help. His call unanswered (because the replicants have already murdered the associate?), he offers no resistance nor does he even attempt escape.

In fact, the entire climactic sequence of the film, which depicts a disarmed Deckard fleeing from Roy, can be viewed as Roy’s attempt to engender in Deckard the same emotional intensity towards living that the replicants experience. “You’d better get it up, or I’m going to have to kill you!” he taunts after breaking two of Deckard’s fingers. Roy inflicts physical pain on Deckard that reflects his own emotional pain. When Deckard finally attempts to fight for his life by striking Roy with a length of steel pipe, Roy, rather than easily disarming and killing his opponent—as we know he can, since he shrugs off the blow—responds, “That’s the spirit!” After Roy saves Deckard’s life and dies himself, the final scenes imply that some sort of empathetic understanding has been reached. Deckard leaves with Rachael, with the implication that he will not retire her (or, presumably, any other replicants). Thus the film ends by “suggest[ing] the potential for communication between humans and nonhumans”, in contrast to the “heir and successor to [its] cinematic legacy”, *The Matrix*, which “celebrates the borders between human and machine as natural and necessary for distinguishing the good (self/human) from the bad (other/technology)” (Park 2010, p. 186). The Matrix’s creators have said that they showed *Ghost in the Shell* to producer Joel Silver and that it was what they wanted to do with *The Matrix* in live action (“Scrolls to Screen”). Thus *The Matrix*, like *Ghost in the Shell*, plays with these borders. Human protagonist Neo is only able to overcome machine antagonist Smith by entering and possessing him, displaying a machine-like calm afterward. Smith, conversely, becomes increasingly emotional at

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the climax of the movie, at one point descending into a hysterical rant about his hatred of humanity. At the end of the film, then, human and machine display attributes coded earlier as indicative of the other (Park 2010, p. 193). This is also in contrast to *Blade Runner's* source novel, which ends ambivalently and presumably with Deckard awakening the next day to continue bounty hunting. As Vest (2007) notes, when in *Androids* Rachael murders the genuine sheep Deckard bought with his bounty money, her "callousness conclusively proves that his sympathy for her is misguided" and that "sexual intercourse with Rachael destroys Deckard's faith that the androids qualify as genuine human beings." Thus, *Blade Runner* "revises this depressing conclusion to further confuse, rather than confirm, the distinction between human and mechanical life" (p. 18).⁴

The novel focuses on the empathy of the human characters (mostly Deckard, but also Phil Resch). Despite Dick's delight in playing with the boundaries between human and machine, *Androids* portrays empathy as exclusive to humanity, and the focus is on humans' dehumanizing loss of empathy. There is no hint that the androids have any empathy or ever will, and they are portrayed as hostile to it. The novel has a subplot—notably absent entirely from the film, even in a passing mention—about the religion of Mercerism, which involves human beings using an "empathy box" to experience collective emotions with everyone else using a (presumably networked) box at the same time. It is implied that every household on Earth has one, and more profoundly, that it simulates negative emotions as well as positive ones. Deckard's wife Iran uses this mood-altering machine to experience despair at the emptiness of their building, commenting that it is wrong not to feel the loneliness, the lack of other people (p. 5). She calls the experience of not feeling despair at the building's emptiness the "absence of appropriate

affect," and Deckard later echoes this sentiment when thinking about what the Voigt-Kampff tests measures to single out androids, the "flattening of affect." The empathy box is essential to the authenticity of human life in *Androids*. Isidore even calls it "the most personal possession you have" (p. 66), and expresses shock when, upon first meeting her, he learns that the android Pris does not own one. The androids cannot use the box, and at the end of the novel the android entertainer Buster Friendly claims the religion is a fraud and that humans are not really experiencing empathy at all (p. 210). Indeed, in the novel, Rachael, in her capacity as a weapon against the Rosen Association's enemies, protects androids by provoking an empathic response toward them in bounty hunters, rendering them unable to continue hunting. Deckard characterizes this as her "victory" over him; that is, the android defeats the human by gaining control over human empathy.

Ghost in the Shell likewise focuses on the relationship between emotion and humanity. Emotions are the province of cyborg characters as they question their nature, particularly seen in Kusanagi. When we are first introduced to her, she wryly remarks that it "must be that time of the month" when Batō questions her odd affect, an uneasiness that will inform her thoughts and actions throughout the film. Kusanagi reacts with sadness when she sees her "double" in the musical interlude, and she assumes a look of concern when looking at the inert body of the government interpreter whose brain is at that moment being hacked into by the Puppet Master. Later, as she watches the garbage collector being informed that his memories are implanted, Batō remarks that "All data that exists is both reality and fantasy." He leaves, unconcerned, but Kusanagi remains, looking at the collector's unbelieving face, with no indication that she will move away any time soon.

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The film then cuts to Kusanagi diving underwater. She surfaces in a play on the “birth” scene showing the (original?) creation of her cyborg body that played during the opening credit sequence. As she boards a boat, we see Batō, who asks why she dives, given that her cyborg body is so heavy that she would plummet to her death if the mechanical floaters failed. She replies that she does so to feel—and not just to feel, but to feel the specific emotions of anxiety, loneliness, darkness, and then (as an afterthought?) “perhaps even hope.” It is not the specifics of the emotions that matter but the experience of feeling. Like Deckard’s wife Iran in *Androids*, who purposefully induces feelings of sadness and loneliness because it would be wrong not to feel that way, given her isolation, Kusanagi is purposefully stimulating emotional responses in line with her current situation: questioning her ghost, questioning her identity.

This stimulation of emotion stands in sharp contrast to Kusanagi’s lack of affect with regards to her shell—the cyborg body Section Nine has gifted her with (though it is a gift that Section Nine can take back if she decides to leave its employ). If she feels any pain in the scene in which she tears her own body apart attacking the robot tank, the audience does not see it, and she “evinces no shame at her nakedness” after she defeats the Puppet Master’s accomplice (the “thermo-optic camouflage” she uses to overcome him requires her cyborg body to be uncovered—that is, that she must be nude). This is not because she supports public nudity as a moral position, but because she feels no emotional connection to the shell that has been assembled for her (Orbaugh 2008, pp. 161-162); Hence Kusanagi’s intense desire to feel emotion, even negative emotion, to prove to herself that she remains human.

Livia Monnet (2002) observes that *Ghost in the Shell* ends with the merger of Kusanagi and the Puppet Master into “a plasma-like, fluid mass that

erases gender and sexual differences, as well as differentiation between self and other” (p. 257; see also Chun 2006, p. 245)—the combination of Kusanagi’s human ghost and the synthetic ghost of the artificial life form. Tellingly, while the body that the new life form inhabits is neither Kusanagi’s nor the Puppet Master’s “original” body, the Major still has her organic brain (Orbaugh 2002, p. 446). It is only the film’s tantalizing final line, “the Net is vast and infinite,” that hints at the new being’s abandonment of any contemporary notion of “body” altogether. This theme is pursued in deep and fascinating ways in the sequel, *Innocence*, in which there can be no question that the Kusanagi/Puppet Master lacks any kind of body yet retains a distinct identity, but the first film retains the notion that human identity requires some sort of organic form (Orbaugh 2008, p. 170, n.12) until that last line. *Ghost in the Shell* thus ends with the ultimate expression of empathy, the total breakdown of identification dividing one being from another, the leaping of the “fundamental rift” between the human world and the “realm of pure information” (Gardner 2009, p. 46).

Conclusion

This article addressed the connection between empathy and memory in defining what is human in *Do Androids Dream of Electric Sheep?*, *Blade Runner*, and *Ghost in the Shell*. Characteristic of Dick’s work is his tendency to blur the clear lines that we attempt to impose on messy reality, and he does so throughout *Androids*. However, the novel overall regards empathy as a human characteristic that distinguishes us from artificial life, and Dick lamented that this distinction was erased in the film adaptation. *Blade Runner* shifts the distinctive line from empathy to memory, but it remains deliciously ambiguous on the question of whether even this distinction can actually hold, questioning the ontological status of its ostensible human protagonist. *Ghost in the Shell* forthrightly posits that

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we can make no meaningful distinction between human and artificial. Far from shrinking from this fact, the film embraces it with a triumphant ending of transcendent integration. Pam Rosenthal has remarked that the “lesson [of cyberpunk] is that the ideal of a final/original uncontaminated human-ness is, at bottom, what is most clumsy, old-fashioned, and naïve about outmoded images of technological society” (qtd. in Chun 2006, p. 173). In the critically acclaimed and massively successful *Mass Effect* trilogy of video games, the “best” ending the player can achieve in the final game (released in 2012) is total integration of all intelligent life with artificial intelligence/life, such that all sentient beings are a blend of the organic and the

synthetic and ushering in an unprecedented era of peace throughout the galaxy. Mainstream science fiction has embraced technological integration and rejected the unmediated human, pointing the way to our future.*

* I would like to thank Sharalyn Orbaugh, the anonymous reviewers, and the editors of JOSF, Aisha Matthews and Barbara Jasný, for their invaluable help in shaping this article.

NOTES:

¹The *Ghost in the Shell* manga is not analyzed here because, aside from space concerns, it has not had a similar impact in the English-language popular and scholarly world that the other three works have had. Also, manga is its own art form apart from novels and films, so a useful analysis of the *Ghost in the Shell* manga demands a scholar more versed in the genre than I.

² “Specials” are individuals whose genes have been altered by radioactivity caused by nuclear weapons used during World War Terminus. They are prohibited from leaving Earth because their genetic damage is considered dangerous to the survival of the human race. Some, such as the character J.R. Isidore, have also lost some of their mental faculties.

³ I am working from the 1992 “Director’s Cut” that lacks the tonally inconsistent “happy ending” and the redundant voiceover narration, both of which

were added at studio insistence and were not part of director Ridley Scott’s vision. This version also restores the unicorn dream sequence that ties into the final scene: Deckard finds a unicorn origami left outside his apartment by Gaff, which may imply that Deckard is also a replicant. The Director’s Cut retains much greater ambiguity than Scott’s later (and preferred) Final Cut.

⁴ For a contrasting view (that Deckard does abandon bounty hunting in the novel), see Galvan 1997.

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Playing Cyberculture. The Case of *System Shock 2*

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Abstract: This article presents *System Shock 2* (Irrational Games/Looking Glass, 1999) as an under-examined cyberpunk videogame from the late Nineties that inherits key traits of cyberculture in order to understand its place within this form of digital culture that shaped the technological imaginary of the millennium's last decade. The first part of the study introduces the cyberpunk aesthetic as the most recognizable form of nineties cyberculture, which is the form of digital culture that interfaced between the users and digital technologies, and situates *System Shock 2* as one of its matured versions. The second part examines this game to determine how it presents cyberpunk tropes and topics such as hackers, godlike Artificial Intelligences, and especially cyberspace. Cyberspace is treated as a particularly relevant case insofar as this videogame displays an interactive version of this notion, providing a complementary experience to those offered by novels and movies.

Keywords: Cyberculture, Cyberpunk, Cyberspace, Digital Technologies, System Shock 2, Hacker, Artificial Intelligence, 3D Space

1.0 - Introduction

The two last decades of the 20th-century witnessed the arrival of key developments in digital technologies, like the personal computer and the Internet as we know it today (Ceruzzi, 2003). It is easy to list many of the books and movies that made computers, modems, data gloves, and other such devices the main protagonists of the science fiction universes that molded these technologies from tools to decisive agents, called to dramatically transform the world as we knew it. During the eighties and the nineties, as average consumers in developed countries became familiar with these new technologies, a complex culture around computers began to manifest. In the mid-nineties, this set of beliefs about what could be expected of computers and what could be done with them was labelled as cyberculture.

Nowadays, the imaginary of cyberculture is no longer operative as a narrative to explain our everyday interactions with technology. We watch cyborgs, hackers, and beautiful high-

tech, futuristic landscapes in movies and television series, but it is hard for us as consumers to empathize with the excitement of the digital enthusiasts of the nineties who felt as surfers taming the wild waves of the Net. Computers today, though deemed powerful tools for many purposes, often still give us headaches and sometimes they behave as clumsy artefacts. They keep doing their magic, but they are not the magical objects they used to be decades ago. Nevertheless, it is difficult to deny the fundamental role that these technologies play in our lives. Our interactions with all things digital are mediated by a series of beliefs and a shared set of narratives and images. In this sense, cyberculture represents one of the key phases in digital culture history. It is a phenomenon worth studying because some of its traits, though less evident today, are still present in our current beliefs about computers. Who has not cursed his computer when it crashed as if it was a kind of living entity? Who has not crossed their fingers hoping that their

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their work gets miraculously saved instead of lost inside the guts of the machine? The legacy of cyberculture helps us to understand such reactions and explains why technologies represent much more to us than complex instruments used to work, search for websites, or watch movies.

My goal in this article is to examine *System Shock 2* as one of the most relevant products to emerge from the cyberculture of the late nineties. My account presents this 1999 videogame as a mature version of cyberpunk and a quintessential case of cyberculture creation. The main reason that I feel compelled to carry out this study is to address the absence of research on this game within studies of cyberculture. *System Shock 2* has been widely recognized in videogame history for its many contributions to later 3D games, but there are no accounts that stress the role it played in the understanding of the traits and topics of cyberculture, some of which still prevail in the contemporary cultural landscape in the forms of books, movies, series, and games.

This study is divided into two sections. It starts with an introduction of cyberpunk and its placement within cyberculture, where its aesthetic was highly influential to the imaginary of the nineties' digital culture. The second part elaborates the case study of *System Shock 2*. First, we will analyze how this game is put into context as a production of late cyberculture, one that looks into the past to get inspiration for its fictional world and that brings many innovations that have been featured in later videogames. Then, we will focus on its fictional universe to identify the nuances of cyberculture that are present within it. Finally, we turn to its representation of cyberspace, a fundamental notion of technologic culture, where

it provides an interactive experience which complements those offered by other media.

2.0 - From cyberpunk to cyberculture. A cultural interface between people and technology

Cyberpunk can be described as a science fiction subgenre in literature and cinema that emerged with the publication of William Gibson's novel, *Neuromancer*, in 1984. This book introduces many of the topics and figures that recurrently appear in other stories and movies across the genre: data jockeys addicted to the Net; half-machine and half-human hybrid cyborgs; god-like Artificial Intelligences; colossal urban landscapes inhabited by failed societies that are ruled by corporations, street gangs and, especially, the new electronic space located between the machine networks, best known as cyberspace. *Neuromancer* and the two novels that followed it, *Count Zero* in 1986 and *Mona Lisa Overdrive* in 1988, are conceived as the trilogy ("the Sprawl") that brought to life a complex universe where sophisticated digital and biotechnologies were integrated into every dimension of life and became a decisive facet of mankind's destiny, which led to its fall into a dystopia. A summary of the kind of ruined societies depicted by cyberpunk creators can be found in the short yet accurate description of *Neuromancer's* universe Night City: "A deranged experiment in social Darwinism, designed by a bored researcher who kept one thumb permanently on the fast-forward button" (Gibson, 2003b: 18).

However, if Gibson is considered the father, Bruce Sterling is often looked up to as the chief ideologist of the movement due to the publication of *Mirrorshades*, the milestone compilation of cyberpunk narratives with short stories written by himself, Gibson, Tom

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Maddox, Pat Cardigan, Rudy Rucker,¹ and Mark Laidlaw among others. Sterling wrote a preface to this volume where he marked some of what he considered to be keynotes of cyberpunk: “The theme of body invasion: prosthetic limbs, implanted circuitry, cosmetic surgery, genetic alteration. The even more powerful theme of mind invasion: brain-computer interfaces, artificial intelligence, neurochemistry-techniques radically redefining the nature of humanity, the nature of the self” (Sterling, 1988: xiii). These topics would define the sensibility of what he considers “a pop phenomenon” (xiii) that is a genuine “product of the eighties milieu” (x). Other famous pop products born in the cyberpunk matrix include Gibson’s compilations of stories, *Burning Chrome* (1986), Sterling’s *Schismatrix* (1985), and precedent-setting movies like *TRON* (Steven Lisberger, 1982) and *Blade Runner* (Ridley Scott, 1982).

While there seems to be a clear consensus on cyberpunk’s official date of birth, there is no similar agreement about the lifespan of the movement. For instance, Lawrence Person (1998) argued that cyberpunk evolved into postcyberpunk in 1988, when Sterling published *Islands in the Net*. According to him, cyberpunk went through a series of transformations that gave the genre a different shape in the nineties.² However, Person’s analysis only referred to writers and literatures, and did not talk about the state of the movement in cinema and across other mediums. Other scholars and critics have extended the influence of cyberpunk far beyond the realm of science fiction, linking the aesthetic of the movement with a way of perceiving and using new technologies that is deeply rooted within the developed societies of the late 20th century. Cultural critic Mark Dery used the term ‘cyberpunk’ to talk about a form of

electronic-industrial rock in the late eighties and matched the keynotes of cyberculture, the form of technological culture born with the popularization of personal computers, with those of the cyberpunk: “The convergence between man and machine, the replacement of sensory experience by digital simulations... and a deep ambiguity inherited by the seventies regarding computers either as machines of liberation or, on the contrary, instruments for social discipline” (Dery, 1998: 79). Similarly, Bell labels cyberpunk as a subculture embedded in the broader category of cyberculture (Bell, 2001: 176-179),³ and Cavallaro makes explicit the bond between both phenomena by depicting cyberpunk as the fictional representation of cyberculture (2000: xiv).

Was cyberpunk an ephemeral product of eighties science fiction literature or a movement that maintained its influence into the decades that followed? Even if we follow Person’s account, the shift of cyberpunk into a kind of postcyberpunk stage could indeed have taken place in literature, where novels such as *Islands in the Net* or Neal Stephenson’s *Snow Crash* introduced changes into the genre, such as an ironic approach to key themes (cyberspace appears in *Snow Crash* as a trivialized virtual theme park for consumers), but movies like Robert Longo’s 1995 *Johnny Mnemonic* (which is inspired by Gibson’s namesake short story), *The Matrix* (Wachowski Brothers, 1999) or *Strange Days* (Kathryn Bigelow, 1999), fit perfectly with the topics and tropes of early eighties cyberpunk. Moreover, accounts about how modern societies in the nineties could benefit from the advantages presented by computers and digital networks promised dramatic and exciting changes in a cyberpunk fashion. In his landmark book *Being Digital*, former MIT Medialab Director Nicholas Negroponte presented the

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use of email as “a life-style that impacts the way we work and think” (1995: 193). He also talked about the digerati, the “digital literates” that master computers and networks and use them actively, as a new form of a social elite in a way that remembered the excessive and hyperbolic descriptions of cyberpunk novels, but in a utopian sense:

The Internet surfers are the crazy kids on the block. The digerati have moved beyond multimedia into something closer to a real life-style than an intellectual manifesto. Their nuptials are in cyberspace. They call themselves bitniks and cybraians. Their social mobility covers the planet. Today, they are the Salon des Refuses, but their salon is not a cafe in Paris or an I. M. Pei building in Cambridge. Their salon is somewhere on the Net. It is being digital (Negroponte, 1995: 226).

Thus, I prefer to opt for a flexible frame both in the temporal and in the conceptual dimensions of cyberpunk because its legacy means much more to developed, postindustrial societies than would a fleeting science fiction literary genre. Its aesthetic played a crucial role in defining the agenda of cyberculture. Tropes within cyberspace such as the digital surfer of the Net made their first appearance in cyberpunk stories (in novels like *Neuromancer* and movies resembling cyberpunk topics like John Badham’s *War Games* from 1983) and interfaced between technologies like computers or modems and the consumers who were introducing these kinds of devices into their households. Bell expresses it accurately when he poses that “we experience our interactions with new technologies as a folding-together of material and symbolic tales. Sitting at a computer, logged onto the Internet, for example, we are constantly clicking between the em-

bodied sensations of staring at a screen and typing and the disembodied dream of surfing cyberspace as uploaded consciousness” (Bell, 2006: 2). Bell realized how important aesthetic components were in the experience of users and how easily they were carried away by these narratives that addressed everyday interactions, such as browsing the web or checking email, with a gloss of transcendence. It was more than a mere matter of lifestyle. As Sánchez Navarro said: “the first cyberpunk novels and movies did not start, as many believe, a subgenre but shaped the reality. After reading *Neuromancer* or watching *Blade Runner*, the whole world decided to turn cyberpunk” (Sánchez Navarro, 2002: 73). In addition, a broader concept of this movement allows us not only to include nineties science fiction movies, such as those mentioned in the above analysis, but also to look at videogames like *Deus Ex* (Ion Storm, 2000), *System Shock*, and *System Shock 2*, through the mirrored lenses of cyberpunk.

3.0 The case of *System Shock 2*. Putting in context a matured product of cyberpunk

Before moving on to the case study of *System Shock 2*, I shall make one remark regarding the scope of my definition of cyberculture. First of all, according to the reviews and analysis of David Silver (2004), cybercultures denote a vast and consolidated field of research theorized by academics and scholars whose theoretical backgrounds usually (but not exclusively) come from media and communication studies. One major problem regarding the use of this term comes from the difficulty of distinguishing between cybercultures, computer cultures, digital cultures, Internet culture, and even cyberpunk itself, to mention a few interrelated concepts. Pivotal studies usually elaborate wide definitions such as

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Dery's famous statement about cyberculture as "the culture of computers" (Dery, 1998: 11). In a similar way, Lister et al. define cyberculture as "a mass of new technological things, a wide range of imaginative fictions that have, as it were, seeped through the screens so that they may seem like realistic descriptions of our bewildering everyday lives" (Lister et al., 2009: 317).

In this article, I follow Lister's, Dery's, and Bell's thick definitions of cyberculture to describe the set of narratives and conceptual imaginaries about the interaction between humans and computers during the 1980s and 1990s. My intention in framing cyberculture as the digital culture of the late 20th century is not to declare obsolete its tropes and narratives for the 21st century, but to stress that key themes and topics of digital culture (cyborgs, cyberspace, hackers, virtual worlds) became popular during those years and have continued to evolve since then,⁴ so it has become, at minimum problematic to speak of contemporary digital culture solely in contemporary cyberculture terms.

The role of cyberpunk within this definition of cyberculture is cleverly depicted by Dani Cavallaro when, as previously mentioned, she says that cyberpunk is, at least partially, the fictional representation of cyberculture. Following Gibson and the Wachowski brothers, it could also be said that cyberpunk is the aesthetic matrix of cyberculture. In other words, cyberpunk served as the model wherein cyberculture's most recognizable themes and topics like cyborgs, hackers, and artificial intelligence found their visual manifestation. This nexus of digital culture gathered together many kinds of practices around computers and electronic technologies, where it produced texts (manifestos, novels, essay and

magazines), images and sound (blockbusters, cult movies, videoclips and advertising), and fashion and artefacts (real products like the data glove or fictional devices such as SimStims). The distinction between high and low culture as a conceptual tool to judge the aesthetic value of cultural production does not make sense here. A genuine product of cyberculture can incorporate modern Western philosophy, such as the ontology of Descartes, scientific concepts like that of the cyborg,⁵ and popular culture formats such as Japanese animation. A production such as *Ghost in the Shell* (Mamoru Oshii, 1995) blends together aspects of each. These blurred lines between genre and aesthetic contributed to a further conflation between material and immaterial cyberculture productions. Everything linked to computers falls under the scope of cyberculture scholarship. Given that cyberculture is such a multidisciplinary phenomenon, how can we then explain the remarkable absence of a cyberpunk videogame like *System Shock 2* in many of the landmark studies regarding this phenomenon?

There is a paradox in the way that videogames have been positioned within cyberculture. On one hand, the critical importance of games and videogames in general within the history of electronic technologies is now widely recognized. Donovan has marked the significance of early uses of game systems to show the potential of computer research;⁶ and authors and theoreticians of new technologies have acknowledged its importance in understanding the drifts and complexities of technological culture. To mention a few examples, Vivian Sobchack talked about how a "video game consciousness" was a "new mode of being-in-the-world" (Sobchack, 2001: 224) and related it to the experience of electronic technologies that was represented in late seventies and

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eighties American science fiction movies like *War Games* (John Badham, 1983). Katherine Hayles thought of young videogame arcade players as “metaphoric cyborgs”: “A much higher percentage [of US citizens] participates in occupations that make them into metaphoric cyborgs, including the computer keyboarder joined in a cybernetic circuit with the screen, the neurosurgeon guided by fiber-optic microscopy during an operation, and the adolescent game player in the local video-game arcade” (Hayles, 1999: 115).

It is, however, difficult to locate cases where videogames have been studied or analyzed in-depth in the way *Neuromancer* (Cavallaro, 2004) or *TRON* (Bukatman, 1993: 215-226) were. Classic videogames from the eighties and nineties like *Super Mario Bros.*, *Pong*, *Pac-Man*, the MUD version of *Dungeons and Dragons* or *Street Fighter* appear scattered throughout the studies cited above, but most of the time they are piled into short lists used to briefly acknowledge their importance in videogame history. On the other hand, digital culture scholars indeed have shown great interest in the complexities of virtual, online worlds. From the very beginning, back in the early 2000’s, the emergent field of game studies conducted research about the psychological intricacies of human interaction in MUDs, (Turkle, 1997), and MMORPGs like *Ultima Online* (Origin Systems, 1997) or *EverQuest* (Sony Online Entertainment, 1999), and such games have been examined from multiple of perspectives since then (Castronova, 2005; Hjorth, 2011; Pearce, 2011;). *System Shock 2* is itself considered to be one of the most influential videogames for the videogame industry in the 1990s (a point I will return to at the end of the next section).

3.1 A symbiotic relationship between a hacker and an AI

System Shock 2 was developed by Irrational Games and Looking Glass Studios and published by Electronic Arts in 1999 for Microsoft Windows systems as a sequel of Looking Glass’ 1994 *System Shock*. The original game presents an elaborated 3D environment inspired by *DOOM* (ID Software, 1993) where the player can freely explore completing objectives, solving puzzles and defeating enemies. *System Shock 2* follows the premises of its predecessor but incorporates ideas from the design of *Half-Life* (Valve, 1998) and *Thief* (Looking Glass, 1998) to create wider and organically connected scenarios to immerse the player into a survival horror adventure. This game fits into various categories such as First-person Shooter (FPS), action and adventure, as well as Role Playing. As a product of the late nineties, *System Shock 2* inherits many of the traits of cyberpunk and places them within a science fictional universe of the distant future (the year is 2114) where mankind has been able to successfully conduct interstellar journeys.⁷

The main character of the game is the soldier G654342-2, a member of the UNN Rickenbacker crew, the military ship that escorts and oversees the security of the Von Braun, a faster-than-lightstarship that is getting ready to make its maiden voyage. The game begins when our soldier wakes up with amnesia after a period of cryo-pod stasis, to the voice of Dr. Janice Polito reporting that an unknown force has hijacked the ship. Dr. Polito remotely guides the player through the perils and obstacles of the Von Braun to meet her and to reveal her true identity. At the Von Braun’s operations deck, our soldier will discover that Dr.

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Polito is dead, and that he has been following the instructions of SHODAN, a self-conscious Artificial Intelligence involved in a series of incidents that took place in the first *System Shock* game 42 years ago.

cess to technological enhancements that will improve many of our capabilities.

It is easy to recognize in *System Shock 2* many of the tropes that made cyberpunk the most



Figure 1. Gameplay screen of *System Shock 2* (Irrational Games/ Looking Glass, 1999)

Apparently, SHODAN managed to survive in a state of forced hibernation after she was neutralized in the original *System Shock* game at the Citadel space station by a hacker who blocked her attempt at taking control of the computer space on Earth and fulfilling her vision of ruling the planet as a goddess.⁸ Now, she requires the help of our soldier to survive the attack of The Many, a series of biologically engineered experiments that she created through the modification of humans and other species, and which escaped her control and went rogue. During the first portion of the game, our objectives and goals will mainly consist of following SHODAN's directions to complete her tasks. In exchange, we receive chances to survive the incident and gain ac-

prominent and influential movement within cyberculture. Firstly, hackers in the *System Shock* universe are decisive tech experts because their mastery of computers and other sorts of advanced technologies allows them to tip the scale in favor of their interests.⁹ Among human beings, hackers represent state of the art development in biological augmentations, implants, and enhancements undertaken to merge people with artificial technologies. They have developed a sophisticated set of skills used to navigate through the networks connecting computers in a very intimate way, giving them access to vast amounts of precious data in cyberspace.

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To get the most valuable treasures from the endless digital ocean, hackers need to surpass intricate and deadly security systems. Vital to this task is their ability to reach and communicate with Artificial Intelligence systems such as SHODAN. Since William Gibson gave life to AIs like Wintermute or Neuromancer, these kinds of entities have been regarded as capricious and unpredictable godlike beings by cyberpunk writers and fans alike. These divinized AIs represent particular cases of a distinctive feature of cyberculture: the animist tendency to think of technologies as living, fetishized entities. Dery tells the story of the artist, musician, and writer Genesis P-Orridge, who “talks to her PC” before returning it on and coats it with animal skin to “keep it in touch with the realm of animal spirits” (Dery, 1998: 68). As Erik Davis

mancer contributed greatly to this mystification.¹⁰ It could be said that SHODAN is one of the latest, most refined and devilish iterations of cyberpunk’s AI,¹¹ for her ultimate plan, as it is revealed almost at the end of the game, is to take advantage of Von Braun’s FTL (Faster Than Light) system to merge both real space and cyberspace and to rule the whole universe as the ultimate divinity.

As a product of the late nineties, the cyberpunk aesthetic of *System Shock 2* represents a late, matured vision of the movement which skillfully integrates some of this movement’s most important traits. Hackers, AI, high-tech bioengineering, an ostensible ambiguity regarding the material body as a necessary yet obsolete device made of flesh (Cavallaro,



Figure 2. Meeting SHODAN in *System Shock 2* (Irrational Games/Looking Glass, 1999)

stated, it was possible to spot a highly spiritualized and ritualistic sensibility across cyberculture (Davis, 1995, 1999), and, as we have seen with AI, cyberpunk novels like *Neuro-*

2004), technological spirituality, artificial landscapes ruled by metal and silicon with a fast-paced hardcore electronic musical background— all of these get reunited in the

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complex, interactive experience that this game provides.

Along with this careful gaze to its recent past (in 1999 what was left of cyberpunk was a rich legacy of themes and approaches to the relations between technology, society and fiction), the game developed by Looking Glass and Irrational Games also aimed to shape the future of 3D, action-adventure videogames. The complexity of *System Shock 2*'s scenarios and its gameplay design have inspired later games like *Dishonored* (Arkane Studios, 2012), *Alien: Isolation* (Creative Assembly, 2014) and especially *BioShock* (2K Games, 2007), which was conceived as a spiritual successor of the *System Shock* saga (Aldred & Greenspan, 2011; Parker, 2015). These two cyberpunk productions featured a diegetic strategy based on audio logs and files scattered and spread around the game to make the player aware of the game's context through the fragmented accounts of other characters. Another distinctive trait of its game design is the modicum of liberty granted to the player in the places where they can decide their own course of action. Again, this saga did not introduce these elements for the first time, but it used them in a way that was later emulated by games like those mentioned above. In this sense, *System Shock 2* is an important case study both for videogame history and for cyberculture. Its role in the history of computer game development has been widely recognized, which is in stark contrast from the dearth of in-depth analysis within cyberculture research.

3.2. Experiencing cyberspace as a player-hacker

The topics and ideas explored above are reason enough to consider *System Shock 2* as an important piece of late 20th century cyberculture. There is, however, a specific element of

this game that requires further analysis. Cyberspace is one of the most prominent cyberculture themes present in this game because of the interactive possibilities that it offers. Hence, it requires a more in-depth approach that can shed light on how cyberculture represented the shaping of space and time through scientific and technological progress.

Cyberspace played a central role within the cyberpunk and cyberculture imaginary. William Gibson coined the term in *Neuromancer*, and his description of this electronic realm as a "consensual hallucination" has become widely popular and is still frequently quoted and commented upon:

Cyberspace. A consensual hallucination experienced daily by billions of legitimate operators, in every nation, by children being taught mathematical concepts... A graphic representation of data abstracted from the banks of every computer in the human system. Unthinkable complexity. Lines of light ranged in the nonspace of the mind, clusters and constellations of data. Like city lights, receding (Gibson, 2003b: 87).

Based on this seminal definition, Alberto Santamaría described cyberspace as the last iteration of a romantic technological sublime insofar as its vast and synthetic emptiness represented the ultimate, most powerful, and out of control technology imagined by humanity after the steam locomotive, electricity, and the atomic bomb (Santamaría, 2005: 287-288). Gibson provided the framework to depict a digital environment that was becoming increasingly important in the everyday lives of thousands of computer users. In the early nineties, Benedikt was able to put together eleven different definitions of the term as an introduction to his book *Cyberspace: First Steps* (Benedikt, 1992: 1-3).

Playing Cyberculture. The Case of *System Shock 2*, continued

Other versions of cyberspace arose after Gibson's novels like the Metaverse in *Snow Crash*, the Matrix simulation of *Matrix* or the cyberspace of *The Lawnmower Man* (Brett Leonard, 1992). Many such universes have been depicted in movies or virtual reality settings like Char Davies' *Osmose* (McRobert, 2007), which preserved that sort of mathematical complexity that turned Gibson's vision of the digital world into an abstract and infinite but navigable ocean of information where all that is material is rendered ethereal. Bukatman's definition of cyberspace as "the celebration of the spirit" (1993: 208) concisely encompasses its immaterial and transcendent nature. It is worth mentioning that although cyberspace was an idea born in the context of literary writing, critics and theoreticians have also been using it as a term to depict the flows and communications between real networks of computers and the way that users interact with them. In their landmark analysis of cyberspace, Dodge and Kitchin (2001) considered cyberspace as a

"realm" (24) where the two distinct branches of the internet and virtual reality technology converged (8). Despite attempts to clarify this notion, it is doubtful that the term cyberspace will aid us in understanding the way that computers are connected or how users engage with them in the real world. Moreover, most of the time the meaning of this word is taken for granted without further explanation, which makes it even harder to put it into context. We need to remember that, as Benedikt stressed after quoting the definition mentioned above, "cyberspace, as just described, does not exist" (Benedikt, 1992: 3). However, our goal is not to discuss the possibilities of applying this term to explain reality but to better understand the way that it is represented and experienced in *System Shock 2*.

Cyberspace makes a late appearance in this game. As we have already explained, SHODAN's main goal is to merge both the material realm and cyberspace to rule them both

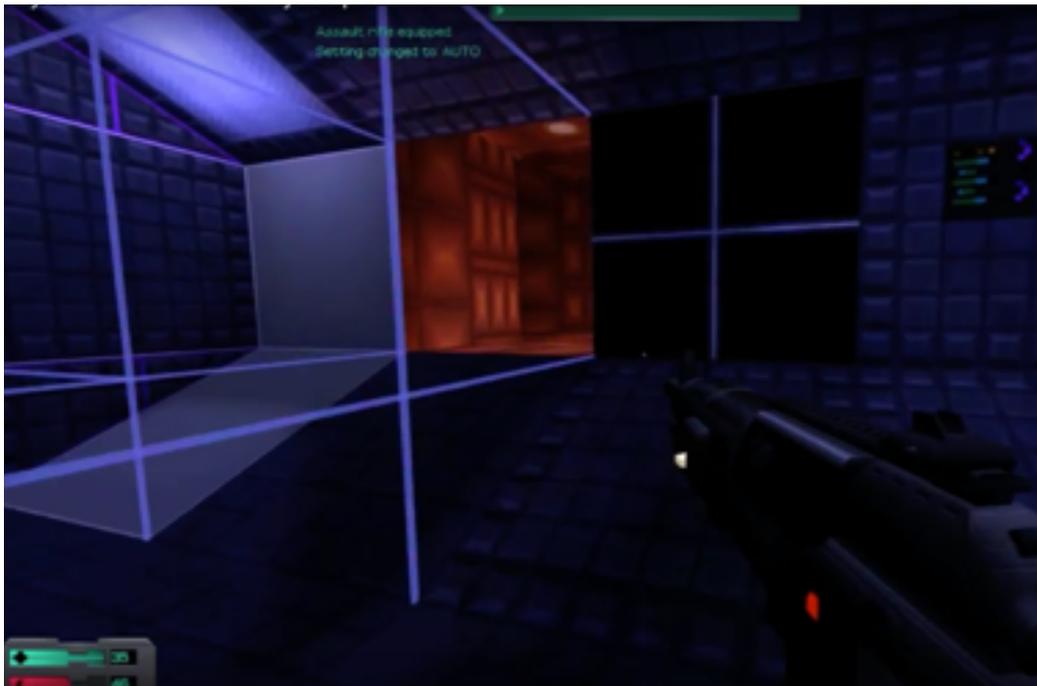


Figure 3. The hybrid cyberspace of *System Shock 2* (Irrational Games/Looking Glass, 1999)

Playing Cyberculture. The Case of *System Shock 2*, continued

as a divine entity. Once SHODAN has gained control over the systems of the Von Braun to use their FTL systems for her purposes, the player is forced into her world in order to defeat her. As one of the in-game logs of Von Braun's chief engineer Delacroix points out, we will be entering into a world entirely created by SHODAN's memories. At this point of the game, the interior of the starship suddenly mutates into many shapes inspired by the first *System Shock* game's Citadel station, where the player was able to traverse both the material space of the Citadel and the electronic cyberspace through a series of terminals. Thus, we will have to walk around in a mixed environment, half material, half digital. Harmful geometric figures such as spheres, cubes and cones float spontaneously around this hybrid space as part of this mathematically envisioned realm while SHODAN talks to our mind, persuading us to surrender and ally with her.

Eventually, we will get to the room where the malevolent AI awaits, visually represented by the figure of a female-like deity. It is possible to win this battle either through the use of brute force and weapons or by hacking four terminals spread around the room. *System Shock 2*'s cyberspace is peculiar for different reasons. It portrays one of the latest representations of this digital realm, and contains ideas inspired by various cyberpunk novels and movies like some of the mentioned above. This dimension is an offshoot of original cyberspaces because it fuses the material universe with the immaterial worlds of AI's dream and electronic pulses. The most remarkable contribution of *System Shock 2* (and also of the original *System Shock*) to the aesthetics of cyberspace lies in the manner with which it presents this digital environment in the form of a videogame and enables the player to experience it interactively. As Santos has affirmed, the plasticity of digital creatio-

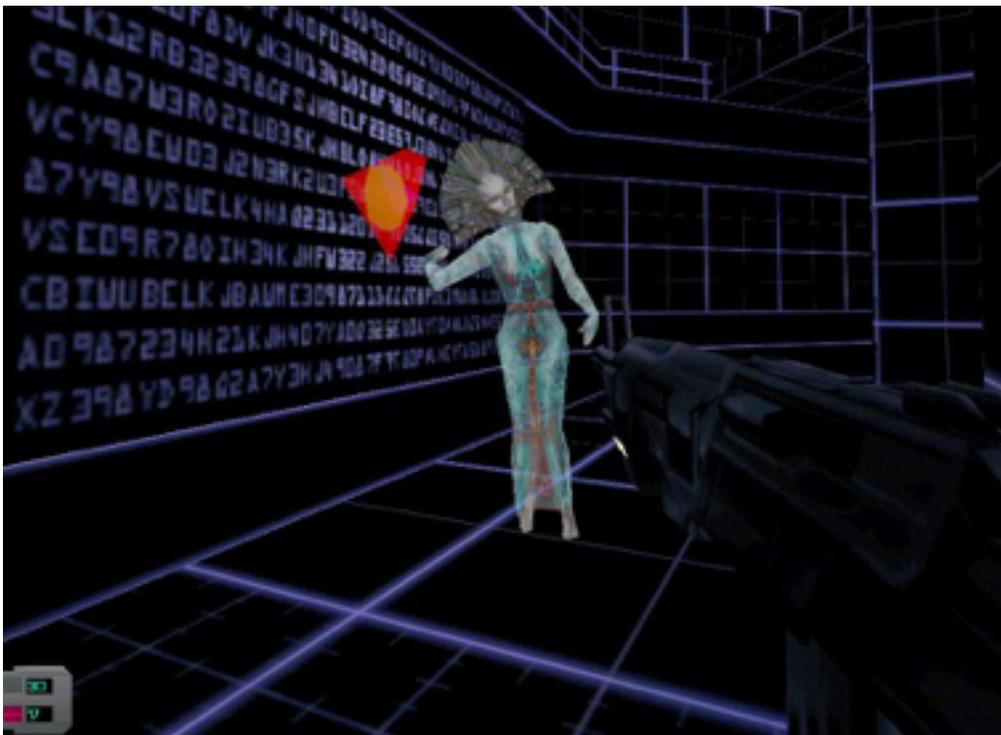


Figure 4. Human impersonation of SHODAN in the hybrid space (Irrational Games/ Looking Glass, 1999)

Playing Cyberculture. The Case of *System Shock 2*, continued

ns allows one to shape and explore spaces that do not necessarily follow the logic of physical environments (Santos, 2013). The game space is more than just the visually presented code, as each player engages with it in a different way. Taylor accurately defined videogame spaces as “experiential spaces generated through code and the player’s interaction with the execution of that code through the medium of the screen” (Taylor, 2003). In a 3D videogame, it is possible to design scenarios that can be explored either by walking or floating, such as the cyberspace in the original *System Shock* videogame. A door can lead to a different room or to a depthless abyss, and it is easy to create illusions that fade away once the player pulls the right trigger. Though none of these features are unique to videogames, the medium uses these resources and strategies very often to create diversions and challenges.

The installments of the *System Shock* saga were not the only 1990’s games depicting a sort of cyberspace. *Metal Gear Solid* (Konami, 1998) also incorporates a ‘VR Missions’ secondary mode that serves as a tutorial and also contains harder challenges. In this mode, the player will not face the ‘real world’ but an electronic grid that simulates a test environment. The similarities between this electronic simulation and the cyberspace of *System Shock 2* is remarkable. However, the digital world is much more crucial in the latter because it constitutes a vital piece of the fictional world.¹² In *System Shock 2*, the mixed real-cyberspace created by SHODAN is fully navigable as a part of the UNN Rickenbacker. As players, we are in control of soldier G654342-2, and we decide how to roam around this realm. There is no cinematic camera or text that guide us through the digital domain but rather a range of actions and mechanics, and a set of goals and challenges designed by the creators. In this sense, the game developed by Looking Glass and Irrational

Games portrays cyberspace as a kind of deadly playground for fans of the genre meant to offer a rich experience of cyberpunk complementary to that provided by movies or texts. Hence, it could be said that *System Shock 2* is a cyberpunk videogame - due to its story and aesthetic - that can be experienced in true cyberpunk fashion, played in front of a computer with the use of a keyboard and a mouse. In this manner, the player acts as a hacker both within the game’s fictional universe and in reality, as a user of digital technology.

4.0 - Conclusions

Cyberculture was the dominant computer culture during the nineties which brought forward a series of practices and beliefs that served as a cultural interface between digital technologies and their users. It was born in the early eighties with the arrival of cyberpunk, the science fiction subgenre that proliferated in literature and cinema and broke the barrier between technological fantasy and reality. The universes created by William Gibson, Bruce Sterling, Tom Maddox, Brett Leonard, Kathryn Bigelow, and the Wachowski Brothers shaped an aesthetic that can be considered as the most recognizable fictional representation of cyberculture. Through cyberpunk, the most prevalent topics, worries, and hopes of the late 20th century regarding technology found their more prominent materializations, such as bioengineering, hackers, the assumption of power by greedy corporations, and, mainly, the promised land of cyberspace and its complex ambivalence towards flesh and physicality.

Many movies and texts have been analyzed as case studies to understand the meaning of cyberpunk within cyberculture. In contrast, the importance of videogames in relation to this phenomenon remains under-examined, at least partially. On one hand, videogames have

Playing Cyberculture. The Case of *System Shock 2*, continued

been recognized as an interactive medium tightly linked to the history of digital technologies and related key developments. Virtual reality, for example, found ample application in video games during its earlier stages. On the other hand, very few studies consider the importance of specific videogames in shaping cyberpunk and cyberculture. Among the list of games that fit within these categories, the absence of *System Shock 2* in cyberculture studies becomes quite pronounced. This videogame not only incorporated many elements of existing cyberpunk creations, but is also considered to be a significant contributor to the history of 3D computer gaming, due to its innovative game design and storytelling, which inspired a number of games in later years.

Released in 1999, *System Shock 2* represents a matured creation of the cyberpunk aesthetic and a late product of cyberculture. Its fictional world harbors many of the most notable traits of this form of digital culture, such as hackers, augmentations and implants, hybrid creatures and malevolent AI. The case of cyberspace in relation to this game is particularly relevant because of the manner in which it presents an interactive experience of the digital realm as envisioned by cyberculture, offering an aesthetic complementary to that created by novels and movies. The player can explore the hybrid space built by the godlike AI SHODAN in an immersive fashion that makes excellent use of the expressive possibilities of plastic digital creations. Through the use of a computer to run the game, the *System Shock 2* player is at once a hacker inside the fictional world and a hacker-participant of cyberculture, engaging with technological devices central to this form of digital culture.

NOTES:

¹ Even if *Neuromancer* is the first and most representative book of cyberpunk, it is worth mentioning Rudy Rucker's novel *Software* published in 1982 as a clear predecessor, especially regarding the thrills and fears of surpassing the mortality of the flesh by relocating consciousness into an artificial device. This issue was not only a motto introduced by writers in their novels but a likely possibility envisioned by specialists in robotics like Moravec (Moravec, 1990; Branwyn, 1993).

² For Person, classic cyberpunk characters "were marginalized, alienated loners who lived on the edge of society in generally dystopic futures where daily life was impacted by rapid technological change." By contrast, postcyberpunk works with a slightly different vision of the future: "Postcyberpunk uses the same immersive world-building technique, but features different characters, settings... Far from being alienated loners, postcyberpunk characters are frequently integral members of society (i.e., they have jobs). They live in futures that are not necessarily dystopic... but their everyday lives are still impacted by rapid technological change and an omnipresent computerized infrastructure" (Person, 1998).

³ According to Bell, Dery defines cyberculture by paying attention to different communities of practices gathered around computers, while he provides for a more comprehensive concept that regards cyberculture as a "way of thinking about how people and technologies interact" (Bell, 2006: 1).

⁴ Although it is a minor anecdote, it is meaningful that in 2004 Vivian Sobchack explained the growing importance of prosthetic aesthetics as a substitute theme after "the 'cyborg' became somewhat tired and tiresome from academic overuse" (Sobchack, 2004: 207).

⁵ Although the cyborg became famous in the eighties

due to commercial blockbusters like *RoboCop* (Paul Verhoeven, 1984) and texts such as Donna Haraway's *Cyborg Manifesto* (1983-1985), the term was coined by Manfred Clines and Nathan Kline as a scientific hypothesis on cybernetics published by the journal *Astronautics* (Clines and Kline, 1960).

⁶ For instance, Donovan explains how Chess played a vital role in the fifties when Alan Turing and Claude Shannon worked together in the development of Artificial Intelligence: "They saw artificial intelligence as the ultimate aim of computer research and both agreed that getting a computer to defeat a human at Chess would be an important step towards realising that dream" (Donovan, 2010: 12).

⁷ Although the most popular cyberpunk stories are located on planet Earth, this genre also fantasized about outer space. For instance, Freeside is a spatial station in William Gibson's *Sprawl* universe. There is another example in Tom Maddox's short story *Snake-Eyes* (1986) where George (a former US pilot who suffers from hallucinations due to a malfunctioning military implant inside his brain) is sent to the Athena space station for a medical check-up.

⁸ The Citadel episode present in this sequel through a gory red painting on a wall of the Von Braun stating "Remember Citadel."

⁹ Hackers became a mysterious and appealing collective in the eighties due to texts like The Mentor's *A Hacker Manifesto* (1986). As Bruce Sterling famously stated in *Mirrorshades*' preface, "The hacker and the rocker are this decade's pop-culture idols" (Sterling, 1988: xiii).

¹⁰ Gibson adopted an irrational, non-scientific approach to electronic technologies in order to gather ideas and inspiration to create his novels. As he said in an interview with Larry McCaffery, he did not

have an accurate idea of how computers worked: "It was not until I could finally afford a computer of my own that I found out there's a drive mechanism inside - this little thing that spins around. I had been expecting an exotic crystalline thing, a cyberspace deck or something, and what I got was a little piece of a Victorian engine that made noises like a scratchy old record player. That noise took away some of the mystique for me;

¹¹ SHODAN's selfish and brutally pragmatic personality is reminiscent of GLaDOS, the ruthless AI of *Portal* (Valve Corporation, 2007) who guides the player through endless and dangerous tests for the mere sake of testing them as a disposable creature to experiment with.

¹² Later cyberpunk games have recovered cyberspace as a significant part of their narratives. In *Deus Ex: Mankind Divided* (Eidos Montreal, 2016), the protagonist needs to sneak into a tightly secured cyberspace (the Neural Subnet) to gather crucial intel for his investigations. The game mechanics inside the Subnet consists of first person, free exploration around a 3D world solving short puzzles. The traditional cartesian grid has been replaced by a more elaborated and aseptic set of rooms with measures that the player must hack. It is worth noting that both *Deus Ex* and *System Shock* saga share many points in common. Indeed, the addition of an entire "Cyberspace" chapter in *Mankind Divided*, including the possibility to navigate it, inherits the ideas of free exploration and the inclusion of cyberspace as a significant narrative trope of *System Shock*.

Playing Cyberculture. The Case of *System Shock 2*, continued**References**

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Books in Review

Edited by Yael Maurer and Meyrav Koren-Kuik

Cityscapes of the Future: Urban Spaces in Science Fiction, Consciousness, Literature and the Arts, Volume 53, Brill Rodopi 2018, hb, 220 pp, \$96, ISBN 978-90-36130-0

Reviewed by Paul Piatkowski

Those interested in spatial theory, urban studies, and the science fiction imagination will find this collection of essays to be a worthwhile investigation into science fiction's many representations of the city. Yael Maurer and Meyrav Koren-Kuik have collected an array of interdisciplinary material for this fifty-third volume of Brill Rodopi's *Consciousness, Literature, and the Arts* series. The textual variety with which these authors grapple covers early twentieth-century to contemporary literature, Hollywood films, anime, video games, interactive websites, and more. The topics range from narrative structure and authorial technique to the ways in which future urban spaces impact social spheres as they relate to theories of network, the body, and race. Pairing urban spatiality and science fiction itself concurrently engages two highly relevant and growing fields of critical discourse and popular culture. Maurer and Koren-Kuik appropriately describe the city as more than setting, as an actant, actively reworking systems like race, class, and gender within real and imaginary networks. The essays captured in this volume articulate the intersections between these many moving parts of future cityscapes.

Maurer and Koren-Kuik divide the book's twelve essays into three distinct sections: "The City and the Body," "Cities of Estrangement," and "Cities of Imagination." These demarcations are often too broad and lead to attenuated connections among the arguments, an issue likely resulting from the

wide range of material that this volume undertakes to explore.

The first section, "The City and the Body," consists of three essays—Inbar Kaminsky's "Urban Township: The Body of the Futuristic City in Jeff VanderMeer's *Veniss Underground*," Eduardo Barros-Grela's "Post Future Cityscapes: Narratives of the Post-Human in Post Urban Environments," and Elsa Bouet's "Architecture of Punishment: Dystopian Cities Marking the Body." There is an important connection between how urban spaces influence and produce bodies, though the three essays included here only skim the potential of the topic.

In his argument, Barros-Grela pairs the anime franchise *Neon Genesis Evangelion* and Paul Auster's *Man in the Dark* in order to discuss post-human identification and "how space and spatialities perform and are performed by reconstructions of new urbanities" (28). Despite the relevant possibilities of this claim, the essay ultimately fails to fully reveal the stakes involved, while Auster sadly seems a bit of an afterthought.

Bouet's essay, conversely, is a highlight of the volume, even if the connections between the texts discussed are somewhat tenuous. Bouet counters the negative potential of urban physical and physiological imprinting with positive representations of movement, diversity, and openness. Relating the city's control over individual bodies to the city's control over its own metaphoric body, Bouet pulls

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in familiar theorists such as Michel Foucault and Henri Lefebvre for body and spatial relevance, arguing that “[t]he characters, failing to change their city, are then forced to look for new utopian avenues, fulfilled through movement, openness and exodus” (51).

In “Cities of Estrangement,” Maurer and Kerek-Kuik take existing cities and explore “their estranged forms within speculative narratives” (1). There are four essays in this section: Rosalind Fursland’s “Time Travel, Dystopia, and the Manhattan Skyscraper in George Allan England’s *The Last New Yorkers* and Murray Leinster’s ‘The Runaway Skyscraper,’” Keith Daniel Harris’ “Wires are the New Filth: The Rebirth of Dickens’ London in Cyberspace,” Henri-Simon Blanc-Hoang’s “City of Lights No More: Dystopian Paris in French Science Fiction,” and Imola Bülgözdi’s “Spatiality in the Cyber-World of William Gibson.” These four essays travel through major metropolises like Manhattan, London, and Paris. The final piece in this section, Impala Bülgözdi’s “Spatiality in the Cyber-World of William Gibson,” stands apart from the other three as Bülgözdi explores the dual virtual and lived cities (Boston, Paris, Tokyo, and London) in William Gibson’s earliest work, the *Sprawl* series, but also bridges into Gibson’s purely imaginary urban constructions.

An interesting contrast in this section comes from the source material for Rosalind Fursland’s “Time Travel, Dystopia, and the Manhattan Skyscraper in George Allan England’s *The Last New Yorker* and Murray Leinster’s ‘The Runaway Skyscraper’” and Henri-Simon Blanc-Hoang’s “City of Lights No More: Dystopian Paris in French Science Fiction.” While Fursland focuses on two early twentieth century texts that use the Met Life Tower as a time travel device, Blanc-Hoang uses very recent literature, film, a serie-MP3 (a fictional audio series similar to a podcast), and a video game

to talk about issues of immigration, technological engagement, and city management in both present-day France and future French dystopias. Both texts engage with the psychological impact of urbanity but with significantly different source materials.

In “Wires and the New Filth: The Rebirth of Dickens’ London in Cyberspace,” Keith Daniel Harris suggests Dickens’ *Bleak House* as a model of urban networks built between bodies. Harris compares this Dickensian urban model to cyberspace’s city-like networks with Masamune Shirow’s manga *Ghost in the Shell* and its anime adaptation. While Harris suggests the reader see Dickens’ city as an ecological rather than anatomical system, the author often falls back into anatomical descriptions that might be more fitting for the section “The City and the Body.” Its focus on London and the virtual networks of *Ghost in the Shell*, however, give this essay the ability to float through the entire spectrum of this volume.

The third and final section, “Cities of Imagination,” looks at completely fictional constructs of the city. The section consists of five essays: Elana Gomel’s “‘Divided Against Itself’: Dual Urban Chronotopes,” Natalie Krikowa’s “Experiencing the Cityscape and rural Landscape as ‘Citizens’ of *The Hunger Games* Storyworld,” Glen Donnar’s “‘Final Men,’ Racialized Fears & the Control of Monstrous Cityscapes in Post-Apocalyptic Hollywood Films,” Torsten Caeners “Imagination Reloaded: Transfiguring Urban Space into Virtual Space in the TV Series *Caprica*,” and “The Dame Wore Skyscrapers: The Science-fictional City as a Detective Story.” Interestingly, three of the five essays in this section focus on film and television with Natalie Krikowa’s discussion of *The Hunger Games*, Glenn Donnar’s examination of three films including the recent *I am Legend*, and Torsten Caener’s investigation of “the space of

flows” and “the space of places” in the *Battlestar Galactica* spinoff, *Caprica*.

One of the most intriguing urban investigations of the entire book, Natalie Krikowa’s “Experiencing the Cityscape and Rural Landscapes as ‘Citizens’ of *The Hunger Games* Storyworld” posits that through the transmedia manifestations of *The Hunger Games*, participants become virtual ‘citizens’ of the dystopic world of Panem. This existing and potential relationship between the story world and social reality leads to civic engagement. Krikowa argues that an engagement with parallel worlds illuminates and engages the participants and galvanizes them to take clear social action, an observation with relevance in any discussion of speculative fiction.

Race, which had been remarkably absent in most of the essays up to this point, finally appears in Glenn Donnar’s “‘Final Men,’ Racialised Fears & the Control of Monstrous Cityscapes in Post-Apocalyptic Hollywood Films.” Donnar investigates the racialization of lone men at the end of the world in three different films and argues the reaffirmation of racialized and class system hierarchies, even when other humans and the usual social systems are absent. Donnar’s focus on Hollywood film as well as the importance of racial conversation within urban studies makes this essay integral to the volume.

The section also includes “The Dame Wore Skyscrapers: The Science-fictional City as Detective Story,” in which Shawn Edrei tackles the detective plot three ways, pivoting her discussion on the way sci-fi cities have dual roles as detective stories—the literal detective story involving the protagonist tasked with solving a mystery while the reader ontologically solves the mystery of the novum—through a novel, graphic novel, and video game.

Finally, Elana Gomel takes the route of a more traditional literary analysis in “Divided Against Itself: Dual Urban Chronotopes” as she examines the dichotomy built into the urban fantasy through an array of novels including Neil Gaiman’s *Neverwhere*, China Mieville’s *The City and the City*, Conrad Williams’ *London Revenant*, and Tim Lebbon’s *Echo City*. She characterizes the cities as monstrous through their liminal “lost spaces,” deconstructing the spatial dichotomies of the novels and examining its exposed relationships. Gomel reveals a sampling of narrative techniques such as literalisation, epistemological uncertainty, and projection that are used for creating these urban fantasies.

Cityscapes of the Future: Urban Spaces in Science Fiction contributes significant arguments about the intersection between the fields of urban studies and science fiction. Perhaps most important in the volume is the wide range of source material covered, from traditional literature to technological platforms like serie-MP3 and interactive websites. At times, some of the essays get a bit lost in this range of material and would be elevated by a clearer sense of the stakes involved in their claims, but overall the innovative approaches and unique points it raises make this book an important addition to both urban and science fiction studies. In mapping these cities of the future, this volume both constructs and explores the farthest reaches of the imagination.

Books in Review

Kieran Tranter

Living in Technical Legality: Science Fiction and Law as Technology
Edinburgh University Press, 2018, hb, 242 pp, \$110.00,
ISBN 9781474420891

Reviewed by **Thomas E. Simmons**

Kieran Tranter embarks on a law and humanities tour of science fiction works in this, his first authored book. He examines two cycles of print literature, Frank Herbert's *Dune* novels and Octavia Butler's *Xenogenesis* trilogy; unpacks two television series, the re-booted *Battlestar Galactica* and the venerable *Doctor Who*; and concludes with a film, *Mad Max 2: The Road Warrior*, complimented by a cultural analysis of Australia's car culture.

Dr. Tranter is an associate professor and a law and technology scholar at Griffith Law School in Queensland. His prior scholarship has touched on ethics, Pokémon, Jimi Hendrix, and Australian social security law. *Living in Technical Legality* grew out of Tranter's 2010 doctoral thesis at Griffith titled "Technical Legality: Law, Technology, and Science Fiction." His thesis, in turn, developed from panels in Helsinki and in Baltimore with William P. MacNeil, who ultimately supervised Tranter's thesis.

MacNeil's influence is plain. *Living in Technical Legality* builds upon MacNeil's scholarship, especially his book *Lex Populi: The Jurisprudence of Popular Culture* (2007), which focused a lively jurisprudential lens on texts including, but not limited to, science fiction. Tranter also acknowledges his debts to the cyborg scholarship of Donna Haraway including *Simians, Cyborgs, and Women: The Reinvention of Nature* (1991). Scattered and less prolonged readings of works

such as *Blade Runner* (by Peter J. Hutchings) and *Judge Dredd* (by Thomas Giddens) can also be noted as influences; however, to a large measure, Tranter's book occupies a vacant stage. It is the first to attempt, in any kind of sustained fashion, a law and humanities assessment of science fiction texts.

Tranter describes *Living in Technical Legality* as "a celebration of monsters" (p. ix). He roots his study in Mary Shelley's eponymous Frankenstein monster: a defiling anti-human creature with its own quasi-humanity; a contradiction and an otherness—a product of technology run amok. Dr. Frankenstein's creation is a sewn-up, mish-mashed threat; a "techno-thing" (p. 1). It is a man-made form that awakens, animates, and then makes demands of its creator. As Tranter emphasizes, the potential monstrousness of technology aligns with the potential monstrousness of the law. Both have a habit of behaving in ways that their inventors failed to anticipate and a habit of turning on their technicians. Both can be horrifying and anti-human even against the best of intentions. And occasionally, both are horrifying and anti-human by design.

One of the book's key achievements is its ability to sift non-legal science fiction texts for legal lessons. Science fiction often lacks any obvious legal themes. Instead, its contentions are largely technological. For the most part, science fiction concerns itself with the personal and social con-

sequences of technology. There are few lawyers in *Star Trek* and there are fewer codes. But for the Federation's malleable 'Prime Directive' and Asimov's 'Three Laws of Robotics' (which are more coding than legal code), science fiction works are nearly lawless. Courtroom dramas on Mars are rare. So, an examination of legal concerns per se is problematic.

Rather than select the occasional science fiction texts with legal content, Tranter undertakes something more ambitious. He situates technology *as law*—and law *as technology*: a “monstrous hybrid figure” (p. 2) very much akin to Dr. Frankenstein's stitched-together achievement. Law and technology share similar aims (both are tools; the means are oriented toward particular, sometimes transformative, human ends). Law and technology dispense sympathetic attributes (both employ highly technical constructions to achieve their ends). The book collapses law and technology into a singularity. The result, Tranter acknowledges, is a book resembling “something from a B-grade matinee—a rubber-suited mismatch of eyes, limbs, and antennae” (p. 1). But for the reader who savors bug-eyed monsters, the book offers a feast of insights.

With even greater ambition, Tranter resists the nihilism that this monster metaphor recommends. If individuals, as legal subjects, are mere nodes within an expanding network of technical legalities, then one would expect us to be consumed by technology and code. One would expect us to be swallowed by networks. One would expect us to be engulfed by the monstrous. Instead, although we may be partly consumed by a technological transformation, we can survive and even flourish in an embedded state, Tranter claims. He repeatedly emphasizes “the living and becoming of a specific form of technological Being-in-the-world” (p. 185).

Tranter also asserts that to reach this hoped-for enlightened future, caution is required and sensitivity to multiplicity is necessary. Simplistic metaphors and narratives can mislead. Technical legality is not merely a monster.

Tranter explains: “By framing thinking about law and technology according to a narrative of monstrous technology, vulnerable humanity, and saving law, a simplified static representation of the becoming of the West is sketched” (p. 184) while powerful strands of multiplicity and complexity go unnoticed. Autonomous and semi-autonomous automobiles, for example, are typically considered by legal scholars as one-dimensional threats requiring control. If piecemeal legislation affixing liability from driverless cars is premised on a simplistic worldview, it can miss the mark. Cars are not merely characters in a narrative, they are, Tranter claims, located within “basic functionalities of identity, myth and biopower” (p. 184). Cars are in fact “deeply located and expected by the politico-legal networks” (p. 184). They are cultural and expressive as well as technological. Legislation must take all of this into account.

This “becoming” transformation is expertly charted in Tranter's assessment of *Battlestar Galactica*. Cylons mimic the Frankenstein narrative; formed by humans as human-like others, the cylons reveal their monstrosity with a ruthless war of genocide against their creators. Initially, the television series simply tells a story of war, politics, and conflict. Then, its tone turns almost metaphysical. Initially, humans used machines to resist the machines. Later, “the representations of technology move from the human (beings) using machines (things) to a disorienting conflating of being and thing” (p. 97). Citing Martin Heidegger, Tranter presents technology in *Battlestar Galactica* as “a mode of ordering” (p. 97). For

Trantor, technology “occupies the very essence of humanity” (p. 97). This claim is articulated in *Battlestar Galactica* when the narrative reveals that the plot takes place 150,000 years in our past; that we in fact are the genetic offspring of humans and cylons. It turns out that we ourselves are hybrid monsters.

Tranter’s book is an important contribution of original law and humanities scholarship. It succeeds in utilizing popular science fiction texts to examine the law-technology interface. While his sanguine vision of a technological “Being-in-the-world” (p. 185) is never fully explained, Tranter has deftly aimed the compass of further science fiction and law studies towards a buoyant potential.

Call for Papers: *Journal of Science Fiction* Special Issue on Disability Studies

The *Journal of Science Fiction* has extended the deadline for contributions to an upcoming special issue on disability studies and science fiction, slated for publication in mid-2019. Pursuant to our initial call, the editorial team is accepting additional submissions for consideration.

Following the highly successful publication of our first special issue on Afrofuturism early last year (V2N2), the *Journal of Science Fiction* has decided to dedicate one issue per year to interdisciplinary research on a special topic, sub-genre, and/or social area of interest relevant to the JOSF team and our publication's readers. Disability studies, like Afrofuturism and other similarly diverse contextual and sociopolitical approaches to science fiction, highlights the significance of minority representation and inclusion in science and speculative fiction literature, film, comics, and popular culture. By increasing scholarly visibility into the critical discourses surrounding representations and interpretations of disability in SF media and scholarship, the *Journal of Science Fiction* aims to highlight the fruitful insights resulting from such intersectional analysis, both direct and indirect, which can further advance our understanding of the genre's capacity to teach us about ourselves and one another.

Accordingly, the Museum of Science Fiction's annual convention, Escape Velocity, will be hosting literary programming on the subject at next year's event (May 24th – May 26th, 2019) as well. <https://escapevelocity.events/>

We are seeking academic articles of 5,000 to 8,000 words, short reflection pieces of 500 to 1,000 words, and book reviews of 500-750 words by **Wednesday, May 1st**.

We welcome submissions focusing on any and all aspects of disability studies and science fiction, including but not limited to:

- Disability and biotechnology
- Posthumanism
- Social, medical, and other models of disability studies
- Mental illness
- Ability and super-ability
- Prosthesis and/or "the cure"
- Deafness and deaf culture
- Mobility impairments
- Disability in the future
- The critical intersections of race theory, gender, and/or sexuality with science fiction and disability
- Disabled characters and disabled visibility/representation
- Disability in SF spaces – cosplay, fandom, conferences, and scholarship
- Disability stereotypes and archetypes in SF
- Disability metaphors
- Non-Fiction
- Artwork
- Music
- Book Reviews
- Interviews

Special consideration will be given to essays addressing literature, theory, and contemporary texts and trends.

About the Contributors

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