## Yosr DRIDI

# De-orientalizing *Dune*: Storyworld-Building Between Frank Herbert's Novel and Denis Villeneuve's Film

**Abstract**: In *Dune* (1965), Frank Herbert builds an SF universe that, although futuristic, remains geopolitically reminiscent of our historical world, with ethnically and culturally identifiable characters. For all his storyworld-building efforts, Herbert's representation of the desert planet Arrakis and his Arab/Musliminspired characterization of the Fremen have often been accused of romantic Orientalism at best and white-saviorism at worst. Recently, Denis Villeneuve released his film adaptation of (part of) the novel, *Dune: Part One* (2021), which has rekindled the debate on SF orientalism and stimulated new discussions on the interpretation of those problematical representational and thematic issues for a cinema-savvy and race-conscious 21<sup>st</sup> century audience. This paper proposes to determine the extent to which Herbert's SF orientalism survived in Villeneuve's adaptation. Accordingly, I will compare the aesthetic literary and cinematic representations of space and characters and discern their thematic implications. Ultimately, Villeneuve's film will be assessed as an attempt at contemporizing and de-orientalizing its literary source through controversial politics of casting and politically-correct screenplay modifications, hence adapting the novel to the silver screen, the film to the contemporary spectator, and the cinematic product to the Hollywood film industry.

Keywords: science-fiction, orientalism, cinematic adaptation, storyworld-building.

#### Yosr DRIDI

University of Tunis yosrdridi08@gmail.com

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#### The SF Orientalism of Dune

Frank Herbert's *Dune* is a science fiction classic set in a retrofuturistic universe governed by feudal politics, a chivalric ethos, and a messianic myth, and navigable through interstellar travel made possible by an invaluable geriatric spice harvested in a desert planet that is coveted by warring noble houses. The parts of this storyworld that are generically conventionalized in the SF tradition or reminiscent of our historical world are defamiliarized through an unexpected elevation of human potential at the expense of technology when it comes to space travel, mathematical calculation, warfare, and medicine<sup>1</sup>, and a pastiche of (supposedly) otherworldly fictional languages borrowed or inspired from Indo-European, Semitic, and Afroasiatic languages. The end result is one of the most popular, sophisticatedly-built, and immersive fictional worlds in the SF genre. However imaginative this universe might seem (with its Padishah emperor, planetary barons and dukes, Bene Gesserit priestesses, human computer Mentats, Sardaukar armies, Chakobsa-speaking Fremen, geriatric *mélange*, spice harvesters, sand crawlers, ornithopters, and sandworms), it remains, like any work of fiction, redolent of the real world geopolitically and socio-culturally.

Dune has been extensively discussed as a novel that dramatizes and fictionalizes the geopolitical balance of powers at work in real world international relations. Accordingly, an analogy is drawn between Arrakis and the Middle East<sup>2</sup> and between spice and oil (Gaylard 25; McNelly 371; Plante-Jourdain 83; Zaki 182). Extending the metaphor of the war over a priceless natural resource, William A. Senior reads "Harkonnens as the Soviet bloc, Atreides as the American/Western, the covert manipulation of the Guild [as the tactics of] transportation and oil companies, and the changes in ruling factions [as] the post WWI history of the region" (318). In addition to acknowledging the nod at contemporary history, other critics chose to trace Herbert's story to classical and medieval history, notably Hoda M. Zaki who likens the rise of Paul to "the rise of Prophet Mohammad and the spread of Islam in the seventh century A.D" (182); Adam Roberts who observes that the story takes place "in a world that is familiar enough from cultural representations of medieval Arabia" (45); Brett M. Rogers who bases his reading of *Dune* as "a reception of Aeschylus' Orestia" on the Greek etymology of the Atreides' name<sup>3</sup> (559); and Lorenzo DiTomasso who, in addition to his comparison between the Bible, the Quran, and the "Religion of Dune" (317), draws an analogy between the way "Octavianus rose to prominence and power within the institutions of the old Roman Republic while laying the foundations of the Empire" and the manner in which "Paul Atreides come[s] to rule an empire by operating within the system" (313).

<sup>1</sup> Adam Roberts stresses the "almost medieval [...] technological non-sophistication" of the *Dune* storyworld (38). Kara Kennedy develops this idea in "The Softer Side of *Dune*: The Impact of the Social Sciences on World-Building" in which she shows that Herbert builds an SF fictional world which is more informed by soft sciences rather than hard sciences, paradoxically centered around human powers at the expense of technological progress (159-170).

<sup>2</sup> Willis E. McNelly observes the phonological similarity between Arrakis and Iraq (371).

<sup>3</sup> Rogers explains that "the name of Dune's protagonists, the Atreides clan, is Greek, meaning 'son of Atreus' and hinting at the Greek mythic figure of Agamemnon" (559).

That the Dune universe strikes its readers as a reworking of their historical world in an SF backdrop is hardly genre-nonconformant. In fact, the un/familiarity of the SF storyworld is deemed the essence of the genre by Darko Suvin who argues that "SF is a developed oxymoron, a realistic irreality, with humanized nonhumans, this-worldly Other Worlds" (viii). As a "literature of cognitive estrangement", SF rationally, plausibly, and verisimilarly defamiliarizes the familiar aspects of the historical world through the introduction of a novum or a set of nova, that "strange newness" which, despite its varying social, political, or scientific nature, is always a futuristic projection testifying to "the constant intermingling of imaginary and empirical possibilities" (Suvin 4–6). This educated estrangement of reality, be it based on hard or soft sciences, warrants the appraisal of SF not as a documentary replication of the historical world, but as "a symbolist genre, one where the novum acts as symbolic manifestation of something that connects it specifically with the world we live in" (Roberts 16). Herbert's defamiliarization of real-world geopolitics and history through various nova in his construction of the *Dune* storyworld is at the heart of SF poetics that presupposes "that there exists a spectrum of possible futures all with their germs in the present", which enables the creation of a "radically-contigent world" (Malmgren 4, 5).

Despite the generic canonicity of Herbert's thematic mimeticism or symbolic rendering of historical and contemporary geopolitics, several aspects of his storyworld remain problematically orientalist and white-saviorist, namely the linguistic, cultural, and socialgeographical nova without which Dune would lose much of its aesthetic and thematic appeal. Try as we might to sublimate the orientalist overtones permeating the novel, they prove to be inescapable. There is a general critical consensus on the orientalism of Herbert's work, viewed as an "epic [that] fits into the 'white savior' narrative, to the detriment of the invariably colored natives" (Aysha 10) and read as "an apology for Empire [...] rather than a sustained critique of imperial injustices" (Higgins 238). Gerald Gaylard compares Paul's characterization to T. E. Lawrence whose "uncritical metonymic substitution of himself for the indigenous oppressed ironically replicate[s] imperialism" and paradoxically "silence[s] the voices of those oppressed people" he seeks to free (27). Based on this critique, Herbert creates a science-fictional Lawrence of Arabia, a Western-friendly freedom fighter, and gives him the heroic agency that should have been given to the colonized and dispossessed Fremen. It follows that Arrakis is not decolonized but recolonized from within by a 'benevolent' white outsider who goes native, attains knowledge of its culture and geography, and gains power over its people and resources. Eventually, the liberation of Arrakis is not the first step towards the dissolution of the Padishah Empire, but a necessary stage in its replacement by the Atreides Imperium. In the words of David M. Higgins, "Paul's goal is to correct the errors and excesses of Empire rather than to dismantle the imperial system" (238).

*Dune's* SF orientalism transcends the imperialist and (post)colonial implications of its plot to the representation of the Arrakis storyworld and its inhabitants. The most characteristic and outlandish trait of the Fremen is their language. In *Dreamer of Dune*,

Frank Herbert's biography, his son Brian Herbert confirms that the Fremen are inspired from Arabs, that their religion is a version of Islam revolving around the "Mahdi or Mohammed on horseback" (145), and that their "language is based upon colloquial Arabic, in a form my father believed would be likely to survive for centuries in a desert environment" (194). This is not surprising given the popularization of the Arabic language and culture and the romanticization the Western-man-gone-native-leader in the late 1950s and early 1960s thanks to the wide readership of T. E. Lawrence's *The Seven Pillars of Wisdom* and spectatorship of *Lawrence of Arabia* (Csiscery-Ronay 271). Basing the construction of a fictional storyworld on a real-world culture and the characterization of a protagonist on a historical figure is perfectly acceptable in representational poetics; however, the science-fictionality of *Dune* problematizes such a practice. By presenting Arabs, Arabic, and Islam respectively as SF fictional aliens, language, and religion, the representational process *others* an entire culture and sustains the impression that the novel, like any textbook orientalist work, "*creates* the Orient, the Oriental, and his world" (Said 40), portraying an existing, real-world people and culture as key nova in SF world-building.

The effort expended in defamiliarizing elements of Western culture (the Bene Gesserit order, the Missionaria Protectiva, the Galach language) and even South/East Asian culture (Suk doctors, Zen Buddhism, the prana-bindu discipline) is not matched in the representation of Arrakis. Little is done to defamiliarize Arabic which is used *as is*, misleadingly introduced as an exotic and alien language, as a novum in an SF storyworld. This linguistic borrowing disguised as invention is noticed by Csiscery-Ronay who points at "the barely displaced Arabic terms of the Fremen language", "taken from the Arabic of our own history", and "familiar to students of Islam" (39), and poses the following thought-provoking questions:

is Arabic merely a stand-in for a wholly fictional language, used only to connote "desert culture"? How far is the obvious analogy between the Fremen and Bedouin Arabs supposed to extend? Should we view the Fremen as allegorical Muslims? Did Herbert double-code the terms, evoking imaginary orientalism for those not in the know, and terrestrial history for those who are? (40)

These queries are suggestively left unanswered, perhaps because answering them would confirm the Orientalism of *Dune*. Instead, Csiscery-Ronay contents himself with the conclusion that "at the very least, Herbert enjoyed the benefits of the ignorance and ethnocentrism of his American audience" (41).

At any rate, the Orientalism of the *Dune* storyworld seems to be born of fascination with Arab-Islamic culture and admiration for Arabs and Muslims, as is evident in the characterization of the formidable Fremen, their noble ethics, and their ingenious adaptation to their hostile environment. That is why most critics agree on the romantic Orientalism of Herbert's work, considered as "a more benign and romantic vision of Bedouin and Arab society" (Zaki 183) where "Arabs and Muslims are depicted in a positive light" (Aysha 10) rather than stereotyped as "camel-riding, terroristic, hook-nosed, venal lechers" (Said 108). Although they remain represented rather than self-representing, the Fremen are intended to stand for "free men", "an independent, rebellious tribe who will never permit themselves to be dominated by outsiders" (B. Herbert 180). Moreover, even though Herbert "uses the Arabic language for the Fremen uncritically" without any attempt at defamiliarization (Gaylard 25), he saves no effort to research and learn it, as he is reported to have "studied Oriental and Arabic languages so extensively that he could think and write in those languages" (B. Herbert 167). As for Arrakis itself, unmistakably constructed as an "Orientalist geography" (Balfe 76), it is nonetheless a testament to Herbert's heightened ecological consciousness, replicated in the Fremen's desire to "change it [Arrakis]... slowly but with certainty... to make it fit for human life" and their dream of "[0]pen water and tall green plants and people walking freely without stillsuits" (F. Herbert 311–312).

Hence, for all the criticism directed at it, *Dune* remains an example of *bona fide* Orientalist representation, "remarkable in its capacity to offer such condescending paternalism alongside a critique of imperial culture and politics" (Higgins 239) and artful in its attempts at cloaking appropriation in invention — but all in good faith. It is perhaps for these reasons that the novel never lost its wide popular appeal in critical, artistic, and lay circles. The seductive but divisive *Dune* storyworld continues to kindle academic debates, attract an ever-growing readership, and spark the interest of artists seeking to adapt the novel to different media. The resulting transmedial universe includes the negatively-received 1984 film (*Dune*) directed (and later disowned) by David Lynch, the 2000 miniseries (*Frank Herbert's Dune*) created by John Harrison for the Sci-Fi Channel, and the 1992 video game (*Dune II*) developed by Westwood Studios. The most recent cinematic adaptation attempt is Denis Villeneuve's *Dune: Part One* (2021) which has an all-star cast flesh out Herbert's the novel's themes from a contemporary perspective.

Much anticipated before its release and generally well-received after, the film has nevertheless stirred up controversy as soon as its trailer was out. Film critics noticed the "omission in its promotional material [of] any reference to the Islam-inspired framing of the novel" (Karjoo-Ravary, "Jihad, Not a Crusade") and the absence of MENA actors in the cast (Hadadi; Karjoo-Ravary, "White Savior Narrative"), which raised suspicions about the director's deliberate reluctance to represent Arab and Muslim culture on the silver screen as favorably as Herbert did on the page. Other reviewers saw some merit to this representational choice, claiming that '[t]he creative liberties Villeneuve did take removed some of the book's more problematic elements to make the story more accessible to a more modern, progressive audience" (Ulyanov). Villeneuve himself tried to justify his directorial decisions in an interview with *Nerds of Color* in which he maintains that his politics of casting are not racially-motivated but meant to be "as faithful as possible to Frank Herbert's description": "it feels authentic, it feels honest, and true to the book" (Manalo). He even goes as far as asserting that his adaptation of *Dune* is "not a celebration of a savior. It's a condemnation and criticism of that idea of a savior" (Manalo). In his defense of the de-Arabicization and de-Islamicization of *Dune*, the director is joined by his screenwriter, John Spaits, who, in an online academic event organized by the Arab and Middle East Journalist Association (AMEJA), explains that

the Arab world was much more exotic in the 1960s than it is today. Today the Arab world is with us, they're our fellow Americans, they're everywhere [...]. To Frank Herbert's worldview, just dipping into Islam and dipping into the Arab world was sufficiently exotic to be science fiction. And now, [...] you'd have to go farther afield to make science fiction. ("Are We Living in a Simulation"?)

Spaits' statement sounds a lot like an argument for the de-orientalization of *Dune*, a universalization of its characters, and a contemporization of its themes to make the film even more representationally challenging in terms of world-building and more relatable to a culturally-aware and race-conscious 21<sup>st</sup> century audience. In what follows, I will gauge the extent to which Villeneuve's *Dune* de-orientalizes Herbert's *Dune* by comparing and contrasting the world-building techniques in novel and film, and assessing the effect of political correctness on cinematic representational poetics and the film's aesthetic and thematic value.

## Storyworld-Building Techniques in Herbert's Dune

To assess world-building in any artistic medium, the components of the storyworld in question, as outlined by Marie-Laure Ryan, need to be examined in detail. These include space, characterization, and themes, called respectively by Ryan "setting", "existents" and "mental events", and "social rules and values" ("Story/Worlds/Media" 35–37). The scope of the storyworld is wider than the plot or the portrayal of the characters within that plot and "larger than what is directly shown in the text, larger than the narrative 'here' and 'now'", stretching beyond "the events that constitute the focus of the story" to encompass "back stories" and "after stories" which create a history of the storyworld and contribute to the three-dimensionality of characters and setting ("Texts, Worlds, Stories" 14)<sup>4</sup>. Storyworld-

<sup>4</sup> Marie-Laure Ryan schematizes "the scope of storyworld" as three concentric circles expanding from the "action and speech of characters", to the past and future of the storyworld, to the media-specific techniques of storyworld representation ("Texts, Worlds, Stories" 14).

building is therefore a complicated process which aims at creating a continuously-evolving "imagined totality" (13), an "imaginary world with coherent geographic, social, cultural, and other features" (von Stackelberg and McDowell 25).

Part of the popularity of *Dune* is owed to its riveting construction of an SF universe in vivid detail, which is why it is celebrated as "a world-building novel" (Kennedy, "Softer Side of *Dune*" 159). To ensure the reader's instant immersion and swift suspension of disbelief, Herbert relies heavily on the defamiliarizing power of language, or what Csicsery-Ronay calls "fictive neology" or "fictive *signa novi*, signs of the new" (predominantly linguistic in nature) which satisfy the readerly expectations of "words and sentences that refer to changed or alien worlds" (13). These "foreign neologisms" serve to "create an exotic effect" (41) most perceivable in the characters' speech and the names they (and their practices and surroundings) are given. Starting from the premise that "if something is named, it comes to life", "science fiction authors name their creations and create a whole new terminology for their world" (Ray 185), coining "fictive words" (Angenot 12) for their fictive worlds. The importance of naming in *Dune*'s world-building is discussed by Kara Kennedy who argues that "Herbert quickly lays the foundation for the setting of *Dune* through names and so facilitates the world-building process" ("Epic World-Building" 101).

In addition to establishing the science-fictionality of *Dune*, the barely-veiled etymological implications of naming expedite the exposition of the different components of the storyworld, notably space, characters, and themes. Spatially, the story is set mainly on Caladan, "named from Calydon, a town in ancient Greece where the Calydonian boar was hunted" (B. Herbert 179) and Arrakis, the Arabic name given to the Mu Draconis star system (Allen 211).<sup>5</sup> Characters are also named in a manner which could either draw them close to or alienate them from a Western audience. While names like Paul, Jessica, and Duncan are (somewhat reassuring) names common in modern-day America, the same cannot be said of Vladimir and Piter which sound alarmingly Russian. Other titles and names, like Padishah, Leto, and Gaius Helen Mohiam, are vaguely defamiliarized names with historical resonance for the audience. Still, the most unfamiliar names are the Arab-sounding names of the Fremen, meant to foreground their alterity and their resistance to assimilation or comprehension. This scrupulous attention allotted to naming characters and places plays a crucial role in the storyworld-building process in the novel, as "Herbert relies on existing names or variations of them" that immediately "make clear that this world is not Earth", "set the stage for a journey

<sup>5</sup> Given Frank Herbert's extensive research for *Dune* (as recorded by his son in his biography) and the choice of "Arrakis" as a name for his desert planet (literally the same Arabic name for the Draconia system), he must have read Allen's astronomy classic. Even if the perceived homonymity is an innocent, happy accident, "Arrakis" still sounds Arabic and, some argue, phonologically similar to Iraq (see note 2).

into an unfamiliar time and place" (Kennedy, "Epic World-Building" 101), and contribute to the moral profiling of characters.

Naming is not the only world-building ploy implemented by Herbert. It is coupled with expository dialog and informative conversations between the characters. Indeed, Dune reads more like a play than a novel, with extended dialogs covering entire sections, interspersed with the narrator's presentation of the conversing characters' thoughts. Any reader of the novel will most likely notice its theatrical structure, strikingly similar to classical tragedy where most action takes place off-stage and is only reported to the audience through the discussions of the dramatis personae. The theatricality of the novel is not simply indicative of a fascination with the drama genre, but also an immersive storyworld-building strategy that is meant to present the history of the Dune universe and at the same normalize it, guaranteeing the reader's smooth entry into this world through instructive, plot-propelling dialogs "rather than includ[ing] a lengthy history lesson" (Kennedy, "Softer Side of Dune" 161). It is in this engaging, conversational, and matter-of-fact manner that we learn about the politics, orders, cultures, and geography in Dune. Almost each chapter/section features a dialog which serves as an exposition of an aspect or novum of the storyworld. To cite a few examples of this world-building through dialog, sections 1 and 3 tell of the gom jabbar test, the Bene Gesserit order, and their Missionaria Protectiva; section 2 brings House Harkonnen to the scene and clarifies the role of the Mentats; section 6 is a dramatized crash course in Dune economy and the value of Arrakis and its spice; section 12 explains spice harvesting; and sections 4, 5, 7, 9 and 15 respectively introduce various nova, namely shield fighting, filmbooks, crysknives, hunter-seekers, and stillsuits.

The final world-building strategy is the framing of each chapter/section by an epigraph excerpted from one of Princess Irulan's works chronicling Paul's life, the history of the empire and its politics. These epigraphic prefaces not only determine the narrative situation and announce the speakers and the subject matter of each scene, but also contextualize the storyworld, offering hindsight, insight, and foresight into the past, present, and future of the Dune universe, allowing for the construction of a well-rounded and well-grounded storyworld, complete with Marie-Laure Ryan's aforementioned "before stories" and "after stories". It is as if "the whole book [were] draped with a mind that knows its end long before we do: the mind of the Princess Irulan [...]. It is between the knowledge of her mind and ours that the whole book moves" (Manlove 88). The reader's first encounter with the spatial and political nova of the narrative — namely the Bene Gesserit order, the titles of Muad'Dib and Padishah Emperor, and planet Arrakis — is through the extract from Irulan's "Manual of Muad'Dib" prologuing the first chapter. By setting the tone for each chapter and providing information about the history and becoming of the fictional world and its inhabitants, Princess Irulan acts like an author and a historian and her epigraphs serve a dual narrative and storyworld-building function.

It is thus through theatrical exposition, strategic naming choices, and epigraphic framing that Herbert constructs the Dune storyworld, mapping its setting, endowing its existents with substance, depth, and history, and specifying its moral and social values. However, this world-building endeavor would not have been as successful had Herbert not based it on linguistic nova. More than an aesthetic defamiliarizing device in SF storyworld creation, the "mélange of tongues" (Csiscery-Ronay 40) and especially the heavy reliance on borrowings from Arabic to bring Dune to life are also the thematic fabric of the narrative. In the words of Claudia Plante-Jourdain, "[c]'est du langage en tant que racine de l'identité individuelle et sociale, plus que simple moyen de communication, qu'il s'agira dans Dune [Dune is about language as the root of individual and social identity, rather than a simple means of communication]" (73, my translation). The pivotal importance of language in expounding the themes of *Dune* is stressed by the fictional paratext included in the book as an appendix entitled "Terminology of the Imperium" comprising foreign or exotic lexical items taken mainly from the Fremen language. Most entries are exact transliterations of real-world Arabic phrases followed by definitions which are still accurate to any real-world speaker or student of Arabic. Even though the reader can glean explanations of these terms from the narrative situations, narratorial comments, and the conversations between the characters, Herbert still felt the need to add a comprehensive glossary to further familiarize his audience with the languages of Dune. Like many SF or fantasy texts, the felicitous reception of the narrative is predicated upon a working knowledge of its fictional language, which happens to be a real-world language, Arabic, in Dune. Without Arabic, Arrakis would not make much geographical or cultural sense, which is why Herbert makes the language a central pillar in the world-building process, a language constitutive of the identity and ethos of the planet and its inhabitants, sparking the previously discussed debates about the orientalism of Dune.

#### Storyworld-Building Techniques in Villeneuve's Dune

The same cannot be said about Villeneuve's cinematic adaptation of Herbert's novel. The film seems to shift the focus from the intriguing and convoluted geopolitics of the novel, to broaden (if not obfuscate) the cultural and ethnic identity of the Fremen, and to introduce changes to the world-building techniques implemented in *Dune*. Of course, creative alterations are always expected and even encouraged in adaptations, especially after the invalidation of the notion of fidelity. A survey of adaptation criticism would show the theoretical attempts at discrediting the fidelity argument and classifying the relations between the literary work and its cinematic adaptation. Geoffrey Wagner might be the first to propose three types of adaptations according to a scale ranging from minimal to maximal departure from the novel, with "transposition" being the most faithful to the novel (222),

"commentary" featuring creative changes in line with the filmmaker's interpretation of the source (224), and "analogy" using the original text as an inspiration "for the sake of making another work of art" (226). These categories have been refined by Dudley Andrew as "borrowing, intersection, and fidelity of transformation" (98). Brian McFarlane reduces this tripartite typology to "transfer" and "adaptation proper" based on the medium-specific narratological affordances of literature and film (13). Similarly, Linda Hutcheon suggests a "doubled definition as a product (as extensive, particular transcoding) and as a process (as creative reinterpretation and palimpsestic intertextuality)" (22). Perhaps the most extensive and exhaustive taxonomy is put forth by Thomas Leitch who devotes an entire chapter of *Film Adaptation and Its Discontents* to list and illustrate ten different approaches to adaptation<sup>6</sup> ranging from adaptation as celebration of its literary source to adaptation as allusion to the literary source (93–126).

Despite their differences, all these typologies are motivated by a disavowal of "the moralistic and judgmental ideal of 'fidelity'" which "relies on essentialist arguments in relation to both media" (Stam 15). Any appraisal of a filmic adaptation should eschew fidelity, be it "to the letter" or "to the spirit" of the source text (Andrew 100; McFarlane 8–9), and focus instead, as objectively as possible, on the felicity of the filmmakers' creative choices to *cinematize* the literary work and produce "a repetition without replication" or "a derivation that is not derivative" — in short, an original reproduction (Hutcheon 7, 9). And even though Villeneuve has announced, as cited earlier, that his directorial and casting choices are meant to be "true to the book" both literally and in spirit, his film, like any adaptation, is the result of an interpretive and adjustive gestation of the novel informed by his aesthetic vision, by a contemporary cultural weltanschauung, and by the constraints of the Hollywood industry. Consequently, the ensuing analysis of the adaptation of Dune will not proceed from the fidelity argument which "ignores the actual processes of making films, the important differences in modes of production" (Stam 16), but will rationalize and assess the overall effect of the changes in the diegetic<sup>7</sup> techniques involved in the transformation of Herbert's Dune into Villeneuve's Dune.

It is noteworthy that *Dune: Part One* is not the first film where Villeneuve visually builds a "heterocosm, literally 'an other world' or cosmos" (Hutcheon 14). The director's worldbuilding filmography features *Incendies* (2010) set in a fictional (but uncannily realistic and

<sup>6</sup> Leitch lists "celebrations" (96–98), "adjustment" (98–103), "neoclassic imitation" (103–106), "revisions" (106–109), "colonization" (109–111), "(meta)commentary or deconstruction" (111–113), analogue (113–116), "parody and pastiche" (113–119), "secondary, tertiary, or quaternary imitations" (120–121), and "allusion" (121–123).

<sup>7</sup> I use "diegesis" as it is conceptualized for the cinematic medium by Christian Metz's *Film Language* as the fictional world of the film and all the aesthetic processes involved in its creation (98).

reminiscent of the Middle East) war-torn land; Arrival (2016) with its eerie, Lovecraftian atmosphere; and Blade Runner 2049 (2017) that takes place in a sinister cyberpunk future - all of which are critically-acclaimed, visually-stunning cinematographic tours de force. The latter two films in particular testify to Villeneuve's ease not only with SF storyworlds, but also with skillful adaptations of both literary and cinematic SF materials, since Arrival is an adaptation of Ted Chiang's "Story of Your Life" and Blade Runner 2049 is a sequel to Ridley Scott's Blade Runner (1982), itself an adaptation of Philip K. Dick's Do Androids Dream of Electric Sheep?. However, although Dune seems generically similar to Villeneuve's previous source materials, the novel has been deemed "unadaptable" (Ulyanov), especially with the failure of directors as illustrious as David Lynch and Alejandro Jodorowsky to make the SF classic into a film. Villeneuve was nevertheless not deterred from his undertaking: he devised and co-wrote the screenplay with John Spaits and Eric Roth, hired an awardwinning cinematographer, production designer, and music composer, handpicked an allstar cast to play the characters, and worked on the adaptation "for three years and a half, full time, 24 hours a day, seven days a week" (Bennet). The end result was an *auteur* blockbuster (however paradoxical that expression might sound), appreciated by lay and competent audiences alike, despite the misgivings about the suppressive representation of the Fremen and their storyworld from several critics — misgivings whose pertinence will be examined in the present study.

The film borrows Herbert's previously discussed literary storyworld-building techniques and combines them with medium-specific ploys to create the *Dune* universe on the big screen. Villeneuve does use cinematic versions of epigraphic framing, instructive dialog, and naming in his world-building endeavor. He couples these literary strategies with purely cinematic ones, notably production design in the representation of space, casting and actor choice and direction for the representation of the characters, and cinematography and music for the creation of the general tone and atmosphere of the film.

The film opens with a wide shot of the desert where sand dunes fill the screen, mélange blurs and overwhelms visibility, and the scorching heat of the low sun in the background can be felt. This landscape establishing shot is followed by a montage of similar sandy and mélange-befogged shots featuring sandcrawlers and Fremen whose faces are captured in close-ups; dimly-lit shots of pale, black-clad Harkonnens marching threateningly; a god's eye shot of them overlooking Arrakis; and a fighting sequence opposing Harkonnens and Fremen — all accompanied by voiceover narration. Instead of excerpts from Irulan's books in Irulan's voice, the film's framing epigraph is composed as a brief account in the voice of Chani, a Fremen young woman, historicizing the conflict of the Fremen with the oppressive occupation of the Harkonnen by imperial decree, providing an informative background of imperial politics to an audience that is not necessarily familiar with the novel, and announcing "who will our next oppressors be" (*Dune*). This shift in voice, from that of the daughter of the

emperor to that of a Fremen woman, gives the impression that the story is to be told from the perspective of the oppressed, marginalized, and exploited natives of Arrakis. Chani seems to usurp Irulan's authoritative voice and rewrite a history of her home planet from below rather than the history of the victor written by the Empire. This politically-charged departure from the novel empowering a colonized woman of color in the cinematic adaptation is certainly in line with the progressive, 'woke' culture that informs the entertainment industry in the 21st century. Giving voice, representation, and prestigious awards to racial, social, and sexual minorities has almost become the norm in the last two decades, with black, female, and LGBTQ actors replacing white heterosexual men in lead roles (the most striking example is perhaps Helen Mirren playing Prospera in Julie Taymor's 2010 cinematic adaptation of William Shakespeare's The Tempest). By leaving epigraphic framing to Chani instead of Irulan, Villeneuve perpetuates this minority-empowering practice not only in the historical world (by casting an actress with African origins), but also in the fictional world of the film (by giving voice, authority, and agency to the oppressed). This creative, doubtlessly commendable divergence from the novel promises a contemporized story told from the perspective of the Fremen, subversive of Irulan's grand récit, where Chani builds the Dune universe and represents her own planet and people, only to focalize for the next two-and-ahalf hours on the white male protagonist, Paul.

Once the diegetic situation and the historical background of the Dune storyworld are summarily established through Chani's voiceover in the opening sequence, the film draws on another one of Herbert's literary world-building techniques: dialog. Like the novel's sections which are mainly transcriptions of conversations between characters giving insight into Dune politics, the film even adds scenes that are not originally in the book (like the scene where Jessica is training Paul to use the Voice over breakfast). However, unlike the novel which focuses on other characters besides the young Atreides heir thanks to its omniscient narrator, the film focalizes almost exclusively on Paul. This is evident in the tight framing techniques, mainly close-ups and point-of-view shots, establishing closeness to and intimacy with the protagonist. The ultimate instance of identification with Paul is the direct monstration of his premonitory dreams as if they were a reality to the spectator, and even Chani's opening scene is followed by a shot of a slumbering Paul, which gives the impression that the film opens inside his oneiric unconscious rather than on Arrakis. Like he did to circumvent the problem of alien unrepresentability in Arrival, Villeneuve resorts to the implementation of a "focalisat[eur] filmique" [filmic focalizer], a central relatable character with whom the viewer can create an "alignement visuel et auditif" [a visual and auditive alignment] to make sense of the other (Jaunas, my translations). In Dune the film, the storyworld is built and experienced from the perspective of Paul: the spectator sees and dreams with the protagonist.

Although the introduction of a filmic focalizer with whom the audience can identify is an ingenious solution to the "irreprésentabilité fondamentale de l'intériorité d'autrui" [the fundamental unrepresentability of the inwardness of the other] (Jaunas, my translation), the choice of Paul to act as a focalizer aiding in the process of SF world-building is problematical, given his undeniable status as a white male protagonist and his ultimate becoming as a savior. However contemporized the adaptation seems, it fails to subvert the original orientalist representational poetics of Herbert's novel. The film perpetuates the orientalist tradition whereby "the Oriental is *contained* and *represented* by dominating frameworks" (Said 40), almost invented from the viewpoint of the white hero. As a result, Herbert's storyworld is successfully cinematized, but without any real critical evaluation of the implications of using Paul as the only focalizer. One of these implications is the reductive adaptation of naming for world-building purposes.

Of the glossary-sized Fremen lexicon of words borrowed from Arabic in Herbert's *Dune*, the film only uses a handful: Mahdi, Lisan al-Gaib, the eyes of the Ibad, Shai-hulud, and Sayyadina. Since a cinematic adaptation is limited by screen time, a certain economy of filmic narrative dictates the writing of a screenplay that is more condensed than the source text. Reductive choices need to be made, and in the case of *Dune*, only the names deemed most crucial to Paul's journey of becoming are kept. The rest is left to the expressive potential of the cinematographic image rather than long narrative explanatory passages. Because "three-hundred-page novels cannot be adapted to feature-length films without a great deal of systematic elision and omission", "compression" is one of the most basic approaches to adaptation (Leitch 99), and it is felicitously adopted in Villeneuve's film. For these medium-specific reasons, naming in the film cannot be criticized as reductive or omissive, even though some critics noted with dismay the elision and Christianization of the notion of "jihad" that is central to the book but problematical in the context of today's politics (Karjoo-Ravary, "Jihad, Not a Crusade"; Hadadi).

What can be criticized in the film's approach to naming is the systematic othering of the Fremen language which is presented without explanation, subtitles, or contextual clues to what its words might mean. The presentation of Arabic as an alien language becomes more striking when compared with the other languages spoken in the film. When Paul and Yueh speak Mandarin or when Jessica uses sign language, the audience can read the conversations in English subtitles. Even the Sardaukar language — an addition featuring exclusively in the filmic adaptation — is similarly translated. On the other hand, Fremen language, made up entirely of transliterations of Arabic, is neither translated nor explained, made to sound exotic and outlandish, and further defamiliarized by the inaccurate pronunciation of the actors playing its native speakers. The painstaking effort made by Herbert to translate and transliterate Arabic to his western readers is not matched in Villeneuve's adaptation. As a result, naming in *Dune: Part One* does contribute to the creation of an SF storyworld, but the othering and defamiliarization of Arabic in the film is even more orientalist than in the novel.

As any medium-conscious filmmaker, Villeneuve does not content himself with adopting and adapting the literary world-building techniques of the original text. He includes cinemaspecific diegetic strategies to substantiate the *Dune* universe on screen, chief among them are production design, the choice of actors, and music. A lot of work went into set-building and architectural design in the film, especially because the director, a stickler for cinematic authenticity, refuses to shoot with green screens. The visually-stunning desert scenes, shot on location in the Wadi Rum desert in Jordan, are so bright that the audience actually *feels* the heat and radiance of the unforgiving sun, as opposed to the coldness and darkness of the interiors. This cinematographic play on exposure to accentuate the spectators' awareness of the arid, desertic landscape is commented upon by the film's colorist, David Cole, in an interview with *Filmmakers Academy*:

We wanted many of the interiors of *Dune* to have very low light levels because we really wanted to cause the audience to experience the harshness and the burn of Arrakis when you go outside on that planet. Exposure was quite down on the interiors, so your eye Irises-out. When you go outside, you then get blasted by the sun, and you Iris-down. (Cole)

Likewise, the ducal Residency on Arrakis, almost always shot either from a high or relatively low angle to show its large scale and threatening presence, is designed to look like an architectural assertion of colonialism with Egyptian, Mesopotamian, and Mesoamerican pyramid-shaped constructions and sharp-cornered Brutalist buildings (Hart). In an interview conducted by Mark Wilson, production designer Patrice Vermette acknowledges the deliberate cultural appropriation characteristic of Arrakeen, explaining that "it reads like a bunch of sacred motifs tossed into a blender by a white person who didn't care about appropriation. And that's, actually, the point. The Atreides family, like generations before, had landed on the planet planning to mine it dry, paying little to no regard to local culture" (Wilson). This observation that informs the production design of the film stems from an insightful interpretation of Herbert's description of the seat of imperial power on Arrakis which looks as if "some architect had reached far back into history" to design "this giant anachronism of a room" and a city (F. Herbert 51). The spirit of Dune's "cultural omnivorousness" (Rogers 559) and anti-colonial sentiment which can be discerned behind layers of Romantic Orientalism in the source text is creatively preserved in the film's worldbuilding process thanks to pertinent production design choices.

To add to the spatial vividness of *Dune*, film music plays a major role in establishing an otherworldly atmosphere. The original score, composed by Hans Zimmer, is meant to transport the audience to "a culture that was extraterrestrial" with high vocals, eerie trills, and orchestral synthesizers producing a medley of sounds with Armenian, Tibetan, and Indian resonances (Burlingame). The unearthly quality of *Dune*'s soundtrack is the product of a euphonous marriage of oriental voices, instruments, and musical styles, where no one single influence is discernible or dominant. The cultural specificity that is evaded throughout the film is equally eschewed in the composition of its music and especially in the vocalizationsqua-lyrics sung in a non-language. The music, therefore, creates an atmosphere that is vaguely alien, indistinctly oriental, but certainly 'other'.

The same general feeling of cultural ambiguity is reinforced by the choice of actors. While Villeneuve's *Dune* is lauded for its representation of people of color as it casts actors with Latino, African, Spanish, and Asian origins in important roles, the film certainly has a Middle-Eastern representation problem due to the complete absence of MENA actors. In addition to the elision of most of the novel's Arab/Islam-inspired languages and themes, the film portrays the Fremen as a "generic 'people of color'", thereby "den[ying] the cultures that are so integral to its source material" (Hadadi). Since no white actor was cast to represent the Fremen, Villeneuve cannot even plead a case of colorblind progressive casting to deracialize his choice. Like the ideology of Jihad which "links all kinds of strings of the novel to one climax" (Jacob 73) was omitted from the adaptation, so was any identification of the Fremen as Middle-Eastern. Instead, the Fremen are carefully represented as an ethnically and culturally non-specific non-white other.

Ultimately, Villeneuve's and Herbert's storyworlds differ not in terms of spatial setting, but in the characters defining that setting: while they are not 'oriental' in the film, they remain fetishistically orientalized. Frank Jacob notices the orientalization of Chani in Villeneuve's film in the uncanny (and according to him, deliberate) resemblance between the Fremen woman's appearance and attire and Steve McCurry's famous Afghan Girl photograph which made the cover of *National Geographic* in June 1985 (17). The stereotyped oriental appearance of the characters, when coupled with the desertic setting, the few decontextualized Arabic words peppering the film, and the oriental feel of the music, creates an impression of empty, surface orientalism. Apart from this formalistic orientalism enveloping the *Dune* storyworld, every meaningful theme relating to Arab or Muslim culture explored in Herbert's novel is flattened at best or absent at worst in Villeneuve's film. Unlike Herbert's orientalism which seems to stem from a genuine desire to know the other and comprehend the minutest details of their culture, Villeneuve's orientalism is blatantly disinterested in such knowledge, cloaking the characters, setting, and themes — the film's entire storyworld — in a blanket of cultural ambiguity.

In seeking to contemporize the source text, Villeneuve opts for an eclectic adaptation that would gratify his artistic vision and at the same time satisfy the progressive, but still Arabwary, culture of Hollywood film industry. This is one of the most common approaches to adaptation as "reaccentuation", which stipulates that "since adaptations engage the discursive energies of their time, they become a barometer of the ideological trends circulating during the moment of production. Each re-creation of a novel for the cinema unmasks facets not only of the novel and its period and culture of origin, but also of the time and culture of adaptation" (Stam 45). Accordingly, the film 'reaccentuates' a feminist discourse in the gender replacement of planet ecologist Liet Kynes, originally a male character in the novel, by actress Sharon Duncan-Brewster. The discourse of minority representation is similarly reaccentuated in the racial diversity and inclusivity of the cast, and in the omission of the vilification of homosexuality evident in the book's homophobic characterization of the villain, Baron Vladimir Harkonnen. What is de-accentuated is any meaningful identification of the 'good' Fremen as anything other than an elusive non-white people. This ideological recalibration of some aspects of the original literary universe takes shape in an aesthetically successful, cinematographically felicitous representation of the spatial SF storyworld. At any rate, the end might be to de-orientalize *Dune*, but the means remain orientalist.

## Conclusion

In *Dune*, Frank Herbert creates an SF storyworld that is so unique, convoluted, and stimulating that the process of world-building nearly takes up the whole novel. Inspired by western and eastern religious texts, fascinated by Arab-Muslim culture, concerned about the vestiges of imperial geopolitics of his day, and alarmed by the ecological ravages of industrialism, he wove all of these influences and issues in an SF epic with an engaging story, complex characters, and thought-provoking themes. His generally favorable representation of the Arab/Muslim-inspired Fremen and their desert planet Arrakis and his characterization of Paul as a would-be white savior generated a critical consensus on the romantic Orientalism of his novel. For all its representational shortcomings, *Dune* remains a staple of world-building in the science fiction genre, not solely in literature, but also in the cinematic medium.

Denis Villeneuve's adaptation of this virtually unadaptable text seems to rekindle the debate on the orientalism of the *Dune* storyworld. His *Dune: Part One* borrows from the world-building techniques — notably naming, dialog, and epigraphic framing —, introduces medium-specific and interpretive alterations, and films the whole with a cinematographic prowess accompanied by an otherworldly yet immersive music. This adaptative endeavor is, however, not without problematical sides. White-saviorism seems to be reinforced rather than subverted with the film's use of Paul as the central focalizer with little to no insight into the other (especially Fremen) characters. Additionally, the screenplay is emptied of any references to the MENA culture which informs the novel, and the remaining Arab terms and phrases are defamiliarized and presented as an alien incomprehensible language. Finally, the Fremen are represented as a universal non-white other, with nothing but their Bedouin costumes, the few Arab words they speak, and the desert they inhabit to identify them culturally. All of these representational choices produce a film whose surface (costumes, sets, locations) is vaguely orientalized, but whose core is purposely de-orientalized, which hardly

counts as a critical de-orientalization. Consequently, Villeneuve's *Dune* strikes its audience as a film with an orientalist window dressing hiding a culturally non-specific interior.

On the whole, Dune: Part One aesthetically builds a visually and diegetically compelling SF storyworld, and for that and only that, it may be considered a successful adaptation, free from the strictures of fidelity criticism and the arbitrary hierarchy between literature and film, and heedful of the representational affordances of both media. However, that attractive and immersive storyworld lacks thematic substance. Instead of a serious attempt at representing Herbert's Other, there is a pervasive evasion of cultural or ethnic specificity framed by an impressionistically-orientalist décor. The Fremen are reduced to an indiscriminate 'nonwhite other' whose otherness is solely color-coded and whose language or culture is not as important as their non-whiteness. Perhaps the reason for this deliberate universalization of the Fremen and their world emanates from a creative interpretation of the notion of "race consciousness" in Herbert's *Dune* which does not correspond to our contemporary understanding of race, but rather to a to a collective sense of humanity, genetic memory of sorts which unites all humans and determines their agency. Whether or not this reading holds (especially with the dearth of diegetic evidence in the film), the main evaluative criterion, at least until Dune: Part Two's release, remains "race consciousness that he [Paul and Villeneuve alike] could not escape" (F. Herbert 316).

## Works Cited

- Allen, Richard Hinckley. Star Names and Their Meanings. G. E. Stechert, 1899.
- Andrew, James Dudley. Concepts in Film Theory. Oxford University Press, 1984.
- Angenot, Marc. "The Absent Paradigm: An Introduction to the Semiotics of Science Fiction". Science Fiction Studies, no. 17, vol. 6, part I, March 1979, pp. 9–19.
- "Are We Living in a Simulation". *Youtube*, uploaded by Arab and Middle Eastern Journalists Association, 15 February 2022, www.youtube.com/watch?v=SrP7AfFmSzM.
- Aysha, Emad El-Din. "Science Fiction by, about, and *for* Arabs: Case Studies in De-Orientalising the Western Imagination." *ReOrient*, vol. 6, no. 1, Pluto Journals, 2020, pp. 4–19, https://www.jstor.org/ stable/10.13169/reorient.6.1.0004.
- Balfe, Myles. "Incredible Geographies? Orientalism and Genre Fantasy." *Social & Cultural Geography*, vol. 5, no. 1, 2004, pp. 75–90., https://doi.org/10.1080/1464936042000181326.
- Bennett, Tara. "Denis Villeneuve Opens up about 'Dune' Trilogy Plans as Film Makes Its Venice Premiere." SYFY Official Site, SYFY, 3 Sept. 2021, https://www.syfy.com/syfy-wire/denisvilleneuve-dune-trilogy-plan-interview.
- Burlingame, Jon. "Hans Zimmer on 'Dune' Score's Electronic Textures and Made-up Choral Language ... and His Head Start on Part 2." *Variety*, Variety, 21 Oct. 2021, https://variety. com/2021/artisans/awards/hans-zimmer-dune-score-1235094486/.
- Csicsery-Ronay Jr., Istvan. The Seven Beauties of Science Fiction. Wesleyan University Press, 2008.

- Cole, David. "The Color of Dune with David Cole." *Filmmakers Academy*, 5 Jan. 2022, https://www.filmmakersacademy.com/the-color-of-dune-with-david-cole/.
- DiTommaso, Lorenzo. "History and Historical Effect in Frank Herbert's *Dune*". Science Fiction Studies, vol. 19, no. 3, Nov 1992.
- Dune: Part One. Directed by Denis Villeneuve, Legendary Pictures, 2021.
- Gaylard, Gerald. "Postcolonial Science Fiction: The Desert Planet." *Science Fiction, Imperialism and the Third World: Essays on Postcolonial Literature and Film*, edited by Ericka Hoagland and Reema Sarwal, McFarland & Co., Jefferson, North Carolina, 2010, pp. 21–36.
- Hadadi, Roxana. "Dune Has a Desert Problem." *Vulture*, 29 Oct. 2021, https://www.vulture. com/2021/10/dune-has-a-desert-problem.html.
- Hart, Hugh. "Dune' Design Is a Vision Come True, Even If a Desolate One." Los Angeles Times, Los Angeles Times, 11 Jan. 2022, https://www.latimes.com/entertainment-arts/awards/ story/2022-01-11/dune-design-is-a-vision-come-true-even-if-a-desolate-one.
- Herbert, Brian. Dreamer of Dune. TOR, 2003.
- Herbert, Frank. Dune. Hodder and Stoughton, 2015.
- Higgins, David M. "Psychic Decolonization in 1960s Science Fiction." Science Fiction Studies, vol. 40, no. 2, SF-TH Inc, 2013, pp. 228–45, https://doi.org/10.5621/sciefictstud.40.2.0228.
- Hutcheon, Linda, and Siobhan O'Flynn. A Theory of Adaptation. Routledge, 2013.
- Jaunas, Vincent. "Le monde vu par un autre : L'identification et ses limites dans Premier Contact (Arrival, Denis Villeneuve, 2016)" *Miranda*, no. 22, 11 Mar. 2021, https://doi.org/10.4000/ miranda.37194. Accessed 4 Nov. 2021.
- Karjoo-Ravary, Ali. "Is Dune a White Savior Narrative?" *Slate Magazine*, Slate, 26 Oct. 2021, https://slate.com/culture/2021/10/dune-2021-movie-vs-book-white-savior-islam.html.
- ———. "In Dune, Paul Atreides Led a Jihad, Not a Crusade." Arts and Culture | Al Jazeera, Al Jazeera, 11 Oct. 2020, https://www.aljazeera.com/opinions/2020/10/11/paul-atreides-led-a-jihad-not-a-crusade-heres-why-that-matters.
- Kennedy, Kara. "Epic World-Building: Names and Cultures in Dune." Names, vol. 64, no. 2, 2 June 2016, pp. 99–108., https://doi.org/10.1080/00277738.2016.1159450.
- ———. "The Softer Side of Dune: The Impact of the Social Sciences on World-Building." Exploring Imaginary Worlds Essays on Media, Structure, and Subcreation, edited by Mark J. P. Wolf, Routledge, New York, 2021, pp. 159–174.
- Leitch, Thomas M. Film Adaptation and Its Discontents: From Gone with the Wind to the Passion of the Christ. Johns Hopkins University Press, 2007.
- Malmgren, Carl D. Worlds Apart: Narratology of Science Fiction. Indiana University Press, 1991.
- Manalo, Mike. "Is 'Dune' Truly a White-Savior Story?" *The Nerds of Color*, The Nerds of Color, 3 Sept. 2021, https://thenerdsofcolor.org/2021/09/03/is-dune-truly-a-white-savior-story/?amp.
- Manlove, Colin N. Science Fiction: Ten Explorations. Macmillan, 1986.
- McFarlane, Brian. Novel to Film: An Introduction to the Theory of Adaptation. Clarendon Press, 1996.
- McNelly, Willis E. "Frank Herbert." *Science Fiction Writers*, edited by Richard Bleiler, Scribners, 1999, pp. 367–77.

- Metz, Christian. *Film Language: a Semiotics of the Cinema*. Translated by Michael Taylor. The University of Chicago Press, 1991.
- Plante-Jourdain, Claude. "Le Vocabulaire étranger dans la réflexion politique de Dune". Cercles, no. 14, 2005, pp. 73–89.
- Ray, Alice. "The Translation of Dune: An Encounter of Languages". Contacts and Contrasts in Educational Contexts and Translation, edited by Barbara Lewandowska-Tomaszczyk, Springer, 2019, pp. 183–194
- Roberts, Adam. Science Fiction. Routledge, 2000.
- Rogers, Brett M. "'Now Harkonnen Shall Kill Harkonnen': Aeschylus, Dynastic Violence, and Twofold Tragedies in Frank Herbert's Dune." *Brill's Companion to the Reception of Aeschylus*, edited by Rebecca Futo Kennedy, Brill, Leiden, 2018, pp. 553–581.
- Ryan, Marie-Laure. "Story/Worlds/Media: Tuning the Instruments of a Media- Conscious Narratology". Storyworlds across Media: Toward a Media-Conscious Narratology, edited by Marie-Laure Ryan and Thon Jan-Noël, University of Nebraska Press, Lincoln, Nebraska, 2014, pp. 25–49.
- ———. "Texts, Worlds, Stories: Narrative Worlds as Cognitive and Ontological Concept." Narrative Theory, Literature, and New Media: Narrative Minds and Virtual Worlds, edited by Mari Hatavara et al., Routledge, New York, NY, 2016, pp. 11–28.
- Said, Edward W. Orientalism. Penguin Books, 2003.
- Senior, William A. "Frank Herbert's Prescience: 'Dune' and the Modern World." *Journal of the Fantastic in the Arts*, vol. 17, no. 4 (68), [Brian Attebery, as Editor, for the International Association for the Fantastic in the Arts, International Association for the Fantastic in the Arts], 2007, pp. 317–20, http://www.jstor.org/stable/44809216.
- Stam, Robert. "Introduction: The Theory and Practice of Adaptation." Literature and Film: A Guide to the Theory and Practice of Film Adaptation, edited by Alessandra Raengo and Robert Stam, Blackwell, Malden, Massachusetts, 2005, pp. 1–52.
- Suvin, Darko. Metamorphoses of Science Fiction: On the Poetics and History of a Literary Genre, Yale University Press (1979).
- Ulyanov, Katya. "Review: With 'Dune', Villeneuve Adapts the 'Unadaptable'." *The Williams Record*, 10 Nov. 2021, https://williamsrecord.com/458394/arts/review-with-dune-villeneuve-adapts-the-unadaptable/.
- Von Stackelberg, Peter and Alex McDowell. "What in the World? Storyworlds, Science Fiction, and Future Studies". *Journal of Futures Studies*, vol. 20, no. 2, December 2015, pp. 25–46.
- Wagner, Geoffrey. The Novel and the Cinema. Fairleigh Dickinson University Press, 1975.
- Wilson, Mark. "How Did Patrice Vermette Design 'Dune'? He Started with Two Water Bottles." Fast Company, Fast Company, 23 Mar. 2022, https://www.fastcompany.com/90733790/howdid-patrice-vermette-design-dune-he-started-with-two-water-bottles.
- Zaki, Hoda M. "Orientalism in Science Fiction." Food for Our Grandmothers: Writings by Arab-American and Arab-Canadian Feminists, edited by Joanna Kadi, South End Press, Cambridge, Massachusetts, 1994, pp. 181–187.