

# Indigenous architectural futures: Potentials for post-apocalyptic spatial speculation

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**ABSTRACT:** The representation and discussion of the future in architecture has remained almost exclusively within the realm of western science fiction (sf) where technological determinism, either utopian or dystopian, is the primary force for social and cultural change and adaptation. However, there are significant instances from outside of western industrialist sf traditions that offer immense opportunities for reconsidering the idea of 'the future' in architecture. This essay posits the potential value of indigenous sf to enrich current architectural discourse, where 'indigenous' does not necessitate a strictly backwards orientation towards 'primitive' technologies and social organizations, which is often the case in architectural discussions of indigenous building and design, but is instead situated within the projected temporal territories often reserved for western-dominated visionaries. Such sf offers examples of post-futurist (the idea of linear time being underemphasized in indigenous cultures) and post-apocalyptic (the apocalypse for many North American indigenous groups being the arrival of Europeans) visions that offer indispensable diversity to our current capitalist trajectory. The essay focuses on three novels: D. L. Birchfield's *Field of Honor*, Zainab Amadahy's *The Moons of Palmares*, and Leslie Marmon Silko's *Almanac of the Dead*.

**KEYWORDS:** Science fiction, indigenous futures, architectural speculation

## INTRODUCTION

James Cameron's film *Avatar* (2009) remains the highest grossing film in history (*Box Office Mojo*, 2013), gaining global attention for its explicitly colonial narrative about the invasion of the planet Pandora to mine the rare mineral unobtainium at the expense and destruction of the local Na'vi people and their sacred 'Hometree'. A moral dilemma ensues in the protagonist and his accomplices as they turn to assist the Na'vi in an epic battle between eco-spiritual and industrial ideologies. While the film obtained critical acclaim from leaders such as Bolivia's Evo Morales who linked the Na'vi cause to indigenous groups confronting greedy corporations throughout Latin America (Adamson 2012, 144), as Annalee Newitz writes, it also sparked wide criticism for its portrayal of the "classic scenario you've seen in non-scifi epics from *Dances With Wolves* to *The Last Samurai*, where a white guy manages to get himself accepted into a closed society of people of color and eventually become its most awesome member" (Newitz 2009).

While offering an entertaining film with a potent message, *Avatar* thus remains largely entrenched in sf conventions with regards to its technological and social projections through a spectacularly western heroic and futuristic lens. Newitz's critique of *Avatar* presents a significant question with regards to not only such futuristic narratives, but also the largely western hegemony over spatial visions of the future. How would the future appear when viewed through an indigenous lens given that we already live in a post-apocalyptic reality for many indigenous groups, and within these visions what role would or could architecture play? As architectural discourse continues to diversify its relationship with the idea of 'the future', how could such speculation contribute to how we more inclusively think about design? For instance, could indigenous futures provide a unique imaginary framework that could inform how we teach and practice architecture? This essay attempts to address these questions by considering what such an 'alternative' vision of the future offers architectural thinking, using three key texts by North American aboriginal authors.

## 1.0 AN "OTHER" FUTURE?

It is worthwhile to first posit the added value of an 'alternative' vision of the future. The idea of 'alternative' is already imbued with conceptual limitations given that it sets out to establish an

opposition that is neither static nor productive in architectural discourse. As Awan, Schneider and Till (2011) argue, the definition of 'architecture' is evasive enough to begin with, making the definition of an 'alternative' equally difficult to identify. Furthermore, the 'alternative' is necessarily reactive to the norm and thus "in thrall to it," and thus "marks itself through casting off the attributes of the centre, and in this there is a danger that the baby will be thrown out with the bathwater" (Awan, Schneider, and Till 2011, 26). Consistent with this position, an indigenous-framed future is not intended to polemically replace or supersede any other approach to 'the future' in architecture. Visions of 'other' places, societies, forms, and ideas have provided inspiration for architects and designers for centuries and 'the future' has persistently offered fruitful grounds for visual and theoretical speculation (Boullée, Sant'Elia, Le Corbusier, the Expressionists, Archigram, Lebbeus Woods, Neil Spiller, etc.), along with textual contributions such as Charles Jencks' *Architecture 2000* (1971) and various writings by Reyner Banham, whose career was largely defined by "his quest to find a dynamic and persuasive *alternative* to...conventional thinking" (Whiteley 1990, 188-9). Banham enthusiastically wrote about the materiality of *Barbarella*, Isaac Asimov's "The Naked Sun", *Star Wars*, and H. G. Wells' *The Sleeper Awakes*, all of which he considered relevant to progressive architectural thinking (Banham 1981).

Yet despite a persistent and productive trend for architects and designers to envision the future through technological and aesthetic projection (May 2013, Foster and Partners 2013, Rosen 2013), architecture's disciplinary relationship with 'the future' has diversified over the past half century, finding comparable inspiration from sf authors such as J. G. Ballard (Clear 2009, Ultav 2007), William Gibson (Spiller 2005), and Philip K. Dick (Jackowski and deOstos 2008, Fortin 2011, Fortin 2012). Here the interest in sf shifts from the overtly 'futuristic' to issues more consistent with what Vivian Sobchack calls a 'postfuturist' movement in sf film. A more complex temporal collage is offered here with the emphasis, consistent with Jameson's "waning of effect" (Jameson 1984), placed on the "lack of novelty" and "awesome and wondrous *familiarity*" in the future, rather than relying so narrowly on alienation (Sobchack 1987, 252). Similarly, recent architectural texts have explicitly scrutinized the trite use of techno-utopias and grand visions in architectural imagery. Nic Clear argues that our post-recession global condition has revealed a crack in the utopian armor of assumed universal prosperity and subsequent building booms. For Clear, "[the] architectural world has proved completely incapable of suggesting what the future may hold," due to its perpetual infatuation with grand-scaled corporate development (Clear 2009, 6). Instead, he argues, there is emerging "a gritty 'new realism'...in architectural discourse" (Clear 2009, 6) that finds inspiration in authors like Ballard, Dick, Orwell, Huxley and Wells, because in their work, "...the future is depicted in a variety of different hues, not all of them as rosy as the futures promised by the architectural profession" (Clear 2009, 9).

If it is the rose-colored optimism in architectural representations of the future linked to unfettered capitalist expansion that has proven impotent to current socioeconomic issues and concerns, it is possible that indigenous sf could provide a valuable contribution to such speculative thinking by intimately addressing spatial topics arising from on-going challenges of social inclusion, identity, and place. As Judith Legatt writes,

The growing sub-genre of post-colonial speculative fiction does more than just describe the ills of the present; it also suggests methods of dealing with current crises. In its dystopian form, it illustrates the dangers of continuing on a current course. In its utopian form, it suggests how solutions might be reached (Legatt 2010, 127).

There have been multiple representations of indigenous cultures in sf, *Star Trek: Voyager's* first officer Chakotay being a recent example, and yet there are often significant issues involving stereotyping within a broader western narrative. In this way, by directly facing the troubled history of colonization through various cultural outlets such as literature and film, as Brian Attebery writes,

...cultural interactions depicted within sf are laden with longing and guilt. The indigenous Other becomes part of the textual unconscious – always present but silenced and often transmuted into symbolic form (Attebery 2005, 387).

Regarding the near invisibility of Australian Aborigine contributions to sf, he further argues,

...[as] the genre within which concepts of the future are formulated and negotiated, sf can imply, by omitting a particular group from its representations, that the days of that group are numbered (Attebery 2005, 385).

And yet in countries such as Canada the aboriginal population increased by 20.1% between 2006 and 2011, compared to 5.2% for non-Aboriginal populations (Statistics Canada 2013) - hardly an indicator of a receding presence.

## 2.0. ABORIGINALITY AND THE FUTURE

In Toronto during the early 2000s, Ojibway playwright Drew Hayden Taylor offered a stage performance of *alterNatives*, a play about a dinner party hosted by a contemporary couple, one of whom is an indigenous sf author. As Dillon writes, this character, named Angel, “views sf as a freeing arena and wonders why it should be only reserved for the likes of Arthur C. Clarke, William Gibson, and Ursula K. Le Guin” (Dillon 2012, 1). Angel proposes sf as an alternative to what Dillon describes as “the Great Aboriginal Novel” which typically performs as a ‘window’ into indigenous communities, and instead foregrounds the future as “an equally valid way to renew, recover, and extend First Nations peoples’ voices and traditions” (Dillon 2012, 1-2). Emphasis on the future is not a radical concept in indigenous cultures if one considers rituals such as the Blackfoot Shaking Tent ceremony to “predict whereabouts of game, success of hunters, recovery of the sick, location of lost people or objects, etc.” (Schaeffer 1969, 16). Yet this is not to imply that ‘the future’ exists here as a simple linear time-map as is often the case in western sf. For many indigenous peoples time is more Bergsonian; as Sherman Alexie writes, “That’s what Indian time is. The past, the future, all of it is wrapped up in the now” (Dillon 2012, 34).

In architectural discussions of contemporary ‘indigenous architecture,’ already a grossly simplified idea in its implied homogeneity, a common issue is negotiating between respecting and celebrating traditional knowledge and meaning, while embracing contemporary building practices and technologies. Yet, as Krinsky writes, this is not easily reconciled.

Forms that once had meaning seem to have been reduced to ornament. Ralk Weber calls this ‘socio-romantic drapery’, because the forms thus discovered originated in socio-cultural conditions and patterns we no longer share (Krinsky 1996, 231).

A frequent challenge for contemporary indigenous architects has thus been to bridge the gap, or as a young Navajo architect notes, a need to return to “pick up threads dropped in pre-contact times and leap from there to the present” (Krinsky 1996, 52). The question offered here, then, is whether a similar leap has been, or can be, made from the future to the present, or vice versa. How do indigenous authors such as Angel use the future as an opportunity to envision ‘other’ built environments and societies? How does the struggle between tradition and technology play out in the relatively unbounded arena of sf imagination?

While a comprehensive exploration is well beyond the scope of this essay, a brief discussion of the following three novels will offer insight into these questions: D. L. Birchfield’s *Field of Honor*, Zainab Amadahy’s *The Moons of Palmares*, and Leslie Marmon Silko’s *Almanac of the Dead*.

### 2.1. *Field of Honor*

D. L. Birchfield’s *Field of Honor* is a satirical novel about an underground Choctaw society thriving unnoticed in the deep caverns of the Ouachita Mountains in Oklahoma. The protagonist is a former US Marine Corps, Patrick Pushmataha McDaniel, who believes he is a deserter due to his confusion over his disappearance in Vietnam, and is thus hiding in the

remote American landscape. His father was similarly a Choctaw Marine named Breakneck McDaniel, described as the “craziest goddamn Indian that ever lived,” as well as the “the best damn sergeant [ever]” (Birchfield 2004, 56). The underground Choctaw society of Ishtaboli, described as technologically advanced, retreated to avoid the cultural genocide being implemented by “the cult of the dead Jew” on the surface (Birchfield 2012, 127). In the story, the treatment of the ‘American Indian’ by the United States government and colonists – reciprocally reduced to ‘Germans’ by the Choctaws – is further described as follows:

Their single most distinguishing characteristic is the ruthlessness with which they suppress religious freedom on this continent. It is why we must hide until the threat is over, or they will do to us something similar to what they have done to English orthography (Birchfield 2004, 128).

In their secluded underground territory, competitive games and the study of gaming theory are considered sacred and essential to daily activity, including the prominence of chess, but Ishtaboli, a traditionally brutal stickball game akin to lacrosse provides the foundation for Choctaw social structure and cultural cohesion.

The majority of the spaces inside Okla Hannali, the Ishtaboli community where McDaniel unintentionally finds himself, including classrooms, cafeterias, healthcare facilities, theatres, and vast corn greenhouses, are not provided much, if any, descriptive attention. The cavern itself is noted as always having been there, consistent with Choctaw origin stories (Birchfield 2004, 108). However, a central component of the narrative is McDaniel’s accessing of multiple private and public spaces through an immense mechanical system that consequently confuses and disorients him (Birchfield 2004, 171). While the system is not detailed further than its labyrinth-like network, Birchfield sets up a relevant juxtaposition when describing a meeting room where the elders are reciting past territorial battles with the Fast-Dancing People.

The room was like a large theatre in the round, with log walls and a roof covered with brush. It appeared to have a hard-packed dirt floor. The interior looked like the inside of a large, nearly round, brush arbor, with four circular rows of wooden benches rising like stairsteps along the outer wall of the structure. Colonel McGhee stood in a large open expanse in the center of the floor, directly beneath a large circular hole in the roof. The grille plate was at a level that let McDaniel see both above and below the roof of the brush arbor. Suspended well above the circular hole in the roof, out of sight from the audience, was a huge heat lamp, shining directly down on Colonel McGhee. The scene suggested a speaker being required to stand in the full heat of the Mississippi summer sun, while his audience remained seated in the shade (Birchfield 2004, 172).

It is not insignificant that the only room warranting Birchfield’s close attention is an implied sacred space where stories of past conflicts, horrific events, and treaty manipulations are retold. The grille plate in this passage negotiates McDaniel’s perspective, himself half ‘German’ and half Choctaw, to observe Weber’s ‘socio-romantic drapery’ of traditional materials and spatial arrangements inside what is essentially a large industrial system designed by kidnapped ‘German’ slaves. As Birchfield writes,

...whenever the Choctaws might need to know how to do something new, it’s not much trouble for them to go up there and kidnap whatever particular kind of German scientist or engineer they might need, no matter how specialized that may be (Birchfield 2004, 108).

Thus, despite the Choctaw desire to dissociate themselves from the inferior religious and economic systems of the ‘Germans’, where people “hoard things,” compete for everything, and where everyone is overly protective of their possessions (Birchfield 2004, 109), they remain utterly dependent on them for the technology that structures their built environment. A key contribution to Birchfield’s satire could thus be read as the collective lack of self-initiative in developing Choctaw technology, instead cultivating a techno-paternalistic relationship with the

loathed 'Germans'. In *Field of Honor*, rather than developing unique spatial solutions to match the distinctive plot, the environments suggest an intentionally disjunctive relationship between the Choctaws and technological innovation. The indigenous brush arbor is instead staged as a mere simulation of a past era when Choctaws did not require a German-engineered heat lamp in order to feel the sun's warmth.

## 2.2. The Moons of Palmares

While *Field of Honor* distances its story by locating it underground, Zainab Amadahy's novel is set in the far future on the planet of Palmares. Established by the Terra (Earth) based Consortium as a mining colony, the planet has established its sovereignty, however, as in many contemporary indigenous treaty agreements, Terra still holds rights to the minerals on the moons. The extensive lunar mining has made Palmares geologically unstable and a series of activist groups, such as the militant Kituwa, continue to protest against the presence of the Consortium while petitioning for increased local control over resources. The new chief of security on Palmares is Major Leith Eaglefeather, a North American indigenous descendent whose assignment is to defend the Consortium mining operations from the Kituwa 'terrorists' in a jarring reversal of roles from that of his ancestors on Earth. Eaglefeather becomes increasingly aware of the corruption and injustices within the Consortium, eventually assisting the Kituwa in their resistance and renegotiations over mineral rights.

In contrast to Birchfield, Amadahy, of Cherokee and African-American heritage, offers extensive spatial descriptions throughout the novel that weave together traditional building techniques with more 'futuristic' elements. Early in the novel Eaglefeather engages in a brief discussion with an undercover Kituwa leader and love interest, Zaira, about the value of tradition. When he suggests that old "isn't always useful...is it?" she responds,

No, not at all. But old isn't always obsolete either. We need to take what we can use. In our case, it's whatever lets people be connected – related – to each other. Something besides consumerism and technology (Amadahy 1997, 12).

Zaira admits that this is how she characterizes Terran society and it is later confirmed that Palmarans believe they "are politically and culturally far in advance of the Terrans," despite their technological shortfalls (Amadahy 1997, 75). Throughout the novel the architecture is used to highlight the emphasis on the instrumentality of technology, not its inherent value. For example, on Basilea, the planet of Eaglefeather's former post, people live in a dome made of four-centimeter thick "transluminum" where they are "totally dependent on the technology that controls the domes," and are therefore peaceful under the political assertions of the Consortium (Amadahy 1997, 39). However, on Palmares, the original laborers developed the requisite technology to transform the atmosphere, thus rendering the dome unnecessary and leaving it in a state of ruin. The imposed technology of the Consortium is here rejected and retrofitted, allowing the inhabitants to be more connected with their natural surroundings while fortifying their independence.

The buildings on Palmares are largely built of local materials, using masonry and adobe construction. There is also a wedding ceremony canopy made of thatch, and the leader of Kituwa's house is described as modest with a tiled floor and clay walls painted "tranquil green." There is also a computer console suggesting an acceptance of technology depending on its intended use. Another example is the local entertainment complex where, set in a series of alcoves indicating the mass and solidity of the walls, there are holographic displays of historical events. Yet while the buildings throughout the novel suggest a balance between digital gadgets and traditional building techniques, there is a relevant design critique by one of Eaglefeather's Kituwa captors who is also an architect. When Eaglefeather asks him why there are so many hexagonal designs on the planet he responds with the following:

Well, contrast it with the way many Terran cities were designed, especially following the invention of the automobile: a tic-tac-toe arrangement of filing cabinets, with cars given priority access to every building. Here we put our roads around the plazas. That way, groundskips don't intrude on our daily activities. Each plaza is [a] small self-contained community. Buildings face each other.

You can't leave your building without facing a neighbouring one, no matter which way you turn. And everyone has equal access to recreation, usually a park at the centre (Amadahy 1997, 97).

Here, in a strikingly similar design to renowned aboriginal architect Douglas Cardinal's master plan for the Kamloops Indian Band (Douglas Cardinal Architect Inc. 2011), the debate is centered not on technology and/or tradition, but instead on establishing community and equality through design. For Amadahy and Cardinal, the use of repeated geometry and equal access to recreational and natural space emerges as a central critique of our more solipsistic 'Terran' culture.

### 2.3. *Almanac of the Dead*

Similarly, Leslie Marmon Silko's *Almanac of the Dead* focuses on the inherent socioeconomic complexities involved with envisioning a future from an indigenous perspective. *Almanac* presents a near future where indigenous North Americans begin a unified and massive scaled revolution against existing capitalist forces in order to reclaim their territories. The narrative weaves together multiple characters and plots into a powerful critical commentary on a series of existing temporal relationships in indigenous cultures: between the living and the dead through the pre-contact Aztec and Mayan libraries, between the past and the present through an indictment of five-hundred years of brutal colonialism and genocide, and between the present and the future through a Marxist critique of capitalism and its inevitable demise, thus fulfilling the prophecies of the ancient authors.

Unlike the previous examples, however, Silko's critique of architecture is blatant and sharp. One of her key characters is Alegría Martínez-Soto, a young associate in one of "the most prestigious architectural firms in Mexico City" (Silko 1991, 266). Alegría is assigned the task of designing a mansion for the successful businessman Menardo, and subsequently engages in an affair with him. When Menardo's wife dies in a fall down the signature marble staircase designed by Alegría, she marries Menardo solely for his capacity to provide for her. While the design of the house strives to capture the poetic quality of light filtered through the jungle, Alegría's work also reveals her disturbingly detached approach to design. When her architectural classmates ask what meaning her building designs have for them, she responds with a rant about "taking power," followed by Silko's insights regarding her thought process.

She loved making the drawings – floor plans of vast rooms, interiors flooded with light from high windows and domes, the pearly-yellow light framed on white walls. She wanted the gardens to penetrate the rooms. The only criticism of the drawings for her final project had been that they contained no human figures...She does not tell [the professor] the human figures she draws spoil everything (Silko 1991, 320).

It is later revealed that Alegría was intentionally relocated throughout her childhood because her father desired that she be "a citizen of the world, not just Mexico," yet this cultivates her added indifference to places (Silko 1991, 487). Her resulting apathy to human and geographic sensibilities leads her classmates to label her as "selfish" and her pseudo-Marxist lover Bartolomeo to challenge her vocational contributions given that Mexico does not need more architects since "the ruling class was so small and all the others were too poor to build designer houses" (Silko 1991, 295). As Silko writes, "Bartolomeo argued Alegría's services rightfully belonged to the poor who need shelter, and not to the sweat hogs of capitalism" (Silko 1991, 289). Instead, she finds inspiration only in "what [is] fresh and exciting" (Silko 1991, 498).

In *Almanac* the stereotype of the architectural profession as an elitist service for the wealthy provides Silko with an ideal critique of capitalism and its culturally destructive path. And while the novel was written prior to people like Sam Mockbee, Cameron Sinclair, Sergio Palleroni, and Teddy Cruz leading a wave of advocates for socially conscious design, there persists a challenge for architects to better serve the underprivileged, including indigenous communities worldwide.

## CONCLUSION

There are a few essential observations to consider from this very brief overview of indigenous futures and architectural speculation. First, it should be noted that all three novels were authored and interpreted here in English by authors of mixed ancestry. This highlights not only the complexity of contemporary aboriginal identities and voices, but also the essential issue of cultural translation and the critical void of indigenous language. Indigenous sf, conceived of and written in the native language would present rich interpretative opportunities and further research is clearly needed in this area.

Second, similar to much western technophobic sf (Ryan and Kellner 1990), there is evidenced here an uncomfortable link between unabated technological projection and indigenous cultures. Birchfield's satire of the Choctaw dependence on the 'Germans' to structure their built environment highlights a paternalistic legacy of colonial buildings being designed 'for' indigenous groups, not 'by' them, resulting from centuries of academic and professional discrimination with very few indigenous people being trained as architects (Krinsky 1996, 52). Barring a few exceptions such as Cardinal, they have most often been tasked with cultural revival, not innovation, and yet there cannot be a simple correlation drawn between the idea of indigenous innovation through speculation, and unbound techno-enthusiasm either. For example, despite offering a comprehensive and valuable contribution to the documentation of indigenous architecture in North America, Nabokov and Easton reductively state, "Indians had no choice but to build with raw materials from the land around them" (Nabokov 1989, 16). A timeless relationship with the land that does not endorse mineral extraction for economic gain can surely be interpreted as a definitive choice, and one that would seemingly be central to indigenous futures. As Cherokee descendent Celu Amberstone writes in her sf short story "Refugees",

'We know about the high technologies,' I told her quietly. 'We use what you would call computers, air cars, and the technical things too. But...we decided that a simple lifestyle would be best for all of us for a time. There is no shame in living close to the land in a simple way, daughter...Our benefactors teach us that technology must never interfere with our Communion with the Mother, lest we forget the Covenant, grow too greedy, and destroy our new home' (Amberstone 2004, 165).

Thus, even if it is acknowledged that technology has no cultural boundaries and could be seamlessly woven into indigenous visions of the future as Amadahy implies in *The Moons of Palmares*, there remains the far greater problem of who has access to, expertise in, and power over, its implementation. If, as Clear implies, the time is ripe for recognizing indigenous contributions to both sf and architectural speculation, then one cannot ignore the role that current power structures play in suppressing marginalized voices. As Raibmon writes, "Diverse societies are threatened not because they cannot adapt to modernity (they can) but because the political and economic configurations of global capitalism deny people control over the pace and degree of change in their lives" (Raibmon 2002, 192). It is for these reasons that all three novels have, at their core, strong socio-political undertones and why Silko's near future Marxist revolution may be a first step in resuscitating what Jameson describes as a 'Utopian impulse' for indigenous communities, the absence of which he argues "saps our political options and tends to leave us all in the helpless position of passive accomplices and impotent handwringers" (Jameson 2005, 56). The final point to be made here is thus one of sovereignty and hope – sovereignty over one's future can only occur with a hope for political, technological, and socioeconomic empowerment. The incalculable potential of sf is to imagine, as Silko does, a vastly improved collective future, but to avoid the mishaps of *Avatar* it is essential to recognize that an indigenous future can, and will, only originate from the imaginations of indigenous people. If architectural speculation is to provide an essential contribution to this, it seems critical that indigenous harbingers will need to invent or master the emerging technologies before deciding for themselves whether to embrace them or discard them like the ruined dome on Palmares.

## REFERENCES

- Adamson, J. 2012. "Indigenous literatures, multinaturalism, and *Avatar*: The emergence of indigenous cosmopolitics." *American Literary History* 24:143-162.
- Amadahy, Z. 1997. *The moons of Palmares*. Toronto: Sister Vision.
- Amberstone, C. 2004 "Refugees." In *So long been dreaming: Postcolonial science fiction and fantasy*, edited by Hopkinson, N. and Uppinder, M., 161-182. Vancouver: Arsenal.
- Attebery, B. 2005. "Aboriginality in science-fiction." *Science Fiction Studies* 32:3, 385-404.
- Awan, N., Schneider, T., and Till, J. 2011. *Spatial agency: Other ways of doing architecture*. London: Routledge.
- Banham, R. 1981. *Design by choice*. London: Academy.
- Birchfield, D. 2004. *Field of honor: A novel*. Norman: University of Oklahoma Press.
- Box Office Mojo. 2013. "All time box office." Accessed September 12. <http://www.boxofficemojo.com/alltime/world/>
- Clear, N. 2009. "Introduction: A Near Future." *Architectural Design* 79, 5: 6-10.
- Douglas Cardinal Architect Inc. 2011. "Kamloops Indian Band Master Plan." Accessed October 2, 2013. [http://www.djcarchitect.com/02proj\\_mpkam.html](http://www.djcarchitect.com/02proj_mpkam.html)
- Dillon, G. 2012. *Walking the clouds: An anthology of indigenous science fiction*. Tucson: The University of Arizona Press.
- Fortin, D. 2011. *Architecture and science-fiction film: Philip K. Dick and the spectacle of home*. Surrey: Ashgate.
- Fortin, D. 2012. "Philip K. Dick's disturbanism: Towards psychospatial readings of science fiction." In *Writing the modern city: Literature, architecture, modernity*, edited by Edwards, S. and Charley, J., 127-45. New York: Routledge
- Foster and Partners. 2013. "Press release 31.01.13." Accessed February 20, 2013. <http://www.fosterandpartners.com/news/foster+-partners-works-with-european-space-agency-to-3d-print-structures-on-the-moon/>.
- Jackowski, N. and de Ostos, R. 2008. "Ambiguous Places." *Pamphlet Architecture* 29. New York: Princeton Architectural Press
- Jameson, F. 1984. "The Cultural Logic of Late Capitalism," *New Left Review*: 1/146. Accessed: July 2, 2013. <http://www.newleftreview.org/?view=726>].
- Jameson, F. 2005. *Archaeologies of the future: The desire called utopia and other science fictions*. London: Verso.
- Jencks, C. 1971. *Architecture 2000; Predictions and Methods*. New York: Praeger.
- Krinsky, C. 1996. *Contemporary Native American architecture: Cultural regeneration and creativity*. New York: Oxford University Press.
- Legatt, J. 2010. "Critiquing economic and environmental colonization: Globalization and science fiction in *The Moons of Palmares*." In *Science fiction, imperialism and the third world: Essays on postcolonial literature and film*, edited by Sawyer, A., Hoagland, E., and Sarwal, R., 127-140. Jefferson, NC: McFarland and Company.
- May, K., ed., 2013. "Sci-fi," *CLOG*: 7.
- Nabokov, P. and Easton, R. 1989. *Native American architecture*. New York: Oxford.
- Newitz, A. 2009. "When will white people stop making movies like 'Avatar'?" *io9: We come from the Future*, December 18. Accessed August 21, 2013. <http://io9.com/5422666/when-will-white-people-stop-making-movies-like-avatar>.
- Raibmon, P. 2002. "Back to the future: Modern pioneers, vanishing cultures and nostalgic pasts." *BC Studies* 135: 187-93.
- Rosen, R. 2013. "Why today's inventors need to read more science fiction." *The Atlantic*. Accessed September 10, 2013. <http://www.theatlantic.com/technology/archive/2013/09/why-todays-inventors-need-to-readmore-science-fiction/279793/>
- Ryan, C. 1986. "Why aboriginal sf?" *Aboriginal sf: Tales of the human kind* 1:3-4.
- Ryan, M. and Kellner, D. 1990. "Technophobia," in *Alien Zone: Cultural Theory and Contemporary Science Fiction Cinema*, edited by Annette Kuhn, 58-59. London: Verso.
- Schaeffer, C. 1969. *Blackfoot shaking tent*. Calgary: Glenbow Alberta Institute.
- Silko, L. 1991. *Almanac of the Dead: A novel*. New York: Penguin.
- Sobchack, V. 1987. *Screening Space: The American Science Fiction Film*. New York: Ungar.
- Spiller, N. 2005. "Slamhounds and Other Space-Time Creatures." *OASE* 66: 64-73.



Statistics Canada. 2013. "Aboriginal peoples in Canada: First Nations people, Métis, and Inuit." Last modified July 11. <http://www12.statcan.gc.ca/nhs-enm/2011/as-sa/99-011-x/99-011-x2011001-eng.cfm>

Ultav, Z. 2007. "Reading Science-Fiction Novels as an Architectural Research." *The 'radical' designist: Journal of design culture*: 1. Accessed: June 28, 2008. [http://www.iade.pt/designist/issues/001\\_04.html](http://www.iade.pt/designist/issues/001_04.html).

Whitelely, N. 1990. "Banham and 'otherness': Reyner Banham (1922-1988) and his quest for an *architecture autre*." *Architectural History* 33:188-221.