

# Seeds of a Future World: Science and Technology in the Digital Art of Elizabeth LaPensée<sup>1</sup>

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**ABSTRACT:** This article examines how the decolonial practice of digital artist Elizabeth LaPensée deals with colonial representations of science and technology. In colonial images, the ideological prejudice that Indigenous people belong in the past and are incapable of a future of higher sciences manifests itself in a pervasive visual language. The colonial imagery that pitches developed versus primitive technology is frequently reproduced in contemporary representations. Creating art that takes into account her Anishinaabe and Métis worldviews, LaPensée challenges these racist notions and dismantles the colonial structures at their roots. This article reads LaPensée's digital works alongside the artist's own comments as depictions of Indigenous scientific literacies that do not rely on colonial symbolism. By telling stories about sustainable futures with a recurrent imagery, LaPensée offers viewers a representational, anti-colonial language with which these futures can be imagined.

**KEYWORDS:** science; technology; *biskaabiiyang*; Indigenous futurisms; science fiction; visual art; Native American art; sovereignty; decolonization; future

## Decolonizing Representation: Science and Technology in Contemporary North American Indigenous-Centered Art

In colonial discourses, science and technology have served as identifiers of civilization. Sorting visual objects into a binary structure of colonial superior culture and colonized primitive cultures, colonial photographs often illustrate the colonial dualistic world: bows and arrows, spears and fishing rods, tipis and fireplaces of the North American Indigenous populations, for instance, can be marveled at as pre-modern technology that seems incompatible with the colonizer's machines such as cameras and watches or farming equipment and guns. Of the different definitions for *science* in Merriam-Webster's dictionary, the first one directly opposes it to "ignorance or misunderstanding," a value judgement often based on surface appearances in colonial discourse. In fact, the colonial view of Indigenous knowledges as inferior appears to be, among other things, an unwillingness to acknowledge cultural difference. Science is defined as "systematized knowledge" (Merriam-Webster, "Science"); a failure on the Euro-Western viewer's part to

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<sup>1</sup> I am greatly indebted to Elizabeth LaPensée for answering my questions and agreeing to let me use her images in this article. Her artwork and further information can be accessed at [elizabethlapensee.com](http://elizabethlapensee.com).

distinguish the complex and internalized systems of Indigenous knowledges hence results in the prejudice that the latter are incapable of science.

Similarly, technology as “the practical application of knowledge in a particular area” (Merriam-Webster, “technology”), i.e. the visible manifestation of an abstract category, is judged as more or less evolved based on resemblances and differences in comparison to the colonizer’s technologies. In colonial postcards and ethnographic photographs representations of indigeneity are frequently reduced to a simple visual language that opposes spears to firearms, clothes to nakedness and savagery to civilization. These pervasive colonial codes demarcate science’s absence(s) or presence(s) and are an inherent part of the symbolism used in contemporary media culture, from advertising to science fiction movies. The Land O’Lakes butter logo that shows a kneeling woman with braids and buckskin in front of a sunset relies as much on this colonial code as does James Cameron’s *Avatar* (2009) in which the lives of the Indigenous Na’vi (who live in giant magic tree) are threatened by the colonizer’s superior technology.

Contemporary North American Indigenous visual artists have been grappling with the challenges of representing their knowledges without reproducing colonial codes of high or primitive technology. This article considers the representation of science and technology in the digital collages of graphic artist, game designer and writer Elizabeth LaPensée. LaPensée is based in the Great Lakes area of Michigan and the artwork she creates from her Anishinaabe,<sup>2</sup> Métis,<sup>3</sup> Irish, and U.S. American cultural backgrounds reflects the complex interrelationship of science, colonialism, culture and Indigenous identity in a global world in which colonial mechanisms have endured in many areas of life. Considering themes, symbolism, material and production processes of digital collages like *Spacecanoe* (2015), *Our Grandmothers Carry Water From the Other World* (2016) and *Waaban-anang* (2014), I argue that LaPensée, rather than resorting to conventional representations of science and technology, creates a representational language to mediate Indigenous knowledges. Her images, then, tell a piece of the larger, multi-faceted story of Indigenous-centered futures.

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<sup>2</sup> The Anishinaabe are a North American Indigenous people inhabiting land in the Northeast of the U.S. and Southeast of Canada.

<sup>3</sup> The Métis are a Canadian ethnic group descending from Indigenous people and European settlers.

Before shifting the gaze to the study of individual pieces, a general introduction to the representation of science and technology in colonialist discourses will shed light on the complex matter of decolonization in contemporary North American Indigenous art.

### Colonial Representations of Indigenous Technology: The Colonial Gaze

“Technology is a cultural artifact,” Uppinder Mehan says in his seminal article on Indian SF (science fiction and speculative fiction): “[I]t is value laden as well as instrumental” (54). Mehan alludes to the fact that Western technology serves an ideological on top of a practical or ceremonial purpose. In post-colonized societies—i.e. societies that have been systematically subjected and are aware of the effects of this subjugation—the Western paradigms for technology and science were introduced by the colonizers, and subsequently assumed a dominant role in colonial discourses that portrayed the colonized as inferior. Mehan, for instance, points out that “in the Orientalist scheme the West is rational and scientific; the East is mythical and fantastic” (54) which is why “the colonial and neo-colonial context of technology in India makes for a profoundly ambivalent attitude toward culture and science” (56). Similar to the Western world’s colonial invention of the Orient as pre-technological, Indigenous cultures are assumed to be based on structures incongruent with, or not yet sophisticated enough for the emergence of science and technology. In this context, the ceremonial technology of Katsina dolls that enable Hopi people to get into contact with the Katsina spirits during sacred dances (“Hopi”) might, for instance, be paired with the ‘mythical’—a colonial category denoting the absence of logic and scientific explanation—rather than the scientific. This binary between colonizing and colonized cultures as two diametrically opposed and incompatible entities, reduces a multitude of different cultures, languages and beliefs to a homogeneous and easily comprehensible mass of signifiers. The latter, in turn, become integrated into a visual language in colonial representations: tools, dress and living environments are, it is generally assumed, structures without substance, suggesting that no complex knowledge system is needed to understand their cultural significance; everything there is to know about the Indigenous culture seems available on the surface.

The semblance of primitive structures, of course, is rather a matter of artificial construction in colonial photography, than mere mimetic representation. John Rieder's analysis of Alonzo Gartley's 1903 photograph of a "*Native Hawaiian Fisherman with Throw Net*" (8) demonstrates that the colonial dualistic world is the result of a carefully created photographic perspective that would make the culture in the photograph appear as a primitive, pre-modern complement to the viewer's own: "The man's clothing and the technology he is using draw attention to his cultural difference from an implicitly Western viewer who occupies the position of the photographic apparatus itself." (7) The man in Gartley's photo is wearing a loincloth and his nakedness not only seems appropriate (he is in the water to the knees), but it also exemplifies the raw, untouched nature that surrounds him. He is sitting on a rock on the shore, clutching his fishing net and, at a first glance, the photograph appears spontaneous and its purpose solely documentary. However, as Rieder points out, "[t]hese assumptions might be disrupted . . . once one notices the photo's elaborately posed artificiality" (9). Rieder notes that the fisherman's position on the rocks would be inconvenient for fishing and his posture reveals that he is aware of being photographed (9). Despite the sun and shadows in the photograph the latter captures the fisherman's face and expression and positions his legs and arms in a way that would make clear what he is doing. If considered closely, then, the fisherman seems to be re-enacting fishing, rather than actually doing it. Rieder concludes that the composition serves an ideological purpose within the colonial discourses of its time:

The clothing and fishing tools identify the man as primitive, and so, according to the dominant model of ethnographic and anthropological discourse at the time, establish his presence before the photo's audience as a kind of anachronism that allows them to view their own cultural past. The fisherman becomes an object of knowledge, an exhibit for the contemplative gaze of the photographer and audience to work upon. (Rieder 7)

The photograph creates an atmosphere of nostalgia for bygone times, for a glorious and simpler past exemplified by the fisherman's heroic pose and his gaze directed straight ahead, at something behind the camera—just beyond the viewer's reach. The fisherman becomes a veritable icon for an imagined pre-modernity through the representation of technology. The throw net and loincloth appear primitive due to their participation in a particular visual perspective that Rieder terms "the colonial gaze" (7): the term refers to the colonial viewer's objectifying look that the photograph invites. The colonial gaze on the one

hand analyzes, on the other hand marvels at the Indigenous represented in the photograph. In the colonial order of images, the viewer thus becomes the agent while the fisherman is muted. As Rieder notes, the fisherman is only gazed *at*, incapable of looking back (9) while his presence, nakedness and posture in the photograph, seem to signal vulnerability and permit the viewer's intrusive gaze.

The colonial image exhibits what Stephen Greenblatt termed "the productive power of representation" (6). Greenblatt notes that "representations are not only products but producers" (6), meaning that they do not only capture a specific power dynamic but, by showcasing it in the image and engaging the spectators, they become the very sources of this dynamic. The colonial gaze is thus not merely the expression of a colonial world order but an act of its perpetuation. Gartley's photograph is not only a product of the U.S. American colonial occupation of Hawai'i and an exhibit of the turn-of-the-century scientific gaze. Through its distribution of signifiers to a primitive world as opposed to a technologically evolved one (present in the invisible presence of the camera and photographer) it creates a specific ideological understanding of Indigenous science and technology that the photograph still disseminates when looked at today.

As Rieder's analysis demonstrates, the photograph's artificial arrangement can be detected, and its colonial gaze deconstructed if one is familiar with the logistics of fishing. The photograph itself, however, seems to say that there is nothing to know about the fisherman's practice that is not comprehensible at first glance. Via the colonial gaze, he becomes both comprehensible at first sight and removed from the photograph's implied viewer (Rieder 9). As Rieder puts it, the photograph "masquerade[s] as a form of knowledge about the Hawaiian fisherman" (9) while simultaneously avoiding any semblance of complexity that would distract the viewer's gaze and spoil the effect of the photographic arrangement. For the colonial gaze to operate without hindrance, then, the entire representation must evoke a uniform atmosphere, exhibit one specific trait and make a single point. Aimed entirely at creating an atmosphere of mysticism, the perfect artificiality of the arrangement detaches the fisherman from his praxis and prevents the photograph from imparting knowledge about the science of fishing. The throw net loses practical

meaning and assumes a mythical, iconic one: as an otherwise empty signifier it comes to stand for primitive technology.

### Meeting the Colonial Gaze: Decolonial Practice in Contemporary Indigenous Art

The colonial gaze reduces semantic depth while creating the impression that the world as we see it in the image is whole and entirely detachable from context. Gartley's image is not the only photographic creation to invite the colonial gaze on Indigeneity in North America. Throughout the past five centuries, representations of Native Americans and First Nations people have perpetuated a colonial world order, ranging from early images such as Theodore de Bry's famous 16<sup>th</sup> century engravings, for instance of Christopher Columbus' landfall in the New World, to 19<sup>th</sup> and early 20<sup>th</sup> century ethnographic photography. Edward S. Curtis' monumental oeuvre, for instance, documented what he termed the 'Vanishing Race': North American Indigenous cultures that he deemed pre-modern and on the brink of vanishing, in correspondence with the general Social Darwinist view at the time. "Native culture, as with any culture, is a vibrant, changing thing, and when Curtis happened upon it, it was changing from what it had been to what it would become next," Thomas King writes about Curtis' masterful photography in *The Truth About Stories*, "But the idea of 'the Indian' was already fixed in time and space. Even before Curtis built his first camera, that image had been set." (37) Even before the emergence of ethnographic photography, Indigenous cultures had been inscribed into the past in the colonial imaginary. By portraying their technology as inferior, colonial representations literally 'set the image' of the Indigenous as incompatible with change and thus out-of-place in the future: ascribed a fixed place in the colonial order of images, Indigenous people were thus deprived of the representational language to depict their own futures.

A century later, North American Indigenous artists still find themselves face to face with the objectifying colonial gaze that invites cultural appropriation and marvel at the exotic, strange, Other and bygone. North American Indigenous artists today grapple with the challenges of a consumer culture in which the colonial gaze is normalized and in which potential clients demand compositions that evoke an atmosphere of nostalgia and depict Indigenous people as technologically pre-modern. The stereotype of the Plains Indian warrior on horseback in headdress and with stoic demeanor is still a popular image tied to a

mythical understanding of the U.S. American past and of the U.S. American Southwest as fantastic landscapes, inviting marvel, adventure and visual appropriation. As King notes, “Edward Sheriff Curtis had been successful in raising money and getting his photographs in print because he was fulfilling a national fantasy, and because he documented the only antiquity North America would ever have. [. . .] I could not photograph that particular antiquity, not because it had vanished, but because it had changed” (56-57).

As artist and musician Bunky Echo-Hawk notes, rather than trying to capture change, artists nevertheless often bow to popular demand and thus reaffirm the colonial ideological viewpoint:

The American public had no interest in the current affairs of Indians and was most comfortable with the notion of the Indian way of life as a thing of the past. [. . .] Mass media [. . .] took Indian culture and romanticized it. Native artists repeatedly replicate the past in art. Even non-native artists make a decent living from depicting Native Americans as people of the past. (18)

Echo-Hawk describes being confronted with this form of internalized colonialism as “receiving bullets in the chest and arrows in the back” (18), a tongue-in-cheek metaphor alluding to the arrow as iconic symbol of low technology in colonialist discourses. Bow and arrow are directly opposed to high technology weapons such as machine guns that are understood as belonging to the present and future. In his novel *The Bird is Gone: A Manifesto* (2005), Stephen Graham Jones thus sarcastically alludes to the romanticized idea of the U.S. American past as “the bow and arrow days” (23), that pre-modern time of the mythical ‘Indian warrior’ when life was simpler, more natural and somehow, inexplicably, perfect. Creating representations that are true to Native realities, then, often means fighting a powerful colonial order of images according to which modern technology—from watches and TVs to software programming—is still believed to be incongruent with an Indigenous identity.

In order to raise awareness for the enduring presence of colonial structures, many contemporary Native artists create works that critically engage with conventional images of high and low technology. In his digital collages, Steven Paul Judd, for instance, photoshops space shuttles or characters from popular SF movies such as storm troopers, Luke Skywalker or Darth Vader into ethnographic photographs by Curtis and others, demonstratively

stripping the representation of tipi, fireside and buckskin of the ideological code designating primitive technology. Similarly, Debra Yepa-Pappan integrates pop cultural references into her digital collages of Curtis' photographs to break open the grave imagery of the 'Vanishing Race' with playful allusions to the heterogeneity of contemporary Indigenous lives. As Yepa-Pappan notes, with her pop art coloration and *Star Trek* references in *Live Long and Prosper (Spock Was a Half-Breed)* (2008) she has created a composition in which Curtis' photographs become "very futuristic" (Kelstrom 4) due to the SF theme of the collage and "very contemporary" (4) due to its allusion to the popular SF-series *Star Trek*: "It brings that back that we are a part of today's society, that we do enjoy a series like Star Trek, and science fiction. And we are not just a part of this historical, romantic past." (4)

The paintings and digital collages of many Native American artists thus spread an awareness of the colonial gaze and work to counter it. Rather than marvel at the 'exotic' and 'strange,' they invite marvel at the artistic creation, often turning the latter into a theme. Ryan Singer, for instance, depicts the Diné practice of weaving in his recognizable color and brushwork. The women in his paintings practice it as a part of their everyday lives, sitting next to cans of Coke and Folgers coffee. Marla Allison juxtaposes representations of traditional Hopi and Laguna Pueblo knowledges such as the art and craft of pottery without resorting to the visual language of ethnographic documentation. In paintings such as *Maidens on the Rooftop* (2013) or *Pixelated Memory File* (2012), traditional scenes of Hopi ceremonial life as photographed by Curtis disintegrate into blocks of color. The viewer, then, has to make an effort to "visually put them back together" (Allison) and imagine the story behind the representation. By filling in the gaps in these mosaic images, viewers are forced to re-introduce the depth that is lacking in the original colonial photographs.

With their work, artists such as Singer, Judd, Yepa-Pappan and Allison deconstruct the binary oppositions of past- versus future-driven technology and science versus nature, while simultaneously refusing to have their own images turned into ethnographic evidence of technology-salience. Rather, in their paintings and digital collages, the entire colonial system of meaning production begins to fall apart, making room for multiple possibilities, depth and complexity. "Methods that do not resemble western science are not de facto 'primitive,'" Grace Dillon points out (*Walking* 8). To strip language of the ideological understanding of

science as a rigid system and opposed to nature, and to dissolve the artificial border between science and technology, Dillon resorts to a terminology she deems more accurate, that of “indigenous scientific literacies” (25). She is thus paving the way for a different language of representation:

Indigenous scientific literacies are those practices used by indigenous peoples to manipulate the natural environment in order to improve existence in areas including medicine, agriculture, and sustainability. The term stands in contrast to more invasive (and potentially destructive) western scientific method. And since indigenous scientific literacies are shaped by diverse natural environments of the indigenous groups that use them, no single set of practices summarizes the possibilities. (“Indigenous” 25)

Similar to Judd’s, Singer’s, Yepa-Pappan’s and Allison’s art, Elizabeth LaPensée’s digital artwork creates a representational language for Indigenous scientific literacies that prevents a colonial gaze. Her compositions tell stories of space travel and alternate worlds. In the sense of Native giveaway,<sup>4</sup> they invite the viewer to imagine Indigenous-centered futures in which the traditional Western scientific worldview dissolves to make room for a more complex perception of nature, science and technology.

### **“Seeding the Stars”: Indigenous Scientific Literacies in the Art of Elizabeth LaPensée**

#### **Distant Planets, Other Worlds: Decolonial Practice and Artistic Sovereignty**

In her digital art, LaPensée depicts space and time travel without resorting to conventional representations of science and technology. In *Along the River of Spacetime* (2016), for instance, three figures are gazing into the starry night. They are in the front of a boat that might be, according to the image’s title, understood as both afloat on a river and floating in space. Suspended in front of them is an abstract tripartite structure of three planets interconnected through a pathway. Like many of LaPensée’s works, this image can be imagined as a story of space and time travel (also indicated by the word ‘along,’ denoting a journey that is not yet over). However, *Along the River* appears in stark visual contrast to

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<sup>4</sup> *Miinidiwag/miindiwag* refers to the Anishinaabe idea of “ironic Native giveaway, of storytelling that challenges readers to recognize their positions with regard to the diasporic condition of contemporary Native peoples” (Dillon, *Walking* 6).

conventional representations of space or time travel, a common SF theme traditionally visualized through the presence of a complex machine in SF illustrations and science fiction cover art. From the famous representation of H. G. Wells' time machine as strange air-borne structure reminiscent of a futuristic bicycle on the 1956 cover of *Classics Illustrated* to Frank R. Paul's and Christopher F. Foss's rockets and space shuttles on the cover of SF pulps,<sup>5</sup> journeys in time and space are irrevocably linked with the idea of cutting-edge technology in the form of powerful machines.

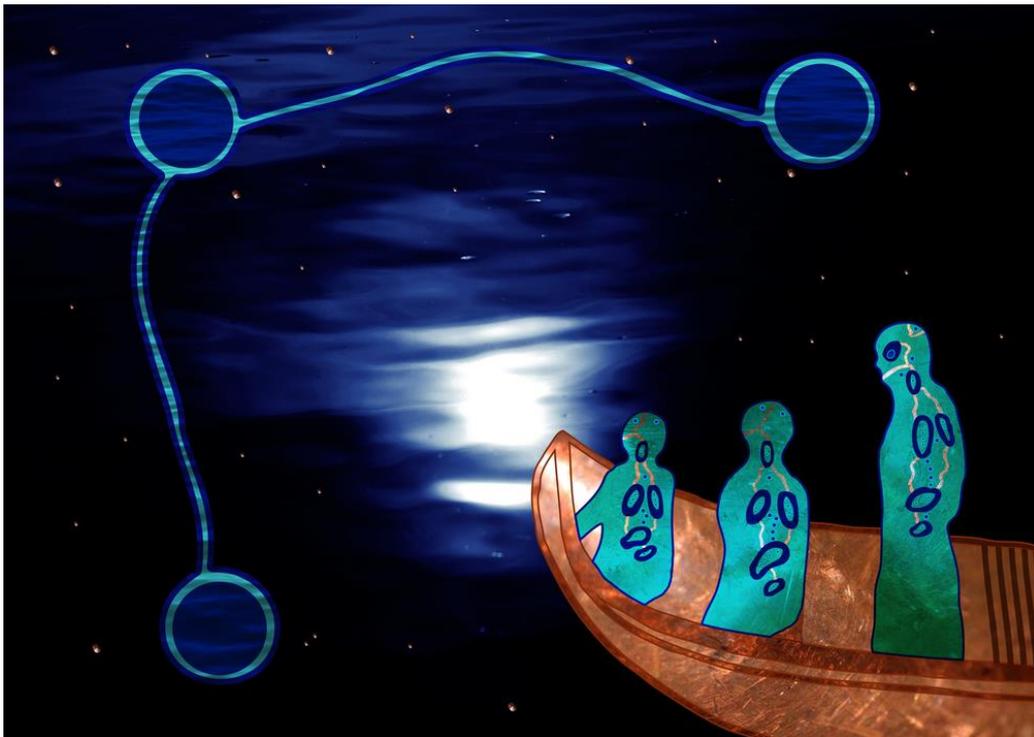


Fig. 1. *Along the River of Spacetime* (2016) by Elizabeth LaPensée ([www.elizabethlapensee.com/#/art/](http://www.elizabethlapensee.com/#/art/)).<sup>6</sup>

These representations seem at first to be mainly indebted to scientific accuracy. Especially recent SF Hollywood blockbusters like *Interstellar* (2014) or *The Martian* (2015) have created a language of scientific realism in their combination of barren landscapes in outer space with contemporary technologies of space travel and a renunciation of more fantastic looking machinery. Representation in these movies nevertheless stands undeniably in the tradition of the science fiction sublime. They evoke the viewers' marvel and admiration at heroic

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<sup>5</sup> SF was popularized in the pulps of the 1920s to ca. 1960s, cheap magazines that catered to a large readership.

<sup>6</sup> All artwork by Elizabeth LaPensée is taken from her website, *elizabethlapensee.com*, with permission of the artist.

protagonists who are thrown into majestic yet hostile landscapes while a mixture of perspective and high technology makes the extreme conditions in outer space visible and comprehensible for the viewership.

While the intent of these movies may not be the perpetuation of the colonial gaze, their politics of representation can nevertheless not be said to be completely devoid of ideology. At a first glance, rather than scientific accuracy, LaPensée's canoes afloat in zero gravity or orbiting a planet in collages like *Along the River* and *Spacecanoe* (2015) seem dedicated to subverting the representational language of colonialism present in SF movies and illustrations. By introducing canoes, often read as signifiers of primitive technology in ethnographic photographs into her representations, LaPensée dissolves the ideological code of a highly technologized present/future in which space travel is possible.

However, the universe represented in *Along the River* is not less scientifically accurate than the one we see in recent Hollywood movies. As LaPensée explains, many of her collages are inspired by traditional Anishinaabe teachings "from Anishinaabe elders and my mother and auntie as well as storytellers from other communities" (personal correspondence, Dec. 14, 2016):

The understanding of quantum mechanics and the balance of water and light (waves and photons) will open pathways to spacetime travel. "Along the River of Spacetime" (2016) refers to teachings that we can walk alongside the river of spacetime and step in and out at any point. The arc and connection of the stars, which is an expression of my Anishinaabe worldview, may very well parallel entangled particles in quantum physics. (personal correspondence, Dec. 14, 2016)

Images like *Along the River* and *Spacecanoe* thus represent what LaPensée's mother, Grace Dillon, has termed "Native slipstream [thinking] [that] views time as pasts, presents, and futures that flow together like currents in a navigable stream" (*Walking* 3). According to Dillon, slipstream as a textual or representational technique "models a cultural experience of reality" (4) and organically grows out of teachings that "[have] been around for millennia, [and] anticipated recent cutting-edge physics, ironically suggesting that Natives have had things right all along" (4). In *Along the River* and *Spacecanoe*, the Native slipstream is created through the visual representation of timespace as spotted with lights and specked with color, visual structures reminiscent of both photographs of the galaxy and the creases and ripples on the surface of a river. Afloat on this "navigable stream" (3) along with the figures

in the image, the viewer slips through layers of time and space, cutting light-years of distance short and travelling past and future times while journeying between stars.

*Spacecanoe* invites viewers to imagine their own stories of space and time travel. The canoe in the digital collage is empty. It seems to be orbiting a circular structure, maybe an island or a distant planet, waiting for passengers to board it. The viewer is thus invited to put her- or himself into the canoe and start navigating. As LaPensée explains,

we are generally understood to each be in our own canoe. For me, there have been and will continue to be moments where my children are entirely attached to me and the day to day goes smoother if we act in that way. Flexibility in ways of relating (even when it means sharing your canoe) is vital, just as the flexibility of a river of water on Earth or a river of plasma in space is vital to continuance. (personal correspondence, Dec. 14, 2016)

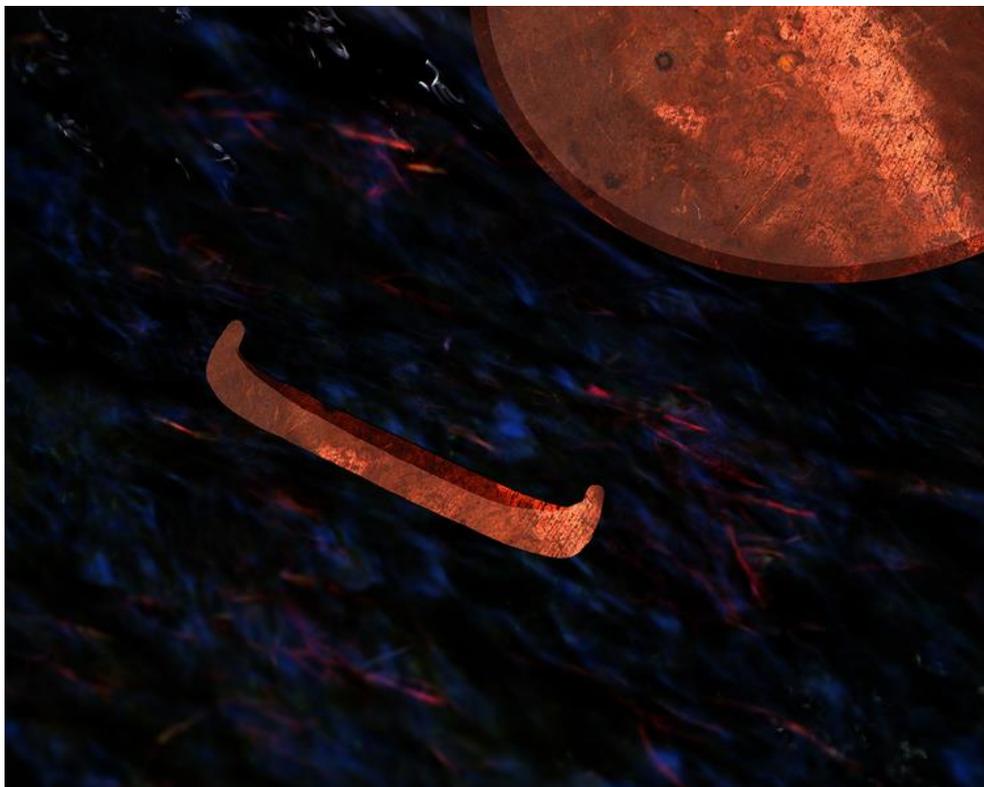


Fig. 2. *Spacecanoe* (2015) by Elizabeth LaPensée ([www.elizabethlapensee.com/#/art/](http://www.elizabethlapensee.com/#/art/)).

Rather than solely dedicating themselves to the decolonization of space travel, works like *Along the River* or *Spacecanoe* mediate a specific worldview in the form of story, “the medium of choice for transmitting and preserving traditional knowledge” (Dillon, *Walking* 8). When asked about her affinity to SF, LaPensée professes that resemblances of her digital artwork to SF illustrations or movies are more coincidental than intended: “These teachings may be perceived as Science Fiction but are really just Science Fact yet to be unraveled.”

(personal correspondence, Dec. 14, 2016) This is a crucial difference: not only does LaPensée thus foreground teaching and the mediation of Indigenous scientific literacies; she also distances herself from SF representations permitting the colonial gaze that objectifies and appropriates.

LaPensée's collages both mediate and guard Anishinaabe scientific literacies. As Wendy Geniusz points out, the colonial endeavor to devalue North American Indigenous sciences and technologies as primitive was systematic and it helped to both corrode Indigenous cultures and appropriate Indigenous knowledges: "The colonization of native knowledge assisted the colonizers in assimilating native peoples, but it also gave them another important benefit: They gained this knowledge for themselves. Once native people came to view their knowledge as inferior, some were willing to part with it, for a price reflecting its primitive, inferior nature." (3) Beyond guarding sacred stories not meant for everyone, the protection of Indigenous knowledges has been deemed an integral part of decolonizing practices. Addressing especially Anishinaabe familiar with the traditional teachings represented in her images, LaPensée practices her artistic sovereignty to tell or not tell a story behind an artwork without promoting exoticism. *On Scrolls Carried By Canoe* (2014), for instance, is not hermetic and does not exoticize teachings inaccessible to non-Anishinaabe viewers. Rather, similar to Marla Allison's cubist images, the non-realist representation encourages viewers to imagine their own story, and to marvel at coloring and the materials used in the collage.



Fig. 3. *On Scrolls Carried by Canoe* (2014) by Elizabeth LaPensée ([www.elizabethlapensee.com/#/art/](http://www.elizabethlapensee.com/#/art/)).

*Scrolls* shows figures in a spacecanoe, each holding a scroll of parchment in hands. When asked about the meaning of the image, LaPensée responds that the artwork “reflects a particular story that is unfolding right now which is likely best understood by Anishinaabeg<sup>7</sup> who are intended to [. . .]. All of the works reflect stories and imaginings based on what is happening right now in regards to the need to be attentive to land, water, wind, plants, animals, minerals, and all life” (personal correspondence, Dec. 14, 2016). While the “Science Fact” may necessitate explanation, works like *Along the River*, *Spacecanoe* and *Scrolls* visualize an Anishinaabe-centered worldview. Granting viewers access to the story—by means of an empty canoe, a hint in the title or human shapes the faces of which can be imagined by the viewer—the images let the viewers partake in the represented universe. The artwork mediates a specific conception of spacetime without drawing a clear line between Indigenous scientific literacies and Western methods of knowledge. In fact,

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<sup>7</sup> Plural of ‘Anishinaabe.’

LaPensée's allusions to quantum physics demonstrate that not only can these realities be considered as interacting and interconnected, but the images can be decolonizing and meaningful to viewers regardless of their own definitions of science and technology.

### Beads, Bone and Copper: Collaging the Multiverse

Rather than showcasing a specific technology in the manner of ethnography, LaPensée's artwork articulates Indigenous scientific literacies by representing reality as multi-dimensional. The digitally collaged images give her works structure and depth, and mediate an understanding of parallel worlds in the slipstream. LaPensée's collages of thunderbirds<sup>8</sup> such as *Anaamakamig* (2016) or *They Speak of What Comes* (2015), for instance, consist of layers of different textures, one on top of the other. These overlapping surfaces are reminiscent of different dimensions or realities: the viewer can even glimpse the insides of the bird in *Awasishkode* (2016), an interconnected structure of circles reminiscent of internal organs or cells in meiosis, as well as of LaPensée's representations of planets (and particles). Within the bird, then, is contained an entire galaxy while the animal itself is placed in a structure of plants and fire representing the larger world of which it is a part.

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<sup>8</sup> Symbol of the Anishinaabe also represented in abstract form on the flag of the Anishinaabeg Nation.



Fig. 4. *They Speak of What Comes* (2015) by Elizabeth LaPensée ([www.elizabethlapensee.com/#/art/](http://www.elizabethlapensee.com/#/art/)).



Fig. 5. *Awashkode* (2016) by Elizabeth LaPensée ([www.elizabethlapensee.com/#/art/](http://www.elizabethlapensee.com/#/art/)).

LaPensée's use of collage on the one hand exemplifies her notion of relationality; on the other, it ties in with what different scholars have described as an Indigenous-centered view of the universe as containing multiple worlds, or, as David Peat puts it in *Blackfoot Physics*, "worlds within worlds" (257). Dillon contends that this worldview manifests itself in Native slipstream and that "[t]he closest approximation [of Native slipstream thinking] in quantum

mechanics is the concept of the ‘multiverse,’ which posits that reality consists of a number of simultaneously existing alternate worlds and/or parallel worlds” (4). Based on evaluations by different physicists, Lawrence Gross furthermore explains that “native speakers of Anishinaabemowin [the language of the Anishinaabe] do in fact live in the reality of quantum physics as well as in the world of Newtonian Physics” (116). Gross explains that Anishinaabemowin is a “gender neutral” (110) language without adjectives, and consists mostly of verbs while “the subject or speaker is [in specific instances] embedded in the action” (110). According to Gross, Anishinaabemowin thus stresses movement and relationality; these concepts are at the heart of the Anishinaabe worldview (110). LaPensée points to this worldview when underlining the significance of a perception of all life as interconnected in her art stressing that “[r]elationality is reflected in my work because that’s just how I recognize life and how I hope to express sovereignty” (personal correspondence, Dec. 14, 2016). The recurring representation of lines or pathways linking circular structures in works such as *They Speak* or *Along the River*, then, have both a symbolic and a metaphorical meaning. On the one hand, they represent a view of reality as a complex web of interlinked times, places, and beings. On the other, they also denote literal pathways between dimensions that enable stepping, or slipping, through.

The collaging of digital images with different materials also reflects teachings about technology and the universe. In *Echoes of the Next Generations* (2013), for instance, LaPensée used bone, birch bark and copper to form a rocket taking off from a green planet (personal correspondence, Dec. 14, 2016). The planet, in turn, consists of grass and leaves while a circular structure in the sky—the sun, a different planet or the destination of the rocket—is formed by a beaded pattern. The artist says about her choice of material, “copper is an electrical conductor as well as a purifier for water. I hope to show the ways in which we have always had technology and how this way of seeing will offer insights for technological expansion” (personal correspondence, Dec. 14, 2016). *Echoes* not only hints at the importance of sustainable technologies for a positive future, but also demonstrates the way ‘high’ technologies such as rockets or space shuttles converge with Indigenous scientific literacies, rather than rooting in mutually exclusive worldviews. LaPensée’s artwork deconstructs a colonial understanding of high technology as enabling interplanetary travel and sustaining the future in which technologies not directly resembling the latter are

perceived as primitive and incapable of assisting ‘the next generations.’ The imagery in *Echoes*, then, becomes part of a new visual language of Indigenous scientific literacies that lends itself to the representation of fantastic future worlds and hopeful visions.



Fig. 6. *Echoes of the Next Generations* (2016) by Elizabeth LaPensée ([www.elizabethlapensee.com/#/art/](http://www.elizabethlapensee.com/#/art/)).



Fig. 7. *The Other World* (2013) by Elizabeth LaPensée ([www.elizabethlapensee.com/#/art/](http://www.elizabethlapensee.com/#/art/)).

LaPensée's 'worlds within worlds' also result from visual compositions that direct the viewer's gaze as if through a door and guide it through layer after visual layer. In *The Other World* (2013), for instance, a pearly soap bubble at the center of the image contains other bubbles forming the structure of an atom and thus alluding to the deep structure of all things. While renouncing representational realism and instead turning to a playful arrangement of images and colors, 'the other world' hinted at in the collage is not opaque or exotic. Rather, a playful exploration of the different constituents is welcome and analysis—a closer, 'scientific' look at the anatomy of things—is encouraged. As LaPensée explains, the symbolism in her works "refer[s] to specific teachings, while also acknowledging that the meaning is in the meaning you make" (personal correspondence, Dec. 14, 2016). The flowers and animals peopling 'the other world' are put together with cutouts of grass, beads and copper, and carry a personal and cultural meaning for LaPensée: "the dragonfly made of copper for sound amplification reflects the story that they carry on their wings the vibrations of songs from our ancestors. For me, it's important to consider what these structures mean to other people, and when I listen, I often learn and make new connections." (personal correspondence, Dec. 14, 2016) The notion of 'other worlds,' then, may also be understood as relating to the different meanings each viewer obtains from the collage. As symbolic and

metaphorical ‘worlds within worlds,’ LaPensée’s art also works to establish relations between herself, her cultural communities and the viewership.

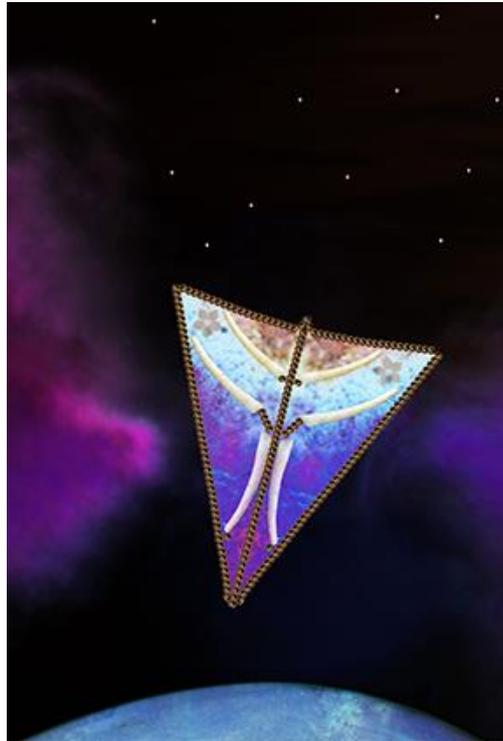


Fig. 8. *The Good Journey* (2016) by Elizabeth LaPensée ([www.elizabethlapensee.com/#/art/](http://www.elizabethlapensee.com/#/art/)).

In *The Good Journey* (2016) a triangle made of beads and bone forms the visual anchor that appears like a window into another world. The shape is floating in space above a green and blue circular structure. The composition is reminiscent of a rocket taking off from Earth or landing. ‘The good journey,’ moreover, alludes to *mino-bimaadiiziwin*, ‘the good life,’ the Anishinaabe concept of leading “a healthy life” (Gross 205) grounded in balance and a positive relationship with the world. Gross described *mino-bimaadiiziwin* as “the underlying theme of almost the entirety of the religious life of the [Anishinaabe] people” (205). *The Good Journey* thus encapsulates a cultural understanding of the world that exceeds a physical description or realistic depiction of surface appearances. Rather, the collage invokes a complex concept reaching beyond visual representation.

Furthermore, LaPensée explains that the artwork is dedicated to the artists David Bowie and Prince who both passed away in 2016. By invoking *mino-bimaadiiziwin*, it brings together traditional teachings and popular culture in a fantastic story of space travel: “[T]he Good Journey’ (2016) is an homage to Bowie and Prince. If they were going to hang out in a

spaceship together, this would be it. In regards to their self-expression, they both lived a good life, *mino bimaadiziwin*, and their work will continue to influence generations even from the stars” (personal correspondence, Dec. 14, 2016). With her collage, *LaPensée* articulates that the multiverse is not merely a multitude of physical and temporal spaces. The notion of lighthearted travel between these interconnected layers, of a ‘good journey’ back and forth and across worlds, emphasizes that mobility and agency are key aspects of the imagined universe, and important characteristics of *LaPensée*’s visual language when it comes to her storytelling about the future.

### Conceptual Relationality: Mediating *Biskaabiiyang* Methodologies

*LaPensée*’s art relates to a larger framework of decolonizing methodologies in different Indigenous-centered sciences, from botanical teachings to law, economy and medicine. Recurrent symbols and concepts not only link her different collages thematically and conceptually. They also lend themselves to the description of future worlds alternate to those seen in dystopian and post-apocalyptic movies, from the visual dismantling and deconstructing of the colonial gaze to a critical engagement with the history of colonialism. The digital collage *Returning to Ourselves* (2016), for instance, links itself to *biskaabiiyang* methodologies via its title. *Biskaabiiyang* is an Anishinaabemowin term used to denote the complex process of decolonization in all areas of Indigenous life. It translates as “‘returning to ourselves’” (Dillon, *Walking* 10) and refers not to the abandonment of ‘Western’ methodologies but to a self-aware application of the latter with a constant gaze toward Indigenous concepts of sustainability. As Dillon notes with reference to Maori scholar Linda Tuhiwai Smith, *biskaabiiyang* “requires *changing*, rather than *imitating* Eurowestern concepts” (10), “confront[ing] the structures of racism and colonialism” (10-11) and in general “encouraging Native writers to write about Native conditions in a world liberated by the imagination” (11). A postmodern sensibility is thus at the heart of *biskaabiiyang* practices in art and literature that emphasizes creativity, artistic agency, playfulness, “self-reflexivity, defamiliarization, and the hyperreal present [. . .]” (11). As Gerald Vizenor has famously remarked, “oral cultures have never been without a postmodern condition that enlivens stories and ceremonies, or without trickster signature and discourse on narrative chance” (x). Postmodern techniques such as irony, deconstruction, and metafiction thus lend

themselves to a (non-)description of Native realities: the binaries upheld in colonialism are subverted by techniques that might be described as both postmodern and Indigenous. In her decolonial representations, LaPensée makes use of irony, symbolic ambiguity and estrangement, wedding postmodernism with traditional storytelling techniques while escaping the colonial demand to mimetically represent.



Fig. 9. *Returning to Ourselves* (2016) by Elizabeth LaPensée ([www.elizabethlapensee.com/#/art/](http://www.elizabethlapensee.com/#/art/)).

*Returning to Ourselves* performs and refers to decolonization through irony and symbolism. The collage shows the outline of a human head against the night sky. Its tongue are rows of beads that transform into a flower ending in a circular copper plate—both the blossom of the flower and a planet that the human form is touching with her tongue. The recurrent symbol of a spacecanoe is floating in the space, metonymically representing LaPensée's multiple works that use the same image and simultaneously inscribing the entire composition into the Anishinaabe storytelling universe. On the one hand, the figure nudging the planet with its tongue might be considered a representation of colonialist greed: having exhausted its own resources, humankind now reaches for the stars to mine minerals. On the other, this reading is subverted by the fact that the tongue transforms into a flower blossoming out of the figure's mouth and symbolizing a healthy, positive relationship with

the new world in space. In depicting relationality and connectedness, *Returning* points toward the possibility of an exploration of the universe alternative, and opposed, to colonialism and simultaneously mediates the notion that *biskaabiiyang* methodologies will be an indispensable part of this transformation. As Dillon notes,

The essence of indigenous scientific literacy, in contrast to western science, resides in this sense of spiritual interconnectedness among humans, plants, and animals. [. . .] [T]he concept [. . .] suggests that sustainability is about maintaining the spiritual welfare of natural resources rather than simply planning their exploitation efficiently so that humans do not run out of necessary commodities. (“Indigenous” 26)

The critical engagement with a possible colonial advance into outer space and a harmful colonization of other planets is a central theme in LaPensée’s work. Her short comic *They Come for Water* (2016) imagines a future colonization of Mars that is reversed as the story progresses. Similarly, the digital collage *Our Grandmothers Carry Water from the Other World* (2016) depicts and enacts Indigenous scientific literacies while undoing the colonial mindset in the act of creating an alternate representation that stresses sustainability and prevents an appropriating gaze.

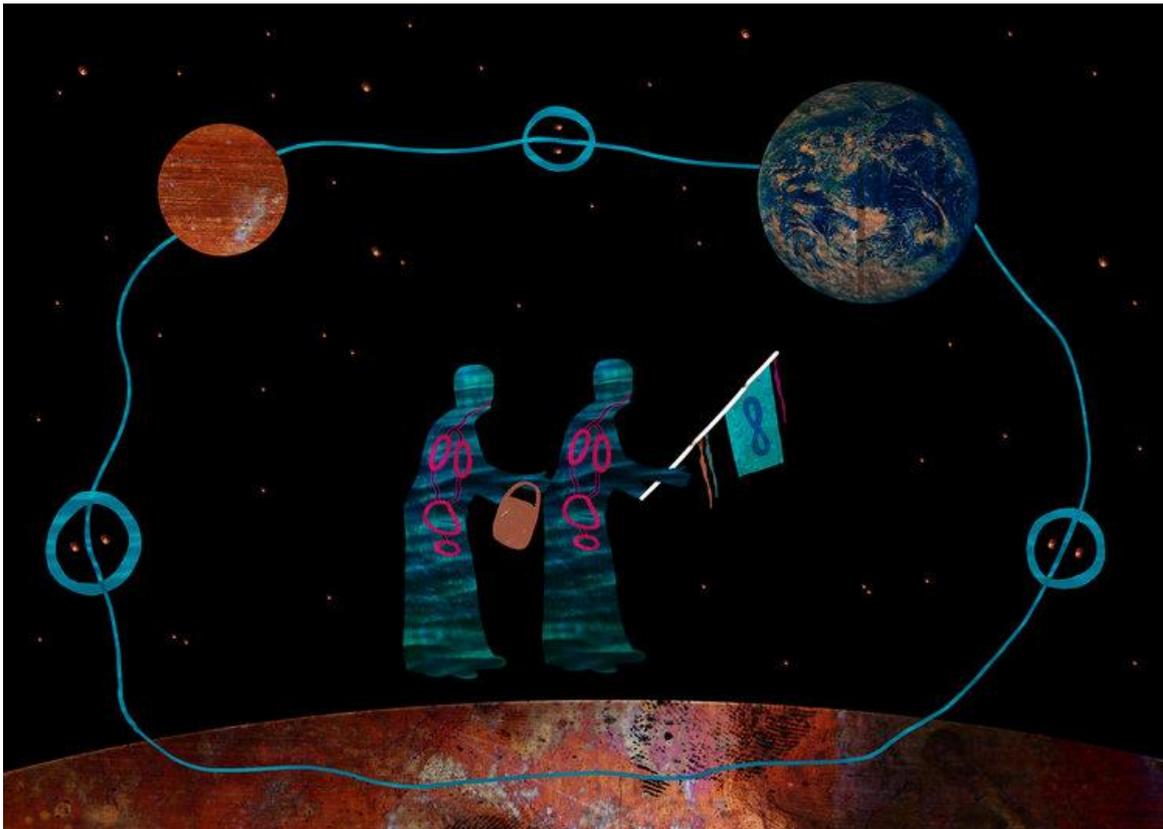


Fig. 10. *Our Grandmothers Carry Water from the Other World* (2016) by Elizabeth LaPensée ([www.elizabethlapensee.com/#/art/](http://www.elizabethlapensee.com/#/art/)).

*Our Grandmothers* shows two figures bent under old age in the center of LaPensée’s trademark tripartite structure: the women in the collage walk on a distant planet that is connected to Earth and Mars via waterways. One figure holds a basket; the other one carries a flag. Images of flags usually accompany a nation’s claim of discovery and claim of uninhabited land, most notably of course the erection of the U.S. American flag on the moon in 1969. However, the flag in LaPensée’s collage is adorned with the mathematical sign for infinity, “∞,” a recurrent symbol in her artwork. When asked about the meaning, LaPensée once again bridges Western symbolism and science with Indigenous-centered worldviews in her answer: “The infinity symbol is inspired by Michif<sup>9</sup> teachings that we will always continue on and reflects DNA as well as the ongoing movement of life as connected to the stars, moon, and sun in an infinitely vast system.” (personal correspondence, Dec. 14, 2016) The colonial claim over the distant planet is visually deconstructed by the infinity symbol on the grandmothers’ flag that declares sustainability instead of ownership. While the image thus

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<sup>9</sup> Michif is the language of the Métis.

indicates a future-driven discourse, the idea of technological progress and human adaptability do not root in a Social Darwinist worldview of a survival of the fittest civilization; rather, *Our Grandmothers* emphasizes the importance of resilient structures that would reduce the careless waste of such important resources as water. The viewers, then, are not granted a colonial gaze at the landscape. Instead, they are encouraged to imagine the women's journey between worlds, which transports the image of people travelling great distances for water into outer space.

A 'returning to ourselves' is not only made possible through the visual dismantling of colonial imagery. The phrase might also be taken literally, as denoting the grandmothers' journey back to Earth by following the blue line. As LaPensée explains, the collage "imagines a future in which water carriers need to journey to another planet for clean water." (personal correspondence, Dec. 14, 2016) This vision of a colonial future and of the misery resulting from the continued relentless exploitation and environmental corruption of our planet does not propagate dystopian pessimism. Rather, the visual arrangement of figures, shapes and planets into an interconnected web articulates sustainable *biskaabiiyang* methodologies while warning that colonialism might become a harmful, infinite loop.

In *Our Grandmothers*, life in future times is not depicted in an SF manner as radically different from the past. Space travel does not introduce radical innovation and systemic change, nor does LaPensée borrow the representational language from SF films to depict it. Rather, the notion of a colonization of the universe as metanarrative pattern without alternative is replaced with the idea of 'seeding the stars.' This is the title of LaPensée's 2015 collage of a beaded flower dissipating pollen in space; the title and image were inspired by Dillon's upcoming collection of scholarship on Indigenous futurisms (Indigenous stories about the future) (personal correspondence, Dec. 21, 2016).



Fig. 11. *Bitwork Beadwork: Seeding the Stars* (2015) by Elizabeth LaPensée ([www.elizabethlapensee.com/#/art/](http://www.elizabethlapensee.com/#/art/)).

In *Returning, Our Grandmothers* and *Seeding*, ideas of land and resource theft are replaced with the notion of a sustainable exploration that does not harm the environment of distant planets. A change both in imagery as well as in conceptual thinking is at the heart of LaPensée's *biskaabiiyang* representations and enables viewers to frame their own worlds in a different, decolonial language.

### Conclusions: Representing as Teaching—Mediating Indigenous Scientific Literacies in Art

As my attempts to read and make meaning of different digital collages have shown, LaPensée introduces a visual language in her artwork to express herself as well as to mediate traditional stories and Indigenous scientific literacies. Like many contemporary artists who create art based on an Indigenous-centered daily experience, LaPensée's images profess a critical awareness of the colonial gaze and work to strip representations of science and

technology of colonial ideological layers. Collages such as *Along the River of Spacetime*, *The Good Journey* or *Our Grandmothers Carry Water from the Other World* not only entertain us with the stories they imply, but also educate viewers about the Anishinaabe worldview and LaPensée's own personal experience of it.

Next to digital collages, LaPensée has created comic books, short films, and computer games dedicated to healing and the mediation of Indigenous knowledges about sustainability and creative resilience. Her works can be found online ([elizabethlapensee.com](http://elizabethlapensee.com)) and in anthologies, at Native film festivals, in local exhibitions and on book covers. LaPensée frequently expresses her thoughts on the challenges of representing in a contemporary media landscape still steeped in a colonial imagery, and she turns to different, digital media as a new way of mediating Indigenous scientific literacies. As she said in a recent video on the topic of "Healing Trauma Through Video Games,"

My relationship with historical trauma has to do with being Anishinaabe and Métis, living on Turtle Island—what is also understood as North America—and seeing that we are still in an ongoing process of colonization; seeing that there are Indigenous people of this land, the territories that we are in, and seeing that, as we move forward, every act of expression is an opportunity to reclaim, reinforce and pass on teachings; understanding also that tradition is constantly changing, that we are malleable. (LaPensée, "Healing")

LaPensée's artwork is certainly a part of her own teachings and the endeavor to contribute to a better, more sustainable life for subsequent generations by creating a visual language with which their futures can be imagined. 'Seeding the stars' becomes a powerful metaphor for the dissemination of Indigenous scientific literacies as a premise for building future worlds. LaPensée not only returns depth and complexity to images of Indigeneity that have been reduced to surface appearances in colonial ethnographic photographs, but also reclaims the mental space to experiment, explore and re-write—and she invites viewers to do the same.

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