

Spirits Dancing - A Night Sky Experience: the Digital Production

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Abstract. *Spirits Dancing - A Night Sky Experience* is a digital production that shares astronomical, cultural, and personal knowledge of the night sky focusing on the Jibayag niimi'idiway (Ojibwe, translation Spirits Dancing or Northern Lights), Aurora and the Milky Way (Wanági-tšacháŋku, Dakota, translation Spirit Road or Milky Way) from an Ojibwe and D(L)akota perspective. Objectives of this production include answering the following research questions: (1) How does Indigenous Knowledge about the aurora, the Milky Way, and stars influence contemporary Indigenous' artists ways of thinking?;¹ (2) How do contemporary Indigenous perspectives and practices work to re-centre human identity away from ideologies based on Euroamerican colonialism and global capitalism?; and (3) How does Indigenous artistic creativity allow scientists and non-Indigenous communities to renew their understanding of environments that are affected by pollution? This work contains insights from Native Skywatchers affiliates: Carl Gawboy, Ramona Kitto-Stately, and Jeffrey Tibbetts. Through large-scale projection mapping, this intermedia installation communicates an enduring Indigenous-based relationship with the sky-earth, mirroring and our human participation in this cosmic cycle, otherwise known as 'Kapemni'.²

Clearly positioned at the intersection of science, art, and culture, this work and practice underscores a living, participatory relationship with sky. It gives a clear example of interconnected, reciprocal, connections of kinship with the celestial and terrestrial forces of nature and non-human beings. With all the layered and complex challenges of the twenty-first century, our human connection to night sky transcends fixed space and time. The night sky invites us to experience and reconnect with the timeless beauty and awe found in nature. It is our hope that this inspiration will serve as a powerful reminder of the magnificence and importance

¹ Questions 1 and 3 are directly inspired by the OSPAPIK project that Annette S. Lee joined in 2024 as Senior Researcher, <https://ospapik.eu/en/>.

² Albert White Hat Sr., 'Kapemni-As it is above; it is below', presentation at Washington University, 2007.

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of the night sky for future generations. What is our part in reconnecting with and protecting the dark night skies?

Introduction

We have created a Star Wars civilization with stone-age emotions, medieval institutions, and god-like technology. We thrash about. We are terribly confused by the mere fact of our existence, and a danger to ourselves and to the rest of life.³

In the era of the Anthropocene, the real-time effects of global climate crisis and animal extinction are increasingly common. Plastic pollution, forever chemicals, ocean acidification, deforestation – the ever-growing list is enough to make anyone stop reading and walk away. Yet this is one of the most critical moments in all of history: not only a time of ecological devastation, but also of *human identity loss*. For those who are willing to tackle the ultimate challenges of our industrialized culture, where to begin? Many assumptions in the mainstream culture are adopted from outdated historical practices and are no longer adequate for the twenty-first century version of our species. How do we start peeling back the layers of our existence and gain a new understanding in the face of such hopelessness? How do we use this newfound understanding as a call to action?

The solution is Art. We make art and the making is part of the healing process. We share the artifact of the making at exhibits and online, allowing an ongoing reminder to function as a guidepost. Powerful aesthetics speak to not only the mind but to the human spirit. In this way we can not only widen the narrative but also disseminate alternate ways of being and thinking that are based on relationality and responsibility instead of colonization and capitalism.

This paper will present the visual work entitled, *Spirits Dancing - A Night Sky Experience*. This intermedia installation was co-created by an ensemble of Indigenous Knowledge holders from the United States and premiered in May 2024 locally at the Mille Lacs Indian Museum on the land-base (reservation) for the Mille Lacs Band of Ojibwe in Central Minnesota, and globally at the INSAP 2024 Conference 'Thirty Years of Astronomy, Art, and Inspiration' held in Corfu, Greece.

³ Edward O. Wilson, *The Social Conquest of Earth* (New York: W.W. Norton & Co, 2012), p.7.

The research questions addressed through the conceptual basis and design strategy of this production are the following:

1. How does Indigenous Knowledge about the aurora, the Milky Way, and stars influence contemporary Indigenous' artists ways of thinking?⁴
2. How do contemporary Indigenous perspectives and practices work to re-centre human identity away from ideologies based on Euroamerican colonialism and global capitalism?
3. How does Indigenous artistic creativity allow scientists and non-Indigenous communities to renew their understanding of environments that are affected by pollution?

Drawing from our identities as Indigenous Knowledge Holders and artist activists, the experience of the artwork will take participants on a stunning acoustic and visual journey through time and space. The acoustic and visual experience celebrates life and holds up a mirror to important choices of our present time. In this way we reveal non-dominant participatory perspectives of the human relationship to nature, to non-humans, and to the material and non-material worlds. Of particular importance is the revitalization of firsthand sensorial experiences using motion design. This is activism, art as social practice. The visual and sonic atmosphere is ours to create.

Discussion of the Visual Product

This interdisciplinary production, *Spirits Dancing - A Night Sky Experience*, includes animation shorts, large-scale projection, sound art, and digital story art. Co-authors of the book, *Spirits Dancing - The Night Sky, Indigenous Knowledge, and Living Connections to the Cosmos*, A. Lee and T. Novitsky, created digital video shorts approximately eight-minutes long each based on their living practice and relationship with the night sky.⁵ In addition, A. Lee worked with collaborators Carl Gawboy, Ramona Kitto-Stately, and Jeffrey Tibbetts to create animation shorts related to celestial practice and knowledge. In all there were five short

⁴ Questions 1 and 3 are directly inspired by the OSPAPIK project that Annette S. Lee joined in 2024 as Senior Researcher, <https://ospapik.eu/en/>.

⁵ Annette S. Lee and Travis Novitsky, *Spirits Dancing: The Night Sky, Indigenous Knowledge, and Living Connections to the Cosmos* (Minnesota: Historical Society Press, 2023).

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films with a total run time of (18m 50s).⁶ The venues to premiere this work were the Mille Lac Indian Museum in central Minnesota on the Mille Lacs Ojibwe Reservation and the INSAP XII conference in Corfu, Greece. Both premiered in May 2024.

The artwork shared in the digital production *Spirits Dancing - A Night Sky Experience*, is an intersection of old and new methodologies. Indigenous knowledge is rooted in history, place-based, and generally passed down in person by oral tradition; it has a past. The new method used in this production comes from an interdisciplinary digital art discipline called ‘motion media’, or ‘motion graphics’. Generally, this is the emerging field that combines film, animation, visual effects, sound art, branding, and dynamic advertisements. R. Brian Stone explains, ‘Motion Design is the synthesis of many complementary activities... It’s an expressive and captivating way to reveal change through deliberate use of sequence and time’.⁷ This piece, *Spirits Dancing - A Night Sky Experience*, uses the technology of the day, motion media, to transform and transmit knowledge. The vision of the digital production was to produce a large-scale projection celebrating motion, sound, and personal narratives. Production and dissemination are contemporary.

Discussion of How Visual Product Relates to Research Questions

Response to Question One. *How do Indigenous Knowledges about the aurora/Milky Way/stars influence contemporary Indigenous’ artists ways of thinking?* There are two critical points here. The first thread that is woven throughout all five of the productions in *Spirits Dancing – A Night Sky Experience* is the Lakota teaching of *Kapemni* which translates ‘As it is above; it is below’. The idea is the relationship between the sky above and the earth below is best described as a pairing or mirroring. In addition, the sky can be thought of as the spiritual plane (non-material) and the earth as the physical plane (material). Foundational to this relationship is the realization that human beings are a part of this symmetry. When a person honours this mirroring, it places them at the apex of the two realities

⁶ Annette S. Lee and others, *Spirits Dancing - A Night Sky Experience*, 2024 <<https://annettelee.com/index.php/portfolio/collaboration-with/>>.

⁷ R. Brian Stone and Leah Wahlin, *The Theory and Practice of Motion Design: Critical Perspectives and Professional Practice* (Routledge-Taylor & Francis Group, 2019, pp.xii–xiii).

(represented by triangles in Fig. 12) and there is flow.⁸ This is the teaching of *Kapemni* in simplest form.

In the production, for example, the Milky Way is called Jiibay Ziibi, ‘River of Souls’ in Ojibwe and Wanagi Tacanku, the ‘Road of Spirits’ in Dakota. The mirroring of river and road between the earth and sky is evident. Also seen in the name of the state of Minnesota, which was a Dakota word, Mni Sota Makoce or ‘The land where the waters reflect the skies or heavens’.⁹ A beautiful illustration of this same idea can be seen in the Navajo Dine teaching of *Yikaidaha*, That Which Awaits the Dawn, or the Milky Way.¹⁰ The pattern of movement of the Milky Way as viewed from earth is illustrated in the name. Only during the correct season at the correct time will the whole of the Milky Way be seen circling the horizon. At this time, a traditional person would greet the pre-dawn sky and *Yikaidaha* and experiencing the intrinsic connection of earth and sky. As Navajo elder David Begay describes, ‘this is when the new year starts, and when the eagle lays eggs in its nest...The recognition of the cosmic movement is very important’.¹¹

The second essential teaching from Indigenous Knowledges related to the night sky seen to greatly influence the Indigenous’ artists of the *Spirits Dancing – A Night Sky Experience* production is the recognition that the physical plane is just one part of the whole. In other words, a person is made up of mind, body, heart, and spirit. There is more to existence than the physical and the unseen is equally real. Examples of this understanding can be seen in Carl Gawboy’s piece with the Ojibwe elder, Moskobendikwe. Clearly, she understands that her father and deceased family members are not existing on the physical plane on earth but are

⁸ Goodman, *Lakota Star Knowledge: Studies in Lakota Stellar Theology*; Lee, Rock, and O’Rourke, *D(L)akota Star Map Constellation Guidebook: An Introduction to D(L)akota Star Knowledge*; Annette Lee and others, ‘The Red Day Star, The Women’s Star and Venus: D(L/N)akota, Ojibwe and Other Indigenous Star Knowledge’, *International Journal of Science in Society* 4 (2013). doi:10.48550/arXiv.2009.02127.

⁹ ‘Chris Mato Nunpa Mni Sota Makoce’, *Bdote Memory Map Project*, 2020, (0:37) <<https://www.youtube.com/watch?v=FOQsSajHIz8>> [accessed 7 June 2022].

¹⁰ Nancy C. Maryboy and David Begay, *Sharing the Skies* (Tucson, AZ: Rio Nuevo Press, 2010).

¹¹ *David Begay Presents ‘Diné-Navajo Winter Constellations-The Milky Way’*, dir. by David Begay (5:52), 2021 <<https://vimeo.com/manage/videos/595634064/c3f3c6c7a9>> [accessed 14 November 2024].

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existing (and dancing) on the non-material, or spiritual plane of existence. Moskobendikwe prepares for her time to join them in dance. As stated by Chief Arvol Looking Horse, ‘We came here as a spirit from Star Nation... and then we get done, we go back’.¹² In Ramona Kitto Stately’s piece, *Wakan Etuwan, Look Up* she is making the point of acknowledging Wichapi to Win, Blue Star Woman (Big Dipper) in the sky and the mirrored relationship with the Womb or Bdote sacred site area near Minneapolis. There is a reflection of sky and earth. The artwork presented in *Spirits Dancing - A Night Sky Experience*, shows a critical connection between Indigenous celestial knowledge, artistic practices, and fundamental human identity.

Response to Question Two. *How do contemporary Indigenous perspectives and practices work to re-center human identity away from ideologies based on Euroamerican coloniality and global capitalism?* Settler colonialism that occurred in North America in the late fifteenth century was based on what later became known as capitalism. The European colonist came to the coastal shores of what later became the eastern United States, to increase their wealth by amassing resources of the ‘new’ land. The fundamental ideology of this mindset was to take the resources from the land as capital to increase the wealth of their financial backer (monarch or wealthy entrepreneur). Simply put, capitalism views the land, the waters, the air, as physical commodities that can be owned and exploited for maximum profit. By direct contrast, Indigenous perspectives view all life as having both a physical part and a non-physical, or spiritual part. Because all life shares this ‘spark of life’; all life is related. Man-made objects like computers or plastics do not have this ‘spark of life’ and therefore do not have spirit and are not part of the web of life. Consider the Lakota phrase ‘Mitakuye Oyasiŋ’, which translates, ‘a person is related to all creation’ or ‘all my relations’.¹³ This is a constant and simple reminder that every living thing from a blade of grass to a rock, to a star, to a four-legged, a winged one, or ones that swim or crawl... all life comes from the same source, so it is has kinship.¹⁴ Inineu elder and Star Knowledge holder, Wilfred Buck explains:

¹² Arvol Looking Horse presents... ‘Wichanpi Oyate’ (Native Skywatchers, 2021) <<https://vimeo.com/598388197/3b5dc1bab8>> (12:12).

¹³ Albert White Hat Sr., *Reading and Writing the Lakota Language* (University of Utah Press, 1999), p. 46.

¹⁴ Wilfred Buck, ‘Atchakosuk: Inineuwuk Stories of the Stars’, 2012, p.13; Gregory A. Cajete, *Native Science: Natural Laws of Interdependence* (Santa Fe,

Ininew mythology states that we are the Star People. When Creator created miswea (all that is), a piece of Creator was placed into each new creation. This is why assiniuk (stones) are animate, not inanimate. All things made by Creator have achak (spirit). Inside us there is a piece of Creator, and this is how we are related to all things.¹⁵

For example, in Jeff Tibbett's piece, the person in the sweat lodge is both in the stars and in the lodge at the same time. He is praying by offering asemaa (tobacco) to the stones (or Grandfathers); in doing so he is reconnecting with spirit or Creator. This is in direct contrast to thinking about stones in a Euroamerican colonial mindset, where stones are inanimate objects of little importance beyond function. From the Euroamerican perspectives, stones are physical objects with names and can be measured for value or greater scientific understanding, but they are understood as 'not living'. A capitalist lens would take this concept of 'dead object' one step further and seek to value the rock as a commodity that could be taken and sold for profit by a human owner at will. The hierarchical relationship between rock and human is undoubtedly clear.

In the work by A. Lee, we see a similar way of thinking with the land-based animals in relation to their counterparts in the sky or constellations. 'Why would a salamander, whether on land or in the sky, have anything of importance to share? How would communication even begin?', a Western non-Indigenous viewer might ask. From an Indigenous point of view, all species including Winged ones, Ones that Swim, Ones that Crawl, Plant Nation, Tree Nation, and so on are all a part of life, are all related, and have value beyond the physical. There is a shared genealogy and relational agreement between species. Consider the words of Pueblo scientist Gregory Cajete as he speaks directly to the importance of human participation with nature:

NM: Clear Light Publisher, 2000); White Hat Sr., *Reading and Writing the Lakota Language*.

¹⁵ Wilfred Buck, 'Atchakosuk: Ininewuk Stories of the Stars', 2012, p. 13; Gregory A. Cajete, *Native Science: Natural Laws of Interdependence* (Clear Light Publisher: Santa Fe, New Mexico, 2000); White Hat Sr., *Reading and Writing the Lakota Language*.

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Participation provides the grounding for the way of Native science at all levels and in all expressions. The dynamics of this participation are founded on an ancient human covenant with plants, animals, the forces of earth, and the universe. It is the depth of our ancient human participation with nature that has been lost and indeed must be regained in some substantial form in modern life and modern science. The cosmological and philosophical must once again become ‘rooted’ in a life-centered, lived experience of the natural world.¹⁶

G. Cajete is speaking of an ‘ancient covenant’ with non-humans (i.e., plants, animals, forces of nature, and the universe). This is a good example of the critical difference between Indigenous ontologies and ideologies based on Euroamerican coloniality and global capitalism. The recognition of, indeed the very definition of life, is considerably wider from an Indigenous lens. This strong connection is seen in the production of *Spirits Dancing – a Night Sky Experience*. Whether it’s with the animal beings of the night sky that are reflected in the land and waters, like maang (loon), ajiijaak (crane), Wakinyan (thunderbird), or celestial beings like Wicanpi To Win (Blue Star Woman in the Big Dipper), the animations found in this production speak to Indigenous contemporary practice of building relationships of trust and mutual respect with non-human entities. The goal is a mutualistic symbiotic relationship where both organisms benefit from the interaction. This is in direct contrast to a hierarchical, profit oriented relationship reinforced by colonialism and capitalism.

Response to Question Three. *How does Indigenous artistic creativity allow scientists and non-Indigenous communities to renew their understanding of environments that are affected by pollution?* In Lakota culture there is a teaching that the ‘two-legged’ (human beings) hold the

¹⁶ Gregory A. Cajete, *Native Science: Natural Laws of Interdependence* (Clear Light Publisher: Santa Fe, New Mexico, 2000), p.5; White Hat Sr., *Reading and Writing the Lakota Language*.

gift of wisdom.¹⁷ Recall, ‘homo sapiens’ is Latin for ‘Wise Humans’.¹⁸ And yet humans are causing epoch level destruction to the Earth’s biosphere. Animal extinction is happening at a rate not seen in 10 million years; one million species are on the verge of disappearing from the planet.¹⁹ The human burning of fossil fuels has pushed climate crisis disasters to every corner of the globe, and yet it’s ‘business as usual’.²⁰ More than a third of all wild tree species are facing extinction, and the number of threatened trees surpasses all threatened birds, mammals, reptiles and amphibians combined.²¹ Something here is broken; humans are out of balance.

Consider some of the effects of light pollution on animals. Sea turtles are getting lost due to artificial lights; an estimate 300 million to 1 billion birds die in the U.S. and Canada each year;²² insects are fatally attracted to artificial lights in uncountable numbers.²³ The human way of life is altering the planet in a destructive way for all life. Award-winning science journalist, Ed Yong, explains:

¹⁷ Charolette Black Elk, ‘Children of the Four Relations Around the Heart of Everything That Is’, in *Lakota Star Knowledge-Studies in Lakota Stellar Theology*, Ron Goodman (Sinte Gleska University, 1992), pp.44–45; Annette S. Lee and James Spotted Thunder, *Children of the Four Relations Around the Heart of Everything That Is-Lakota Racetrack Story*, 2021 <<https://vimeo.com/573477901>> [accessed 9 January 2022]; Goodman, *Lakota Star Knowledge: Studies in Lakota Stellar Theology*.

¹⁸ Yuval Noah Harari, *Sapiens: A Brief History of Humankind* (Harper, 2015).

¹⁹ Julia Janicki, Katy Daigle, and Sudev Kiyada, ‘On the Brink’, *Reuters*, 23 December 2022, <<https://www.reuters.com/graphics/GLOBAL-ENVIRONMENT/EXTINCT/lbvgggdgevgq/>> [accessed 18 November 2024].

²⁰ United Nations, ‘The Climate Crisis – A Race We Can Win’, *United Nations* (United Nations). <<https://www.un.org/en/un75/climate-crisis-race-we-can-win>> [accessed 18 November 2024].

²¹ Helen Briggs, ‘Alarm Call as World’s Trees Slide towards Extinction’, *BBC*, 28 October 2024. <<https://www.bbc.com/news/articles/c24558g69mgo>> [accessed 18 November 2024].

²² Emma Saaty, ‘Turning Off Your Lights Could Save Millions of Birds Each Year from Deadly Building Collisions’, *Smithsonian Museums*, 19 April 2023. <<https://www.smithsonianmag.com/blogs/national-museum-of-natural-history/2023/04/19/turning-off-your-lights-could-save-millions-of-birds-each-year-from-deadly-building-collisions/>> [accessed 15 November 2024].

²³ Ed Yong, *An Immense World: How Animal Senses Reveal the Hidden Realms around Us* (Random House, 2022).

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(In 2016) ... more than 99 percent of Americans and Europeans — were living under light polluted skies. Every year, the proportion of the planet covered by artificial light gets 2 percent bigger and 2 percent brighter... Over a third of humanity, and almost 80 percent of North Americans, can no longer see the Milky Way. ... Sensory pollution is the pollution of disconnection. It detaches us from the cosmos.²⁴

As members of the human species, with the gift of wisdom, might there be a better way? As Ed Yong points out, disconnection is now the norm. The renewed understanding that Indigenous contemporary artists: Lee, Gawboy, Novitsky, Kitto-Stately, Tibbetts, are pointing out in the artwork, *Spirits Dancing - A Night Sky Experience*, is that a critical relationship and core part of our human identity and wellness is embedded in our relationship with nature, particularly with the night sky. As Duane Hamacher et al. point out, 'Light pollution is actively destroying our ability to see the stars and disconnecting people from their deep-time connection to the sky, acting as a form of ongoing cultural and ecological genocide'.²⁵

As visual activists, we respond to this 'ongoing cultural and ecological genocide' with outrage and action. We reclaim our human right-of-way to see the night sky, the Milky Way, the aurora; to know the night sky as our oldest living relatives. The artwork, *Spirits Dancing - A Night Sky Experience*, is a call to action for every human being on the planet to renew and recentre their relationship with the night sky as a part of our human legacy and planetary ecosystem. Colonialization of low Earth orbit, or the space environment, is happening now.

Conclusion

This artwork, *Spirits Dancing - A Night Sky Experience*, an intermedia installation of digital narrative, story, time-lapse photography, animation, and soundscape visualization was created by an ensemble of five contemporary Indigenous artists to promote individual and collective wellness. The work acknowledges Indigenous practices of revitalization of connection to nature, not in an abstract sense, but in a lived experience of knowing the Jibayag niimi'ididway (Ojibwe), Wanigi Tawacipi (D/Lakota) aurora, the Jibay Ziibi (Ojibwe), Wanagi Tacanku (D/Lakota)

²⁴ Yong, *An Immense World*, p.338.

²⁵ Duane Hamacher, Krystal De Napoli, and Bonn J. Mott, 'Whitening the Sky: Light Pollution as a Form of Cultural Genocide', *Journal of Dark Sky Studies*, Vol 1, no 1, on line: Xiv: 2001.11527.

Milky Way, and constellations of the night sky as a place of knowledge, origins, and abundance with teachings.

The authors of this work feel it is critically important to take this time to re-centre our humanity, including our gift of wisdom, roles, and responsibilities as two-legged creatures, and tend to the balance of life. By leaning on Indigenous Knowledge perspectives, we aim to embody the importance relationship between all life, human and non-human. In this way we de-centre human hierarchical status and focus on interwoven knowledge production and reimaging a more balanced present and future. Indigenous artistic insight and practices like those shared in the piece, *Spirits Dancing - A Night Sky Experience*, communicate lived experiences reflecting the whole human experience: mind, body, heart, spirit. In this moment where human lifestyle choices are causing epoch level mass destruction of the planet's biosphere, i.e., the Anthropocene, or 'Capitalocene', how do we reset, redefine our human identity, and find hope amidst ongoing global and local crisis?²⁶ We make art. We make better choices. Mitakuye Oyasin.

²⁶ T.J. Demos, *Against the Anthropocene Visual Culture and Environment Today* (Sternberg Press, 2017).