Incredible Phenomena Will Occur: boundary layers and boundary objects in *Atmospheric Shifts* and **(s)twerH*

McIntosh Gallery, Western University, January 16 – May 16, 2026

David Spriggs, *Aeturnum*, 2025, acrylic, acrylic paint on layered acrylic sheets, LED light box.

Incredible phenomena will occur. Such is the final descriptor in the list of catastrophic effects of an EF5 Tornado, the most severe category on the Enhanced Fujita Scale used to measure these weather events. It might also describe the profound and unexpected results of bringing artists and scientists together over shared concerns for the current climate crisis. Although these disciplines consider similar issues, they do so from different perspectives, each asking questions that mutually complicate their respective areas of investigation. Scientists and engineers are often credited with engaging in research that aims to solve the problems that humanity has created, while artists cast a critical eye on their progress. The resulting pragmatic, social, and kinship-based perspectives lead to a deeper and more nuanced understanding of global environmental issues and help to initiate conversations about how we might move towards the betterment of the planet.

Philosopher Timothy Morton describes climate change as a *hyperobject*—an entity that is so massively dispersed across time and space that we are incapable of truly comprehending it. While we can imagine ourselves in relation to the recent past, the here and now, and the near future, it is more challenging to understand the role we play in a trajectory that spans from the ancient past to thousands of years in the future. Our individual actions may not have any statistical impact on the environment but, over time, the collective behaviour of Earth's eight billion humans has brought about the reality that defines the present moment. Our complicity in this planetary change—this atmospheric shift that has been unfolding over millennia—is seemingly ungraspable, yet we are increasingly forced to reckon with it.

> Humans have been aware of enormous entities—some real, some imagined—for as long as they have existed. But…there is something quite special about the recently discovered entities such as climate. These entities cause us to reflect on our very place on Earth and in the cosmos. Perhaps this is the most fundamental issue—hyperobjects seem to force something on us, something that affects some core idea of what it means to exist, what Earth is, what society is.[1]

While the impulse to understand global climate drives several branches of scientific research, artists are equally concerned with the environmental and social effects of the climate crisis. Recognizing that these concerns cross disciplines, *Atmospheric Shifts* and **(s)twerH* each aim to highlight these shared areas of investigation. The project began with an invitation to four artists— Wally Dion, Lisa Hirmer, Andrew Maize and David Spriggs—to meet with the research team at the Canadian Severe Storms Laboratory[2] in the Faculty of Engineering at Western University in London, Ontario. The engineers shared their findings with enthusiasm and generosity with the understanding that the artists would create new works in response to what they heard or, in Maize's case, build on an existing project over the course of a four-week residency in the gallery.

To underscore the environmental concerns shared by artists and engineers, material culture generated by the Canadian Severe Storms Laboratory's research is exhibited in conversation with new artworks created by Dion, Hirmer, and Spriggs, as well as works drawn from McIntosh Gallery's permanent collection and other works of historical art. In *Atmospheric Shifts,* sustained observations of weather conditions and their effect on the landscape are captured in a salon hang that draws visual analogies across several media. Drone photographs of tornado damage from the Northern Tornado Project's field research

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[1] Timothy Morton, *Hyperobjects*, (Minneapolis: University of Minnesota Press, 2013), 15.

[2] The Canadian Severe Storms Laboratory currently comprises three smaller research groups: The Northern Tornado Project, The Northern Hail Project, and the Northern Mesonet Project.

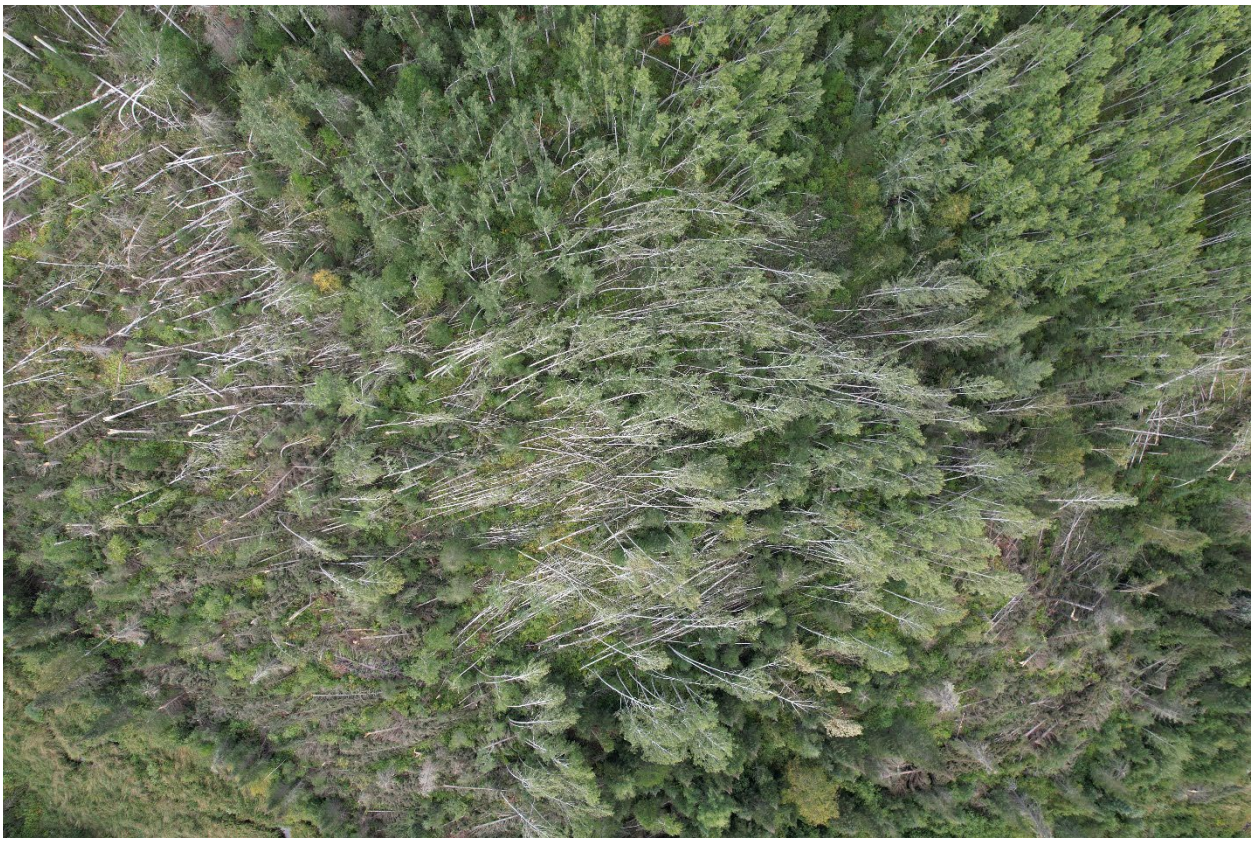
are mirrored in landscape and weather-related paintings, drawings, and mixed media works. Paterson Ewen's *Tornado #2* (1989) is echoed in a photograph of a tornado recorded in Lodgepole, Alberta. *Eco-Pulse* (1995), Roly Fenwick's study of a dense scrub of denuded and weather-beaten evergreens is reflected in an image of tornado-flattened trees in Oliver Lake, Ontario. In Fenwick's *Sliding Edges* (1989), the roofs of agricultural buildings are overshadowed by looming clouds signalling impending strong weather. An image of barn roofs is captured moments before their destruction by a dark, violent, and especially fierce tornado; recorded in Didsbury, Alberta in 2023, it remains one of Canada's few recorded occurrences of an EF5 tornado.[3]

Hailstones, 3D printed with PETG (Polyethylene Terephthalate Glycol) filament at the Canadian Severe Storms Laboratory, Western University.

A cluster of 3D printed hailstones, reproduced from scans of specimens collected by the Northern Hail Project researchers, are simultaneously beautiful and menacing. Printed using a translucent filament, these shimmering objects with their various lumps and protuberances, are sculptural and compelling, but their remarkable size reminds us of their

[3] Tornadoes are measured on a scale of 0 to 5 on the Enhanced Fujita (EF) Scale. EF5 tornadoes are characterized as having estimated wind speeds of 315 km/h or more, and incurring damage including houses leveled and swept from their foundations, automobile-sized missiles flying through the air in excess of 100 m, and high-rise buildings having significant structural damage. Incredible phenomena will occur.

potential to cause damage to life and property. The recontextualization of the drone photographs and printed hailstones from the research lab to the art gallery initiates a shift in their intended meaning and purpose. The primary function of these objects is to record environmental data. Yet, when moved into the gallery they serve a dual purpose, becoming both scientific and aesthetic objects. These objects are engaging because they have the capacity of to move from one discipline to another and carry multiple meanings. They are what Susan Leigh Star and James R. Greisemer refer to as *boundary objects*—objects that inhabit "several intersecting social worlds"[4] and are "adaptable to different viewpoints and robust enough to maintain identify across them."[5]



Oliver Lake, Ontario – August 31, 2024. Drone photograph. Courtesy of the Northern Tornadoes Project.

Objects in museums and art galleries are uniquely situated to provide a path for public engagement with challenging issues such as climate change. As boundary objects, "they sit in the space between multiple domains, providing bridges, connections, and

[4] Susan Leigh Star and James R. Griesemer, "Institutional Ecology, 'Translations' and Boundary Objects: Amateurs and Professionals in Berkely's Museum of Vertebrate Zoology, 1907-39." *Social Studies of Science* 19, no. 3 (August 1989), 393.
[5] Star and Griesemer, "Institutional Ecology," 387

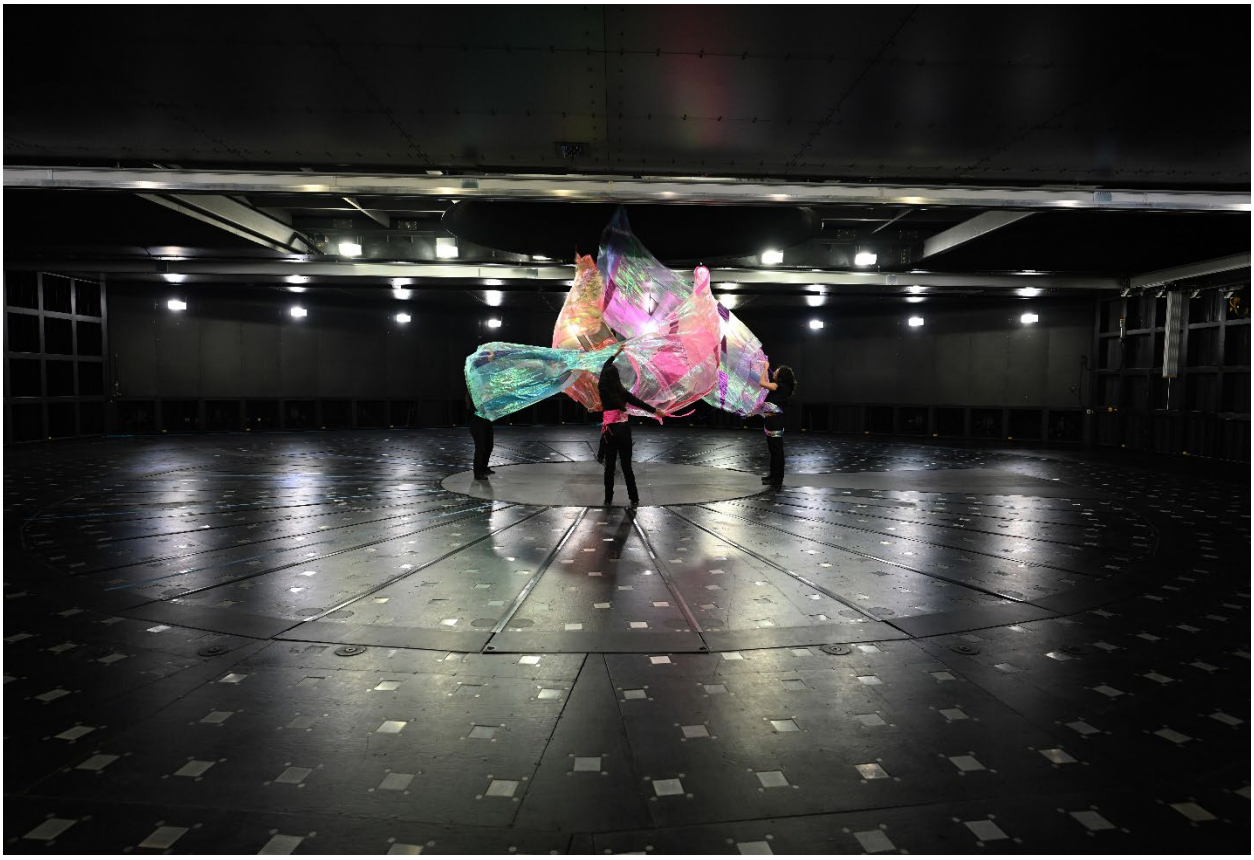
translations that allow both perspectives to understand the other more fully."[6] By moving material culture generated by the research of the Canadian Severe Storms Laboratory into a public gallery space, it is presented to the public in a new light, encouraging personal connections and initiating conversations that might not otherwise occur due to disciplinary siloing.

Roly Fenwick, *Eco-Pulse*, 1995. Oil on canvas. Collection of McIntosh Gallery. Gift of the Artist, 2005.

These boundary objects are further shifted towards new interpretations by their juxtaposition with the new works of art created for *Atmospheric Shifts*. The shimmering, diaphanous quilts at the heart of Wally Dion's mixed media installation, *Wind Dancers* (2026), are both set piece and costume for a performance that took place at Western's WindEEE Dome Research Institute. The WindEEE Dome is an internationally renowned research facility in Western University's Faculty of Engineering where the effects of severe wind conditions can be tested on scale landscapes and man-made structures through simulated tornadoes and downbursts. In this instance, the WindEEE Dome itself becomes

[6] See Sarah Sutton, *The Arts and Humanities on Environmental Climate Change: Broadening Approaches to Research and Public Engagement* (London: Routledge 2022), 66.

a boundary object: an engineering research facility transformed into a theatrical set, a black rotunda, where Indigenous dancers manipulate shimmering textile quilts in an invisible vortex.



Wally Dion, *Wind Dancers*, 2026, filmed at WindEEE Dome, Western University.

Situating *Wind Dancers* within such a technologically driven facility highlights the tension between storytelling, mythology, and scientific research. A member of Yellow Quill First Nation, Dion grew up in Saskatchewan, where the occurrence of tornadoes influenced his childhood and infiltrated his dreams.

> When I was younger, I used to dream of the tornado; a living creature. For me, the tornado was full of dread; sentient, but not necessarily maleficent. In my dreams, the tornado would always appear in urban areas, catching me totally by surprise; ripping entire neighborhoods apart but, at the same time, seeming to move in total silence, as if its gravity were pulling in all sound around it like a localized black hole in the sky. With lightning bolts whipping out of its black mass I would run & hide from it as though the entire experience were a horrible test of courage. [7]

[7] Correspondence with the artist, September 3, 2025

During the performance, each of the four dancers approaches the centre of the “stage”, allowing the air currents to carry the quilts and twist them into a perfect vortex, a quadruple helix to borrow Dion’s term, giving form to the invisible tornado. Dion reimagines the four witches of Oz, spinning a tornado into existence. Like the witches of Oz (the wicked witches of the East and West, and the good witches of the North and South) Dion aligns his witches with the four cardinal directions, representing not only the destructive power of the tornado but also the potential for renewal and growth.

Atmospheric Shifts, 2026, installation, McIntosh Gallery.

David Spriggs *Aeturnum* (2025) is swirl of white pigment, sprayed onto layers of transparent acrylic. Spriggs’ technique creates an image that embodies the tension between form and formlessness. Like weather systems, it conveys power and momentum, despite its lack of solidity. White clouds spiral around a transparent central point, the proverbial eye of the storm or “stadium effect,” holding violent movement in equilibrium with stillness and calm. As Spriggs describes the work,

> An atmospheric vortex appears within a transparent space, its form revealed through the alignment of eleven painted layers. Guided by the golden ratio, its geometry echoes the forces that shape weather systems, tides, and celestial motion. At its center lies a circular void, charged with the momentum of all that

turns around it. *Aeternum* reflects the endless continuity of natural systems, where energy and form transform without cease. Like the eye of a storm, it holds a fragile equilibrium of a balance between form and chaos. Here, the circle exists through motion, sustained in an eternal state.[8]

The image immediately suggests the now-familiar aerial view of a storm system captured through satellite imaging, a contemporary mode of experiencing weather. Throughout history, we have turned to the tools at hand to understand nature, from microscopic to macroscopic levels. The invention of the microscope, for example, allowed us to see things that were previously unobservable to the human eye. Now, satellites allow us to view the planet similarly, at any magnification.

Lisa Hirmer, *Atmospheric Beings 5*, 2025, photographs on aluminum.

Our environment is frequently mediated, measured, and described by available technologies. Each of these technologies has the potential to shape how we understand and experience the natural world, and in many cases serve to further separate humanity from an embodied relationship with its surroundings. Donna Haraway argues that environmental issues cannot be positioned as technical problems to be solved through scientific study, as this approach perpetuates the notion of human dominance and the

[8] Correspondence with the artist, August 8, 2025

drive to assert control over the non-human world. She argues instead for a more collaborative approach to nature. Environmental issues are not to be treated as mere problems to be fixed, but rather approached in the spirit of kinship and interconnectedness with the more-than-human world.[9] Haraway does not oppose scientists and scientific research, but asserts that "it remains important to embrace situated technical projects and their people."[10]

Lisa Hirmer embraces the importance of kinship to how humans live in and impact the world. An extension of her earlier work, *We Are Atmosphere* (2020-2022), Hirmer's *Atmospheric Beings* (2025) challenges the primacy of our relationship with the surface of the earth and asserts that we are not merely "earthbound," to use Haraway's term. Although human history is often described in terms of our terrestrial existence on the surface of the earth, we are, in fact, atmospheric beings. The atmosphere has evolved over millennia, and humans have evolved along within it; everything we do and have done has impacted the atmosphere. As Hirmer says, "We move across the planet's surface but live *in* the atmosphere."[11]

Hirmer is intrigued by the poetic potential of the atmospheric or planetary boundary layer—the lowest level of the atmosphere, which is influenced by its contact with the Earth's surface. Characterized by turbulent mixing, it is here that heat, moisture, and pollutants are dispersed. It is the place where human activity has the greatest potential for enduring negative impact. Hirmer's coloured clouds intermix and disperse, reminding us that our actions—and inactions—have consequences that transcend geopolitical borders. The atmosphere is not subject to such socially constructed delineations, and the impact of the collective industrial activity of the Earth's human inhabitants affects the entire planet. "As a place of unbounded, unending exchange, the atmosphere puts us into relationship with everything."[12]

Andrew Maize's installation **(s)twerH*[13] continues the ongoing research project that began as his MFA thesis exhibition at the University of Guelph. Inspired by the work of climate scientists on the complexity of turbulence and the increased prevalence of severe storms, Maize explores potential common ground between scientific and artistic research. He

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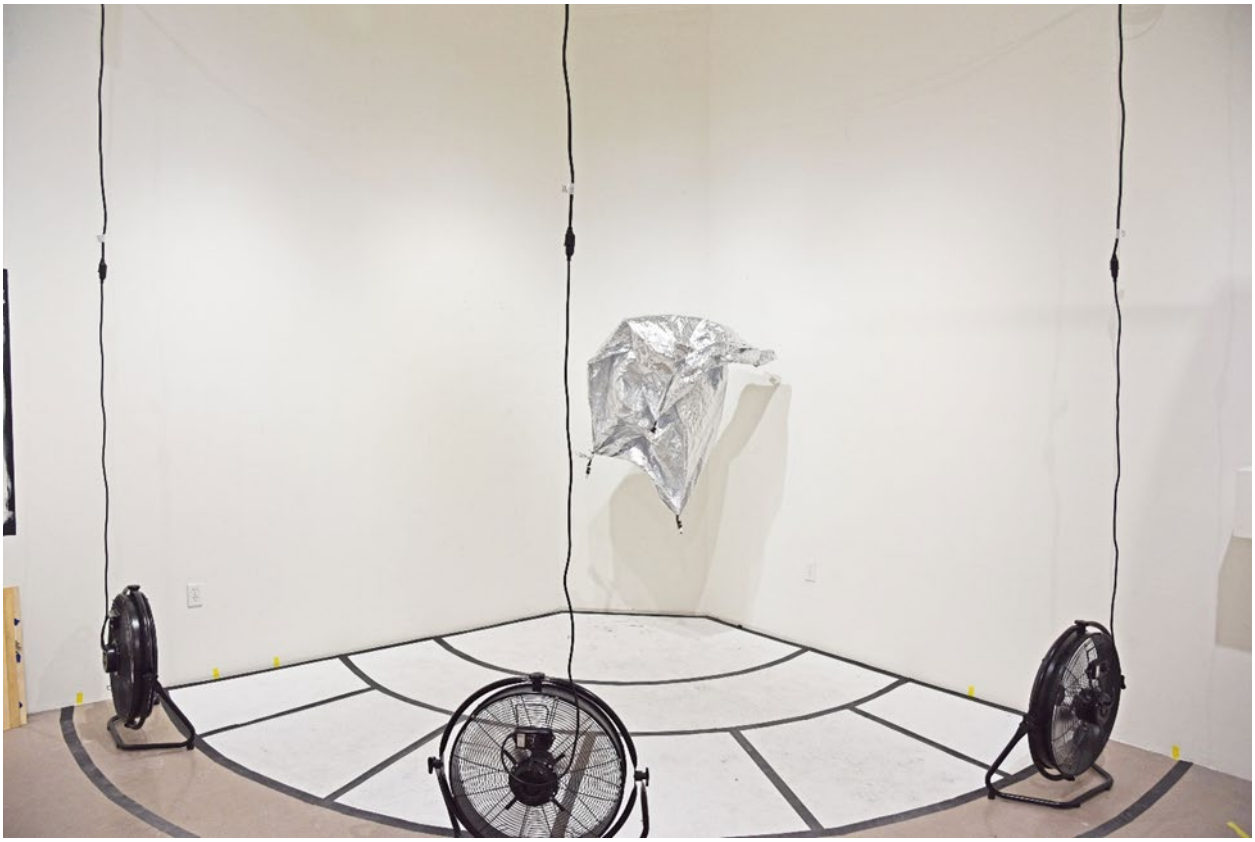
[9] Donna Haraway, *Staying with the Trouble: Making Kin in the Cthulucene*, (Durham and London: Duke University Press, 2016), 3-4.
[10] Haraway, 3.
[11] Lisa Hirmer, "Everything We Have Done is Weather Now", *Public 70: The Weather,* ed. Joel Ong, (Toronto: Goldfarb Centre for the Arts, York University), 54.
[12] Ibid.
[13] The term *(s)twerH is derived from a hypothetical proto-Indo-European word meaning "rotate, swirl, twirl, move around." It the speculative root of many words, including disturb, turbulence, tumult, turmoil, turbine, and storm.

considers how research methodologies from different disciplines might complement one another and lead to a more nuanced understanding of our relationship with the Earth's forces. With an art practice rooted in playful experimentation, Maize wonders what we might learn if, instead of relying on what can be predicted, we accept the chaotic and the unpredictable.



Andrew Maize, **(s)twerH*, 2026, installation, McIntosh Gallery.

For this iteration of **(s)twerH*, Maize worked in residence at McIntosh Gallery for a period of five weeks, transforming the gallery into an interactive hybrid space that was equal parts studio, laboratory, and exhibition venue. His installation is built around a "wind dome" created by positioning three industrial fans pointed towards the corner of the room. When activated, the air currents create a closed system capable of holding aloft a series of mylar emergency blankets, each altered through the attachment of variously weighted objects to their corners. The effect is mesmerizing. The blankets with their four appendages possess an anthropomorphic quality as they twist and dance with varying levels of success. One cannot help but feel a certain amount of empathy for some of the blankets as they struggle and sag, flailing pathetically, while others soar and dance effortlessly.

Andrew Maize, **(s)twerH*, 2026, installation, McIntosh Gallery.

Over the course of five weeks, the space became an increasingly chaotic testament to Maize's practice, as elements were constructed, de-constructed, and reconfigured daily. At the end of the residency, Maize created a final reconfiguration as a document of the work that had occurred. One element of the installation that took on a life of its own after Maize's departure was a chalkboard located in one corner of the gallery. Rescued from another building on campus, the chalkboard was already marked with the arcs, waves, and vectors of someone else's research. With Maize absent from the space, visitors began to insert small interventions, including a drawing of the white rabbit from *Alice in Wonderland*, pointing to its pocket watch—an unexpectedly prescient reminder that time is running out to change the environmental trajectory that humankind has set in motion.

By bringing together the work of contemporary and historic artists with the research of environmental engineers, **(s)twerH* and *Atmospheric Shifts* create a multi-layered argument in favour of interdisciplinary approaches to tackling global issues. While the work of the Canadian Severe Storms Laboratory aims to find structural solutions that will make Canada more resilient to the effects of increasingly severe storm events, artists make an equally valuable contribution to thinking though these issues. Contextualizing pragmatic research within creative conversations that examine our role within a network of human-

more-than-human relations provides new pathways through complex issues and encourages us all to think more expansively about the future of the planet.

Lucan, Ontario – June 20, 2025. Drone photograph. Courtesy of the Northern Tornadoes Project.

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