

***teamLab Borderless:* Bridging Borders in Simulated Ecologies**

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Abstract

This article begins by identifying the ways that spatial borders were destroyed during Australia's Black Summer fires. It then contrasts this with the opposite, the imposition of national and state borders as physical distancing is promoted as a way to counter the virulent spread of the COVID-19 virus. This radical transformation of actual borders is further contrasted with the intersecting virtual worlds in the museum *teamLab Borderless* (2018). *teamLab Borderless* is an immersive exhibition that features simulated worlds that are animated by human contact. They bleed outside of their designated zones, blurring spatial boundaries. *teamLab Borderless* draws from traditions in Japanese scroll art that invite the viewer to imagine themselves within the space, creating an ultra-subjective mode of engagement. This article takes Sybille Krämer's philosophy of media, beginning with the postal and its insistence on the distance between sender and receiver, to explore the rituals surrounding *teamLab Borderless*. It then elaborates on the ways that the experience of *teamLab Borderless* can be understood in relation to Krämer's personal, or erotic principle of communication. It applies these modes of communication to consider the potential of interactivity to mediate between the virtual and the natural world. Ultimately, this article posits that in a culture of climate emergency, an alternative future is one where our relationship to nature is necessarily virtual.

Keywords

climate emergency, spatial borders, immersive art, media philosophy, communication, virtual nature

“Everything exists in a long, fragile, yet miraculous, borderless continuity of life”

(teamLab, *Borderless*).

In Australia, the transition from 2019 to 2020 marked an extraordinary time where borders were destroyed by fires and then reimposed in response to the COVID-19 pandemic. Intersecting crises of environment and public health destroyed flora and fauna across vast tracts of land and later atomized populations, isolating people within familial ‘bubbles.’ The Black Summer fires began in September 2019 with a lightning strike which ignited drought ridden landscapes of the Eastern and South Eastern states. These fires burned at varying intensities for six months. On New Year’s Eve, the fires reached such a peak that they created their own weather patterns, forcing people to abandon their homes. While the ferocity of the fire storms obliterated state borders, beaches, the space between the land and the water, became sites of refuge. Just as the fires were beginning to subside early in 2020, a new threat emerged. Horrifying images of intense flames, orange skies, and suffocating smoke gave way to a less visible threat in the form of the COVID-19 virus.

Australia’s response to the pandemic required that national, state, territory, and regional borders be closed. The imposition of these borders precipitated a radical change to movement and the experience of space. Communities are atomized, extended families separated, the elderly holed up in their homes or in residential care units. Returned travelers who were quarantined in hotel rooms in the first wave, are refused direct entry into Victoria following a

dramatic escalation of infections emerging from leaks in quarantine. These new borders alter the perception of time. Under lockdown, time slips away. Days spent in isolation blend into one another, their names forgotten, or insignificant. Touching is prohibited, hands are washed, cleaned, sanitized, and gloved. What once might have been an amicable acknowledgement of people passing on the street is now replaced by the broad arc of movement designed to increase physical distance. Face to face communication is mediated via screens. We talk with one another and teach on screens, our image framed by tiny borders. We forget to unmute and instead speak ‘into the wind’ without being heard. In the outside world, our speech is shielded by masks. Concern for viral transmission necessitates the insistence on distanced, silenced, and mediated communication that creates “unbridgeable gaps” between sender and receiver.

The recent climate and health emergencies necessitated a reconsideration of borders, national, state, and personal. While the Black Summer fires forced residents into peripheral spaces between land and sea, the subsequent closure of borders in response to the pandemic restricted movement and transformed modes of communication. This article begins by charting the ways that borders were compromised and then reimposed in the lived experience of 2019-2020 and draws a stark contrast with the fluid borders that characterize the simulated ecologies produced in utopian installation art. It provides a new way to imagine borders by investigating the *teamLab Borderless* Museum in Tokyo (2018). *teamLab Borderless* offers an immersive experience of an alternative future, one where the relationship to natural ecologies is imagined as purely virtual. This article explores the intersection between the actual, restricted bordered world, and the virtual, immaterial borderless space. It extends the analysis of *teamLab Borderless* into the past as an installation that revises traditions in premodern art that invite the

viewer to imagine themselves situated definitively within the space, rather than observing from outside.

This exploration of how installation art can bridge distance and difference, or “unbridgeable gaps,” is framed by the philosophy of media developed by the German media theorist, Sybille Krämer (12). Krämer’s early research considered computer technologies as transmission media, but it is her reconsideration of the relationship between transmission and communication, science and nature that inspires this reading of *teamLab Borderless*. In *Medium, Messenger, Transmission: An Approach to Media Philosophy*, Krämer explores the metaphor of messenger as mediator. Throughout, the messenger takes many dimensions. It can be situated in the divide between the sender and receiver, delivering but never bridging the gap between them; it can be invisible as an angel who transmits the message and then disappears, or even felt in the flow of embodied communication that defines the personal or erotic mode of communication. My exploration of Krämer’s work begins with respect for the ways that the postal principle focuses on the receiver. It then explores the erotic mode to consider the embodied experience that *teamLab Borderless* provides. It considers the unique ways that this installation positions viewers centrally within the museum, potentially blurring boundaries between objective and subjective, outer and inner worlds. It concludes by identifying how borderless virtual worlds contrast with the stilled and atomized cultures that define the pandemic perspective. However, before we visit *teamLab Borderless*, let me offer some context to specify the distinct interdisciplinarity of its team of creators and the layered history of its location.

Established in 2001, teamLab is a collective of cross-disciplinary artists and scientists who create large scale, light based installations. The collective includes artists, architects, CGI

animators, mathematicians, programmers, lighting designers, and engineers who work collaboratively in their Tokyo studio. teamLab's founder Toshiyuki Inoko has built such a large team that he says, "after we surfaced 400, we stopped counting the numbers." Inoko named the collective to prioritize the word 'team,' followed by 'Lab,' capitalized to emphasize the significance of their experimentation. Inoko has described the team as a combination of "typing pool and experimental laboratory," all collaborating to "improve the work." In an interview with Inoko, Chloe Kantor describes teamLab as "a collective who insist on speaking with a single voice." The team experiments, creates, and speaks as one. With unity at the center of its creative practice, teamLab designs and builds screen based environments that extend a similar unique interaction to the visitor. The visitor is recognized as a key element of the collective, an active participant who is welcomed inside the borderless world and is invited to create the experience of the work for herself and for others. Conventional boundaries that would usually separate visitors and creators are diminished in the experience of *teamLab Borderless*.

teamLab identifies their aim as intending "to explore the relationship between the self and the world and new perceptions through art" (teamLab, *Borderless*). This relationship is signaled well before entering the gallery. Prior to visiting the MORI Building DIGITAL ART MUSEUM: *teamLab Borderless* on Odaiba Tokyo, visitors purchase tickets online and select a specific date for their visit. This is the first hint of the ritualized experience of *teamLab Borderless*, one that is both futuristic and reveals deep connections to its past. With its long and complex history, Odaiba provides a unique location for *teamLab Borderless*. Odaiba began as one of six fortresses designed to protect Edo from Matthew Perry's Black Ships. Fortress number three was subsequently expanded to form a large, artificial island of reclaimed land in

Tokyo Bay. This fortress was designed as a ‘teleport town,’ a space that interweaves its lived history of protecting Japan’s borders with the futuristic technologies, businesses, and leisure destinations of an expansive globalized world. The driverless monorail that whisks passengers across The Rainbow Bridge and onto Odaiba provides the first hint of that futuristic world.

We approach the gallery and join a long line of visitors queuing in the hazy Autumn humidity. All are hopeful of a moving queue, or at least of reaching the next point where an air cooler can provide some relief from the heat. Happily, this queue moves quickly and transforms into a snaking internal line where we take tiny steps in lateral directions. Just before the doors to the entrance, we are offered the rules of admittance in multiple languages. It is at the initial point of contact that the unidirectional, distant transmission aspect of Krämer’s mode of postal communication is most evident (21). With messages transmitted, received, and agreed, entry to *teamLab Borderless* is permitted. Once visitors step beyond the curtain, they are offered a choice of pathways. I begin my experience in the ‘Forest of Flowers and People: Lost, Immersed and Reborn’ (see fig. 1). The artworks in this zone blur the border between actual and virtual. Inside, I am surrounded by floral images that fill the walls and floors, an inflorescence of color that blooms across a background so deep black that it suggests infinite depth. Clashes of colors spanning laterally across the screens draw attention to the surface of the image. Orange daisies are juxtaposed with blue and then fuchsia flowers that appear to be simulated hydrangeas. These flowers appear as buds and then bloom before my eyes. Some of the petals drift and fall. Other walls display pink and mauve blooms of stylized azaleas. The flowers wind their way up the walls like vines. They don’t need anything except light to appear and human contact to bloom. The flowers in this forest propagate in response to stillness and touch. Deep red blossoms bloom across walls and floors, making progress throughout

tentative, lest our steps cause damage. The ceiling is darkened to such an extent that any technologies for projection are hidden, almost. The flowers increase to a scale well in advance of their natural size. This immersive experience recalls Gilles Deleuze's suggestion that it is space itself that is animated in the dream image (60). He writes, "Characters do not move, but, as in an animated film, the camera causes movement of the path on which they change places ... The world takes responsibility for the movement that the subject can no longer make" (60). The combination of increased scale, saturated colors, the inky black depth of the background, and the movement of the image immerses the visitor inside this thriving garden. While the microseason outside of *teamLab Borderless* is Shūbun, Autumn Equinox, a time when insects hole up underground, the cycles of growth within this floral garden reimagines time as rapidly advancing through the seasons.

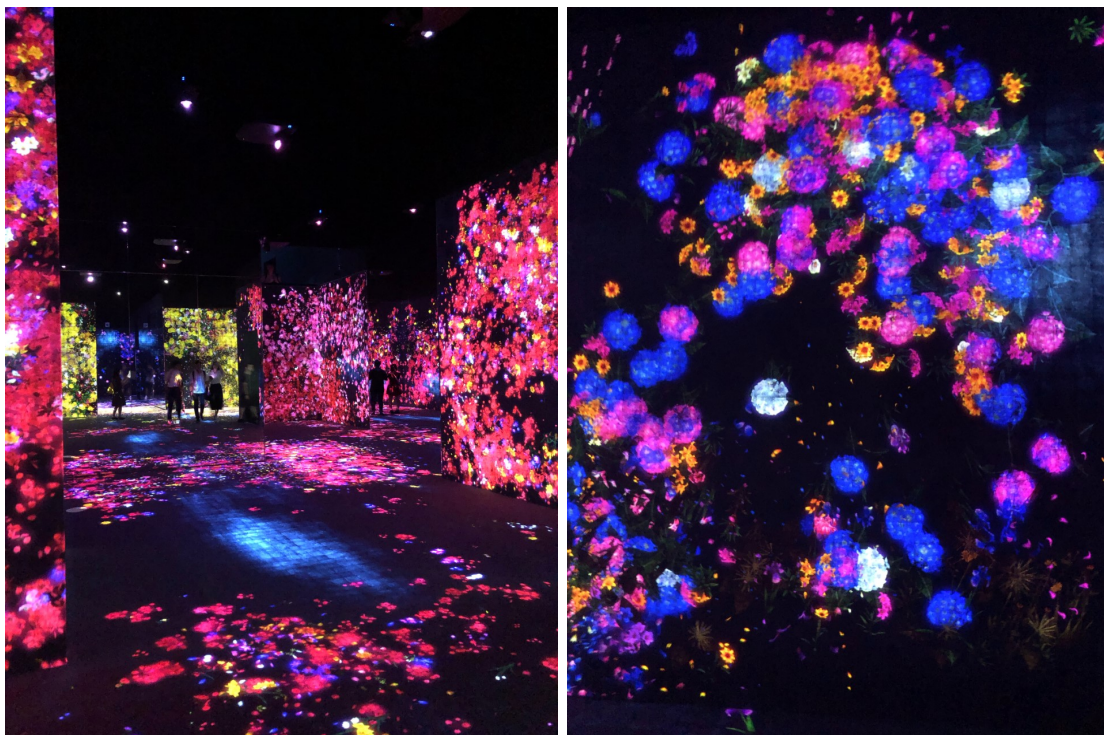


Fig. 1. 'Forest of Flowers and People: Lost, Immersed and Reborn', MORI Building DIGITAL ART MUSEUM: *teamLab Borderless*, Odaiba, Tokyo (teamLab 2018).

Building immersive experiences of a simulated natural world and blurring the boundaries between visitor and creator are the forces driving *teamLab Borderless*. The ‘Forest of Flowers and People: Lost, Immersed and Reborn’ presents a particular aesthetic that pushes color hues into realms well beyond the natural world, providing new visions of simulated worlds. The color saturation is heightened to such a degree that they become extrinsic and otherworldly. The intensification of color and contrast pushes vision to its limits, asking the visitor to envisage the natural world in familiar yet new ways. This is reminiscent of Kristin Thompson’s neoformalist notion of the potential for cinematic imagery to defamiliarize and destabilize vision, ultimately renewing perspective. More recently, Murray Smith’s research on a “naturalized aesthetics” of film and art offers a way to consider how the moving image, and in this context, visual installations, can also disrupt routinized perception. Smith understands the potential for color to contribute distinctive, irreducible, sensory experience to the conscious experience, providing an “interface between the mind and the physical world” (118). Visiting *teamLab Borderless* involves a renegotiation of the boundary that separates actual from virtual. This simulated ecology proliferates, producing expanding cycles and spirals that reference the natural world and replace it with images of spectacular excess. Such excesses in color and extremes in scale creates an ecology that surrounds and moves with the visitor. Reluctantly leaving the ‘Forest of Flowers and People: Lost, Immersed and Reborn’, I am delighted to note the continuity of a similar, simulated ecology in the fireflies that become visible in the black and white images of bamboo lining the corridors (see fig. 2). Visitors have the ability to observe, create, and transfigure the image. Jean Baudrillard’s postmodern semiotics of ‘hyperreality’ can be stretched to apply to the illusion of nature created in *teamLab Borderless*.

In this context the floral imagery becomes an uncanny hyperreal illusion of the simulacra that floats free, unencumbered by borders.



Fig. 2. The Bamboo Pathway, MORI Building DIGITAL ART MUSEUM: *teamLab Borderless*, Odaiba, Tokyo (teamLab 2018).

teamLab Borderless's simulated illusion of the natural world is organized around quiet, almost invisible technologies and specific modes of communication. Krämer's media philosophy provides a framework through which we can explore the ways that teamLab uses these quiet technologies and modes of communication to stage the experience of *teamLab Borderless*. While the design of Krämer's personal understanding model is, as she notes, "embodied in Jürgen Habermas's communication theory, [it] is entirely different" (22). Krämer's notion of "communication as transmission" is asymmetrical and unidirectional, "concerned with emission or dissemination, not dialogue" (22). In the postal mode, "there is no such thing as immaterial signals" (Krämer 22). Krämer's postal mode is established in the

instrumental delivery of instruction that characterizes the pre-experience of *teamLab Borderless*. Communication is definitively material in the signs, notifications, and transmission of singular instruction. The postal mode understands communication as non-dialogical and non-reciprocal, with the maintenance of distance between sender and receiver (Krämer 31). The “unbridgeable” distance is preserved by material media occupying the space between them, regulating the behavior of the receiver. This ritualized formality ensures that “worlds remain distinct” (Krämer 20) leading up to entering *teamLab Borderless*; however, as visitors move through the doors and into the inner world, communication transitions toward a mode that is more visceral. Krämer’s ‘erotic’ mode is contingent on connection with the body to bridge distance and difference. Here the media “establishes a connection despite and in the distance that separates them” (Krämer 23). The installation is sensitive to touch and movement, so we are encouraged to touch the walls and create our own connections and unique experience of this virtual landscape. *teamLab Borderless* invites the touch of our skin and the heat of our bodies in the creation of immersive experiences. While Krämer envisages the aim of erotic communication as “not connection, but unification through direct and unmediated access” (21), *teamLab Borderless* extends this access to walls that invite direct engagement with the artwork, and offers us a place inside it.

These simulated ecologies are illuminated by the presence of the visitor and respond to their touch. *teamLab Borderless* offers a kinetic and tactile reciprocal interdependence, an experience of embodied connection between flesh and screen. The experience of these tactile screens can be understood by consulting the phenomenologists who are less inclined to elevate a distant, powerful gaze and instead prioritize the embodied sensations of the moving image. The spaces of *teamLab Borderless* provoke the haptic visuality that Laura U. Marks

understands as an embodied, multisensory engagement. In *teamLab Borderless*, however, technologies of the exhibition also see, sense, and respond to the visitor. Vision, touch, and movement are designed as a two-way, reciprocal flow. teamLab asserts, “We are now able to manipulate and use much larger environments, and viewers are able to experience the artwork more directly, interact, and instigate change in an artwork. Through this interactive relationship, viewers become an intrinsic part of the artwork” (Kantor). The performance of communication in the erotic, personal understanding mode establishes connections across distance and creates a unified society, “whose goal is precisely to overcome distance and difference” (Krämer 22).

Moving into the ‘Universe of Water Particles on a Rock Where People Gather’ (see fig. 3), I note that the flowers from the adjacent rooms form a background of entangled colors that contrast with the blue vertical flow of water. An additional experiential element lies at my feet. In this room the floor surface is graduated on a slight incline so that participants can step up toward the waterfall and share the illusion of standing on a rock with the water falling all around them, never getting wet. The particles of water are interactive as well. As visitors touch the walls or stand beneath the waterfall, the particles part around them and flowers bloom in their wake. teamLab prioritizes the centrality of the body in the experience of their artwork. They write that “people understand and recognize the world through their bodies, moving freely and forming connections and relationships with others. As a consequence, the body has its own sense of time” (“Borderless World”). teamLab suggests that the artworks themselves share the same concept of time with the human body (“Borderless World”). Jennifer Barker’s notion of the kinetic thrill characteristic of the experience of the moving image may include the ways that this simulated waterfall is projected onto the surface of our skin. Extending Barker’s

conceptualization to *teamLab Borderless*, we could suggest that these images actually get under our skin, that the flowing water that surrounds us mirrors our internal rhythms and pulses as we become immersed within the space. The body's sense of time that teamLab identifies reflects that of the imagery itself. The erasure of internal and external boundaries intensifies in this immersive experience.



Fig. 3. 'Universe of Water Particles on a Rock where People Gather', MORI Building DIGITAL ART MUSEUM: *teamLab Borderless*, Odaiba, Tokyo (teamLab 2018).

For Krämer, the personal mode of communication “results in the formation of community” (22). Visitors to *teamLab Borderless* share a primary role in animating the imagery and continuing its flow across the zones. Simulated images of an electric neon ecology spread across the walls and floors, some escape their designated zones, peek into pathways, and transition into new areas. teamLab defines this exhibition as “a group of artworks that form one continuous, borderless world. Artworks move out of the rooms freely, form connections and relationships with people, communicate with other works, influence and sometimes intermingle with each other” (“Borderless World”). teamLab points to one of the aims of their artwork as to “explore a new relationship between humans and nature, and between oneself and the world” (Kantor). This allows for an expansion of Krämer’s dialogical mode where “those who communicate with one another become ‘one’; if the goal of understanding has been achieved, then it is as if they are speaking with one voice” (22). The erotic principle extends to include the sender, receiver, and the technologies of communication, but this mode also notes the limitations of communicating ‘inner worlds.’ However, by inviting touch, projecting the image across our skin and allowing us to ‘feel’ the rhythms of simulated nature, *teamLab Borderless* blurs the distinction between inner and outer. teamLab explains that such an interrelationship relies on digital technologies which have “allowed art to liberate itself from the physical and transcend boundaries” (Kantor). *teamLab Borderless* comprises around 60 artworks. Many of them transcend the boundaries of space and move throughout the museum, interacting with visitors and with each other. This reconceptualization of the viewer’s relationship with the artwork has a base in the history of Japanese art.

teamLab writes that, “Until the late nineteenth century, people in Japan depicted the world differently than today. This ancient Japanese sense of spatial recognition has been lost in

modern times. With our work, we explore whether the world itself has changed spatially, or if people have lost sight of how they once saw things” (“Ultrasubjective”). In Japanese scroll painting objects and figures exist on a single plane. Depth cues are imagined laterally. teamLab suggests that “it may seem impossible to perceive dimensionality from this alternative vantage point; however, it can also be argued that it is unnatural to only see the world from a single-point perspective” (“Ultrasubjective”). teamLab develops a logic of spatial perspective that draws from the distinct flatness of traditional Japanese scroll paintings (“Ultrasubjective”). Across the history of Japanese art, perspective is not fixed or singular, but evolving, moving, and as they describe it, unfixed within an “ultrasubjective space” (Inoko). They note that in scroll paintings “separate scenes are viewed by unrolling the scroll with the left hand. You look ... at the individual parts of a larger whole. Paper screen paintings are also painted with the understanding that the individual screens will be moved” (“Ultrasubjective”). This is counter to the single point perspective (or Renaissance perspective) that assumes that the viewer is both objective and distanced in relation to the image. Fixed perspective describes the way that lines converge into a vanishing point into the distance, making objects recede and developing an illusion of three-dimensional space. This approach to spatial logic separates the viewer from the image that is viewed. While the traditional Western viewpoint was designed around a single vanishing point, teamLab’s approach positions the viewer as “inside the image” (Inoko). The unbridgeable gap that might otherwise separate the sender and receiver is revised in the ultrasubjective perspective.

As teamLab identifies, “the creative process allows for the discovery of features and phenomena that exist only in ultrasubjective space” (“Ultrasubjective”). They write, “when you view a painting from a position where it can be seen in its entirety, you can imagine

yourself inside the entire space... Step closer to the painting so that you can see only one part of it and you visually enter only that part of the represented space in the painting”

(“Ultrasubjective”). The viewer is central to the logic of ultrasubjective space. As they step into the space, it is seen, felt, even created and animated by the viewer. In this immersive world of fluid boundaries, space is transformed from three dimensions to two. Viewers feel that they are inside the images, that they are part of the spaces presented in the borderless world (Inoko). The viewpoint of the work is inside the artwork and alongside others. It is not one from the outside looking in (Inoko). Positioning visitors alongside one another and within the image accentuates an experience of proximity, one that diminishes borders and bridges worlds.

For teamLab, the definition of “borderless” also relates to the limitations of human vision. The premise of the visual experience of *teamLab Borderless* is to develop a simulated world that exceeds the limits of our vision. Viewers inside the images of the installation are offered views that extend toward omniscience, seeing all from multiple perspectives within the image. The concept of ultrasubjective space allows the viewer the illusion that she is part of a borderless world. As teamLab suggests, “While viewing a painting, a viewer can pretend to enter and move around freely within the space of that painting. The viewer does not hold a dominant perspective over the depicted space, and is instead merged into the comprehensive experience” (“Ultrasubjective”). *teamLab Borderless* invites an experience of this simulated natural world without assuming a hierarchy of vision. All viewers are offered similar access. Some from a higher, some from a lower vantage point; some perceiving in sharp focus; all seeing color slightly differently, while others with less than perfect eyesight might see it as a blur. teamLab identifies how humans “switch focus over time,” how the “range of narrow and

shallow focus is synthesized in the brain” to produce the illusion. Their work is based on the notion that “people use their eyes like an extremely weak camera. They continuously take an infinite number of mental photos of their surroundings, synthesizing the huge volume of these images in their brains, thereby creating an understanding of these images spatially” (“Ultrasubjective”).



Fig. 4. Falling Petals in 'Born from the Darkness a Loving and Beautiful World', MORI Building DIGITAL ART MUSEUM: *teamLab Borderless*, Odaiba, Tokyo (teamLab 2018).

Similar zones of embodied perception and fluid borders are central to Peter Sloterdijk's conceptualization of space as spheres, foams, and tiny bubbles. These zones of entanglement provide ways of thinking through actual and imagined borders that are diffuse and permeable while simultaneously creating shared spaces of networked connection. This concept both is a spatial topography and poses a phenomenology that allows us to extend beyond the experience of an individual, to consider the collective. For Sloterdijk, internal and external worlds are

deeply connected in the constitution of lived bodies that experience the world in sensory and kinetic ways. In this framework, a sphere is jointly created as a topological network of relations, one without clear borders. These are macro and micro spheres of entangled connections between humans and objects. teamLab suggests that in order to understand the world around them, people separate it into independent entities with perceived boundaries between them. They tell us that *teamLab Borderless* seeks to transcend these boundaries in the perception of the world, in the relationship between the self and the world, and in the experience of time and space in a continuous flow (*Borderless*).

teamLab Borderless provokes a reconsideration of binaries including the actual and simulated, past and present, nature and culture, the individual and the collective, and the visible and the invisible. In both content and form, *teamLab Borderless* negotiates the visible and invisible. Krämer reconsiders McLuhan's position on the visibility of media to argue that the cinema screen "'disappears' as soon as the film grips me," suggesting that "'smooth' media remains below the threshold of our perception" (31). The messenger is a reflection but "never the presence itself" (Krämer 94). In Krämer's philosophy, "media are peripheral and negligible vehicles that provide undistorted and unmediated access to something that they themselves are not, much like transparent window panes" (23). *teamLab Borderless*'s transparent window panes extend to the illusion of an imaginary virtual world, one that responds to our own movement and touch. They may also offer a communal understanding of the precarity of the external, natural ecology, one that is subject to the current climate emergencies that exist in the ecologies referenced on the screens. These reflections mediate between visitors and the world outside, offering an imagination of wonder, perfection, interconnectedness. For Krämer "mirror images are—in an optical sense—virtual images. They move what is reflected into an

illusory space” (94-5). The pristine state of *teamLab Borderless*’s imagined nature can only be virtual. Connection and interaction are safest in these imagined scenes as climate emergencies in real life force us away from proximity to nature, away from interaction and deep connections. Kantor understands the creative work produced by teamLab as “offering glimpses of what the future in digital art would be through installations that explore creativity, technology, and the natural world.” At a time of global climate crisis, with extreme weather conditions burning, flooding, and tearing away nature, these artworks offer a sensory illusion of an impossibly pristine borderless world.

I flew out of Tokyo three days after Typhoon Hagibis swept across Japan demolishing homes, destroying nature, and temporarily closing *teamLab Borderless* down. I arrived in Melbourne just as the bushfires began to burn in Australia. The fires that devastated Eastern Australia beginning in September, continuing across Spring, and into the final days of Summer 2020 also showed no regard for borders. The Australian bushfires crossed borders that had previously distinguished land from roads, public from private, state from state and territory. Ecological destruction forced Mallacoota residents from their homes to the very edges of the land. Live daytime news reports showed the skies becoming apocalyptically crimson and then black as the intense fires shut out all light. The largest fire front extended across New South Wales and reached into Victoria, breaching state boundaries. These Black Summer fires forced a reconceptualization of the very definition of bushfires, with a new lexicon required to account for the particular confluence of weather patterns and drought ridden landscape to form firestorms. In the days and weeks following the most intense blazes, when many of the fires were still uncontained, the air in capital cities was so tainted by smoke that it was registered as Hazardous by the Environmental Protection Association. Residents were advised not to leave

their homes. Smoke traveled across the Tasman Sea toward New Zealand, eventually forming a ring around the southern hemisphere. The duration of the Black Summer fires necessitated an expansion of what was previously thought of as “bushfire season” in Australia. The Black Summer fires revealed the insignificance of boundaries imposed across spaces and times. This was an actual instance of permeable spatial boundaries, something imagined significantly differently within the utopian space of *teamLab Borderless*. While the simulated environment proposed an entanglement of nature and humans, the lived experience of the fires moved us toward an apocalyptic eschatology. Unfortunately, this experience of human and environmental disaster proved to be a harbinger of what was to follow.

The layering of these experiences provokes a reconsideration of the underside of simulated ecologies. Is it possible that the simulation of nature, its breathtaking beauty, sensuous tactility, fluid movement, and extreme colors of the *teamLab Borderless* world offer space to consider its opposite, the horrific loss and destruction of the natural world? Is *teamLab Borderless* building an imagined scenario of such wonder and proximity that it also points to the precarity of nature, its potential for radical destruction? Alongside the wonder of *teamLab Borderless* there is also an underlying feeling of loss. Perhaps it is precisely the excesses of color and beauty that sets it apart from the natural world. Susan Sontag thought about this in relation to the pure spectacle of the cinema and its potential to offer much more than merely a distraction or escape. Sontag argues that science fiction cinema presents an “imagination of disaster.” She writes that cinema provides an aesthetic of destruction, a “sensuous elaboration” of the fantasy of living through devastation, one that viewers experience from the safety of their cinema seat. Sontag suggests that cinema compels us to contemplate “the unthinkable” (52). She writes that “the imagery of disaster in science fiction

is above all an emblem of an *inadequate response* [and that] there is a sense in which all these movies are in complicity with the abhorrent” (emphasis original; 52). The ultrasubjective perspective produced by *teamLab Borderless* reveals our own inadequate response to the environmental emergency. Positioning us centrally within a simulated ecology and presenting us with the tools to create it brings awareness to our role, our responses, our responsibility for the current ecological precarity.

Early in 2020 the lights were turned off on Odaiba. The principle of ultrasubjectivity that drives teamLab’s experimentation is now less about imagining ourselves within the digital scroll painting, or in the simulated garden—it is now felt acutely as borders are reimposed in an effort to control the spread of the COVID-19 virus. The spatial distance and physical atomization that defines the postal returns with additional force as the necessary condition for connection and communication. However, as I write, there are hints of a return to Krämer’s personal mode of communication, albeit in a highly regulated form. The limitless flow, the touch and feel of the artworks are restricted by the new regulations for visiting. Participant’s temperatures are tracked using thermal cameras. Visitors are required to wear masks at all times. There are strict guidelines in relation to physical distancing. Visitors need to remain 1 meter apart from others in the queue and are asked to maintain a distance of 1.5 meters while inside the exhibition space. *teamLab Borderless* reopened its doors on June 8th. It has reduced its visitor intake by half. Ventilation within the spaces has been improved. Surfaces have been given an antiviral coating. While once *teamLab Borderless* had the potential to extend Krämer’s erotic mode of communication to new levels of sensuous connection and unmediated access, it has now been forced to incorporate distance and reimpose borders. In response to the COVID pandemic *teamLab Borderless* has created a new, remote artwork. ‘Flowers Bombing’

is available to anyone to view and participate in from anywhere in the world, a truly borderless artwork.

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