

## Re-Enacting Ecosystems: Jakob Kudsk Steensen's Environmental Storytelling in Virtual and Augmented Reality\*

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### *Towards an Immersive Eco-Aesthetics*

The art of Jakob Kudsk Steensen (Køge, Denmark, 1987) is about environmental storytelling. Standing at the crossroads of art and technology, he works with 3D animation, gaming platforms, photography, and sound design to create immersive, three-dimensional installations, which digitally re-enact endangered species and ecosystems that are either threatened or extinct. But technology is far from being a protagonist. For the artist it is only a tool that permits him better to perceive the (natural) world, a prosthesis – as per media theory – that “innervates”<sup>1</sup> sensory organs and increases mainly the visual and hearing abilities of human beings.

At the same time, within a “medium” in its strictest sense, the more technology remains invisible in his virtual ecologies and environments, the better it is. This is most likely another reason why Steensen makes no use of olfactory VR, although he is intrigued by the cultural value of odours and admires the work of artists working with smell – e.g. Sissel Tolaas (see the Smell Research Lab Berlin) or Boris Raux – to allow both a multisensory experience and safeguard the olfactory memory of places. Touch plays an important role in his projects too, but as for now he makes no explicit use of haptic technology.<sup>2</sup>

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<sup>1</sup> On the Benjaminian concept on «innervation» see, among others, Somaini, 2016.

<sup>2</sup> Programmers and artists have recently been experimenting a lot with VR gloves, especially to permit blind people to sense art objects and environments (for an introduction to the notion of touch in VR, see Price, Jewitt, Yiannoutsou, 2021).

Steensen's mixed reality installations – he works with both virtual and augmented reality – also have a lot to do with landscape architecture and game design (as a young boy he wanted to become an animator of virtual landscapes), as well as with digital archiving as a preservation strategy.



Fig. 1 – Jakob Kudsk Steensen, field documentation. Courtesy of the artist  
(Photo: Matthieu Grosperon)

Needless to say, behind each of his projects, there is long preparation. The artist is an omnivorous reader – in particular, but not exclusively, of natural science, science-fiction, and media theory books – and an extremely dedicated field researcher, who forges a deep engagement with the places at the core of his projects. During the preliminary field work, he not only acts as a biologist – diving with a camouflage suit, camera, and microphone, in forests and water lands [Fig. 1] – but engages with scientists, with whom he has long exchanges, and also conducts research in local Natural History Museums. Through careful direct observation, Steensen gathers research information, which he first records and then archives as audio-visual data ready to use. Photogrammetry, the technology to acquire data of real-world objects by creating 3D models from photos, enables him to document the natural environment while

exploring it (he usually takes one thousand pictures of each individual element he focuses on). Right from this first stage, embodiment with nature already plays a crucial role. While being literally immersed in the landscape, the artist is “body to body” with it, he observes, experiences, and records a specific flora and fauna all-around and is then able to recreate and offer the viewer a similar immersive experience in virtual reality.<sup>3</sup>

No wonder Steensen received the recently established Serpentine Galleries’ Augmented Architecture Commission for which he produced *The Deep Listener* (2019). Using augmented reality, he invited the public to take part in an audio-visual ecological expedition through Kensington Gardens and Hyde Park in London. The project started from an in-depth investigation of the park’s ecosystem and the impact that anthropogenic activities have had on the different species that populate it. Working together with Matt McCorkle, a sound artist, designer and engineer who often collaborates with him, as well as with the staff of Natural History Museums, Steensen made both visible and audible what usually no-one pays attention to.

«There is life in the park you do not see, sound you do not hear»<sup>4</sup> says the guide’s voice in the virtual nature trip, which encourages the visitor to listen to the park sounds carefully. From that moment on, through a smartphone app, each participant undertakes an excursion that leads them to discover the flora and fauna of the London park in all their detail: azure blue damselflies, bats, parakeets, plane trees, reedbeds, and so on [Fig. 2]. It can be said that *The Deep Listener* transforms absent-minded visitors into conscious econauts.

As with his previous projects, Steensen gathered the audio and visual elements he needed from organic source material, which he collected during a period of field work within Kensington Gardens and Hyde Park. The findings of his nature exploration were then digitally remediated and re-embedded in the virtual ecosystem. «I try to convert this body immersion in a landscape», he explained speaking of a concomitant work, the virtual forest *Catharsis* (2019), «into a virtual space where I believe to make something really sensory in a digital space. I try increasingly to

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<sup>3</sup> In Steensen’s works 3D photography is somehow re-animated through code, sound, and physical movement – the performative/choreographic aspect is another fundamental feature of his virtual reconstructions.

<sup>4</sup> See *The Deep Listener* demo short video on the artist’s website: <http://www.jakobsteensen.com/the-deep-listener> [last accessed on 30 June 2021].

work between an inner, psychological landscape, and an exterior landscape, where things are vanishing because of extinction, and connect those two elements into immersive installations or live streaming» (Vickers, 2020, n.p.).



Fig. 2 – Jakob Kudsk Steensen, *The Deep Listener*, 2019. Courtesy of the artist

The artist undertook a similar process for his most recent project to date, *Berl-Berl*, which was conceived as both an onsite installation and an online world. For the installation, a 1,400-square-metre hall at Berghain was transformed into a virtual swamp (during the COVID-19 pandemic the most celebrated Berlin techno club has been temporarily converted into an exhibition space).<sup>5</sup> As a vast recreated natural environment, *Berl-Berl* enables both the exhibition-goer and the online visitor (see the dedicated platform [www.berlberl.world](http://www.berlberl.world)) to experience Berlin's wetlands, with their unique plants, animal species, and ancient myths [Fig. 3]. The work's title recalls the old Slavic word for swamp: "Berl". The first inhabitants who settled in the Berlin wetlands – which originated about 10,000 years ago from a glacial valley – were *de facto* Slavs. Steensen spent months searching for traces of the primordial ecosystem flooded

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<sup>5</sup> The inaugural exhibition was *Studio Berlin*, a collaboration between Berghain and the Boros Collection, which aimed to present a large group of contemporary Berlin-based artists. For more information: <https://www.studio.berlin/en/> [last accessed on 30 June 2021].

by water,<sup>6</sup> digging both in the still existing swamp (Berlin-Brandenburg is well-known for its lakes) and in the archival collections of the Natural History Museum in Berlin.<sup>7</sup> As a result, he put together an archive of images working with macro photogrammetry, a passive sensing technique that is used to measure and reconstruct 3D objects from multiple images, no matter what the study scale and the platform used to acquire the images are. The artist took hundreds of images of single elements (leaves, pieces of tree branch, bark or root, patches of mud, etc.), which he then rendered in a 3D plan to design an immersive landscape working with the video game platform Unreal Engine, a tool he constantly makes use of.



Fig. 3 – Jakob Kudsk Steensen, *Berl-Berl*, 2021. Courtesy of the artist

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<sup>6</sup> Another project he has simultaneously been working on is *Liminal Lands*, commissioned by the LUMA Arles in France, where Steensen spent an artist residency in 2019-2020. This is also the result of a weekly on-site observation and documentation which he made at the wetlands in Camargue and Salin-de-Giraud, and which has brought to new life a specific ecosystem accessible as a multiplayer experience in VR.

<sup>7</sup> With the collaboration of the Natural History Museum he also developed an app (see the Naturblick platform at <https://naturblick.museumfuernaturkunde.berlin/>) [last accessed on 30 June 2021] and a series of digitally guided excursions, which enable the public to learn more about Berlin's wetlands ecosystem.

In doing so, the artist carries out a meticulous job of collecting, classifying, and preserving, which is comparable to the effort made every day in Natural History Museums. It seems almost as though he is preparing a private digital archive which in the future could, if not increase, at least run parallel with more institutional collections. This shows a great sense of responsibility on his part, especially towards future generations.

### *Environmental Field Work Between Arts and Sciences*

In this respect Steensen is close to other artists who have done field work before him, behaving like amateur archaeologists, anthropologists, biologists, ethnographers, sociologists, either to sensitise public awareness of ecological issues or to pass on the memory of endangered species and ecosystems – or even both. From Robert Smithson, who, with his practice and his numerous writings, was among the first artists to reflect on geological life, and on both rock strata and earth sedimentations as natural repositories of memory; to Joseph Beuys, who through his actions intended to provide a definition of “social sculpture”, that is, a “living” sculpture – since it was conceived as a continuous process, as a militant and subversive gesture in the ecological, social, political, economic, and cultural contexts. And again: from Hans Haacke to Mark Dion, who have revealed, each in their own particular way yet both contesting the status quo (Institutional Critique), how organizing and archiving knowledge – be it scientific, social or cultural – always inevitably generates new forms of control and power.

If the above mentioned are just some of the main examples which can be named to compare Steensen’s practice to that of artists of the second half of the 20<sup>th</sup> century, when it comes to the relationship between art, biology and technology in the new Millennium his work may mainly be related – with due differences – to those installations at the intersection of organic and digital conceived by Pierre Huyghe and Philippe Parreno. As artists who work at the crossroads of art and science, focusing on environmental issues, Olafur Eliasson and Tomás Saraceno are of course another two key reference names, who share Steensen’s aesthetic sensibility and ethical sensitivity. Although their practice may vary in terms of idiom and medium, they all contribute to questioning the present nature and status of art, and are engaged in such an in-depth redefinition of its codes and systems that they have to (aesthetically, technically, ethically) invent anew the world in which they work.

Going back to Huyghe's case, the work to mention is *After ALife Ahead*, a time-based, bio-technical environment built in a former ice rink for the 2017 edition of Skulptur Projekte in Münster.<sup>8</sup> As a complex and autonomous system,<sup>9</sup> it was composed of different living organisms (cells and viruses), inanimate objects, and high tech, which mutually interacted, generating organic and computational processes. In Parreno's case, it was his exhibition, organized during the Berliner Festspiele (an artistic programme that since 2016 has focused on the theme of "immersion") at the Gropius Bau in 2018 which most closely relates to Steensen's work. The exhibition, which was given no specific title, functioned as a self-operating machine triggered by biological activities that were computer-processed. Like all of Parreno's shows, it took shape over time defining itself as a space of possibility, where ideas, works, human beings (the exhibition visitors), automata, and biological organisms contributed to making the exhibition. Particularly active were those bacteria contained in a bioreactor, located inside a museum showcase, which constituted the exhibition's "brain", since they were connected to the computers that orchestrated the overall system. In both these cases, the artwork-exhibition can be described as a process, as a living organism that originates and evolves independently, where the human being is only one of the "intelligences" that produce changes in a particular environment by taking action and acquiring experience.

This state of impermanence is a feature of Steensen's work, too. Let's get back to *Berl-Berl*, a rehabilitated ecosystem where the public could have both a visual and an acoustic experience. To recreate the original soundscape of the Berlin wetlands as accurately as possible, the artist collaborated not only with Matt McCorkle, but also with Venezuelan queer singer and composer Alejandra Gherzi, alias Arca. Their voice mutates according to the sounds sampled from the swamp – among which are noises made by amphibians and other local creatures. In this refashioned aquatic environment, Arca come to (new) life as avatars.

Yet, the reconstruction of Berlin's wetlands landscape – it should be remembered that wetlands are considered the most biologically diverse of

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<sup>8</sup> See also his previous *De-Extinction* (2014), a film made with macroscopic and microscopic cameras, which explores insects encased in amber evoking the idea of the time capsule.

<sup>9</sup> The materials listed in the artwork's caption give an immediate idea of its complexity: Concrete floor of ice rink, logic game, ammoniac, sand, clay, phreatic water, bacteria, algae, bees, aquarium, black switchable glass, Conus textile, GloFish, incubator, human cancer cells, genetic algorithm, augmented reality, automated ceiling structure, rain.

all ecosystems – does not only deal with its natural aspect. Steensen studied its cultural value in Slavic mythology, when that characteristic environment made of hydric soil, aquatic plants, insects, invertebrates, birds, and all sorts of microscopic organisms, was identified with Triglav, a three-headed deity. For the artist it was an opportunity to re-imagine a corresponding tripartite cosmology,<sup>10</sup> where undergrowth and fungi, water and trees, and sky are holistically intertwined.<sup>11</sup> It was also a way to question what is left from both the Ice Age ecosystem and ancient culture, what can be retrieved in the present, or, instead, is inexorably lost. In Steensen's words: «*Berl-Berl* is a song for the swamp, a place for the undefinable – morphing, liminal and mystical. *Berl-Berl* mourns what is lost and embraces what is new».<sup>12</sup>

### *Re-Enactment of Threatened Species and Habitats as Eco-Critique*

Extinction is a recurrent topic in the artist's work, and more in general (outside the hard science context) in the research and (creative arts) practice carried on within the Humanities that focus on environmental crisis as an existential threat. However, Steensen looks at it from the perspective of "de-extinction", which in biology is «the process of resurrecting species that have died out, or gone extinct»;<sup>13</sup> or better, of revitalising those that are endangered, since there is no scientific approach which can truly recreate a species that was lost.<sup>14</sup> As an artist, for him it is clearly a re-enactment that implies above all a manipulation of time and space, certainly not of organic beings.

*Re-Animated* (2018), a video and VR installation which, after its first presentation at Tranen Space for Contemporary Art in Hellerup, Den-

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<sup>10</sup> According to the Slavic Native Faith, "Nav" (Underworld), "Yav" (Earth), and "Prav" (Heaven) are the three dimensions of the cosmos.

<sup>11</sup> In regard to entangled life and how fungi and octopuses or cephalopods – two natural species which are among the most inspirational leitmotifs in contemporary art that deals with environmental issues – challenge our concepts of individuality and intelligence, see Sheldrake, 2020, and Godfrey-Smith, 2018. Of course, the Harawayan theory of «making kin» resonates here as well (Haraway, 2016).

<sup>12</sup> See the website of the Berlin-based art foundation Light Art Space (LAS), which is devoted to the interaction of art, technology and science, and commissioned *Berl-Berl*: <https://lightartspace.org/programme/jakob-kudsk-steensen> [last accessed on 30 June 2021].

<sup>13</sup> See the definition in the *Encyclopedia Britannica* online: <https://www.britannica.com/science/de-extinction> [last accessed on 30 June 2021].

<sup>14</sup> In this regard, a source of inspiration for his practice is Britt Wray's book of 2017.

mark [Fig. 4], was also shown at the Venice Biennale in 2019 (as part of the Future Generation Art Prize Exhibition at Ca' Tron), deals precisely with species revivalism or – in Steensen’s case – re-enactment.



Fig. 4 – Jakob Kudsk Steensen, *Re-Animated*, 2018. Installation shot, Tranen Space for Contemporary Art, Hellerup. Courtesy of the artist (Photo: David Stjernholm)

Re-enactment is here seen as a specific practice of production, curatorship, and conservation of the visual arts (Baldacci, 2019b), which differs both from revival in the sense of Living History and from the strict sense in which the term is used for the performing arts. As such, it implies notions like (re)appropriation or *Aneignung* (Ricoeur, 2016), (re)interpretation in the sense of working-through or *Durcharbeitung* (Lyotard, 1991), (re)construction of an unfinished, damaged, or lost object/memory, (re)mediation (Bolter, Grusin, 1999), and (re)circulation (Baldacci, 2019a).

For *Re-Animated* Steensen imagined digitally “resurrecting” the Kaua’i ‘ō’ō bird, which became extinct in 1987, when the last specimen died. A native species of the Hawaiian island of Kaua’i, from which it takes its name, the bird possesses a characteristic mating call that was first recorded and then digitalized and uploaded to YouTube in 2009. Steensen listened to that call and was deeply impressed by it. To him the bird’s

voice seemed to resonate in vain, since on Earth there was no mate left to attract. So he decided to poetically reply to that call, virtually recreating an oversized exemplar of the Kaua'i 'ō'ō bird inside its original habitat, where the bird's song could resonate again. Like a phoenix, that creature rose again from the past, achieving a virtual second life – a *Nachleben*, in the Warburghian sense – as a three-dimensional image [Fig. 5].



Fig. 5 – Jakob Kudsk Steensen, *Re-Animated*, 2018. Courtesy of the artist

To succeed in the endeavour, he did fieldwork, researched in The American Museum of Natural History, interviewed Douglas H. Pratt, an ornithologist and bio acoustician who is an expert on Hawaiian birds, and collaborated with Michael Riesman, who has served as a musical director for the Philip Glass Ensemble.

Steensen's digital reconstruction of the Hawaiian ecosystem drew on computer simulation models as used by climate scientists to imagine future scenarios of life on Earth. From this point of view, his work (as a whole) which – as was recently pointed out – consists of virtual «choreographed sets»,<sup>15</sup> could be interpreted, depending on the case, either as a *pre-* or *re-* enactment of the influences and consequences of human activity on natural environments. Thus, Steensen's virtual and augmented

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<sup>15</sup> The expression comes from Nora N. Khan, who refers in particular to Steensen's *Liminal Lands* in her essay for the *Prélude/Prelude* exhibition catalogue at LUMA Arles (see Hoffmann and Oikonomopoulos, 2021, n.p.).

reality offers a chance to envisage the potential solutions that could be implemented for living together and preserving ecosystems, raising awareness, identifying appropriate behaviours, and preparing for alternative, that is, sustainable and resilient, lifestyles.

For the artist it is a question of (re-)making worlds,<sup>16</sup> of producing stories that function as plural and inclusive counter-narratives. Parallel stories like the ones he tells through the use of visual media, intertwining science, fiction, and poetry, can help undermine the neoliberal and neocolonial rhetoric embedded in discourses about the Anthropocene and Climate Change (see Demos 2017). This latter concept is slowly falling into disuse – or at least it should – because it refers to a passive form of acceptance of the climatic repercussions on human life.

From this point of view, “environmental art”<sup>17</sup> – in Steensen’s case an art that both deals with environmental issues and produces (mixed media) environments – can fulfil two important objectives. On the one hand, by taking the form of three-dimensional installations and immersive worlds, it can become a means for scientific and cultural dissemination, a “place” of knowledge and understanding, where experiments and inquiries are not only made public, that is, freely accessible to everyone, but also collectively experienced or conducted (see Latour 2011). On the other hand, environmental art can encourage forms of activism – which can be personal and collective, local and global –, produce consciousness and affect, spell out responsibilities, and induce change (agency).

As the artist observed: «Regardless if you are able to bring back specific animals [the same is true for plants and/or ecosystems], you are also engaging with the story of the animal, with its organic material. You are provoking some debates, some narratives, you are making people aware

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<sup>16</sup> “Making Worlds” was chosen as a title for the 53<sup>rd</sup> Venice Biennale directed by Daniel Birkbaum in 2009 precisely to underline the idea that a work of art not only embodies a vision of the world but can be seen as a way to make a world. This idea comes – as is also declared by Birkbaum in his introduction to the Venice Biennale catalogue (2009, n.p.) – from Nelson Goodman, who, in *Ways of Worldmaking*, states: «Worldmaking as we know it always starts from worlds already on hand: the making is a remaking» (Goodman, 1978, p. 6). On the same topic, see also Terry Smith (2019, in particular pp. 198-242). Since 2019, Birkbaum has become the director of Acute Art in London, a platform which is supporting art production with virtual, augmented, and mixed reality; <https://acuteart.com/> [last accessed on 30 June 2021].

<sup>17</sup> This art historical expression – which primarily alludes to art practices of the 60-70s – is used consciously, not only because it better conveys the dual content/form meaning referred to here, but also because the terminology concerning the art-environment relationship is broad and still in progress.

of it. Spreading ideas, emotions and information» (Vickers, 2020, n.p.). This could also imply that, although at the moment projects like Steensen's are still being staged in art contexts, such as galleries and museums, in the near future they could free themselves from the art system to reach wider audiences. Technology not only allows this, but – when effectively used – is certainly a powerful vehicle for the circulation of knowledge.

The change, as Steensen's work also suggests, should be first of all in perspective. Humans should no longer be the only ones at the centre of the discourse. The Harawayan imperatives of «making kin» and adopting «tentacular thinking» have revealed that it is no longer possible to think in a unidirectional and anthropocentric way (Haraway, 2016, p. 5). Today, an expansion of views in the direction of sympoiesis – another synonym for “making-with”, frequently used by Haraway – is needed, and it mainly has to do with diversity, in both biological and social systems.<sup>18</sup>

Haraway notably argues that «our task is to make trouble, to stir up potent response to devastating events, as well as to settle troubled waters and rebuild quiet places» (2016, p. 1). These words resonate in the art world, where Haraway's legacy is highly recognizable in the work of many international artists and curators who deal with climate crisis and posthumanism. Steensen is among them: he responds to what is probably the most devastating event, the loss of biodiversity, by reviving single species and rebuilding entire ecosystems. He does so – this is another central aspect of his practice – by embracing slowness as a cognitive and existential paradigm.

“Slow knowing”, that is, taking time to learn gradually, without haste, is a methodology that has been re-evaluated in the scientific field, where a sort of “manifesto” was also recently released (Stengers, 2018). Steensen makes this methodology his own to contrast with the tempo of technology, which is increasingly fast. «Recent scientific evidence», wrote cognitive scientist Guy Claxton in the late 1990s, «shows convincingly that the more patient, less deliberate modes are particularly suited to making sense of situations that are intricate, shadowy or ill defined» (1997, p. 3). This is a thought which has proved to be increasingly relevant since we

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<sup>18</sup> In this regard, it is impossible not to think of the interest in (natural and social) real time systems which began in the 60s and 70s in (philosophical-aesthetic, scientific, media and art) theory, as well as in the practice of artists such as Alighiero Boetti, Mel Bochner, Hans Haacke, Hélio Oiticica, Robert Smithson – to name just a few (see De Salvo, 2005).

became aware that we have fully entered the era of human impact on Earth (Anthropocene) and of digital acceleration.

This is probably also the reason why Steensen chooses a more intuitive form of interaction, one that leaves space to the viewer to play with rhythm and engagement, to decide what they want to achieve mentally by immersing themselves in an environment which is virtual and at the same time poetic. In his works it is indeed the environment that takes over by making the viewer become part of it.

### *Poetic Landscapes to Be Psychologically Experienced*

Emotional resonance – not to say empathy – with the environment is particularly evident in *Aquaphobia*, a VR installation dating from 2017 which addresses the environmental crisis focusing (for the first time in Steensen's work) on wetlands, though from a different perspective than *Berl-Berl*.<sup>19</sup> For this immersive environment designed to visualise “the fear of water” – as the title suggests – the artist did not recreate an extinct ecosystem but envisaged a posthuman, futuristic landscape with relics of the present civilization, where both diverse geological periods and radical ecological scenarios overlap [Fig. 6].

If *Berl-Berl* re-enacts a lost mythical world flooded by water and populated by imaginary beings – in the footsteps of a Borgesian «fantastic zoology» (Borges, 1970) – *Aquaphobia* pre-enacts a post-apocalyptic world, almost entirely underwater and devoid of human and animal presence (only a “mystic deer” is to be seen), where nature, halfway between the familiar and the uncanny, gains control. It is indeed a water microbe or virus, shaped as a sphere that sometimes undergoes metamorphosis

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<sup>19</sup> The work is at the centre of *Aquaphobia: Fear of Water* (see the dedicated platform [www.aquaphobia.world](http://www.aquaphobia.world)), an online exhibition and workshop, curated by Cristina Baldacci and Valeria Facchin, in collaboration with the artist and Black Shuck, as part of the Anthropocene Campus Venice 2021 (11-16 October 2021; for more details, see the website [www.acv2021.org](http://www.acv2021.org)) [last accessed on 24 October 2021]. This one-week forum, with a strong educational commitment, focused on the theme of “Water Politics in the Age of the Anthropocene”, from a literary and artistic perspective too (one of the four main research seminars, referents for which were Baldacci and Shaul Bassi, was entitled *Aquaphobia and Beyond: The Water Politics of Representation*). It was organized by Ca' Foscari University of Venice, the Center for the Humanities and Social Change, and the Max Planck Partner Group *The Water City* (both at Ca' Foscari University), as part of the Anthropocene Curriculum, a long-term collaborative project initiated by Haus der Kulturen der Welt (Berlin) and the Max Planck Institute for the History of Science (Berlin), [www.anthropocene-curriculum.org](http://www.anthropocene-curriculum.org) [last accessed on 24 October 2021].

and simulates the movement of what could be identified as ray wings, which – unexpectedly ahead of time – takes over and guides the visitor, acting as an alien entity.<sup>20</sup> Or even better: the viewer is invited to put himself in the microbe’s shoes and imagine the way in which “the other” – in this case the non-human – feels and perceives the environment in an almost synaesthetic and animistic experience. This aquatic virtual environment can thus be interpreted both as a premonition of a dystopian future (the fear of devastating floods is comparable to the fear of the future) and as a potential investigation into a sustainable and resilient future.

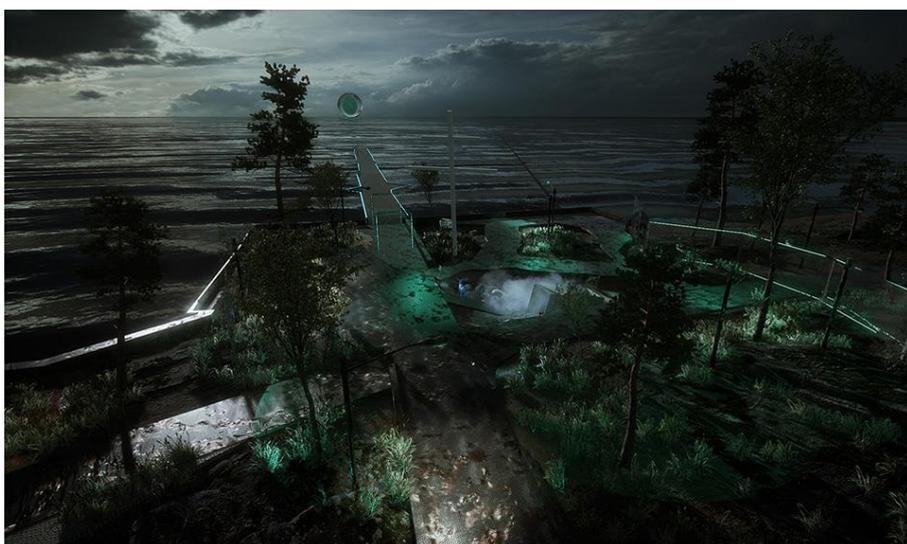


Fig. 6 – Jakob Kudsk Steensen, *Aquaphobia*, 2017. Courtesy of the artist

Steensen intended *Aquaphobia* to relate inner psychological landscapes to exterior environments taking as a starting point the fear of water and some of the clinical remedies that are normally used to cure it. One could argue that virtual reality is here proposed as a possible healing remedy too. It could allow those who suffer from “aquaphobia” to become familiar with water, avoiding (real) risks. But above all, this is a work that, once again, invites us to think ahead and foresee the dangers caused by the melting of glaciers and the rising sea level on a global

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<sup>20</sup> Morphing is usually used by Steensen to shift from the real to the mythological dimension. In *Berl-Berl* for instance tree bark often transforms into snake skin.

scale, which, as is very well known, would cause some parts of the world to be entirely submerged by water.

When accessing *Aquaphobia*, as explained on the artist's website, «you follow a water microbe guiding you through five stages of a breakup story, mixed with references to five steps patients treated for fear of water go through, and five parts of a virtual replica of Louis Valentino Jr. Park and Pier in Redhook, Brooklyn, from subterranean mud tunnels to a bridge extending over future rising waters».<sup>21</sup>

The reference to the end of a love story, perhaps that between man and nature, alludes, pace all discourses to the contrary, to a human dimension of technology, which Steensen stresses here by bringing poetry into play (the words that the microbe says, through the voice of the artist and poet Rindon Johnson, are written by Steensen). This makes us ponder even more the fact that, in order to last, all relationships need care, and that, if the balance between ourselves and the other is broken, we must become aware not only of our responsibilities, but, above all, find solutions to move forward. It is a metaphor which, if seen through the lens of the climate crisis, drives us to action, certainly not to immobility. It urges us to be actors at the centre of change, certainly not passive reactors to the consequences of environmental changes. Our future is what we choose for ourselves, and technology, as Jakob Kudsk Steensen shows us with his re-imagined worlds, can help us to be progressively aware of it.

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<sup>21</sup> See [www.aquaphobia.world](http://www.aquaphobia.world) and <http://www.jakobsteensen.com/aquaphobia> [last accessed on 30 June 2021]. Louis Valentino Jr. Park and Pier in Redhook, Brooklyn, is where Steensen collected the soil and rock types that he used to reconstruct the virtual landscape, together with Google satellite images.

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