

When Fish Can Talk: *Amphibious Architecture*, Timothy Morton, & the Problem With  
Environmental Empathy

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Along a dimly lit boardwalk winding approximately 197 feet through the Glenorchy Art and Sculpture Park, or GASP, in Hobart, Australia, twenty glowing orbs bob in the waves of Derwent Estuary's current.<sup>1</sup> Below these other-worldly lights dangle polycarbonate tubes specifically programmed to light up when fish swim nearby.<sup>2</sup> The color of the lights, depending on the oxygen levels of the water, change from moment to moment; glowing green, red, or white. If the dissolved oxygen levels (DO) are too low or too high, the lights will glow red; if the DO is at a stable level, the lights will glow green. Perhaps the most engaging feature of *Amphibious Architecture* is its mission to connect observers with their environment through empathetic discourse. When the lights glow white, a unique interaction among nature, art, and technology occurs: visitors of GASP walking along the promenade have the opportunity to send a text to the fish in the water — and should expect a response. The messages are intended to simulate a conversation between the observer and the fish that the twenty stalactitic tubes detect in the water; bridging the gap between land and sea dwellers. The project's name, *Amphibious Architecture*, reflects the artists' desires to create a work that would thrive in, and benefit the inhabitants of, both water and air; human and fish.

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<sup>1</sup> Malpas, Jeff. "Amphibious Architecture — What Does the Derwent Want?" LandscapeAustralia.com, accessed 3.8.19,

<<https://landscapeaustralia.com/articles/Amphibious-Architecture/>>.

<sup>2</sup> Malpas, Jeff, "Amphibious Architecture — What Does the Derwent Want?" CarbonArts.org, accessed 4.18.19, <<http://www.carbonarts.org/projects/amphibious-architecture-what-does-the-derwent-want/>>.

The first iteration of the project, what I will refer to as *Amphibious Architecture I*, installed in the East River in 2009, was designed by Natalie Jeremijenko and Chris Woebken alongside The Living Architecture Lab at Columbia University and the Environmental Health Clinic at New York University, a program which was spearheaded by Jeremijenko herself.<sup>3</sup> Unfortunately these institutions are no longer extant or have been absorbed by larger departments at each respective university, making further research into the initial project quite difficult. The version of the work constructed for GASP in 2017, what I will refer to as *Amphibious Architecture II*, was programmed by Imbros; installed by Subsea Access; prototyped by Adrian Oliver; and lit by Julian A. McDermott Corporation.<sup>4</sup> The project also required outside assistance for dissolved oxygen tests and communications, which were overseen by Joe Adelstein from Tassal and Telstra, respectively.<sup>5</sup> Site electricity was managed by Ilec and environmental Consultants included Aquenal, Derwent Estuary Program, Tassal, and IMAS at the University of Tasmania.<sup>6</sup> *Amphibious Architecture II* has been granted a “Crown licence for up to ten years,” semi-permanently tethering the work of art to its environment and its community.<sup>7</sup>

When I initially approached this work of art, I saw it as an inherently ‘good’ endeavor, seeking to unite humanity and nature through technology; a rose-colored vision of the Anthropocene. Connecting humans with nature can never be harmful, right? At first glance, the

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<sup>3</sup> Woebken, Chris, “Amphibious Architecture, 2009,” ChrisWoebken.com, accessed 4.18.19.  
<<https://chriswoebken.com/Amphibious-Architecture>>.

<sup>4</sup> Malpas, Jeff, “Amphibious Architecture: A Poetic and Dynamic Light Array Provides Information About the Estuarine Health of Hobart’s River Derwent by Monitoring Dissolved Oxygen Levels Below the Surface,” *Landscape*

*Architecture Australia Magazine* 30, no. 151, (2016): 46.

<sup>5</sup> Ibid.

<sup>6</sup> Ibid.

<sup>7</sup> Malpas, Jeff. “Amphibious Architecture — What Does the Derwent Want? LandscapeAustralia.com.

work seems to radiate a future of possibilities: humans in direct conversation with fish, what a world! Upon further analysis; however, it is easy to poke holes in *Amphibious Architecture*'s flimsy, eco-friendly façade. To begin with, I would question the environmental efficacy of placing foreign, plastic probes into — in the East River's case — an already polluted environment. In an ideal vision of the project, the floating objects would benefit both human and fish. In reality; however, *Amphibious Architecture* connects humans to technology, while doing very little to enhance the ecologies of the fish. The tethers of *Amphibious Architectures I + II* are designed to stimulate mussel growth (mussels help regulate dissolved oxygen levels), but this one element seems to comprise the full list of this work's benefits to its environment.<sup>8</sup> I ask then, is this truly an *environmentally concerned* work of art, or is it simply a work of art that has been artificially embedded into a natural habitat?

If, as I believe, *Amphibious Architecture* is less environmentally and more humanitarily oriented, then it stands that the 'mission' of the work is directed towards evoking emotions rather than preserving ecologies. On his website, Woebken writes that the intent of the project is to provide participators with "real-time information about the river" in order to "spark conversations by contributing to a display of collective interest in the river ecosystem."<sup>9</sup> In order to "spark" these conversations; however, the observers must care, or be made to care — which is where the communicative aspect of *Amphibious Architecture* comes into play.<sup>10</sup> While Jeremijenko and Woebken never directly state that the project's end goal is 'empathy,' anthropomorphization of the 'other' is a widely used, traditional tactic of inducing

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<sup>8</sup> Ibid.

<sup>9</sup> Woebken, "Amphibious Architecture, 2009," ChrisWoebken.com.

<sup>10</sup> Ibid.

perspective-taking practices.<sup>11</sup> The conversations between the humans and the ‘fish’ of these bodies of water the *Amphibious Architecture* iterations inhabit are meant to mirror human-to-human interactions; to anthropomorphize an ecology. Below is a transcript of one such conversation from the original 2009 iteration of *Amphibious Architecture (I)* in New York City’s East River:

**‘Fish’:** Underwater, it is fairly quiet.  
To find out more, text  
‘HeyHerring’ or  
‘AhoyAnchovie’  
or ‘GreatEast’  
<http://tinyurl.com/amphib>

**Human:** EastRiver

**‘Fish’:** Hey there! There are 7 of us  
and it’s pretty nice down here.  
I mean, Dissolved Oxygen is  
higher than last week.  
If you are into comparison,  
text ‘RiverRiver.’<sup>12</sup>

**Human:** HeyHerring

As one can easily surmise, the responses from the ‘fish’ are neither sent nor received by any living creature, but rather artificial intelligence that crafts each message in response to specific, coded language provided to the human by the artists. In this sense, the project fails right off the bat in fabricating a natural discourse between human and nature; the ecology is less anthropomorphized and more mechanized.

At the time of its creation, the text-message function of *Amphibious Architecture I* was a groundbreaking innovation. In 2009, smartphones were just beginning to catch on; the iPhone

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<sup>11</sup>Tam, Kim-Pong, “Dispositional Empathy with Nature,” *Journal of Environmental Psychology* 35, (2013): 94.

<sup>12</sup> Woebken, “Amphibious Architecture, 2009,” ChrisWoebken.com.

3G's release and the popularity of the Blackberry – Barack Obama's phone of choice – solidified society's infatuation with digital communication.<sup>13</sup> By 2017, smartphones were somewhat of an essential item for most adults, making *Amphibious Architecture*'s mission more practical. But is it a wise choice to intrinsically link smartphones with the fight for environmental justice? Juergen Moritz, an author exploring the effects of artificial intelligence in day-to-day life, in an essay titled *Augmented Humanity*, writes "Anonymous technological structures, networks of knowledge, all embody and produce the structural environment of the subject. All those structures shape people's life and set the rules or procedures to be followed; they 'determine conduct of individuals. (Foucault, 1988)'"<sup>14</sup> Do we want to add to these "anonymous technological structures" silently and invisibly controlling our words, actions, and even thoughts? Allowing them to "determine" our "conduct" towards our environment? In trying to become closer to nature, it seems as though *Amphibious Architecture* only pushes it further away. Perhaps there is another way to engage with the fish of the East River and Derwent Estuary; a more natural way that emboldens the participant's connection with nature rather than with technology. Let us imagine for a moment that these text messages do, in fact, move their reader to action. After this experience, the participant has an even more intimidating hurdle to cross: that of becoming *aware*.

In order to experience the sort of empathy *Amphibious Architecture* hopes to elicit in its viewers — an empathy whose goal is to produce action — observers must also possess, or be

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<sup>13</sup> "The Rise and Fall of the Blackberry in Popular Culture," BBC.co.uk, accessed 4.23.19.  
<<http://www.bbc.co.uk/newsbeat/article/37500230/the-rise-and-fall-of-the-blackberry-in-popular-culture>> & "The History of iPhone," Wikipedia.org, accessed 4.23.19.  
<[https://en.wikipedia.org/wiki/History\\_of\\_iPhone](https://en.wikipedia.org/wiki/History_of_iPhone)>.

<sup>14</sup> Moritz, Juergen, "Augmented Humanity," *Technoetic Arts: A Journal of Speculative Research* 15, no. 3, (2017): 343.

introduced to, “ecological awareness”<sup>15</sup> – a process which can be both terrifying and depressing. Timothy Morton, professor of English at Rice University in Houston, Texas and author of *Dark Ecology: For a Logic of Future Coexistence* (2016), describes this moment of realization in terms of film-noir, the fatalistic genre: “The darkness of ecological awareness is the darkness of noir, which is a strange loop: the detective is a criminal. In a strong version of noir the narrator is implicated in the story: two levels that normally don’t cross, that some believe *structurally can’t cross*. We ‘civilized’ people, we Mesopotamians, are the narrators of our destiny. Ecological awareness is that moment at which these narrators find out that they are the tragic criminal.”<sup>16</sup> Whether empathy is involved or not, humankind taking action against today’s climate crisis also requires humankind to take responsibility for the crisis – or at least 97% of it.<sup>17</sup> “Humans did it, not jellyfish and not computers... [they] did it with the aid of beings that they treated as prostheses: nonhumans such as engines, factories, cows, and computers... The reduction of lifeforms to prosthesis and the machination of agricultural logistics *is* hubristic, and tragedy... is at least the initial mode of ecological awareness.”<sup>18</sup>

In this sense, is ecological awareness an inevitable state of transcendence, as Jeremijenko and Woebken seem to believe? Or will we be able to blind ourselves to the glaring truth of our impending environmental collapse? In 2019, we have decades of proof that it is easy for the public to turn a blind eye towards categorically true evidence pointing to the existence of a lethal climate crisis — a crisis that humans have the ability to slow down, possibly even stop. How do

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<sup>15</sup> Morton, Timothy, *Dark Ecology: For a Logic of Future Coexistence*, New York: Columbia University Press, 2016, Thread One.

<sup>16</sup> Ibid.

<sup>17</sup> Ibid.

<sup>18</sup> Ibid.

we make people pay attention to, and more importantly, *care* about the frightening statistics coming from almost every major environmental agency? Even more difficult: how do we change the attitudes of adults whose upbringings and educations have placed them staunchly on the side of climate change deniers? When I first read about *Amphibious Architecture*, I thought Jeremijenko and Woebken had found the model – cracked the code. Technology, empathy, and public art, an unbeatable trifecta. After discussing the topic with peers; however, I began to think more about the problematic elements of empathy as a means to create change and was inspired to look into alternative modes of developing connections among ‘different’ species, both flora and fauna. Empathy is an emotional task, and as all humans of a certain age know, emotional tasks can be draining. In a talk sponsored by Serpentine Galleries — “Guest, Ghost, Host: Machine!” — Morton describes empathy as a scarce resource; “exclusive, exhausting, expensive, and subsequently limited.”<sup>19</sup> Imagine you have two friends on opposing sides of an argument; both are hurt, both are equally justified in their anger, and both need your help to heal.<sup>20</sup> Who do you choose to empathize with? You may say *Well why not just empathize with both, we’re all adults here*; but if you choose one, you automatically exclude the other from unbiased emotional care; true, full, and pure empathy.<sup>21</sup> There is only so much to go around.

How, then, do we get people to care? If two professors, both with too many degrees in environmental science, engineering, philosophy, etc... to count can’t succeed in engaging the public, then who can? Is there any point in trying? As a semi-optimistic realist, I ask myself this quite often, and often find my thought process only leads me to mourn humanity’s — and my

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<sup>19</sup> Morton, Timothy, Guest, Ghost, Host: Machine!, episode 1, written, directed, and performed by Timothy Morton, aired March 29, 2018, on <<https://radio.serpentinegalleries.org>>.

<sup>20</sup> Ibid.

<sup>21</sup> Ibid.

own — cruelty towards nature. This is why I was drawn to *Amphibious Architecture* as a work of art; it wants to see the good in every passerby, and encourage this good to become action. This is also why I was drawn to Timothy Morton's heady and optimistic idea of substituting *solidarity* for empathy; a term that he explains through object-oriented ontology.<sup>22</sup> In *Dark Ecology* he explains "Ontology doesn't tell you exactly what exists but how things exist. If things exist, they exist in this way rather than that. Object-oriented ontology holds that things exist in a profoundly 'withdrawn' way: they cannot be splayed open and totally grasped by anything whatsoever, including themselves.... On this view, whether the thing in itself becomes fish food or human food or something a human can measure, the thing remains in excess of those forms of access, and there is no intrinsic superiority of human ways of accessing the thing."<sup>23</sup> In other words, objects (the word 'objects' encompassing essentially every particle of matter) exist on a linear plane rather than in a hierarchy; all with equally significant roles and experiences (and in this sense, all equally insignificant roles and experiences as well).

Adopting an environmental attitude in conversation with object-oriented ontology, or OOO, Morton asserts, allows humans to understand their place in ecologies without the exhaustive emotional labor of empathy, or even ecological awareness.<sup>24</sup> "Conscious solidarity," Morton claims, "is in [our] biological ontology;" we are made up of systems working with other systems with systems inside of those systems and even more systems controlling them — all equally significant, all equally insignificant. If we don't believe that our bodies require systems of organs and skin and bone to survive, that those organs and skin and bone require systems of cells to survive, and that those cells require systems of protons, neutrons, and electrons to

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<sup>22</sup> Ibid.

<sup>23</sup> Morton, *Dark Ecology*, 2016, Thread One.

<sup>24</sup> Morton, *Guest, Ghost, Host, Machine!* 2018.



survive; then we don't believe in ourselves. Not in the ephemeral sense; but in the literal sense. We biologically, and inescapably *depend* on systems, as Morton calls them "loops," for survival. Solidarity is simply the awareness that nothing, not even humans, the 'center' of our current geological epoch, can exist without dependence on other organisms and objects.<sup>25</sup> Empathy requires taking sides; environmental empathy, then, is tied up in nefarious webs of political, social, and cultural concerns. Solidarity, on the other hand, as Morton argues, is an inherent component of our biological makeup; it requires no effort and is not exhaustive — it is already within us.<sup>26</sup>

The question now is: how do we create art that makes this solidarity *conscious*. I believe Jeremijenko and Woebken were trying to answer a version of this question in their own way. While I have been critical of *Amphibious Architecture* throughout this essay, my intention is not to belittle the incredible work of these artists and their team; quite the opposite, really. I applaud their desire to bring the fight for environmental justice to public, easily accessible spaces through innovative, technological means. But in a world whose inhabitants' relationship with nature quite literally determines their fate, we must constantly question our modes of connecting with our ecologies. Timothy Morton poses a new method of engaging with nature which requires little to no emotional effort; a method that might intertwine interestingly with *Amphibious Architecture* to create, perhaps, a more effective model for technologically mediated interactions with humans and nature through art.

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<sup>25</sup> Ibid.

<sup>26</sup> Ibid.

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