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Imagination for an Ecological Psychology that Cares About Ecosystems: An Interview with Artist and Landscape Architect Ronald Rietveld

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ABSTRACT

In an era of ecological crisis, ecological psychology can learn much from the centuries-old practice of landscape architecture about attending to ecosystems and the affordances they sustain. Landscape architects read landscapes with acute sensitivity to the *interplay* of natural processes, sociocultural dynamics, and the built environment. They do so across long timescales, studying the past developments of a landscape over the course of centuries in order to look very far ahead. In this interview, philosophers Erik Rietveld and Twan Kieboom speak with landscape architect, visual artist, and RAAAF co-founder Ronald Rietveld, whose explorative site-specific works engage with ecology, cultural history, and inspiring possibilities for the future. Drawing on projects such as the cut-through *Bunker 599* (Figure 1) and the large-scale land art installation *Deltawerk //* (Figure 2), Ronald Rietveld shows how the power of imagination can make abstract scientific knowledge about climate change tangible and site-specific, creating conditions for other forms of life rather than treating the biosphere merely as a resource. He challenges ecological psychologists and other scientists to collaborate with artists and landscape architects, because imagination for concrete sites is what can connect scientific insights to the living environment and can move people to act. With two decades of experience in creating affordance-based architectural-art interventions that address complex societal issues, Ronald Rietveld offers ecological psychology vivid, real-world illustrations of how to integrate ecological, sociocultural, temporal, historical, and experiential dimensions in affordance-based interventions within the living environment.

Ronald Rietveld is a visual artist and landscape architect, and together with philosopher Erik Rietveld co-founder of RAAAF (Rietveld-Architecture-Art-Affordances), an experimental studio that works at the intersection of visual art, architecture, and philosophy. RAAAF's projects (from the cut-through Bunker 599 on the New Dutch Waterline to the large-scale land art installation Deltawerk // in the Waterloopbos) intervene in landscapes shaped by centuries of Dutch water management, engaging with questions of heritage, ecological transformation, and the long-term future of our living environments.

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Figure 1. Bunker 599—Culemborg, RAAAF|Atelier de Lyon, 2013. This image shows the cut-through bunker, as well as the new water basin that is part of the site-specific intervention. In a radical way, this intervention sheds new light on the change-ability of Dutch and UNESCO policies on cultural heritage. A seemingly indestructible bunker with monumental status is sliced open, revealing the minuscule interior of one of the New Dutch Waterline's 700 bunkers, normally completely cut off from view (Kaaronen & Rietveld 2021; Rietveld, 2022a, 2022b). Photograph by Allard Bovenberg.

This conversation was inspired by a recent article by Withagen et al. (2025) in *Ecological Psychology*. The authors argue that ecological psychologists have tended to describe the environment in terms of possibilities for action, without sufficiently attending to the ecosystems that sustain those possibilities. Explicitly adopting the concept of ecosystems, they contend, not only holds scientific implications but speaks to a responsibility to reckon with the widespread effects of our actions on the biosphere. We spoke with landscape architect and visual artist Ronald Rietveld to explore how these ideas resonate with the realities of making site-specific art and landscape interventions, practices that require attending to what Tim Ingold calls "the voices of fellow creatures" (Ingold, 2022).

1. Arriving at a site

Twan Kieboom: Rob Withagen, John van der Kamp, and Carl T. Woods argue that the environment should be understood not simply in terms of affordances, but as an ecosystem in which affordances figure. When you arrive at a new site, how do you come to perceive what it has to offer?

Ronald Rietveld: Ecosystems and the affordances they offer are very central in our way of thinking at RAAAF, but I go to a site because of a fascination. I read, saw, or heard something, for example an article, a photo, or a story. Something that attracts me. Once I'm there, I feel in a split second if this fascination is correct or not, if there is potential on the site. And then I dive into the things I see on site. I start to



Figure 2. Deltawerk //—Waterloopbos, RAAAF|Atelier de Lyon, 2018. In the former hydraulic laboratory, *Deltawerk //* questions the ambition of constructing a Netherlands that is indestructible to natural forces in an era of climate change and sea-level rise. This site-specific artwork is also an experiment in active ruin-formation that makes room for nonhuman life forms and transforms over time. In a radical way this intervention sheds new light on the practice of preserving cultural heritage: Hardcore Heritage (Rietveld & Rietveld, 2017, 2020). Photograph by Jan Kempenaers.

explore the landscape. With the knowledge of landscape architecture, I can read the landscape very fast, especially in the Netherlands, because I recognize the types of landscapes and the types of cultural interventions. I know the principles and systems, the landscape processes—let's say flowing rivers—and the animals and plants that live there. I also know the cultural interventions: sluices, dikes, green rivers. I read them instantly. And simultaneously I place the site in a contemporary context, because landscape is about ongoing transformation—particularly in the Netherlands, a man-made landscape. I try to get a grip on that complex situation and then respond to it with ideas for possible artistic interventions. Intuitively at first. Later, back in the studio and in relevant archives, we start to explore together this first impression in thousands of other ideas. We start to investigate the things I didn't see: ecological, cultural, and historical backgrounds.

Crucially, this entire process is not just about knowing things but also about feeling things. Why are the site and my feeling toward it like they are? Where is this feeling coming from? For example, at the terrain of the former sugar factory in Groningen, we discovered a fascinating underground world of foundation pillars, a kind of industrial Rome. I felt that there was something going on, and when we explored it in archives, we found surprising affordances for transformation and came up with possible artistic interventions.

TK: Would it be correct to say that many of the layers of meaning of a site are not directly perceptible, unless you already bring some background along with you?

RR: Yeah. If I'm walking through clay it is something different than when walking through sand. I feel this and it's so embodied: it's second nature for me to take notice

of such environmental circumstances. When I'm standing on an old dike, I see that instantly because I have been in a lot of similar situations. Most people don't realize what they are standing on. But I know that this dike is connected to a larger landscape and ecosystem. Thinking through levels of scale, for example from the scale of an entire country, to the 80 kilometers of the Dutch Waterline to the detail of a bunker, and everything in between, is really important for making the interventions like RAAAF makes them.

2. *Bunker 599*: showing that bunkers afford cutting and more

TK: Our actions can hold open or close affordances for others. When a structure like *Bunker 599* loses its military function, what kind of potential do you perceive?

RR: Once the functions of certain human-made objects are out of date, I feel there is a kind of gap of potential. With our artwork, cut-through *Bunker 599*, two things come together. One is the fact that we want to cut straight through this seemingly indestructible object. A bunker represents indestructibility, war in a time when there was no war. So it was a kind of liberating intervention. And at the same time, we cut through the idea of the monument by questioning monumental policies, UNESCO policies. By opening this up and slicing through it in the most radical way, we open up new potential. And after we made the cut once, in a sense we cut through them all, through bunkers everywhere around the planet. Because we have made the cut-ability of bunkers tangible. That's what art can do. People say you can't break through walls. But we show that it's possible. And in the most radical and sharp way ever. If you're now driving through the country, you will see bunkers everywhere. And you perceive them differently once you've seen this one cut through.

3. Integrating ecology and cultural history

Erik Rietveld: At *Bunker 599*, how do ecological and cultural-historical layers come together in the work?

RR: The cut-through bunker itself doesn't say so much about ecology, but our landscape intervention around it does. It does so by making space for water storage while simultaneously revealing the cultural history of this place (an inundation area)and by extending the bunker with poles into the water and a boardwalk. With these kinds of interventions we reveal layers of a site and a system of the New Dutch Waterline. We make it tangible, imaginable. The water basin we added is actually a climate adaptation engine for the whole nature area behind it. It distributes water in dry periods, and it stores water when there's superfluous rain. So both excess water and drought are managed by it. And the ecological layer and the cultural-historical layer become interwoven.

ER: Is paying attention to other forms of life part of the making process, even though it's not the central point of the bunker intervention?

RR: In our case it's automatically integrated. For me as a landscape architect used to growing things, it's obvious that I take the local ecological processes into consideration. But for many artists it would have been just a cut bunker. And we encounter unexpected outcomes. The poles of *Bunker 599*'s boardwalk became the favorite place for cormorants. By adding different heights in the landscape by means of the poles,

we create resting and hunting places as part of the whole ecosystem. The cormorants are catching fish in the open water, this I didn't know in advance. These kinds of surprising things happen. What is interesting in RAAAF's work is that we are typically joining forces with nonhuman forms of life and natural processes, not as an afterthought but as part of the interventions.

TK: Could you pick this work up and place it into a museum?

RR: Absolutely not. It's site-specific. It's part of the nature area Molenkade, which is centuries old and further developed in the same period. We made the whole landscape plan with respect to the nature surroundings together with Dienst Landelijk Gebied. It's part of the protected Natura 2000 nature.

4. *Deltawerk//* and creating conditions for other forms of life

TK: In *Deltawerk //* you transform heavy infrastructure into what you call a substrate for nature. How do you create these conditions?

RR: The site was an open-air laboratory with water models, made after the Great Dutch Flood of 1953 for testing the storm surge barrier. The largest model was a large flume of 250 meters long, made for testing resistance against tsunami waves. Everything was built from the heaviest materials to resist natural forces. And then we come there years later, and the whole structure is abandoned. What we wanted to do was to question that whole idea of an indestructible Holland that defies the forces of nature. We do this through a paradox: this test site for the Delta Works was made to resist water, yet we made it vulnerable. The opposite of what it was intended to be. And then we come to the point of creating conditions for other forms of life, which was crucial. We dug out the entire structure and cut out large blocks of reinforced concrete to create different kinds of circumstances. Different slopes, sun conditions, dry and wet. And by sandblasting open the concrete skin, we created micro-conditions. Possibilities for nature to enter. Mosses, lichens, ferns. Underwater there will be fish, and as a result birds will come too, we anticipated. Over time it becomes a kind of eco-heritage cathedral. But we don't know in advance exactly what will happen over the course of decades. We just create the conditions, which can become inviting affordances for other forms of life (Figure 3).

ER: Would you say that it is man-made nature?

RR: No, it's not man-made. We create conditions from a man-made situation and are shifting the attention to new forms of life, rather than keeping the focus on human beings. Whereas the structure was originally made for testing engineered artifacts with waves, *Deltawerk //* is really radically transforming what used to be our environment, our testing objects, our most sophisticated machines, into a new substrate for nature. This concrete was there to resist water, not to invite nature. And given the different IPCC scenarios for climate change, we should think about this for the future. What if large parts of the Netherlands become substrate for other forms of life in, say, 2150? We cannot keep everything. Currently the Netherlands is, at certain places, six, seven meters below sea level. So we should perhaps find new ways to invite nature proactively. *Deltawerk //* explores that potential. There is also limited accessibility in *Deltawerk //*, to leave nature at rest. While I think it's a pleasant way of living together with nature in the sense that people can enter it at the locations of the two bridges, there



Figure 3. This image shows a close-up of the concrete slabs of *Deltawerk //*. In addition to the different slopes of the slabs, the concrete skin of the artwork has been deliberately sandblasted to create a range of conditions for other forms of life. Over time, *Deltawerk //* will be transformed as mosses, lichens, ferns, insects, fish and other species colonize it. Photograph by Jan Kempenaers.

are large areas of silence too. In this timeframe, the other forms of life are central in our idea. Not us humans anymore (Figure 3).

5. From imagination to action

TK: There is abundant scientific evidence for ecological collapse, yet behavioral patterns change slowly. From your experience, what can site-specific art do that scientific reports cannot?

RR: I was at a workshop with many well-known climate scientists from the Netherlands. And they said: how is it possible that there is so much information available which makes the effects of climate change clear, and nothing is happening? And I said, the reason is quite simple. Scientists are all convinced and know exactly what is going on, but normal people don't know what it will mean for them *locally*. And often politicians have no idea. So you need imagination to connect the data to site-specific imaginaries that can *move* people and communities to take a new step. I don't mean imagination of what can happen in doomsday scenarios, but imagining new potential. And that's what *Deltawerk //* does. It's not an answer, it's showing potential.

ER: You think information about climate change doesn't move people because it's not connected to their local living environment?

RR: Yes, it is because of that lacking connection that climate change is not tangible enough. Communities live locally and climate change is a spatial phenomenon. Its effects differ depending on geography and on how the landscape has been shaped over centuries. Even in a small country like the Netherlands, there are big differences:

in the west, sea level rising; in the east, drought and forest fires. If you don't make it site-specific, for many people it's not that interesting. It's just information. And information doesn't set something in motion for lots of people and communities. In the Netherlands, we unfortunately often need a disaster to come into action. As long as the disaster is not there, we will just continue on the path we're on. The 1953 flood led to the Delta Works. The 1993 and 1995 river floods led to Room for the River.

6. Creating awareness of long-term processes of change in the biosphere

TK: Withagen and colleagues argue that adopting the ecosystems concept speaks to a moral responsibility to change our lifestyle. Do you experience that moral dimension in your work, and if so, where does it come from?

RR: It's not where it starts. Our work starts from the potential of a site. And then it grows into something else. But I think it's a moral responsibility to point out that we should look at the long term. If you relate a practice to spatial interventions, it's a long-term thing. Our interventions cut through past and present in search of new meaning for the future. You shouldn't make ideas or visions on a term of five, ten, or twenty years. Think about a hundred years. Study the past developments of the landscape over the course of centuries and then try to look far ahead. But at the same time, the intervention should have relevance right now. It should relate to what you can already see. We know that temperatures and sea levels are rising. We know there will be more water in river systems, more periods of drought. It's anticipating these long-term developments. A speculative or, better, scenario-based way of thinking, but with long-term processes in mind.

TK: There's a connection here to what you said at the start: if you come to a site with deep ecological, cultural, and historical knowledge, then for the intervention you can also look ahead over a very long time span.

RR: Yeah. And I think we shouldn't underestimate the influence of the fact that I started out working with my hands in nature before I became a landscape architect. Thanks to that experience I am really aware of the environment in which we live. We work together with many people inside and outside the studio—like forest rangers, scientists, craftspeople, and ecological specialists. I am aware that I don't know everything. And I try to feel what is relevant on a site. Then I collect the right collaborators: a moss specialist and forest rangers for *Deltawerk //*, a military historian for the bunker. The work is site-specific, and I try to get a grip on it with locally embedded people who embody the site or know a lot about it.

7. Dealing with unpredictability

ER: What is the artistic equivalent of thinking in terms of tipping points?

RR: The bunker, for instance. We try to set in motion a radical change in the way of looking at heritage. It's about shifting the perspective from mere preservation to imagination. That's the shift in perspective we want to reach. With *Deltawerk //*, the shift is to look in a different way at the existing environment, which will be confronted with climate change. We see *Deltawerk //* for example as an exploration in times of

climate change of the potential that the materiality of heritage can offer other species than our own.

ER: In the *Bunker 599* case, we created a precedent, showing how monuments could be transformed radically, while respecting the deep meaning these heritage objects hold for communities. And it inspired policy makers: it was adopted by the Dutch monument authorities, and later by UNESCO.

RR: Yeah. But is that a tipping point or is it setting something in motion? Many RAAAF projects are about setting things in motion.

ER: I think it is creating an evocative precedent that sets new developments in motion. These are embraced by pioneers in the heritage sector and may or may not be taken up more broadly by future heritage professionals. How do you deal with unpredictability, the uncertainty of how things evolve after a work is realized?

RR: Suddenly a concrete plate slid last summer in *Deltawerk //*. Because of internal heat. We decided to put it back. You could also say, as part of letting it be a ruin: "leave it." But that would be too early. I would expect *Deltawerk //* to exist for another 200 years, maybe under water one day, I don't know. But let's allow the plates to slide at a later moment. With every project in public space, we face an enormous amount of unpredictability. But also fantastic moments: *Deltawerk //* in the snow, reflections of the water on the walls. We want to catch those moments of beauty. Another of our works, the massive brass installation *Still Life* in a former bullet factory, turned out to be used for funeral ceremonies. We didn't know this in advance. I think: "Wow, fantastic, that this place can do that."

8. A challenge to ecological psychology

TK: If you could challenge ecological psychologists and other scientists to rethink one assumption about the environment, what would it be?

RR: The power of imagination for concrete yet emblematic settings. That seems not to be on the radar. The power of imagination to get scientific information into society, translated for a wider public. Showing not just the disastrous consequences, but also the possibilities. I think it would be good if ecological psychologists and other scientists, spatial designers, artists, and landscape architects, collaborated more to get their insights to the foreground in society. At scientific meetings, insights into the societal relevance of scientific results typically stay abstract. Whereas on site, the power of dealing with climate change can become very concrete by connecting large-scale transformations to local consequences. To make things tangible.

TK: Could you give an example of that translation?

RR: In 2004, 2005, I collaborated with HNS (a Dutch practice of landscape architects and engineers specialized in water issues) on the topic of rainfall and drought, to make tangible what the impact would be in cities in 2035. That was on the basis of very abstract scientific schemes: diagrams showing that a rainfall event that currently (in 2004) occurred once in a hundred years would occur once in ten years in 2050. Still abstract. Then I translated it into a site-specific project for the *Prix de Rome* 2006: a particular square in the center of Amsterdam where there is a lot of rainfall on roofs surrounding it. I showed the potential of collecting this rainwater in the middle of the city: heavy rainfall not as a threat, but as offering unconventional



Figure 4. Water Moss Rocks—Amsterdam, 2006. *Top:* A vision for an ecological intervention in the center of Amsterdam that combines increasing extreme rainfall with the hidden and abandoned tunnel system under the Mr. Visserplein. *Bottom:* In collaboration with the nearby Hortus Botanicus, the "Hortus Moss Rock" becomes a shelter for ferns and mosses in danger of disappearing in the coming decades due to the renovation of the canal walls in the city. Image by RAAAF.

possibilities. Many urban environments afford collecting rainwater. For the project, called *Water Moss Rocks* (Figure 4), I designed an enormous water square. All the water from the roofs of buildings around the site—the Portuguese Synagogue, the church, city hall—would collect and flow down on different levels of infrastructure into a place of periodic rainwater celebration. Clean water, swimming in the middle of the city. And a tall green rock with ferns rescued from canal walls that were being reconstructed. An asylum for ferns, you could say.

ER: So it's celebrating the increased rainfall rather than treating it as a problem to solve.

RR: Exactly. I disclosed some unconventional affordances. Normally you wouldn't store water in a vacant car tunnel underground. But now you see a tunnel not as a tunnel, but as a potential rainwater reservoir. It's the same principle, like in the theory of affordances, where you can use a cup not just as something to drink from. Be open to unconventional affordances. Crucially, once you make tangible the possibility within a specific situation, you can grasp the potential at the larger scale too, sometimes of national or global significance. Imagination in the concrete, local situation enables you to join forces with the biosphere instead of seeing it merely as a resource.

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