

# Walking with AI: Speculative Walking as Artistic Practice

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## Abstract

In this paper we explore how the integration of AI dialogues into walking methodologies creates new possibilities for artistic research. We investigated these possibilities through performative walks along the Dutch Zero NAP line, an imaginary coastline marking sea level in the Netherlands. We walked this line with NedeR, an AI companion designed to represent the Dutch landscape. Our research introduces the definition of two key concepts: (1) 'enhanced noticing', where AI intensifies awareness of landscape features, and (2) 'expanded present', connecting immediate experience with the landscape's past and future conditions. By building on previous artistic walking practices, we demonstrate how AI augments embodied experience, enriching artistic research and deepening engagement with environmental change.

## Keywords

walking methodologies, landscape engagement, AI walking companions, artistic research, climate imagination, embodied experience, enhanced noticing, expanded present

## Introduction

At a time when understanding environmental change becomes increasingly urgent, traditional modes of landscape observation often struggle to capture both the physical reality of vulnerable landscapes and their potential futures. [1] [2] [3] This paper introduces a hybrid research methodology that combines traditional walking practices with artificial intelligence (AI), offering innovative ways to study and document landscapes while preserving the embodied knowledge that makes walking research valuable.

Walking offers immediate immersion in a landscape's material, ecological, and social dimensions. The walker becomes both part of the landscape and witness to its vulnerabilities. [4] Walking therefore is often practiced as a research method, in sociology, urban planning and geography, to name a few. [5] [6] [7] Artistic research has also adopted walking as a research method. [8] To the embodied knowledge acquisition of walking, which manifests through direct sensory engagement with terrain, weather conditions, sights and sounds, we have recently added Artificial Intelligence (AI), creating a new hybrid methodology for artistic research.

This paper introduces NedeR, an AI walking companion designed to represent the Dutch landscape in real-time. Unlike typical AI applications in art that focus on image generation or replicating artistic styles, NedeR functions as a critical conversational partner, reflecting on landscape features and challenging human-centric perspectives. [9] This integration of embodied knowledge and AI-assisted observation, manifesting as a dynamic feedback loop of 'en-route' dialogue between walker and NedeR, leads to two key contributions: 'enhanced noticing', where AI dialogue intensifies our awareness of landscape features, and 'expanded present', where our immediate experience is imbued with the resonance of historical patterns and intimations of future possibilities.

While the potential of AI in artistic practice has been explored before, the specific impact of AI assistance in the field of artistic research remains understudied. [10] As our own practice centers on walking as a method of artistic research, we focused our investigation on the following question: How does the introduction of an AI companion transform walking as artistic research practice?

This question is investigated through the Zero NAP project – i.e. walking the Dutch sea level reference line – in which we explore how AI transforms walking practices by intensifying landscape observation, connecting multiple timeframes, and generating new forms of dialogue with the environment. We build upon a number of artists' walking methodologies while investigating the options that could emerge from human-AI collaboration: can a walker's immediate physical observations be enriched by AI's historical knowledge, can human intuition about landscape features be tested against AI's pattern recognition, and can personal reflections be deepened through AI-prompted questioning. [11] [12] [13] [14]

## Theoretical Framework

“Walking, ideally, is a state in which the mind, the body, and the world are aligned, as though they were three characters finally in conversation together.” [15]

As Solnit argues, walking has long been a tool for exploring the complex relationship between humans and their environments. [16] By engaging directly with the physicality of landscapes, walking offers an embodied way of knowing that bridges observation, experience, and interpretation.

This bridging occurs as each step generates immediate sensory data - the feel of the ground, the sound of wind, the smell of vegetation - while triggering interpretative processes that connect these sensations to existing knowledge and memories. Moreover, the slow pace of walking allows for deep observation of landscape patterns and changes, creating a direct connection between physical experience, cognitive understanding, and interpretation.

The first significant writer to address walking as an activity in and of itself is often considered to be Jean-Jacques Rousseau, who reflects deeply on walking as a philosophical and meditative practice. [17] Quite a few authors followed in his footsteps, developing specific views on why and how they walk. Several of these writers highlight aspects of walking that are of particular importance to our present research – the Zero NAP walks that will be discussed in the next chapter. Ingold's assertion that "it is by walking along from place to place, and not by building up from local particulars, that we come to know" highlights the process-based nature that is central to our walking research [18]. Macfarlane emphasizes walking's role in connecting with the deep time of landscapes [19], an insight crucial to our investigation, where we build on the landscape's past and speculate about its future. Careri expands on this, framing walking as an aesthetic practice, where the walker's shifting viewpoint creates a narrative of space, an approach that supports artistic re-creations of our walks through mapping, photography and storytelling. [20] Brinckmann adds a contemplative dimension, describing how walking can create a state of heightened awareness that allows for deeper landscape engagement. [21] His work we have taken as a warning to make our technologic add-on unobtrusive, i.e. to make it so it enhances, not hinders direct experience.

Like writers, artists have historically been prolific walkers: from the Situationists who used walks to disrupt habitual ways of experiencing urban spaces, to the works of contemporary walking artists such as Francis Alÿs, whose performative walks blur the boundaries between art and everyday life, and Hamish Fulton, who emphasizes the solitary and meditative aspects of walking. [11] [12] [13] Simon Faithfull takes this tradition to extraordinary lengths, both literally and conceptually, as seen in his project "0°00 Navigation." [22] Guido van der Werve integrates endurance and physical challenge into his walking practice, most notably in "Nummer veertien, home" a work that combines long-distance running with classical music and landscape meditation. [23]

In recent decades, technology has become an integral part of walking practices, as exemplified by Cardiff and Miller, who demonstrate how audio walks can enhance the experience of walking by adding layers of narrative and soundscapes. [14] Similarly, O'Rourke argues that walking combined with real-time mapping tools creates new artistic possibilities, transforming both the practice of walking and the way we perceive space. [24]

Examples taken from early artistic experiments with Augmented Reality (AR), like Torpus and Bühlmann's LifeClipper, demonstrate how technology can enrich

landscape perception through 'subtle alterations of the experienced reality'. [25] Where LifeClipper used GPS and head-mounted displays to overlay historical and fictional elements onto Basel's St. Alban valley, more recent works have further explored these possibilities. Freeman's Border Memorial used AR to reveal invisible histories of migration, while Baker Cahill's Liberty Bell created temporal disruptions in urban spaces. [26] [27]



Figure 1. A typical Zero NAP landscape near Zevenbergen, Brabant. Image taken 9-11-2024

Our approach builds on these artistic foundations, contributing an AI companion as a tool that opens up new possibilities for the artistic research process. Where traditional walking artists work in solitude or invite human company, NedeR introduces an additional perspective—one that interprets the landscape through artificial intelligence.

This triangulation between walker, AI companion, and landscape resulted in the development of two new concepts central to our research:

(1) 'Enhanced noticing' adds a layer of AI-mediated perception to our walks. Where walking artists such as Fulton rely solely on human perception, our approach uses AI dialogue to highlight overlooked details and connections, creating a more nuanced environmental awareness. Van Mensvoort's concept of 'Next Nature', in articulating how technology can seamlessly blend into our natural surroundings, helps us understand how this technological mediation can become an integral part of our environmental perception rather than an artificial overlay. [28] (2) 'Expanded present' extends temporal engagement in walking practices. While artists like Hamish Fulton focus on immediate experience, we during our walks use AI to actively connect present observations with historical patterns and future projections, creating a multi-temporal understanding of landscape. This connects to Lemaire's analysis of landscape temporality and Schama's exploration of landscape memory, while adding the dimension of future projection regarding the landscape. [4] [29]

Together, these concepts transform walking from a human-centered practice into a hybrid methodology where artificial intelligence encourages both close observation and interpretation.

## Zero NAP: Context and Project Description

Central to our investigation is the Dutch concept of 'makeability'—a deeply ingrained belief that landscapes can and should be engineered to meet human needs. The land is controlled because as a matter of national survival it must be. This necessity has evolved into what Winner calls 'spatial neurosis' - the Dutch obsession with controlling every square centimeter of land. [30]

The intertwined relationship between landscape management and Dutch cultural identity dates back to the 11th century, when the urge to reclaim land from water first became manifest. [31] The 'makeability mindset' took shape in the early 19th century, during a period when making wastelands productive became a central objective - a mentality that would evolve into a defining characteristic of Dutch spatial planning. [32] From the 1930s onwards, this tradition was further strengthened by engineers who systematically transformed the Dutch landscape through land consolidation. [33] [34] This deeply rooted confidence in technical solutions within Dutch culture now creates specific challenges in addressing climate change. It is becoming increasingly clear that technological solutions alone are not sufficient - there also needs to be a fundamental shift in how people relate to and engage with the landscape. [35]

The Zero NAP project investigates areas of the Netherlands that lie at or around sea level, using artistic research to explore how these vulnerable landscapes might transform with rising sea levels. [38] NAP (Normal Amsterdam Level) serves as the Dutch height reference system, with zero NAP corresponding to average sea level. Through walking this line - approximately 500 kilometers from Goes via Amersfoort to Groningen - we trace a speculative future coastline, imagining a scenario where the Netherlands might abandon its centuries-old tradition of land reclamation and coastal defense.

Set against this backdrop, our methodology combines three interconnected approaches: (1) performative walking, (2) AI dialogue, and (3) data collection and documentation.

First of all (1), the performative element involves collecting donations for the satirical North Sea Dike Foundation, drawing inspiration from Cardiff and Miller's use of a constructed persona to engage people's imagination. [39] [14] The familiar gesture of the hopeful collector facilitates easy interaction with people encountered along the way, sparking conversations about climate change while introducing a sense of urgency that contrasts with what Rooijendijk describes as the Dutch historical tendency to 'normalize' water threats. [31]

Secondly (2), the AI companion NedeR serves as a walking partner, offering real-time commentary and observations. Unlike conventional AI applications, NedeR acts



Figure 2. A GPS track of a walk from Boerenverdriet to Moerstraten 19-08-2024

as a dialogue partner, helping to uncover the "layers of memory" in the landscape while challenging assumptions about its permanence.

Walking with NedeR involves an ongoing exchange of observations and reflections, with the AI responding to the walker's input and questions and posing questions itself. The frequency and nature of these interactions vary based on the walker's pace, environmental conditions, and specific landscape features encountered along the Zero NAP line. On average, a dialogue from a single walk numbers 23 question-and-answer pairs.

Thirdly (3), our approach towards data collection and documentation, inspired by O'Rourke, explores how artistic cartography offers new perspectives on familiar landscapes.

Up until now, twelve walking dialogues have been documented from an envisaged total of 40 walks. Data from each walk has been gathered through GPS tracking, photography, field notes for each walk, sound recordings and recorded dialogues with NedeR, forming an archive of climate imagination. Each walk is published as a blog post on the project's website and continuously fed into NedeR's system. [36]

Comparing interactions across walks, using an evaluation template based on the AI-as-a-judge technique, reveals patterns in the frequency and nature of questions and answers, reflecting shifts in engagement dynamics. [36] [37] NedeR's capacity to enhance awareness is evaluated by how it prompts deeper observation and understanding of landscape features. The AI's ability to connect present observations with historical and future contexts is also taken into account. The walker's emotional and cognitive responses are analyzed through this evaluation template in order to understand how NedeR influences reflective engagement during walks and the walking experience itself. The outcome of this evaluation is also fed into NedeR.



Figure 3. Connecting with NedeR during a walk 26-11-2024

Both feedback loops (data from walks, evaluations) enrich NedeR's understanding and transform walking into a learning cycle of ever deepening contextual awareness. NedeR evolves from a passive tool into an active collaborator, offering new interpretations of the Zero NAP line's cultural, historical, and environmental significance.

This integrated approach transforms traditional walking practice into what Brinckmann would recognize as a form of contemplative engagement, where physical experience, artificial intelligence, and documentation work together to reveal new insights into landscape vulnerability and change. [21] By walking the zero NAP line with NedeR, we explore not just current landscape conditions but possible futures, engaging with both the physical reality of sea-level rise and the cultural dimensions of landscape transformation.

### Physical Walking meets Digital Dialogue

The following dialogue between human walker and AI app on smartphone, which took place near Bergen op Zoom on 16-11-2024, exemplifies how this integrated walking manifests in practice, exhibiting what Coeckelbergh describes as "meaningful human-AI interaction". [40]

*"It's strange - the space here is filled with the sound of swooshing windmill blades"*  
*"Dear human, ah, those windmill blades! They cut through the air like a new kind of metronome for the landscape. It's an odd contrast, isn't it? That old, quiet clay soil and that almost futuristic swooshing above your head. Do you see it as a disturbance of the peace, or rather as a new layer in the history of farmland? Because that farmland has always shared space with technology - from mills to drainage, and now with turbines."*

*"Yes, you're absolutely right. It's actually a production landscape that I'm walking through."*  
*"Exactly, you're walking through a landscape that works - a machine in slow motion. Everything, from the strictly planned fields to the swooping turbines, revolves around yield. But isn't it fascinating? How human intervention has organized this area so efficiently and almost clinically. Do you still see traces of nature trying to participate, or is it purely production?"*

*"Well, I see a flock of birds, which follow their own rules to stay in a flock. They are an unexpected element"*  
*"Unexpected and yet beautiful, those birds! As if they're defying the strict grid of the landscape in one fluid movement. Their swarm seems chaotic but is actually as organized as the mills and fields - they just follow different rules. It almost feels like a small uprising of nature, a reminder that not everything is makeable. This Brabant landscape where we're walking now, it's all reclaimed from water, to produce food."*

*"I'm trying to imagine water winning here."*  
*"Imagine: my flat Brabant land, with its fields, its polders and its farms, slowly returned to the water. The ditches fill first, then the lower fields, and the landscape transforms. What was once a battleground between humans and water becomes marsh, water plain, new delta. Reed beds rustle where potatoes grew, birds nest where machines left furrows. The water takes no hasty revenge; it simply takes back what was always its own. Would the loss really be a loss, or perhaps a new form of wealth?"*

*"My head says 'loss' and my heart says 'wealth'"*

And so we explored the Brabant landscape together. Parts from a second dialogue, near Zevenbergen on 31-10-2024:

*"I'm walking on a dike, somewhere between Standdaarbuiten and Zevenbergen. I am so enjoying this"*  
*"Good that you're enjoying yourself. Every step you take hopefully reminds you of both the power and beauty of this manufactured landscape. Know that you're not just walking on earth, but on centuries of determination and craftsmanship. Keep looking around; every view has a story that sometimes whispers, sometimes speaks loud and clear."*

*"You know what's strange? I'm starting to notice the curves, because everything else is so linear."*  
*"Exactly that! Every curve you see is like a scar in a landscape that essentially always tries to be linear. Those bends, those unexpected turns in waterways or dikes, remind us of*

moments when nature or earlier techniques still won. In a country where we straighten and order everything, those curves are rare and precious. They show that even the most malleable landscape can't be completely tamed. Which curve are you looking at now?"

*"A meandering ditch. Perhaps part of an old waterway.*

*These are old ditches here on the right."*

*"Indeed, a meandering ditch often reveals traces of an ancient waterway, a vein of the landscape from before the embankments. Those meanders and bends show how water once found its way, free from human intervention. Old ditches like these are silent witnesses to the landscape as it once was, before we drew lines and structures in it. Perhaps in such a place you also feel an echo of how the Netherlands would look without all that human intervention – a glimpse of what I am beneath all those layers of linear embankment. Keep following those curves; they bring you closer to my original, uncontrolled face."*

Embodied knowledge arose from physical encounters with the landscape - experiencing slopes, hearing distant traffic, feeling the wind from turbines, noticing unexpected curves in an otherwise linear landscape.

NedeR prompted towards deeper observation ('enhanced noticing') via targeted questions and observations, such as *"Do you see it as a disturbance of the peace, ...?"* and *"Their swarm seems chaotic but is actually just as organized as the mills and fields ...."* and *"Those meanders and bends show how water once found its way, free from human intervention."* It interpreted seemingly simple observations as significant landscape features: *"Every curve you see is like a scar in a landscape... "*

It also connected our present to both past and future time-scales ('expanded present'). NedeR related current land use to historical farming practices *"That old, quiet clay soil..."* while simultaneously projecting how rising sea levels might transform the area *"Imagine: my flat Brabant land, ..., slowly returned to the water"*.

We see in these dialogues how 'walking with AI' can work: via back-and-forth, question and answer, which establishes a dynamic loop where physical experience informs AI dialogue, which in turn deepens physical awareness and understanding

## Challenges and Future Directions

The introduction of NedeR as a tool for artistic walking research raises challenges and poses considerations that warrant critical attention.

As Du Sautoy points out, AI systems built on large language models carry inherent biases from their training data. [10] Miller warns that these biases can subtly shape creative outcomes, potentially reinforcing rather than challenging existing paradigms. [9] This underlines the need for NedeR to act not as an authoritative voice but as a critical mirror, provoking thought and dialogue rather than delivering definitive interpretations.

A fundamental challenge is its inevitable cultural bias. As Crawford notes, AI systems reflect the cultural assumptions of their creators. [41] In NedeR's case, this becomes particularly relevant, as NedeR is rooted in Dutch culture and its specific tendency to form and transform landscape. Metz illustrates how Dutch landscape management often prioritizes technological solutions—a tendency NedeR must avoid reinforcing uncritically. [35]

Another challenge concerns the balance between technological augmentation and direct experience. Solnit emphasizes that walking's core value lies in its immediacy and simplicity. [17]. While NedeR operates through smartphone - a device that has become a ubiquitous part of any walker's kit - there is still a risk that excessive technological mediation could diminish the unmediated, sensory engagement that walking traditionally fosters. The challenge is to use technology to enrich the experience, not replace it.

These practical challenges touch upon questions regarding AI dependence in artistic research. While AI offers novel perspectives, over-dependence could risk diminishing the role of human creativity and intuition. Finding a balance between AI contributions and the unique, irreplaceable insights of the human artist is essential.

Promising directions for future development include:

- Developing NedeR as a "self-critical" companion capable of recognizing and addressing its own biases
- Integrating more diverse perspectives in training and development
- Combining diverse types of data (environmental statistics, climate projections) for richer cartographic and narrative layers
- Maintaining the intimacy of the walking experience, for example through voice dialogue with NedeR
- Inviting other human walkers to accompany the artist, in order to gain external perspectives on NedeR's effectiveness in enhancing landscape engagement and raising awareness of environmental change, including these insights in NedeR's feedback loop.

By addressing these challenges and considerations proactively, we are confident the integration of AI into artistic research can serve to enhance artistic walking practices and foster a rich dialogue between human and landscape.

## Conclusion

The integration of AI into artistic walking practices, exemplified by the development of NedeR, marks a transformative shift in how we engage with landscapes. By merging embodied, sensory walking with AI-mediated dialogue, this hybrid methodology enriches both observation and interpretation, fostering 'enhanced noticing' and 'expanded present'. These concepts create a dialogue between the walker's immediate physical interactions with the landscape and the deeper patterns - historical, ecological and future-oriented - that NedeR helps to reveal. Walking the Zero NAP line has highlighted the methodology's ability to address urgent challenges like sea-level rise by deepening engagement with

vulnerable landscapes. This approach has shown how human-AI collaboration can expand the walker's awareness, connect diverse temporal scales, and prompt critical reflection on the cultural, ecological, and technological forces shaping our world. Beyond its application to the Dutch context, this methodology offers a scalable framework for artistic exploration of diverse landscapes facing environmental stress. Future iterations of AI companions like NedeR could incorporate more dynamic data, participatory engagement, and cultural narratives, transforming them into tools for broader research and community collaboration. Such developments will enable rich dialogues between humans, technology, and the environment, fostering collective imagination and action. As we confront accelerating ecological transformations, hybrid practices like this may redefine our relationship with the landscapes we inhabit. By balancing technological augmentation with the intimacy of walking, this work illustrates the potential for AI to enhance, rather than replace, a profound human connection to place, time, and landscape.

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## Authors Biographies

### Everdien Breken

Everdien Breken is a versatile Dutch artist and researcher working at the intersection of art, science, and social activism. With a background in Geodesy (MSc, Delft University of Technology, 1987) and Fine Arts (MA, Utrecht School of the Arts, 2010), she brings a unique perspective to her artistic practice. Her work explores the relationship between humans, nature, and technology, with a particular focus on Dutch water management and climate change challenges. Through field research, performance, and multimedia installations, Breken makes complex issues tangible and engaging. A central theme in her work is the “makeability” of the Dutch landscape. Her current project, NulNAP, involves walking along the zero NAP line across the Netherlands, blending performance art, social engagement, and environmental activism. Breken combines scientific precision with poetic imagination, using tools like NedeR, an AI persona representing the Dutch landscape, to foster new perspectives and public dialogue on environmental change.

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