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Article

# Locative meaning-making: an arts-based approach to learning for sustainability

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**Abstract:** The term sustainable development is often criticized for having lost credibility due to a lack of clear-cut delineation. The same holds true for education designed to foster sustainable development often referred to as ESD. This contribution agrees that the term suffers from a want of meaning, but argues that the persistent hunt for a definition -i.e. a fixed generic description- produces rather than resolves this deficit. What sustainable development means is context and time dependent and therefore necessarily ambiguous, open-ended and dynamic. Hence, the success of ESD depends on the paradoxical imperative of reducing vagueness while at the same time maintaining ambiguity. This paper explores how this can be established and proposes a process informed by the arts. Drawing from dialogic practices, site-specific theatre and a project conducted in a British village, this writing discusses elements that constitute a process of 'context-based meaning finding'. It concludes that ESD essentially starts with and revolves around re-embedding SD in life and the act of living, engaging people in place through processes in which communities yield their own, context and time specific interpretations of sustainable development.

**Keywords:** sustainable development, Education for Sustainable Development, Decade for Education for Sustainability, situational learning, contextual practices, site-specific performance, community

#### 1. Introduction

Click <u>here</u> and behold the depiction of the term "Sustainable Development" according to Google. A vast array of representations dominated by the colours blue and green, smiling faces, children, lots of hands holding globes or saplings, many overlapping circles and pillars, and some references to political processes. Now turn around to your colleagues or ask your friends: how do you define sustainable development? Or, what is 'sustainable'? Chances are that you will be snorted at in contempt, and told that the term doesn't really mean anything. You might get a shrug with an evasive answer that it has to do with something 'global' like climate change or more 'local' like recycling. Or you will be given a Google-like vast array of vague descriptions; each poorly communicating *exactly* what should be sustained and *how*.

As this paper will demonstrate, the concept of Sustainable Development (henceforward SD) is largely undefined; or rather, it is defined in many different ways. Not everyone thinks that this is a problem however; in fact some regard ambiguity as a necessary characteristic of the concept, they believe that the value of the phrase lies exactly in its vagueness (see for example [1]). This conflict is also visible in the field of education for sustainable development (ESD) [2]. Such learning promotes emancipatory and transformative approaches that promote diversity and multiple perspectives, which automatically involve high levels of ambiguity and 'haziness'. The success of ESD therefore seems to depend on the paradoxical imperative of reducing vagueness while at the same time maintaining ambiguity.

To find possible pathways into this paradox this paper proposes a contribution from the arts. The authors explore this proposition from their respective backgrounds, merging examples of art practices with the field of ESD. In that, it is an appeal against the generic, abstract and pre-fabricated, and searches for ways in which applications become meaningful, situational and bespoke. To reflect some of these ideas, the writing will be intersected with bits that intend to resituate the written abstracted ideas in the context that they emerged from. This will hopefully allow you, the reader, to interact with that context and apply the writing to your own situation without using it as a blueprint.

The writing sets off with an exploration of the term 'sustainable development' (SD) and introduces the difficulties it poses in the realm of ESD. It then argues why we should turn to the arts in order to address this concept. From there, we will describe two cases of artistic practice that will inform an approach to SD that is context-based and thereby assumingly multi-facetted without being vague. We end with a reflection on how such approach might be integrated in ESD.

#### 2. A fuzzy concept

Academics, politicians and practitioners have sharply criticized the term sustainable development for its elusiveness. Definitions of SD are said to be vague [3-4], contested and diverse [5-6]. Others argue that there are too many definitions but that there is a lack of operative ones [7-8]. Furthermore, the science describing the probable causes and impacts of 'unsustainability' is in many ways disputed,

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deficient and uncertain [9-10]. The plethora of different interpretations has lead many to conclude that the term lost credibility and turned into a vacuous concept which can be appropriated by anyone to fit anything [11]. The uncertainty shrouding the facts of SD oftentimes leads to 'paralysis by analysis' [7,10]. This is reflected by the succession of global summits where politicians, scientists and NGOs to a large extent fail to formulate and execute concrete actions towards sustainable development, as they cannot agree on its parameters.

This paper agrees that the term suffers from a want of meaning, but argues that the persistent hunt for a definition -i.e. a fixed generic description- produces rather than resolves this deficit. First of all, because 'sustainability is provisional; subject to multiple conceptions and continuous revision' [12]. What seems sustainable now might not be so in the future, its form necessarily shifting endlessly. Similarly, Guy and Moore note that 'the challenge of sustainability is more a matter of local interpretation than of the setting of objective or universal goals' [13]. I.e. what is sustainable here might not be so elsewhere; the interpretation of the concept depends on the local geographical conditions, cultural characteristics, and the problems, needs and assets of a specific location. Thirdly, by compressing the complexity of SD in a one-fit-all definition, the concept will logically loose its multi-dimensionality. What remains is a poor, flat and empty abstraction that bears no meaning to people.

These arguments suggest that we should refrain from defining the term all together. SD purposefully lacks a clear-cut definition and is vague for a reason: its elusiveness offering a flexible framework from which context and time specific interpretations can arise. SD is essentially 'fuzzy'. Zadeh [14] coined the term fuzzy concept, referring to a concept that cannot be described accurately, either because its boundaries are unclear, or because its value and content vary according to conditions or context. He argues for 'multivalence' above bivalence, since most things are a matter of degree, rather than one *or* the other. Their meaning lies somewhere in or moves between the two opposites, creating 'infinite shades of grey between black and white' [15]. Fuzzy logic contends that in complex systems the endeavour to be precise does not lead to more accuracy, but instead to more ambivalence. More information about an issue renders an aggregate of facts from various angles, which leads to a multivalued truth and more greyness. Consequently, 'the very effort to be clear simply increases the mess' [16]. However, the fact that they are indefinable does not render them meaningless; their meaning instead lies in their inaccuracy and depends on the conditions under which they truly make sense.

Applying fuzzy logic to SD implies that instead of trying to negotiate and fix a universal interpretation of SD, we should direct our energies to establishing processes of 'continuous revision' in which we generate 'local interpretations' of SD, while juggling different conceptions of the issue, and by doing so give it meaning. Such elastic processes involve ambiguity, uncertainty and open-endedness, qualities that have resulted in 'paralysis by analysis' in the first place, which leads us back to where we started. The only escape from this deadlock seems to lie in abandoning our attempts to reduce uncertainty and inaccuracy *before* taking action, and get going *in* uncertainty. As Solnit states: 'To calculate on the unforeseen is perhaps exactly the paradoxical operation that life most requires of us'. [17]. But... how do we plan for the unknown? Where do we start if we don't know the end?

#### 3. Open-endedness in Education for Sustainable Development

This conundrum remains largely unresolved. From both the perspective of education and learning but also from a 'sustainability science' perspective it can be argued that the value of having a fixed and clearly demarcated idea of SD is limited. From the perspective of education and learning the transmission or prescription of a particular view of SD is hardly educational [18] while from a sustainability science perspective [19,1], as suggested earlier, the idea that SD can be known and fixed in time and space is an illusion as what we might consider sustainable today may turn out to be unsustainable tomorrow and what might be sustainable in Falmouth, UK, might be unsustainable in Kumasi, Ghana. Both perspectives suggest that as the world turns and changes local engagement, continuous reflection and recalibration of meaning are perhaps more essential to SD than trying to know SD. This realization is also sinking in somewhat in the international ESD-arena. When for example looking at the reviews of UN Decade for Education for Sustainability (UN DESD) it can be noted that the push for a single universal definition of ESD and, indeed the SD within ESD, that characterized the early years of the decade, has weakened [20-12]. People closely connected to the DESD now recognize, what critics of the DESD have argued for quite some time, that such a push not only contradicts what many consider the essence of both SD and ESD (e.g. creating space for diversity, contextual meaning-making, emergence, indeterminacy, negotiation and self-determination) but is also counterproductive in terms of meaningfully engaging people from around the globe in issues that really matter to them.

In the latest DESD review 213 'ESD-experts' from countries from around the world recognize a number of 'innovative' forms of learning they associate with ESD: interdisciplinary learning, participatory/collaborative learning, social learning, discovery learning, systems thinking-based learning, critical thinking-based learning and problem-based learning [21]. All of these learning processes imply varying degrees of fuzziness: they involve and hinge on ambiguity, uncertainty and open-endedness. However, in describing these learning forms there is a noticeable absence of any guidance on how ESD can address such qualities. In this contribution we want to move beyond the call for critical reflection and reflexivity that is found in many papers and policy documents on ESD by turning to the question of how to deal with fuzziness in the context of SD and learning. To do so we turn to the arts that have been largely ignored or at least been over-looked in the reviews of the UN DESD so far.

#### 4. Integration of the Arts

In contrast to what the current European governmental cuts in social and art related spending might suggest (see for example [22-24]), there is an increasing recognition that the arts are valuable beyond just gallery and consumption or aesthetic purposes [25]. Their value is mentioned in relation to learning, societal wellbeing and indeed sustainable development. In her popular book 'Not for profit: why democracy needs the humanities' Martha Nussbaum [26] argues that education and learning must reconnect to the arts and humanities in order to give students the capacity to be true democratic

citizens of their countries and the world. Illeris points at valuable overlaps between (Nordic) art education and ESD [27]. She introduces four cornerstones in which art-education might contribute to achieving ESD competencies, such as its capacity to increase students sensitivity to environment. Hawkes regards the arts as the 'fourth pillar of sustainability' as the arts' techniques:

involve improvisation, intuition, spontaneity, lateral thought, imagination, co-operation, serendipity, trust, inclusion, openness, risk-taking, provocation, surprise, concentration, unorthodoxy, deconstruction, innovation, fortitude, and an ability and willingness to delve beneath the surface, beyond the present, above the practical and around the fixed. These are aspects of human behavior that social scientists have identified as being the source and manifestation of creativity and innovation – the essential elements for the survival of the species [28].

Dealing with -or rather- embracing fuzziness and uncertainty is core to the creation of art. There are many examples of artists that describe their practice as such. To again quote Solnit from her book 'A Field Guide to Getting Lost' that deals entirely with dwelling in the unknown: 'it is the job of artists to open doors and invite in prophesies, the unknown, the unfamiliar; it's where their work comes from' [17]. Art therapist and researcher McNiff states that art: 'may often include carefully calculated studies but the truly distinguishing feature of creative discovery is the embrace of the unknown [29]. And art educator Van Boeckel maintains:

I think in art you allow yourself to live a little longer with contradictions: one viewpoint does not necessarily exclude another. Open-endedness constitutes a notion that there are several choices available, and you are not forced to immediately choose between one or the other [30].

Seeley and Reason in this context refer to the importance of *pluralised knowing*, which allows 'multiple interpretations to proliferate, without collapsing meaning down to one 'right' answer or meaning' [31]. They also refer to '*suspending':* 'holding back the intellect from prematurely rushing in with a show of certainty, planning, and quick answers to dispel anxiety of dwelling in complexity and unknowing' [31].

The research on which this paper is based drew from *contextual practices* and *site-specific performance*. Pearson defines *site-specific performance* as follows:

Site-specific performances are conceived for, and conditioned by, the particulars of found spaces, (former) sites of work, play and worship. They make manifest, celebrate, confound or criticize location, history, function, architecture, microclimate. They are inseparable from their sites, the only contexts within which they are 'readable' [32].

Based on this description, site-specific artists and performers come to a context 'bare' and shape their work on basis of what is there. They generate a creative process that is entirely formed by the conditions at a specific location, e.g. the people, history and geology of a place. Effectively, they have little or no concept of the end result at the start of this process. The pieces are entirely and only tailored for the place of conception and thus derive their meaning from that context. Despite the lack of a clearcut delineation of the final work, the artist does embark on the making. Apparently they do know how to get going without knowing where to.

The next sections of this paper discuss two cases of site-specific practice in the light of SD and learning. Although the practices were developed independently of each other, there are some important parallels that inform how we might approach or embrace the complexity, open-endedness and ambiguity that surround today's challenges. The lead author developed the first durational piece as a practice to her PhD, while being a participant in the second. We will first introduce the methodology used in this research, after which we will describe the two cases and some accompanying methods in more detail.

#### 5. Methodology

Arts-informed research ... may trump conventional forms of research when it comes to generating questions or raising awareness of complex subtleties that matter. The deep strength of using arts in research may be closer to the act of problematizing traditional conclusions than it is to providing answers in containers that are watertight. In this sense, the products of this research are closer in function to deep conversation and insightful dialogue than they are to error-free conclusions [33].

The research approach used for this study methodologically connects within the traditions of artsinformed research, ethnography and phenomenology that require the 're-searcher' to take the role of observer, interpreter, and participant almost simultaneously [34-37]. Rather than remaining at an 'objective' distance from the research context, as is usual in more conventional research traditions, 'data' is gathered through an active engagement with people and place. Active involvement on the part of the researcher here means being part of the experience for as much as possible on equal terms while walking the land with them. The act of "walking" is central in this study, both as method and subject. Geographer Jon Anderson [38] notes the power and potential of walking in generating conversation and meaning. Just like Casey [39] he points at the role that place plays in forming and influencing human identity and calls it a 'constitutive coingredience': 'each is essential to the being of the other. In effect there is no place without self and no self without place' [38]. Subsequently, he introduces 'talking whilst walking' as a method to 'overcome traditional interviewer/interviewee power relations' [38], thereby producing 'not a conventional interrogative encounter, but a collage of collaboration: an unstructured dialogue where all actors participate in a conversational, geographical and informational pathway creation' [38]. The aspect of constitutive coingredience manifests itself through the conversational topics being 'prompted not only by questions, but also by the interconnections between the individuals and the place itself' [38].

While trying to understand the participants' reflections triggered by the experience the researcher experiences the phenomenon (i.e. the walk, the landscape gliding by, events occurring, etc.) herself as well. The resulting 'double hermeneutic' calls on the researcher to reflect on, make explicit, and temporarily put aside her own experience and any preconceived notions or theoretical assumptions that may limit her to look with an open eye at the narrated reflection of the participants. Creating a social connection and building a good report with the other participants is considered essential in creating an atmosphere of trust, safety and comfort which will increase the likelihood of participants to open-up

and search a little deeper to provide more meaningful responses. Such an atmosphere is necessary to allow for dialogue to occur in a relatively undistorted fashion without issues of power, status, prestige, etc. getting in the way.

Scott Cato and Myers talk about 'learning as re-embedding' with which they refer to a way of knowing that is entrenched in situation, practice and experience. They argue that learning for sustainability through theory and texts (e.g. peer reviewed papers) generates a 'literary abstraction, [that] may actually have impaired our ability to directly experience it [the world], and hence to feel an affinity which may be the precursor to a sustainable stewardship approach' [40]. Instead they call for learning *in situ*, through which 'meaning is constructed at a local and immediate level where particular and individual experiences are included in a pluralist discussion of multiple realities' [40]. Subsequently, we can say that the process of learning, the context in which is learned and what is learned are inseparable. This research is conceived in a similar manner; it regards the research process and the (social and physiological characteristics of the) place of conception as inherent parts of the knowledge that it generates. To underwrite this we will describe the context of the cases as part of the methodology. And, in an attempt to 're-embed' this peer-reviewed piece of writing in the situation of practice (the real world, that is), as well as giving you –the reader- an experiential sense of this setting, the text will be interspersed with two little pieces of documentation from the practice.

*Case 1: Reimagining Constantine* --- Constantine is a village South-East of Falmouth in Cornwall, UK. Situated between woods and a windy estuary, it is a popular residential spot. The community is lively compared to many other rural places in Cornwall. While lots of villages loose a major part of their population in autumn when holidaymakers and second-home-owners move back to their 'first homes', Constantine is peopled all year round and has various businesses on its high street. Situated on the granite plateau that covers most of central Cornwall, the area is dotted with quarries. Once bustling with activity, now empty and often overgrown they are evidence of an industrial age that used to sustain the area. With the industry fading and farming dwindling, most residents now work outside the village; a long line of cars leaving the village every morning as a result.

Two groups in the village, 'Transition Constantine' (TC) and the 'Constantine Enterprise Company' (CEC), endeavour to make the village socially, environmentally and economically sustainable. Where the first could say to have an environmental focus by developing renewable energy schemes and local food provision, the latter is more economically and socially oriented, aiming to expand local employment and sustain the social cohesion of the village. However, what is thought to be sustainable or 'good' for the village is largely contested. For example, after an initial broad interest for renewable energy, TC found itself fiercely opposed when they introduced the idea of a solar plant on a field near the village. The CEC took up the plan to reinvigorate one of the deserted quarries, called Bosahan. Not by reinstalling it at as a place of granite extraction, but by reimagining it as a place that brings heritage and current needs of Constantinians together in a place that would provide employment while also preserving wildlife.

In this case the role of the research went further than just being a participant. Besides following the activities of the TC and CEC she purposefully designed and conducted and intervention in order to learn by doing. The researcher took the plans for Bosahan quarry as an opportunity, starting point and context to develop an artistic practice as a means to find local interpretations of SD. The aim was to do

so by an open-ended process of collecting a range of tangible and diverse perspectives on the issue that would serve as a starting point for a wider community dialogue around the possible futures of Bosahan Quarry. She started off by collecting stories about the granite history of the community by interviewing mostly elderly. After that she gradually moved to talking with younger residents, focussing on their memories as well as the present and future of the village. All these conversations were recorded and subsequently used to make an audio walk that lead from the village to the quarry. On various occasions residents were invited to walk and listen to the aggregate of views on the place as expressed by their fellow villagers.

*Case 2: The Emergence Land Journey* --- At the beginning of September 2012 the researcher joined the Land Journey as part of the Emergence Summit organised by the Centre for Alternative Technology (CAT) and Volcano, a theatre company from Swansea. The Summit aimed to develop the role of the arts in envisioning a sustainable society and brought together a large range of artists, thinkers and practitioners over a two-day conference at CAT. The Land Journey was a preamble to this event: two groups set out from CAT and walked two ellipses, one going North and the other South, reuniting at CAT after 5 days. The walk was curated by artist Simon Whitehead, who carefully staged a sequence of *visitations* along the route. Simon described the form and purpose of these visitations as:

an invitation to have one person a day who would come and tell a story in whatever medium that might reveal something of the invisible narratives of the place, human narratives I guess. So it wasn't just kind of a walking holiday through generic beautiful landscapes. It was also encountering the realities of experiences of that place, of the people who had kind of a deep relationship to the place [41].

The researcher was a participant during three days of the walk, following the 'North Route' through Snowdonia. We went up mountain *Cadair Idris*, passed through residential areas, farm land, (former) industrial areas as well as woods, while repeatedly encountering the construction of a gas pipe that cut through the land. Some visitations were performative, like a poetry reading, dance or a musician playing a tuba; others were more informative: a sheep farmer passionately describing the beauty and perils of farming, or a writer telling us how communities and farmsteads made way for state enforced timber production. After the walk she held conversations with nine participants of the land journey, Simon Whitehead and the mountain leader, to understand how they had experienced the walk, what the 'art' was and how that informed the topic of sustainable development. Although the interviews followed a loose structure, they were embedded in and highly influenced by the environment; to the extent that what was discussed was triggered by contextual conditions. Furthermore, having participated in the walk as well, the researcher took the position as interviewer *and* interlocutor; asking questions, as well as concurring with uttered views or challenging perspectives.

The interviews, observation and personal reflections were recorded, analysed and mirrored with other conversations with the intention of discovering some structure and coherency. Usually some ideas and experiences tended to repeat themselves with some variation, so that after several rounds of interpreting, a deeper structure of common themes emerges. The writing process itself continued to make sense of the data, as it allowed for temporary themes, categories, or patterns to emerge.

#### 6. An artful pathway into sustainable development

The following is an account of the experiences and observations during the two cases analysed in the light of their contribution to (learning for) sustainable development. To stress the fact that the results are specific to the 'theres and thens' of the researcher's situation, we will turn to the first person. The 'I' refers to the lead author of this article.

At the heart of both cases lies the act of walking as an artful and embodied practice. The first step in the Constantine project builds on an approach that performance artists Misha Myers calls *conversive wayfinding*: 'a particular mode and methodology of guided walking through which people's perceptions and experiences of places are expressed through a sociable, conversational or dialogical mode of interaction' [42]. I invited residents to take me for a walk, one that lead from their house to a location that held a significance of some kind. I was taken to places that kept childhood memories, hilltops that revealed a particular view, e.g. of the village or the walker's farm; or guided along 'routine routes', connecting their home to their place of work for example. While traversing the landscape we would talk about the past, present and future of the community and its surroundings: what they most cherished about the place, how they thought the village and their lives were affected by external (global) events such a climate change, whether and what they feared for the future and how they thought the community could meet any changes to come.

The walking facilitated the conversation in several ways, thereby also confirming Anderson's observations (mentioned above). First of all, various people commented on the fact that they felt more at ease when moving. As the initiator of the conversation I likewise observed that is was easier to talk with relative strangers while sharing an activity and pace. Furthermore, the conversation became deeply rooted in and influenced by the surroundings: stories, memories and thoughts were triggered by the places we passed through, gathering the pieces of their perspective as we went along. This is reflected by the following quote of a walker. After having descended from a hill, which lent us a view into the different layers of past and present in the landscape, and contemplated the possible future, I asked him what he was taking home from the walk. He answered:

I suppose the kind of interesting one was the fact that standing up on Brill Hill, looking down and initially thinking that actually the aspiration was that –or my aspiration- that things would not change very much, that actually the aspiration is that things would look quite different... because it would... you would see the landscapes dotted not with engine houses but with wind turbines, and the glint of solar panels of every roof that you could see and maybe the odd little solar allotment here and there as well... Ah yes, so it could look quite different [43].

Our dialogue became embodied in the landscape, as we literally moved through the topic of conversation. This forced the conversation into the here and now: whenever it threatened to get bogged down in a universal analysis of global terms, the act of walking and being in the place allowed me to redirect the conversations to the village, its surroundings and the lives that were traversing.

In a similar way, the walking shaped the conversations on the Land Journey. A dialogue between two participants clearly demonstrates this quality:

- *G:* ...when you walk you nearly always walk alone or in pair. Threes don't work. Fours don't work. Its always pairs and I find that quite an interesting thing too. And how that conversation you can be in the middle of a conversation and you get to stile and that's the end of it. And even you might be answering a question and then there is someone else and you are having a different conversation.
- B: Or even when you are having the same conversation, but there is a different person responding to you.

(both laugh)

- *G*: *It is very odd, the whole thing that happened...*
- *B: I though that dynamic was fantastic, I really loved it. I loved that kind of a rolling conversation, changing conversation, and building connections [44].*

My experience during the Land Journey confirms this process. The conversation unfolded organically or rhizomatically: topics and thoughts travelled through the group as a conversation started with one person was continued with someone else, while a thread of first dialogue was taken into a next. The group recognized this quality to the extent that we purposefully used it as dialogic method to make a group decision on the final day of the walk.

The excerpt above also reiterates the way in which walking shapes the conversation according to the expression of the place that you are moving through. Not just topic-wise as we saw earlier but also in the way that it unfolds structurally in relation to the lay of the land. What you talk about, with whom and how depends on the contingencies of the context. Walking here becomes a dialogic method for located meaning-making.

Besides walking being dialogical and contextual, Whitehead raised another 'function' of walking in relation to his artwork. As in his other work the art lay entirely in the act of walking itself. His starting point for the land journey was a map on which he drew two elliptical circles, one towards the South the other going northwards. The piece consisted in the walking of those circles in the terrain. While:

... knowing constantly that the route intersected with things that were happening or the path was wiped out, or wasn't there or the gas pipe moving through there. So really present phenomena that really open up into a really interesting conversation, but constantly aware that actually the act of walking through landscapes like this is very contingent on what is happening. Cause you might sometimes not be able to pass through a field because the hay is being cut and that is because you are in a particular season and something is happening and then what does that call upon in terms of rerouting yourself [41].

So in a way the art piece consisted in the ellipses brought into being by the walkers and altered through this operation. Without the participants walking the planned route, the two elliptical circles

would have existed only in theory. And as Korzebski [45] coined: 'the map is not the territory'. In order to come into being the route interacted with the contingencies of the time, site and humans involved. Walking these two map-drawn ellipses changed their original shape in relation to the context in which they were animated. Whitehead left it to the mountain leaders to reroute in and according to the terrain. They had to do so constantly, especially with paths being closed and destroyed by the construction of the pipeline, but always respected the original plan by returning to the map-drawn route. The walk can thus be seen as a practice in dealing with contingencies, in order to meet the future *"with a sense of contingency and improvisation"* [41].

This point holds a key to understanding sustainable development and open-endedness. As planners, visionaries, activists, or the human race in general, we might have visions of what a sustainable future could be -i.e. we have drawn a shape on a map- but until we start animating -walking- the plan, it essentially does not exist. Whilst realizing the route we both honour the plan and acknowledge that what we drew is only a line on a map; it is not fixed and it is bound to interact with what is there (people and place). These interactions are fruitful disruptions and should be taken on board as welcome elements that contribute to animation of the route, rather than nuisance that interfere with the planned path. Again reminding ourselves that the drawn route essentially does not exist till it is animated.

Similarly, the piece in Constantine embraced open-endedness. But, in contrast to Whiteheads planned elliptical routes, here the conversive walks had no predetermined shape at all. The act of 'wayfinding' created an opening and framework through which the perspective of my walking partner could unfold. Inviting someone to take *me* on a walk to a place of *their* interest, lead me a on an open-ended journey through their world. I had no (geographical or conversational) purpose in mind, other than concentrating entirely on seeing the surroundings through the eyes of the other. Hence the wayfinding formed a framework for open-endedness: within the active parameters of walking, unforeseen meaning was made. Walking then becomes a form of as open-ended meaning-making

Another element that emerged from both cases is the way in which they facilitate the emergence of different perspectives on land and sustainability. As mentioned above, the practice in Constantine revolved entirely around gathering different perspectives to form a fuzzy set of locative interpretations of SD. Wayfinding was used to do so, and to facilitate this process of 'meaning making', I asked people to bring an object that represented the future. This then formed a personal and tangible starting point for the conversation, again striving to discuss the elusive concept of SD from the context of their life world as a point of departure. The stories that these objects contained created the matter for the conversation, thereby also giving the abstract concept of SD tangible matter and thus meaning. I recorded all these conversive walks, and ended up with many hours of stories, each of which held different perspectives upon the past, present and future of the village. I then generated an audiowalk that juxtaposed the different perspectives and resituated them in the landscape. The audiowalk lead over the footpath through woods that link the village with the Bosahan Quarry and aimed to create a space for –referring back to Seeley and Reason- suspension and pluralised knowing. A reflective space for individual listeners, as well as a starting point for conversation between listeners.

Step into that experience by taking a moment to listen to an example of such a conversation <u>in the</u> <u>woods</u>. Click and the link will lead you to the track online, listen and feel free to comment [46].

As intended by Simon Whitehead the visitations during the Land Journey brought in a range of multiple perspectives. They shed different lights on how people interact with the land, as well as showing the land from different viewpoints. As one walker commented:

I think they [the visitations] were very powerful; in a general way they gave a chance to see different perspectives of place and people, or different aspects of... (...) We were walking and looking at the land, and the terrain, and suffering the terrain. And appreciating the landscape and everything and... there is people living in the landscape and we saw some of that. People interacting with it, like Ben floating down the river (...) [44].

Again, to get a sense of what that was like, take a moment to listen to what happened <u>on the bridge</u> [47].

Judging from the frequency that this point was raised by participants that I talked to, it is save to assume that this presence of different viewpoints lies at the core of the walk as an art piece. The mountain leader aptly summarizes this point when he says:

It was almost as if Simon had wanted for everybody to do the same route but look at things differently. That is what I got. Because people were seeing stuff that other people weren't so... (...) I think Simons vision was for everyone to look at the land though their own eyes and then pass on that information to the rest of the group. Which they did to me, there was stuff I was seeing that I hadn't seen before. So perhaps that was the art in itself. If I was to look at a painting and someone pointed something out on that painting that I hadn't seen before [48].

So apart from the visitations being art pieces in themselves by representing a landscape perspective artfully (through poetry, a performance, etc.) the aggregate of visitations plus the views and backgrounds that the participants brought to the walk, made the journey into an artful experience. The same goes for the piece in Constantine, where both the open-ended act of wayfinding and the aggregate of perspectives expressed through the audiowalk, formed the core of the art piece.

A final element from these cases, which might inform our understanding of open-endedness in relation to SD, is the act of lingering. Various walkers on the Land Journey referred to a tension 'between getting somewhere in time and being in the place' [44]. The scheduled route and visitations forced us to move through the land to get from A to B, whereas a real connection with the land could only be established by lingering in the land between those two points. Exploring the question as to whether and why walking is art, this point holds the essence of an answer. The difference between the walk as an artful experience and the walk as a walk, might lie in the extent to which the walker lingers.

As the mountain leader expressed (see previous interview excerpt), the essence of the walk for him lay in seeing the land from different viewpoints. However, this ability only started to emerge when he was less concerned with practicalities of the walk. In reply to the question whether he thought the walk was an art piece he says:

Part of it was for me. Because, by... it wasn't so much on the first or second day. It wasn't so much till I got into the swing of things, then yes I could see what Simon was trying to get at. The first and second day, no I think I was concentrating a little bit too much on getting the group to these interventions and the campsite and safely. And then after that the blisters took over, of course. After day two we started to get a lot of blisters. Not on myself but on the others, so that was also in my mind, I didn't want people not to do the journey, and look after their feet. And get them from A to B. (...) But than I let go a little bit more near the end of the route and I had time to reflect myself and look at stuff around me in the land and the trees and the vastness of it, believe it or not [48].

This statement suggests a distinction between on the one side the purposeful pragmatism of a mountain leader having the route and schedule in mind and safely herding the group into the right direction; and on the other a more phenomenological approach of lingering in, closely observing and documenting the journey between. Thus, maybe a walk (or anything for that matter) becomes 'art' when one does (more of) the latter.

This also corresponds with the earlier made point in that Simon's art piece *became* through the interaction between the scheduled route and the specifics of a context or present phenomena. Being tuned to and malleable by these contingencies is then, in essence, artistic. The difference between an A-to-B approach and art lies in being 'context-aware' or 'context-responsive'.

#### 6. Towards a conclusion: arts, learning and sustainability

In both cases the art can be said to lay in unearthing landscape narratives: locational interpretations of the land are uncovered through the contextual act of walking. At the same time we can say that it was the art that *enabled* these different interpretations to proliferate, as well as hold the ambiguity of that fuzzy set in the form of a 5-day land journey and 35 minute long audiowalk respectively. Walking is proposed as way to generate locative conversations by allowing the place to shape the dialogue, thereby making meaning: potentially abstract concepts derive their meaning from the context, by being tangible in the surroundings that the conversive walk traverses. A potentially abstract topic thereby becomes rooted in the lifeworld of people and thus starts to *matter*. Returning to Scott Cato and Myers' phrasing, SD moves away from being a theoretical literary abstraction and is *re-embedded* into the world and practice of *living*. As SD and ESD for that matter entirely deal with living and life these concepts are indeed rendered meaningless in abstracted form and only gain meaning from real situations and in context.

Open-endedness played a big part in both pieces. Through his piece, Simon Whitehead embraced the inevitable unknown by acknowledging that the map is never the territory. He thereby suggests that we can approach looming open-endedness by perceiving contextual contingencies of reality not as nuisances but as necessary and valuable disturbances that inform the shape of something in reality or context. In the Constantine project wayfinding was used as an open-ended framework of understanding someone's perspectives; an embodied act of exploring interpretations of sustainable development.

And finally, the connecting element in this mix is the act of lingering. The artistic quality that encompasses an open-ended approach to SD is the capacity to be context-aware. Applying these insights to the question raised at the beginning of this paper -'how do we start if we don't know the end?'- the simple answer is: start walking, pay attention, respond to context and the answers will follow. Context-responsiveness implies three things;

- a) being sensitive to the specifics of a context
- b) allowing these to inform the route that you are taking
- c) being able to incorporate those into a diversion or -what Simon called- "rerouting".

The context-based approached proposed here addresses a void that can be found in in the current ESD-discourse which pays little attention to reflexivity-in-action, dialogical understanding, connecting with 'place' and deriving meaning from contextual engagement. With Cato and Myers [40] we call for relationally responsive learning which is both situational and reflexive. This means that rather than further distancing people from SD by placing it in the political, global and academic realm, ESD essentially starts with and revolves around re-embedding SD in life and the act of living. Instead of depending on scientific and abstracted descriptions of what SD *should* mean to people, learning for sustainability lies in processes that incite communities to yield their own, context and time specific interpretations of sustainable development. Hereby making SD *matter* to the people involved through *locative meaning-making* instead of routinely adopting the ready-made. Ways in which artists and performers connect to, respond to and derive meaning from place and situation, offer valuable ideas for educators that work with formal, nonformal and informal ESD; both in terms of methods as well as general approach, one that does not shun away from open-endedness and ambiguity. As the DESD comes to an end, the need for learning that (re)connects people and places while engaging them in some of the key existential issues of our time appears greater than ever.

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### **Conflict of Interest**

The authors declare no conflict of interest.

#### **References and Notes**

1. Martens, P. Sustainability: science or fiction? *Sustainability: Science, Practice, & Policy* **2006** 2, 36–41; Available online:

http://sspp.proquest.com/archives/vol2iss1/communityessay.martens.html (accessed on 1 February 2013).

- 2. Scott, W.; Gough, S., Eds. *Key Issues in Sustainable Development and Learning: A Critical Review.* Routledge Falmer: London, UK, 2003.
- 3. Gow, D. Poverty and natural resources: Principles for environmental management and sustainable development. *Environmental impact assessment review* **1992**, *12*, 49–65.
- 4. Mozaffar, Q. Sustainable development: Concepts and rankings. *Journal of Development Studies* **2001**, *3*, 134–161.
- 5. Connelly, S. Mapping sustainable development as a contested concept. *Local Environment* 2007, *12*, 259-278.
- 6. Van Zeijl-Rozema, A.; Cörvers, R.; Kemp. R.; Martens, P. Governance for Sustainable Development: A Framework. *Sustainable Development* **2008**, *16*, 410-421.
- Karvonen, A.; Brand, R. Technical expertise, sustainability and the politics of specialized knowledge. In *Environmental Governance: Power and Knowledge in a Local-Global World*; Kütting, G., Lipschutz, R. Eds.; Routledge: New York, NY, USA, 2009.
- 8. Manderson, A.K. A Systems Based Framework to Examine the Multi-Contextual Application of the Sustainability Concept. *Environment, Development and Sustainability* **2006**, *8*, 85-97.
- Wals, A.E.J.; Blaze Corcoran, P. Re-orienting, re-connecting and re-imagining: learning-based responses to the challenge of un-sustainability. In *Learning for sustainability in times of accelerating change*; Wals, A.E.J., Blaze Corcoran, P. Eds.; Wageningen Academic Publishers: Wageningen, The Netherlands, 2012.
- 10. Peterson, G.D.; Cumming, G.S.; Carpenter, S.R. Scenario Planning: a tool for conservation in an uncertain world. *Conservation Biology* **2003**, *17*, 358-366.
- 11. Blowers, A.; Boersema, J.; Martin, A. Is sustainable development sustainable? *Journal of Integrative Environmental Sciences* **2012**, *9*, 1-8.
- 12. Prugh, T.; Constanza, R.; Daly, H. *The Local Politics of Global Sustainability*; Island Press: Washington, DC, USA, 2000.
- Guy, S.; Moore, S.A. The paradoxes of sustainable architecture. In Sustainable Architectures: Cultures And Natures In Europe And North America; Guy, S., Moore, S.A. Eds.; Spon Press: New York, NY, USA, 2005.
- 14. Zadeh, L.A. Fuzzy sets. Information and Control 1965, 8, 338-353
- 15. Kosko, B. Fuzzy Thinking; Flamingo: London, UK, 1994.
- 16. Law, J. After Method, mess in Social Science; Routledge: New York, NY, USA, 2004.
- 17. Solnit, R. A field guide to getting lost; Penguin: Edinburgh, UK, 2006.
- 18. Jickling, Bob. Why I don't want my children to be educated for sustainable development. *Journal of Environmental Education* **1992**, *23*, 5-8.
- 19. Kemp, R.; Martens, P. Sustainable development: how to manage something that is subjective and never can be achieved? *Sustainability: Science, Practice, & Policy* **2007**, *3*, 5-14. Available online: http://sspp.proquest.com/archives/vol3iss2/0703-007.kemp.html (accessed on 30 January 2013)
- 20. Wals, A.E.J. *Learning for a Sustainable World: Review of contexts and structures for ESD*; UNESCO: Paris, France, 2009.

- 21. Wals, A.E.J. Shaping the Education of Tomorrow: 2012 Full-length Report on the UN Decade of Education for Sustainable Development DESD Monitoring & Evaluation Report; UNESCO: Paris, 2012.
- 22. BBC News *Hundreds of arts groups lose funding*, online source, 30 March **2011**, available online: http://www.bbc.co.uk/news/entertainment-arts-12892473 (Accessed on 7 February 2013).
- 23. Dowling, S. European arts cuts: Dutch dance loses out as Netherlands slashes funding. *The Guardian* **2012**. Available online: http://www.guardian.co.uk/culture/2012/aug/02/european-arts-cuts-dutch-dance (Accessed on 7 February 2013).
- C.S.W Government funding for the arts: Up in flames. *The Economist* 2012. Available online: http://www.economist.com/blogs/prospero/2012/04/government-funding-arts (Accessed on 7 February 2013).
- 25. Van Maanen, H. *How to study art worlds: on the societal functioning of aesthetic values*; Amsterdam University Press: Amsterdam, The Netherlands, 2009.
- 26. Nussbaum, M. Not for profit: why democracy needs the humanities; Princeton University Press: New Jersey, USA, 2010.
- 27. Illeris, H. Nordic contemporary art education and the environment: constructing an epistemological platform for Art Education for Sustainable Development (AESD). *Nordic Journal of Art and Research* 2012, *1*, 77-93.
- 28. Hawkes, J. *The Fourth Pillar of Sustainability: Culture's Essential Role in Public Planning*; Common Ground Publishing Pty Ltd: Melbourne, Australia, 2001.
- 29. McNiff, S. Art-based research; Jessica Kingsley Publishers: London, UK, 1998.
- 30. Van Boeckel, J. *Conversation on art and learning for sustainability* [skype]. Personal communication, 5 October 2011.
- 31. Seeley, C.; Reason, P. Expressions of Energy: An Epistemology of Presentational Knowing. In Knowing Differently: Arts-Based and Collaborative Research, Liamputtong, P., Rumbold, J. Eds.; Nova Science Publishers, Inc: New York, NY, USA, 2008.
- 32. Pearson, M. S. Site-specific Performance; Palgrave Macmillan: Hampshire, UK, 2010.
- 33. Eisner, E. Persistent tensions in arts-based research. In Arts-based research in education, Cahnmann-Taylor, M., Siegesmund, R. Eds., Routledge: London, UK, 2008.
- 34. Agar, M.H. *The Professional Stranger: An Informal Introduction to Ethnography*; Academic Press, San Diego, SA, 1980.
- 35. Carr, W.; Keminis, S. *Becoming Critical: Education, Knowledge and Action Research;* Falmer Press: London, UK, 1986.
- 36. Kemmis, S. *Action Research*; International Encyclopedia of Education, Pergamon: Oxford, UK, 1980.
- 37. Spiegelberg, H. *Phenomenology in Psychology and Psychiatry: A Historical Introduction;* Northwestern University Press: Evanston, IL, USA, 1972.
- 38. Anderson, J. Talking whilst walking: a geographical archaeology of knowledge. *Area* **2004**, *36*, 254-261.

- 39. Casey, E. Between geography and philosophy: what does it mean to be in the place-world? *Annals of the Association of American Geographers* **2001**, *91*, 683–93.
- 40. Scott Cato, M.; Myers, J. Education as Re-Embedding: Stroud Communiversity, Walking the Land and the Enduring Spell of the Sensuous. *Sustainability* **2011**, *3*, 51-68.
- 41. Whitehead, S. Conversation on Land Journey. Personal communication, 7 September 2012.
- 42. Myers, M. Walk with me talk with me: the art of conversive wayfinding. *Visual Studies* **2010**, *25*, 59-68.
- 43. Hussey, C. Conversive walk to Brill Hill. Personal Communication, 17 February 2012.
- 44. Green, M. and Bartlett, T. *Conversation on Land Journey*. Personal communication, 7 September 2012
- 45. Korzybski, A. Science and Sanity; Institute of general semantics: Brooklyn, NY, USA, 1994.
- 46. In the woods; featuring residents of Constantine, Cornwall, UK. Artist: Natalia Eernstman, 2012.
- 47. On the bridge; featuring participants of the Land Journey, Emergence Summit, Machynlleth, Wales, UK. Artist: Natalia Eernstman, 2012.
- 48. Richards, H. *Conversation on Land Journey* [skype]. Personal communication, 10 October, 2012.

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