

# Fieldwork Across Disciplines – Six Phases Towards Another Situated Design Approach

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**ABSTRACT:** Urban planning and design face mayor challenges in mitigating environmental damages and restoring broken relationships between people and other living species. Interdisciplinary fieldwork (IDF), uniting landscape architects, biologists and other disciplines in co-investigation of urban sites, may open possibilities or deepening the human-nature relationship and motivating the necessary systemic transformative change. We tap into an understanding of 'sites' as comprised by thick and precious *networks* of heterogeneous actors (human and non-human, a-biotic and biotic) entangled in contextual *Critical Zones* where they collaborate over various timespans to create habitable conditions. Such an understanding calls for approaches to early-phase methodologies of recognizing the broad spectra of site-specific natural values and processes of life, to support them and coexist with them. Here, we discuss how practicing fieldwork across disciplines can create new situated sensitivity towards sites. Utilizing qualitative research methods, e.g. observation and interviewing, along with studies of documents, we explore and analyze the experiences with IDF in a nature-based design studio in Denmark. From the results we draw the contours of a framework for interdisciplinary exploration of project sites in an urban planning and design context.

**KEYWORDS:** interdisciplinary, fieldwork, nature-based solutions, critical zones, situated designing

## 1.0 RESEARCH PROBLEM AND CONTEXTUALISATION

### 1.1. Mapping manners matters

Urbanization and land use change must be acknowledged as a key driver of ecological change and biodiversity loss globally (Newbold et al. 2015; Seto, Parnell, and Elmqvist 2013).<sup>1</sup> Simultaneously an increasing 'extinction of experience' of nature for people living in urban environments corrupts human-nature relationships (Soga and Gaston 2016). Actors involved in development and design of urban environments face major challenges to mitigate this two-eyed problem. The manner in which sites prone for urban development or urban change are mapped and assessed may play a significant role in order to support ecosystems and generate sustainable urban natures (Lindholm 2017; Langner 2019; Spirn 2014; Mostafavi 2012). From the field of Landscape Architecture in Design Theory, we find a rich, unexhausted, literature on various approaches to site-analysis.<sup>2</sup> Such analysis can typically be sorted in two contradictory approaches (Simensen, Halvorsen, and Erikstad 2018), depending on two differing 'worldviews' and 'landscape concepts' (Hansen-Møller 2004; Holten-Andersen 2023); one based in natural sciences, the other in cultural sciences and arts. One utilizing and quantitative data and concerned with production of facts, the other utilizing qualitative data and concerned with production of narratives (Holten-Andersen 2023, 134–48). However, the present ecological challenges of urban development require weaving of environmental and cultural literate narratives of the city, and thus the cooperation of multiple disciplines (Hagan 2014).

### 1.2. Bridging the map

Based in the Natural Sciences, biologists most often take a quantitative approach to understanding the ecological state and function of a site (Kiers et al. 2022), but may struggle to engage and connect with other disciplines and the wider public. Acknowledging the human-nature relationship in planning and design for biodiversity, and broadening the focus beyond nature's intrinsic values by considering senses, beauty, emotions, meaning and compassion may resonate more strongly with people (Richardson et al. 2020; Chan et al. 2016). As the current human–nature relationship has become dysfunctional, it can only be restored through a co-creative partnership with nature, which calls for *localized* and *ecologically literate* practices of design, embedded in site-specific contexts of social–ecological narratives (Du Plessis and Cole 2011). Multiple recent concepts within urban planning and design (such as Nature-Based Solutions, Biophilic Design and Regenerative Design), push for design-approaches that support multiple lifeforms (Panagopoulos, Sbarcea, and Herman 2021). However, in order to design *with* the specific actors on a site, designers as well as researchers must be able to get to know them (Tsing 2015, 159). Existing methods of mapping within disciplinary silos fail to provide a comprised understanding of the site-specific networks of life, their performances, interdependency, and criticality.

### 1.3. Situated mapping in the Critical Zone

In order to bridge the disciplinary stances in site analysis, the view on the object of analysis comes into question (Olwig et al. 2016). Concepts of nature / place / landscapes / environments etc. is laden with nature-

culture dichotomy. To deepen the concept of ‘site’ and ‘situation’, we lean on the concept of the Critical Zone<sup>3</sup>. Critical Zones denotes:

...a complex, dense world, filled and folded, crowded with entities and processes, movement and transformation, activity and signs, whose powers and conditions of existence are hard or impossible to disentangle” (Szczyszynski 2020, 344)

According to Latour, the concept of Critical Zone encompasses a pledge to provide a new form of situated knowledge and “the effort of gaining a new proximity with the situations we have to live in.” (Latour 2020, 9). Approaching a project-site as a Critical Zone entails comprehending it as an evolutionary system (Prominski 2005), that cannot be assessed as a ‘container’ in which life can unfold, because space is constantly reproduced by life (Arènes, Latour, and Gaillardet 2018).

#### 1.4. Towards new knowledge

During the past decades the concepts of Situated Design, Co-Design and Participatory Design has affected landscape architecture and planning (Simonsen et al. 2021; Primdahl et al. 2010). These concepts acknowledge architecture and design as processes, produced in collaboration of numerous temporal actors, thus challenging the notion of the architectural ‘work’ (Albertsen 2013; Beim 2005). Building on Donna Haraway’s understanding of situated knowledges (Haraway 1988), Arne Naess’ conception of Deep Ecology (Naess 2005) and the before mentioned concept of the Critical Zone - we seek to explore Another Situated Approach, where matter and multispecies of a site participate actively in the design process. Future knowledge systems require interdisciplinary collaboration (Fazey et al. 2020), so do the study of thick networks on sites, prone for ‘development’. Moreover, it seem sensible to use all imaginable ‘learning practices’ (Tsing 2015, 159), when researching deep landscape stories of sites. In this article, we seek to contribute to the study on methods of fieldwork combining cultural and ecological perspectives, which has been somewhat overlooked (Elmqvist et al. 2013, 730).

#### 1.5. Research question

In this exploratory practice research, we investigate and discuss how practicing fieldwork across disciplines may create enhanced sensitivity towards sites. We explore an example of IDF-practise and ask how the empirical evidence may display certain characteristics of IDF and perhaps point towards a methodological framework for IDF.

## 2.0 METHODS

### 2.1. Case

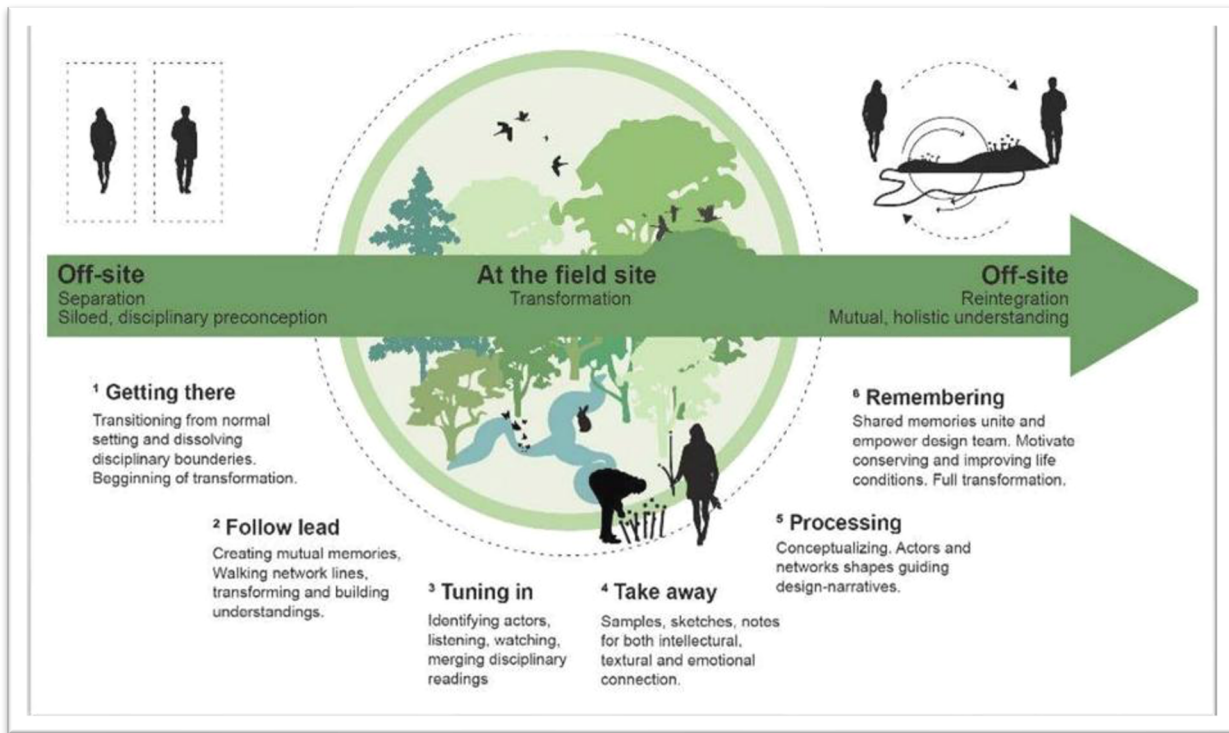
As data-source for this Exploratory Practice Research, we investigated the use of IDF in the company SLA, based in Denmark and Norway (SLA 2024). The studio has worked in both research and practice for 30 years. SLA works with nature-based design and biodiversity in both urban planning, urban spaces and landscape architecture. The studio is internationally renowned for their visions, plans and designs. SLA aims to be a learning and interdisciplinary organization, consisting of e.g. anthropologists, architects, urban planners, biologists, geographers and communicators (SLA 2024).

### 2.2. Data

We analyzed three existing documents touching upon interdisciplinary fieldwork in the office of SLA. Furthermore, we have observed, recorded and produced field notes on two workshops considering interdisciplinary work at SLA. As supplement to the information gained from these sources, we have conducted a semi-structured interview with a biologist employed at SLA on her yearlong experience with IDF in the company. Table 1 offers an overview of the data informing the research.

**Table 1:** Data overview. Source: (Holten-Andersen and Engemann 2024)

Activity/Document	Date of assessment	Datatype	Data in text reference
Interview with Kim (pseudonym), Biologist at SLA	January, 2024	Video-recording / transcription	(INT, time of statement in recording)
Interdisciplinary fieldwork workshop at SLA, 2023	December, 2023	Audio-recording / notes	(IDFW1)
Interdisciplinary co-work workshop at SLA.	September 2023	Fieldnotes and imagery	(IDFW2)
Nine pioneering actions towards Another Green World. / Report from SLA Interdisciplinary camp 2023	December 2023	Illustrated report	(IDCP)
Introduction to Method Course	January 2024	Video available at SLA intranet	(IDMC, time of statement in recording)
Naturens værdi og den økocentriske by	August 2023	Book chapter in "Tænk os om – alternativer til Lynetteholm" published by Strandberg Publishing, Copenhagen.	(Andersson 2023)
www.SLA.dk	January 2024		(SLA 2024)



**Figure 1:** IDF framed as three stages (A. Separation B. Transformation, C. Reintegration) and six phases (1. Getting there; 2. Follow lead; 3. Tuning in; 4. Take away; 5. Processing; 6: Remembering) Source: (Holten-Andersen and Engemann 2024).

### 2.3. Analyzing data, theorizing and reflecting

Our strategy for theorizing has been abductive and reflexive (Schwartz-Shea and Yanow 2012, 30–36), moving between data and theory to improve understanding. The way of arranging fieldwork in transitory phases by Christophe Girod<sup>4</sup>, has inspired our way of analyzing the data and sorting the results. In the available data, we have therefore sought to distinguish different stages of IDF and bring forward what evidence the data gives on their activities and outcomes. We identified three stages and six phases, as demonstrated in Figure 1. Table 2 displays the concepts and reflections used when analyzing the data.

## 3.0 RESULTS AND REFLECTIONS

Here, we present some findings from the empirical evidence of IDF at SLA. Due to limited space, we arrange the findings along with direct reflections and interpretation. Initially we report and reflect on the overall usage and state of IDF at SLA, then we present data and reflections on the six identified phases.

### 3.1 No formalized interdisciplinary fieldwork

As highlighted in the case description, SLA aims to enhance interdisciplinary design work, integrating several disciplines, in all phases of developing projects (IDMC). To implement this ambition, an interdisciplinary method-course is made available for the employees. In this course, employees are given insight into the methodologies of biologists and anthropologists – including fieldwork, making sure that the competencies and methods are widely known in the company (IDMC). Still, there is not a formalized framework on how to do fieldwork together, nor a code of conduct regarding IDF in the company (INT, 1-5 min). However, both the interview, the two workshops (IDFW1-2) and the SLA camp 2023 (IDCP) revealed that IDF is often performed at SLA and considered most beneficial for the integration of disciplinary stances, when undertaken.

### 3.2 Phases of fieldwork

The data collected on performed IDF shows promising contours of an IDF-approach, but also reveals that further definition is needed. In the interview, Kim notes that 'fieldwork', in her view, is something clearly defined, and it signifies an organized process of data-collection. Kim explains that biological fieldwork follows a predefined method and often have to produce a specific product from the data collected (INT, 0-2 min). Kim states that she is not entirely familiar with the fieldwork methodology of designers, and Kim notices that fieldwork may foremost be the domain of biologists (INT, 10-12 min). Kim further suggests that this may also be a question of available resources (INT, 47-49 min). "But when you say "IDF", it turns into something much less specific [...] I reckon you rather talk about a collective site visit?" (INT, 0-2 min).

- ❖ The remarks from Kim reveals possibilities of enhancing IDF at SLA, through formalization. Formalization may afford IDF to be an accepted activity, which can be launched in project planning and allocation of resources. Next, we elaborate on the six phases of IDF.

**Table 2:** Reflective analysis of data through academic conceptual reflection. How we translate key concepts into the IDF framework. Source: (Holten-Andersen and Engemann 2024)

Concept	Meaning	Motivating
'Thinking-with' (Haraway 2016a)	To relate to other beings and actors when trying to understand them - both as "an attempt to counteract a mode of thinking about matter as dead and mere resource" (Lilja 2021, 394).  To our understanding, 'thinking-with', also stresses the act of listening and an effort to follow along the line of thinking of the representatives of other disciplines.	Getting there Follow lead
'Tentacular' (Haraway 2016b)	To understand how IDF may help the team grow more 'tentacles' – a larger sensory apparatus – when doing site-research.	Tuning in Follow lead
'Situated knowledges' (Haraway 1988) 'Proximity' (Latour 2020, 9) 'Localization' (Boullier 2015)	To achieve deep knowledge from the specific contextual situation, by endorsing proximity to it.  To 'localize' oneself, not just describing the situation from 'outside'.	Tuning in Take away Remembering
'Matters of concern' (Latour 2010) 'Actively engage ourselves' (Prominski 2019)	The movement from observing sites as consisting of 'matters of fact', toward actively engaging with them as 'matters of concern'.	Tuning in Take away Remembering
'Deep Ecology' 'Ecosphere' (Naess 2005) 'Complementarity of reason and emotions' (Naess and Haukeland 2008)	The appreciation of the inherent value of all flourishing lifeforms and units of the ecosphere.  The appreciation of the need for dialectics of emotion and reason in order to gain deep insights and build care.	Getting there Tuning in Take away Remembering
'Actor-Network' (Latour 2005)	Informs our understanding of the non-human actors as symmetrically important and equally involved in the design process.  Guides our way of understanding of how disciplinary representatives can <i>act with matter</i> and each other to generate sensitivity and insight into the life on site.	Take away Processing Remembering
Four Trace Concept (Giot 2009)	Guides our understanding on the how IDF may be organized in transitory phases.	Six phases of IDF
'Ritual Theory' (Turner 1967, 13–14)	Widens our understanding on the transitionary processes that might play out within IDF.	Three Stages of IDF: Separation, Transformation, Reintegration.

### 3.3 Getting there

Kim reports how stepping into the field is very different from meeting each other in a meeting room in the office. It seems to provide much more specific information (INT, 4-7min). Furthermore, it makes space for a more informal exchange of opinions and often leads to more open and learning conversations. Being in the field together seems to release potential tensions and constraints that often occupy attention in the start-up of projects. In the field, Kim describes, the talk is about the site and the proposed design intervention, not about who does what and when (INT, 4-6min). Kim experiences that being in the field is less busy than in the office, where meetings are often short and conversations pushed to be more defined (INT, (6-8 min). In the field, there is time and space for sharing immediate impressions and ideas. You are free to make statements, which no one will hold against you, but still may prove most valuable and defining for the design project.

- ❖ Getting there – means getting out of the office and going into the field, several disciplines at once. It allocates time and space for being together in the team.
- ❖ It seems to open a door to utilize intuition and improve the ability to 'think with' each other and the site.

### 3.4 Follow lead

From the method-course, an organizer reports how the employees went into the field, to try what it is like to do biologist fieldwork, thus taking on a different perspective on the site. This step helped awaken the sense of what interdisciplinary work can bring to the design process (IDMC, 1-3 min). Likewise, Kim states that it can be fruitful to do disciplinary fieldwork, simultaneously, at the site. Even though one wanders of and does the activities needed for one's own work, it is done in the presence of the other disciplines (INT, 18-19 min). This provides the possibility of collecting data at the same place and time, thus producing mutual memories linked to the data/ registers – with better possibility of cross-reading them. IDFW1 also displayed elements of 'following lead', and the report from SLA camp 2023 express how one group utilized strolling through the site as a manner of getting familiar with it, generating interlinked memories (IDCR, p. 21-22)

- ❖ Follow lead – means doing disciplinary fieldwork in each other's company. Displaying the methods and apparatus of one's discipline – becoming aware of the different competencies of 'reading the situation' available in the team.

### 3.5 Tuning in / growing tentacles

Kim acknowledges that some of her disciplinary inputs are better communicated and 'incepted' in the field, where the team can experience sensory evidence of them (INT, 19 min). Kim also hints that the site-readings of the designers is easier for her to appreciate, when shared in the field. Furthermore, the common fieldwork has the potential of actually merging disciplinary readings of a site (INT, 9-10 min). "In the field we often have very good conversations" (INT, 4-5 min) Kim describes how the common fieldwork provides sensitivity of the other team member and their ideas and even may produce 'common thoughts'. At SLA camp 2023 two groups aimed to learn more from the site through the act of 'listening'. One group was wondering about the succession of the site and the (multiple) actions and actors involved. They utilized signs placed on – and posing questions to – the entities at site (IDCR, p. 9-10). Another group equipped elements on site – soil, lake, rotten tree stem – with tubes and pipes for audio-enhancement, symbolizing intends of listening to what they might express (IDCR, p. 15-16).

- ❖ Tuning in / growing tentacles – means submerging into a situation – becoming local. In this process, the team may undress disciplinary restraints. Thus, this phase may awaken the teams' collective sensory apparatus and urge them to merge into one 'being' with many tentacles.

### 3.6 Take away

Kim shares how she has a habit of collecting a bouquet of flowers during fieldwork. This sample reminds her of the wealth already existing at the site. The sample is often placed at the office or given to a client as a token of this value (INT, 33-35 min). When sharing the bouquet habit, the mood of the interview changed, and both interviewer and interviewee seem emotionally affected. The sensuous gesture of the token seems to provide authentic representation of important actors on site, and the emotional bonds the design team built towards them. At the IDFW1 sample-taking also played a central role (Figure 2), and in the report from SLA camp 2023 there is also evidence of sample-taking and how the collection of matter and life from the site can generate both textural and emotional connection (IDCR, p. 5-6, 13-14, 19-20).

- ❖ Collecting flowers, taking samples, using aesthetic intuition may unfold an act of building care for the story of- and life on a site, which can awaken affect and enchantment.
- ❖ Taking away minor samples of flowers and matter from the site may comprise an act of care and compassion – moving from looking at site-inventory as matters of fact, towards engaging with them as matters of concern.



**Figure 2:** Photos from IDFW1. To the left: 'Take-away' and 'Processing' findings. To the right: 'Follow lead' in the woods. Source: (Holten-Andersen 2023).

### 3.7 Processing - conceptualizing

Kim remembers how a recent incident of IDF seemed to empower nature in the design project. After acknowledging the dynamics of natural processes at the site, these became the founding concept of the proposals. Kim describes how the collective site-visits afford "immediate inspiration." At the SLA camp 2023 and the interdisciplinary exercise in September a part of the fieldwork concluded with a processing-phase where the findings were conceptualized into design principles or a prototype (IDFW1). These sessions involved showing and telling what was found - discussing its value and role in the local act of life.

- ❖ Processing the findings and translating them into immediate design principles may empower nature in design. Such immediate processing can help translate findings into founding's for the further work.

### 3.8 Remembering

Numerous times through the interview, Kim speaks of how the common fieldwork provides contextual understanding and sensory experiences on site – and thus produces common memories of spaces and values. Kim emphasizes the power that lies in being able to revisit these memories and founding principles, later in the design process. Kim reflects how the initial fieldwork is an invitation to a much more co-creative design process: "*You may think that no one finds interest in your work, but they will, if you invite them to!*" (INT, 49-50 min). In addition, the brief from SLA camp 2023 mentions memory as a powerful purpose of IDF how aesthetic experiences of nature turn into memories and principles for future design.

- ❖ Building collective memories unites team members and serves as motivation to push for transformative change of urban sites.

#### 4.0 PERFORMING AN 'AESTHETIC SENSE OF NATURE'

Founder and partner in SLA, Stig Lennart Andersson, has recently formulated a vision for 'the eco-centric city', extensively *liveable* for all species (Andersson 2023, 105). Andersson points out four values or performances that must be supported in the urban realm – the social, aesthetic, biological and rational (Andersson 2023, p. 102). These 'performances' resonates with the various fields of knowledge and expertise included in the design work at SLA (SLA 2024). Andersson calls for "expanded way of thinking that enables us to see the world from the other's eyes and not just from our own limited self-serving ego, knowledge and opinion" (Andersson 2023, p. 102). As both mean and goal of such an inclusive design process, Andersson promotes the 'aesthetic sense of nature'. By allowing ourselves to utilize this aesthetic sense, Andersson argue, we may evoke experiences and knowledges neither accessible through reasoning nor imagining. We find resonance for this argument in the phases of IDF distinguished above. We found that the aesthetic sense of nature resonates with emergent theories on how to turn our attention towards - and tune our actions to correspond with - the fragility and value of the Critical Zone and Deep Ecologies of sites (table 1). In the quest to bridge cultural and natural literacy, to move beyond scientific description or artistic inspiration, the 'aesthetic sense of nature' may very well perform as mediator, a common denominator – in which we allow ourselves to feel compassion for and close affiliation with site (nature) and team.

#### CONCLUSION

In this research, we put forward arguments for the relevance of Another Situated Design Approach, where the past decades great focus on co-design is stretched to entail involvement of the more-than-human actors of our environments – already present and operating at all sites. As step-one in such quest, we have suggested the launch of Interdisciplinary Fieldwork (IDF). In the empirical evidence, we found that the nature-based design office of SLA practises IDF, but not in a formalised manner. Digging into the somewhat limited data pool, we recognised that IDF carry the potential of contributing to disciplinary integration *and* provide depth to the understanding of the site investigated. Rather than providing plural or kaleidoscopic perspectives, IDF seemed to afford merging of disciplinary perspectives into conjoint appreciation of the site and bring forth useful insights for the design work to come. A superpower in bridging the disciplinary stances in nature-based-design may very well be the 'aesthetic sense of nature'. Going into the field together, seem to be an act of performing this sense, which may induce greater care and ecological awareness in projects. We arranged the findings in three stages and six phases of IDF, (1) Getting there; (2) Tuning in; (3) Follow lead; (4) Take away; (5) Processing; (6) Remembering, through reflection between data and theoretic inputs. These phases may draw the contours of a framework for IDF, to be further developed.

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## ENDNOTES

<sup>1</sup> Beyond the excessive climate-gas emissions from these activities, continuous urban development claim land (Fertner, Smidt-Jensen, and Jørgensen 2023), disturb or destroy precious soils (Pickett and Cadenasso 2009), evict non-human-species, remove mature vegetation and increase pressure on- and pollution of blue-green infrastructures, particularly local waterscapes (Gómez-Baggethun and Barton 2013).

<sup>2</sup> E.g. Ian Mchargs Ecological Suitability Method (McHarg 1971) across Swanwicks LCA-method (Swanwick 2004) James Corners methodologies of mapping as motor (Corner 1999) and recently Hille Von Seggerns description of design as Raumgeschehen, which entails iterative 'nosing around' (Seggern 2019).

<sup>3</sup> As an interdisciplinary, but still natural science-based field, Earth Sciences aims to describe structure and functioning of the Earth as a complex, interrelated and adaptive system (Richardson et al. 2020). The very concept of investigation the 'environment' of a site may be contested in an Earth Science perspective, since "a living thing's milieu is other living things" (Ait-Touati, Arènes, and Grégoire 2019, 62). In recent years Earth Scientists has evolved operations of IDF establishing Critical Zone Observatories (Anderson, Bales, and Duffy 2008). Latour, Szerszynski and others have tapped into the concept of 'The Critical Zone', giving it a social-cultural aspect, (Latour 2016; Arènes, Latour, and Gaillardet 2018; Latour 2020).

<sup>4</sup> Christophe Girot has developed a site-exploration methodology he calls the 'Four Trace Concept'. Girot unfolds a framework consistent of four transitory phases: Landing, Grounding, Finding and Founding, to 'acquire understanding of a place' (Girot 2009, 60). The phases play out before, under and after visiting a site, the aim being to recognize a site, "beyond cultural and environmental amnesia" (Girot 2009, 59). Girot speaks of bridging two modes of thought – which we may identify as the approaches of natural-sciences vs sciences of culture and arts (Girot 2009, 66). His methodology, however, is primarily addressed to endow 'the designer' to go astray from a "systematic and quantitative approach" – and he does not further reflect on how to reconcile the disciplinary stances.