Drawing processes to generate alternative typologies and added value for fragile topographies: *A narrative on critically questioning indicated terminologies*

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Abstract
Architectural practice seems to be under a moratorium on building in fragile topographies and hesitating to critically question this moratorium by formulating a strong cultural argument. It is often expected that these topographies—natural landscapes, urban areas or cultural heritage—are left untouched. In the Master dissertation project, *The Remembered, The Experienced, The Imagined*, located in one of the few remaining dune areas alongside the Belgian Coastline, the aforementioned moratorium has been investigated and critically questioned. Contrary to the predominant existing typologies at the Belgian coastline—the formations of high rise apartment buildings—a refuge was designed (speculative architectural design) that is not in contradiction with the reasons why people come to the seaside. Walking, writing and especially analogue drawing were the main and base research actions in this research case. They are further developed and refined in the current research. A film was produced and published (De Brabander, Lagrange en Van Den Berghe, 2017) as a self-reflection on this previous research and an unlocker of upcoming research steps. The current research aims to investigate—through the selection of additional cases—the possibilities and potential of architectural interventions in fragile topographies and to do so by drawing speculative design propositions that question existing typologies that our habitual ways of seeing and our collective memories seem to qualify as normative. Without wanting to annihilate other (digital) drawing techniques, a sequential application of these analogue techniques further develops innovative types of architectural drawing, e.g. *Critical Sequential Drawing* (CSD) (Van Den Berghe, Sanders en Luyten, 2018).

Keywords: fragile topographies, drawing, speculative design propositions.

Mode of operation

In this paper, first, the framework of thoughts that was established in the Master dissertation project *The Remembered, The Experienced, The Imagined* (De Brabander, Lagrange en Van Den Berghe, 2017), which forms the foundation of what is the subject of investigation in the current doctoral research, will be discussed. In addition to the written content of this paper, the viewing (for one who is reading this paper) of a short film involving the previous research is indispensible.[1] Subsequently, this film will be shown at the conference. The film was produced (as part of a self-reflection over the previous research that was done), published (De Brabander, Lagrange en Van Den Berghe, 2017) and displayed as part of an exhibition that took place in November 2017 at the Flemish Architecture Institute in Antwerp. Secondly, two questions that may occur in one's mind while reading the origin of this research will be addressed and answered. These two questions are: Why analogue drawing? and What is a fragile topography?

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[1] https://vimeo.com/249421781

Research origin

       One day, I went to the seaside, to a place where people can hide from their own lives and where I had passed by countless times but never stopped over before. Considering now, I was (and still am) the revenant, returning there every now and then. On that dreary day, and all the other days I went back, this place made me think of my careless childhood of which a fair part took place by the seaside—my grandparents lived by the sea for a significant part of their lives.[2] The memories I have from that time were the main mode of operation in this Master dissertation project and are still vital in the current research. The site is one of the sole left dune areas, located alongside the Belgian coastline. Several possible cases in coastal areas were explored before eventually finding this site. Most of these dune landscapes are small and densely surrounded by high-rise apartment buildings. Hence it seemed like a self-evident decision to start looking for another site, by the seaside but in a way somewhat less affected by human presence. The exploration of the site happened through several walks, journeys, on which a strong focus was put on the outspoken haptics and tactilities that are inherently present there, historical artefacts (e.g. ruins) and existing architectural typologies. Ideas cultivated from the first perception of the site, meditations upon initial thoughts or a reconsideration of the existing topography would later become the framework for invention (Holl, 1989) and intervention. The visualization of my findings on these explorative walks (journeys) happened through the making of topographic maps and prospective images (Fig. 1). Prospective because they are part of an exploratory, preliminary process, images because they are not merely photographs, they are converted and an intensive process of *making* lies beneath the visible surface of the paper.
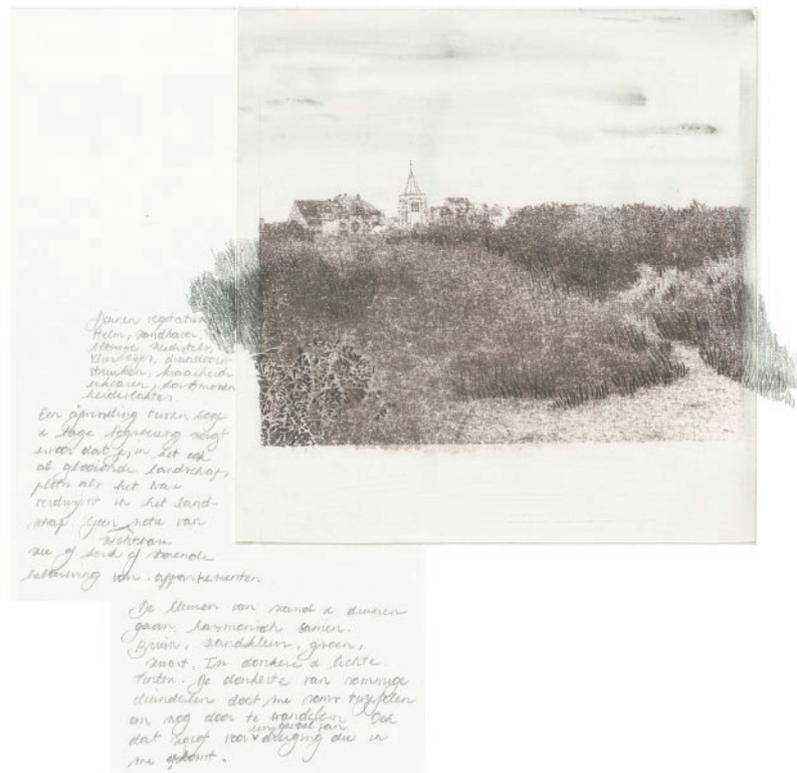

Figure 1: Example of a prospective image.

       After years of replacing dune landscapes and valuable houses[3] by high-rise apartment buildings—something we can call liberal pragmatism according to Marc Dubois (Dubois, 2015)—leftover areas are preserved because governments impose it. Nowadays, it is expected that architects leave these topographies untouched. It seems that architectural practice is under a self-imposed moratorium, avoiding to build in these topographies and hesitating to critically question this moratorium. Currently, there is a global institutionalization (Otero-Pailos, 2016), democratization and commercialization (Frank, 2015) of

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[2] Sometimes the style of writing will shift to a more poetic phrasing because I find it necessary for the reader to be immersed in my personal stream of thoughts from time to time. This happens in close consultation with my co-authors.
[3] Elegant sea cottages, often built before the war, with views on the water from under covered terraces in front of the houses, so people could enjoy the views and clean fresh air while being protected from the sun.

heritage, and of fragile topographies in general. However, more recent insights contend that tangible objects, like architecture or certain landscapes become 'heritage' only when collective memories, meanings and values are attributed to them (Lähdesmäki, 2016).

Picking in on what is stated in the very beginning of this paper, in this first research case (which is to be seen in the film)—*The Remembered, The Experienced, The Imagined* (De Brabander, Lagrange en Van Den Berghe, 2017)—located in one of the few remaining dune areas alongside the Belgian coastline—eventually, a refuge was designed that questions the aforementioned moratorium. The design was elicited by the extensive explorations of the site that happened through various site visits. It evolved from ephemerally designed fragments (volatile and shallow in the sense that in that early stage, not enough knowledge involving the site and knowledge through literature was gained yet) to a deliberated, embedded whole wherein materials that interlock with the perceiver's senses provide the detail that moves us beyond the mere visible to tactility and hapticity (Holl, 1989), extending the momentary experience of coming there. Most often, coming to the seaside is a momentary experience. One wants to prolong that experience through finding a more permanent resolution, which mostly results in long-term stays in (rental) apartments. Contrary to the already existing predominant architectural typologies at the Belgian coastline, the intuitive, but deliberate, choice was made that in this case, the immersion of this architecture into its topography had to prevail over the urge of architectural manifestation. It is an architecture for which almost disappearing is a key condition. This project was a personal, phenomenological quest where I investigated the parallels between a solitary, isolated dune landscape that is gradually changing, man who is continuously looking for a place to hide from his daily life, and a building that would, more than elsewhere, clearly record and reveal traces of time through various patterns.[4] It was an experimental research project whereby the design was conducted with an explicit (but deliberately intuitive) intention. The research was established by means of (1) walking, which involved the thorough explorations of different sites and which caused for a second research action to occur: (2) the writing of detailed reflections (diary descriptions) about the walks (journeys) in the first stages of the research. Subsequently, (1) and (2) lured out a third main and most important research action which is (3) analogue architectural drawing. As is to be seen in the film, The Architectural Drawing (TAD) (Van Den Berghe, 2010, 2013, 2015, 2015, 2018) was applied in a critical sequential way and with a special interest in the vertical section (Fig. 2).
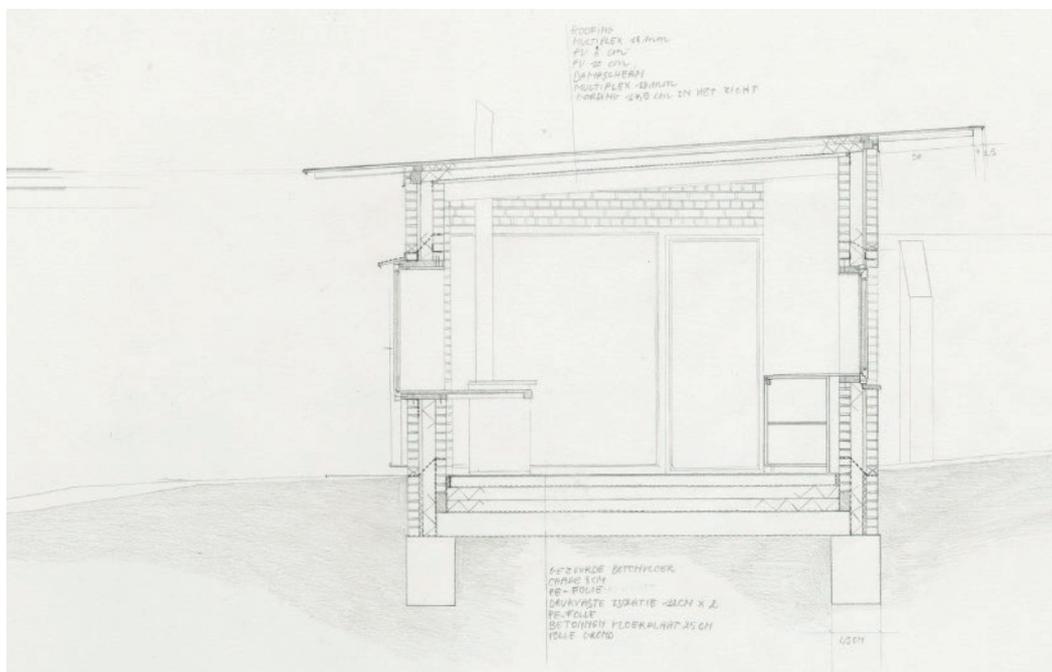

Figure 2: Final vertical section of a refuge that was designed at the Belgian coastline.

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[4] After a while, wind, the salted atmosphere and the whirling sand exert their forces on buildings, which evolves in site specific, palpable attrition.

Subsequently, the same subject—whether it is a topographic map, a section, a detail or a plan—was consequently and repeatedly redrawn, forming a cycle of drawings (Critical Sequential Drawing or CSD, Van Den Berghe, Sanders and Luyten, 2018). Every sequence produced more improved and more accurate versions of and mereological dialogues between the previous drawings, even when there was just the slightest difference in appearance. In this manner of working, the sequential application of (the) analogue architectural drawing was able to cause critical shifts in thinking, hence in the design process. By drawing a speculative design proposition that questioned the existing typologies—the high-rise apartment buildings—that habitual ways of seeing and collective memories seem to qualify as 'normative,' the potential of architectural interventions in this (fragile) topography has been investigated. According to Steven Holl:

> "Architecture does not so much intrude on a landscape as it serves to explain it; illumination of a site is not a simplistic replication of its 'context'; to reveal an aspect of a place may not confirm its 'appearance.' Hence the habitual ways of seeing may well be interrupted." (Holl, 1989, p. 9)

The question arose, if an architectural intervention could be designed in a fragile topography without adversely affecting and especially subtracting the cultural value that is inextricably entangled with the site, hence largely 'illuminate its nature'.[5] The current doctoral research is banking on the firm belief that architectural design has a strong potential to do that. I am ending this paragraph with the same subject as the one I started with; the site. This intriguing, gently rolling and gradually changing dune landscape that was my main anchoring point, a fascination and the source for the illumination of my memories in the (relatively short) timeframe of this process.

In the current doctoral research, which is situated in the field of Design Driven research, it is the intention to investigate the possibilities and potential of architectural interventions in fragile topographies (cfr. supra) and to mainly do so by means of drawing. The research will further investigate how and to what extent alternative typologies, generated through architectural hypothesis, can unveil insights in the mechanisms that are at work in design processes in architecture that seem to open gateways and contribute to the aim to retain the cultural value connected to these topographies. The current research encompasses four elements, starting from a twofold: (1) close observations of fragile topographies, in which walking plays a substantial role as a method to collect data (Sanders, 2017, Rousseau, 1776-78). (2) Critically questioning the moratorium on designing architectural interventions in these topographies. The dialogue between (1) and (2) is activated by (3) (the act of) drawing. The process of (4) writing runs parallel to the drawing process as a tool of verbalization that makes both the critical assessment of the drawing process and its outcomes (drawings), and the critical investigation of the dialogue between fragile topographies and the moratorium explicit. Moreover, by doing so, innovative types of architectural drawing, like *Critical Sequential Drawing* (CSD) (Van Den Berghe, Sanders en Luyten, 2018), will be further developed.

Some critical questions

This paper is perceived as an opportunity to address and answer two questions. Both of them have a direct connection with the terminology that is depicted in the working title of the aforementioned Ph.D. project (*Sacred Grounds: (drawing) methods to generate alternative typologies and added value for fragile topographies*) and in the title of this paper. These terms ask for clarification: Why analogue drawing? What is a fragile topography?

Why analogue drawing?

A first, and not insignificant (but subjective), enlightenment in answering the question of 'why analogue (architectural) drawing,' is that analogue drawing has a substantial presence in my personal history. It was only partly triggered through my education as an architect. The origin of this fascination can be attributed to my childhood, when I was looking at how my grandfather was drawing and making things for the house he lived in. He took me to a local academy where I first developed drawing skills.

Secondly, analogue architectural drawing is deeply rooted into the history of the architectural discipline, especially in my Alma Mater, KU Leuven Faculty of Architecture, formerly known as Sint-Lucas School of Architecture. For as long as the term 'architect' or 'architecture' is used, drawing has been an essential and a substantial element to the discipline. Whether through plans and sections or details of hypothetical or realized structures in situ, drawing—the indispensible tool of representation,

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[5] This stands in diametric contrast with the 'Concrete Stop' that the Flemish building master and government want to introduce by 2040. Thereby building in open spaces will no longer be allowed.

visualization and exploration—lies at the very heart of architectural discourse (Becker and Dunlop Fletcher, 2014), practice and education. For a long time, analogue architectural drawing has been the architects' only tool to visualize ideas and communicate his concoctions. To be a good architect, one had to be a good draughtsman (Van Den Berghe, 2013). This notion has been lost over time because innovative tools such as digital (drawing) programs have made their appearance and are still becoming more and more developed. As I graduated recently, I can endorse the stance that students—future architects—are eager to deepen themselves into the knowledge and mastering of these new techniques but thus often lose the grasp over the technique we call analogue architectural drawing. E.g. computers, laser cutters and 3D printers are useful and substantial innovations in the present timeframe. Over time, they replaced drawing tables. A shift in perception occurs; digital (drawing) techniques are rightfully convenient now, but that happens at the expense of a long tradition of analogue architectural drawing, which is now often considered as 'too difficult' or even irrelevant.

Currently, we can detect a renewed interest in the analogue architectural drawing (Flores and Prats 2014, Merrill 2010, Spiro and Ganzoni 2013, Marjanovich and Howard 2015). Without wanting to annihilate other digital drawing techniques, I too prefer to leave these digital techniques to the interests of others. One may argue that these techniques may be too dominant in contemporary architecture. This dominance is combined with the observation that analogue drawing is closely connected to the draughtsman's feeling of scale and physical and mental involvement in a design process. Drawing by hand (and model-making) creates a haptic contact between the maker and the object or the space that is created. Analogue drawing both ensures that the design process is not a passive retinal journey and that our magnificent, multi-sensory, simultaneous, and synchronic capacities of imagination are not flattened (Pallesmaa, 2012). The distinction between analogue drawing and digital drawing lies in the physicality that is paired with the process of drawing by hand. While hands move, we have the time to think and observe what we are doing. Drawing by hand increases the draughtsman's physical level of consciousness because the tools are connected to the hand's slowness (Flores & Prats, 2014). Drawing by hand allows for *slowing* as an indispensible condition through which an *embodiment* (embodied knowledge) occurs. Critics might argue that drawing by hand is not a slow action, since it often takes more time to make digital drawings. But it depends on the draughtsman's purpose, what he or she wants to depict in a drawing. Is it a quick sketch to create an understanding between two negotiating parties or a carefully detailed section intended for the craftsmen, or most importantly for this research, innovative types of architectural drawing, like Chronological Drawing or X-Ray-Drawing (Van Den Berghe, 2013), that are intended to gain insight and new knowledge production? Subsequently, drawing by hand and the increased level of consciousness it evokes, on their turn forge the architect—parallel to *slowing*—into a mode of *cautiousness* towards the site that is the subject of investigation. Both *slowing* and *cautiousness* are considered as indispensible conditions to circumspectly handle fragile topographies. This is an awareness that emerged through intensive drawing processes and reflections upon them. The sequential application (cfr. supra) of the analogue architectural drawing is crucial here, and indispensible in constructing the narrative of consciousness. Through consequently and repeatedly drawing and redrawing the same subjects—whether they are topographic maps, sections, details or plans— improved and more accurate versions of these previous drawings are produced and form individual sequences of iterative knowledge production. On their turn, together, these sequences form cycles of drawings—dialogues between different types of drawings occur—that evolve into an autonomous, imaginative, tangible design proposition (hypothesis). This process is called *Critical Sequential Drawing* (CSD) (Van Den Berghe, Sanders en Luyten, 2018). These repetitions, of which each step is well considered through constant self-reflection, cause shifts in thinking due to the immersion that occurs by the stubborn repetitions of analogue drawings. These shifts in thinking are caused by the awareness of the capacity of the drawing to transgress from a representative level, where the drawing merely acts as a communicative tool, into a tool of slow and intense knowledge production. This immersive process induces an increased level of consciousness of the maker of these drawings. Every type of (architectural) drawing can possibly be susceptible for use in this research method. In a first stage, CSD will be applied on drawings made while walking and prospective images for the investigation of fragile topographies. In a second stage, CSD will be applied on topographic sections through which new architectural interventions will be generated. Simultaneously, CSD will be the subject of further investigation in its own right in the current research in order to forge an in-depth development of this method.

To invigorate these stances, the decision was made to purchase new drawing tables because it would not only be beneficial for the current research, it would also incorporate a symbolic message.

What is a fragile topography?

The use of the word fragile suggests that an object is easily broken or damaged, easily destroyed or threatened or that a person is not strong or sturdy but delicate and vulnerable (Oxford English Dictionary 2018). Opinions on the determination of a fragile topography vary because on a certain level, it is always a personal, subjective matter. Only when various people share the same opinions, one's stance can be generalized. Terms such as ecology, heritage, and conservation are strongly connected to the context of a 'fragile topography' because fragile, in architectural terms, can mean that slightly altering the microscopic surface of an object or space can be tantamount to losing the very qualities that make it valuable (Otero-Pailos, 2016) and thus implies that a topography is not fragile an sich, but that it becomes fragile when one commences drawing and projecting imaginations in and on it.

From a spatial-architectural point of view, it seems that in the current *Zeitgeist* governments emphasize the importance of preserving a range of sites through shaping a common thought in which it is expected that these sites are preserved and left untouched. Felix Guattari states that due to the pressure of capitalism and market forces, human subjectivity, in all its uniqueness—what he calls *singularity*—is as endangered as the rare species that are disappearing from the planet. Human subjectivity is fragile as well; we tend to think what everyone else thinks, we feel the same as everyone else (Guattari 2000, Lähdesmäki 2016). This has an influence on the qualification and assessment of for example historic resources and nature reserves. The 'hands-off' stance of (by capitalism's mass-media) newly moulded types of individuals on historical sites, on natural landscapes or urban sites prevails. This normative mind-set has become a deeply rooted phenomenon in our society.

Fragility is present in many ways and on different levels in this research, not only in the context of a fragile topography. Hence, the content of these paragraphs is not merely limited to this context. Fragility is also expressed in the fear of losing the cultural and economic value (Frank, 2015) of these topographies through the insertion of new architectural interventions. E.g. dune areas alongside the Belgian coastline or heritage in the city of Bruges are examples of quasi-objects (Serres, 1982), they are used to shape our subjectivity to such an extent that we cannot imagine ourselves, or our participation in culture, without these objects or spaces in their actual state (Otero-Pailos, 2016). I share this opinion in the sense that these topographies should be handled with care and caution before altering them, because they have social, historical, cultural, and educational value. But for the architect, there is little space for imagination, invention, and intervention because they are assumed not to build in them. Hence, architecture seems to lie under a moratorium on building in these topographies and hesitating to critically question it. Part of the underlying purpose of this research is to try and breach this moratorium through drawing (cfr. supra) imaginative design propositions. Fragility also occurs in these spatialities that were and will be developed and in the actions that are undertaken to obtain them—the walking, the writing and the drawing. It occurs in the close observations that are made and that will be the basis for both deliberate, objective choices and tentative, intuitive interventions.

There is a multiplicity of definitions and explanations of the word fragile to give, which indicates that even in trying to trace this fragility, caution is required. Its content cannot be captured in one definition, description or image (Lagrange, 2016). We are embedding the notion of fragility in a layered discourse, rather than trying to define it in the literal sense of the word.

The answers on these two research questions as stated above, need to be further refined through more research which can be done through reading and thinking but most of all through drawing. More particularly through the use of analogue drawing as a method to test and assess the potential of sites as fragile topographies. A remark took shape in the course of the writing of this paper in that the answers on these two questions could be considered as argumentations that substantiate a third question: Is it not relevant to constitute a dialogue that also includes the aforementioned 'refuge' in the narrative of this research? This arouses supplementary questions: Is the fragile topography the necessary condition to have a refuge? Is the 'refuge' that deep human necessity that cannot be averted by the desired 'Concrete Stop,' just because the 'refuge' is humanly indispensible? In order to provide a relevant answer to these questions an in-depth research is needed with regard to this stance and can possibly constitute the basis for a future paper.

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