Pursuing Aesthetic Inquiry in Participatory Design

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ABSTRACT
We introduce aesthetic inquiry as an important perspective to pursue in Participatory Design. Within the scope of tradition and transcendence, we pursue aesthetic inquiry by tipping the scale towards transcendence, and by staging offline loops for detached reflection through the use of imaginative artefacts. Although aesthetic inquiry resides to some extent in most Participatory Design practice, we see the need to elaborate this perspective, and to further build Participatory Design practice, tools, and techniques that address this issue. The Fictional Inquiry technique is presented as an illustrative example of a design technique for pursuing aesthetic inquiry, by using fictional narratives to temporarily bypass the existing structures of meaning and expectations within a given practice. We illustrate how Fictional Inquiry was utilized in a participatory design project, in which two design concepts for the Kattegat Marine Centre were developed.

Author Keywords
Aesthetic Inquiry, Transcendence, Imaginative Artefacts, Offline Loop, Participatory Design.

1. INTRODUCTION
At the Kattegat Marine Centre, the visitors can get a first-hand experience of some of the most extraordinary sea creatures. A tunnel under the tropical aquaria allows visitors to see reef sharks, nurse sharks, and the elegant stingrays swimming above their heads. Through millions of years, these animals have developed their own characteristics, according to their surrounding environment: their ability to find food, breed, move, and protect themselves in order to survive.

At a nearby installation at the Marine Centre, the visitors can themselves create new species of fish by combining parts from an RFID enabled construction kit containing bodies, heads, tails, and fins. As the physical pieces are assembled into an imaginary fish on top of an RFID tag-reader, the visitors can view their creation on the round screen at the centre of the assembly table (figure 1, left).

When the visitor is satisfied with the constructed fish, it can be released into the virtual sea existing “beneath” the floor surface of the room. The virtual sea can be explored by moving digital hydroscopes over the surface, revealing the sea beneath (figure 1, right). While constructing the fastest, funniest, or strongest fish, the objective is for visitors to explore fish anatomy and how it affects the ability to survive under specific conditions. There is no “correct” fish to be assembled, but visitors learn about fish properties by experimenting and exploring. The Fish Generator and the digital Hydroscopes are some of the prototypes of a Participatory Design project in which visitors, staff members at the Marine Centre, and researchers were engaged in a process of designing new experiences for museum environments (the IXP project). The prototypes provide new ways of engaging with the theme of marine life, and challenge existing conceptions about visitors and their experiences at the Marine Centre [10].

Figure 1 – Visitors creating fish using the Fish Generator: an RFID construction kit (left) and the exploration of the virtual ocean with the Hydroscopes (right).

We use the prototypes and the participatory process leading to their design to illustrate how we have pursued aesthetic inquiry in the Participatory Design process. We use the term “aesthetic” in the pragmatist sense, as a profoundly
meaningful transformation that provides a refreshed attitude towards the practices of everyday life, and as a change in our modes of perceiving and acting in the world ([27], [9]). Through these paragraphs, we outline aesthetic inquiry as tipping the scale towards transcendence in Participatory Design, and staging offline loops for collaboration through the use of imaginative artefacts. Through our case study, we exemplify how this has contributed to rewarding design collaboration and, eventually, innovative design concepts for engaging experiences at the Marine Centre.

From Scandinavian Participatory Design, Ehn [13] coined the grounding dialectics of design as the relation between tradition and transcendence; the tension between understanding and appreciating the existing, on the one hand, and on the other hand, the creation of new knowledge and practice. These notions circumscribe Participatory Design as a democratic endeavour that gives stakeholders a voice in building and exploring their present and future practice. In current Participatory Design research, this fundamental dialectic has spurred a dedication to tools, techniques, and approaches for grasping and keeping a solid footing in the existing. For example, ethnographic field methods [2] provide rich descriptions of practice as it unfolds, Contextual Inquiry [16] provides reflected views on practice based on observation and intervention, and Personas [8] provide generalized descriptions of users. These approaches exemplify what we may term “a passion for practice”. This is not to say that they do not consider transcendence; on the contrary, transcendence is the motivation for these techniques. However, they achieve this with strong roots in current practice.

In this paper, we will explore a complementary perspective in the form of aesthetic inquiry in Participatory Design. As a first step, we do this by propagating a concern for being equally passionate about the aspect of transcendence. Second, we outline aesthetic inquiry as departing from concerns that reach beyond the immediate and short-term needs and wants of people. Building on Nelson & Stolterman [23], we point to a more profound sense of “wanting”, related to the level of aesthetics. We further discuss how the aesthetic level of human activity may be pursued in Participatory Design by the staging of offline loops for collaboration through the use of imaginative artefacts. Third, Fictional Inquiry is presented as an illustrative example of a design technique for pursuing aesthetic inquiry by using fictional narratives to temporarily bypass the existing structures of meaning and expectations within a given practice. Finally, we illustrate how Fictional Inquiry was used to pursue aesthetic inquiry in the development of the Fish Generator and the Hydrosopes, presented in the introduction.

2. TIPPING THE SCALE TOWARDS TRANSCENDENCE

The notion of transcendence is, in essence, a relative construction that positions the production of new knowledge and practice in relation to the existing. Transcendence as the active production of knowledge may be initiated in a number of ways. Transcendence may spring from undesired breakdowns in current practice that lead to the conceiving of ways to avoid such breakdowns. However, as argued by Ehn [13], breakdowns may also be conceived as desirable to the design process, as they help question everyday understanding and practice, revealing opportunities for change. In Participatory Design practice, a range of strategies for transcendence has been presented in the form of tools, techniques, and approaches. Implicitly or explicitly, they operate within the dialectics between tradition and transcendence. For example, Future Workshops [18], Drama [3], and Metaphors [21] have been established as strategies for creating the new. Common to these approaches is the conscious deployment of particular elements that anchor the collaborative design effort in current practice and particular elements, which act as springboards for transcendence. If we take the Future Workshop as an example, this technique typically departs from a critique phase, in which participants reflect on issues and problems in current practice. The critique phase is followed by a fantasy phase, in which participants are urged to come up with ideas or solutions for the statements from the critique phase. In the example provided by Kensing & Madsen [18], the fantasy phase is supported by the use of various ploys or exercises; for example, participants are initially asked to invert the statements from the critique phase into positive statements, or metaphors are introduced to spur creativity. The example provided by Kensing & Madsen [18] illustrates what we call the conscious use of anchoring elements and transcending elements [6]. Anchoring elements refer broadly to the aspects of artefacts, stories, or ploys used to anchor the design collaboration in current practice. Transcending elements refer to those elements of the design collaboration that invite transcending the given, such as metaphors in the Future Workshop. We use these terms to describe the elements that are inscribed in the workshop setup, or that emerge through the collaborative activity. Viewing the existing body of techniques within Participatory Design, these elements allow us to see the broad range of techniques that are employed in transcending practice. The Future Workshop provides relatively strong anchoring elements manifested in the Critique Phase, as this sets the stage for the preceding action. Here, participants are encouraged to reflect on their existing practice “...as a structured brainstorming that focuses on current problems” [18]. Metaphors, on the other hand, provide elements that invite transcendence by understanding one kind of experience in terms of another [21]. In many cases,
anchoring elements and transcending elements cannot be mapped to discrete artefacts in a design session; rather, they are aspects of these artefacts as they emerge in use during the design collaboration. For instance, a mock-up session may involve participants using a cardboard model of a laser printer to discuss and enact various aspects of the working practice. As this artefact is used during the design session, it may both anchor the session in current practice, as it contains a reference to historical forms of practice within the organization, and it may also invite the transcendence of practice, as the cardboard mock-up is easily manipulated, and thus invites the imagining of new forms of practice [15]. In this sense, the anchoring and transcending elements are aspects of artefacts as they emerge through design practice.

In light of this conceptualization, we may initially describe a passion for transcendence as adhering to the parts of Participatory Design practice that tip the scale towards transcendence by focusing strongly on points of transcendence. However, in building a case for aesthetic inquiry in Participatory Design, this conceptualization only addresses one dimension in the creation of the new. It does not address transcendence as a process fundamentally motivated and driven by what the people participating in design want their world to be. In the following section, we explore this aspect of aesthetic inquiry.

3. TOWARDS AESTHETIC INQUIRY
As argued by Nelson & Stolterman [23], what people want may often be expressed as immediate needs and interests. Yet, there is a more profound sense of “want” that stretches beyond what is immediately attractive and within reach. This more profound sense of wanting relates to the level of aesthetics [Ibid. p. 135]. This is typically not at the level of conscious knowledge, and not in a form that may be clearly articulated. Thus, designing entails emphatically discerning and exploring the aesthetic level through communication and dialogue in the collaborative design process. A sense of “want” at the level of aesthetics is, of course, not the only aspect driving the design process; inquiries into the ethical aspects and into what is realistic and reasonable are inherent aspects of design. Here, however, we will express an explicit concern for the level of aesthetic inquiries that need to be pursued in Participatory Design.

A more comprehensive account of the aspect of aesthetic inquiry may be pursued through Activity Theory [20]. In the general theoretical account of human nature in Activity Theory, the level of aesthetics corresponds with the activity level that is driven by complex motives, of which the individual actors are seldom aware [14]. This activity level of human practice encompasses our aesthetics and our profound motives. Engeström [14] argues that the level of Activity is mediated by ‘imaginative artefacts’ that give identity and overarching perspective to human practice. Wartofsky [29] describes these imaginative artefacts as “...a class of artefacts which can come to constitute a relatively autonomous ‘world’, in which the rules and outcomes no longer appear directly practical, or which, indeed, seem to constitute an area of non-practical or ‘free’ play or game activity (...) So called “disinterested” perception or aesthetic perception or sheer contemplation, then becomes possible; but not in the sense that it has no use. Rather, in the sense that the original role of the representation has been so to speak suspended or bracketed” [Ibid. p. 208].

Wartofsky stresses that imaginative artefacts are not related, in a direct sense, to practice. They reside in an offline loop, where they indirectly influence practice by mediating changes in modes of perception, and thereby the modes of action, as perception and action are treated as two sides of the same coin [1]. Accordingly, the participatory design process that utilizes imaginative artefacts as a way to pursue aesthetic inquiries is staged in such an offline loop, where existing values and expected behaviour are suspended or bypassed. The offline loop refers to design sessions of detached reflection that indirectly (‘offline’) influence use practice by mediating changes in the participant’s overarching perception of the practice and their modes of action.

Building on the ideas of Nelson & Stolterman [23], Engeström [14], and Wartofsky [29] we use the notion of aesthetic inquiry to describe the collaborative design activities that pursue the level of aesthetics through the use of imaginative artefacts. Within the scope of the grounding dialectics of participatory design between tradition and transcendence, we pursue aesthetic inquiry by:

• Tipping the scale towards transcendence.
• Staging offline loops for detached reflection and imagining through use of imaginative artefacts.

Aesthetic inquiry does not denote a new category of design technique in Participatory Design. On the contrary, elements of pursuing aesthetic inquiry are inherently embedded in most Participatory Design techniques. The fantasy phase of Future Workshops [18] embodies elements of aesthetic inquiry in the fantasy phase, as it encourages participants to imagine new forms of artefacts or practice. Brandt & Grunnet [3] suggest the use of dream tools (self-made cardboard props from the world of fairy tales) as springboards for changing an existing practice into a dramatized scenario. Bücher et al. [7] discuss and evaluate the use of different participatory design techniques in relation to the challenges of grounding imagination. They propose a mix of existing techniques (Bricolage, Future Laboratory, and Prototyping In-situ) to design in ways that enable the invention of new practices by doing and by reflecting.

A number of well-established Participatory Design techniques more explicitly pursue an aesthetic inquiry in design collaboration. Explorative design games (e.g. [17],
[4], [5]) create the option of rethinking existing practice by trying out new roles and moves through dialogue in a playful environment. The aesthetic inquiry in design games is in the detached reflection directed towards an imaginative practice, which is carried out in a non-practical “free play”, leading the participants to a potentially refreshed attitude towards the circumstances of existing practice. Moreover, Sanders [25] proposes the Make-tools as a general category of artefacts that enable designers to address the level of latent dreams in existing practice. Sanders argues that appreciating what people create allows participants in design to collaboratively explore latent dreams and needs – a level of knowledge corresponding to the level of aesthetics, as described above. The Make tools are inherently generative and participatory in nature. Returning to Activity Theory, it is however stressed that “Making”, or productive activity in general, is actualized in socio-cultural contexts; what we create is mediated by the social expectations, habits, and traditions that pervade our everyday life. Moreover, the structures that mediate creation are crystallizations of prior motives, dreams, and aspirations. Thus, in pursuing aesthetic inquiry in Participatory Design, it is vital to develop design practice that enables design participants to explore not only alternative means of realizing given motives and desires, but also to challenge these very aspects of everyday life. This entails “making” that is directed towards the level of knowledge produced in the offline loop [29]. As argued by Wartofsky, productive activity on this level is mediated by imaginative artefacts that allow for aesthetic perception.

Although aesthetic inquiry resides to some extent in most Participatory Design practice, we see the need to elaborate this perspective and to build Participatory Design practice, tools, and techniques that address this issue. As outlined in the preceding sections, we explore aesthetic inquiry through the specific concerns for tipping the scale towards transcendence and the staging of offline loops for detached reflection, and imagining through use of imaginative artefacts. To qualify this perspective, the following section introduces the Fictional Inquiry technique as it was used during our design work on the Fish Generator and the Hydroscopes at the Marine Centre. We discuss Fictional Inquiry as an example of a Participatory Design technique that is well suited for pursuing aesthetic inquiry.

4. FICTIONAL INQUIRY

Fictional Inquiry [12] is a participatory design technique that uses fictional narratives to temporarily bypass the existing structures of meaning and expectations within a given practice. Through the use of narratives and deliberate staging, an imaginative place is created in which design collaboration unfolds. As this place does not embody the same structures of meaning and motivation, participants are urged to imagine radically new forms of practice and artefacts. The Fictional Inquiry technique and staging correspond to the notion of the imaginative artefact, and the imaginative place created corresponds to the offline loop. Remaining in the discourse of previous sections, we may further say that Fictional Inquiry typically employs relatively few anchoring elements, and illustrates a crystallization of a passion for transcendence on the level of design technique. In current research, Fictional Inquiries have been used to co-design mobile outdoor games with children [28], to combine the best of child-centred design and expert design [19], and to design pervasive technologies for learning environments engaging teachers, pupils, and pedagogical experts ([11][12]).

The Fictional Inquiry technique contains three central aspects. The first aspect is the narrative frame, which establishes the new universe where the normal structures of meaning and expectations are bypassed. The second aspect is the plot, which sets the stage for action. The plot creates a situation of contradiction or tension within the narrative that motivates action for the participants. The final aspect is the purpose, which relates to the design task at hand. The purpose is the link between the plot, narrative, and design situation. In our case from the Marine Centre, we exemplify the building of narrative and plot in relation to the purpose of the design situation.

5. PURSUITING AESTHETIC INQUIRY AT THE KATTEGAT MARINE CENTRE

Having outlined the pursuit of aesthetic inquiry in Participatory Design, we return to the Marine Centre and the collaborative process leading to the design of the Fish Generator and the Hydroscopes. In the following, we present the design work and highlight elements that relate specifically to aesthetic inquiry during the participatory design process. The prototypes were developed based on a series of design workshops involving visitors and staff members of the Marine Centre, and additional workshops within the design team. A full description of the complexity and nuances of this process is beyond the scope of this paper. Instead, to qualify our argument, we will focus on the use of the Fictional Inquiry technique in the process, as applied in one of the initial design workshops. The reason for this is two-fold. First, we will elaborate and exemplify the argument from the previous section - that Fictional Inquiry as a Participatory Design technique embodies the idea aesthetic inquiry - and as such, it will work as a motivating example for our discussion. Second, the Fictional Inquiry Workshop at the Marine Centre was perhaps the most significant event for the entire Participatory Design process to have carried out, and the ideas developed in this workshop are reflected in the design of the Fish Generator and the Hydroscopes.

5.1 The Kattegat Marine Centre

The Kattegat Marine Centre is a marine centre displaying fish and marine life from all over the world. The centre consists of a large exhibition space where a myriad of
aquaria create colourful scenery for visitors to explore life in the sea (figure 2).

The various aquaria are supplemented by signs with text and illustrations that provide visitors with information about the origins and characteristics of the different species. Apart from the more visually impressive aquaria, the Marine Centre offers an open aquarium where visitors are free to touch the fish. This activity is highly popular – especially among the younger visitors. A range of events during the day breaks up the activities around the aquaria. A few times a day, the staff feed the tropical sharks that are located in a large aquarium at the centre of the building. Visitors are invited to watch the feeding session, and the staff member generously shares knowledge about the feeding habits and characteristics of each species. Apart from the very popular feeding of the sharks, the centre features a similar feeding session for the seals outside the centre, a 3D cinema, and play facilities. The Marine Centre’s motivation for joining the Participatory Design project was to explore how to create new types of engaging experiences for their visitors. Based on initial ethnographic field studies and additional interviews with visitors and staff members, we initiated a Fictional Inquiry workshop on location. The result of the workshop became a cornerstone of the design project.

5.2 Establishing the Plot and Narrative of the Fictional Inquiry

The Fictional Inquiry workshop was a half-day event involving two researchers and a family of four (two adults aged 38 and 39, and two children aged 9 and 11). The purpose of the workshop was to explore new ways for visitors to experience the Marine Centre. Being familiar with the Centre, and encouraged by the excitement of co-designing new technology to create exciting experiences, a family had volunteered to participate in the design process. We met up with the family at the Marine Centre, and briefly talked about the project and the plans for the day. Before starting the actual workshop, the family had some time to familiarize themselves with the Centre on their own. After about an hour, the family had seen most of the aquaria and we were ready to start the workshop.

The first step of the Fictional Inquiry technique involves establishing the narrative. The narrative was inspired by the tale of the lost city of Atlantis. When introducing the narrative, we brought the family to a separate room where we had tried to create an atmosphere that supported the mystique of the Atlantis narrative. We introduced the following narrative to the family: During the last couple of weeks, the employees at the Marine Centre had been noticing a strange phenomenon. In the morning, the employees would find wet footprints leading back and forth from the aquaria. A few days ago, the centre had received a message in a bottle. We gave the bottle message to the family. The message read:

Greetings Humans,

I hope this message finds the hands of good people who can help us. We, the people of Atlantis, have been forgotten by humans for many years. For a long time we have been living happily, deep in the sea. The Marine Centre was accidentally built on top of our city, and we now face great problems. We sincerely ask for your help! In Atlantis we live on the great experiences and stories of humans. Stories, adventures, and fantastic experiences provide energy and life to the whole of Atlantis. For a long time we have lived happily on the experiences at the Marine Centre. But we are running out of fantastic experiences, and we need your help. We need you to create fantastic experiences so our city can once again thrive. To assist you in this task I have sent a box of magic tools that you can use however you like. The tools can do whatever you want them to do. I hope you will help us save our great city.

Yours truly,
The King of Atlantis

The letter explained that the Marine Centre had accidentally been built on top of the lost city of Atlantis. The people of Atlantis survived on fantastic experiences Centre, but were running out, and needed the help of the family to create new fantastic experiences. To aid them in
their work, the King of Atlantis had sent a box of magic tools (figure 3). The family could ascribe any qualities to the tools, and use them however they liked. The box contained a variety of objects such as a mirror, a flute, an apple, and a black cloak. The objects in the box were selected to strike a balance between not dictating an obvious use in the context of the Marine Centre, while still providing inspiration for possible usage.

Having explored the contents of the box we discussed the plot embedded in the narrative; the family had to imagine new experiences at the Marine Centre to save the people of Atlantis. At their disposal, they had the magic tools that the King of Atlantis had sent. The ideas created should be illustrated and enacted at the Marine Centre. Initially, some time was spent discussing the fictional narrative frame; how had the Marine Centre been built on top of Atlantis, and how did the people of Atlantis live off experiences? Intentionally, the narrative was not thoroughly elaborated, as the collaborative construction of the narrative was an important part of the appropriation of this Offline narrative. All participants participated in imagining and formulating the details and structures of the new universe.

5.3 Conducting the Fictional Inquiry
Before embarking on the task, the family and the researchers spent some time discussing the items and imagining for what they might be used (figure 3). Each of the family members chose two specific places at the Marine Centre for which they had more or less specific ideas as to how new experiences might be realized using the magic tools from the box. As the family set out into the centre, we brought out a video camera, and asked the family members to show how the tools were to be used, and talk about how they would work. Following the narrative, we needed to send the tape to the King of Atlantis so he would know how he could create exciting new experiences. This was, of course, inherent to the narrative to encourage the participants to document their findings.

As the family entered the Marine Centre, the family members took turns presenting their ideas. The presentations progressed with an initial idea expressed by one of the family members, followed by a discussion and elaboration of the ideas. Here we will present only two of the ideas that particularly embody the issues that became central to the remainder of the design process, and that may be traced to the design of the Fish Generator and the Hydroscopes. The daughter of the family was eager to share her ideas with the group. Her first idea was inspired by the hallways in the Centre that link a series of dark, cave-like rooms filled with smaller aquaria. In the box, she had found a pen originally used for a digital whiteboard. When pressed, the tip of the pen emitted a subtle humming tone (caused by the batteries in the pen). The daughter’s idea was that the pen could be used as a treasure finder; when she walked with the pen and pushed the button, the humming sound would guide her towards hidden treasures beneath the floor (figure 4). The hidden treasures would be strange fish, or secrets that only she would find.

A second concept was developed by the mother, who had chosen a magnifying glass from the box of magic objects. Her idea centred on the ability to explore the characteristics of the different fish in detail. The magnifying glass would be used at the different aquaria at the Marine Centre to zoom in on the details of various species. Furthermore, the magnifying glass would enable her to control the behaviours of the fish in the water (figure 5).

These concepts were two among several developed during the workshop. After having presented the ideas for new experiences at the Marine Centre, we returned to the room where we had introduced the narrative frame, to discuss the activities. At this point in the workshop, we left the fictional frame and returned to the setting of the Marine Centre. There had, of course, been no doubt during the workshop that the story was fictional and that the objects in the box did not have magic properties. But this was of relatively little importance; the playful atmosphere of the workshop, and its ability to spur imagination had been fun and motivating. As such, all participants were well aware that most of the ideas developed were not realistic, in the sense that they could not be constructed. They did, however, provide the springboard for discussing the qualities of experience that would be desirable at the Marine Centre, and the means that might be used to realize these. In particular, the discussion centred around three issues: accessing the hidden world beneath the sea, being actively involved and engaged in the activities, and exploring the secrets and details of the hidden universe. The last issue in particular came from the concepts that the
mother and the daughter presented (figures 4 & 5). The treasure finder highlighted the idea of actively exploring the hidden dimensions of life under the sea. The idea involving the magnifying glass fostered discussion around the details of the fish, and the possibility of exploring their abilities. The issue of accessing the world beneath the sea was very much a question about being able to enter another universe in which sound, light, and movement were different; getting a concrete sensory experience of being in the world of the fish.

These issues from the Fictional Inquiry workshop were further developed during the remainder of the design process. In particular, the aspects of exploring the hidden universe and being actively engaged in exploring the specific properties of various species became central in the design sessions that followed the Fictional Inquiry workshop. Moreover, these aspects are reflected in the prototypes that were eventually evaluated at the Marine Centre. The Fish Generator specifically builds on the idea of being an active participant in exploring the characteristics of various species of fish. The element of experimentation developed as the design process progressed, but key ideas from the Fictional Inquiry workshop remain present in the prototype. The Hydrosopes manifest the idea of exploring the hidden universe. In some respects, it echoes the idea of the treasure finder that was proposed during the Fictional Inquiry workshop. The Hydroscope plays with the idea that the sea is a hidden universe, and that visitors need to actively explore this to view the fish beneath.

6. PURSuing Aesthetic inquiry in Participatory Design

Our case study illustrates an example of pursuing aesthetic inquiry in participatory design. We build our notion of aesthetic inquiry on the ideas of Wartofsky [29], Engeström [14], and Nelson & Stolterman [23], as the process of exploring profoundly new ways of perceiving and experiencing our everyday world. As initially argued, this can be described as tipping the scale towards transcendence in Participatory Design practice. Our case study involving the use of the Fictional Inquiry technique exemplified this movement. The staging of the workshop involved the predominant use of transcending elements that invited the creation of new ideas, artefacts, and practices. Perhaps most significantly, the narrative frame of the workshop, derived from the lost city of Atlantis, worked as a transcendent element that invited new associations and a departure from current practice. Moreover, the ‘magic’ items in the magic box acted as very concrete transcendent elements. The items were specifically chosen so as not to embody well-known practices; putting a camera in the box would arguably have anchored the workshop more strongly in current practice, as this artefact is common to most museum visitors. Moreover, several of the elements applied in the workshop worked specifically to support the narrative and the plot: the message in a bottle, the pictures of the lost city of Atlantis, and the sand at the bottom of the box of magic items. Anchoring elements were, however, also present during the workshop. The fact the workshop took place at the Marine Centre anchored the activities in the theme of the centre and in the physical layout of the exhibition.

Tipping the scale towards transcendence does, however, provide only one dimension of the pursuit of aesthetic inquiry. The second aspect of our argument has been the construction of offline loops for detached reflection. This idea is at the core of the Fictional Inquiry technique, as it deliberately bypasses the existing structures of meaning and motivation. As illustrated by our case study, however, this is a dynamic process in which participants co-construct a fictional universe. The introduction of the narrative of the lost city of Atlantis and the plot was not sufficient to construct this framework. The workshop participants spent time discussing what was possible in this world, what were its motives and goals. This negotiation unfolded as both consolidating the universe from what was provided in the narrative, and also as an imaginary endeavour where the participants would associate new meaning with the narrative, and the universe as such would evolve from the co-construction. During the discussion, we did not reach anything resembling a stringent or comprehensive model of this universe, only an idea of the narrative that was rigid enough to be shared among the participants. The staging of the narrative, in the form of transcending and anchoring elements, may be understood as an imaginative artefact. This artefact mediates the creation of an offline loop in which normal structures of purpose and motives are suspended. Our case-study exemplifies the way in which the appropriation of this imaginative artefact is a process of participants “buying-into” and constructing this new world, similar to the idea of suspended disbelief.

7. CONCLUSION

Within the field of Interaction Design, recent contributions have explored the aesthetics of interaction with interactive technology. These contributions have explored how aesthetic experiences derive from our intellectual, bodily, and socio-cultural engagement in the world (e.g. [24], [22]) and how aesthetics is an emergent quality of using interactive technology. Within the field of Participatory Design, the concepts of design and use are tightly coupled. As such, a complementary Participatory Design approach would be to pursue aesthetics as an integral part of the mutual learning process of design. Aligning ourselves with the recent contributions in interaction design, we formulate our concern within Participatory Design as one for aesthetic inquiries in the design process. This perspective couples the aesthetic concern to design as mutual development and learning.
As Participatory Design moves into new realms, and faces the challenge of creating new and exciting technologies with which people can relate to the world around them, the issue of aesthetic inquiries becomes central to Participatory Design. The importance of the perspective is, however, not only related to new and highly innovative uses of technology; it relates more generally to the process of providing offline loops in which participants are provided with room for exploring qualitatively new ways of living their lives. Most techniques, tools, and approaches within Participatory Design provide elements of aesthetic inquiry, as they address the imaginative aspects of practice, driven by the values and aspirations of the participants. Indeed, Participatory Design as an approach to design stresses the democratic and value-based ideals as the backbone of design, and thus echoes the approach to aesthetic inquiry that we have explored in this paper. We do, however, see the need to further develop aesthetic inquiry as a perspective to complement the dedication to practice within Participatory Design. We have outlined aesthetic inquiry in Participatory Design through two related arguments. First, the tipping of the scale towards transcendence conceptualized through the use of anchoring and transcending elements, and second, the use of imaginative artefacts as staging design collaboration, leading to the creating of offline loops. The Fictional Inquiry technique provides an example of a concrete Participatory Design technique that is well suited to this purpose. Through our case study, we have exemplified the application and value of this technique as manifestation of aesthetic inquiry. However, as noted in our case study, aesthetic inquiry cannot stand on its own. It is critical that the aspects explored in the offline loops are again landed in practice. This movement from offline loops back to existing practice is not approached in this paper, and remains a challenge.

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9. REFERENCES


