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Document Version
Final published version

Published in:
Universal Design 2024: Shaping a Sustainable, Equitable and Resilient Future for All

DOI:
[10.3233/SHTI240987](https://doi.org/10.3233/SHTI240987)

Publication date:
2024

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Citation for published version (APA):
Kajita, M., Cassi, R., & Holm, P. G. (2024). Filmmaking as a Tool for Investigating the Positive Spatial Experiences of Disabled People. In K. S. Fuglerud, W. V. Leister, & J. C. T. Vidal (Eds.), *Universal Design 2024: Shaping a Sustainable, Equitable and Resilient Future for All: Proceedings of the Seventh International Conference on Universal Design (UD2024), Oslo, Norway, 20-22 November 2024* (pp. 82-89). IOS Press. <https://doi.org/10.3233/SHTI240987>

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Download date: 13. May. 2025



Filmmaking as a Tool for Investigating the Positive Spatial Experiences of Disabled People

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Abstract. Current studies at the intersection between architecture and disability focus on addressing the immediate needs of disabled individuals and often overlook the potential of built environments to create positive experiences. Additionally, conventional approaches for investigating disabled people's spatial experiences often fail to capture the inherent nuanced sensory and emotional aspects. This paper describes the process of filmmaking and the use of film to explore its contributions and limitations in the understanding on how personal and contextual factors influence individuals' positive spatial experiences. The film *Places and Small Pleasures*, produced by the Cluster for Spatial Inclusion at the Royal Danish Academy in collaboration with Nossell & Co, serves as a case study for a reflective inquiry. The filmmaking process involved participant interviews, transcript analysis, storyboarding, shooting, editing, and final screening. The analysis of the interviews with four selected participants revealed key spatial attributes and contextual phenomena contributing to their described positive experiences. Four distinct narratives emerged, highlighting the participants' diverse bodily conditions, emotions and feelings in their favorite places. Representations of their experiences through the film incorporated verbal and non-verbal cues, their bodily reactions, and contextual phenomena, offering an immersive sensory richness for the viewers. By capturing the embodied experiences of the four participants within their personal and spatial contexts, the filmmaking process enhanced understanding and empathy, enriching disability studies and fostering academic discourse in this domain through positive stories.

Keywords. Filmmaking, spatial design, disabled people, positive spatial experience, pleasure

1. Introduction

Existing research at the intersection of architecture and disability predominantly addresses the challenges faced by disabled individuals in built environments, targeting immediate needs such as access and usability [1]. While these aspects are essential, their focusing solely on the immediate and practical needs of disabled people excludes the important potential of the built environment to contribute to positive spatial experiences [2]. This gap in the literature points to an unexplored area concerning the study of the positive spatial experiences of disabled people, highlighting the need for a more comprehensive understanding that includes sensory and emotional dimensions. Traditional design approaches and research methodologies frequently fall short in

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capturing these nuanced aspects of spatial experiences [3]. To address these limitations, this paper explores the use of filmmaking as a qualitative research method to investigate how personal and contextual factors influence the positive spatial experiences of disabled people, with a particular focus on the feeling of pleasure within architectural spaces.

Film is increasingly being recognized as a valuable qualitative research method, due to its ability to capture and convey complex narratives and experiences [4]. In qualitative research, filming is an established method used for collecting and recording data [5], moreover, it has become a valuable medium not only for knowledge production but also for dissemination [6] [7] [8]. The process of filmmaking often requires immersion in human interactions, emotions, and social dynamics, making it a rich source of valuable data and insights [9]. Furthermore, through film screening and discussions, film can be used as a tool for facilitating critical reflection on prejudices and understanding of social issues [10], while supporting audiences' identification with, and empathy towards the represented subject and emotions [11].

Starting from these premises, this paper employs the short film *Places and Small Pleasures* as a case study to examine the extent to which film can be a valuable tool for exploring, representing, and discussing the positive body-space interactions of disabled people in the built environment. By detailing the filmmaking process and reflecting on each step, this study highlights the strengths and limitations of the filmmaking process in unfolding the spatial mechanics that underpin disabled people's everyday experiences.

2. Methodology

To examine how film can be an effective medium for producing and disseminating research-based knowledge, a reflective inquiry was conducted after the project's completion. This approach allowed for a critical examination of how each step of the filmmaking process contributed to collecting, understanding, and representing the positive experiences of disabled individuals in the built environment. Reflective inquiry, as a methodological approach, involves a qualitative examination of one's own work through a critical lens. It allows for a deeper understanding of how the project-related decisions and applied methods shaped the interpretation and representation of the participants' experiences of pleasure [12] [13]. Additionally, reflective inquiry helps to identify the strengths and limitations of film [14], providing insights into the ways the film, as a medium of representation and communication, captures the more subtle, yet significant, positive interactions between bodies and spaces.

The film *Places and Small Pleasures*, used here as a case study, is the result of a project conducted by the Cluster for Spatial Inclusion at the Royal Danish Academy in collaboration with Nossell & Co. The filmmaking process involved various stages, including interviews with the four participants, transcript analysis, storyboarding, on-site shooting, final editing, and film screening. The film presents the experiences of four individuals: William, Belinda, Christian, and Vibeke. In this paper, each step of the filmmaking process is described and discussed through the narrative of William, as a representative case, to reflect on how the filmmaking process contributed to depicting unique relations between personal and contextual factors forming a positive spatial experience.

3. Places and Small Pleasures: the filmmaking process

In what follows, the process of making *Places and Small Pleasures* is presented. Each step describes the research approach, and the modalities employed for generating and representing knowledge about the experiences of the four participants, exemplified through the case of William.

3.1. Participant recruitment

Our main challenge in recruiting participants was to ensure diversity in bodily conditions, gender, and age range. Furthermore, the project required that the participants be willing to share their experiences, sometimes leading them to describe highly personal reflections and feelings. Nossell & co. were responsible for establishing contact with potential participants and selecting relevant interviewees after an initial round of contacting 15 individuals with various disabilities across five different disability organizations.

Accordingly, the final four participants who took part in the short film not only have varied profiles: age:(early 20's to late 50's) gender (man/woman) and type of disability (Cerebral Palsy, Stoma, Muscular Atrophy and visual impairment), but also different preferences, coping style and so forth. All four participants gave consent to share their verbal and visual information. William, one of the participants, is in his early twenties and uses an electric wheelchair due to muscular atrophy. He is the chairman of The Association of Young People with Disabilities (Sammenslutningen af Unge Med Handicap, SUMH), which aims to strengthen the resources of young people with different bodily abilities. William, like the other participants, showed full availability and commitment to participate in this project.

3.2. Interviews

The aim of the interviews was to gather detailed accounts of the participants' experiences and their reflections on how the environment contributed to their feeling of pleasure. Semi-structured interviews [15] were employed to ask focused questions on moments of pleasure experienced in space, while allowing for deviations based on the descriptions provided by the interviewees. The questions centered around understanding of: *who* the participants are, *what* kind of pleasurable experiences they recall, *where* they had these experiences, *how* the physical context influenced them, *when* these experiences occurred, and *with whom* they shared these moments. During the interviews, the participants were asked to close their eyes and imagine being in their mentioned favorite place. This exercise was not planned beforehand, and yet it became essential; as the questions required participants to articulate beyond purely cognitive-intellectual responses, this exercise was used to encourage the participants to recall and reflect on past bodily situated events.

William was first asked to describe himself. Then, he was asked about the specific places where he most enjoys being. He answered that he likes "walking", as he said, with his dog Arthur at Vestre Kirkegård, a cemetery in the west side of Copenhagen. Subsequently, he was asked to take a deep breath, close his eyes, and imagine himself *walking* around the cemetery. After he took a long deep breath, the tone of his voice changed, and he started to speak slowly. Then, he began to describe, in detail, the nature

in the cemetery and how he was surrounded by. This was followed by a description of how he felt calm in his body, and how this experience influenced his mind and thoughts.

3.3. Transcript analysis

The audio-video recordings of the conducted interviews were transcribed using automatic transcription software (Sonix). By following an iterative grounded theory research approach [16], the transcribed interviews were analyzed to extrapolate the key themes in relation to the positive experiences shared by the participants. The analysis focused on identifying words and descriptions related to pleasurable experiences and feelings (such as calmness, peace, enjoyment, and fun), as well as the types of pleasure and the associated narratives. For each narrative, the influential attributes of the built environment, natural phenomena, contextual and social dynamics, sounds, smells, and their related bodily sensations and reactions, were examined.

William conveyed his idea of Vestre Kirkegård as a place of “respect” and “peace” emphasizing the positive feeling of “walking” around the cemetery while reflecting on death and gaining a new perspective on life. He described the “beautiful” trees around the lake as well as the “magical” old trees that made him think about how much he liked “fantasy” when he was a child. William also highlighted how the “soundscape in a forest” differs from the one in urban environments. This ambiance nurtured the sense of peace and developed the feeling of relief from the daily “clutter” of his life. In recalling this sense of peace, William began describing his physical sensations of internal calm, like the relaxation of his shoulders, neck, and cheeks, which brought him in a deeper state of presence.

3.4. Storyboard for filming

Based on the interview analysis, storyboards were created to plan the visual and auditory representation of the participants' narratives. Storyboarding involved mapping out the sequences of scenes, the details of specific locations and actions, as well as contextual elements to be captured. These were extrapolated from the interviews by identifying and connecting relevant references in the described experiences. This process was essential in transposing the interviewees' accounts into a visual format that could effectively communicate each participant's experiences. The storyboards served as blueprints for the filming process, helping a cinematographer to visualize the sequences of scenes to shoot, and ensuring that the essence of the participants' experiences was faithfully captured.

In the case of William, the storyboard was centered around three main moments of pleasure experienced. The first moment was the feeling of calm, in which William felt a release from tension by admiring the beauty of the cemetery's nature. This put him into a sensorially pleasant bodily state. The second moment was more introspective, capturing William's increased awareness of his body and thoughts, through which he experienced a strong sense of presence. The final moment aimed to capture William's feeling of liberation, which he experienced while looking at the articulated crowns of a specific tree-lined footpath in the cemetery, allowing his mind to wander freely.

3.5. *Film shooting*

By filming participants in their favorite places, the study sought to visually and audibly capture the essence of the pleasurable experiences previously described in the interviews and synthesized in the storyboards. The filming process aimed to document not only the physical aspects of the described places but also the subtle interplay of verbal and non-verbal expressions, as well as other bodily reactions, of the participants while they are in these places. Each scene was designed to record and convey the sensory richness and emotional depth inherent in each participant's experience – including both the physical and contextual elements of their favorite place. This process was facilitated not only by the use of a story board but also by on-site discussions between researchers, the cinematographer and the participant, to set a direction and ensure that the participant's experience was represented authentically.

After deciding the camera grip points to capture the best perspective of the lake and its surrounding context, the cinematographer recorded scenes of William arriving along the gravel path, where the sound of his wheelchair was also recorded. Other scenes focused on William's bodily reactions, using close-ups of his face, hands, and breath. While moving to the second location, the cinematographer followed William and recorded him as he moved with familiarity around the cemetery. Once reaching the tree-lined footpath, William was filmed guiding his wheelchair along the path. Scenes were captured of William observing the regular sequence of tree trunks, occasionally shifting his gaze to admire the intertwining branches.

3.6. *Storyboard for film editing*

After the filming was completed, the storyboards for each participant were produced in detail based on the filmed material. This process helped to realign the collected visual and auditory material with the participants' narratives in consideration of any contextual factors encountered during planning and filming processes. These factors include availability of specific locations, the weather conditions, or other contextual variations diverging from the initial plan. Furthermore, in these storyboards, specific quotations of participants were selected from their interviews and suggested for the film editor to couple with the sequences which visually presented the feelings initially described by the participants during their interviews.

The storyboard for William's segment was structured to emphasize the relationship between the natural environment and his perceived feelings of bodily and mental relaxation and presence. In the storyboard, the feeling of calm is associated with images and sounds of nature in Vestre Kirkegård, accompanied by key quotes from William describing the "beautiful" trees and the pulse in his hands as the sign of a reached state of relaxation. To convey his sense of mental presence and imaginative desire, the storyboard links images of the "troll trees" with William's reflections on the real and fantasy worlds.

3.7. *Film editing*

The film editing process was crucial in ensuring that the key themes identified in the participants' narratives were represented in the film. The film editor (who is also the cinematographer of the film) reviewed the recorded material, selecting the visual and

auditory elements relevant to the key themes and the selected quotations from the participants. This stage involved a collaboration between the film editor, Nossell & Co., and the researchers to align the visual storytelling with the intended messages and feelings described during the interviews.

For William's segment, the film begins with emphasizing the serene and contemplative atmosphere of Vestre Kirkegård, contrasting the natural landscape with the hectic urban context while William describes his bodily feelings (Fig 1). Scenes of the lake and surrounding nature are interwoven with close-ups of William's expressions, capturing his sense of peace and inner calm. The ambient sounds, including the distinct noise of William's wheelchair on the gravel path, are incorporated to enhance the sensory depth of his narrative. William's segment concludes with scenes of him *walking* along the tree-lined footpath, accompanied by his voice, as he reflects on how the trees evoke childhood memories of fantasy and adventure, and how being in this place is always a pleasurable experience for him.

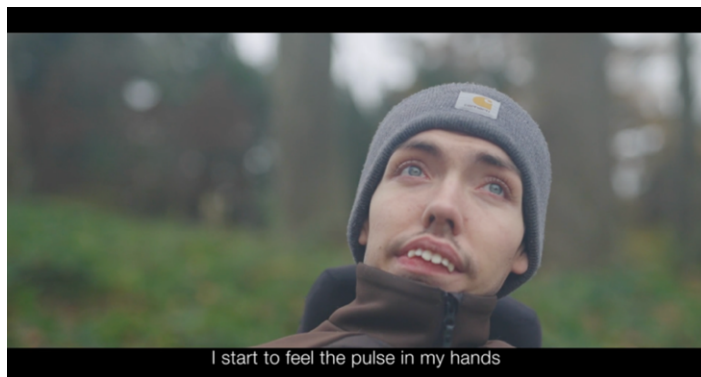


Figure 1. Screenshot of William's segment, *Places and Small Pleasures*

3.8. Screening

The film *Places and Small Pleasures* was screened at the Social Cinema in Charlottenborg, Copenhagen during the Copenhagen Documentary Film Festival, CPH:DOX. As part of the event's theme *Body Politics*, the film was screened in a unique projection cube where images were displayed on all four side walls. The event's program was designed to focus on the human body and celebrate bodily diversities, attracting not only the usual CPH:DOX festival audience but also directors, filmmakers, researchers, sociologists, architects, and any other persons or representatives interested in the theme of inclusion.

The film, which lasts only nine minutes, was shown on a loop for about an hour. This allowed the audience arriving at different times to watch all four stories. However, in the official film sequence, William's segment is placed first to welcome the audience with an immersion in nature and a sense of calmness. Especially during the screening of William's section, which features many images and sounds related to nature, the structure of the projection cube contributed to creating a sensorily-rich representation of his experience of pleasure.

4. Discussion

This reflective inquiry revealed the following points of discussion: the use of filmmaking to generate research-based knowledge, and the use of film as a medium to represent and disseminate knowledge.

4.1. *The use of filmmaking to generate research-based knowledge*

The making of *Places and Small Pleasures* contributed to understanding the participants' positive experiences by: a) stimulating the participants to recall these moments; b) collecting first-person descriptions of the places experienced and the related bodily perception and reactions; c) collecting both verbal and non-verbal expressions, providing richer and more comprehensive data on the sensory and emotional dimensions; d) developing narratives for representing the collected and analyzed data. However, emotions and bodily sensations, which are central to the experience of pleasure explored, can be abstract and challenging both for the participant to describe and for the researcher to fully comprehend and thus to represent.

The interview analysis involved a level of narrative construction and interpretation based on the extrapolated data. Even though the analysis was conducted by two researchers, decisions regarding what to include, emphasize, or omit could have been influenced by bias, potentially skewing the representation of participants' experiences. Furthermore, the storyboards used in the filming and the editing process could lead to the simplification or alteration of complex experiences to fit the film's structure and time limitations. However, both the narrative construction and the storyboard played an actively mediating role in synthesizing the different elements of the participants' spatial experiences, which, in turn, allowed for an authentic representation of these complex spatial experiences.

4.2. *The use of film as a medium to represent and disseminate knowledge*

One of the film's notable strengths lies in its ability to foster empathy and understanding toward the people and experiences depicted. The use of audio-visual stimuli, such as the ambient sounds of nature or the noise of William's wheelchair on the gravel path, created an immersive experience for viewers, allowing them to empathize more vividly with what would otherwise be a private experience. However, while film can convey visual and auditory information effectively, it is limited in representing other sensory experiences such as touch, smell, and proprioception, which are crucial for a comprehensive understanding of spatial experience.

The screening, part of the CPH:DOX festival, attracted a diverse audience, facilitating broader dissemination of the research related to *Places and Small Pleasures*. Additionally, film, as a commonly preferred medium over textual formats, offers a more engaging and accessible way to present research findings. Public screenings also provide opportunities to trigger audience reflection and foster further discussions on the positive experiences presented, thereby enhancing the impact of the research. It is important, however, to consider participants' willingness to share their intimate moments with a broader audience and to ensure their consent throughout the filmmaking process.

5. Conclusion

This reflective inquiry illustrates the effectiveness of filmmaking in capturing and conveying the positive spatial experiences of disabled individuals. By examining each phase of the filmmaking process – from interviews and transcript analysis to storyboarding, filming, and screening – the study identified both the contributions and limitations of this method in representing pleasurable experiences. By identifying and integrating detailed visual and auditory narratives throughout each step, the film provided deeper insights into the embodied experiences of pleasure in specific physical environments.

Visually and sensorially representing the participants' experiences helped to foster a more profound understanding of their perspectives and experiences. Finally, the use of film for dissemination means enhanced empathy and critical reflections among viewers. In this way, the film played a crucial role in taking the first step toward redefining the discourse around disability and architecture by highlighting positive experiences and fostering more positive connotations within disability studies.

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