The role of scenography in museum exhibitions: The case of the *Grossraum* at the Norwegian Museum of Science and Technology, Oslo



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Abstract

Scenography and the *Grossraum* exhibition, the Norwegian Museum of Science and Technology, Oslo

This thesis investigates the **role** of scenography in museum exhibitions, and in particular the impact of scenography on exhibition narratives. Texts, objects and images all contribute toward putting forward the exhibition narrative. The main question I engage with is how does scenography relate to these elements in the storytelling process? The aim of the thesis is to show how an analytical focus on scenography can generate insights relevant for **both** the methodology of museum research and museum theory. Moreover it tries to shed light on how museum curators work with space in the setting up of exhibitions, and how the visitor encounters exhibitions in ways that are not only based on the text and object narratives, but also through the perception of space. This research has thus tried to place emphasis on how the scenographic spatial arrangements shape visitors' access to the material in exhibitions through their experience of that space. My research object with regard to this analysis is the *Grossraum* exhibition at the Norwegian Museum of Science and Technology in Oslo.

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1.0 Introduction

Over the last few years I have become increasingly interested in how experimental approaches to exhibition design could be used for the purpose of inviting the public to a more engaging interaction within a museum space. One of the questions that kept coming back to me was: Is an extensive use of multi-media technology the only or best way to encourage engagement in museums, to make museums more interesting to the general public? In the first semester of my master studies in *Museologi og kulturarvstudier*, I saw an exhibition by the name of *Obedience* at the Jewish Museum in Berlin, created by Saskia Boddeke and Peter Greenaway. This experience was especially important for my interest because the exhibition engaged the public in a way I never before experienced in a museum space. However, at the time, I did not fully understand what display strategies made that exhibition so effective. In early 2016, I attended an exhibition workshop with a few of the scenography students from the Norwegian Theatre

Academy in Østfold. This workshop was a great foundation for acquiring a better understanding of what scenography is, and how scenographers work with space. Thus, the starting point of this thesis is a curiosity towards-, and sincere interest in, understanding what scenography is all about and how it can be used in museums.

1.1 Grossraum: Project theme and research questions

My research object in this thesis is the exhibition: *Grossraum – Organisation Todt and Forced Labour in Norway 1940–45* at the Norwegian Museum of Science and Technology. I will analyse this exhibition through direct observation and interviews with the curator and scenographer in order to elicit the role of scenography and the intention of the exhibition producers about the use of space. I will introduce the concepts and details of each room in the presentation (part **4.0**), and will discuss them in the analysis (part **5.0**).

The *Grossraum* exhibition opened on February 16 2017. The thematic focus is on forced labour in Norway during the Second World War. The name relates to the principles, policies and ideology of the national socialist regime, but it is also a reference to the features of the process of creating this particular exhibition space. The term *Grossraum* (which literally means "large room" in German) refers to the act of gaining control of both land and people through elements of architecture and space. This makes the *Grossraum* exhibition significant and particularly interesting as a research object. It is an exhibition about space. This investigation focuses on the role of scenography, which implies a closer look at the organization of space, the sensorial

¹ See online at: https://www.jmberlin.de/en/exhibition-obedience

experiences enabled by this exhibition and the impact of different scenographical elements designed to affect bodily movement. The focal points in the analysis will be on the process and result of this exhibition, examining the issues and dynamics that emerge when scenography and curatorial practice merge. This will enable me to engage with the broader connection between scenography and museums in light of the recent turn to *performance* within museum studies — the so-called *performative museology* (Leahy, 2012:2).

Project issue and research questions

Key question:

What impact do scenography and the use of space have on exhibition narratives?

Sub-questions:

- How does scenography relate to the other elements of the display, such as the objects, texts, videos, architecture and "empty" space in-between things and structures and the visitors' movement?
- How does it contribute to shaping exhibition narratives?
- How can curators use it, and to what aims?
- What can we museum studies scholars gain by taking scenography into account?

1.2 What is scenography?

Scenography is an artistic practice that emphasizes all elements of staging. The term originates from the 19th century theatre scene, and is defined as the writing of space or stage (Abramovic et al., 2011:113; Oddey & White, 2006:17; Eeg-Tverbakk & K. Ely, 2015:36). Scenography focuses on the three-dimensional (architectural) nature of the space or the scenic object and its close relationship with the performers (McKinney & Butterworth, 2009:3). It is the visualization of scenes – from the act of assuming subtle contexts to the reconstruction of locations.

The word scenography is a combination of the two Greek words *skènè* and *graphia*, respectively, relating to scene and painting or writing, In Greek, skènographia means the painting of scenery, associated with both scene painting and architectural perspective drawing (McKinney & Butterworth, 2009:3). To define scenography as "a writing of space or stage" is therefore accurate – as a non-textual narration. Scenography is also about storytelling, originally contributing to the acted performance on a theatre stage.

Scenography in a museum space

Scenography adapted to the museum setting has the same characteristics as within the theatre field. The main difference is that the museum visitors replace the actors and theatre audience. The exhibition space is hence equivalent to the stage.

In exhibitions, scenography is everything linked to the aspects of time and space (Eeg-Tverbakk & K. Ely, 2015:36); it is the space we enter, and the form and material elements of it that decide how we will enter. These space solutions represent the binding media between the audience and thematic content of the exhibition. Scenography contributes to the experience we have in an exhibition, through engaging our bodily movement and our senses. It can be characterized as spatial instruments and effects created to form a reaction and engage us as audiences – all this without appearing as decorations, backdrops or isolated art installations. At best, scenography will establish the stories through the exhibition space, and create a presence correlating to objects and text. This happens because the spatial elements demand a different approach to understanding through experience and reflection, rather than through the information given and the visitors' interpretation of it (Kirshenblatt-Gimblett, 2000; Hein, 2006:10). I will expand on these topics in the theoretical section, and illustrate them in the analysis of the Grossraum exhibition – Organisation Todt and Forced Labour in Norway 1940–45, in which the scenographic features are implemented throughout the exhibition space. In the Norwegian Museum of Science and Technology, where my study object is located, the research- and exhibition project entitled *Grossraum* is largely brought forth by the continuous work with space. It is also an equal collaboration between a curator and a scenographer. I will elaborate on this process in my analysis (6.0).

It is important to note that the definition of scenography, has not been a fixed definition over time, but "constantly evolving its meaning and expanding its paradigm" (Lam, 2014:14). In the same way as the idea of what scenography entails, the use of it has not always been intentional. I want to suggest that scenography has always been part of exhibitions – whether it would be called like that or not – since from their inception, exhibition-making has included concerns about how to use space, how to arrange things in space, etc. The detectable examples range from the times of the surrealist of the 1940s aiming to confuse the museum audience (Leahy, 2012:102) and in to the early 2000s where scenography was used to interrogate the relationship between body-artwork-space (Leahy, 2012:106). With regards to the latter, this has mainly been used in an art museum context. In the Turbine Hall of the Tate Modern in London *The Weather*

Project by the Icelandic-Danish artist Olafur Eliasson could be experienced in 2003-2004.² Here Eliasson transformed the Turbine Hall "into a gallery of special effects" (Leahy, 2012:108-109). Largely interpreted as an artwork or installation, this particular use of space also has parallels to scenographic interference. In this sense artists, as curators, have always worked with space, although they might not always have called it scenography.

1.3 Why scenography? - Storytelling through an exhibition space

Texts and objects within an exhibition are what we primarily recognize as the carriers of meaning, what we immediately recognize as a narrative. Narration is thus an active and intended feature, linked to chronology and dramaturgy, but also linked to the perceivers' interpretive imagination. The theory of narrative is called *narratology*, formulated by the cultural theorist, artist and curator Mieke Bal (1997). In her book Narratology – Introduction to the Theory of Narrative, Bal describes narrative as texts in both literary and non-literary works i.e. story analysis within structural semantics. Her book is a study of narrative techniques, methods, their transmission and reception of meaning. However, she also mentions how narration can have different derivations: "Narratology is the theory of narratives, narrative texts, images, spectacles, events; cultural artefacts that 'tell a story'" (Bal, 1997:3). In this quote, it is visible how the systematic set of statements about the segment of narrative transcends the limits of "text" and literature. The hidden figure here is the use of the word "text". To Roland Barthes, the French literature critic and theorist, text is also about the reading of it as a process and practice that creates meaning, and which is not limited to the printed or written surface of a document or book. Text is thus deconstructed here. With Barthes' emphasis on the role of the reading of the text, it becomes possible to look at all meaning-making processes as text-creating; "text" is in anything (Barthes, 2015:194). According to Barthes, narration as storytelling is also a limitless variable: "Narrative is first and foremost a variety of genres distributed among different substances [...] [It] is international. transhistorical, transcultural: it is simply there, like life itself", argues Barthes (1977:79). It thereby becomes clear that narration, as meaning-making through storytelling, can be found in any substance or material, as explained by Barthes (1977).

In sum, narrative has traditionally been studied as *text* or through text. Within material studies it has also been considered in relation to objects, like the concernment with object biographies (Appadurai, 1988). When turning to the reflection of exhibition narratives, Museology has

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² See online at: http://www.tate.org.uk/whats-on/exhibition/unilever-series-olafur-eliasson-weather-project/olafur-eliasson-weather-project

predominantly been focusing on the text- and object-related narratives in this context. Museum scholars have given less attention to narrative in relation to space, i.e the storytelling that occurs through an exhibition *space*. Complementing the "classic" text narratives are spatial constructs that also carry exhibition narratives. In this thesis, I approach narratives as both textual and physical, or corporeal, that is, narratives put forth through tangible measures and specific uses of the space. In my theory chapter I will assess how both narration and dramaturgy are embodied features that characterize scenography as a practice.

1.4 Introducing the research methodology

In this research, I have used a combination of research methods: direct observation of the exhibition and of visitors' visiting paths, participant observation in preparatory meetings and in the exhibition's opening events, examination of photographic material and documentation on the exhibition (floor plans, meeting notes and small-scale models), interviews with curators and scenographer, archival research and a literature review.

I have examined the *Grossraum* exhibition through direct observation and analysis of each room of the exhibition space. My aim is to assess the relationship between scenography and the exhibition narratives through an analysis of the relationship between the various scenographic components and the use of space and exhibition texts. I have investigated how the spatial-based experience – the experience the visitor has through the senses and bodily movement – is affected by a heavily text-based research project, which is also a crucial part of the narrative encounter in the exhibition. This dualistic tension came to mind when I encountered the exhibition for the first time. I was thus very intrigued by the question of: Do these narrative components compete – both guiding the visitor's attention back-and-forth from the physical space encounter and the text-based posters – or complement each other in the space? It seemed to me that there might be an inherent tension between the research project on the one hand, and the attempt to create a visual experience on the other. I therefore want to evaluate this relationship and analyse the result.

Included in this analysis I will incorporate some of the perspectives I obtained from two rounds of interviews conducted on the 8th of March 2017 with both the curator of the *Grossraum* exhibition, Ketil Gjølme Andersen, and the scenographer Alejandra Mendez. I introduced the interviewees with questions regarding the dynamics between the visual expression and the text-based research as a foundation. In addition to discussing this, they both gave insights into the

concepts they had been working with, the challenges they met in the process and their evaluation of the results. The interviews brought forth important aspects on architecture, space and sensory experiences. I will use these insights to explain the relationship between space, objects and texts, but primarily attempt to show how the scenographical instruments affect the viewers' encounter with the narrative of the exhibition.

The next section of the thesis opens with a theoretical discussion in section **2.0**; I then continue with the discussion of the background elements supporting these propositions in section **2.1**, followed by section **2.2**, where I will put forth important concepts within the field of scenography that contribute to the enhanced role of scenography in museum exhibition communication. I will then present my methodology in greater detail in **3.0**, before giving an expanded description of the *Grossraum* exhibition at the Norwegian Museum of Science and Technology in section **4.0**. Section **5.0** will include the analysis and some additional aspects that arose through the use of scenography in this particular museum exhibition. Lastly, I will include an in-depth discussion of the examination results in section **6.0**, before concluding the research with a few final remarks.

2.0 Theoretical framework: Scenography and exhibitions

Scenographic creation involves working with architecture, dramaturgy, intentional use of media and the staging of the narrative experience in a space (Lam, 2014:3). Dramaturgy is an important element, because through scenographic interference the technique of dramatic composition is given a visual character that is not determined by the theatrical text or script (McKinney & Butterworth, 2009:6). In other words: When scenography is said to be the art of writing space or stage (Abramovic et al., 2011; Oddey & White, 2006; Eeg-Tverbakk & K. Ely, 2015), it is because it has the capacity of liberating the text and the story behind it, i.e. the narrative (McKinney & Butterworth, 2009:3; Howard, 2009:130). In that way, it is a staging of another type of narrative that both contributes to- and counteracts (withdrawing from) the text-based narrative of a play or performance. Thus, there are many ways to explain the artistic practice and focus of scenography; I will use this particular definition, referring to it as *the writing of space*.

Scenography as museum practices

In the discussion concerning scenography's role in museum exhibitions, it is meaningful to look at how information is brought into a museum space and the renewed role of experience in museums. I want to argue that scenography is one of the elements that make the dynamics between information, space and audience possible. Referring to works of Barbara Kirshenblatt-Gimblett can liberate what is meant by the museum as a new information space.

Kirshenblatt-Gimblett is a Professor of Performance Studies at New York University's Tisch School of the Arts. In an early keynote, "The museums as catalyst" (2000) – where she sums up the state of the arts and looks to the future of museums – she points out how the museums must redefine the relationship between information and experience, between knowing something and sensing it, and between the objects and the history they carry. She writes: "The museum has become a new kind of information space, one that puts information into *space* and into a relationship with the visitor's body" (Kirshenblatt, 2000: 49). In an even earlier writing, dating from 1998, Kirshenblatt-Gimblett writes about modern museums' recent conscious shift in focus from their artefacts to "experience." She points out that today museums are convinced that visitors are "no longer interested in the quiet contemplation of objects in a cathedral of culture. They want to have an 'experience'" (Kirshenblatt-Gimblett, 1998:139).

These writings show a shift in museum practices that largely involves the visitor's expectations and active participation in a museum. I propose that the solution to this increased focus on

experience lies within scenography; the potential of visitor experiences in an exhibition's spatial design. Scenography is one of the elements that make the new dynamics among information, space and audience possible. This is because the space solutions represent the binding media between the audience and the thematic content of the exhibition. At best, the scenography will establish a narrative through instruments of the exhibition space that correlates to objects and text. This happens because the spatial elements demand a different approach to understanding through experience and reflection, rather than through the information given and the visitors' interpretation of it (Kirshenblatt-Gimblett, 2000; Hein, 2006:10).

Margaret Choi Kwan Lam has also been looking into the importance of scenography as a part of museum practices. In her research, the focal point is primarily upon authorship and the different professionals involved in making exhibitions within the institutions. Her master thesis from 2014, "Scenography as New Ideology in Contemporary Curating", caught my attention because Lam claims that scenography has changed and transformed how a museum exhibition is produced. She writes: "Scenography has been acting as a transformative force to reform the traditional exhibitionary complex" (Lam, 2014: viii). This shift to her is a new ideology in contemporary curating practices, not only referring to the title of her project, but also answering to audience expectations in line with the notion of a new performative museology (See 2.1.4). In her thesis, Lam points out a few elements that characterize scenography as a practice from emphasizing a special expression on theatrical stages to "involving itself into a transdisciplinary design practice and expanding its manifestation in other fields, [...] largely effecting exhibitionmaking" (Lam, 2014:3). Regarding the notion of the "exhibitionary" complex, Lam also mentions examples of projects in which scenography and museology have merged to the point where the scenographer is either the author of the event or a collaborator with the curator. She claims this as a democratizing development because the scenographer has expanded their position as an artist to the role of the curator: participating in curatorial practices. On one particular level, this answers to the critique regarding the "exhibitionary complex" because "the situation implies a handover in the power of authorship from traditional curators' hand to scenographers", Lam writes (2014:26). I will expand on this in section 2.1.1.

In essence, the role of scenography can be seen as a key to assist in reflecting upon exhibition production and presentation as a critical factor into answering 21st century audience access expectations, as well as *democratizing* museum practices. The former ideas and arguments presented through the writings of Kirshenblatt-Gimblett and Lam have thus framed the

foundation of the first part of the theory section **2.1**. To be able to comprehend Lam's argument concerning the *democratizing* power of scenography, I will first evaluate the influence and unresolved nature of "the exhibitionary complex." In the next section I will examine the background for the reoccurring role of the senses, scenography as a part of the *performative* movement within museology, and further expand on the background for the *experience-based museum* as introduced by Kirshenblatt-Gimblett.

2.1. Scenography and exhibitions: Background and state of the art

2.1.1 Scenography and the exhibitionary complex

"The exhibitionary complex" previously introduced by Lam originates from Tony Bennett's essay with the same title (Bennett, 1988). Bennett was influenced by Michael Foucault's notion of surveillance and connected it to the late 19th century establishment of the first public museum, world fairs and exhibitions. The original critique lays within the political control of the public spaces, both in representation and social regulation and discipline. Bennett's critique points at the power structure presented by Foucault, largely related to the idea of the *panopticon gaze*, the idea that an unknown overseer in society controlled all aspects of life. His essay meant to "unravel the relations between knowledge and power effected by the technologies of vision embodied in the architectural forms of the exhibitionary complex" (Bennett, 1988:76). In other words, the public went to museums and world exhibitions, such as the Crystal Palace in London, to see and be seen. Bennett suggests that this etiquette and regulation strategy has been internalized and maintained in public museums today, insofar as controlling how visitors behave in a museum (Hope O'Donnell, 2016:44).

When Lam claims that scenography is a transformative force that has contributed to reforming the traditional exhibitionary complex, she is talking about the same power structures initially presented by Bennett. The "reformation" of these structures might point to a change of scenario, an abandonment of control on the institution's behalf. To Lam, the power relation implied in the exhibitionary complex has its parallel in the power relation visible in the production of exhibitions, through the role of museum professionals – especially the curator's role as a director of the exhibition displays. Because the scenographer's focal point differs from the curator's, their involvement as co-producers point to an abandonment of control from the institution's side. Secondly, the involvement of scenography challenges the power relation between the museum on the production side and the audience, because scenography's core aim is to increase access to the exhibition and its topic It gives the visitors' the role of active *participants*, whose interaction

within a museum is a part of the *performance*: as important as the museum's need to show their collection and skill of exhibition production. The audience is given a significant and influential role: The exhibition is performed through visitors' bodily movement and their perception in the space.

This power relation is also connected to the history of the senses in the museum. Parallel to the establishment of the first public museums, the collections had a new limit attached: They were to be seen and not handled by the public, as they were in the earliest museums during the Italian renaissance (Bennett, 1998). Scenography and its instruments enable a new kind of handling. I will expand on this in the next part.

2.1.2 A historic approach to the senses in the museum

The senses historic influence in the museum is summarized by Tony Bennett, who explains how the museum prior the Enlightenment was publicly accessible because the combination of different sensory experiences contributed to creating knowledge (Bennett, 1998:350). From the mid-19th century the objects had to be protected in line with new conservation considerations. At the same time, museum collections became more pedagogic. They were categorized and largely meant to be understood through text. Vision became the superior sense to acquire information and knowledge in the museums. Museum dissemination was then exclusively based on authoritative knowledge, a perspective not understood to the "untrained eye" (Bennett, 1998:350; Howes, 2014:260). Bennett's exhibitionary complex is also a critique against this power structure. The public museum's institutional position was also an example of this power relation – an expression of the "Foucauldian historiography" formulated by Susan Bennett (2013:9). The role of the senses is further elaborated by David Howes in his essay, "Introduction to Sensory Museology" (Howes, 2014). He mentions "aesthetic appreciation", and has introduced touch as a recurrent component in the museum (in line with Tony Bennett). Howes writes: "Perhaps the most salient trend in the new museology has been the rehabilitation of touch" (Howes, 2014:262). He claims that "the museums are now sites where visitors exercise their senses, instead of holding them in check" (Howes, 2014:264). The use of the word rehabilitation points to a progression within the museum: A shift within the museum field in line with Lam and Kirshenblatt-Gimblett's view.

2.1.3 Experiencing exhibitions

As described in section **2.0**, Kirshenblatt-Gimblett has stated how museums have evolved into a new information space where the visitor's bodily movement and experience are a new focal point (Kirshenblatt-Gimblett, 2000). Several authors give science museums a pioneering role in this development (Howes, 2014:265;Caulton, 1998:1). Both David Howes and Hilde Hein marks science museums to be – along with children's museums – the first museums to "reverse the hands-off trend" (Howes, 2014:265; Hein 2006:5), as explained in **2.1.2**.

Hilde Hein states that the hands-on trend in these particular museums is largely connected to educational purposes (Hein, 1990:xvii). In the 1960s, these museums managed to "break away from the pattern of depicting the accomplishments and products of science" by "treating objects as instruments used in the teaching and scientific concepts". The science museums collections were now used as source material aimed to generate inquiry rather than purely illustrating established ideas or demonstrated truths (Hein, 2006:5).

Hein marks the exhibitions as the museum's "principal educational device" in her book, *The* Exploratorium: The Museum as Laboratory, in which she gives the story of the participatory museum movement and Frank Oppenheimer's ideas on the role of the museum (Hein, 1990:xv). She expands on the idea of the experience-based exhibition and the museum as information space in a later book entitled, Public Art: Thinking Museums Differently (Hein, 2006). Experience stands out as the focus in the first chapter of Hein's 2006 issue, "The Experiential Museum". Hein writes: "Hardly a museum today can stand entirely aloof from the new experiential paradigm [...] By validating visitor experience, museums underwrite both individualism and pluralism and energize the interactivity of exhibits" (Hein, 2006:10-11). Like Kirshenblatt-Gimblett quoted in the introductory part of the theory (2.0), Hein frames the experience-based museum as a movement. Kirshenblatt-Gimblett hints at this when she composes the idea of the "experience" museum in Destination Culture: Tourism, Museums, and Heritage (Kirshenblatt, 1998). Here, she puts the theatricality of exhibitions in connection to the museums' core aim. She writes: "Exhibitions are fundamentally theatrical, for they are how museums perform the knowledge that they create" (Kirshenblatt-Gimblett, 1998:3). In the next section, I will expand on the idea of the museum as *performative*.

2.1.4 Performative museology

Performative museology is largely a museum movement, a trend within museums and the museological field of study. I will elaborate on why I have chosen to follow this perspective and why the use of scenography in museum exhibitions can be regarded as being in line with this movement.

Susan Bennett moves towards a notion of a *performative* museology in *Theatre & Museums* (2013). She claims that the museums have left the focus on collection and exhibition, and has pedagogics and participation as a new focal point. This change shows how museums are moving towards the theatrical, driven by a new museology that addresses exhibitions as a process rather than a product. She writes about how the increased focus on the audience engagement has led the museums towards practices closer to contemporary performance art (Bennett, 2013:1-9).

In addition to Susan Bennetts prospect, recent studies by Helen Rees Leahy also gives a model for the *performative* as a part of the *new performative museology*. Leahy uses this notion to express a new approach to both exhibition and audience in her introduction to Museum Bodies (Leahy, 2012:2). This points to a shift from "an informing to a performing museology", as suggested by Leahy. In her view the museum is not a collection of objects, as much as it is a place for a social and bodily practice that makes the museum visible to its public (Leahy, 2012:2-3). The institution as *performative actor* is in line with this view taking place through its own exhibition-making processes. On the next level, the performative attributed to the museum is established through the audience's performative action, meaning their movement and interaction throughout the exhibition space. Leahy's Museum Bodies (2012) investigates how exhibitions have implanted, adapted and incorporated "different modalities of looking, walking, hearing and talking from their emergence in the 18th century". Her book provides examples of this by examining the "visual, ambulatory and performative practices" predominantly produced by the institution, through the guidance of curators and managers, or practised visitors (Leahy, 2012:5). Her approach however, applies exclusively to an art museum or art gallery context. Despite this, it gives the potential outline of my own analysis because it emphasizes the sensorial and bodily experience (i.e. not just the visual), the importance of how walking is done in an exhibition and additionally the performing component, with both presenting the audience movement, the exhibition process as a performative action and the scenographical component as a continuity of this performative notion of museology.

Leahy's book emphasizes one specific reading of exhibitions, which she calls the exhibition script (Leahy, 2012:5). The skill or technique of reading the script involves more than knowing how to look, it also involves knowing how to stand, where and how fast to walk, and what to say or not, in addition to what not to touch. Different exhibitions produce different norms of objectbody relations (Leahy, 2012:5), through their design, scenography and display method. The rhythm of walking and looking is also determined by the experience (and age) of the visitors and the expectations connected to the type of museum. In saying this, I would like to put forth a critical view on Leahy's idea of one fixed museum script, and put forward the idea of a more nuanced notion in the frames of this thesis. This is the case because Leahy's museum script limits and underestimates both the visitor's subjective empowerment and the exhibition's outreach, relating to both the problem of "the exhibitionary complex" and the visitor's experience as measurable: Understanding through experiencing a space does not give us one predetermined acquaintance. The measurement of this type of knowledge as proposed by Leahy is beyond reach and practiced implementation of museum research in relation to scenography. Scenographic instrument's purpose is not a fixed measure; instead it is access. What we can measure is the impact scenography has in a research-based exhibition by looking at all the components involved and the methods for creating the experienced space.

In the former section (2.1), I have attempted to present the theoretical background that establishes the role of scenography in a museum setting. I have examined in what sense scenography is particularly important to the 19th century notion of "the exhibitionary complex" - as well as in contemporary exhibition practice - because of the central role of the senses. I have further expanded on this through assessing in what manner the senses have been important to this development, also contributing to the focus on experience in a museum space. I have conclusively argued that the increasing relevance of scenography in contemporary exhibitions can be linked to the movement named *performative museology*. In the next section (2.2), I will touch upon the notion of space and how it contributes to the analysis of the role of scenography in museum exhibition communication. I will discuss the notion of space as a construct, debate the relationship between scenography, design and architecture, establish the mise-en-scène as a notion connected to scenography and lastly present my idea of the scenographic reality construct as an elaboration of the narrative in museum exhibition.

2.2 Space as a construct – relevant concepts within the field of scenography

2.2.1 Understanding space

Space is a term used in connection to architecture as an architectural space that surrounds us, but also as a philosophical term referring to an experience. Natalie Hope O'Donnell, the current curator for the *Munchmuseet on the Move* project in Oslo, is looking for theories of space emerging from an architectural discourse in her doctoral thesis, *Space as Curatorial Practice: The Exhibition as Spatial Construct* (2016). She is quoting the German art historian August Schmarsow, who once said the essence of architectural creation is space, and that space comes into existence through the human body and through one's *Rumgefühl, romfølelse*, or sense of space (Hope O'Donnell, 2016:29-30). In this perspective, space exists dependent on the human body. There has to be a human present to talk about space because it is a projection from within the subject.

In the same way space refers to architecture (Hope O'Donnell, 2016:29), scenography relates to space as the writing, constructing or narration of space (Abramovic et al., 2011:113; Oddey & White, 2006:17; Eeg-Tverbakk & K. Ely, 2015:36). But how do we describe this relationship? There are some terms that are helpful – philosophical concepts that might help us understand the dynamics involved. First, I want to examine the relationship between scenography, design and architecture. Through assessing the similarities and dissimilarities between scenography and the fields of study it is associated with today, its own characteristics would be easier to comprehend.

2.2.2 The relation between scenography, design and architecture

There is no doubt that the fields of design, architecture and scenography are interrelated, even equated in spoken words: used as equals to explain intended spatial creation and construct. Their common occupation is space, form and visuality in buildings, stages, rooms and in public areas. The notions' definitions are diverse, depending on the field of work or study the author belongs to. Therefore, their definitions are also filled with an ideology that is strategically dependent on the affiliation of the author in a given situation. The exhibition designer might think of herself as the same as the exhibition architect or scenographer, and vice versa. In the museum world the exhibition designer and the exhibition architect frequently have the same responsibilities. Neither is a protected title, but instead refers to the professional's background and chosen identity as such, or is simply a result of their official work title specified by the institution. Ultimately, the fields all share an equal concern with the use of space.

Annelise Bothner-By has an interdisciplinary background in the field as an interior architect working in museums. In her doctoral dissertation *Møter i Utstillingsrommet* (Bothner-By, 2015) (English translation: Meetings in the exhibition room), she differentiates between exhibition design and exhibition architecture. The latter refers to working with the exhibition room (or the room within the room), thereby approaching the exhibition elements and the objects as a whole (Bothner-By, 2015:9). On the other hand, the exhibition designer will occupy herself with the room design and the visual communication (the transmission of information and ideas within the space), and engage with both the objects and the written content because they stand in a spatial context. In her opinion, the scenography is then a part of the design, knowing that scenography is about transmitting a message through spatial instruments. She puts the designer in the same position as the scenographer, aiming at creating spatial constructs that convey a story or a feeling through the use of light, volumes, structures, proportions, textures, density, materiality (physical), colour and sound (Bothner-By, 2015:9).

However clear this might be in this perspective, the designer and the architect can engage with instruments that have scenographical components, because scenography is about creating a dialogue with the audience and a dialogue with the inherent narrative or topic of the exhibition. It is both visual communication (in the common use of the word) and "dramaturgical" (Eeg-Tverbakk & K. Ely, 2015:35). Serge von Arx, professor and director of The Norwegian Theatre Academy in Østfold Norway, emphasizes the dramaturgical component. For him it is theatre that turns architecture into scenography through a *dramaturgical monumentum* (Eeg-Tverbakk & K. Ely, 2015:36). In this sense scenography is architecture, but an architecture that embodies the technique of narration, storytelling or dramatic composition. In that way, scenography is also a sub-category of design and architecture since the engagement with space is both visual and bodily *performative*. Scenography is linked to the performance in the meeting-point audience and exhibition, and is therefore only performed when this meeting takes place. Next, I will present a notion often linked to scenography. As with the former presentation of the fields of architecture and design, assessing the relationship – the equality and inequality – between the two notions helps to grasp the performative nature of scenography.

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2.2.3 Scenography and the mise-en-scène

The mise-en-scène is about the intentional orchestration of a scene or spatial affect (Corrigan & White, 2008). The concept of the mise-en-scène has some important equivalents to the features that characterize scenography. Nevertheless, it lacks one component that lets us comprehend the strength of scenographic involvement.

The mise-en-scène is originally an expression used to describe the constructed design aspects of a theatre or film production, meaning "placed in a scene" or "on stage". In film studies, the term refers to everything that appears before the camera and its arrangements, while in a broader context it is the places that surround us in everyday life. The architecture of a city or a public space might be described as a mise-en-scène, and our self-decorated rooms in our home as a personal version of the notion (Corrigan & White, 2008:42). The important thing is that a mise-en-scène is an intended construct, meaning that is a deliberate construction of space aiming at a certain effect or experience. This can be for practical or aesthetic reasons, or simply referring to an institutional norm such as how a courtroom, a lecture hall or a church is normally constructed. These examples all embody or express a certain distribution of power of authority, whereas the church or the cathedral's mise-en-scène also aim to inspire contemplation, humility and reflection, both through the architectural elements of the basilica's cross formation and the transmission of light as an effect of this (Corrigan & White, 2008:43).

The Cambridge Introduction to Scenography explains the mise-en-scène as "the process of realising a theatrical text and the particular aesthetic and conceptual frames that have been adopted as part of that process" (McKinney & Butterworth, 2009:4). This definition differs from the first one because it describes a process rather than a construct. It not only describes the physical elements and their expression in a theatre context, but also embodies the *theatrical text* as an element of the mise-en-scène. Hence, it appears that scenography relates to, and is even equal to, the construct of the mise-en-scène, both in the broader sense described by the sources within film studies and in the frames of the theatre scene. The notion's importance within the frame of this thesis lays in the fact that scenographic concerns **form a part** of the mise-en-scène, but they are not limited to this (McKinney & Butterworth, 2009:4). In *The Cambridge Introduction to Scenography*, McKinney and Butterworth describe the concept of the mise-en-scène as something *synthetic*:

It is a *synthetic* system of options and organizing principles which will be apparent in the performance, but it describes an abstract theoretical concept, rather than what actually happens at the point of performance. Scenography, as shown, is defined in its realisation and performance rather than its intention (i.e. the mise-en-scène). (McKinney & Butterworth, 2009:4)

In the quote it is clear that in spite of scenography having equal concerns, the mise-en-scène lacks the performative aspect embodied in scenography. Whereas the mise-en-scène correlates to the material infrastructure, scenography also takes into account the lived experience of the active subject. Scenography is fully defined when the active performance is taking place, when the body of the visitor is moving through the space.

What is not so clear is *how* scenography relates to the active subject – through the visitor's experience. Nor how scenography relates to the "theatrical text"; an element suggested by McKinney and Butterworth (2009:4), which in the context of the museum has its parallel in the exhibition narrative, though these questions will be fully examined in the analysis (section **5.0**), I will now turn to the same topics in the following section.

2.2.4 Scenography and reality construct – the tension of scenography

Even though scenography can be seen as an art form, one rooted in contemporary theatre in the 19th century (Lam, 2014:3), it does not exist as a practice in itself, driven by its own premises: Scenography exists in relation to something else by using references (Eeg-Tverbakk & K. Ely, 2015:34). I will attempt to examine what is meant by this reference point that scenography relates to, and explain the idea of scenography as a "reality construct" revealing a tension through the use of space.

What does it mean that scenography is relational? Serge von Arx emphasizes how scenography always finds itself in a relation with an audience by using references (Eeg-Tverbakk & K. Ely, 2015:34). These references may be a "text, a piece of music, a movement, or a topic", he points out, and continues: "There is no scenography without a linking anchor, and it is the anchor's position in relation to a referent notion that creates its inherent dialogue" (Eeg-Tverbakk & K. Ely, 2015:34). In any museum exhibition this may be the topic, theme, story or research question that is the basis for the exhibition practice. In cultural history-, ethnographic- or technical museums, this topic is related to the collection or specific objects the museum manages. It may also take form as a research project accumulating into the exhibition format, as it did in the object study of this paper.

Regardless, the scenographer's aim is not to reproduce locations of the linking anchor or point of reference. Playing with the spectator's imagination is a key word, because the scenographer's task is rather to reveal the subtle context of the drama by suggesting something that is not there.

By using the in-between things, the presence and absence of objects, the contrast within materials and their surfaces, size and other variables as light and darkness, the scenographer creates a tension in a space. In saying so, scenography is largely about evoking the visitor's imagination through playing on a felt construct of reality. This is done by hinting towards something that is not necessarily there as physical evidence, but instead materializes itself through the quality of the constructed elements of the display (as we will see materialized in the example of the light columns of the *Grossraum*, presented in section **5.2**).

Regarding the felt construct of reality evoked through the visitor's imagination, Serge von Arx has recently discussed the creation of vibrancy in space through critical thought. He explains this concept as reflecting on the decomposition and re-composition of realities as a feature of scenographic creation in a talk held at the conference, Text & Things in the Museum of Science and Technology in February 2017 (Arx Talk, Text & Things 16.02.2017). Here, he does not point to the physical reality of a space, but to the bodily experience of it as a perceived temporary phenomenon. The experience of temporality is closely linked to scenography's performative nature and main feature as something that exists through time. As previously explained (1.2), scenography's potential lies in activating both the space- and time aspect (Eeg-Tverbakk & K. Ely, 2015:36): a physical reality that the perceiver enters and goes through. How the scenographical elements of a space are organized determine how it is perceived through the body and the senses, ideally intuitively brought forth according to Arx (Talk, Text & Things 16.02.2017). The temporal reality created in the space and time of this movement is then an inbetween of the imagined and the "real". This tension ultimately aimed towards is both a real and constructed reality.

Further investigation of the word *reality* might make the idea of the real versus the reality construct easier to comprehend. Apparently, the understanding of the word is a matter of semantics. In languages such as Norwegian and German there is a difference between "realitet" og "virkelighet" (Realität & Wirchlichkeit), both of which translate into "reality" in English. The former refers to "factual facts" and the latter to "actual facts" (Bille, Bjerregaard, & Sørensen, 2015:37; Bjerregaard, 2014:2). The scenographer will aim towards creating an access to the material on display by enabling a different type of reality/*virkelighet*. This is why the creation of a new or "other" reality (*virkelighet*) is an important factor in the context of an exhibition space. The vibrancy between the felt reality and the real is what creates the tension that scenography encompasses. This reality construct is a form of storytelling that places itself on the side of what

the text and object narrative communicate: Scenography implies the potential of another type of narrative.

In my analysis of the space of *Grossraum*, I will focus on the tension created in the space related to the theme, the textual narrative and scenographical instruments. To find out what role scenography has in communicating the exhibition narrative, I need to assess the tension between these components of the display. My outline for this will be the concepts of the exhibition – the common reference point in the production process and the basis for constructing the experienced reality in the exhibition. The most important of these concepts is the overall analytical concept of "The Politics of Space". This concept goes throughout the exhibition, pointing at both the experience of the space, the policies and the ideology historically attached to it, as well as the method by which the exhibition is created. This analytical concept will therefore mark the outline of my analysis of the space of *Grossraum*. Before presenting the exhibition in detail, I will introduce the methodology I have been using in my research.

3.0 Methodology

Although the *Grossraum* exhibition opened in the Norwegian Museum of Science and Technology in the middle of February 2017, my connection to it goes back to the fall semester of 2016. I had an internship at the museum as part of my master studies, from the 1st of September to the end of November of that year. During these three months, I predominantly worked in the exhibition and collection department of the museum, and was able to follow the end process of the exhibition-making on the *Grossraum* during those months.

I mainly approached the study of the exhibition from a production perspective. I have used a combination of research methods, both during the months of the internship and following the exhibition opening and conference held the same day. These methods include the direct observation of the exhibition and of visitors' visiting paths. I have done participant observation in preparatory meetings and in the exhibition's opening events. These observations were conducted in the context of fieldwork (between September and the end of November 2016), participating in the conference *Text & Things* and the opening of the exhibition February 16 2017, and collecting visitor responses through observations on Sunday the 5th of March.2017, the 23rd of April 2017 and the 7th of May 2017. Furthermore, I have done an examination of the archival material (in the Museum's archives), in addition to photographic material and documentation on the exhibition, which includes blueprints, meeting notes and small-scale models.

Since my research focus has been on trying to understand what role scenography (and the scenographer) have played in the making of the exhibition, and more specifically in the formulation of the exhibition narrative, the key questions of my interview are related to this. I asked the curator and scenographer responsible for the co-production of the space what the museum wants to tell through the scenographical agents in the exhibition – what effects they want to create. In order to put my direct observations of the exhibition space and exhibition the set-up and the insights gathered through interviews into a broader analytical perspective, I also examined visitors' perspectives through these interviews. However, the publics' perspective has a secondary importance in my analysis, since my research primarily questions focus on what impact scenography has on exhibition narratives and what impact the curator and scenographers wanted to produce through scenography, more than understanding the visitors' actual responses to this. Originally I envisioned including the audience's responses into my analysis. Even so, I decided to discard this idea because of the time limit of the thesis, as active observation and

visitor surveys would have required a different theoretical and analytical approach, an extensive presence in the exhibition and considerably more research time.

In terms of ethical considerations, I have endeavoured to conduct discreet, non-intrusive observations of how the public move within the exhibition space of *Grossraum*. These observations are predominantly anonymous and describing group movements, rather than single visitor reactions as such. However, because most of the public responses described in the analysis and the discussion section of this thesis (5.0 and 6.0) were also discussed by the curator and the scenographer (in the conducted interviews), these responses will be presented the way the interviewees interpreted them. They will therefore be an expression of how *some* of the visitors' responded in the *Grossraum* exhibition and not give a general impression of the public's response. This should be taken into account when reading the analysis: The experience of the space differs from viewer to viewer.

4.0 The research object: Grossraum

4.1 The Norwegian Museum of Science and Technology

In line with the argument that science museums have had a pioneering role in the development of the experience museum, being the first museums to "reverse the hands-off trend" and involve the role of senses and experience as explained in **2.1.3** (Howes, 2014:265; Caulton, 1998:1; Hein, 2006:5), it seems fitting that we are looking into the context of a science museum in this project's research topic. The Norwegian Museum of Science and Technology has been part of a similar development at this museum, evolving into a new information space as presented by Kishenblatt-Gimblett (2000, 1998).

I suggest that museums like the Norwegian Museum of Science and Technology have become increasingly aware of the need to redefine their role in society, reaching visitors marked by improving access to their exhibitions so that more people can enjoy them. This might be a necessity in the means to remain a public subsidy and to earn additional revenue (Caulton, 1998:1), but is also meeting the movements in contemporary museums and reviving the status of museum research through the museum method.

The Norwegian Museum of Science and Technology has adapted to these movements over the past few decades by encouraging their visitors to be actively involved in the museum. This is the case both through focusing on interactive, engaging and tactile learning programmes in the science centre department, and being open to involving scenography and innovative design-solutions in their temporary exhibition projects.

One project that combined interactivity, tactile learning and scenography was the exhibition, *TING: Technology & Democracy* from 2015. The *TING* exhibition combined the exploration of historical objects with new technology and the advancement of democratic societies. The exhibition even received an award for the scenographic elements of the display (*Best scenography for a temporary exhibition*). Earlier examples of comprehensive use of scenographical instruments in an exhibition space were shown in the exhibition *Mind Gap* between the 16th of April 2011 and December 2012. This exhibition involved the topic of neuroscience, and was designed by the American artist Robert Wilson, in collaboration with

Read online at: https://www.tekniskmuseum.no/tidligereutstillinger/812-fra-3-april-ting-teknologi-og-demokrati and https://segd.org/ting-technology-democracy

Serge von Arx. The scenographic features of the exhibition aimed at encouraging the use of all senses: The scenography and spatial features were considered in relation to how the visitor would enter and experience the exhibition with their body and mind, thus affecting what they would hear, see, touch and smell (Treimo, 2013:259).

So what is a historical exhibition like *Grossraum* doing in a technical- and science orientated museum, you might ask? It is indeed a research-based exhibition with a historical topic. In addition to revealing new historical information about forced labour during the occupation of Norway (from 1940 to 1945), it is also an exhibition about technology that mainly touches on technologies of transport and building infrastructure like roads and other large construction programmes, all conducted by the national socialist regime. The third topic, a feature throughout the *Grossraum* exhibition, is the focus on space and *about* space, i.e. *The Politics of Space* as presented by the curator Ketil Gjølme Andersen (Andersen, interview 08.03.2017). The prominence of the concept of space in the *Grossraum* narratives explains why the curator decided to work with a scenographer – a "professional" of space-design – in order to set a parallel between space in the exhibition narratives and space in the exhibition rooms. There is a clear resonance between the topic of the exhibition and its narrative on the one hand, and its physical set-up on the other. This makes this particular exhibition unique and an ideal context for a discussion of the role of scenography in exhibition settings.

4.2 The exhibition space of Grossraum – Forced Labour during the Second World War in Norway

Overall theme: Organisation Todt and forced labour during the German occupation of Norway The *Grossraum* exhibition is a result of a collaboration between the Norwegian Museum of Science and Technology, Oslo, and the Norwegian University of Science and Technology (NTNU), Trondheim. Scholars from both institutions were engaged in the research project that culminated in the exhibition, which opened in February 2017. The research project mostly investigated historical documents and photographic sources (never before seen) from Norwegian archives, and discovered an extensive use of forced foreign labourers during the occupation of Norway from 1940 to 1945. Taking the low number of inhabitants into account, Norway was the occupied country that received the largest amount of forced labourers sent to work on German construction sites. While most of these 130,000 men died, their story has only to a small degree become a part of the common history of the Second World War in Norway (*Grossraum* exhibition text).

The Organisation Todt (OT) was established in 1938, and was named after their first leader, the engineer Fritz Todt. They built roads, railroads and other construction projects in Germany and the occupied countries, organizing a labour force of approximately 1.5 million people. They established an office in Norway in 1942 as a semi state-owned organization directly under Hitler. OT, and their large-scale building projects became a tool for Hitler's expansion plans in the Third Reich. "Grossraum" is the name of Hitler's plan – a large "room" to be established in Europe, with Germany at the core. The politics attached to these plans, known as *The Politics of* Space, finds its materialization in "the massive constructions in reinforced concrete" (Grossraum exhibition text). The concept is also present within the exhibition space of Grossraum at the Norwegian Museum of Science and Technology. I will provide a short overview and discussion of the concepts used in each exhibition room as an introduction to the discussion of the overarching analytic concept of *The Politics of Space*. I will ponder the reasons why this concept is highly relevant to the object of research, and link it to the question of scenography's role in the creation of narratives. In the following analysis I will divide the exhibition space into five different sections. Each section of the exhibition is informed by a concept and theme linked to the analytical concept of The Politics of Space:

- 1. The Atlantic Wall: Scale and building politics into a landscape
- 2. Propaganda paraphrasing the Light Cathedral
- 3. Deportation logistics and force
- 4. The Viking Room the bureaucracy and projects of OT in Norway
- 5. Geography Wall and the concrete structure material contrasts

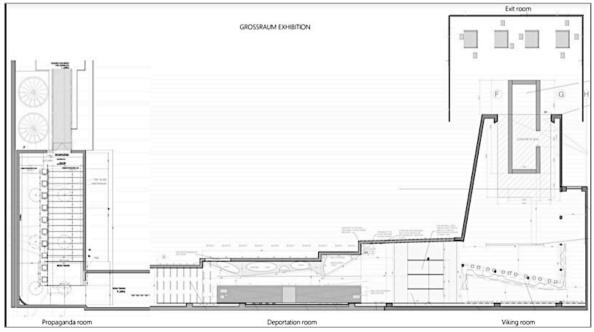


Figure 1: The floor plan of the exhibition space of Grossraum, not included the entrance area of the Atlantic Wall which is made by architect and scenographer Carle Lange (drawing by and with permission from Alejandra Mendez)

Short description of the exhibition, including the concepts of the space

When visitors enter the exhibition from the first floor, they see an art installation with shovels attached to the ceiling. This is an art piece by Eirik Audunson Skaar, made out of some of the many shovels found at Saltfjellet in Northern Norway after the end of the war in 1945 (see Figure 2). This is the prelude of the exhibition.

The entry space has the topic of the Atlantic Wall, which consisted of approximately 15,000 concrete bunkers built to defend the European coastline. The concept behind this room builds from the physical wall itself, and explores the question of how to build politics into a landscape. The next room is presented with the name Propaganda, which also stands as the concept defining the space. This room's theme comes from the technique and architectural projects of Hitler and Organisation Todt. The rise of the Third Reich was to manifest itself through monumental building projects and progressive technology (Fritz Todt's biography is also displayed here). The next part of the exhibition is called *Deportation*. This section is mainly about the transportation of foreign forced labourers and prisoners of war towards Norway, as well as the destiny of selected individuals. The concept attached to this room is force and logistics. The next area of the exhibition has the working title, *The Viking Room*. Here, Organisation Todt's business in Norway is presented. This started in 1942 when OT established a Norwegian department with the name Einsatzgruppe Wiking. The thematic features of the room also include the concept of bureaucracy, i.e. the bureaucracy behind the enormous workforce that OT was in charge of had an important role in how the prisoners were treated. It is also materialized in the documents and archival material of the display. The next corner of the exhibition, placed behind a structure made out of cardboard plates, is called the *Geographical* wall, showing photographs from OT's building projects all over Norway. In the cardboard structure, we find personal stories linked to the prisoner camps established throughout the country. Additionally, a concrete structure marks the ending of the exhibition – including a video showing moving pictures from the railroad known as Nordlandsbanen. The film is marked with a counter tag, displaying a continuously increasing number: It is counting the prisoners who died during the construction of the railroad, number by number. The exhibition's aftermath is displayed among the vehicles, trains and other industrial elements in the large communication hall of the museum. Here, a dark structure with the form of a lamp can be seen hanging from the roof. This is the Fritz Todt staircase, a part of technologic history placed as an intervention among the museum's permanent display (see Figure 3). In the following section, I present and discuss the various concepts and exhibition rooms in greater detail.



Figure 2: 1st floor display including *Forgotten Shovels* (2017) by artist Eirik Adunson Skaar (photo to the left by and with permission from Ingrid Aas, NTM, Right-hand side: photos by author)



Figure 3: The Todt stairs represented in the Communication Hall (photos by author)

5.0 The analysis of the Grossraum exhibition

The names of the different section of the exhibition is connected to the concepts presented by Ketil Gjølme Andersen and Alejandra Mendez in the interview conducted on the 8th of March 2017. The analysis below will be organized through these analytical concepts that, as described by the curator and scenographer, "made the form and content work together" (Andersen, Interview 08.03.2017). Throughout the analysis, supplemented by the interviews, I will give attention to the spaces that I find especially significant for the purpose of answering the research question of the role of scenography in the creation of exhibition narratives.

5.1 Walking through the space: An analysis

1. The Atlantic Wall: Scale and building politics into a landscape

The visitor enters the area of the exhibition starting along a narrow staircase. While climbing the steep see-through metal steps, a roof-high structure of reinforcing bars gives the outline of a wall on the right-hand side. Through these corroded bars a dark landscape surrounding the battery Nero at Nøtterøy is depicted. It is depicted on a poster that covers the right wall of the entrance space (See Figures 1 and 2 below). At the top of the stairs on the left, there are several screens attached to cassette-formed cases presented on the black painted wall. These installations are showing pictures of concrete structures in a coastal landscape at different locations. Already in the entrance part of the exhibition the light is taken down, as something is covering the ceiling and to avoid penetrating daylight, the walls are painted black.

The most significant feature of this room is the floor: It is partially covered by wooden disks that elevate throughout the lower surface of the room (see Figure 5). No higher than a few inches, the visitor is invited to walk on top.. The edges of these wooden plates are mimicking the coast line of Europe, from Biscaya in the south to Kirkenes in the north, where the national socialists with Organisation Todt in charge were building submarine bunkers, coastal forts and artillery batteries during the early 1940s. Fifteen thousand concrete constructions were part of this building project, which had the function of securing the Atlantic coast against possible Allied landings (*Grossraum* exhibition text). The elevation of the floor gives the perceiver a sense of the scale of the projects, as the large numbers and distances are very hard to imagine. Scale is defined as the relationship between the real size of something and the size presented in a model or map, or used to describe the level or size of something large. Here, a sense of scale is felt beneath the feet of the visitor; "physically" walking the coastline.

This is the framing of the room called the *Atlantic Wall*, which also gives the introduction to the exhibition as a whole. As the thematic features of this room suggests, the Nazi regimes' extensive and excessive focus on technology and architecture in relation to ideology is the focal point throughout the exhibition. The intentional use of the wooden structure on the floor, representing a 14,000 km long coastline, is pointing to a question central in the process of creating the exhibition, that is, how to bring scale into the museum exhibition space (Andersen, interview 08.03.2017).

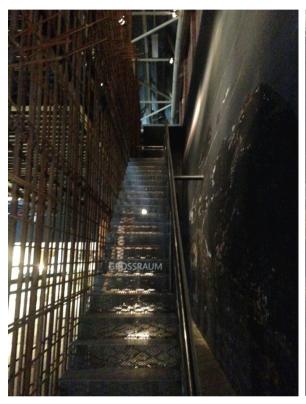




Figure 4: Entrance: up narrow staircase with rebar

Figure 5: Close-up of battery Nero, Nøtterøy



Figure 6: The Atlantic Wall at the entrance area. The wooden plates forming the coastline of Europe is illuminated (all pictures above: photo by author)

2. Propaganda – paraphrasing the Light Cathedral

When the visitor enters the *Propaganda Room* through a narrow corridor, he/she can hear an audio recording of the voice of Albert Speer. He was Hitler's famous architect, who became the leader of Organisation Todt after Fritz Todt' death in 1942. The audio file plays the voice of the architect, concluding with his defence during the Nuremberg process, in which he blamed technology for his actions – he claimed he was "simply seduced" by technology. In the *Propaganda Room* time is turned back to the early years of WW2, and the realities of occupation and forced labour are replaced by a polished representation of the national socialists' construction plans and Organisation Todt. The room is split into two parts with the placement of seven illuminated columns residing in the middle. The curator intended the use of these columns to replicate the idea of Albert Speers "light cathedral" in Nuremberg (see Figure 7). This use of space not only influences what we are able to see in the narrow space, it also has a narrative function, as it thematically divides the exhibition space into two sections.

On the right-hand section we see different portraits of Fritz Todt, and a presentation of his biography. Several of his personal items are displayed on this wall, including a key to Todt's atelier in the medieval castle Plassenburg in Kulmbach, a castle serving as an educational and recreation centre for engineers affiliated with Organisation Todt. Another topic on this wall is the

mass production at the Volkswagen factories and Hitler's highway projects: Die Reichsautobahn (*Grossraum* exhibition text). While this side represented technology as propaganda, the primary purpose of the exhibition section on the right side of the columns is to narrate the role of architecture. Here, we see Hitler's plans for Germania in text, maps and pictures visually framing the display; the model of his plans for Berlin is carved into the wall (see Figures 8 and 9). We also learn that architecture's role in the politics of the national socialist regime was crucial.

At first glance, the show-effect of the display seems to celebrate the role of technology and architecture in Hitler's plans for the Third Reich. The glossiness of the surfaces is almost stretched too far, leaving the visitor with an uncanny feeling of being absorbed into the propaganda of the Nazi regime. In my opinion, this seems to be an intended point construed from the production side. It wants to show *how* the national socialists used seductive instruments to gain control and mislead the people from the reality of what was actually taking place. The scenographic features of the display enable this. Moreover, the material surfaces, the use of bright lights and illuminated pictures and objects, all of these reflect the propaganda efforts thematically described in the display. The curator mentions this felt paradox in the conducted interview; Andersen talks about the general topic of the relationship between technology, ideology and politics. With a reference to what Albert Speer claims in the audio file from Nuremberg at the entrance:

His excuse is that he was seduced by technology. He blames the technology, as saying whatever went wrong in Germany [during the years of war] was caused by modern technology. In this context this might seem strange when he should have taken in the political 'derailment' of National Socialism. In a general context: What happens if the world is mechanized?" (Andersen interview 08.03.2017).

The curator is addressing the question of what would happen if we become completely absorbed in modern technology and its advances. A rendition of this concern is reflected through the use of scenography in the display of the *Propaganda Room*. The felt reality (a reality construct, as presented in the theory section 2.2.4) of this room is the reality of a world where the progress of technology is all that matters – valued before anything else.

In the exhibition text a corresponding propaganda is written out: "The Third Reich was going to manifest itself with large, monumental constructions" (*Grossraum* exhibition text). With Albert Speer as the head architect, the regime planned the reconstruction of cities in Germany and occupied countries. Architecture was "used to politically mobilize the masses" (*Grossraum* exhibition text, NTM). A materialization of this mobilization is found in the scenography as a distortion and deformity of space. In the annually held Nazi congress in Nuremberg, the concept

of the cathedral of light was presented in 1937 as a means of demonstrating architecture's potential for propaganda. It was Speer's idea to surround the central gathering place with strong floodlights, with the exhibition text further stipulating: "When the floodlights were lit and shone against the night sky, the people present would get the sensation of standing inside a huge room with columns of light – a 'cathedral of light'". The seven columns present in the exhibition's Propaganda Room can thus be seen as an illusion and referential nod to Speers' cathedral of light. First off, like the painfully harsh illuminations projected from the floodlights, the columns illuminate the room with an almost uncomfortable intensity to the visitor's eyes. Moreover, they lead to a visual architectural abstraction; where the 7th column ends there is a glass wall, mirroring the dark room and giving the affect of an eternal line of columns beyond the limits of the space. In this way the columns of the *Propaganda Room* are also physically paraphrasing the intentional affect of the "cathedral of light" in Nuremberg, evoking the experience of a "huge room", i.e. the Grossraum. This scenographic solution leaves the perceiver with a feeling of being immersed in the display: The darkness of the narrow space and the tension created by the mirroring of pillars leaves a feeling of being surrounded and engrossed by the spatial instruments.

The viewer is left with a certain amount of confusion, of where to walk and where the space truly ends, i.e. this is a disorientation also caused by the effect of the luminance in the relation between light and dark in the room, in addition to the reflectivity of the polished surfaces of the display. This propaganda effect has its equal in the effect and affect intended by the national socialists when turning to architecture: Darkness was also an important element in connection to this. According to certain sources, Hitler wanted to efficiently spread propaganda through creating effects by gathering people at particular places at night – "when people, allegedly, experience a natural 'weakening of their force of resistance'" (quote by Hitler, taken from Borch, 2014:73). Hitler believed that through creating an architectural setting where people would physically gather and feel the sense of sharing the same sphere where the best conditions for effective propaganda would exist. According to his line of thought, this "mass suggestion" would make "it increasingly attractive to be a part of the spherological community" (Borch, 2014:73).

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⁴ Referring to Sloterdijks' philosophy of spheres: we, as humans, are continuously living, immersed and entangled in forms of artificially designed envelopes or life support systems. It is argued that these spheres constructively narrate our way of being in the immersed surrounding environment (Latour, 2011: 2).

The visitor entering the *Propaganda Room* becomes engulfed by this material and atmospheric tools, not necessarily conscious of their parallel to the instruments of the perpetrator in this setting.

From the analysis of this section, it appears that the use of technology, architecture and small-scale models represented in the *Propaganda Room* are used as illustrations of the national socialists' *Politics of Space*. In the physical space of the exhibition, we are met with the same instruments of orchestration and manipulation of space. The scenographic features – the use of glossy surfaces, bright lights and mirroring light pillars – confuse the visitor's senses and active movement. Where does the reality of the space end? By mimicking the "light cathedral" of Speer, scenographic features produce both a visual illusion and an allusion. They give the impression of being a part of an infinite space that distorts the vision of the perceiver. The scenographic features produce the felt reality (i.e. the reality construct presented in 2.2.4) of the space, leaving the visitor absorbed in the propaganda of the room. Moreover, the alert perceiver would be left with an uncanny feeling, aware that the imagined reality in this space has the same characteristics as the propaganda instruments of the perpetrator. The felt experience in this space might differ from visitor to visitor, largely depending on their critical sense and ability to absorb themselves in the scenographical instruments of the space.

When the perceiver turns left at the next corner of the exhibition space, the lights are even more heavily dimmed throughout the space. An audio file is playing the voice of Hitler. The light source at the end of the dark tunnel-like corridor, a projection of a deportation scene, is leading the visitor into the theme of the next exhibition section.

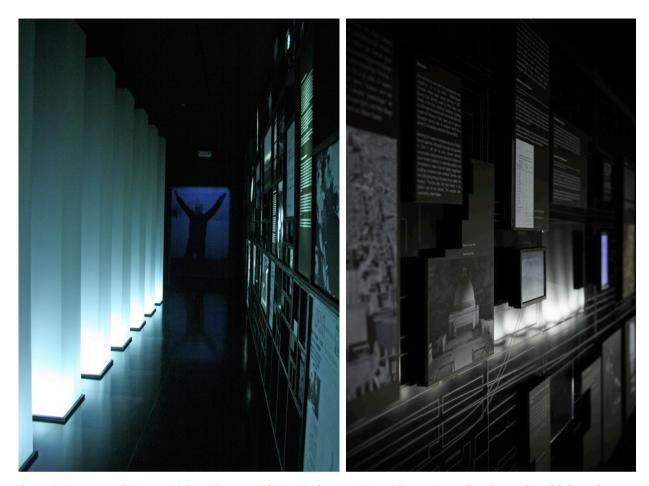


Figure 7: Propaganda Room, Light columns and Fritz Todt exercising video projected at the end wall (photo by author)

Figure 8: Hitler's plans for Germania, wall on the left hand side (photo by and with permission from Ingrid Aas, N



Figure 9: Hitler's plans for Germania, wall on the-left hand side (photo by and with permission from Ingrid Aas, NTM)

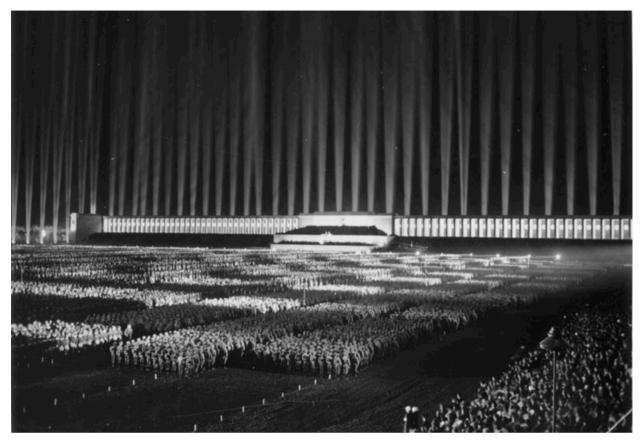


Figure 10: Albert Speer's "light cathedral" in Nuremberg (photo: Private Collection/ Bundesarchiv/ Available on: https://www.tekniskmuseum.no/teknikksompropaganda)

3. Deportation – logistics and force

The deportation part of the exhibition opens with light projections on textiles dividing the corridor. This part of the display focuses on the topic of the transportation of forced labourers and prisoners of war entering Norway from other countries. A video from Operation Barbarossa⁵ is projected from the opposite side of hanging fabrics. It shows a group of war prisoners walking towards us in the corridor. The effect of this scenographic feature is dramatic: the visitor seemingly walks among them, through four square metres of hanging textile of netted material in a forced passage into the next exhibition room (see figure 11-12). According to the scenographer Alejandra Mendez, this element of the display "is very simple, but works straight into the narrative" (Mendez, interview 08.03.2017). Here, the scenography of the display is pushing the movement of the visitor to engage in a spatial installation that mimics the story of deportation.

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⁵ Operation Barbarossa, originally named Operation Fritz during the Second World War, is the name for the invasion of the Soviet Union, launched in June 1941. With the help of a deliberate policy of starvation, they aimed at depopulating large areas in order to make room for Germanic expansion – the nazi Grossraum.

Hereafter, the visitor is presented with a choice⁶; in the next section a glass wall parts the space, offering the visitor with a choice between two alternative paths. Here, the visitor can move through the space on two levels. On the ground level, the viewer will see several objects concealed behind horizontally placed MDF plates (medium density fibreboards), almost like a window blind. As you walk through this level you will have to move around to see the complexity of the object on this wall, as the object appears clearly and in its entirety from some angles but not from others. The display thus offers different degrees of visibility from different viewpoints, encouraging the viewer to step away or bend down. The embedded lines of the MDF plates stress a certain movement through the corridor (see Figure 13). On the visiting path on the other part of the glass wall a ramp is installed in order to make the visitor move up a slope/gradient before entering the next part. On the ramp there are several multimedia posts where visitors can listen to interviews with former prisoners. As the viewer moves their gaze through the glass, he/she will see artefacts associated with the workforce from a distance. On this level they are not hidden in the same way as when walking beside them on the lower level, but the distance when perceived from the mounted glass gives less access to the quality of the artefacts on display. This is an intentional choice of material and display method of the scenographer Mendez. In the conducted interview, she revealed how she intentionally did not want the visitor to have direct access to the objects. Instead, she wanted them to be out of reach (Mendez, interview 08.03.2017). In her own words, Mendez describes it as following the conceptual question of "how much you want to see":

You only see parts and elements of history. It's a small part of the life stories, of technology: you never see it completely. If you are an engineer you know your part, if you are an interactive designer, you know your part. (Mendez, interview 08.03.2017)

The scenographer explains how they aimed at not revealing too much, and this is done in acceptance of the subjective nature of the viewer and the perspective of the storytelling from the research and production side (hermeneutics). "It's only a small part of history, this story is just a very small percentage of what there is to discover", Mendez ads (interview 08.03.2017). It seems that since the depth and complexity of history of the displayed cannot be entirely narrated or visualized, it would be misleading to show the artefacts in great detail as an illustration of the

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⁶ Originally, the organization of space in the Deportation Room was supposed to leave the visitor without a choice, exiting the textiles. This would be more meaningful, or rather have an increased bodily impact, in line with the concept of force and logistics, and interpreting the main exhibition narrative in this room: Nazi Germany was recruiting forced labourers all over Europe. Both the civil workforce and the prisoners were deported from their homes. The journey from departure to destination could last for months and none of the prisoners knew where they would end up or what fate awaited them. To put the audience in a similar situation, through unwillingly ending up on the left or right side of the glass wall, was the aim of the scenographer and the curator.

truth, i.e. they are just a part of the larger story. This is why the artefacts of the MDF display are only partially accessible to the viewer. Her quote also points to one of the characteristics of scenography: Its embodied ability to hint towards or give clues to the nature of a context, event or narrative, without giving away too much information. The scenographic instruments at this particular place in the exhibition, the horizontally mounted MDFs, also point to another aspect of the historic narrative: as a secret part of national history.

The objects installed in the display provide information about the prisoners of war, their route through Europe (Figure 13), their working conditions and occupation. At the same time, the spatial structures both encircling and supporting these objects are giving limited access to them as described in the paragraph above. This relates to the story of forced labourers and prisoners of the Second World War, but does so through the means of showing fragments of their story. Like through the fence of a prisoner camp, the visitor is presented with a piece of history, a piece of history never before told to this extent, a former "secret" story in all respects. At the same time, the viewer is given a choice: To either actively engage with the space, move the body and perspective of sight so that the object of the display becomes clear, or continue in neglect. The story of World War II in Norway is normally told as a story of resistance and not of cooperation or thousands of dead prisoners on Norwegian ground, i.e. building the country. Maybe this story would offend, even potentially go against the collective memory of what the occupation of Norway was like and what it represents? The ability to hint at a certain context as in this example of the MDF wall in the Deportation Room is a strength of scenographic production that could not be formulated through text with the same impact or effect. The narrative presented through spatial construct in this example is an allusion to a secret part of national history.

Regarding the scenographic character of the fibreboards in the *Deportation Room*, these structures also point toward two different spatial features that can be recognized throughout the exhibition. The first element proposed from the production side is leaving the visitor with a choice throughout the space. The second quality is a deliberate intention regarding access. The exhibition is created with the means of being accessible in various ways and degrees to the visitor. In other words, the information given throughout the exhibition is meant to be discovered/understood on different levels. This is translated into the physicality of the rooms, e.g. through the layering of the plates and the lifted level of the channel the visitor is walking across. The experience and understanding of the space differs from person to person, depending on the level of interpretation the viewer places themself in, e.g. in what way he/she wishes to engage

with the space or the text. If the visitor digs into the information given on the displayed text of the exhibition, he/she will get one understanding of the narrative. If the visitor instead engages with the space, not paying that much attention to the text plates, the narrative will unravel in another way. The perceiver will reach another level of understanding through interacting with the spatial clues of the scenography (Mendez, interview 08.03.2017).



Figure 11: Entrance to deportation room with hanging textiles (photo by author)

Figure 12-13: Close-up of the video projected on the textiles (upper right) and the MDF-structure of the

Deportation room (lower right photo) (photo by author)

4. The Viking Room – the bureaucracy and projects of OT in Norway

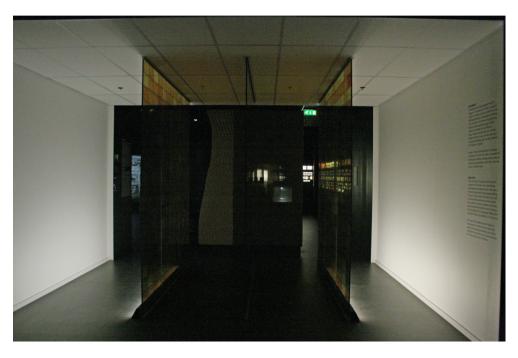
As we enter the Viking Room, the brightness of the exhibition space is turned up. Although somewhat unclear in the photograph, mainly because of the colour and light/brightness tonalities, directly in the centre of the room there stands a large three-plated plexiglass unit. The mounted three plates are closely juxtaposed in a row, with just enough space to allow the visitor to move in-between and alongside. Their upright position from floor to roof, and brightness of the walls, seems intentional for practical reasons so that one can read the documents clearly on the panels (see Figure 14). The room is named after the Einsatzgruppe Wiking, Organisation Todt's

department in Norway from April 1942. The walls of the room are painted white and the document display unit shines similarly to cathedral stained glass windows, emanating colourful nuances of yellow and red (see figure). Inside of these transparent walls are hundreds of documented index cards that show three types of categories of OT workers in Norway. The left glass wall shows Norwegian workers who were forcefully conscripted to Einsatzgruppe Wiking. The opposite wall on the far right includes index cards from German workers who worked for German companies in Norway, while the cards in the middle show the identity of Soviet prisoners of war who were killed while working in Norway. All of them died working with the railroad between Mo i Rana and Korsnes in Nordland County.

The most significant scenographic feature of this room is the bright lights of the display that make the section stand out compared to the rest of the exhibition space, where darkness is usually a key element. Similar to the previous rooms where the constructed spaces are divided into narrow passageways, the three transparent panels of plexiglass divide the room. It continues in line with the two structural channels of the deportation area and the tunnel feel of the preface room. The informal value of the index cards may be the intended reason for the brightness of the installation, as there is an obvious visual contrast. The depicted nature of the index cards on plexiglass is further representing the contrast embedded in this display, which points toward a tension relating to the textual narrative created by the scenography. As described in the earlier paragraphs of the Deportation Room, here the visitor is also invited to make a choice: choosing either to involve themself in the tragic nature of the display, or to simply walk past it and access only the visual aesthetic quality of the colourful display unit. The tension of the scenographic narration of this entire display unit lays in-between the dialogue of the visual and the depicted textual content of the index cards. In this setting the space and the text as narratives therefore amplify each other. The bright tonalities of the display are somehow emotionally overwhelming, whereas the effect of the display is increased by the textual encounter which discloses the tragic narrative of the work labourers.

However, the concept and content of the Viking Room spills out into the next room, including the projects of OT displayed in the Geography Wall and the concrete structure described in the next section 5. Additionally, as seen in the pictures below – including a beautifully photographed image of a typewriter that represents the bureaucratic nature of the Organisation Todt in Norway – a wall filled with narrated information, including long texts and original archive materials, is displayed (see Figure 15). The texts reveal informative documents concerning the language use

of the bureaucracy and the national socialistic mind-set expressed through their excessive industrial machine constructions Scenographic elements are less present here than in the other rooms; as the curator puts it: "The scenography is not helping out the text in this part. It fails to open the text and make it available" (Andersen, interview 08.03.2017). The curator's opinion concerning the dynamics between the scenography and the text on this particular wall is well founded, taking into account the strong spatial instruments recurring in the rest of the exhibition. On the bureaucracy wall, it is the text that is emphasized, creating an imbalance between the narrating components of the display.



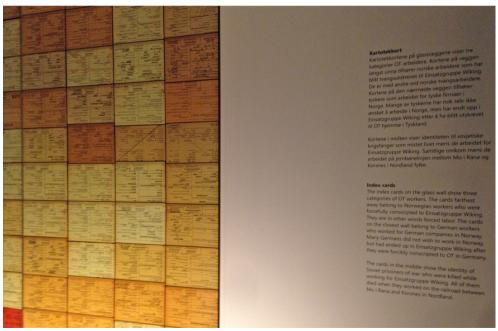


Figure 14: The Viking Room with the three transparent panels and a closer look at the colourful surface of the index cards (photos by author)





Figure 15: The bureaucracy wall of the display, including the typewriter located in the pre face of the thematic section of the Viking Room (photo by and with permission from Ingrid Aas, NTM)

5. The Geography Wall and the concrete structure – material contrasts

A large structure made of cardboard plates meets the visitor when entering the next part of the exhibition (see figure 17). This is the geography section, placing OT's building projects at different locations throughout the country. The wall on the right is a display of small illuminated photographs (see Figure 16).

This part of the exhibition has a cinematic effect through the use of background lightning in the display. It appears as a "memory album", while at the same time giving the impression of an abstract light installation entity that covers the entire corner area behind the cardboard wall.





Figure 16: The photographs displayed on the Geography Wall (photos by author).

The origin and location of the photographs vary, but they are all specified by the location they depict, and can thereby largely be related to the general Norwegian audience. The perceiver will most likely feel a connection to one or several of the different geographical locations depicted. It is notably a collection of beautiful Norwegian landscapes, covered with the patina of aged photography that might affect a sense of national identity and nostalgia. This feeling of nostalgia may be caused by the format of the photographs, displayed as Polaroid's or slides displaced from a family photo album. The aesthetic quality of this "photo wall" has its counterpart to the wall at the other side of the room. The material of the cardboard has an untreated finish (rough) feel to it and the quality of any fragile material. This is connected to the content and the objects placed in this wall. While the pictures – mostly from the archive of- or personal photographs from the Organisation Todt – are the materials collected from the Nazi "occupants", as the cardboard wall on the other hand tells the personal stories of the forced labourers: their crafted objects, interviews about their life in the camps and the artefacts connected to this (see oven below to the right, Figure 16). The contrasts between these facing walls are apparent. Similar to the example of the Viking Room and the Deportation section, the contrast and tension lies in the dialogue between the materials of the display. On the one side, the text narrative of the photo wall aims for an emotional personal response, while on the other represents the photo album of the Organisation Todt in Norway and their perspective as "occupants". Facing the contradiction represented in the narrative yields insight into the choice and range of materials constructed in all the rooms of the exhibition in general. In this example, the fragility of the cardboard against the black surface of the photo installation, noticeably similar to the *Propaganda* display, is an intended juxtaposition aiming at critical reflection. This kind of contradiction and tension among the kinds of materials chosen by the designers of the installation is also present in the next section of the exhibition.

Exiting the cardboard wall (Figure 17, upper left), a concrete structure is placed in the last part of the exhibition space. The "concrete box" is hanging from the ceiling supported by straps.

Underneath it, there is a gap of approximately 1,2 metres (See figure 18). The general visitor will need to bend down to enter it, or walk around it to enter through a small-framed doorway. As mentioned in section 4.2, the inside is showing moving pictures from the railroad Nordlandsbanen. The film is marked with a counter tag, displaying a continuously increasing number. It is counting the prisoners who died during the construction of the railroad, number by number.

In this box another contrast is presented, namely the contrast between the quality and the visual appearance of the material. The quality of the concrete material of the outside structure of the box has the pattern of wooden panels from the casting form it was made in. The inside of it, appears as a rough concrete texture, like the mixed concrete of gabions: It looks like a mix of gravels and tiny rocks. When the perceiver takes a closer look at the reality of the construction, touching the texture of it, the nature of the material is easily revealed. The inside of the "concrete box" is "papered" with carpets (see Figure 18, image to the upper right). The scenographer Alexandra Mendez explains the intentional use of contrasting materials as an instrument of the scenography: "I wanted something fluffy. A very different contrast towards what you have been feeling throughout the whole space, the concrete and so on" (Mendez, interview 08.03.2017). The choice of the material in this example is aiming at an apparent contrast, because it is both unexpected and manifests the inside/outside tension to a larger extent than it does in the rest of the exhibition.

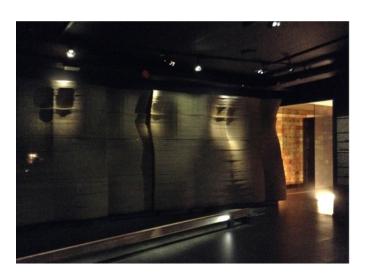








Figure 17: Front and back of the cardboard wall in the Geography Room (photo to the upper right by and with permission from Ingrid Aas, NTM, Other photos by author)

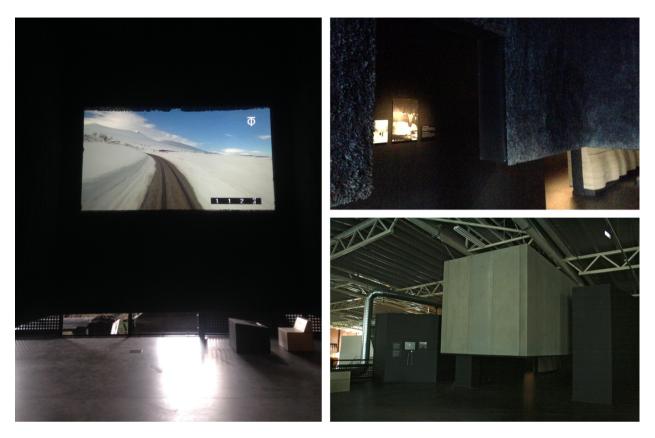


Figure 18: The inside and outside of the "concrete box", including the carpet depicted on the upper right (photos by author)

6.0 Discussion

6.1 Speed – the pace of movement

The tension imbedded in scenographic creation is especially visible in the example of the concrete structure. Nonetheless, an important question arises: Does the lay visitor perceive the tension in this space? When I ask Mendez how the audience reacts to the elements of this space, she explains: "When I see them move around they are overall confused, but I think that is good. What I would like is for them to walk slowly" (Mendez, interview 08.03.2017). The scenographer expands on this by explaining the nature of the mainstream visitor and his/her expectations. The Museum of Science and Technology's approach to visitors is one of playful interaction. Their aim is to attract visitors with family and children, since these visitors will therefore often come with certain expectations of being entertained and not necessarily prepared for a more serious historic exhibition such as the *Grossraum*. As the scenographer explains, the most complicated part is hence the framing of the museum:

They [the visitor] come with a different expectation: body movement, interaction and fast speed. When you enter a museum of archaeology or ethnography you will immediately start to walk differently, slower because you know what it is about. Like in a museum of art you start to speak very quietly because the whole space is telling you to show respect. It is difficult here because it is such a different speed: From the science centre to the communication area, you move very fast. And then here we are trying to do something very different, but the visitor might not be in the mind frame to do that. So it's also learning that you can choose. You *can* move in this space exactly like you are moving in the rest of the museum. (Mendez, interview 08.03.2017)

Here, Mendez discusses the anticipatory factor of the visitor entering the *Grossraum*. They expect speed and fast movement, but are also invited to act upon it. As previously explained, the curator and the scenographer shared a common interest in letting the exhibition be accessible on many different levels. "The research has been an important part of the exhibition because it is new to people and it has to come out", says Mendez (interview 08.03.2017). The result is that the visitor can walk through the exhibition and experience it on two levels: "You can take in all the text, but you can also let the spatial elements move you through the space" (Mendez, interview 08.03.2017), she explains. The reason for this, according to Mendez, is connected to the museum itself, and to the "contract" it stipulates with the visitor when entering the museum. She provides some clarity:

Here [in the exhibition space of Grossraum] is something very different, the story of the people: Representing war, work conditions, very hard stories that people are not emotionally prepared for as you would be if you went to the Holocaust Museum. Then you would be ready in your mind. Here, there is a different contract you make when entering the museum. (Mendez, interview 08.03.2017)

The curator Anderson shares this view. He expands on the former, talking about the result, the movement and audience response. He states:

The result is what we hoped for. It seems like that, according to my body at least – of course all bodies are different – but I hear this from people who respond and have moved through the exhibition. Among others, a German who was attending the opening night, said you can move through the exhibit, there exists an organic flow, you get the story, the narrative, it opens up while you go through the exhibition without having to read so much: You could get access to the exhibition without having to stop and read all the posters, it felt natural that it [the exhibition space] evolved. You can use the exhibition in different levels I have thought. (Andersen, interview 08.03.2017)

This manifests the assumption explained when entering the *Deportation Room*: Both the curator and the scenographer aimed at making the exhibition accessible on different levels. Walking through the space of Grossraum is therefore an invitation to a different experience than in the rest of the Norwegian Museum of Science and Technology. It is an interaction with text, object and space, all contributing to a narration of the *Organisation Todt and Forced Labour in Norway* 1940–45 and the *Politics of Space*, regardless of the pace of the walker.

6.2 The exhibition experienced

As described, there are many recurring effects of the space. For instance, the use of darkness, both dark coloured walls and dimmed light, is a recurring scenographical element from the display of *Grossraum*. Dark spaces have a tendency to make the perceiver more sensorially alert. This is a natural bodily reaction because in a dark room it is harder to see the edges of the room, and to be able to orientate oneself about what comes next, and additionally mind our step, as we will automatically turn up the focus of bodily perceptions: all senses. In this sense, the perceiver will achieve an increased attentiveness and be more mindful in a dark space. The perceiver will tend to be more engaged, alert and receptive to the immediate surrounding; several studies have also demonstrated that "in dark or at dim illumination, individuals experience less social control and need for compliance to social norms because their behaviour is hidden in the dark" (Steidle & Werth, 2013:69).

Vision is also a sense that is obstructed, but at the same time becomes more attentive and focused (and therefore easier to direct) as a consequence of dark spaces. As we all have experienced when entering a dark space, it takes several minutes for our vision to adjust to darkness. In the display of *Grossraum*, the illumination of the display contributes to a vibration and flickering with our vision because the contrast between the bright lights and the darkness of the following space will take the viewer back to the state of adaption of the sight. This intensifies the experience of the dark space, and consequently influences the visitor's behaviour as explained above.

Another recurring affect is the use of narrow space, which is seen throughout the exhibition; entering the *Propaganda Room* through a channel, you slink in between the seven pillars of the *Propaganda Room*, in the preface of the *Deportation*, the three-panelled plexiglass entity of the *Viking Room* and in-between the cardboard of the *Geography Wall*. A constricted movement comes as a result of the use of the narrow spaces and channels distributed throughout the display. In the interview, the curator Andersen talked about some of these concepts and their intentional use in scenography to create the possibility of reading the exhibition through movement and logistics. "Is it at all possible to find a spatial expression of the concepts that we have had in front of us? This issue has been enormously stimulating to the process" (Andersen, interview 08.03.2017). Andersen explains how this ability emphasized by the curator is closely linked to the notion of proprioception: (the ability to sense the position, location, orientation and movement of the body and its part) the concrete effect the space has on the perceiver.

In sum, the recurring use of dark and black spaces, against the brightness of the display, brings the visitor back and forth using vision and engaging through other bodily sensations. This is shown in the described affect of the manipulative aspect of the *Propaganda Room*, which to a large degree is visible throughout the exhibition. The use of darkness and bright lights in combination is seen in both the display's *Viking Room* and the *Geographical Wall*. Throughout, the recurring condition of narrow spaces and constricted movement also affect the perceiver's proprioception. These effects of contrast and orchestrated tension are brought forth by scenographical instruments that to a certain extent also mimic the manipulative characteristics embedded in the concept of The Politics of Space.

6.3 The use of models as an analogue for The Politics of Space

Another significant feature of the *Grossraum* – contributing to the resonance between the topic and narrative of the exhibition on the one hand, and its physical set up on the other – is the use of models. This topic is visible in the text display of the *Propaganda Room*, largely supported by historical sources, e.g. Hitler's excessive use of small-scale models as a tool to visualize spatial and architectural solutions aiming to control the masses (Borch, 2014:73) (see illustration Figure 19). One concrete example is given in the text of the exhibition display, explaining how The German Reich's Commissariat ordered a model of the Trondheim Fjord from Norsk Modellerings Kompani in Oslo. The model, covering eight square metres, was brought to Berlin and displayed in the Hall of Models in the Reich Chancellery, and Hitler, Todt and Speer used it for planning a number of major construction projects as a part of their plan for a new town of Trondheim called Neu Drontheim (*Grossraum* exhibition text). The organization of space in this

section of the exhibition physically echoes the content of the narrative. It also recalls the process of designing the exhibition. Curator Andersen talks about the models created by the scenographer Mendez used in the exhibition-making process as an answer to the concepts they worked out together: "The concrete fact that the use of models has also been a historic topic in the exhibition has been a peculiar element in the process" (Andersen, interview 08.03.2017). The fact that small-scale models were used by both the Nazi architects and strategists, and through the process of making the space of the exhibition, is quite cunning, as curator Andersen points out. He gives the impression that this was not a planned or intentional technique from the production side. It was largely unintended, but ended up being a well-used method in the process that also had its parallel in the exhibition topic. Since models are about winning control over a room, and largely used by architects and scenographers with the same aim, he mentions how in the process of trying to get a hold of the outline of the exhibition space they also experienced being seduced and captivated by the models used: "[To Hitler] it was about achieving control over rooms and spaces, and further apply political directions. To us it has been a magical meeting point/confluence" (Andersen, interview 08.03.2017), he enthusiastically adds (See illustration Figure 19 and 20).

In Andersen's opinion, the models have additionally had a parallel to the concepts they formulated (as I pointed out in my analysis of the various exhibition rooms). He explains: "The concepts have had their counterpart in the physical models that Alejandra [the scenographer] has made. This has made the concepts manageable" (Andersen, Interview 08.03.2017). Figure 20 shows four different angles of Alejandra Mendez's small-scale model of the exhibition space of Grossraum. In addition to this model she made several 1:10 size ratio models of some of the other structures of the space, which included the geography wall room model made from cardboard. In other words, before installing the exhibition room structures in the regular 1:1 ratio, she took the effort to test the quality and effects for each of these rooms through the use of small sized models and their material properties, i.e. their properties of light and shadow, as well as their aesthetic quality such as their reflexive, opaque and transparent nature. In other words, the scenographer did not engage that much with the text, instead focusing on the concepts throughout the process of creating the exhibition space. The curator has discussed the content via the concepts, because this has made it possible to follow the texts from the research. "These concepts have been a tool to make the dynamics between form and content work successfully. They have enabled the curator to follow the text all the way into the spatial expression of the exhibition" (Andersen, interview 08.03.2017).

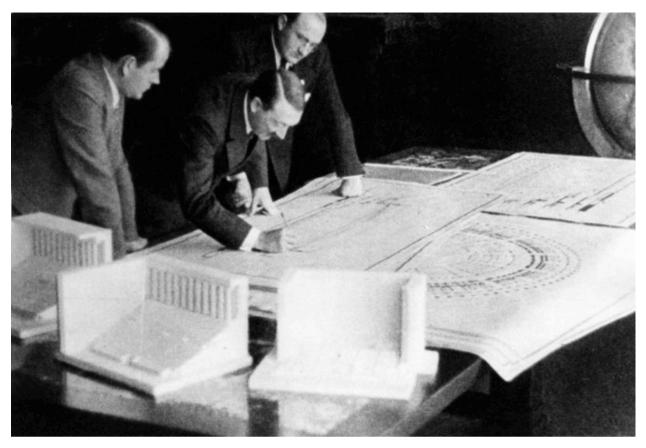


Figure 20: Albert Speer, Adolf Hitler and architect Ruff reviewing the plans for the rallying ground to be built at Nuremberg, circa 1934-1935 (photo: Private Collection /Bundesarchiv. available on:









Figure 20: Four different angles of Alejandra Mendez's small-scale model of the exhibition space of *Grossraum* placed in the communication hall of the museum (photo by and with permission from Alejandra Mendez)

6.4 The narrative of scenography

In the beginning of the thesis, I delineated in the theoretical discussion how scenography is an artistic practice originally linked to theatre stage design, said to be the art of writing a space or stage (Abramovic et al., 2011; Oddey & White, 2006; Eeg-Tverbakk & K. Ely, 2015), both dependent on a physical space and a point of reference. In the context of my analysis, this reference point is the historic narrative unfolding in a research-based exhibition at the Norwegian Museum of Science and Technology. In this section I will expand on the discussion of how scenography encompasses the ability to produce a tension between reality and the felt reality, introduced in 2.2.4. Throughout the exhibition analysis, the use of scenography has shown how this tension created by the construct of space also has the ability to produce narratives.

During my internship at the Norwegian Museum of Science and Technology and the interviews conducted on the 8th of March 2017, scenography was generally described as the visual narrative. Through the process of this research, however, I have become aware that scenography encompasses more than just being a reference to the explicit visual. I want to suggest that referring to scenography as purely the visual narrative of an exhibition is imprecise – because scenography deals with, and affects much more than the visual and visuality. First of all, it affects what we perceive through our bodily movement and the whole range of our senses. Secondly, it refers to more than the visual expression of something; it refers to the entirety of what space encompasses, such as the written, constructed, orchestrated and performed quality of space. As explained in the introduction section 1.3 and the theory section 2.2.4, scenography can be described with its reference point, originally its relationship with the theatrical text of a stage play. In the context of the museum exhibition, this theatrical "text" has its parallel in the exhibition narrative (McKinney & Butterworth, 2009:4). Through the deconstructed notion of text and the definition of *narratology*. I propose a new kind of narrative. As introduced with the words of Roland Barthes (1.3): "Narration is storytelling and the theory of it looks at different levels of meaning and patterns within storytelling technique [...] Narrative is first and foremost a variety of genres, themselves distributed among different substances – as though any material were fit to receive a man's stories" (Barthes, 1977:79). By using Barthes definition of narrative as a range of different genres that can be distributed through a variety of material substances, it is apparent that the idea of a spatial narrative can also be discussed. Throughout the analysis, the material substance thus communicating and distributing this narrative is space, while the storytelling technique, adding to the text and object narratives of the display, is scenographic

creation. Scenography stands for the method used to create the story behind the spatial communicated narrative.

The spatial narrative is then a narrative of scenographic structure; it includes light (the dimming and brightness of light and its relation to darkness), sound and the affective quality of materials themself (the contrast within them, the way they surround us, also as the foundation we walk on). The spatial narrative is in essence a material infrastructure: it consists not only of objects, but also of physical scenographic structures of different kinds of materials. Here then, scenography stands for the link between the written content and the audience in a museum exhibition by being the *spatial narrative* performed through the bodily movement of the visitor.

As stated earlier, in current museology an extensive focus on scenography and the visitor's bodily movement through exhibitions is considered to be an indication of a change in focus, from information-based knowledge to experience-based understanding (Kishenblatt-Gimblett, 2000: 49; Heins, 2006). Space solutions are a complementary part of the narrative, along with text and objects in any exhibition space. It creates a sensory experience of an exhibition, and by creating a tension in relation to the bodily movement of the audience it has its greatest potential (Abramovic et al., 2011). The tension that scenography creates has to do with the friction between the reality and "felt reality" of the perceiver, i.e. the reality construct as presented in the theory section 2.2.4. As discussed, the felt reality of the perceiver is particularly visible in the Propaganda Room, where the visitor is exposed to spatial instruments that confuse the sense of vision through the mirroring of the light pillars of the display. This effect was further increased by the relational tension between the thematic content and the spatial construct of the display. The mirroring light columns were created as a visual allusion to the manipulative instruments of the national socialists. Here, the tension of the felt and constructed reality of the space was created in the in-between of the text narrative and the spatial narrative, physically and thematically imitating the propaganda effect.

Conclusive remarks

Answering the question of how scenography relates to the other elements of the display has been shown throughout the analysis. In my object example of the *Grossraum* exhibition, I have investigated how the spatial-based experience is affected by a heavily text-based research project that is also a part of the narrative encounter in the space. Throughout the analysis, I have considered the question of whether the narrative components of text and space compete or complement each other in the space. As seen throughout the analysis, I suggest that they do not compete, but instead support each other. Both the text and spatial instruments of the *Grossraum* represent the significant narrative that they encompass the ability to produce. As previously explained, the text and space are characterized by the technology and method of narrative production that they each produce. However, the text narrative and the narrative of the space ideally reach a state of equilibrium; the scenography is as much a contributor to the narrative as the objects and texts on display. I believe that, throughout the analysis, I have unfolded how text and space coexist and correlate, largely reaching the state of equilibrium (with the exception of the bureaucracy wall of the *Viking Room*).

Regarding this remark, I want to point back to scenography's inherent quality as relational and dependent on a point of reference. Scenography's ability to construct narratives is largely dependent on other elements of the display. The visitors encounter with the *Grossraum is as much* an encounter with the story of forced labour in Norway during the Second World War, as it is an encounter with the politics of space as a part of a formation of an ideology. It is as much an encounter with space and scenographic intervention as it is an encounter with the felt reality of the ideology and policies of the national socialist regime. And in addition, it is also an encounter with our own body, moving fast or slow through the exhibition space of *Grossraum* in the Norwegian Museum of Science and Technology.

As previously explained, *The Politics of Space* is referring to the overall analytical concept of *Grossraum*. This analytical concept has contributed to the resonance between the topic and narrative of the exhibition on the one hand, and its physical set-up on the other. The concept goes throughout the exhibition, pointing at the experience of the space, the politics historically attached to it **and** the method by which the exhibition is created. Inspired by this concept, I suggest that as a reality construct, "aiming at controlling the masses" through the use of models, bright lights, darkness, narrow spaces and constructed movement, scenography can also be considered as a means for the curators to gain control over the narratives and visitors in an

exhibition. This point brings me back to Margaret Choi Kwan Lam's idea that scenography has contributed to transforming the notion of the exhibitionary complex presented by Tony Bennett (1988). When Lam discusses "the exhibitionary complex", it seems to me that she is talking about these same power structures initially presented by Bennett. The "transformation" of these power structures presented by Lam (2014:viii) would initially point to a change in the scenario, an abandonment of control on the institution's behalf. I draw on Lam (2014) to suggest that the power relation implied in the exhibitionary complex – that is, the power to direct the gaze, movement as social control – has its parallel in the power relation that the use of scenography involves. Scenography *also* has the ability to control, i.e. the power to direct the visitors gaze, affect their movement and the experienced reality of a space. Even though the museum space is no longer intended as a place of social control and behavioural restriction, the performative, participatory and interactivity of the experience-based museum can be viewed as new type of control: a bodily control.

In these conclusive remarks, I therefore want to point to the inherent ethical implications of museum exhibition making. In revisiting the exhibitionary complex I want to call for a new attention on the use of spatial elements affecting the visitors bodily movement in space. I suggest this can indeed be seen as a new type of control. I argue that in the *Grossraum* exhibition, this is physically materialized through the thematic features of the various sections discussed above – and most prominently perhaps in the *Propaganda Room*. Here, the scenographic instruments of the display are mimicking the technique of mobilizing social control. The recurring effects discussed in **6.2** point to the same manipulation and orchestration efforts: the disruption of vision, the use of light and darkness, the constructed movement and the use of narrow space is in a sense a type of social control acted out through the scenographic instruments of the space.

The arguments of this discussion are largely an accumulation of thoughts and observations obtained when critically engaging with the material of the analysis. Through revisiting all the aspects initially enclosed in the concept of *The Politics of Space*, which is ultimately carried out as a method of exhibition creation, the exhibition space of *Grossraum* is acting out a control through *bodily movement*. This also suggests that the skills, perspectives, approaches and sensitivities that are proper to scenography can be fruitfully transferred to curatorial work (as the curator needs to become a little like a scenographer, or at least be able to strictly collaborate with one). This recasts the classic curatorial prerogatives and skills through the perspective of scenography.

In this thesis, I have shown how engaging with space and scenography can be a fruitful analytical approach in museology, and can also contribute to further research. I believe this can be a topic for further museological research at the Museum of Science and Technology in Oslo, given their research-based approach to exhibition and their pioneering exhibition techniques. A great contribution to this research would be to further investigate visitor reactions and their bodily responses in museum exhibitions. Through my study of the *Grossraum* exhibition, I hope to have shown that an analysis of the use of space can bring both museum curators and museum scholars to think differently about scenography, and the types of knowledge communicated to the public through the use of space and the performative and sensory engagement of visitors within the exhibition space.

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Private Collection /Bundesarchiv

Figure 10 available at: https://www.tekniskmuseum.no/teknikksompropaganda

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