THE DEFIANT GARDEN:
The Prison Garden as a Healing Environment in Norwegian Prisons,
Challenges and Opportunities

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PREFACE

A childhood is full of escapism and wonder observing natures’ miracles and processes. Evoking that childlike wonder has always been important for me personally as a Landscape Architect. These processes are like unexpected prizes that follow a project, one can aim to follow and even control them, but most likely, surprises will occur. Such has been the process of writing this thesis as well.

Prisoners are paying their debt to society because of mistakes they have done in the past, but we must not forget that they are still human beings like you and I and deserve their human rights for dignity and wellbeing, even in prisons. Doing something good for these individuals is important for me and should also be for others, as inmates as a minority is often forgotten. This brings me to another important message in this thesis. Bringing attention to this group as well as women in prisons is vital as a society is only as strong as it’s weakest links (Tonry 2004). If you, the reader, should only take one message out of this thesis, it should be to remember those inmates.

I would like to thank my supervisor Shelley Egoz for supporting me through this journey, as sometimes it has felt like a journey in the dark. I would also like to thank Stavanger prison for cooperation and especially Merethe Bauge. Additionally I have been helped by a Landscape Architect Anna Wathne, which I thoroughly appreciated. Thank you also Jostein, Åiti and Astrid for good ideas and support.

8.5.2018

Pirjetta Elisabet Fagerli
Norway is well known for its humanitarian approaches to criminal rehabilitation and has the reputation of being one of the most progressive countries actively working with the modern prison system. Landscape architecture and the prison system are two specific entities that offer many opportunities when put together, but their overlap still remains understudied. The field of landscape architecture offers a platform that brings together environmental theories, health studies and a prison environment. I will discuss if and how landscape architecture may be applied in a prison setting. By identifying barriers and benefits we can improve our understanding of the potential role landscape architecture may have in rehabilitation and individual wellbeing in prisons.

Better linking our understanding of prison conditions and the needs of inmates helps us contemplate the barriers to integrating landscape architecture in prisons. I have had the privilege of working with Stavanger prison women’s section to form a basis for the project section of this thesis. Women in prisons are a minority group and often excluded from studies and less prioritized because of the low numbers that women represent in prisons. Bringing green elements into the prison landscape is important and should be prioritized because of the multiple benefits for the inmates.
“On rounding the end of the cloth-shop, we came into full view of the most wonderful, as well as beautiful, sight I have ever seen in prison – or outside, either, for that matter.

I hardly know how to describe this sight: but picture to yourself, if you can, fourteen hundred men turned loose in a beautiful park. These men who I now see among the beautiful flower-beds, instead of the prison pallor and haunted look which once predominated, I now notice smiling eyes, and the clean look which exhilarating exercise in the pure air always brings to the face.”

– Words written by inmate John E. Murphy (Canada Blackie) after experiencing the garden of Auburn Prison, which was created by inmates (as cited in Jiler 2006, p. 57)
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Norway is well known for its humanitarian approaches to criminal rehabilitation and has the reputation of being one of the most progressive countries actively working with the modern prison system. Landscape architecture and the prison system are two specific entities that offer many opportunities when put together, but their overlap still remains understudied.

The field of landscape architecture offers a platform that brings together environmental theories, health studies and a prison environment. Although this meeting point is understudied and lacks in practical experiments in Norway it offers a range of possibilities for the common incarceration system that has already been applied in other countries. These possibilities include benefits for the rehabilitation process and restorative benefits. In countries like the USA, positive results have emerged when applying ‘green programs’ in prison setting. These results in combination with environmental health theories provide us information on methods that can be applied in a prison setting.

I have had the privilege of working with Stavanger prison women’s section to form a basis for the project section of this thesis. This is why I have specifically also focused on women in prisons although most information discussed is applicable generally to all inmates. Women in prisons are a minority group and often excluded from studies and less prioritized because of the low numbers that women represent in prisons (Smith & Ugelvik 2017). This usually reflects to the outside areas as well, lacking qualities and stimulants. By picking up the already public discussion of women in prisons I hope to shine light on these issues.

The purpose of this thesis is to provide a clearer picture of the possibilities of a rehabilitating garden design in a prison setting. Human relationship to nature is a specialized field in landscape architecture that will be discussed in this thesis and it will later be applied to the design of the Stavanger prison women’s section outside area. I will discuss if and how landscape architecture may be applied in a prison setting. By identifying barriers and benefits we can improve our understanding of the potential role landscape architecture may have in rehabilitation and individual wellbeing in prisons. In order to address this problem statement the following research questions were asked: “To what degree could landscape architecture be beneficial in prison environment?”

“Why is this important?”

“Who are the inmates?”

“Why is nature important?”

“Who am I designing for?”

“Why is this important?”

“Who are the inmates?”

“Why is it to be in prison?”

“How do I make my intentions clear?”

Throughout this thesis, environmental health theories, psychological and physiological theories and landscape architecture concepts are mentioned and intertwined together (Fig. 1.3). According to Tashakkori and Teddle (2003) ‘mixed methods study is often informed by both variance and process theories and the main design issue is sorting out specifically how different parts of the conceptual framework are integrated with one another and how they are linked to the other design components’ (p. 253). Kaplan and Kaplan’s (1989) Attention Restoration Theory is at the center of these theories and has formed a base for other research such as Hartig, Mang and Evan’s practical study about Restorative Effects of Natural Environment Experiences (Hartig et al. 1991; Kaplan & Kaplan 1989) and the base for Carina Tenggart Ivarssons (2011) guidelines for environments supportive of extrovert and introvert attention. Other theories such as Ulrich’s study about the power of naturalistic views from a hospital window and Moore’s study about views in a prison environment, support this base (Ulrich 1984; Moore 1981). Discussion about the right to landscape is also linked to this thesis (Egoz et. al. 2011).

In addition, concepts such as “The lungs of London” and “The defiant garden” form a contextual base for the understanding of the impact that green structures can have to our surroundings. More detailed design theory continues to deepen this understanding such as Appleton’s Prospect and Refuge theory, which also links to Ivarssons (2011) guidelines (Appleton 1975).

Literature review has also included a study from Alnæs (2006) giving an impression of inmates needs. Alnæs’ data supports the information collected from the questionnaires made for this thesis, providing a more coherent picture of the user group.

Theoretical underpinnings

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METHOD

In order to better understand what barriers and benefits there are in implementing these types of projects I chose an empirical research approach for this thesis. Because of the restricted contact with the users and the unfamiliarity of the prison environment, I chose to combine several data collection methods. This is called triangulation which means a combination of methodologies in the study of the same phenomenon (Fig 1.4) (Bowen 2009). The selected data collection methods for this thesis are documentary analysis, questionnaires and interviews.

Document analysis

A “document analysis requires that data be examined and interpreted in order to elicit meaning, gain understanding, and develop empirical knowledge” (Bowen 2009, p. 27). I have chosen this method because it provides information about the user group, state of the prison system and the prison environment, as these areas were not familiar. The reviewed documents are mostly newspaper articles, books, journals, television documents, institutional reports, survey data and public records, which provide context and insight to better understand the users and the prison as an environment (Ibid.).

Although documentary analysis provides understanding and insight, it has its limitations. It is clear that not all sources provide information that sufficiently answer to the research question with detail (Bowen 2009). The author is also free to select documents which can lead to biased selection (Ibid.). Some documents can also be difficult to find and retrieve (Ibid.). For example during the building of this thesis, a biased selection (Ibid.). Some documents can also be difficult to find and retrieve (Ibid.).

Questionnaires

At the beginning, the intention was to use interviews as the main method when interacting with the user group. This became impossible because of the strict rules set for interacting with the inmates, so I chose questionnaires as a replacing method. Questionnaires provide both, qualitative and quantitative information about the site, life in prison, wishes, facts and needs. I chose to find support for the information in a more general context and compared it with a study made for two other prisons in Norway by Øyvind Alnaes because of the low respondent rate for my questionnaire. Although Alnaes’ study provided valuable information about the socio economic group in prison and provided a broader quantitative study, for this thesis, I found it necessary to specifically define questions about the inmate wishes that I could provide to the shallow pool of information about the inmates wishes in terms of outside areas.

There were two types of questionnaires that were sent out to Stavanger prison. The first type was directed to the staff at the prison and the aim was to find out information from an employees point of view. The other type of questionnaire was aimed towards the inmates. The questions in the inmate questionnaire were constructed so that it would be possible to distinguish if the respondent was a male or a female.

All together there were 10 questionnaires that were sent back to me. All respondents answered in Norwegian language. There were two employee respondents, three female inmate respondents and five male inmate respondents. Questionnaires from men’s section were less complete than the questionnaires from women’s section, which were fully complete.

The questions were formed with an effort to avoid leading questions. For example instead of asking: “Do you feel good in nature?”, I asked: “Describe how you feel in nature.” Questions were made to encourage elaboration instead of answering “yes” or “no”. In addition to writing, the inmates had an option to draw images and mark areas on a map.

The questions provided information about such categories as connection to nature, seasons, seclusion, interest in garden work, visitors and general open wishes. By asking these questions I wanted to find out about the experience of surroundings in a prison environment. It was important to find out about the strengths that already exist in the area and the weaknesses and deficiencies. It was also important to find out if the users were interested in participating in a garden project and if there was a wish to meet visitors outside. I chose to include questions about the seasons and nature to find out more about the connection that the users experience towards nature and if they see it as an important factor in their lives. Questions about seclusion gave effective guidelines for the planning process and pinpointed needs and inefficiencies on the area.

Interviews

The third method, interviews was used to inquire information from professionals in the correctional facility, Randaberget highschool and the field of landscape architecture. With this method, I found helpful qualitative information from experts, when my personal load as a student became heavy to bear. The interviews were in a semi-structured format. Constructing questions for an interview can be difficult, when the goal for the interview is to find out about elements in a field that seems distant. This is why the interviews were often semi-structured as I would have a set of questions prepared, but the expert would also elaborate and describe new elements that I would continue to discuss. This way learning was possible.

Summary

The three methods support each other and fill gaps within each other. Although questionnaires provide information from users, a planner needs to understand the whole picture as in how does the prison system of today work and what is the political and social climate of today. This is why documentary analysis is useful as it provides an outsiders point of view and elaborates on how does the media for example portray the prison system and how is the system presented in the public eye. Documentary analysis provides information about the context and helps the researcher to see a clearer and larger picture.

After looking at the case from users’ point of view and the context, an experts’ point of view is necessary to see the limitations and the possibilities better. Interviewing such experts as a prison planner, person responsible for prison education and the release officer, provide a detailed picture and deepen the actual limitations and possibilities. They have the ability to look at the work from a planners’ perspective and might have their own visions and opinions about the thesis project. Additionally, literature review, although not a method, provides academic insight. Academic literature forms an important basis for the theoretical framework and supports chosen theories.

Ethical considerations

Because the prison system in general has very strict rules about the privacy of the inmates and the fact that many prisoners do not wish to be seen, I had to consider my actions and the consequences (Bauge 2017). Especially the womens section at Stavanger prison is small and identification of respondents could lead to difficulties in an already problematic social milieu.
Prison inmates as a focus group are diverse, but still similar. Although people gathered there are from all walks of life, it is notable that they do have more common denominators than for example public park users. Inmates are all incarcerated and subjects to negative side effects that follow the process of incarceration and circumstances that have brought them to this situation, which will be discussed later in this thesis. In this case they are also mostly women. In conclusion this focus group consists of individuals that share certain aspects.

The user group is ever changing in dynamics since duration of ones prison stay varies. This turnover presents challenges for a planner. When interviewing users or when asking for answers to questionnaires, I needed to remember, a person with a specific wish might not be there in three months and will hopefully never come back. This group should rather be consulted as experts in being generally an inmate in Stavanger prison, rather than as an individual with specific individual requests. For example when designing a garden for a family, planning accordingly for the family’s specific requests is essential. When working with a prison, planning for the general needs of a certain group which have certain things in common is important. Instead of planners considering if an inmate should have specific workout equipment, planners should generally confirm if investing in training equipment for all inmates would be beneficial.

Visitors will be also considered as users for the second womens’ yard. Although visitors usage of the space is less frequent, impression of the space is still vital. This is because many of the visitors are children, and the visiting has an impact on the experience, quality and memories.

Another group of users for this space are the employees at the prison. Although this group does not stay at the premises as intensively and are in a totally different position, working conditions have an impact on wellbeing. Michael Tonry describes that “the blighted lives are not only those of prisoners from whom years are taken away but of the prison staff who must live their working lives in depressing, claustrophobic conditions” (2004, p. 5). In addition to affecting the surroundings, a garden can, for a brief moment, level the playing field between an inmate and an employee as Kenneth I. Helphand has seen in a war setting. Helphand describes: “gardens blur the lines between soldier and civilian, between combatant and non-combatant” (Helphand 2015, p. 27). He continues that gardens “celebrate human resilience and their green provides a universal respite to the degradation and waste of war” (Helphand 2015, p. 27).
THE MEANING OF GARDEN

A garden has been described as a fruitful paradise, an oasis for the thirsty, throughout history’s earliest descriptions found from the Bible in form of the Biblical Garden of Eden and Dilmun from the ancient Sumeric culture (Ward Thompson 2010). Gilgamesh described a paradise garden of its own, the hanging gardens of Babylon and so on (Ibid.). The common denominator for these gardens was water to quench one’s thirst, fruit and edible vegetables to satisfy one’s hunger and beautiful scenery to calm the mind and restore wellbeing. These elements also present themselves throughout the progression of salutogenic landscapes in the form of medicinal gardens placed in cloisters, esthetically pleasing flower plantings taken care by monks and the sound of running water in the ancient Asian contemplative gardens. In addition to the ancient prescriptions throughout the history many researchers and individuals have found the nature to have healing and calming benefits. These benefits can also be reaped in a prison setting in order to support the rehabilitation process and wellbeing.

Defiant gardens

“In 1916 a German soldier questioned: “Would you be so kind as to send me some flower seeds? There is nothing very nice to look at about my billet and as I don’t know how long I may be stuck here, I want to grow some flowers. Please send me sweet peas, convolvulus, sunflower, flax, billet and as I don’t know how long I may be stuck here, I want to grow some flowers. Please send me sweet peas, convolvulus, sunflower, flax, mignonette...” (as cited in Helphand 2015, p. 29)

Wellbeing and nature have been closely associated throughout history. Monasteries and more specifically cloisters have historically had enclosed areas for their residents to connect with nature through contemplation. Space is often divided by paths representing symbolically four rivers.

Prison gardens in modern day Norway are good examples of these defiant gardens. The meaning of a garden amplifies through the restrictive circumstances that a prison can provide and the act of gardening is as meaningful as the places created (Helphand 2015). A view of nature is quite different when looking at it from behind the bars knowing it is restricted. From this angle, people living in free society take it for granted. In order for a garden to flourish in a prison, one must go against tight economic circumstances, extreme social conditions and regulations that in worst cases allow for nothing else than impermeable surfaces and sparse forms of life (Watthne 2018). Although these extreme conditions prevail, there is no reason to not make space for the relief that a garden can bring to an individual and that is in many ways considered necessary for adequate living conditions.

Cloisters

“Though a life of retreat offers various joys, none I think will compare with the time one employs in the study of herbs, or in striving to gain some practical knowledge of nature’s domain (Cited by Turner 2005, p. 122)”

Wellbeing and nature have been closely associated throughout history. Monasteries and more specifically cloisters have historically had enclosed areas for their residents to connect with nature through work in the gardens. This was considered an act of devotion and a meditative practice (Winterbottom & Wagenfield 2015, p. 23). Much like in prisons that also have defined and closed areas, cloisters can serve as an inspirational context for the planning process. The enclosed cloister garden gave protection from the elements and provided a space for meditative walking (Ibid.). Much similar to prison, based on the collected questionnaires, there are several wishes for a more varied walking area that connects one more with the natural elements (Ibid.).

Typical elements in these gardens were medicinal and herbal plantings, aesthetically valuable flowers and orchards (Bruun 2007). A well known example of a cloister garden is St. Gall in Switzerland from the year 820 (Figure 2.2) (Ibid.). It was composed of straight passageways that form quadratic sections. In the middle there was a large juniper tree (Ibid.). The tradition of shape and arrangement gives off a structured and clean feeling and works as a contrast to plants unruly nature. A specific Benedictine tradition in European cloisters was self-sufficiency (Ibid.). A goal that is both practical and restorative as it combines garden knowledge and practical work and gives a sense of accomplishment during the time of growth and harvest. It also builds resilience and patience.

In the 13th Century in a Dominican Order, Humbert gave the orders of creating some of the areas into meadows and gardens for the ill (Ward Thompson 2010). This shows recognition of the benefits, both restorative and preventative, that can be enjoyed by the healthy and the poor (Ibid.). This can be tied closely to the prison environment as this specific user group has an average poorer health than the rest of the population in addition to having individuals with good health (Alnaes 2006). One cannot only consider the poor as one would in a hospital or in an elderly facility where people have a common denominator, their age and health (Winterbottom & Wagenfield 2015). Prison has a wide variety of users of all age, social and health groups, although some socio economic groups form a majority. Garden as a meeting place fits all these criteria as it serves people from all walks of life.
Asian gardens

“We are a garden walled around,
Chosen and made peculiar ground;
A little spot enclosed by grace
Out of the world’s wide wilderness.” (Watts 1707-1709)

Asian contemplative gardens are an ancient tradition said to stem from a time of imbalance, chaos and confusion and to bring peace to the minds of the population (Winterbottom & Wagenfield 2015). Saiho-ji in Kyoto, from the year 1339, is one of the oldest existing gardens influenced by Zen philosophy (Ibid.). In juxtaposition to some of the cloisters with rigid unnatural geometrical forms, a Japanese garden aims to reveal the natural process and work with it.

These gardens attain complex symbolism that can be seen in all the elements in the garden. Distinct symbolic elements can be vistas that portray spatial depth, natural processes like the unfolding of spring, natural textures, water elements and especially the movement of water, paths and undulating forms (Winterbottom & Wagenfield 2015). For example a pathway forms a journey around the garden; during this journey one can witness several different vistas that are composed carefully and offer an opportunity for contemplation (Nakagawara 2004). While working with a limited area like the prison yard, the metaphor of a journey and ever changing vistas can be useful to provide more extent and evoke fascination.

Modern health gardens

Like the Saiho-ji and the cloister of St. Gall these ancient gardens can be closely associated with the health gardens of today. Current ideas for health gardens incorporate a salutogenic landscape that can take many forms. Catharine Ward Thompson describes the process in a salutogenic landscape as “means to support healthy behaviors and responses” (2010, p. 188). It can be seen as a healing garden for a hospital, a garden for senses for the blind or the elderly or a public park, functioning as the lungs of a city.

Thompson provides an overview of research on effects of green spaces on mental health, although salutogenic landscapes are designed for people from all walks of life, not only the ones who have fallen ill (2010). Carina Tenngart Ivarsson describes that a growing proportion of ill health is related to a lifestyle entailing chronic physiological stress and an increasingly sedentary life with physical inactivity and more people staying indoors (2011). Focus is in addition to healing and restoration, also in prevention of health problems and support of wellbeing. These benefits could be applied to modern prison yards as well, as restorative benefits are in line with the Norwegian Execution of Sentences Act, section 2: “there must be an offer to undergo a restorative process while the sentence is being served” (Lov om gjennomføring av straff 2001). Creating frames for the support of healthy behaviors and responses supports wellbeing and health sustaining effects.

According to Daniel Winterbottom and Amy Wagenfeld, salutogenic landscape design is intended to foster and maintain good health and resilience. One can find support for this statement from researchers like Ulrich and Kaplan and Kaplan. The relationship between landscape and health is widely discussed and health gardens seem to be at the center of this discussion combining health, environment and nature (Winterbottom & Wagenfield 2015). A natural environment can help to reduce stress and replenish ones attention and support rehabilitation (Kaplan & Kaplan 1989). It is up to the designer to decide how to take these theories in practical use.

Figure 2.3 Illustrated elements from the garden of Saiho-ji.

Figure 2.4 Illustrated elements from the garden of Saiho-ji.

Figure 2.5 A garden can provide a space for healing and restoration.
Salutogenic landscapes can be conceptualized in different ways, but they have practical effects. This chapter studies the connection between environment and health, referring to studies from Roger S. Ulrich, Rachel Kaplan and Stephen Kaplan and Jay Appleton (1975) along with ideas from well known figures like landscape architect Frederick Law Olmsted.

**Attention restoration theory**

Olmsted’s views cohere with Kaplan and Kaplan’s **attention restoration theory**. The theory underlines nature’s importance in itself rather than for an extrinsic reason and lists three benefits that can be experienced in nature (Kaplan & Kaplan 1989). Benefits include: aesthetic natural environments bring satisfaction, support human functioning and support recovery from mental fatigue (Ivarsson 2011). Olmsted states that a natural environment employs the mind without fatigue and yet exercises it (1865). This is partly the core message of the theory.

Stephen Kaplan’s article clarifies the **attention restoration theory** in a following manner. He states that prolonged mental effort can lead to directed attention fatigue (Kaplan 1995). Kaplan refers to how our everyday efforts to understand our busy surroundings create stressful situations, which can leave us tired. Olmsted referred to the surroundings requiring prolonged mental effort as “artificial sights of the city” suggesting that city environment could induce anxiety-like symptoms (as cited in Doherty & Waldheim 2016). Olmsted’s generalizations on city and nature are more closely nuanced and dissected in Kaplan and Kaplan’s theory, which links to the field of environmental psychology.

In a modern evolving world an individual is constantly faced with a dilemma of choosing to focus attention between the important and the interesting (Kaplan 1995). For example choosing between an important income-providing job and an interesting hobby evoking positive feelings, curiosity and satisfaction. Due to this choosing and prolonged effort processes one ends up with negative consequences like weak problem solving skills, difficulty to control ones inhibitions, impaired perception, difficulty with planning and following through and irritability concludes Kaplan (Kaplan 1995). Negative consequences are all results of stress.

**The lungs of London**

“...there is blessing in this gentle breeze, A visitant that while it fans my cheek Doth seem half-conscious of the joy it brings From the green fields, and from yon azure sky” (Wordsworth 1850)

During 18th century England’s fast urbanization, air quality was declining and illnesses such as the cholera epidemic were impacting the populations’ health. As havens of fresh air, parks were increasingly viewed as places of wellbeing. These parks were referred to as “The lungs of London” (Ward Thompson 2010). The view of a park, a naturalistic area, dedicated to movement and leisure was seen as a life generating element during this time of industrial pollution and development. A system of “lungs” spread throughout a city was seen as a means of halting the spread of disease by providing residents with access to clean air. Air cleansing was done by vegetation, but in the dense industrial cities this was primarily confined to parks” (Crompton 2016). This connection between environment and health is one of the larger scale societal realizations and contributed to the base of research in this field.

Parks would be open to the general public and serve as a meeting ground for all types of people from all classes (Ward Thompson 2010). Although a prison yard serves as a meeting ground as well, it is still a specific microworld with a more extreme social and physical environment than a park. This is due to the similarity, in some cases, in social background, restrictions that are set for the common meeting ground and social behavior, together with mental and physical health issues and drug abuse problems. A turnover in a park is much more frequent and varied compared to a prison, although some turnover happens there as well. This makes co-existing, both more difficult, and easier. A special characteristic of a prison is that people that would have never interacted with each other are forced to interact with each other in prison, describes Merethe Bauge, return coordinator of Stavanger prison. She highlights social difficulty for the parties involved. Social interaction between the inmates is much more intense than with individuals in a park as inmates forcibly live together in this restricted microworld.

**Figure 2.6** A green view can make a difference in a prison.

**Figure 2.7** Kaplan and Kaplan (1989) juxtapose artificial sights of the city and nature.
These negative consequences mirrored in behavior make it harder to comprehend surroundings and the social and rational tasks ahead. Kaplan states, inhibition is essential to solve these tasks and focus on dilemmas surrounding us, because delay and reflection is necessary to have control over reactions (Kaplan 1995). The negative consequences limit our ability to delay and reflect, leading to less adaptive behavior and less flexibility, causing performance to suffer (Ibid.).

How can one recover from this? Kaplan explains that involuntary attention or fascination needs to be experienced to let the directed attention rest (Kaplan 1995). He describes soft involuntary attention, attained from nature and hard involuntary attention, experienced in a car race as examples and groups these experiences as central components to a restorative experience (Kaplan 1995). Kaplan also describes that part of the restorative experience is “going away” (Ibid.). In addition to being away the environment needs to offer extent and it needs to be compatible with ones inclinations (Fig. 2.8) (Ibid.).

As far as these prerequisites go ancient salutogenic gardens can be linked to these elements. To create the feeling of extent, a space needs to be created that seems like a getaway. This also creates the feeling of being away. One might propose that an enclosed area surrounded by fences is already a world in itself like a cloister, an enclosed Asian meditative garden or a prison yard. The challenge is how to create an area in a prison yard, which seems like a getaway from the prison scene itself. Another challenge can be the small size of the garden. It is possible, as one does in an Asian garden, to form paths, rooms, views and transitions in order to create the feeling of extent in addition to fascination. A designer can also promote the feeling of compatibility by creating areas that answer to the needs of the users. These needs can be found out for example by proposing questions of inclinations and needs.

A quasi-experimental field study and experiment by Hartig, Mang and Evans shows greater restorative effects arising from experiments in nature (1991). For example when comparing three groups of college students who went either for a nature walk, a walk in an urban settlement or for relaxation, the group that went for a nature walk experienced being away, fascination, coherence/extent and compatibility to a greater degree than the others (Hartig et al. 1991).

In the article Kaplan (1995) concludes: “The proposed integration also makes a contribution to a larger theory of how humans relate to their environment. It points to the significant role that directed attention, a key psychological resource, plays in coping with challenges. In this perspective the role that natural environment play’s is a powerful one. Experience with a natural environment can not only help mitigate stress; it can also prevent it through aiding in the recovery of this essential resource” (p. 180).

Although these environments for involuntary attention do not need to be naturalistic areas exclusively, it is true that soft, naturalistic areas and nature entails interesting and calming elements and these areas are well suited for resting ones directed attention. As nature offers an ever-changing experience in seasons, it acts as the getaway described by Kaplan. Following the natural cycles of birth, growth and death help us understand life. In conclusion, a restorative experience provided by a naturalistic area like a garden can also be beneficial in a prison aiming for rehabilitation.

Prospect-refuge theory

In the book “The Experience of Nature” Jay Appleton (1975) analyzes the relationship between humans and landscape and questions what makes a landscape attractive. In the book the base for prospect-refuge theory stems from the survival instinct (Ibid.). Appleton underlines the human need to both see and hide from predators (Ibid.). He concludes that the arrangement of objects is a key element to the contentment of humans in both natural and artificial environments (Ibid.). Although the theory does not include all the nuances comprised in an aesthetical experience, it clarifies a deeply rooted need humans have for landscape. Prospect and refuge can be seen in various contexts, both the inside and outside environments, materializing in limitless forms.

A life in an extreme prison environment evokes thoughts about survival. Although comparing predators and pray to the social climate in a prison is in most cases an exaggeration, it is reality to some. An inmate from the womens’ prison in Bredtveit, Norway expresses that one of the hardest parts of being in prison is to manage to live with others as it gets draining and tiring (Rønningen 2018). As the outside areas at prisons are flat and without visual barriers, it is hard to experience escapism from the social climate linking to Kapland and Kapland’s theory of a getaway (Kaplan & Kaplan 1989). Preserving good sight lines throughout the prison is vital for safety. However there are creative solutions in the field of landscape architecture that provide a feeling of seclusion still maintaining sightlines. Although these solutions are not usual elements in a prison landscape today, they could and should be.
SUMMARY

Gardens’ importance is underlined with the help of concepts like defiant gardens and health gardens. Potential of a garden, as an arena for a rehabilitation, is introduced. Kaplan and Kaplan’s (1989) attention restoration theory lists fascination, compatibility, feeling of a getaway and extent as the main components for a rehabilitating experience. These aspects can be materialized in a design process in creative ways, the next step is to find out how. Moore (1981) and Ulrich (1984), both underline the importance of naturalistic and green views, which should be provided to promote wellbeing. Additional design theory from Appleton (1975) called prospect and refuge theory addresses the inmates’ needs for secluded space with sightlines to the surrounding areas.
Deprivation of liberty and unintended negative sanctions

"Prisons should be a tour through the circles of hell where inmates should learn only the joys of busting rocks." (Weld, W. F. (1995) as cited in Jiler 2006, p. 79)

What is a prison sentence? First glance into the base and background for the common form for sanction in Norway, deprivation of liberty, brings an overview of the realm of rules and regulations for a prison sentence. Rehabilitation and improvement have for the last 200 years been a part of the liberty deprivation as a punishment, as world and science have progressed towards more optimistic and socialistic views during The Age of Enlightenment in Europe in the 1700's (Engbo & Smith 2012). There are many opinions among the population when it comes to punishment and the severity of the punishment. It is important to clarify; according to the Norwegian law, the punishment should not bring any more negative consequences than necessary and one must try to prevent the harmful effects of incarceration (Mathiesen & Heli 1993). The direct choice of words according to the Norwegian Execution of Sentences Act, section 2 is: “there must be an offer to undergo a restorative process while the sentence is being served. In the case of persons remanded in custody, the Norwegian Correctional Service shall make suitable arrangements for remedying the negative effects of isolation” (Lov om gjennomføring av straff 2001). Prevention and counteraction of the negative side-effects of liberty deprivation is not just important, but essential (Mathiesen & Heli 1993).

Prison sentence is first and foremost a deprivation of liberty in the form of incarceration (Alnæs 2006). Although this is the norm it also brings other negative consequences such as:

- loss of income
- reduced family relations
- deprivation of right to be politically active
- institutionalization
- stigmatization
- social isolation
- marginalization
- incapacitation
- inactivation
- passivization
- reduced competence
- loss of items
- loss of services and experience
- loss of social relations
- disorientation
- social catastrophe
- anxiety
- depression
- frustration
- sorrow
- loss of sexuality and love
- forced social relations
- loss of security
- inability to make decisions about ones life
- poverty
- cultural poverty
- a life in a too narrow and cultureless arena
- limitation of regular life
- physical limitations
- psychological and social deprivation
- creativity deprivation
- ethical deprivation
- it creates a mortification process, which threatens ones personal integrity


Moore (1981) argues that in addition to these consequences an inmate experiences also loss of privacy and loss of identity through the institutionalization process and enumerates visual, spatial and acoustic losses. This is inevitable in a restricted prison environment where hard surfaces rule and produce echo as the countless doors are shut behind inmates and an occasional burst of emotion can be heard by most. Every outing is arranged together with several other inmates and the outdoor space is limited, lacking in visual barriers and covered with asphalt and concrete. Moore’s research links to Appleton’s Prospect-refuge theory as he also highlights the importance of being able to both see and hide as a primal survival need (Appleton 1975). He describes that the loss of privacy and territory in such extreme environment as a crowded prison will lead to development of methods and behaviors to cope as best as they can (Ibid.). This is why prisons should provide visual and acoustical privacy while providing security (Ibid.).

One of these losses and negative sanctions includes the loss of nature, landscape and the stress reducing factors that nature brings. Egoz, Makhzoumi and Pungetti (2011) claim that landscape is a human right and is essential part of us when defining our origin and for our sense of belonging. "Landscape is at once roots and regeneration, past and future” (Egoz et al. 2011, p. 178-179). Although an inmate is deprived of his or her liberty to choose many things such as their location, there is no reason to deprive a person of nature. Let alone landscape which “is who we are and what shapes our identity” (Ibid., p. 12). After all, inmates are both politically powerless and marginalized individuals finding themselves at the heart of the discussion about the right to landscape. Someone might argue that deprivation of liberty includes deprivation of land as inmates are purposefully removed from their inhabited property. However, this is not the case as landscape is not the equivalent of property or land (Ibid.).

These unintended negative sanctions will complicate the release process aiming to rehabilitate inmates (Alnæs 2006). An inmate needs to be able to function as a regular citizen in the society after their prison sentence and in order for this to happen, all the above mentioned negative effects must be counteracted, mended or healed (Ibid.). This entails that one must also provide prison conditions that counteract negative effects of imprisonment and at the same time provide competence to tackle everyday life in prison (Ibid.).

In the light of these insightful facts, creating a rehabilitative environment in the prison area makes a positive effect and counteracts negative consequences brought upon a person while being incarcerated. A garden is for example a place of learning and thus counteracts loss of competence and inactivity. Stavanger gardening program, described later in the thesis, aims to teach inmates practical skills securing many future opportunities. Stavanger gardening program, described later in the thesis, aims to teach inmates practical skills securing many future opportunities. Inmates are both politically powerless and marginalized individuals finding themselves at the heart of the discussion about the right to landscape. Someone might argue that deprivation of liberty includes deprivation of land as inmates are purposefully removed from their inhabited property. However, this is not the case as landscape is not the equivalent of property or land (Ibid.).

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INTRODUCTION

LITERATURE

In the prison island of Bastøy in Norway, although Bastøy is a low security penitentiary where inmates roam free in a natural environment. Without further speculation, important for this thesis is to recognize the regulations as debatable barriers for the design process, but they won't be discussed further in more detail.

Prison – the experience

“...the blighted lives are not only those of prisoners from whom years are taken away but of the prison staff who must live their working lives in depressing, claustrophobic conditions” (Tonry 2004, p. 5).

In this part of the thesis I compare the results of Øyvind Alnæs’s extensive study in his master thesis: “Fengsel – forbrytelseskolle rehabiliteringsanstalt, Slik de insatte opplever det” to the answers gained from the prisoners in Stavanger prison. Alnæs’s study was done in cooperation with Ringerike prison and Berg prison in Norway. The comparison is done in order to provide a wider insight into the needs and day life of a prisoner. This is necessary in order to understand the dynamics and needs for the outside area.

In Alnæs’s study a prisoner describes that he has become: “veldig rutine menneske”, a very routine person in addition to being “folkesky og innesluttet”, shy of people and enclosed (Alnæs 2006, p. 98). This is one of the negative consequences of incarceration. Some inmates in Stavanger prison experience the routines as helpful to get through the day. It becomes easier to be in a prison when you cannot have contact with the outside world. Hedda (name changed) from Stavanger prison described that she likes to see nature as the seasons change and nature is in constant movement although she herself is stagnant. It seems like although some wish to not to be in contact with the outside world, nature is still seen in a positive context. This correlates with the research about the restorative qualities of nature by Kaplan and Kaplan.

The inmates in Ringerike prison wish for more cultural arrangements and other offers that are something else than “just sports” as they describe it (Alnæs 2006, p. 101). Cultural capital is gained through family, school, education and participation in the cultural community life (Alnæs 2006). An inmate has generally little cultural capital because of potentially having a difficult childhood, little schooling and little education (ibid.). Inmates have even less possibilities in gaining more cultural capital in the prison environment, which often lacks in cultural arrangements and space for these activities (ibid.). Section 21 regarding leisure activities states: “The Norwegian Correctional Service shall arrange for inmates to be given facilities to take part in leisure activities, including opportunities for physical and cultural activities.” (Lov om gjennomføring av straff 2001). Requiring access to physical activity often reflects in the outlying areas of Norwegian prisons. For example, we often see that outdoor areas facilitate ball games. Cultural experiences are considered so important that they are mentioned in Law right next to physical activities. A garden should as well be an arena for cultural experiences.

Based on the Øyvind Alnæs’s study, most of the inmates in Berg and Ringerike prison felt that activity and especially a duty to be involved in an activity makes it easier to live in prison (Alnæs 2006). A duty to be involved in an activity means that an inmate needs to be involved in a program or some kind of activity during their time in prison and this is set in Norwegian law (Lov om gjennomføring av straff 2001). Also in Stavanger prison almost every one of the inmates that chose to answer to my questionnaire showed interest in participating in garden work. “I would like to do that, a possibility to be outside instead of in the cell”, answered Anna when asked in the questionnaire if she would be interested in garden work.

Interest in activities and especially garden work indicates that there is a good possibility to engage inmates to participate in the upkeep of the women’s yard. There is also the additional incentive that the one who is chosen to participate in janitorial duties gets to spend additional amounts of time outside by themselves. There is a specific group that is responsible for the outside works in Stavanger prison and it is a job that needs trust (Bauge 2017). “Many of the inmates like to be in this group. It is a privilege. Many inmates also enjoy taking care of something that is alive like plants or animals” (Ibid.). Since the group responsible for maintenance of the outside areas is quite small, one might suggest forming a larger program where more inmates could take part in the work and also learn in the process.

Women in prison

During the past years, there has been public discussion about Stavanger prison and the women’s section as the facilities for women have been experienced as insufficient (Thime 2015). According to Merethe Bauge, the insufficient size of the women’s yard has been taken up with the discrimination board, but the case has been rejected. Emilie Hulthtn describes women in prison as “maybe the most little talked about minority in Norway” (Hulthtn 2018). Women generally in prison are a minority group, leading in some cases to discrimination (European Prison Rules 2006). As a minority group, women are sometimes excluded from statistical surveys, leaving a defective impression (Smith & Ugelvik 2017). There is also a difference globally on the level of crime one has conducted, as the majority of women are incarcerated because of non-violent crimes or crimes related to property or drugs (Bergh et al. 2014). Women are often mothers and can be in a situation where they are primary or sole caregivers for their children and this is one of the biggest differences between male and female prisoners (Bergh et al. 2014).

The mentioned regulations can be seen as barriers for the design. However these regulations are there because of health and safety should mostly be respected. One might raise a question if all of the regulations are up to the development of the modern world. Technology has taken strides during recent years and solutions such as sensors, digital surveillance or warning lights could become equipment used in prisons, instead of depriving natural elements like plants. Many prisons have found a way to work with the regulations such as prisons in the United States, where rules are partly much stricter than the regulations in Norway, and have extensive gardening programs where inmates build and design gardens themselves. The system revolves around trust, just like the system in the prison island of Bastøy in Norway, although Bastøy is a low security penitentiary where inmates roam free in a natural environment. Without further speculation, important for this thesis is to recognize the regulations as debatable barriers for the design process, but they won't be discussed further in more detail.

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Michael Jacobson (2006), president of Vera Institute of Justice, explains that it is not uncommon to see both, a mother and her daughter, in the women’s jail (as cited in Jiler 2006).

Women have often more problems with mental and physical health than men and the problems are more complex (Bergh et al. 2014). For example globally there is a high number of post-traumatic stress disorders among women, women have a greater risk of having sexually transmitted diseases as they enter prison and there is thrice as many women as men reporting that they have experienced sexual or physical violence (ibid.).

A divide is present in Stavanger prison as there is room for 71 inmates and around 17 of them are women. This mirrors to the use of space, as the outside area for women’s section are smaller than the men’s area. Although space for women might be proportional to the size of the women’s section, it does not have the same qualities of the men’s area. There is for example more extent and room to walk and jog in a men’s area, space for badminton and football, grown trees, terrain variations and a game of chess. Although the men’s area has more opportunities for activity, there are also qualities like a fish pond, on the women’s area that lack in the men’s area.

Because of this divide, Stavanger prison has made some measures at the women’s section. A gardening program has been planned especially for female inmates. Commentary on the European Prison Rules states, “women prisoners often have lower social and educational levels than their male counterparts, prisons, prison regimes and prison rehabilitation and education programs often do not address the specific needs of women” (European Prison Rules 2006). These so called women’s needs can be for example pregnancy combined with substance abuse problems and motherhood as women are often the primary or sole caregivers for children, specific needs in the outside area can be for example a meeting place for a mother and child. Children are especially recepitible for outside influences like vocal harassment or visual unpleasanties, leaving a small incident to the memory of a child, for a lifetime. This is why, for the women’s yard to function as a meeting area between a parent and a child, it should be carefully designed.

Globally, women’s prisons, compared to mens’ prisons, provide less access to educational or vocational training, drug and alcohol dependency programs and work programs (Bastick & Townhead 2008). According to Bastick and Townhead, female inmates are often offered activities stereotyped as “appropriate” for women such as knitting or handicrafts, whilst male juveniles are offered training of a more vocational nature (2008). This is also the case in Norway. A program that aims to teach and give proper work experience is essential for future life outside of prison. There have been cases when women have been offered for example a knitting program in the prison (Hulthin 2018). This does not offer similar competence as a welding program or woodwork workshops. According to Jorunn A. Rettredal, a gardening program has been especially constructed for women at Stavanger prison in addition to other courses (2018). The program provides both, educational and vocational training for the inmates.

A garden is suitable for the women’s area as it can relieve stress, support rehabilitation and serve as a meeting place for a mother and her child. Because of the high number of health problems it is suitable that the surrounding areas respond to this situation and give frames and encourage the process of rehabilitation. In regards to women especially, a garden can serve as an arena for education and vocational training. A garden also functions as a room to create and participate.

An unexpected meeting place  

“Being a child with an incarcerated parent—the mother, is the worst experience possible. Usually, the parent that is not around is the father (and it is by choice); but my mother was not there by force. She was taken away from her parents, brothers, sister, aunts, uncles, and many friends... worst of all, she was taken away from me!” (Henderson 1999)

Currently the visiting area consists of a small room with a view onto the garbage disposal. Children are sensitive to their surroundings and therefore an appropriate visiting area should be provided for the parent and child. In most circumstances inmates have the right to receive guests (Lov om gjennomføring av straff 2001). Section 31, paragraph 7 states “Visits should be carried out in a room designed for this purpose. The prison shall arrange for visits by children to be carried out in a considerate manner” (Lov om gjennomføring av straff 2001). In addition to the visiting rooms, children can be received in the gym. Prisons should provide appropriate games and toys that stimulate contact between the inmate and their child (Engbo & Smith 2012). However the quality of these stimulants varies tremendously. While some prisons might have only a box with few toys, other prisons have developed small visiting areas outside with some playground equipment (Pedersen 2015).

In order to stimulate contact in a more familiar and more nature like environment, an area has been preserved on the project site for receiving and interacting with visitors. In this area, the rehabilitative effect of the environment can facilitate the connection between a child and a parent. There is a large contrast between an outside environment and a small meeting room. Anna (name changed) from Stavanger prison described: “I would like that [a meeting area outside]. Instead of being behind a locked door. Then we could have sat outside and talked and walked a little – I could be myself.”

It is well documented that being incarcerated can be harmful for inmates health (Alnæs 2006). Inmates as a group have more health problems than the rest of the population when it comes to psychological health, states Alnæs (2006). In some cases the mental health might improve because of daily meals and lessened access to drugs (ibid.). Research done in 2004 concluded, 60% of the inmates had drug abuse problems and the addiction brought other problems such as physical and psychological difficulties, poverty and a lessening in family ties (ibid.). There is also correlation between the degree of one’s isolation and physical health (Alnæs 2006). Generally inmates have more psychological health problems than the rest of the population (ibid.). However it is difficult to determine if inmates’ health decline is due to conditions before the incarceration or because of the conditions during the incarceration (ibid.).

Missing a close person is painful for the most of the inmates and many have experienced a decline in both physical and mental health because of this (Alnæs 2006). Friestad and Skog Hansen show that there are thrice as many anxiety related problems among the inmates as a group than among the rest of the population. They also point out that there are double as many inmates who are depressed than among the rest of the population (ibid.). Because of inmates increased health problems providing good healthcare is of great importance. However many professionals underline the large variation in healthcare among prisons pin pointing low effectiveness and high economical costs (Pedersen 2015). Restorative garden could play a role as a cost effective addition in the health arena.

Supporting better health is also the central goal for the site design. An inmate from Stavanger prison described: “I love to take care of flowers and grow my own food. As said, nature and outside life gives me energy and positive refil. It works against depressing thoughts. And the time flies when one has something positive to do.” Merethe Bauge (2017) from Stavanger prison explains that if you get the inmates to do something with their time and engage, it is already having an effect on them and helping them. These individual thoughts are in correlation with the attention restoration theory describing the involuntary attention and fascination as the key to recovery and stress mitigation (Kaplan 1995).
**Prison Horticulture and its benefits**

“The garden helps me believe in a better future.”
– Female inmate (Rutt 2015, p. 49)

Horticultural therapy is used widely in various contexts, including the prison environment. Carina Tengtarr Ivarsson summarizes the idea behind horticultural therapy stemming from an observation that humans are active beings and enjoy performing meaningful activities, gaining energy to exert themselves (2011). She continues that this energy can then be used for meaningful tasks, bringing a sense of reward that often is associated with gardening, as growth, blossoms and fruits are concrete rewards (Ibid.). Ivarsson (2011) presents; the rewarding feeling stems from four values of horticulture, supporting both, wellbeing and quality of life:

1. “Physical dependency on plants” (p. 32) as they are the base of existence
2. “Aesthetic pleasure” (p.32) leading to beneficial psychological and physiological responses
3. “Nurturing and caring for plants” (p.32) brings understanding of the cycles of life and is a deeply rooted need
4. “Social interaction: Working together in a safe environment can help to overcome feelings of helplessness and give a feeling of control” (Ivarsson 2011, p. 32)

Steven Davies, former president of the American Horticultural Therapy Association, defines, horticultural therapy as “the use of plants and gardening activities as a vehicle in professionally conducted programs in therapy and rehabilitation” (Hewson, 1994, p. 1 as cited in Ivarsson 2011). Garden is an optimal, rehabilitation supporting, environment for horticultural activities and therapy. Ivarsson states: “The plant world is universal and non-threatening, and allows gentle relationships to form with others.” (2011, p. 32)

Garden Project at the San Francisco County Jail takes gardens to use. Therapists use cycles of nature and plant growth to emphasize natural and controlled processes of personal growth (Jiler 2006). They use such metaphors as compost reflecting life’s mistakes, suggesting that one can redirect ones path in life by learning, weeding as an exercise to remove negative thoughts and behaviors and watering as symbolism to maintain productive life (Ibid.). Horticultural therapy depends on the healing effects of garden activities (Ivarsson 2011). According to Deborah Rutt, in addition to therapy, a garden showcases cyclical and multi-stage, natural processes, instilling feelings of hope, pride and responsibility in the participants (2015).

A study from Migura, Whittlesey and Zajicek done in a Federal Prison Camp in Bryan, Texas in the USA examines the “Effects of a Vocational Horticulture Program on the Self-development of Female Inmates” (1997). Results suggest increase in self-esteem and global life satisfaction score after participating in a Master Gardener program (Ibid.). An increase in situation specific internal-external locus of control and global life satisfaction was also detected for substance abusers, while participating in the Master Gardener program (Ibid.). In conclusion Migura, Whittlesey and Zajicek state that skill provision alone does not provide the necessary learning experiences about growth in values, beliefs and attitudes needed to function in free society (Ibid.). A garden program and space can teach, grow and support these values.

Horticulture links closely to sustainability. Coffee Creek Correctional Facility for women, near Portland, Oregon in America, rooms a functioning organic garden driven by inmates (Fig. 2.11) (Rutt 2015). There women inmates grow over 2000 kilograms of organic eatable greenery every year (Fig. 2.119 (Ibid.). Organic gardening in prisons has spread nationally and the movement has manifested in the Sustainability in Prisons Project after finding out that in Washington state Department of Corrections only, saved 3.5 million American dollars through sustainability initiatives from 2005 to 2010 (Rutt 2015). In addition to economic benefits, the program brings joy for inmates. One of inmates at Coffee Creek states: “The garden gives me a sense of pride, a place to work through anxiety and frustration in a positive manner” and another one describes: “The garden gives us more knowledge, respect and appreciation for all the living and growing things out in the world ” (Rutt 2015, p. 49).

Garden projects are well tested in American prisons. According to a comparative study between a traditional prison and a prison with a green program by Sander van der Linden, prisons with green programs had 10% lower amount of re-convicted prisoners (2015). Some prisons in Norway already cooperate with plant nurseries like Stavanger prison. Although focus in some of the projects is purely in the practical gardening work as a process, many projects have also taken note of the healing garden space as a whole, like the Garden in Rikers Island, New York. Generally working with plants has many benefits, but a salutogenic space provides, not only working opportunities with natural elements, but an arena for several activities and a healthy space, even if a user is just taking a stroll in the garden and not working. The value in the space itself should be noticed by more professionals, inside the prison system in Norway.
Rikers Island

"Perhaps more importantly, many have found that it wasn’t just the flowers and plants that they were so carefully helping to stay healthy and grow. It was, of course, themselves." (Michael Jacobson as cited in Jiler 2006, p. 12)

Rikers Island is located close to New York in the United States and houses one of the largest prison complexes and all together 20 000 inmates from different security sections (Jiler 2006). The whole area is approximately 415 acres and two of these acres include a garden where a green program is taking place (Ibid.). The garden has a greenhouse and an attached classroom where one can learn plant science, ecology, horticulture skills, gardening construction and design (Ibid.). The prisoners at Rikers’ are usually there for a short amount of time, for example less than six months (Ibid.). Anthony R. Smith, president of Horticultural Society of New York, describes a green prison program in the book Doing Time in the Garden as a program that combines classroom and hands-on gardening with life lessons about teamwork, responsibility and nurturing. He also explains that the program remarkably reduces recidivism (Ibid.).

The philosophy behind the garden program aims to explore the potential of each individual and individuals struggle to change, growth and self-realization (Jiler 2006). This is also a tool when working with the ever changing dynamics in prison and the assemblage of people, as well as an arena for individuals to work through their own process of rehabilitation and regeneration, that appeals to many.

Michael Jacobson, president of Vera Institute of Justice, describes that inmates who participated in the program had wonderful experiences and many of the inmates supported themselves with skills learned from the program (Jiler 2006, p. 11). The same effect is the goal for the gardening class at Stavanger prison. Although the class is not as substantial as the gardening program at Rikers’, it provides a start to build on.

The garden project in Rikers Island is especially interesting because of the way that the inmates can construct the garden themselves and leave their mark, creating a sense of accomplishment and control through shared responsibilities (Fig. 2.14) (Jiler 2006). This sense of accomplishment generates new goals and productive efforts (Ibid.). Cultivating gardens is cultivating resilience. This is inspirational and something to consider in the planning process.
The prison island of Bastøy in Norway

“Treat people like dirt, and they will be dirt. Treat them like human beings, and they will act like human beings” (Dreisinger 2016, p. 1).

Bastøy prison for men, commonly known as Prison Island in English is the largest low security prison in Norway. Located in the Oslofjord the prison is, in many ways exceptional, not because it is an island, but because of the regime the prison is following (Fig. 2.16). On the island there are 80 buildings, roads, beaches, cultural landscape, football field, agricultural areas and forest and both the buildings and nature are reserved (Fig. 2.17)(Bastøy Fengsel 2010). On this area, the inmates can move freely and function as a society (Ibid.). The society is based on a human ecology based values leading to organic farming, circulation of own waste and minimizing CO2 emissions (Ibid.). According to the prison web page, human ecology focuses on the relationship between humans and their social and artificially made milieus, while stressing the interaction between each other and nature (Ibid.). Every staff member on the island needs to have competence and respect for nature (Ibid.).

The prison states that it offers teaching in farming supporting the development of the ability to cooperate and care for people, animals and surroundings (Bastøy Fengsel 2010). Due to the farming program, Bastøy prison grows 25 percent of its own food (Dreisinger 2016). This island society sounds in many ways like the ideal for a prison system. Inmates moving freely in the area have much of the possibilities they would have in the free society. As Norwegians are seeing the results of what this kind of prison can do to the inmates, one can’t help but wonder, why shouldn’t some of these elements also translate to the high security prisons. The stark juxtaposition between penitentiaries is striking, contrasting concrete and asphalt with wild nature. This can logically be justified with safety, but surely, there should be a middle ground between concrete and nature.
SUMMARY

Alnæs’ and Moores negative consequences of imprisonment are linked to environmental theories. Further contemplation underlines the importance of humans right to landscape (Egoz et al. 2011). The fields of prison research and environmental theories are combined leading to findings, such as:

- Prison yards should provide visual privacy while providing security
- A garden can help counteract negative effects of imprisonment providing an arena for education, cultural experiences, horticultural therapy, movement, restoration, creation, participation and wellbeing
- Regulations are often barriers for applying natural elements in prisons
- Inmates at Stavanger prison are enthusiastic about a garden as a space for new opportunities
- Women are a minority group in prisons, which reflects to outside areas, also in Stavanger prison
- Outside areas should facilitate for a meeting between an inmate and a visitor, a parent and a child
- Horticultural programs and gardens in prisons have succeeded in several prisons in the USA and nature is an important element in the Prison Island of Bastøy, in Norway already, showing appreciation for the environment
An introduction of Stavanger prison

Stavanger prison is a part of the Norwegian Correctional Service in the region southwest.

Background: Stavanger prison has been taken to use on 9th of October 2001, but the rehabilitated building has served as a prison since 1963. The site is owned by Statsbygg and the site is 59 000 square meters.

Sections: They have a section for incoming inmates (varetektsavdeling), two sections for men and one open section, a section for drug abuse and a section for women.

Address: Grødemveien 30, Stavanger, Norway

Security level: High security

Capacity: 71 places

Stavanger prison describes that the prison aims to be a comprehensive correctional facility with the individuals as focus. They describe that they focus on rehabilitation and work to bring inmates out of the circle of criminality. They underline the importance of safety, human value and protection of society (Kriminalomsorgen 2018).

The project section starts with site analysis work moving from an overview to a site analysis of the women's yard and the additional area for programs.
An overview of the existing situation

Today, women do not have access to both of the yards, just the main women’s yard. The other area is used for projects like the gardening program and is only used during that time.

1. WOMEN’S YARD AND THE AREA FOR A GARDENING PROGRAM AND OTHER PROJECTS

Figure 3.3 An areal picture of the site (Image based on: Kommunekart, 2018 https://kommunekart.com)
Terrain analysis

Stavanger prison is located in a coastal region called Jæren, more specifically north-Jæren. The soil in this area is moraine material with clay and boulders (Bjørlykke 1940). This is in coherence with findings and observations from the site visit. Ground on the site seems like drainage is not effective, as the area with young fruit trees has been dug with several trenches in order to lead the water away. The mowed grass seems dense and the soil hard and moist. The climate on the site feels generally quite moist as much of the hard surfaces show traces of moss and moisture damage. The prison is close to a coastline. The mowed grass on the area is filled with moss and spruce has been growing in a close proximity to the yards, which might point to low value of pH, acidic soil and can also be due to the shady conditions.

Terrain in itself seems flat on the site, but the overview shows that terrain slants towards northeast. This means that water runs this way as well, meeting the concrete wall of the men’s outside area causing erosion. The prison area is mostly flat, only the men’s outside area has some variation in terrain. Women’s areas are mostly flat. One can notice two smaller formations of terrain on the north and eastside of the prison complex. These formations help to shield the complex from view. If this is the case, the formation on the eastside could be longer in order to shield the whole of the yard for programs.
**Historical overview**

Currently there are three barrierzones at Stavanger prison, forming frames for the prison areas. Barrier types are steel wire fence with a concrete wall base, building wall and a large concrete wall. Impermeable concrete wall minimizes contact to outside world, whereas steel wiring allows for views.

**Barrier analysis**

Currently there are three barrierzones at Stavanger prison, forming frames for the prison areas. Barrier types are steel wire fence with a concrete wall base, building wall and a large concrete wall. Impermeable concrete wall minimizes contact to outside world, whereas steel wiring allows for views.
Experience report from an excursion to Stavanger prison

Description and discussion with Merethe Bauge and an on-duty officer

I arrived, on a July morning at 8 am, to Stavanger prison where I met Merethe Bauge, return coordinator for the Norwegian Correctional Service at Region Southwest. I left all my belongings in a locker and only took a camera, pen and paper with me. The prison was surrounded with fields of unmowed grass whilst the prison area itself consisted of grey surfaces. There used to be a forest of spruce around the prison, but it was cut down in order to get more sunlight to the outdoor areas (Fig. 3.21). This was actually experienced as uncomfortable for the inmates because they could be seen from the workplaces around the prison. “Prisoners generally don’t want to be seen by outside persons.” The prison buildings were large and narrow and everything in the area was concrete and asphalt. The areas were damp and much of the concrete was covered in moss.

I approached the entrance with an escorting guard and signed a confidentiality agreement at the reception. After this I gave away my passport and got a devise that I needed to hold close. It had a panic button that would trigger an alarm if pressed. I was advised to not take pictures where the security cameras or the inmates could be seen. A guard would later check my camera and delete all pictures that were not okay. At first I could see the small meeting rooms. They were around 2x3m or less in size. The children’s meeting room had a sofa and colorful furniture, but the barred view was towards waste bins or a grey wall. Sometimes, when it is possible, parents are allowed to meet their children at the gymnasium as well.

Next to the training room was a door to a small area outside called “stråleluft” that can be directly translated to “a ray of air”. The area had blue paintings on the walls. All the walls were high consisting of concrete and asphalt. The area was very damp and had some moss and cracks in the pavement and concrete. There was a small drain in one corner, presumably for the runoff water that could rain in during rainfall. The view of the sky was striped with brown metal bars. This area meets the minimum requirement for the inmates, who serve time in isolation, but at Stavanger prison the main outside areas are preferred for these outings. This way an inmate is accompanied with a guard and can use the main outside areas when the areas are empty.

After this we moved to the mens’ outdoor area. “Women and men are separated, but in the summertime they can also be together. Some women don’t agree to this and they stay in the women’s yard. The mens’ yard had three volleyball nets and a football court. “Fotball games are arranged for everyone. Often the women just cheer and the men play.” There were also birch trees, benches and some training devices. “One of the prisoners was a personal trainer so because of him, we got these training devices. He held training groups independently for the inmates. It worked well.” The concrete wall around was about 6m high and one could see only treetops from behind. It had graffiti like images on it and there was a jogging path along the wall.

After this we moved to the women’s yard (Fig. 3.18). Women at Stavanger prison feel that they do not have enough room outside. This has been brought up at the Norwegian Discrimination Board, but the issue has been rejected. The area looked attractive as it had a pond of gold fish and vegetation around it. It also had a bridge that ran over the pond. There was vegetation along the water and the walls. There were sitting places and a volleyball court with a sand base. A small path went around the volleyball court. There were some training devices outside. It also had three large rocks in the middle. The edges of the plantings and the flowerpots were formed of concrete and stones and attached solidly to the ground. There was also a wall painted by an artist with words like “us”, “give” and “up” (Fig. 3.20). Inmates have helped to decide those words. This yard also had a view outside.

“There are many different kinds of people here. Some are engaged, some are not. Some are tough and come from the drug circles and talk about prostitution and drugs and needles. Some might have just fallen asleep behind a wheel and ran over someone.” We moved to the yard behind the school building, which is next to the women’s yard (3.19). This area was mostly used for school purposes like gardening and other projects. The inmates do not have access to the area on a daily basis. The yard was rectangular, linear and smaller than the previous space. According to the on-duty guard, there are many women who like to take care of the greenhouse. They also got fruit trees because of one inmate that was very adamant that it would be good to have the trees and they had planned to make juice out of the fruit (Fig. 3.22). The greenhouse is also being used for social activities, as the women sometimes sit on the floor and knit (3.25). A specific group is responsible for the outside works, which is a job that needs trust. Many of the inmates like to be in this group, as it is a privilege. Many inmates also enjoy taking care of something that is alive like plants or animals. The garden has 16 fruit trees, apples, plums and cherries. The greenhouse has tomato and cucumber plants. Inmates already participate in a flower program run by Randaberget highschool and together with Godalen highschool. There
had been an effort to plant flowers in this yard, but the flowers died presumably because of the unsuitable living conditions combined with uninformed choices.

According to Merethe Bauge and the on-duty officer, the inmates can take care of a garden and they can also make food in the group areas. She points out that it would be nice to have vegetables and then prepare them in the kitchen. “Especially the planting and the starting is very popular amongst the inmates. After this they get quite impatient. They have been measuring and trying to guess how much the plants would grow in percent. The inmates definitely notice the difference in seasons, as they are eager to go out when the spring comes. They want mostly just to be outside and hear the birds and be in nature. They mostly spend time with the outside chores or then they just spend time casually outside. “If you get them to do something with their time and engage it is already having an effect on them and helping them.”, states Merethe.

The second garden had a view to outside from two sides, a view towards the entrance and one building on one side. This building was the school building and it is not in use all the time. The school is a filial of the close lying Randaberget highschool. It was only used during the daytime and the visitation hours are normally in the afternoon. It is important to not to have views to the rooms from the yard, as inmates do not wish to be seen by visitors and visitors, especially children should not be exposed to the other inmates.

They also have a music educator. Sometimes they have concerts and religious services in the gym. Inmates also make garden furniture during the school hours. Overall it seemed that the prison had many committed staff members that were willing to make a difference and support the idea of a garden in the prison. This is because of the enthusiastic rhetoric when mentioning a garden, existing program that could take the garden to use and previous efforts with planting. It seems like, with some planning, a garden could thrive in the Stavanger prison.
**Climate**

*Wind*

Summer

Winter

*Figure 3.26* Approximate wind directions on the area (Based on: Store Norske Leksikon [https://snl.no/Klima_i_Norge#-Vind](https://snl.no/Klima_i_Norge#-Vind))

*Sun and shadows*

21.5 Kl. 9.00

21.5 Kl. 12.00

21.5 Kl. 16.00

21.7 Kl. 9.00

21.7 Kl. 12.00

21.7 Kl. 16.00

21.9 Kl. 9.00

21.9 Kl. 12.00

21.9 Kl. 16.00

*Figure 3.27* Sun and shadow analysis (Based on: Adobe InfraWorks program)

**Activities**

*Figure 3.28* Registered activities are marked based on questionnaires, interviews and registrations done during the excursion. Men’s area has more activity opportunities than the women’s area.
Views

Figure 3.29 Larger view lines point towards a view marked with the same number. Smaller sightlines represent the amount of windows and point to the direction of the view from the window.

Figure 3.30 Views to the prison areas from the surrounding buildings. Views are considered as negative by the women at Stavanger prison.

Figure 3.31 Sightlines with planned barriers. Barriers block the views from the surrounding buildings creating a sense of seclusion on the women's areas.
Existing vegetation on yard 1 and yard 2

Registered vegetation at the women’s yard and the program area. Numbers from the analysis figure connect to the numbers on the images.

1. Two rows of fruit trees, all together 16 young apple, cherry and plum trees. These trees have been planted due to an initiative from an inmate. Some of the trees are in poor condition and suffer from growth stagnation. Although these trees serve an important role in this part of the prison yard, it is clear that they are planted too close to each other and that many of them will not bear fruit.

2. Green house made of glass has two rows of vegetables like cucumber and tomato. The greenhouse serves as an area for knitting and smoking especially when it is raining. There is no seating inside the greenhouse. The inmates are also engaged in growing the vegetables. This means that the green house is an important area for both secluded relaxation and social interaction.

3. Fish pond area has some vegetation in combination with a water element. It is described as an important place for some of the inmates as one can take care of the fish in the pond and relax on the curved bridge. This area has plants like Hemerocallis, Salix, Hosta and Lysimachia.

4. This area is covered with dense mowed grass. Grass on both of the areas has some moss growing together with the grass, which can be because of shadow or slightly acidic conditions.

5. These areas have perennial and bushlike vegetation partly planted on a raised bed. Species include Hosta, Allium, Campanula, Euonymus, Pieris and Weigela. Soil between these bushes is partly exposed, but weed free.

Commentary on the existing situation

It is proposed that the condition of individual trees will be estimated and that the ones in strong condition will be used in the new plan. If trees need to be moved, it is understood that the process of moving and replanting can damage the trees and result in further stagnation. Trees should be moved by professionals, as the process entails several phases. Even though this is the case, it is still decided that the trees can be moved because of the young age, small size and reduced quality. Additionally, the existing grass areas can benefit from liming to reduce moss growth especially on the areas with shadow and the soil for perennials should be replaced with new plant soil.
**A summary of questionnaires**

**Activities**

The inmates from the women’s section experienced that there are usually no activities outside and that activity needs to be arranged by the inmates. It was also described that the volleyball court is used very little and that the workout devices are too high. The results are slightly mixed here because one of the respondents stated that one hour of volleyball is arranged weekly. Some women play volleyball and that others walk around the area. Walking around the area seems to be one of the most popular activities.

Prison employee respondents state that the prison arranged activities include such as football, training, walking and jogging around, common outings (men and women together), barbecue night, tennis and volleyball. The employees stated that a recreation leader is responsible for the activities together with the employee on-duty. It was also reported that a charity organization Red Cross arranges the barbecue evening. According to a respondent the inmates can arrange training and unorganized sport matches amongst themselves.

It is clear here that the respondents from the women’s section have different views and experiences than the prison employees. This might be because the employees have listed some activities that are only arranged at the men’s section, like football games and tennis.

Wishes from the inmates from women’s section include:

- More varied terrain in order to spice up the walking path
- Balance exercises
- Flowers
- Sprint section for those who wish to run
- Generally more space to move on
- Areas with a roof to sit under when it rains in both women’s yards
- Walking trail
- Sitting areas in the sun
- More workout devices
- An asphalted area for games
- Trees
- Tennis court
- Vegetable garden
- Place for bonfire

During common outings in summertime there can be up to 55 inmates from three different sections in addition to up to 17 female inmates from the women’s section. Although there are common outings where women can use the outside areas in the men’s section, there are some women who choose not to participate as they don’t wish to venture to the men’s side. Merethe Bauge (2017) believes that there are no benefits in having men and women together at the same yard. When women socialize together with men in a prison environment there can be suppressive and exploitative dynamics and sexual power games (Engbo & Smith 2012).

Respondents to the employee’s questionnaire described that inmates can be outside for one hour per day. During the summer season the inmates can be outside for up to one and a half hours per day. During Saturday and Sunday the inmates are allowed to up to two hours of outside time. An exception to this are the inmates that are included in the maintenance program which means that one can have the possibility to do maintenance duties alone in the prison yard.

**Wishes**

**INTRODUCTION**

“Bigger room to move on, volleyball court with asphalt, opportunities to work out on simple obstacles.” - Kaisa

“I love to take care of flowers and grow my own food. As said, nature and outside life gives me energy and positive refill. It works against depressing thoughts. And the time flies when one has something positive to do.” - Hedda

Figure 3.33 Drawing by Kaisa, inmate at Stavanger prison

Figure 3.34 Drawing by Hedda, inmate at Stavanger prison

Figure 3.35 Elements that women at Stavanger prison wish to have on the outside area.
Connection to nature

When asked if one misses nature the inmates from women’s section answered unanimously. They missed nature and experienced longing towards natural surroundings. They missed for example rattling of leaves, flower scent, walks in nature, fishing and freedom that one can experience in nature. The inmates described that they felt fantastic, smiling, healthy and felt that they gained strength and energy from nature.

Questions about seasonal changes provoked similar thoughts amongst the inmates. They described for example that one can notice a difference in scent, color of grass, weather, chirping of birds, warmth from the sun and a free feeling that one ties with spring. Anna (name changed) described that one can see that nature lives and moves on although ones life is standing still.

Inmates describe that there are not many activity possibilities during the winter. Some are positive towards winter and some are less positive. Kaisa (name changed) describes that when the snow comes, she rolls around in snow and builds snowmen. There are more activities during summer and Hedda (name changed) describes that log game and volleyball on the sand field reminds her of summer at the prison. There are not enough options to walk under a roof when it rains.

“There is too little room to relax. I can sit down on the bridge over the fishpond. There is peace.” - Anna

Seclusion

When asked if the inmates at womens section had a proper area to relax, they answered with variation. There is too little room to relax in seclusion. Anna (name changed) found a way to relax by sitting on the bridge over the fishpond. Hedda (name changed) explained that she likes to sit on a bench in the sun.

Visits

Inmates are not allowed to spend time outside with visitors at this point. An employee at Stavanger prison explains that inmates can receive visitors at the visiting room or the gymnasium, if they have children. Respondents to the employee’s questionnaire also explained that outside areas of today are not equipped to facilitate visitors and that one cannot expose visitors to other inmates at the prison. This is why visits taking place outside are difficult. The respondents for questionnaire for inmates generally answered that they would like to have the option to meet their guests outside. They said that the visiting room is too small. Anna (name changed) described that she could feel more normal and like herself in a nature like environment.

Interest in garden work

All the inmates that chose to answer questionnaires were positive to the idea of garden work. Some inmates explained that there are only few inmates that are part of the maintenance work program and that get to participate to outside work. This was experienced as unfair. Inmates described that they could for example plant flowers, plant vegetables, remove weeds, maintain the surrounding stones, rake and so on. Hedda (name changed) described that nature and outside activities give her energy, positive refill and work against depressive thoughts. She added that time flies when she has something positive to do.

“We need sitting areas.” - Kaisa

Figure 3.36 Drawing by Anna, inmate at Stavanger prison

Figure 3.37 Drawings by Kaisa, inmate at Stavanger prison
**SWOT - Analysis**

**STRENGTHS**
- There is a good regime already in place for the management of the site
- Many inmates are interested in gardening
- There is already a greenhouse and some fruit trees
- There is already a fish pond
- Area is already quite green
- There is interest in being out and using the areas
- The school offers woodworking classes
- There is a wish for cooperation with a plant business

**WEAKNESSES**
- There are little exercise opportunities
- There is no opportunity to walk in a varied landscape
- There are little stimulants
- There are few sitting areas and especially covered sitting areas
- There is nothing to do in winter
- There are no trees in the first women’s area
- There are no areas for secluded meditation and alone time
- The areas are small
- Areas lack in privacy

**OPPORTUNITIES**
- Vegetables from the garden can be used in kitchen by the inmates
- There is interest in animals
- There are opportunities for cultural and art experiences
- There is interest in gardening and learning
- Area around the fish pond is attractive
- Area can be enlarged since there is a lot of space around
- Area between the surrounding buildings and the prison can be let to grow naturally to shield from view
- With good guidance and cooperation it is possible to keep plants successfully
- Appropriate areas and user group for a salutogenic garden
- Visitors could meet inmates in an outside area

**THREATS**
- Strict regulations regarding prison yards
- Other inmates should not see visitors that are not their own
- Possible safety hazards
- Sightlines should be kept clear
- Difficult to contact and communicate with the focus group (inmates)
- Landscape architecture and benefits from nature are not always as clear to others than they are to the designer

Figure 3.38 SWOT analysis is used to categorize opportunities, threats, strengths and weaknesses for the project. These elements are gathered based on the analysis work.
CONCEPT DEVELOPMENT - Model work

I started the concept development for both yards with a model. This way comparisons between heights and sightlines was easier forming the base for the triangular form for yard 2. At this point of the process I decided to make the area regularly used for projects larger and consider if the area could be used as yard 2 for women. From this point onward the area will be referred to as yard 2.

In conclusion, the new outside area became triangular based on views from main building. It is important to avoid views if this area is used for visits.

Concept testing

Testing terrain

Fig. 3.39 A physical model of the site today.

Fig. 3.40 Testing views from the main building.

Fig. 3.41 River flows through the women's yard 1 with bridges crossing the river.

Fig. 3.42 A concept of three islands.

Fig. 3.43 The three islands are intertwined by water.

Fig. 3.44 Reconstruction of the women's yard.

Fig. 3.45 Quadratic sections divide the space.

Fig. 3.46 Green structure leads the way in an angular formation.

Fig. 3.47 Rectangles gain green structures.

Fig. 3.48 Path is intertwined by perennial plantings.

Fig. 3.49 Low terrain variations can be introduced to the design. This will make the area more interesting and stimulating.
MASTERPLAN DEVELOPMENT, YARD 1

Chosen concept - Four rivers, an archetype of a garden

Fig. 3.50 The space is divided into sections by paths that meet in the middle. Volleyball court and the pond remain at the same positions as these areas were important for the inmates.

Fig. 3.51 Section reveals a platform rising from water to allow for sitting on the surface.

Fig. 3.52 Perennials form a low barrier around the users that sit in the small cladded area. Vegetation is mostly low and without bushes to allow for proper views.

Fig. 3.53 This concept turned out to be too plain and offered too little change on the area.

Fig. 3.54 Concept was lacking in assertive form language.

Fig. 3.54 Concept felt too forced and excessive.

A corridor combined with a sitting area at the end is practical when it rains.

Grass is permeable at the top and allows for views.

Also a corridor gives a sense of refuge.

Sun shines against the wall warming the area.
Fig. 3.55 Illustration of the stone cladded circle surrounded by perennials. Area offers fascination and rooms two persons or a small group.

Fig. 3.56 Sitting surface in the pond offers an area for introvert attention providing a secluded space for privacy.

Yard 1 has a more traditional form, four rivers meet at the centre.

Prison guard has clear sightlines to every direction while standing in the middle circle.

Area for introvert attention

Social space

Area for a small group, fascination
MASTERPLAN DEVELOPMENT, YARD 2

Chosen concept: Four rivers, an archetype of a garden

Fig. 3.57 Triangular space is divided by sections that alternate in height forming an undulating landscape. The guard can still maintain a clear view when standing at the entrance area of the site.

Fig. 3.58 Section shows raised terrain formations.

Fig. 3.59 Trees mitigate the height difference between the high prison buildings and fences and the usually flat, treeless prison terrain creating more balance between buildings and nature.

Fig. 3.60 This plan creates empty unused spaces

Fig. 3.61 This plan turned out to be too complicated for such a small area

Fig. 3.62 Triangular wedges were unnecessarily harsh in shape

 Terrain can give a feel of refuge.

Planting crates used for the education area should have an edge to sit on.

Clear material for the green house allows for the guards to see inside and for the inmates to see outside.

Drawing area allows for a sense of control over surroundings and offers an area for creation and venting emotions.

A permeable fence can be formed of poles.

How to create some variation for walking?

To allow for terrain variation the areas should slope towards the middle and not the other way around.

Section through the form concept shows variation in heights.
Fig. 3.63 Illustration showing the guards’ view of the area when standing at the entrance point.

Form concept for yard 2 allows for views.

Lines could be paths or something else.

This shape allows for sightlines throughout.

Maybe the undulating terrain could be used for sliding in the snow?

Fig. 3.64 View from the greenhouse shows a gently undulating landscape.
**INTRODUCTION**

This archetype of the garden with four rivers is then concretized and bound to the rehabilitating qualities from Kaplan and Kaplan’s (1989) attention restoration theory, coherence, compatibility, extent and the feeling of a getaway. These elements then translate to the design details as natural elements, like plants providing fascination in the form of smell, touch, growth or color. Familiar plants and routines in the garden from one’s past, can result in compatibility, together with Stavanger inmate’s willingness to work with a garden. The approach of four rivers with a central point is coherent, helping the user to comprehend the areas. Providing permeable visual barriers to the areas underlines the feeling of a getaway including the planned high vegetation around the women’s yards. Creating extent in small areas has been a challenge. A combination of transitions and visual barriers like the transition from the narrow entrance area of yard 2 to the wide main area and the transitions from and to the corridor on yard 1 defined by climbing Clematis, aim to create extent on these small yards.

"A river watering the garden flowed from Eden; from there it was separated into four headwaters." (Genesis 2:10)

The process of creating a concept for the site started from several concept suggestions that I tested in drawing and physical concept modeling. Initially, it was difficult to find a suitable concept and decide on whether I wished to work with separate concepts for the women’s yards or with the same concept. Adapting a concept for both yards was challenging because the other yard had an existing plan that could be partly preserved, but the second yard was lacking in purposeful design and needed more work. After a discussion with my supervisor I noticed that I had yet to try a concept that I already had been working with in the earlier stage of thesis writing, when writing about cloisters. There I had illustrated a cloister garden where the space had been separated into four parts with paths. This classical design is mentioned in several scriptures, including the Christian Bible: “A river watering the garden flowed from Eden; from there it was separated into four headwaters” (Gen. 2:10). Eden meaning, The Garden of Eden – a place of yearning for childhood happiness and innocence, an archetype of the garden idea attaching universal symbolic meaning of a garden, referring to the human condition.

This archetype of the garden with four rivers is then concretized and bound to the rehabilitating qualities from Kaplan and Kaplan’s (1989) attention restoration theory, coherence, compatibility, extent and the feeling of a getaway. These elements then translate to the design details as natural elements, like plants providing fascination in the form of smell, touch, growth or color. Familiar plants and routines in the garden from one’s past, can result in compatibility, together with Stavanger inmate’s willingness to work with a garden. The approach of four rivers with a central point is coherent, helping the user to comprehend the areas. Providing permeable visual barriers to the areas underlines the feeling of a getaway including the planned high vegetation around the women’s yards. Creating extent in small areas has been a challenge. A combination of transitions and visual barriers like the transition from the narrow entrance area of yard 2 to the wide main area and the transitions from and to the corridor on yard 1 defined by climbing Clematis, aim to create extent on these small yards.

Coincidentally, yard 1 could easily be divided so that four main paths lead to a central main meeting area in a more traditional quadratic form without needing to alter the existing structures unnecessarily. Some of the areas, like the area around the fishpond and the volleyball court are mentioned as already meaningful areas for several inmates. The concept translated also to yard 2 by shifting the meeting point, which I also call the guard’s viewpoint, towards the entrance and leading the four main sections of the garden towards the viewpoint. This time there were four sections instead of paths. Both of these concepts are coherent and improve the understanding and readability of the site. Additionally yard 2 differs from yard 1 in that the shapes are organic instead of quadratic, reminiscent of meandering river referring back to the concept sentence. River generally is symbolically seen as the power of nature and a difficult crossing reflecting to the theory behind the project, which aims to showcase natures’ powers and processes and serve as a metaphor for difficult crossings in life.
CONCEPT DEVELOPMENT - Outtakes from the process

Comprehending the area

The impression of the outside areas consist of narrow, walled spaces, strict forms, linear forms and hard surfaces.

A view to the buildings could be replaced by a view to nature.

Areas should have more terrain variations.

Ideas, forms and values

Area around the pond has many aspects to consider.

Creating terrain variation is important.

Sense of control is important for a person. Inmates could gain this by being able to influence the surroundings.

Fence could facilitate elements such as vegetation or art.

One of the considered concepts portraits a journey of regeneration.

Wind installations and sandplay.

Projection can be used to create experiences without having to use any harmful objects.
Working in digital 3D model

An image of a 3D model of yard 1.

Defining slopes on the area. Landformations are steeper on the other side and more gradual on the other to allow for relaxing while facing the sun.

Comprehending highest and lowest points in the area based on the slope arrows.

A permeable barrier could be used in a prison as it maintains a view while still creating a sense of seclusion.

Movable screens could be used in the prison to create a sense of privacy. Prospect and refuge theory is taken to use.

Working in model

An image of a 3D model of yard 2.
The scope of the design is decided based on the findings throughout the learning process. After looking into the barriers and benefits for the project, a feasibility study combined with a flexible solution was suitable for this stage of the project, in order to elaborate further on these restrictions and creative solutions. In addition to this project form, I decided to work especially with plants and have an additional illustration and commentary on the isolation outside space of Stavanger prison. Plant selection from this plan can be used as is or alternatively used in other planting designs. I came to this conclusion, as there was a need for advice and a suggestion for planting, because the earlier attempts did not succeed and it was clearly expressed that many wished for plantings that could be further used in the gardening program.

What is green?

Importantly, a garden provides an environment suitable for healing, rehabilitation and health sustainment, however a garden is not a sure answer to healing, rehabilitation or good health, but can complement rather than replace medical care (Ivarsson 2011). Instead of just creating a nicely designed space, there are more things to consider when building a health garden (ibid.). Ivarsson (2011) claims that especially when working with therapists in the garden there are four phases in the rehabilitation process for patients. These phases move from phase one, initial contact where the garden provides a safe environment and frames from learning to interact with others to “breaking the shell” where a patient starts to engage with the interest and curiosity inducing elements of the garden (ibid.). This coincides with Kaplan and Kaplan’s attention restoration theory where one of the elements found in natural environments to de stress was nature’s ability to fascinate, which provokes curiosity (Kaplan & Kaplan 1989). Phase three focuses on physical activity, mood and concentration, which can be facilitated through manual labor in the garden, symbolism and other activities (Ivarsson 2011). Final phase, growth, gives room for an individual’s own creative projects and the area should provide frames for creation (ibid.).

This exemplary scheme for therapy in the garden provides insight into the potential a garden can have in a prison environment and inspiration and frames for the design. Understanding the theoretical process of rehabilitation is vital for the design to succeed. Ivarsson (2011) evokes an important question: “what is green?” pointing out that there is much information lacking in defining “what this ‘green’ should look like” (p. 68). Moving from needs to concrete measures, many researchers have pondered on the complex question of rehabilitation and wellbeing promoting qualities in a garden, but fewer have written out clear practical guidelines for a site. Ivarsson (2011) has provided such practical, modern guidelines dividing them into guidelines for extrovert attention and introvert attention:

“Environments supportive of an extrovert attention:
- Meeting places, arenas for social interaction and communication. Activities and elements that stimulate fascination, curiosity and creativity
- Elements that generate thoughts on symbolism and metaphors between one’s life and nature. Time is important. (In line with the processual thought, here it is important to encompass both the good and bad, beautiful and ugly, alive and dead, but placed in a deliberate manner.) ” (Ivarsson 2011, p. 70-71)

“Environments supportive of an introvert attention:
- Refuge, places for just being. Small rooms, with surrounding lushness and trees, providing shelter.
- Escape, somewhere to let go, to wander, to escape into. Safe and unpretentious, non-demanding, indicating a care for the environment. Sensory and peaceful. ” (Ivarsson 2011, p. 70-71)

These guidelines provide a step further from Kaplan and Kaplan’s attention restoration theory. As the attention restoration theory lists qualities like a getaway, fascination, extent and compatibility Ivarsson elaborates with some measures possible to achieve these feelings and experiences (Fig. 3.66) (Kaplan & Kaplan 1989). Kaplan and Kaplan (1989) also suggest; the balance between buildings and natural areas are important for the experience of the area. Ivarsson also links Appleton’s prospect and refuge theory by listing refuge as an important quality for introvert attention (Appleton 1975; Ivarsson 2011). Additionally, Ulrich (1999) provides a theory of supporting gardens, listing elements like: “fosters a sense of control and access to privacy, social support, physical movement and exercise, and access to nature and other positive distractions” also linking to Ivarsson’s elements for supportive environment (Ivarsson 2011, p. 34). Although theories from Kaplan and Kaplan, Ulrich and Appleton are more abstract than Ivarsson’s overview, they are still recognized as important cornerstones for environmental design and form a basis for concrete suggestions. Moving on from needs, theory and suggested measures to a project design attempt, the next endeavor is to try to apply some of these guidelines.
The project area lies surrounded by industrial areas, causing a grey view with cubical elements. However, the area presents possibilities for greener views due to the surrounding open field and some adjacent spruce trees. This area can be changed by letting natural succession develop on parts of the field lying strategically between the grey buildings and the prison yard allowing some privacy and naturalistic views for the inmates. The goal for these areas is to provide a barrier between the surrounding buildings and women’s yards. Slowly these areas that are no longer cut regularly start to develop from bushlike formations to an area with young trees and later on, to a young forest. The process of natural succession takes a long time, which is why some spruce trees can be planted on the areas to quicken the process and to provide a visual shield on an early stage. Following natural succession to take place is a meaningful learning experience and can generate metaphors between individuals’ life and nature, which is in coherence with Ivarsson’s (2011) guidelines. Surrounding forest also contributes to the feeling of a getaway forming natural barriers. A small forest area provides also habitats for wildlife contributing to the local ecology. As habitats form, sounds from birds and bees start to emerge contributing to the soundscape surrounding the prison. Additionally, wildlife could be spotted outside the prison fences contributing to the natural learning experience.
Moving on to yard 1, the area most used by female inmates. The area generally has many positive elements like some vegetation, a water element, activity possibilities and some sitting areas. After the excursion to the site, I decided that a partial rehabilitation, instead of an overall re-make, was appropriate for this yard as some of the elements are already valuable to the inmates. The rehabilitation includes setting up a structure for the site contributing to a sense of coherence on the site by defining paths and areas for different activities. Additionally, the existing small roof is removed replacing the old with a new roof structure covering a path from the doorway to a small roofed area for sitting. Lowering the roof creates an impression of a structure that is more at a human scale and forms a balancing tier between a large building and a corridor like small area, which is in coherence with Kaplan and Kaplan’s (1989) suggestion about balance between buildings and natural areas. Further contributing to the balance, climbing plants climb on wires towards the edge of the roof from wooden planting crates. Roofing is set up to have enough distance to the close lying roof of the entrance building and the fence on the opposite side to restrict climbing on the fence or the roof.

The small pond in the area is replanted with suitable plant choices for the area. Stepping stones and a round slate for sitting form a secluded area for thinking and privacy. Grasses form a permeable barrier between the individual and the rest of the yard. This is an area for introverted attention providing a place for refuge and escape, which is in coherence with Ivarsson’s (2011) guidelines. The secluded location provides both refuge and prospect in coherence with Appleton’s (1975) theory. Fish already existing in the pond together with flowers stimulate fascination and curiosity, also in coherence with both Ivarsson’s (2011) and Kaplan and Kaplan’s (1989) theories. This part of the yard is one of the only places that have windows pointing towards it from the surrounding building. Importantly, this part of the yard provides green views for the inmates and the employees staying inside, as the duration of the outing is only one and a half hours daily. Providing naturalistic views is in coherence with Ulrich’s (1984) and Moore’s (1981) theories about green views and health.

The second area, which is filled with perennials locates an area for a small group of people in a sunny spot. The circular form encourages interaction with others. The flowers serve a purpose showcasing a range of perennials with various structures, colors and flowering times. These flowers induce curiosity, fascination and curiosity linking to Ivarsson’s (2011) guidelines and Kaplan and Kaplan’s (1989) theories. Symbolism and metaphors can also be formed based on the creation, life and eventually death of the natural cycle. Some of the flowers tend to be more aggressive and spread while others may stay put or even wilt because of some unexpected conditions. All of this is applicable to human life, teaching lessons about both horticulture and being. Some of the flowers are suitable for flower bouquets and can be used for flower binding. Sitting in the middle of this field of perennials allows for sensory experiences like the sound of bees flying from flower to flower or a peculiar touch of a fluff textured grass or an interesting smell from a flower. These are all experiences and lessons that can be learned in both nature and in a small prison garden.

The third area is a place for activity forming frames for the existing sandy volleyball field and new workout appliances. Appliances are of simple nature and easy to use including balance challenges, strength and agility movements and stretching. Providing a space for movement is important in order to release frustration and uplift mood and personal fitness. There are of course many possibilities amongst workout devices, but the appliances should be flexible and offer several exercises evoking curiosity and creativity. They should also cater to individuals with different heights and fitness levels, as according to a respondent from Stavanger prison, the current devices don’t do so.

A fourth area at the center of the yard is round and can facilitate a larger group of people. Again the circular form encourages social behavior as also the seating faces the middle. The circle is classically defined by a variation of deciduous trees forming a clearing in the middle framing the above lying sky. This area can be used for larger meetings or barbecue evenings, as there is a stone covered area next to the circle forming a landing to one entrance. The landing can be furnished with bean bags forming a relaxing space with sunny conditions. From here the inmates can also see the volleyball court and follow a game. This area provides an arena for social interaction and meeting between individuals, which is in coherence with Ivarsson’s (2011) guidelines for extrovert attention. The chosen deciduous trees are exemplary indicators of seasons as the leaves change color, fall off and the trees can produce flowers in the springtime and berries in autumn contributing to symbolism and fascination. Trees and especially the berries attract birds contributing to the ecology, fascination and soundscape of the area. When leaves fall off, piles can be formed for autumn play and then they can be gathered for composting or spread onto the lawn as fertilizer amplifying nature’s life lessons and symbolism.
INTRODUCTION

PROJECT

Yard 1 - Illustrative plan

1. Secluded area for introvert attention
2. Inclusive social space for a larger group
3. A space for a small group, inducing fascination

Fig. 3.69 Illustrative plan shows planned textures, colors and materials.
Fig. 3.70 Schematic technical plan shows the existing and the planned conditions.
Fig. 3.71 Section illustrates the secluded area around the pond and the sitting areas among perennials showing the site during spring.

Fig. 3.72 Section drawn of a scenarion in summer shows planned training devices and vegetation.

Fig. 3.73 View from the inside should point to natural elements as this can affect individuals wellbeing positively.
Fig. 3.7 Illustration of the circular area formed in the middle. The area encourages social activity and is the centerpoint of the area.
Fig. 3.75 Illustration shows the pond area. Vegetation can be illuminated with lights to reinforce the green views from the inside, even when it’s dark.
Fig. 3.76 Yard 1 during autumn. Vegetation on the area has been chosen to showcase seasonal changes and nature's processes.
The small second yard is currently overshadowed by the school building and furnished with small fruit trees that are in poor condition. The area is not freely used by inmates and is only used during programs. The area also has a greenhouse with some vegetables growing inside. This area was chosen for a full rehabilitation and re-design although some elements like the greenhouse and trees serve as inspiration for the new plan. This area could also serve as an additional yard for the women, that can be used during the regular outings, as women at Stavanger prison feel that there is too little space. To begin with the area is formed in a triangular shape in contrast to the old linear form. The shape and size of the garden is decided based on the sightlines from the main building. Based on modeling and analysis work on sightlines the garden was stretched out while still avoiding views from the main building. This is because the garden can serve as a meeting place for inmates and visitors because of the special location next to the school, which only functions outside of visiting hours. The triangular shape also facilitates for optimal views for the on-duty guard from the entrance point of the garden.

After defining the shape I worked with terrain trying to provide some terrain variations for the inmates that like to walk around the area. Terrain variations were conveniently possible as the shape allowed for variations while still maintaining those sightlines for the guard from the entrance point, avoiding the possibility of the inmates hiding behind the terrain. These landforms divide the space into sections with different functions. The landforms also provide gradual slopes facing the sun and the surrounding natural views, allowing the inmates to sit or lie there amongst perennials planted strategically to form areas for relaxation. These areas provide sensory stimuli induced by flowers and the flying insects in form of sound, smells, touch and color, contributing to the curious and fascinating dimensions of the design. Between these wedges a sitting area is placed with benches facing different directions. A feel of prospect and refuge can be felt as the landforms on both sides form a barrier behind the seat and still allow for a limited view over the barriers towards natural areas or the creative space.

Entrance to the site functions as a transitional area moving from a small narrow space to a large open space inspired by the Japanese gardens. The area is made more narrow by placing an elongated planting crate along the fence with climbing plants blocking some of the view while providing a green, luscious wall. The area is also divided from the rest of the space with a permeable barrier that still allows for a view through. This space is made for seclusion and introverted attention to seemingly allow for time alone, which is sparse in prison yards. Seating against the wall and a roof placed above form a refuge with partial prospect sightlines outwards.
Yard 2 - Illustrative plan

1. Creative area for self realization
2. Shielded sitting area
3. Multiuse space for education and performance
4. Secluded sitting area

Fig. 3.77 Illustrative plan of yard 2 shows colors, textures and materials.
Fig. 3.78 Schematic technical plan shows change in terrain, which allows for the runoff water to run towards the green areas and away from the concrete walls at the base of the fence.
Figure 3.79 Roof provides refuge and shields from rain. Permeable fencing and climbing plants make the area more secluded.

Figure 3.79 Wall combined with steel fence provides variation in fencing and a surface for art. Spaces are separated by terrain.
Figure 3.80 Illustration of the entrance area in yard 2.
Figure 3.81 Wall provides a surface for art. Wooden poles and sand surface form an arena for creation. Wind installations made by inmates can be hung on the poles.
Figure 3.82 Space between landforms allows for sitting in close proximity to plants.
Figure 3.83 Springtime showcases beautiful flowering. Illustration from the "guards point" near the entrance.
Discussion with Jorunn A. Rettedal from Randaberg high school

Rettedal is responsible for the Randaberg high school filial based in Stavanger prison. She describes that at Stavanger prison, one has the choice to participate in such courses as cooking with an addition called diet and lifestyle, building, technological industry production, garden program and other subjects that one can find in a high school like history, math and so on.

Especially gardening program is a course directed for women and the content of this course entails more aspects such as knowledge about flowers. At this point a garden firm called Blomsterringen delivers flowers to the prison that can be used in the course. This course in particular could use an outdoor space as a learning arena providing knowledge and practical examples. The course provides so good education that one can continue working in gardening after release serving as a vital resource.

Construction building can also be connected to the outside areas as inmates can build things like garden furnitures and patios. It would be useful for example to someone doing a certificate of apprenticeship to be able to work on constructions. The inmates work for example with wood and steel, including welding. This way a garden project could provide important practical experience and learning opportunities. Cooking course can also be applied to outside areas as one can grow vegetables and later on prepare them at the course.

Although in America it has been possible to hire released inmates to teach and help with a gardening program, it is not possible in Norway as the restrictions don’t allow this.

Rettedal describes that art and culture are important and lacking at Stavanger prison right now and suggests that this could be reflected on the outside areas.

Art and culture

In yard 2, the space is divided into four areas by paths providing various possibilities for walking. Two of these areas are raised landforms and the other two areas are flat. The sandy area next to the building is a space for creation. Sand offers textural variation and is a medium for creation in itself, inspired by the Japanese gardens. Sand can be used for tracing or building land art. The area induces curiosity, fascination, creativity and importantly, a sense of control over surroundings. Large stones sit still in the ever-changing granules of sand providing a contrast between hard and soft, rough and smooth. Trees are planted in the area, practically protecting the trunks from grass clippers, providing a seasonal change in the sand as the leaves fall off. Poles stick out from the sand creating fascination. These poles can be used for for example to hang art or clothes with positive thoughts written on them. Hanging fabric with personal thoughts and wishes is a relatable tradition in many parts of the world and can be used as a tool in therapy. The fabrics then form an installation that moves in the wind. Additionally, the sand area has a secret. Concrete tiles made by the inmates can be set to a larger composition and then buried under the sand for others to find. Inmates can write encouraging quotes, draw symbols and press leaves on the surface of these tiles that can later be found by another. Since the project of creating the tiles is done by inmates, the project creates a feel of ownership and a sense of being able to influence ones surroundings. The element coincides with Kaplan and Kaplan’s (1989) theory, creating fascination and induces a feeling of ownership and the sense of being able to influence ones surroundings, which is hard to come by in a prison environment. This is also an excellent game for children without being too obviously only for children, as some of the inmates don’t like to be constantly reminded of their loved ones because of the sadness and pain it induces. The area stimulates interaction between a parent and a child in form of a treasure hunt or sandplay. Behind the sand area, a wall that functions both, as a creative surface for chalk drawing, and as a visual barrier between the windows and the entrance of the main building. Instead of permanent graffiti, a solution for everyone to create is beneficial in a prison. Drawing is a way to let out creativity and both positive and negative feelings while contributing to the sense of control, as the drawer has the power over the drawing.

In nature there are neither rewards nor punishments. There are consequences.”
— Robert Ingersoll (1833-1899) (as cited in Jiler 2006, p. 91)

Moving on to the fourth section of the garden providing a space for the gardening program to gather and also for performance. The triangular shaped greenhouse is larger than the previous greenhouse allowing more plants. The shape is inspired by the triangular shape of the whole area providing geometrical contrast to the organic landforms. However, the most important quality for the greenhouse is the building material, as it should be formed from plastic instead of the glass used in the old greenhouse, for safety reasons. Plastic can still be transparent maintaining a view from outside in. Outside the entrance, a deck made from permeable pavers allows for free organization of furniture used in the gardening program. The deck can also be used as an arena for performance. This is why two benches are placed facing the greenhouse on the other side of the enlarged path. Otherwise the benches provide a good seating area in the sun with views to the natural areas outside. Next to the deck, there are a few planting crates continuing the gardening theme of the area. These crates can be used freely for the needs of the program and can be filled with herbs, vegetables and annals. This educational area provides learning opportunities, and showcases nature’s growth and regeneration evoking thoughts of fascination and compatibility with surroundings. This area also provides natures rewards and both scent and taste experiences in the form of vegetables, fruits and herbs.

Education

Figure 3.84 Tiles surface under the sand revealing a pattern or an inspirational word.

Figure 3.85 The sand area induces fascination and can serve as a play between a parent and a child.
Fences and barriers

Fencing and barriers are a typical characteristic of a prison. Fences in a prison can prevent the inmates from escaping, they can prevent others to intrude the prison areas or prevent the outsiders from throwing items inside the yards. At prison fences are used both, to form visual barriers to shield from views or to mark off an area, which should be free of visual barriers to allow for surveillance. Barriers can be both vertical or horizontal and prevent extreme scenarios such as a helicopter picking up an inmate from isolation yard or verbal and physical harassment (Wathne 2018). The barriers should be respected as they are there for safety. A designer can work with the barriers to enhance the experience for the inmates using the prison gardens. In this project the original fencing is a steel netting enforced with metal poles and barbed wire in addition to buildings’ walls. The visual impression of the fence is brutal, but surprisingly positive as it is permeable and allows for a view outside in contrast to the men’s area, which has a concrete wall around the yard allowing no views.

As the surrounding buildings from the industrial area have views towards the prison, some inmates at Stavanger prison have experienced the exposure as negative. This is an example of a conflict between planners and users needs. A decision had been made earlier to cut down the spruce forest surrounding the prison in order to bring more light to the yards. This was theoretically the planners ideal and seen as a positive. However the users reported afterwards that this was a negative. This is why high vegetation is suggested partly for the areas between the women’s yards and the industrial area forming a barrier shielding from views.

Permeable fences at the women’s gardens justify working with the surrounding areas and are important for the overall experience of the site. When considering other materials such as durable glass, the thought of having an impression of being so close but yet so far off the surroundings seems cruel in addition to being a wind barrier and not allowing for the breeze to properly reach the garden. Because of these aspects I decided to work with the existing fence. The final ideas incorporated in to the design are climbing plants combined with planting crates and a partial art wall covered with paint allowing for chalk drawings. Much of the fence remains as it is, to allow for natural views to the outside areas, which are important and a quality in itself. Also planting too many plants close to the fence can be difficult for the prison staff when checking the fences for damage. Climbing plants form a semi-permeable green wall contributing to the nature like feel of the garden. The plants should not be too aggressive climbers to avoid damage to construction. Flowering of the climbing plants amplifies feeling of fascination and the green wall can make a space feel more like a refuge and an escape in coherence with Ivarsson’s (2011) guidelines, Appleton’s (1975) and Kaplan and Kaplan’s (1989) theories. The chosen plant, Clematis is deciduous, meaning that during winter the impression of the fence is more permeable than during the summer. This underlines the effect of the luscious green structure amplifying the metaphor of growth and recovery in addition to reinforcing the feel of a getaway.

Prison yards tend to lack in visual barriers, as it is vital for the guards to be able to see the inmates. As discussed before, this leads to loss of privacy (Appleton 1975; Moore 1981). The reality of an inmate is that she/he will almost never be able to spend time outside alone. Because of this, the project contains working with permeable visual barriers that can increase the sense of seclusion and privacy in a prison area in coherence with Ivarsson’s (2011) guidelines. These visual barriers include:

- landforms
- permeable pole fencing
- climbing plants
- roof structure
- plants as visual barriers
- movable screens

Landforms form a landscape that is relatively clear from visual barriers when looking from the entrance point of yard 2. Visual overview can also be maintained when moving up the terrain variations and to the path on the opposite side from the garden. The landforms are not overly high, but can offer a feel of seclusion when sitting or lying down on the grassy slopes, benches or other spaces in between. Permeable pole fencing is used concretely in the entrance area of yard 2 forming a visual barrier together with climbing plants contributing to a feel of seclusion. The entrance area has a roof over the sitting area contributing to the secluded feeling. The roof is quite high up because of the building structure and to avoid climbing on the roof. Poles are also used more loosely in the art space of yard 2 as a wind installation space. Climbing plants are used in both yards (Fig. 3.86). In yard 1 the plants form a loose barrier and contribute to the corridor like feel under a roof construction. The construction becomes greener and creates a feel of a more fluid transition between the building and yard, which is in coherence with Kaplan and Kaplan’s (1989) theory about balance between natural areas and buildings. This green corridor offers shelter from rain and variation for the inmates walking around the yard for hours on end.

Plants are also used as a visual barrier in areas such as the pond, perennial field and on top of the landforms to accentuate the barrier. Plants have been chosen so that the highest grasses and perennials have a permeable, transparent or an uncomplicated form to avoid too thick vegetation masses blocking the sightlines. Good examples of this are grasses like Molinia arundinacea ‘Transparent’ or reeds that are simple in structure. Also perennials like Achillea Filipendulina or Sanguisorba canadensis are good tall perennials.

Lastly, movable screens could be practical in a prison (Fig. 3.87). The idea of a screen is inspired by Appleton’s (1975) prospect and refuge theory forming a movable structure to create the feeling of prospect and refuge on an area of own choice in both shade and sun. This contributes to the feel of control over individual’s surroundings. The dilemma with these kinds of structures is safety and view. Firstly the formholding structure of the screen could be made from lightweight polyethylene foam used commonly in for example floating devices. The screen material could be of a lightweight material like fabric or thin plastic. Still the screens could be used for shielding views from the prison guards. As a solution the plastic used could be made out of a thin plastic used to shield windows in order to avoid outsiders looking in. The effect is similar to an investigation room with a mirror that is only transparent in one direction. This way the material can allow for the prison guard to see what is happening behind the screen while the user can not see through the screen. Although the feeling of privacy is deceptive, the screen can still contribute as a visual block to help with being tired to see others constantly, which is an issue in prisons according to a female inmate (Rønningen 2018).

Figure 3.86 Permeable fence and climbing plants are examples of barriers.
Elements

Generally all furniture in prison yards should be screwed down or attached to the ground properly so it can not be moved and used to an inappropriate purpose (Wathne 2018). This includes planting cases, wires for plants, benches, stones large enough to be lifted, volleyball poles, exercise equipment, steel edging and stone cladding. Currently for example stones have been set in concrete on the edges of the pond. A good example of a simple bench optimized for prison circumstances is a bench design for Halden prison. The benches are constructed of large blocks of glued wood avoiding unnecessary holes between the elements to not to make a pocket for hiding things in (Wathne 2018). I have used these benches in the illustrations for the project site (Fig. 3.88). The benches in this project are slightly wider and long to allow for the inmates to lie down more comfortably and relax (Winterbottom & Wagenfield 2015). The benches are also curved instead of straight to fit the form concept of the site. These benches are useful in prison as they can be used for multiple purposes like workouts and balancing, they can be set next to a wall to have a surface to lean on, they can be used to lie down or they can be used alone or with others.

In addition to benches, prisons should have waste containers for especially cigarettes and these containers should be permeable in the bottom to let rainwater move through and the material should be resistant to flames (Fig. 3.90). Open bins are optimal for prisons as the inside is clearly available for inspection.

Planting crates have been incorporated into the design (Fig. 3.89). Planting crates for vegetable planting should have an edge to sit on or lay gardening tools. The crates should also have an open bottom to allow for contact with the existing terrain to allow for moisture and drainage. Plant support systems should be firmly attached.

Additional furniture can include tables and chairs attached appropriately to the ground or alternatively movable furniture that can be taken out and used during programs. Stavanger prison has a program for both welding and woodwork, so the inmates are able to create furniture at the prison evoking a sense of ownership, leading to a will to respect the furniture more. Furnishing in the area could be used as a learning opportunity for the inmates in both design and handicap, which is why the design of more furniture is purposively left out of this project. Another form of furnishing could be soft furniture like bean bags meant for outside that are safe to use and can be freely moved from one area to the next as wished, inducing a sense of control. The bean bags could be used in combination with the screens.

Areas outside of the greenhouse and outside of the secondary entrance in yard 1 are cladded with permeable paving. Initially wooden terraces were considered, but as mentioned before, wooden patios have many gaps which makes it hard to inspect whether the gaps have been used as a hiding place or not. This is why stone pavers are chosen instead of wood. Permeable pavers leave room for grass to grow between the tiles and contribute to a greener impression in addition to letting the rainwater move through. The hard surface also brings textural variation to the yards and teaches about rainfall and permeable solutions. Gravel has been mainly used for the paths in the yards replacing asphalt used on the site as a permeable solution for water infiltration.
Plants
Plant concept follows the overall concept of the site. Chosen plants underline the seasons and create sensory experiences inducing fascination, symbolism and enforcing the feeling of a getaway. Plantings are designed to flow from one species to another in organic formations. The planting design is a suggestion that can be followed or adapted according to the needs and wishes of the inmates participating in the gardening program. There is always room for additional annuals that can be used for example in flower binding and sent to the plant nursery for sale. Additionally many of the planned perennials are suitable for flower bouquets such as Achillea, Echinacea, Juncus and Stipa.

Annuals are not included in the planting plan as they can be changed yearly, but they can still be used in the area. The chosen plants are selected so that the green structure exhibits flowering, seasonal changes and winter structures. By choosing deciduous trees and plants that provide winter structures and seasonal changes can be emphasized with extreme contrasts from green and lush to bare. This way it is far more noticeable when the first bulbs start to grow and leaves appear. Additionally, the surrounding areas rich in spruce provide green around the whole year.

Many of the chosen perennials are effective in covering the soil, reducing weeds. As mentioned before, highest perennials and grass are permeable enough on the top to allow for view. To further showcase nature’s processes plants with especially celebrational flowering have been chosen like tulips, cherry trees and a magnolia tree. Although the flowering period can be shorter it only underlines the special moments in life, which should be celebrated while it lasts. Many of the chosen plants also emit scent and have a variation of textures and colors to evoke fascination. These qualities can also provide a good experience for a parent and a child.

Trees on the site have been chosen to showcase seasonal variation moving from bare branches to flowering to leaves and fruits to autumn colors. Fallen leaves form textural variation on the ground and become playful piles when swept. This yearly chore is familiar to many who have ever had a garden and can be associated with good memories from the past. Starting from the soil, the excursion and research of the area indicates that the soil is quite heavy in clay and holds onto water. When working with this kind of soil, appropriate measure can be either blending the material with sandy soil or changing much of the soil with new soil. Especially the first technique does not change the soil composition fully, which is why the plants have been chosen based on this criteria. There are also some planting crates on the site making vegetable and herb gardening easier, as elevated structures gain less weeds and the soil is more controllable. Crates with open bottoms are beneficial in order hold the soil more moist. Planting areas, grass and sand sections should be outlined with an edge, preferably a discrete steel edge founded tightly to the ground. This is to avoid unnecessary spreading of plants, weeds and grass. All trees are planted on gravel or sand areas to avoid cutting the bark with a grass mower.

Spring
Planting should be done during the spring time as it is the season for birth. Before this the beds should be prepared and possibly fertilized with preferably organic compost. Perennials can be divided during spring and vegetables should be planted. At the start of spring or slightly before, grasses should be cut down to allow for new life to show. By leaving the grass and other structural perennials to stand during winter, interesting winter structure forms as the frost coats the plant stalks promoting fascination. Pruning trees can also be done early in spring or wintertime, but should not be done after leaves start to show. In prison, it can be purposive to cut the lowest branches from trees to avoid the inmates taking the branches to other use. Trees can be seen as a risk in a prison yard and should be thoroughly thought through. However many prisons have trees including Stavanger prison, which has both young fruit trees and older birch trees.

Summer
Summer garden activities can include watering, weeding, trimming high perennials and pest removal. Areas with gravel should also be weeded, as plants tend to grow amongst the gravel. Lawn should also be mowed regularly. Some of the herbs and vegetables can be harvested already in summer.

Autumn
During autumn, annuals should be removed and composted and borders of the perennial beds can be cleaned. Leaves that fall from trees should be shredded and spread on the lawn and planting beds. To avoid this leaf material from entering the fishpond, the pond should be covered with a thin net. This way the water won’t become muddy. Bulbs should be planted during autumn to prepare for next spring. Autumn is time for harvest and many vegetables and fruits can be harvested and eaten during this season accentuating rewards of nature.

Vegetation offers us many learning opportunities from disappointments to joy. Taking care of plants is sometimes difficult and sometimes easy even when neglected. The activity of gardening is familiar to many and can be associated with good memories from the past. Starting from the soil, the excursion and research of the area indicates that the soil is quite heavy in clay and holds onto water. When working with this kind of soil, appropriate measure can be either blending the material with sandy soil or changing much of the soil with new soil. Especially the first technique does not change the soil composition fully, which is why the plants have been chosen based on this criteria. There are also some planting crates on the site making vegetable and herb gardening easier, as elevated structures gain less weeds and the soil is more controllable. Crates with open bottoms are beneficial in order hold the soil more moist. Planting areas, grass and sand sections should be outlined with an edge, preferably a discrete steel edge founded tightly to the ground. This is to avoid unnecessary spreading of plants, weeds and grass. All trees are planted on gravel or sand areas to avoid cutting the bark with a grass mower.

Taking care of plants

Plants

Plants offer multisensory experiences.

Figure 3.91 Plants offer multisensory experiences.
Principle for planting plans

Yard 1 - A

<table>
<thead>
<tr>
<th>Reference</th>
<th>Latin name</th>
<th>Norwegian name</th>
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<tr>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A</td>
<td>Achillea filipendula ‘Parker’</td>
<td>Praktryllik ‘Parker’</td>
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<td>40</td>
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<tr>
<td>B</td>
<td>Echinacea purpurea ‘Magnus’</td>
<td>Purpursohlath</td>
<td>6</td>
<td>24</td>
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<tr>
<td>C</td>
<td>Geranium x magnificum</td>
<td>Julistorkenebb</td>
<td>7</td>
<td>182</td>
</tr>
<tr>
<td>D</td>
<td>Heuchera micrantha ‘Palace Purple’</td>
<td>Alunrot ‘Palace Purple’</td>
<td>9</td>
<td>137</td>
</tr>
<tr>
<td>E</td>
<td>Leucanthemum vulgare</td>
<td>Prestekrage</td>
<td>7</td>
<td>18</td>
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<tr>
<td>F</td>
<td>Azorella trifurcata</td>
<td>Gulldyne</td>
<td>14</td>
<td>49</td>
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<tr>
<td><strong>Bulbs</strong></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>G</td>
<td>Allium aflatunense ‘Purple Sensation’</td>
<td>Kingslak</td>
<td>See description</td>
<td>-</td>
</tr>
<tr>
<td>H</td>
<td>Tulipa x hybrida</td>
<td>Darwintulipan</td>
<td>See description</td>
<td>-</td>
</tr>
<tr>
<td><strong>Grass</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I</td>
<td>Stipa capillata</td>
<td>Hålfjørgras</td>
<td>7</td>
<td>104</td>
</tr>
<tr>
<td>J</td>
<td>Sesleria autumnalis</td>
<td>Sesleria</td>
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Yard 1 - B

<table>
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<tr>
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<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>K</td>
<td>Iris x germanica</td>
<td>Hageiris</td>
<td>7</td>
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<td>L</td>
<td>Lythrum salicaria</td>
<td>Strandkattehale</td>
<td>7</td>
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<tr>
<td><strong>Climbing plant</strong></td>
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<tr>
<td>M</td>
<td>Clematis ‘Tage Lundell’</td>
<td>Storklematis</td>
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<tr>
<td><strong>Bulbs</strong></td>
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<td></td>
<td></td>
<td></td>
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<tr>
<td>N</td>
<td>Crocus chrysanthus</td>
<td>Begerkrokus</td>
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<tr>
<td><strong>Grass</strong></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>O</td>
<td>Molinia arundinacea ‘Transparent’</td>
<td>Kjempemolinia ‘Transparent’</td>
<td>2</td>
<td>35</td>
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<tr>
<td><strong>Reed</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>P</td>
<td>Juncus effusus ‘Spiralis’</td>
<td>Lyssiv ‘Spiralis’</td>
<td>6</td>
<td>41</td>
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</table>

Yard 2 - A

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<tr>
<td><strong>Perennials</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
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<td>Astilbe Arendsi-gruppen</td>
<td>arendsspir</td>
<td>7</td>
<td>119</td>
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<tr>
<td>B</td>
<td>Asparagus officinalis</td>
<td>matasparges</td>
<td>6</td>
<td>36</td>
</tr>
<tr>
<td>C</td>
<td>Epimedium x rubrum</td>
<td>bispelue</td>
<td>7</td>
<td>87</td>
</tr>
<tr>
<td>D</td>
<td>Geranium x magnificum</td>
<td>Julistorkenebb</td>
<td>7</td>
<td>117</td>
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<tr>
<td>E</td>
<td>Sanguisorba canadensis</td>
<td>kanadabliodtopp</td>
<td>6</td>
<td>59</td>
</tr>
<tr>
<td><strong>Bulbs</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>F</td>
<td>Tulipa x hybrida</td>
<td>Darwintulipan</td>
<td>See description</td>
<td>-</td>
</tr>
<tr>
<td>G</td>
<td>Narcissus cyclamineus</td>
<td>Cyklamennarciss</td>
<td>See description</td>
<td>-</td>
</tr>
</tbody>
</table>

Description: Bulbs are distributed evenly with no specific pattern among perennials in the designated areas with an exception of Crocus and Tulipa. Crocus is planted on the grass areas and can be planted creatively after inmates own wish. Tulipa should be planted near Geranium, as Geranium grows high enough to cover Tulipa during the summer.

Figure 3.92 Inspiration for Crocus planting.
Seasonal diagrams

Figure 3.96 Diagrams show flowering time, foliage interest, winter structure and autumnal colors for the perennials.
# Changing seasons

<table>
<thead>
<tr>
<th></th>
<th>Spring</th>
<th>Sommer</th>
<th>Autumn</th>
<th>Winter</th>
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</thead>
<tbody>
<tr>
<td><strong>Prunus avium ‘Techlovan’</strong></td>
<td>![Tree Illustration]</td>
<td>![Tree Illustration]</td>
<td>![Tree Illustration]</td>
<td>![Tree Illustration]</td>
</tr>
<tr>
<td><strong>Malus domestica ‘Prins’</strong></td>
<td>![Tree Illustration]</td>
<td>![Tree Illustration]</td>
<td>![Tree Illustration]</td>
<td>![Tree Illustration]</td>
</tr>
<tr>
<td><strong>Sorbus aucuparia</strong></td>
<td>![Tree Illustration]</td>
<td>![Tree Illustration]</td>
<td>![Tree Illustration]</td>
<td>![Tree Illustration]</td>
</tr>
<tr>
<td><strong>Magnolia kobus var. borealis</strong></td>
<td>![Tree Illustration]</td>
<td>![Tree Illustration]</td>
<td>![Tree Illustration]</td>
<td>![Tree Illustration]</td>
</tr>
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</table>

Figure 3.97 Trees change appearance depending on the season. This provides an element of fascination and symbolism.

Figure 3.98 Planting on yard 1 during spring.

Figure 3.99 Planting on yard 1 during summer.
Structural studies

Figure 3.100 A hand drawn study of plants in yard 1 - A.

Figure 3.101 A hand drawn study of plants in yard 2 - A.

Figure 3.102 A hand drawn study of plants in yard 1 - B.

Figure 3.103 A vision for planting on yard 1 during spring.

Figure 3.104 A vision for planting on yard 2 during spring.

Figure 3.104 Structural studies of planned plantings.
After the excursion to Stavanger prison, an image kept floating in my mind. This was an image of the outside isolation space where inmates with difficulties could come and have “a ray of air” as the Norwegians call it. The space was dim and highlighted with streaks reflecting from the overlying metal bars. The hollow space is covered with asphalt and concrete and appears to be a hole below ground level. This means that there is no view to the surrounding nature, which is not optimal. There was a graffiti painting on the wall and one bench screwed to the wall. The unstable inmates are sent to this area for their hour of outside time. As many of the inmates sent here are unstable, it is clear that these are the inmates who could benefit from the rehabilitative effects of nature.

This is why I made an inspirational suggestion for the existing outdoor areas. The suggestions include projection used as a multimedia tool to provide visual content on the wall of the area. This content can be for example imagery or video of nature, as the benefits of nature are thoroughly discussed in this thesis. Projection is a harmless tool to provide the feeling of fascination, as there are no tactile aspects and the projector can be set behind a glass and adjusted from the outside. Another suggestion is a soft wall that softens the harsh feel of the space and cushions any outbursts.

The most visible suggestion is a planting shielded by a durable glass. This green space provides a point of interest and a natural element to a space that is detached from nature. Optimally there would be a view towards a natural area, but as the space is sunk to below ground level, in this example a space is carved to the side of the room. The overlying material is also replaced with a steel wire net replacing the bars. This allows for a view of the sky, which is less defined by the linear division.

Although it is not optimal for the inmates that struggle to use these areas, these are some of the suggestions that can be made quite quickly to improve the existing conditions. If anything, these suggestions underline the uncomfortable conditions that isolated inmates face. This space meets the minimal requirement for inmates allowing for one hour of fresh air daily, but we should question if these requirements are specific enough in terms of the quality and size of the space. In the future, I hope that these outdoor isolation areas are replaced by spaces with more nature-like elements and more space to move on. It is not natural for a human being to spend their hours between a small isolation cell and a small, outdoor, hole-like construction with no real contact to the outside elements. Although the inmates put into isolation have difficulties, they should still be allowed to benefit from nature.
SUMMARY

Theory is materialized with the help of Ivarsson’s (2011) guidelines for supporting introvert and extrovert attention basing on Kaplan and Kaplan’s (1989) attention restoration theory and Appleton’s (1975) prospect and refuge theory. Additionally, Kaplan and Kaplan’s (1989) balance between buildings and nature is included in the design values. Guidelines are then materialized in the form of a case study of Stavanger prisons’ women’s yards including suggestions for the surrounding land and isolation yard.
CONCLUSION

If Norway wants to live up to its international humanitarian reputation, it should consider the conditions in prisons. Landscape architects can provide some solutions to improve the conditions for inmates and help to better their individual wellbeing and prison surroundings. In order to optimize these improvements, a clearer picture of the possibilities and restrictions should be provided. This is where this thesis hopes to contribute to this field, as a link towards a better understanding of the conditions in prisons, the needs of the inmates and an inspirational piece on the possibilities while still contemplating on the barriers.

Findings

Several key findings surfaced through writing of this thesis. Much of the discussion revolves around nature, which should be prioritized more in a prison setting. Bringing green elements into the prison landscape is important and should be prioritized because of the multiple benefits for the inmates. This becomes evident based on theory, literature and exemplary cases. There are many more possibilities for green structures in prison landscapes that are not fully taken into use in Norway today. A garden can help counteract negative effects of imprisonment, providing an arena for education, cultural experiences, horticultural therapy, movement, restoration, creation, participation and wellbeing. Additionally, inmates at Stavanger prison are enthusiastic about a garden as a space for new opportunities and the garden could function as an arena for a horticultural education program at the prison providing vocational training. Regulations are often barriers for applying natural elements in prisons because of safety issues and strict regulations, which should be respected but also challenged in an appropriate manner as sometimes these benefits can outweigh the negatives.

Another finding is that prison landscapes do not generally provide visual and spatial barriers and lack privacy. The possibility here for landscape architects is therefore to work creatively with barriers to form seemingly secluded areas for a more private feel without forming spaces that are threatening or claustrophobic.

As women are a minority group in already a marginal community, this often reflects in the outside areas. At Stavanger prison women have less activity possibilities when it comes to outside areas and less qualities on those areas. It is important to shine a light on this group as women in prison are often forgotten. The outside areas should also provide frames for a meeting between a parent and a child.

Limitations

More research should be done about nature in prisons and rehabilitating gardens in Norway to fully understand the scope of the benefits and barriers. Optimal research could be a pilot project in a prison. Interesting research could be done before the new areas are built, under construction and after establishing the new areas. This would give an opportunity to compare research results both before and after the garden, measuring if the garden provides a good space for rehabilitation, as this cannot be tested with a theoretical project. Optimally this thesis could be followed by a participatory project combined with a field study.

Other research could be done about women in prison and how the areas can have an affect during pregnancy, infancy and children’s visitation. Additionally it would be interesting to know if a gardening program could make a difference to employment rates after imprisonment as well as finding out how to apply rehabilitative gardens in youth prisons. There are many possibilities for research to contribute to. A practical study of the regulations and adapting a rehabilitative garden for everyday use in prison is also a very interesting and possibly difficult challenge.

For this thesis project ideally the next step would be to consult and cooperate with professionals and Statsbygg in terms of restrictions and risks that might follow this plan. After agreeing and researching the risks and other issues, a natural step would be to plan a detailed plan for the site. When working with the detailed plan, ideally focus groups could take part in the design and building process while testing participatory methods.

The initial goals and thoughts about this thesis changed considerably throughout the learning process and future research should encourage continuous adaptations. Landscape architects should understand that communicating with a prison and inmates can be difficult at first. Optimally focus groups and communicating directly with inmates could be useful, but prisons may not allow for this. To overcome this and to create trust, researchers should be allowed to talk directly to the inmates. In addition to inmates communicating more with Statsbygg, to look at possibilities for cooperation should be pursued.

Possibilities

For a moment, lets imagine that all these suggestions would take place and succeed. The future could bring higher rates for inmates finding jobs through gardening programs, both men and women. Prison system could also start to notice the benefits of an addition to the system, bringing better wellbeing. Gardens provide a space for therapists to work with inmates leading to more effective results and cost effective, sustainable solutions as plant material is relatively cheap. Individuals could notice improvement in wellbeing and have more joy in their daily lives as they would have a new activity that reminds them of home and connects them to the outside world in a gentle manner. Negative effects of imprisonment could be lowered as the garden provides activity, work, lowered stress levels and many more benefits.

As Anna (name changed) from Stavanger prison explained, nature and natures’ cycles are dynamic, reminding inmates that although they are stagnant, life still goes on.
“For the first time in my life I have a sense of purpose when I wake up and go to work. I have the feeling that whatever I do is going to make someone happy and leave a site looking beautiful for other people to enjoy. I never thought making a garden could do all this. I feel blessed.”

– Evelyn M., Former Greenteam intern and an inmate at Riker’s Island (as cited in Jiler 2006, p. 147)

Figure 4.1 An inmate from Riker’s Island relaxing in the garden (Image: Lucas Foglia, 2018 at natgeo)
**Spørreundersøkelse for innsatte**

_Denne undersøkelsen er en del av en forskningsprosess for masteroppgave innen landskapsarkitektur. Du svarer anonymt på denne spørreundersøkelsen._

_Formålet med dette spørreskjemaet er å finne ut ditt unike perspektiv og å høre hva dine individuelle ønsker er. Ditt svar er viktig for dette prosjektet og svaret ditt er høyt verdsatt._

_Dato:_  
_Navn på fengsel:_

_Alder:_  
_Kjønn:_

_Hvilken avdeling i fengselet er du i?_

_Beskriv hva slags uteaktiviteter fengselet tilbyr og hvor ofte?_

_Hvem er ansvarlig for de fleste av uteaktivitetene? Ansatte eller innsatte?_

_Arrangerer de innsatte sine egne uteaktiviteter? Hvis de gjør det, beskriv hva slags aktiviteter._

_Hvilke behov har du i forhold til uteområder?_

_Hvilke uteområder benyttes hver dag og hvilke funksjoner har disse områdene?_  
**Merk av** disse uteområdene på kartet og _beskriv_ hva som skjer der og hvor ofte området er i bruk:
Bruker du uteområdene i fengselet på vinteren? Hvis ja, hva gjør du og hvordan bruker du uteområdet?

Bruker du uteområdene når det regner? Hvis ja, hva gjør du og hvordan bruker du uteområdet?

Endrer uteaktivitetene seg fra vinter, til vår og til sommer? Hvis ja, hvordan endrer de seg?

Har du noen oppgaver du gjør i uteområdene? (hagearbeid, vedlikehold etc.) Hvis ja, hva gjør du?

Hvis fengselområdet hadde hatt en hage, ville du hatt lyst til å delta i hagearbeid? (Grønnsaksplanting, haking, vanning etc.) Fortell hvorfor du ville likt dette eller hvorfor du ikke hadde likt dette.

Tusen takk for at du tok deg tid til å svare på spørsmålene!

Hvilke uteområder benyttes sjeldnere enn hver dag og hvilke funksjoner har disse områdene?

Merk av disse uteområdene på kartet og beskriv hva som skjer der og hvor ofte området er i bruk.
Hvilke uteområder benytter du aldri og hvilke funksjoner har disse områdene?
**Merk av** disse uteområdene på kartet:

Hvilke steder er ditt favoritt uteområde og forklar hva du gjør på disse stedene.
**Merk av** på kartet ditt favoritt uteområde og **beskriv**:
**Tegn under:** favorittstedene dine i fengsels uteområde og tegn aktivitetene du gjør der, du kan skrive nøkkelord i tillegg til tegning. Dersom du ikke føler deg komfortabel med å tegne kan du også beskrive med ord.

**Tegn under:** Hvis du kunne halet hva som helst i uteområdene, hva ville det ha vært? Tegn det ideelle uteområdet for deg selv. Du kan bruke nøkkelord i tillegg til tegning. Dersom du ikke føler deg komfortabel med å tegne kan du også beskrive med ord.
Er det noe som mangler i uteområdene? Hvis ja, hva mangler?

Savner du å være i naturen? Dersom du gjør det, hva savner du mest?

Beskriv hvordan du føler deg i naturen.

Har du et godt sted å for å slappe av i uteområdene?
- Hvis ja, hvor er dette stedet og hva er avslappende med stedet?
- Hvis ne, beskriv et perfekt sted for å slappe av ute.

Har du et godt sted å for å gjøre ulike uteaktiviteter i uteområdene?
- Hvis ja, hvor er dette stedet og hvilke uteaktiviteter gjør du her?
- Hvis ne, beskriv et perfekt sted for gjøre slike uteaktiviteter.

Har du mulighet for å ha besøk i fengselet? Hvis ja, hvor får du møte gjestene?

Er det mulig å ta med gjestene til uteområdene i fengselet?
- Hvis ja, hva gjør dere i uteområdene?
- Hvis ne, kunne du ønsket å ha mulighet til å være i uteområdene med dine gjester og eventuelt fortell hvorfor.

Føler dine gjester seg comfortable i det området dere får møtes? Hvis de gjør/ikke gjør det, fortell hvorfor.

Er dine gjester barn eller voksne?

Hva legger du merke til når våren kommer, merker du noe forandringer ute? Beskriv.

Liker du å følge med på endringene i årstidene? Hvis ja, hvorfor?
**Appendix 2 - Questionnaire for employees**

**Spørreundersøkelse for ansatte**

_Denne undersøkelsen er en del av en forskningsprosess for masteroppgave innen landskapsarkitektur. Du svarer anonymt på denne spørreundersøkelsen._

_Dato:_

_Navn på fengsel og hvilket sikkerhetsnivå:_

_Alder:_

_Kjønn:_

_Hvilken avdeling i fengselet jobber du i?_

_Hvor mange innsatte er du ansvarlig for?_

_Når og hvor ofte har de innsatte tilgang til fengselets uteområder?_

_Kan de innsatte bruke uteområdene fritt uten ansatte tilstede, kun med ansatte tilstede eller begge deler?_

_Er det forskjell mellom de innsatte vedrørende hvem som får lov til å bruke uteområdene og når på dagen? Forklar._

_Hvor store grupper av innsatte kan være i uteområdene til samme tid? Er det noen unntak, hvis ja beskriv hvilke unntak dette er._

_Hvilke uteområder brukes hver dag av de innsatte og hvilken funksjon har disse områdene? Marker disse områdene på kartet og beskriv hva området brukes til og hvor ofte:_

_Er innsatte med ulikt kjønn separert eller kan de være i uteområdene sammen?
Hvilke uteområder brukes sjeldnere enn hver dag av de innsatte og hvilken funksjon har disse områdene?

**Marker** disse områdene på kartet og **beskriv** hva området brukes til og hvor ofte:

Hvilke uteområder brukes aldri av de innsatte og hvilken funksjon har disse områdene?

**Marker** disse områdene på kartet og **beskriv** hva området brukes til:
Hvilke uteaktiviteter tilbyr fengslet de innsatte og hvor ofte?

Hvem er ansvarlig for utendørsaktivitetene? De ansatte eller de innsatte?

Arrangerer de innsatte sine egne aktiviteter? Hvis de gjør, hvilke type aktiviteter?

Har de innsatte tilgang til områder utenfor fengselsområdet? Hvis ja, hvordan arrangeres dette?

Hvor har de innsatte muligheter til å møte besøkende?

Er det mulig å ta med den innsattes besøkende til uteområdene? Hvis nei, hvorfor ikke?

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**Tusen takk for at du tok deg tiden til å svare på disse spørsmålene!**

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**Forslag til samtykkeerklæring**

_A suggestion for declaration of consent_

Denne spørreundersøkelsen er en del av en forskningsprosess for masteroppgave i Landskapsarkitektur. Denne spørreundersøkelsen er konfidentsiell og anonym og jeg har ikke tilgang til ditt navn eller personlige opplysninger. Det er mulig i alle stadier av prosjektet å be om at svarene for denne undersøkelsen ikke brukes i forskningen. Mer informasjon om denne anonyme undersøkelsen er gitt i prosjektbeskrivelsen.

Jeg er gjort kjent med at å undertegne dette dokumentet samtykker jeg til at jeg har fått nødvendig informasjon om undersøkelsen og dens formål.

_This survey is a part of a research process for master thesis in the field of Landscape architecture. The survey is confidential and anonymous and I will not have any access to your name and personal details. It is possible at any stage to request that the answers will not be included in the research. Further information about this anonymous survey is provided in the project description. By signing this document I agree that I have got the necessary information about this survey and the purpose of it._

_Undertegnelse/Signature:_

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Appendix 3 - Declaration of consent
References


