

A HOME AWAY FROM HOME

Designing a patient hotel that promotes health in an urban context.



Jessica Pleijel

Chalmers University of Technology
Department of Architecture and Civil Engineering

Supervisor: Lin Tan
Examiner: Peter Fröst



CHALMERS
UNIVERSITY OF TECHNOLOGY

Jessica pleijel

Chalmers University of Technology
Department of Architecture and Civil Engineering
Masters Programme of Architecture and Urban Design
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Supervisor: Lin Tan
Examiner: Peter Fröst

Jessica pleijel
jessica.pleijel@gmail.com
+4673 424 71 88

Masters Program: Architecture and Urban Design

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INTRODUCTION

Main research question

- How can a patient hotel be designed to promote physical, mental and social health where patients feel like part of the community?

Complementary questions

- What is a patient hotel and why is it important?
- What is health promotion in relation to the built environment?

A patient hotel is a building concept where independent patients can be further away from the hospital with less staff. However, patient hotels are usually one of the massive building blocks in a large hospital area, where patients are isolated from society. The purpose should not only be to bring patients out of illness, but also to improve and maintain a healthy lifestyle for everyone. The aim of this master thesis is to explore how a design proposal of a patient hotel in Gothenburg can promote physical, mental and social health for patients, relatives, staff and society.

How can a patient hotel be designed to promote physical, mental and social health where patients feel like part of the community?

This building proposal is built upon research focused on the relation between healthcare facilities and human health outcomes. Interviews, evidence-based design, building references and study visits helped to form a program for a sufficient patient hotel. An iterative process of building models and sketching was made to explore atmospheres, materials and mass.

The result is a design proposal of a patient hotel integrated in the city. It is a home away from home where patients can continue to live their daily life as a part of the community. The restorative environment support healthy behaviors, encourage social interaction and support, as well as offer spaces that allow privacy and integrity.

Patient hotels frees up beds at the hospitals, makes the care system more efficient, reduces costs significantly, while patients at the same time can enjoy a more stimulating environment that is not limited by hospital standards and regulations. The importance of this winning concept needs to be addressed to a greater extent. There is also a need to further investigate the complex relationship between building design and health outcomes and how healthcare facilities in general can promote health for everyone.

architecture
health promotion
patient hotel
social health
evidence based design
active design
salutogenics
health behaviour
health equity

Purpose / exploration

The aging population and more chronic diseases demands higher taxes that are not possible in practice (Molin, 2016). Many old hospitals in Sweden today needs to be replaced, several new healthcare buildings will also be built and remain for a long time (Fröst and Hammarling, 2017). This is an important opportunity to create new improved healthcare buildings with a higher efficiency that can support “a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity”, the initial definition of human health according to the World Health Organization (WHO, 1946).

Patient hotels makes the care system more cost-effective and should be considered as a means of making patient care more efficient (Eliasson, 2009). Self-sufficient patients can engage more in their own care and can be further away from the hospital with less staff. This building concept can shrink the daily cost to one fifth compared to a hospital department (Eliasson, 2009) (Quito, 2015), but more importantly, it makes space at the hospitals for incoming patients who really are in need of treatment.

The mental and social needs of patients are often neglected in hospitals where the clinical practice merely focus on treating illness. Treatment is necessary when one is ill, but to maintain health, supportive surroundings are always essential (Golembiewski, 2014). A salutogenic health promoting perspective in designing healthcare buildings can reduce depression, perceived pain and accelerate the healing process (Ulrich et al., 2008). Those design strategies could benefit everyone to live a healthier life and does not only apply to healthcare buildings. However, in this master thesis, the choice of exploring the design of a patient hotel forms a concrete challenge in creating environments for a vulnerable group of people. The combination of the building concept and the focus on creating health promoting environments can have a big impact on patient’s health, but also for the society.

A patient hotel allows for exploring a building design that can promote health, without being limited by certain hospital standards and regulations. It can be a recreational space that does not have to be associated with a healthcare building in any way, but more of a home away from home that encourage independency and meetings with people in a similar situation, as well as offering rooms that allow privacy, integrity and close family presence.

Background

There is an increasing polarization between in and out-patient wards today, along with the requirement of healthcare buildings with a higher efficiency with shorter hospital stays. This results in a growing need of in-between wards. A patient hotel is no longer a new building concept, but there are not many patient hotels that are originally built for this purpose and thereby optimal for this type of use. There is also an increasing interest and understanding of how the built environment can be a strong promoter of human health. On the other hand, the combination of how the building design of a patient hotel and its surroundings can promote health, not only for patients but also for the community, needs to be investigated further. This master thesis intends to contribute to this subject and also to highlight the meaning of a patient hotel for patients, relatives, staff and society.

Theory

There is a new awareness and an emerging area of interest of how architecture is an important part of creating a good care environment. The thesis is based on psychosocial research on health in relation to the built environment. The collected research has a salutogenic perspective, wich means that this research is focusing on what promotes health and how to maintain a healthy lifestyle, instead of merely the factors that cause illness.

There is a lot of research on this topic that encompasses an extensive range of methods, approaches and

evidence of how building design can improve human health. Some terms that are often used that concerns health promotion are Health equity, Health behavior, Sense of Coherence, Evidence based design, Healing architecture, Salutogenic design, Active design, Biophilic design and Patient centered care. Those terms are all investigated to get wide knowledge of health promotion.

Delimitations

This master thesis will focus on how a patient hotel can promote health for patients, relatives, staff and society. The knowledge can be applied in other healthcare facilities in many cases, but this will be guidelines specifically for patient hotels. Other contributing factors to health promotion such as communication through technology, education and so on, will not be investigated.

The chosen site, Skanstorget, is currently planned for housing that covers almost the entire plot. The design proposal in this master thesis has a completely different focus which could be debated to a great extent. This topic is addressed in the essay, however, the starting point and main focus is to create a patient hotel that promotes health where patients are considered to be part of the community. The proposal includes a patient hotel and a square. The focus is to design the building and leave space for a square that would need a greater investigation, due to the limited time.

Method

The building proposal is built upon interviews to understand the need of a patient hotel in Gothenburg. Building references and study visits helped to form a program for a sufficient patient hotel. An iterative process of building physical models and sketching was made to explore atmospheres, materials, mass and movement.

In order to investigate how a patient hotel can promote health, a wide range of research focused on the relation

between healthcare facilities and human health outcomes, was collected. Findings and conclusions were organized in the division of physical, mental and social health, to form general design guidelines for patient hotels and its surroundings.

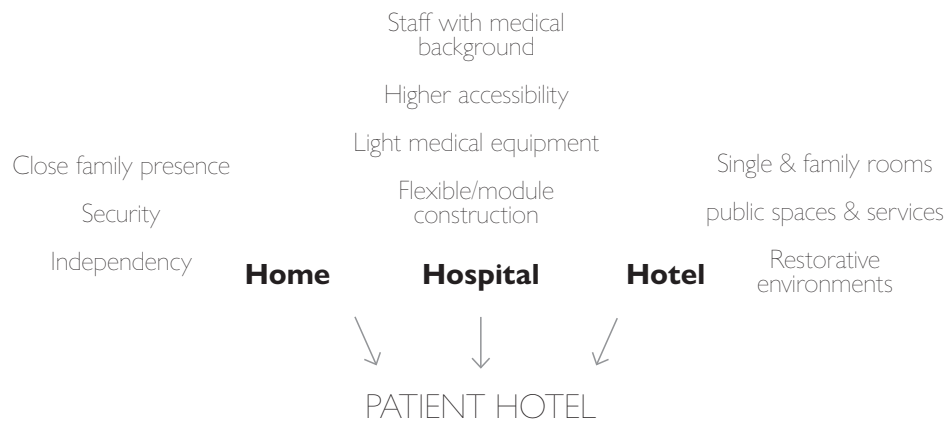
Reading instructions

The paper is divided in a written report and a design proposal.

The first half is the written report that describes what a patient hotel is, a short background about the development of patient hotels and why this building concept is important. It also includes different theories on health promotion and how an attempt of including all of those strategies in relation to a patient hotel that promotes health for patients, relatives, staff and society.

The second half of the paper contains a design proposal of a patient hotel in a central location in Gothenburg that shows how this research can be implemented in architecture.

PATIENT HOTELS



Function and purpose

The purpose of a patient hotel is primarily to provide overnight stay for self-sufficient patients who needs treatment within reach, but does not necessarily have to occupy a bed at the hospital ward (Eliasson, 2009). Traveling back and forth between the home and the hospital can be problematic, particularly where the patient has a long travel distance.

The term patient hotel gives an explanation for a building concept that is based on the relationship between a care building and a hotel. I would say that a patient hotel can be described as a merge between those two, but should at the same time work as a home away from home, where patients have the possibility to continue to live their everyday life as they might need to stay for a long treatment period.

Göran Matejka, deputy Director at Sahlgrenska University Hospital, explains in an interview that in Sweden, there is usually no treatment at a patient hotel, but the patients are treated more as guests (personal communication, 2019-01-25). Why should patients who independently can take care of themselves take up beds in care departments when they can become hotel guests at a significantly lower daily cost? This is an opportunity to make patients feel better in a more revitalising environment at no extra cost while, at the same time, the workforce can be reduced. However, the most important aspect of this building concept is that it creates space at the hospitals for incoming patients. It is a win-win concept.

Users

A doctor decides whether it is appropriate for a patient to move from the hospital to a patient hotel. Self-sufficient patients can stay, before, during and/or after hospital stay as part of the care episode. It is typically cancer patients who needs a place to stay close to the hospital during treatment for five to seven weeks (personal communication, 2019-01-25). It can also be patients before and/or after surgery for example a patient who had heart transplant and needs to visit the hospital once a week for blood samples the first six months after the surgery (personal communication, 2019-01-25). If a mother needs to heal and regain strength after a complicated delivery, she and her family can also stay a couple of nights at the patient hotel.

Most of those patients can cope relatively well on their own, but have the advantage of being close to the hospital but also to find comfort in knowing that medical staff in the building are there for support. Some patient hotels also invites other guests when patients do not fill up all the rooms.



Figure 1: Norlandia patient hotel, Årstadaviken

Patient hotels in Scandinavia

The first patient hotel was built 1988 in Sweden at Lund University Hospital, for the purpose of freeing up hospital beds (Quito, A., 2015). The hospital was lacking resources to meet the increasing demands for hospital beds and therefore a team came up with a new model of patient care in cooperation with the hotel chain SAS (Quito, 2015). It was a rethinking of what healthcare facilities can provide and the idea of a patient hotel was developed where patient could stay as guests before, during or after treatment with support from medical staff, family and friends.

Since the first hotel was built in Sweden, several bigger hospitals in Scandinavia followed this concept of relocating self-sufficient patients to use the resources of the hospitals in a more efficient way (Quito, 2015). The largest patient hotel chain in Scandinavia is Norlandia, with six buildings as a complement to hospitals in Sweden, Norway and Finland (Quito, 2015). They are all located in a bigger hospital area and thus in direct connection with the hospital's employees and medical expertise. The guests are business travellers, tourists and patients with relatives (Quito, 2015).

I found it difficult to find information regarding how many patient hotels there are currently in Scandinavia. It is also not clear if a building can be called patient hotel if there is some kind of treatment or if in that case it is more similar to a hospital. It seems that the term patient hotel is not used to a great extent. Titti Johansson who works at Ronald McDonald



Figure 2: Ronald McDonald, Gothenburg

in Gothenburg, describes that Ronald McDonald houses are such an example where those buildings that are not always described with this term (personal communication, 2019-01-29), yet they work in the same way. There are three Ronald McDonald houses in Sweden and they are providing accommodation for children with long term illness and their families close to hospitals.

It is also common in Sweden today that larger hospitals rents rooms in a regular hotel for patients, for example Sahlgrenska University Hospital are renting rooms at Panorama Hotel in Gothenburg (personal communication, 2019-01-25). It is often the case that patient hotels are not initially built for its purpose, but are restorations of other premises in a large hospital area such as the overnight stay at Högbo Hospital for patients who needs treatment at Sahlgrenska University Hospital (personal communication, 2019-02-04). Nenad Stojancevic, nurse at Högsbo övernattningsrum, explains in an interview (personal communication, 2019-02-04) how the building could support patients to a greater extent if you were to build a patient hotel from scratch and design for this use. I think that some simple changes could make big improvement such as planning for each room to have a toilet and create a more homely and healthy environment that is not associated with a hospital, which I would say after a study visit, is not really the case in Högsbo.



Högsbo övernattningsrum, corridor

Current situation in Gothenburg

Göran Matejka, deputy Director at Sahlgrenska, explains in an interview that for patients who do not live in Gothenburg and will have surgery or treatment at Sahlgrenska University Hospital, there are currently rooms at Högsbo hospital in western Gothenburg (personal communication, 2019-01-25). Sahlgrenska also has a current collaboration with Panorama hotel in Johanneberg, where patients can stay for a treatment period together with their family. However, there are still patients staying overnight at Sahlgrenska Hospital even though they are not in need of any care. This is an inefficient use of expensive hospital beds.

Nenad Stojancevic, nurse at Högsbo övernattningsrum, clarifies in an interview that there is no treatment at Högsbo hospital or Panorama Hotel (personal communication, 2019-02-04). They work as a logistic solution for overnight stay for patients before, during and/or after the care episode. Stojancevic also describes that there has been a discussion about if there is a possibility to rebuild Högsbo övernattningsrum to get more rooms as there is a need for at least twice as many rooms in addition to the rooms available today (personal communication, 2019-02-04).

Stojancevic explains how the building could support patients to a greater extent if you were to build a patient hotel from scratch and design for this use (personal communication, 2019-02-04). Some changes could make big improvement such as planning for



Högsbo övernattningsrum, single room

each room to have a toilet and create a more homely and healthy environment that is not associated with a hospital, which I would say after a study visit, is not really the case in Högsbo.

It is an inefficient use of the hospital beds if patients who independently can take care of themselves are staying at the hospital. It is also not suitable for patients to stay at Panorama hotel, where the patients might be in a vulnerable situation and yet there is no medical staff close for support. The room program does not provide resources to ease control or be independent in an everyday life which I see as a problem if you where to stay here for 5-7 weeks, which is the most common scenario for patients who needs treatment at Sahlgrenska.

One of three Ronald McDonald houses in Sweden are located in Gothenburg and works as a patient hotel in connection to Queen Silvia's children's and youth hospital. However, based on interviews, there is a need for a new patient hotel that requires approximately 40 patient rooms, that could work as a complement for Sahlgrenska University Hospital.



Patient room, Ronald McDonald House, Gothenburg

Ronald McDonald House

Ronald McDonald House in Gothenburg is located in walking distance to Queen Silvia's children's and youth hospital. There is 41 family rooms that can be used by families where a child is having treatment at the hospital. Titti Johansson, a nurse who is working at Ronald McDonald, explains that the longest a family has stayed is 4 years, but in average a family stays for 2 weeks (personal communication, 2019-01-29). She describes that she can often see that the families that are staying at Ronald McDonald really bond with each other that she thinks it has a lot to do with being in similar situations (personal communication, 2019-01-29).

There are plenty of common areas such as several kitchens where each family have half of a fridge to fill with their food, living rooms, playroom, library, computer room, laundry rooms, activity room and a relax room with sauna.

The facility feels very homely and not associated with a hospital. Here, the families can cook all their meals independently, wash their clothes and live their daily life. No treatments are performed. Ronald McDonald is a free zone and it is about creating a homely atmosphere.

The common areas are spread out and varies in size, which could be a good way of creating spaces where you can chose different levels of privacy. Materials,

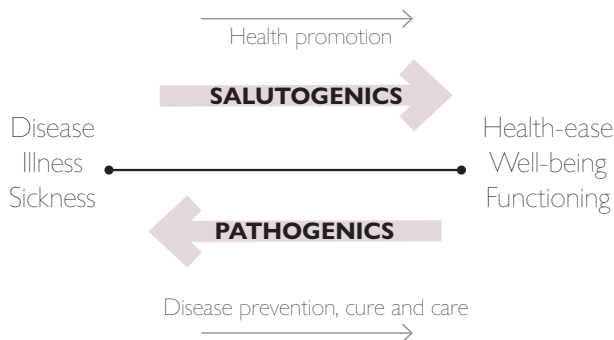


Kitchen, Ronald McDonald House, Gothenburg

lightning, furniture and room functions reminds of a home, not an institution.

After this study visit, the choice was made to create a home away from home only for patients, family and friends, where people are in similar situations and can share experiences.

HEALTH PROMOTION



HEALTH PROMOTION

**Sense of
coherence**

**Health
behaviour**

**Health
equity**

Salutogenic design

Psychosocial research on health can be divided into a pathogenic and salutogenic perspective. The Salutogenic perspective is focusing on what promotes health and how to maintain a healthy lifestyle, instead of merely the factors that cause illness.

The mental and social needs of patients are often neglected in hospitals where the clinical practice merely focus on treating illness. Treatment is necessary when one is ill, but to maintain health, supportive surroundings are always essential which is why this master thesis is mainly focused on creating a patient hotel with environments with a salutogenic perspective.

(Golembiewski, 2014):

- “The design of “salutogenic” environments requires not only the elimination of negative stress inducing features, but also the addition of environmental enhancements, including such factors as increased personal control, contact with nature and daylight, aesthetically pleasing spaces, and spaces for relaxation alone or with others.”

Three main perspectives

Health promotion has several definitions, strategies and theories on how the built environment can promote health. Simplified, these different perspectives could be divided into three main categories (Miedema, 2017):

- “A health promotion strategy focused on **sense of coherence**”
- “A health promotion strategy focused on **health behaviour**”
- “A health promotion strategy focused on **health equity**”

A good building reference of health promotion should include all of those aspects.

Sense of coherence

The term salutogenics is often associated with having a strong sense of coherence which was introduced by Aaron Antonovsky, professor of medical sociology theory, in his book “Health, stress and coping” (Antonovsky, 1979). He had a theory of how implementing salutogenic design supports patient’s sense of coherence and argues that there is a significant relationship between a strong sense of coherence and good health. He divided this theory of sense of coherence in three components:

- **Comprehensibility:** “an individual’s ability to understand the situation at hand, and to understand what might come next” (Midema, 2017)
- **Manageability:** “an individual’s perception of having the resources to handle the situation, and feeling in control of the situation.” (Midema, 2017)
- **Meaningfulness:** “the importance of a situation for the individual.” (Midema, 2017)

Health behaviour

The strategy that is focused on health behaviour aims at encouraging the whole society to make healthy daily choices. This is an approach often includes promoting “physical activity, social interactions, healthier diets and wellness” (Midema, 2017). This perspective is commonly used by WHO and the focus is on promoting a healthy lifestyle for everyone. Recent research also consistently associate active design strategies with a higher level of physical activity and thus a healthier lifestyle (Bloomberg, 2010).

(Glanz and Bishop, 2010):

- *“Increasing evidence suggests that public health and health-promotion interventions that are based on social and behavioral science theories are more effective than those lacking a theoretical base.”*

(Cohen, 2004):

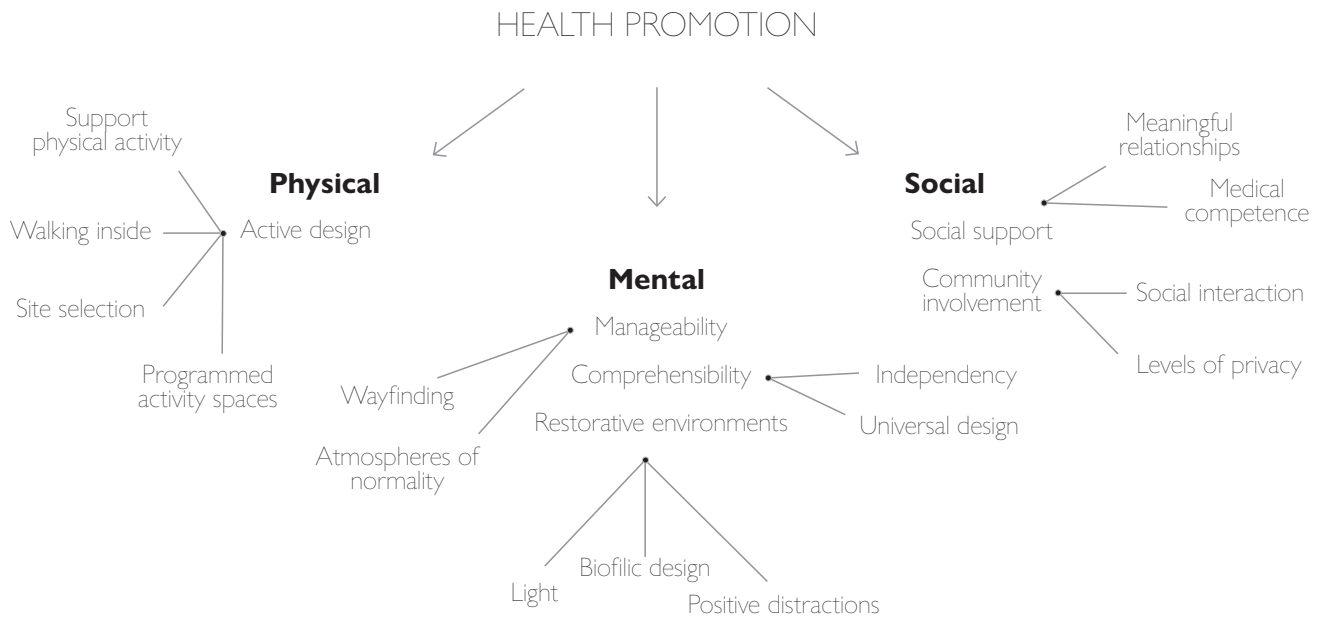
- *“...the physical environment and how it influences people’s emotions, behaviours and motivation are important to take into consideration when the aim is to promote health and wellbe-ing.”*

Health equity

Health equity as a health promotive strategy is focusing on the right to health for everyone. According to WHO (WHO, 1946), every human being has the right to “the highest attainable standard of health”. Health equity in relation to the built environment includes an equal opportunity to accessible, none discriminating and available healthcare services with suitable quality (WHO, 1946). This can be summarized in four topics (Midema, 2017):

- **Availability:** “Functioning public health and enough good healthcare services and facilities.” (Midema, 2017)
- **Accessibility:** “Access to health facilities, goods and services for everyone, in which accessibility includes non-discrimination, physical accessibility, economic accessibility (affordability) and information accessibility.” (Midema, 2017)
- **Acceptability:** “All health facilities, goods and services must be respectful of medical ethics and culturally appropriate, as well as sensitive to gender and life-cycle requirements.” (Midema, 2017)
- **Quality:** “Health facilities, goods and services must be scientifically and medically appropriate and of good quality.” (Midema, 2017)

—— PHYSICAL, MENTAL AND SOCIAL HEALTH ——



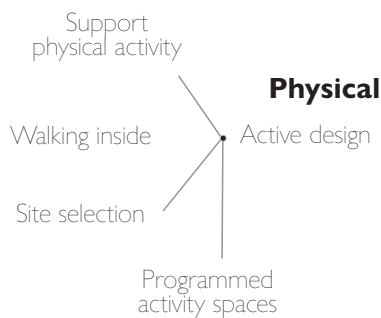
The different strategies of health promotion can guide several design choices, but there needs to be an awareness of how following one approach can neglect other important aspects of health promotion. Investigating how the built environment can promote health as much as possible, requires a broad perspective looking at the initial definition of human health: “a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity” (WHO, 1947).

Based on research stated in the previous chapter, I have another suggestion of important health promoting factors in relation to a patient hotel and its surroundings. With a salutogenic approach, the following three health aspects are:

- **Physical health:** Environments that supports physical activity and a healthy community.
- **Mental health:** Manageability, comprehensibility and restorative environments.
- **Social health:** Social support, close family presence and community involvement.

Physical health includes aspects of health behaviour for the whole society. Manageability and comprehensibility gives a sense of control of the environment and your own health which is an important part of being mentally healthy. Meaningfulness relates to both mental and social health, where important factors are varying for different individuals. It can involve being part of the community and having meaningful relationships but also activities that make you feel valuable in some way.

The overall concept of patient hotel includes several perspectives of health equity. Patient hotels are focused on a vulnerable group of people while the concept at the same time is beneficial for the overall healthcare system and society. The concept provides a higher quality with a more appropriate care situation where patients can be close to their relatives and also a part of the everyday life of the community. At the same time, it makes the healthcare hospital beds more available for incoming patients who really are in need of care.



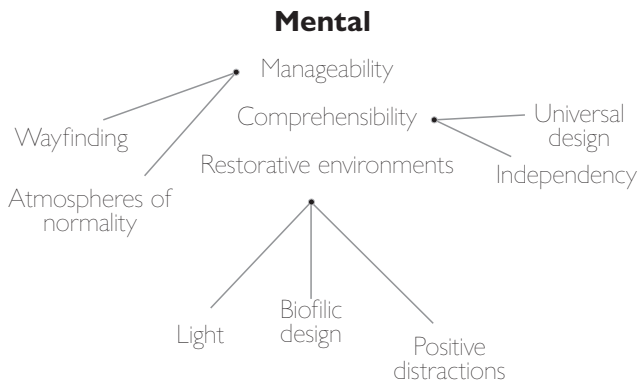
Active design

Probably everyone visits a healthcare facility at some point in their life which gives those care buildings an important role in promoting health in a community setting. Building a large hospital area where only patients and staff is moving, not only excludes society but it isolates the patients. If healthcare facilities, such as patient hotels, can be more integrated in the local community, there is a possibility to promote health at a higher level for everyone (Bloomberg, 2010). This involves strategies that is focusing on the surroundings and site location of the patient hotel, providing a “health-promoting organizational structure and culture, including active, participatory roles for patients and all members of staff” (Hancock, 1999) but still allows for patients to choose their level of privacy.

Bloomberg argues that “neighbourhood design can also significantly impact physical activity and health, especially through features such as land use mix, walkability, bicycling infrastructure, and parks and open space.” (Bloomberg, 2010). Providing for opportunities to be physically active especially in the outdoors, has been presented to benefit health and well being (Carpenter and Harper, 2016). Research has also shown that a healthier diet is linked to having a full grocery store within the neighbourhood (Bloomberg, 2010).

Recent research consistently associate active design strategies with a higher level of physical activity (Bloomberg, 2010) such as:

- **Site selection:** “Land use mix, walkability and bicycling infrastructure, closeness to parks and open space, invite the community.”
- **Walking inside:** “Opportunities for walking in a circular system, inviting and visible staircases, interesting views along paths, interior finishes, easy access to outdoor space and multiple entries.”
- **Programmed activity spaces:** “For example exercise rooms, swimming pools, running tracks, multipurpose rooms, social activities and other specialized spaces designated as venues for physical activity.”
- **Support physical activity:** “Shower rooms, bicycle storage and other supportive spaces.”



Manageability

It is fortifying to experience that you have control over your own health and that you have “all the required resources necessary to cope with a given challenge or demand” (Golembiewski, 2014). Independency and manageability that supports individuals to feel that they can influence what is happening around them, strengthens self-esteem and accelerates recovery (Eliasson, 2009). The sense of control over the life circumstance and environment is of great importance to enhance health and well-being (Golembiewski, 2014).

It is often the case in hotels and hospitals that large gathering rooms are used for daily meals and other activities (Golembiewski, 2014). Room programs in patient hotels can benefit from being more similar to a “home” than a typical hotel or a hospital. For example, ordinary facilities like kitchens provides patients to independently cook their own food, patients can socialize or have spontaneous meetings in shared living rooms, laundry rooms, activity rooms etc.

A high accessibility with a universal design approach is also of great importance to strengthen equal independency and manageability. The site location can also simplify daily life with walkability to both necessities such as grocery stores etc. and enjoyable activities like being in nature or participating in social activities. In this way, patients can take a higher responsibility and gain control of their own health.

In summary, some things that needs to be considered are:

- Independency: “Similar room program to a home such as kitchens, laundry rooms, living rooms, activity rooms, social and private zones etc.”

- Universal design: “High accessibility, accessible parking, public streets or walkways and transport stops to building entrances, contrasts for vision impairment, closeness to necessities such as grocery stores but also nature and social activities to gain control over their own health.”

Comprehensibility

A high comprehensibility means that the individual can understand and read the built environment. This include the abilities to comprehend space, dimensions, mass, orientation, time etc. (Golembiewski, 2014). Reducing perceptual distortion requires environmental order, predictability and an intuitive orientation. It is important to create clear, consistent and visual communication (Design work plan, 2019) to easily find your way inside and outside the building.

In order to understand the environment around us, a certain recognition is required with familiar concepts and expectations (Golembiewski, 2014). Materials, objects, arrangements and room division should somehow relate to what we are used to.

(Golembiewski, 2014):

- “Objects should look, sound and feel like whatever they are (except, of course for institutions, which should have charm and personality and should be the functional equivalent of a home.)”

A patient hotel, or any other healthcare facility, should not be institutional building blocks in a large hospital area with long dark corridors. Instead, a patient hotel should strive to create atmospheres of normality (Aslaksen, 2007).

(Apelt, et al. 2007):

- *“An uninterrupted path of travel to, from or within a building, providing access to all required facilities.”*

- **Wayfinding:** “Clear signs and maps, visible arriving point and entrance, continuous accessible path of travel, views outdoors, non homogeneous environments, landmarks or markers, color coding etc.”

- **Atmospheres of normality:** “Not an institutional building block in a large hospital area with long dark corridors, but atmospheres more similar to a home.”

Restorative environments

A great amount of research and evidence based design indicates that being in and viewing nature, a higher amount of daylight and positive distractions are all great predictors for good health and mental well-being (Ulrich et al., 2008). Based on the research of Roger Ulrich et al., some factors of how design can contribute to a healing environment are:

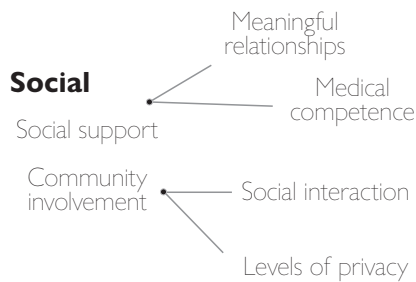
- **Biophilic design:** “Nature views, natural materials, outdoor spaces with vegetation, water, spatial openness, and nature sounds such as birds and water.”

- **Light:** Daylight and artificial light.

- **Positive distractions:** “Something that takes your mind away, viewing art, human based activities, nature, hearing people or pleasant sounds etc.”

The concept of a patient hotel allows for patients to go away from the stressful hospital environment. The site location is of great importance where closeness to greenery and good daylight conditions are vital for promoting mental health. Some research points out that morning daylight is especially important (Ulrich, 2002). However,

a higher amount of daylight in general “reduces depression, perceived pain and patients have a more rapidly recovery” (Ulrich et al., 2008). Studies also indicate that illumination can affect sleep and work performance as well as reduce depression (Ulrich et al., 2008).



Social support

One important factor of promoting individual health and the ability to cope with stress is the provision of social support (Cohen, 2004). Research indicates that social support can enable recovery and reduce stress, depression and anxiety (Cohen, 2004).

(Cohen, 2004):

- *“Social support eliminates or reduces effects of stressful experiences by promoting less threatening interpretations of adverse events and effective coping strategies.”*

Meaningful relationships like having family and friends close can be of great importance for patients during their care episode (Golembiewski, 2014). There is a need for family-oriented healthcare facilities as a complement to the hospitals “such as those run by the Ronald McDonald House Charities” (Peters, 2017).

The medical competence of the staff also provides security and social support. Patients can discuss their situation, ask questions if they are wondering about something and contact with the bigger hospital can quickly be arranged.

Being in similar situations with the other patients creates a semi private sphere within the patient hotel, where people can share experiences with one another.

- **Meaningful relationships:** “Family-oriented

facility, different room sizes with space for adding an extra bed.”

- **Medical competence:** “ Staff with medical competence and contact with the hospital provides security and support.”

Community involvement

Existing research have established that social integration is are predictors of health and well-being (Cohen, 2004) (Seligman et al., 2013). Social contacts, quantity and quality of social interactions and feeling isolated have all been shown to influence health (Cohen, 2004).

Healthcare facilities can cooperate in a greater extend with the local community. Patient hotels have the opportunity to consider patients as part of an everyday life. At the same time, patients should always be able to choose their level of privacy and not be forced to social interaction.

(Cohen, 2004):

- *“It is a multidimensional construct thought to include a behavioral component; active engagement in a wide range of social activities or relationships, and a cognitive component; a sense of communality and identification with one’s social roles.”*

(Gehl, 2006)

- *“Being among others, seeing and hearing others, receiving impulses from others, imply positive experiences, alternatives to being alone.”*

- **Social integration:** “ Local site with closeness to social, communal and everyday life activities to increase social interaction and not isolate patients.”

- **Levels of privacy:** “Provide for spaces that allow for different levels of privacy.”

INSPIRATION



Figure 3: Maggie's centre, Manchester

Maggie's centre

Maggie's Centres are inspirational building projects across the world, that provides a supportive caring environment for people affected by cancer. The idea of creating uplifting environments with great architecture as an experimental program for cancer patients, was founded in the 1990s and led by Charles Jenks and his wife Maggie Keswick Jencks (Peters, 2017). Maggie was diagnosed with cancer and died in 1995 (Peters, 2017). She and her husband had a strong believe that architecture could promote health in a way that is could be uplifting and comforting.

Maggie's Centres are spiritual retreats that enhances the experience of nature, providing support and practical advice as well as creating a sense of community involvement, often through studios for creation and "kitchenism" as they call it (Peters, 2017). With this expression, they mean creating informal meetings around a kitchen table that can gradually strengthen social ties with other people over a cup of coffee. Patients learn from each other and find comfort in being in similar situations (Peters, 2017).

(Peters, 2017):

- "Maggie's is part of a world movement that seeks to combine the giant hospital with other building types and a more holistic approach."



Figure 4: Roof terrace in Skandionkliniken, Uppsala

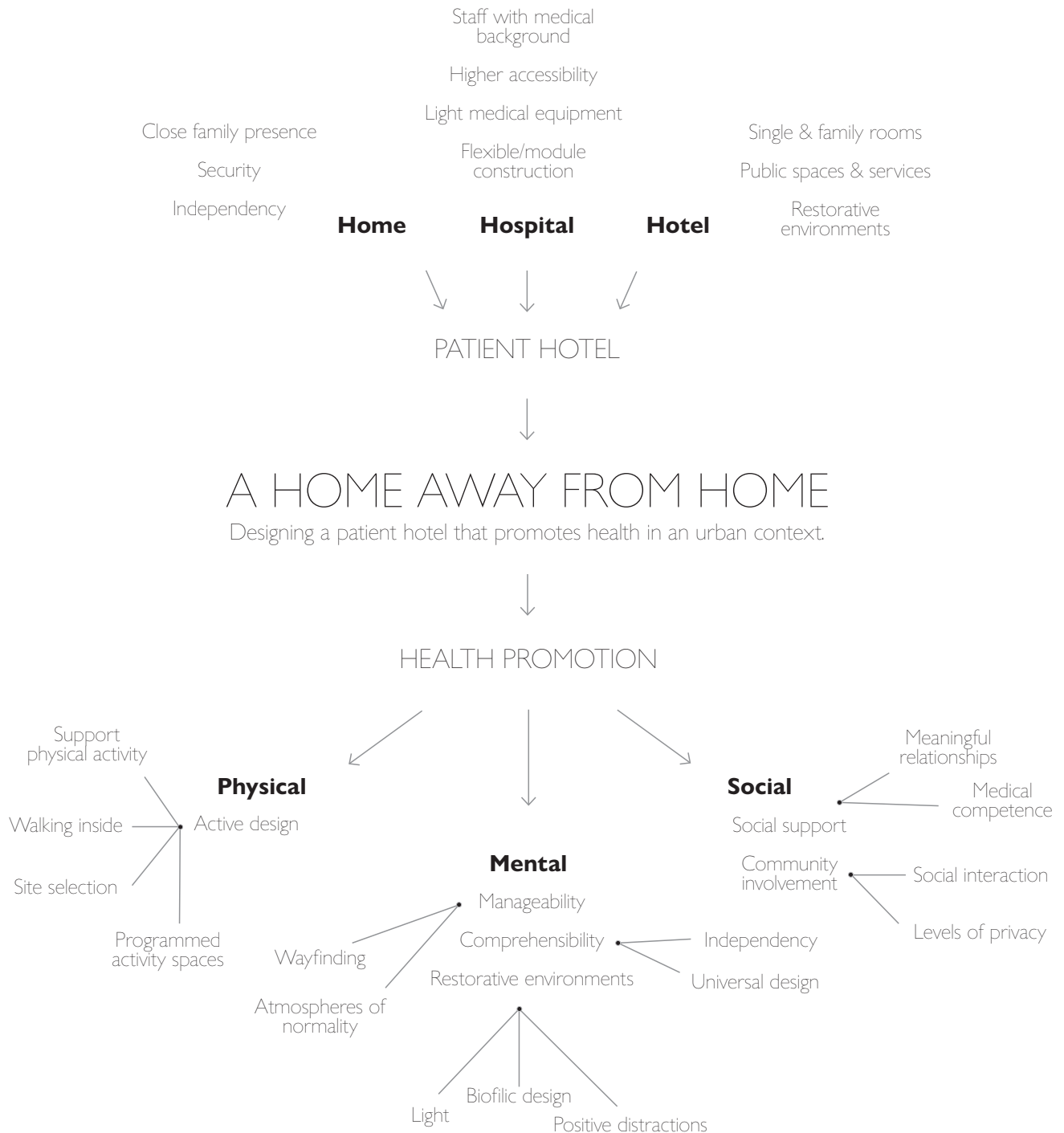
Skandionkliniken

Skandionkliniken is a care facility in Uppsala built 2016 for cancer treatment. The building also provides overnight stay for independent patients with long travel distance (Skandionkliniken, 2019).

The relaxing atmosphere of the clinic is different from common care environments. It is a building with a lot of natural materials - wood, stone and textile. On the ground floor there is an entrance square that does not resemble a regular waiting room in a healthcare facility. It is airy and bright with comfortable furniture where patients and relatives can read newspapers, put puzzles or rest in the Japanese-inspired courtyard.

On floors 2-4, Hotel von Kraemer is located where many of the patients stay (Skandionkliniken, 2019). There are several lounges serving as living rooms for guests who stay for longer periods. Hotel guests have access to a roof terrace. Guests who are not patients and relatives are also welcome to stay at the hotel.

DESIGN PROPOSAL



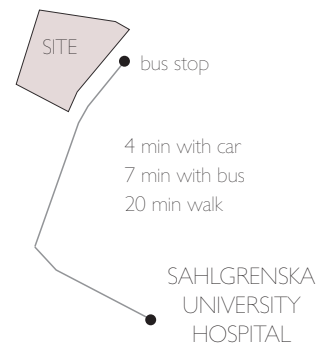


The public atrium is filled with natural light, vegetation, water fountains and this space can be used all year around.

A home away from home

Sometimes people need care that is only available at Salhgrenska University Hospital, but the hospital might be far from home. It can be difficult to get well without the presence of family, in a stressful hospital environment with beeping machines and people in white coats. This is a design proposal of a patient hotel, integrated in the city that promotes physical,

mental and social health. The patient hotel can give families peace of mind during a difficult period of life and arrange for them to live a relatively normal life. It is a home away from home that encourage social interaction and support, as well as offering spaces that allow privacy and independence.



A new patient hotel at Skanstorget

The idea for the design proposal is that all self-sufficient patients from Sahlgrenska University Hospital and Panorama hotel could move in to the new patient hotel located at Skanstorget in Gothenburg.

Based on interviews as mentioned, the need requires approximately 40 patient rooms in the new patient hotel.

Sahlgrenska University Hospital

It is a compromise to choose a site for a patient hotel that is not right next to the hospital; 7 minutes with bus number 25, 4 minutes with car or 20-minute walk. However, getting away from the very stressful environment at the hospital and being able to enjoy the community life is what this project is aiming for.





Figure 5: Site, Skanstorget

Skanstorget

Skanstorget is located in central Gothenburg between Haga, Linné and Skansparken. This site is currently used as a parking lot, but have a great potential to be new meeting point in the community with good daylight conditions, closeness to the city and greenery views of Skansparken.



Figure 6: Site, Skanstorget year 1915

History

Skanstorget is located in an area that many associate with history and culture. Until the 19th century, Skanstorget was free of both buildings and vegetation to keep clear views from Skansen Kronan. The site has since served as a pasture and later in 1885, the city bought the land and built a market hall. Since the 1940s, the site is characterized by gray paved surfaces.

Future development

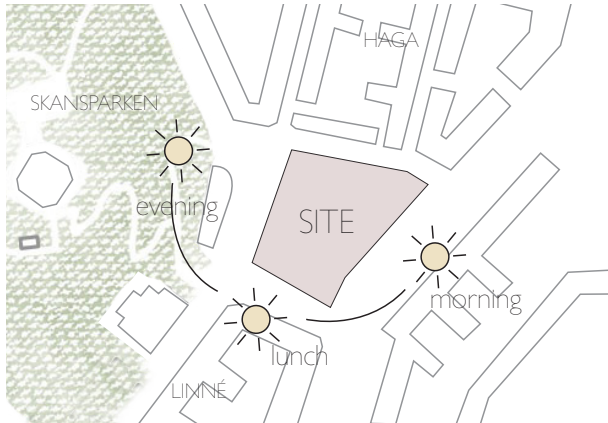
A competition and land allocation of Skanstorget was completed 2018. The municipality arranged a public vote between three proposals that would determine the future of Skanstorget.

Behind the winning proposal is Ernst Rosén and Okidoki architects. 200 new homes, commercial/public ground floor, a preschool, underground parking etc. results in a building block that covers almost the whole site with 4-7 floors. I was not allowed to publish any pictures of the result here in this master thesis.



A new meeting point

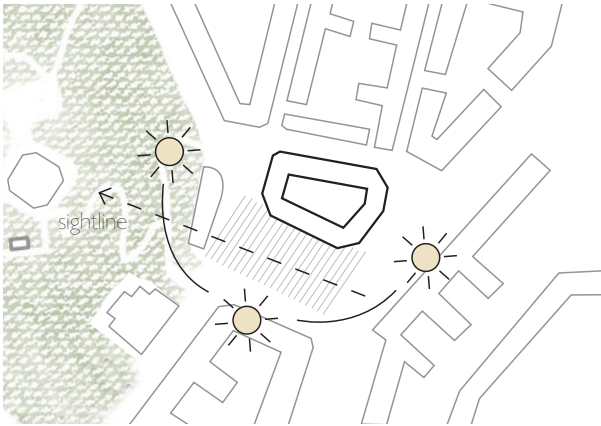
It is wise to densify a city like Gothenburg, but there must be a balance between the houses themselves and the rooms between the buildings to experience the city as attractive. The aim for this master thesis is to contribute to the urban life in the area and remain the views towards Skansparken. Skanstorget has great potential for being a new attractive meeting point between Haga, Linné and Skansparken where patients can be considered as part of the community.



Restorative environment

The site has good daylight conditions with greenery views of Skansparken and people walking up to Skansen Kronan.

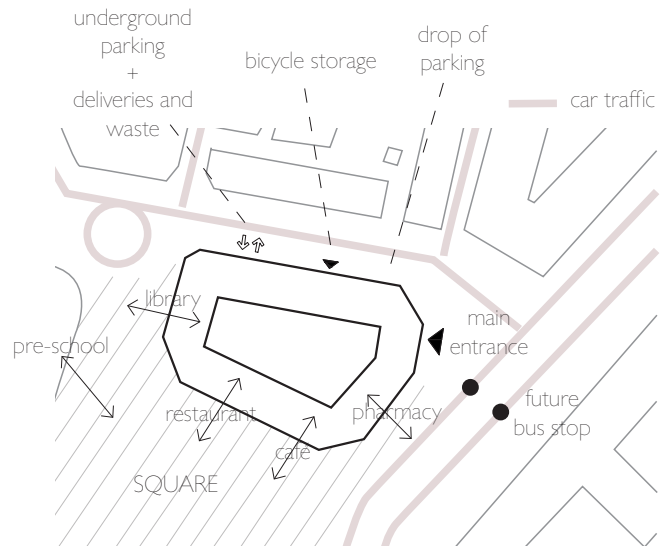




By maintaining the site partly as an open space, Skansen Kronan remains visible from the road. By building on the northern part of the site, the square has daylight throughout the day and also creates good daylight conditions in the building.

(Ulrich et al., 2008):

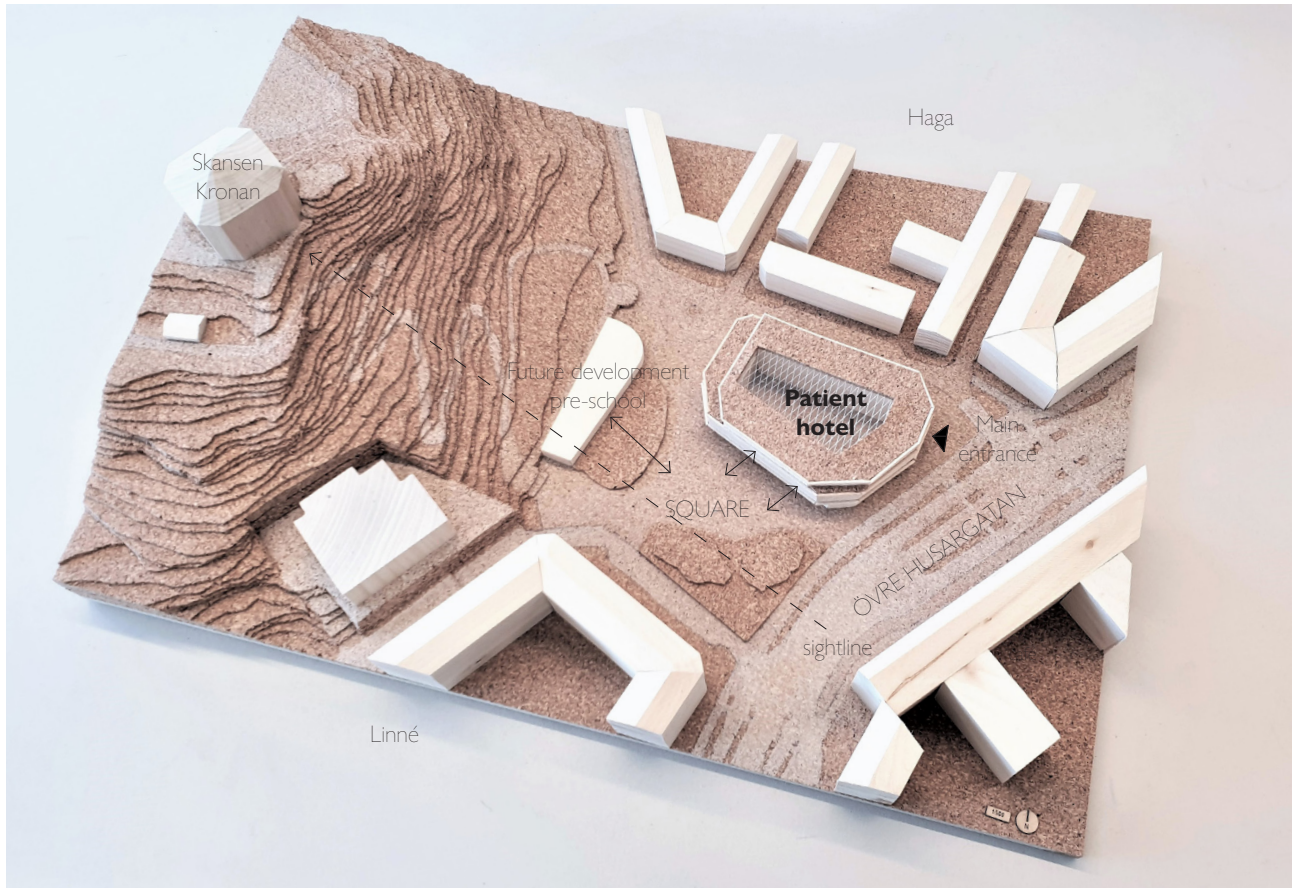
- "...a higher degree of access to natural light reduces depression, perceived pain and patients have a more rapidly recovery."



By collecting all traffic in the northern part of the site, a car-free square is created with a connection to the preschool and the patient hotel that everyone has access to.

(Cohen, 1988):

- "Interacting with others is also thought to aid in emotional regulation increasing positive affect and helping limit the intensity and duration of negative affective states."







The new square belongs to everyone, contributes to the urban life in the area and remains the views of Skansen Kronan.

Social integration

Perhaps the most important function of the square is to be a meeting place, a room that everyone has access to and which thus creates a sense of belonging. This is a place where the patients, friends and family can participate in a social activity and feel that they are part of the community. The patient hotel its surroundings

contribute to an active urban life in the area. The public square allows for different kind of activities and connects to a café, a restaurant and a pharmacy but there could also be a small playground in connection to the pre-school.



HAGA

Facade division

wood

Small scale



Public groundfloors



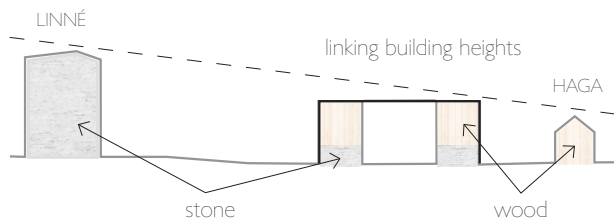
Corners

LINNÉ

Silhouettes

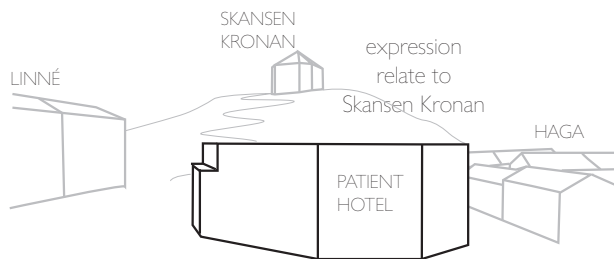
Decorations





Relates to Haga and linné

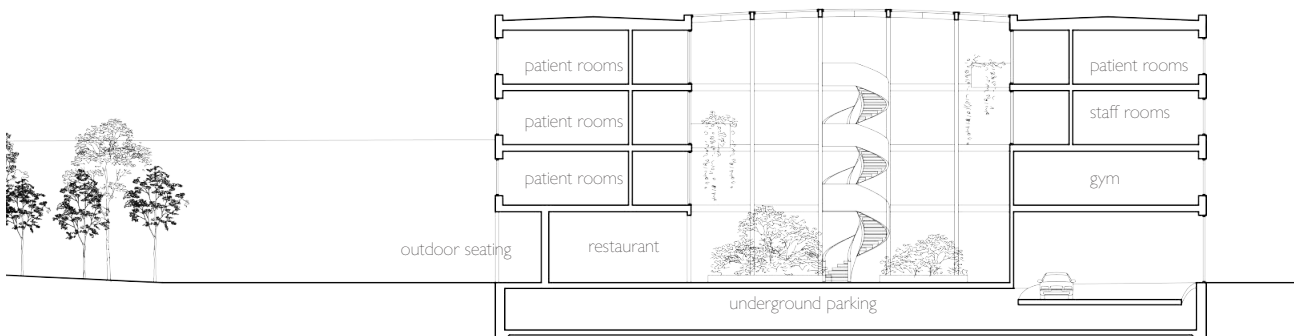
The building relates to its surroundings by the use of materials in the way that the public ground floor has a stone facade relating to the buildings in Linné and the wooden facade on the three upper floors creates a connection to Haga.



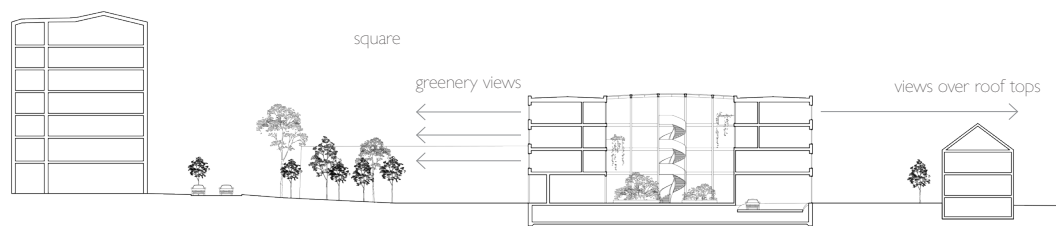
The building shape is also inspired by Skansen Kronan as the corners are cut in a similar way. The building height of four floors links the building heights of Haga and Linné and the windows are placed in a strict pattern above each other similar to the surrounding buildings.



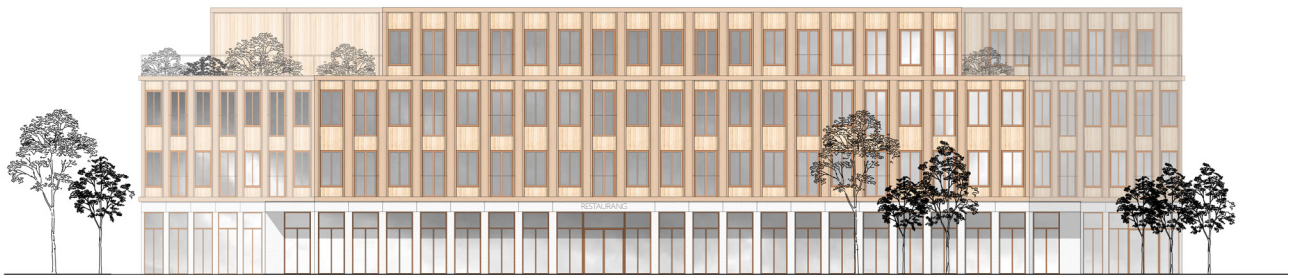
EASTERN FACADE 1:400



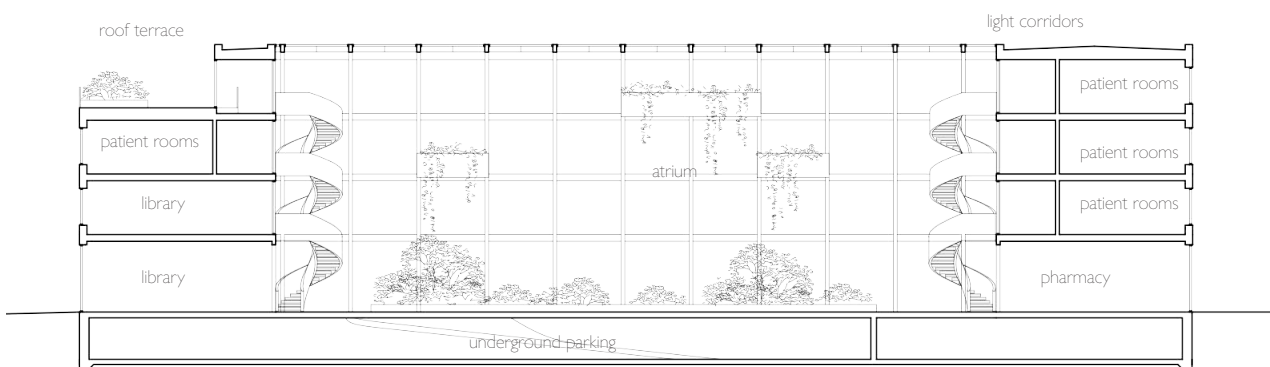
SECTION A-A 1:400



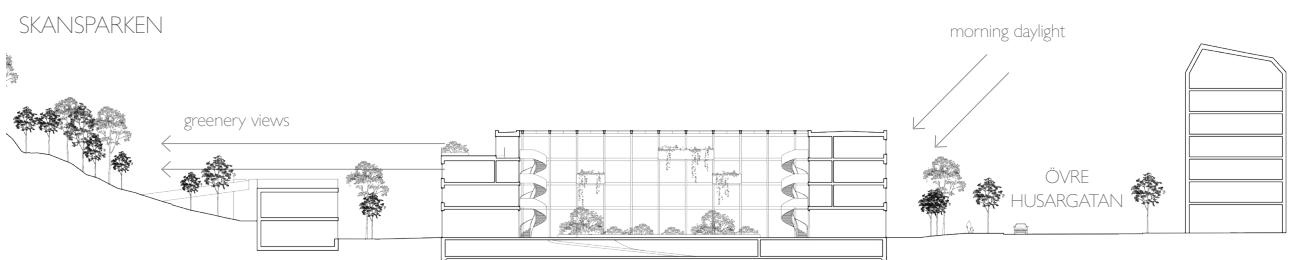
SECTION A-A 1:1000



SOUTHERN FACADE 1:400

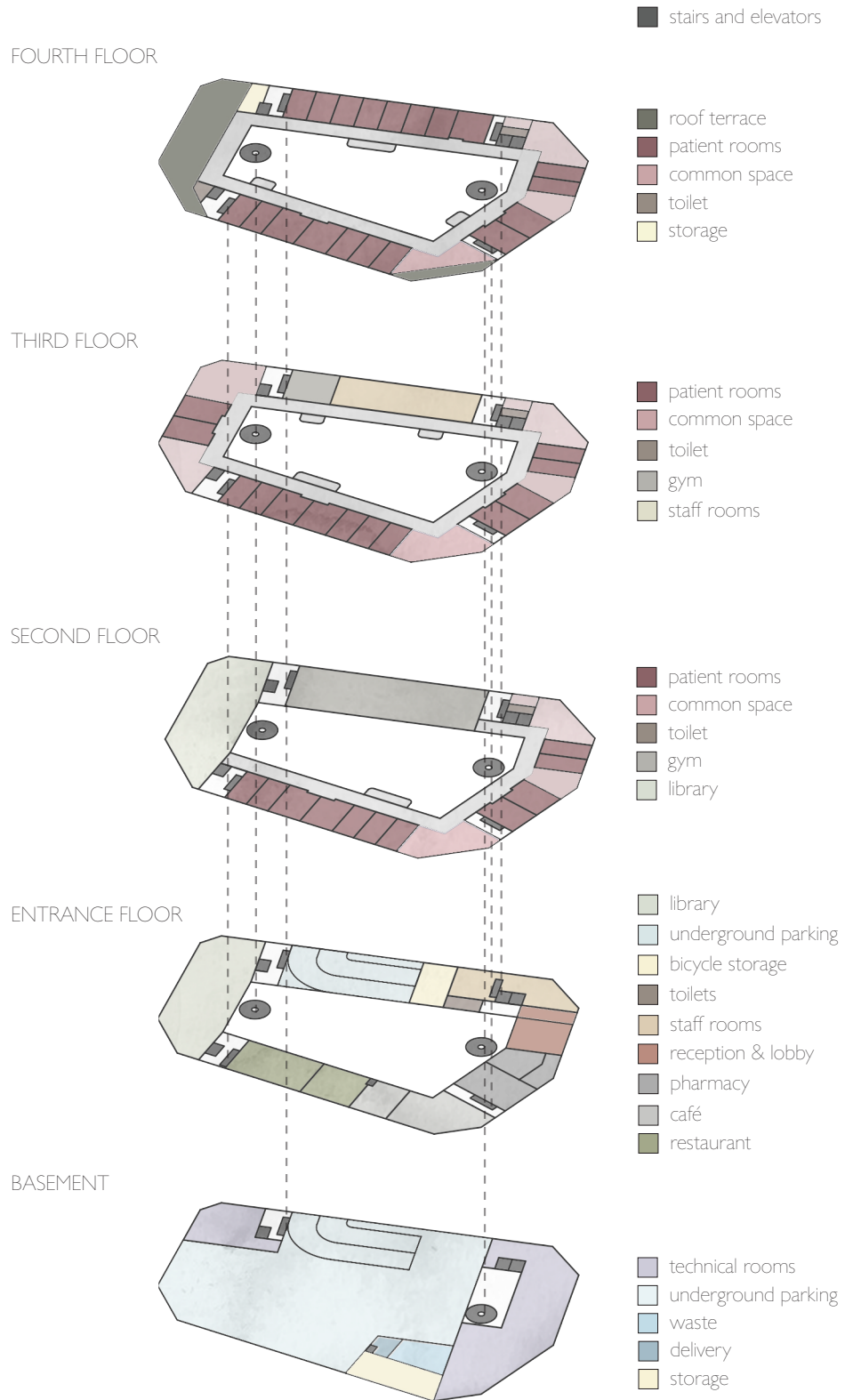


SECTION B-B 1:400



SECTION B-B 1:1000

ROOM LAYOUT



Patients, family and friends**43 patient hotel rooms with HWC 1110 m²:**

28 standard rooms (1-3 beds)	22,5 m ²
15 family rooms (4 beds)	32 m ²

Common spaces 708 m²:

4 Fully equipped kitchens & dining areas	4x58 m ²
3 Living rooms	3x70 m ²
1 Activity room	80 m ²
3 Play rooms / TV rooms	3x30 m ²
3 Laundry rooms	3x7 m ²
1 Toilet on each floor	3x5 m ²
Lobby	60 m ²

Public spaces**Restaurant 150 m²:**

Dining area	90 m ²
Bar	10 m ²
Kitchen	17 m ²
Fridge and freezer rooms	2x4 m ²
Dressing room, HWC, shower & lockers	9 m ²
Staff lunch/meeting room	16 m ²

Café 120 m²:

Dining area	80 m ²
Kitchen	13 m ²
Fridge and freezer rooms	2x3 m ²
Dressing room, HWC, shower & lockers	9 m ²
Staff lunch/meeting room	12 m ²

Gym 307 m²:

Gym	180 m ²
Physiotherapy	40 m ²
1 Massage room	12 m ²
2 Dressing rooms, showers and lockers	2x15 m ²
Storage	8 m ²
2 Dressing room, shower, lockers for staff	2x10 m ²
Staff lunch room with small kitchen	17 m ²

Pharmacy 126 m²:

Pharmacy	68 m ²
Storage	38 m ²
Dressing room, HWC, shower & lockers	10 m ²
Staff lunch room with small kitchen	10 m ²

Staff**Administration 72 m²:**

Reception	26 m ²
Reception office	8 m ²
Nurse expedition & documentation	16 m ²
Meeting room	22 m ²

Treatment rooms 36 m²:

1 Examination room	16 m ²
1 Conversation room	10 m ²
1 Consultation room	10 m ²

Common areas 81 m²:

1 Room for resting & HWC	22 m ²
1 Kitchen and break room	33 m ²
2 Dressing rooms, HWC, shower & lockers	2x13 m ²

Logistics 79 m²:

Bag storage/ lost and found	4 m ²
3 Cleaning and general storage	8 m ²
Goods delivery	20 m ²
Waste room	45 m ²

Technical rooms 384 m²:

Ventilation	300 m ²
Sprinkler room	40 m ²
Electricity	4 m ²
Incoming electricity	20 m ²
Incoming district heating	20 m ²

ENTRANCE FLOOR



ENTRANCE FLOOR PLAN 1:500 



The public atrium is filled with natural light, vegetation, water fountains and can be used all year around.

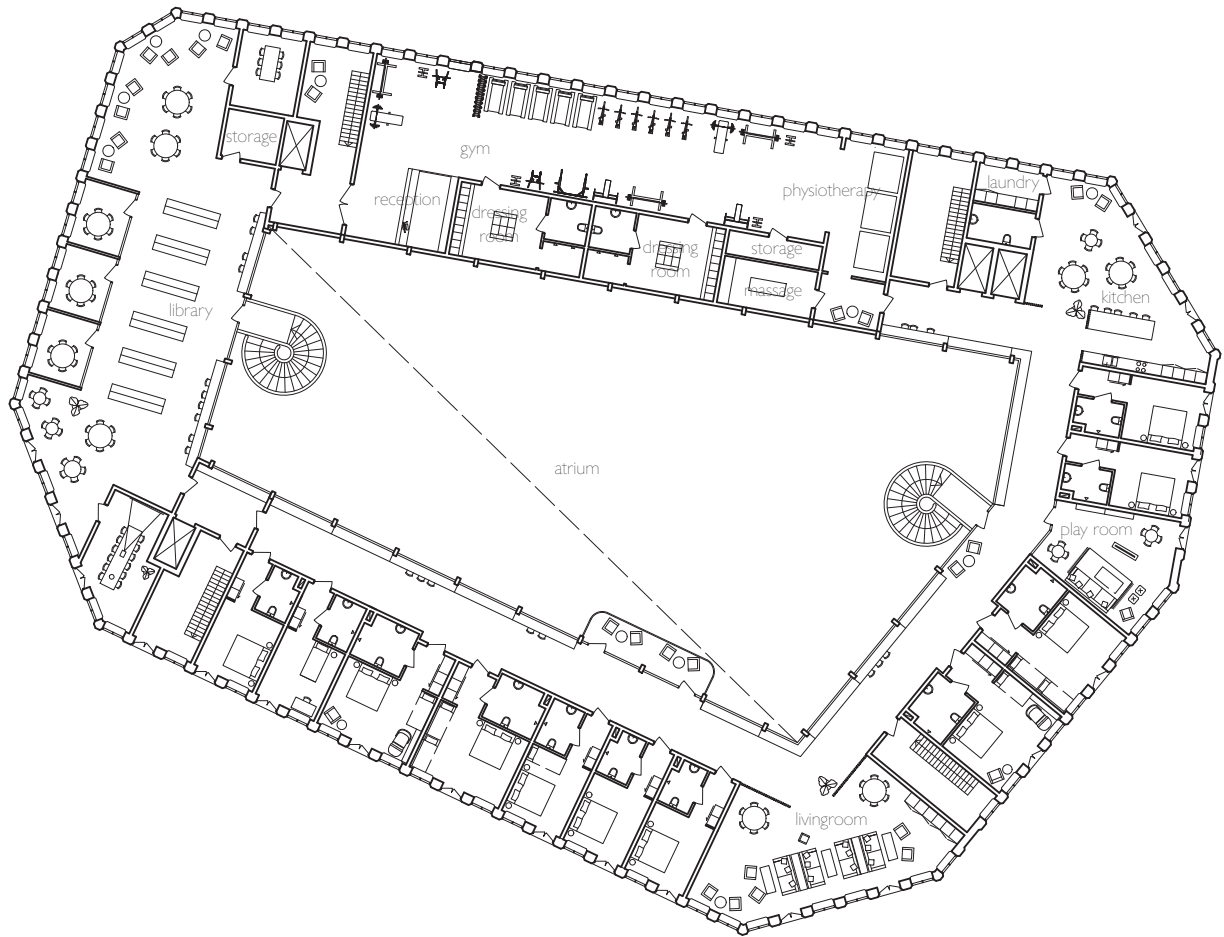
The public atrium

The atrium is filled with natural light, water fountains and greenery in plantings, hanging vegetation and a green wall. This exotic indoor environment can be used to expand the restaurant and the café all year around, it is also possible to borrow a book from the library and find a reading corner here or you can enjoy

the space as you are waiting to be checked on at the hotel.

The visible staircases and transparent corridors give a good overview of the building and easy wayfinding.

SECOND FLOOR



SECOND FLOOR 1:400



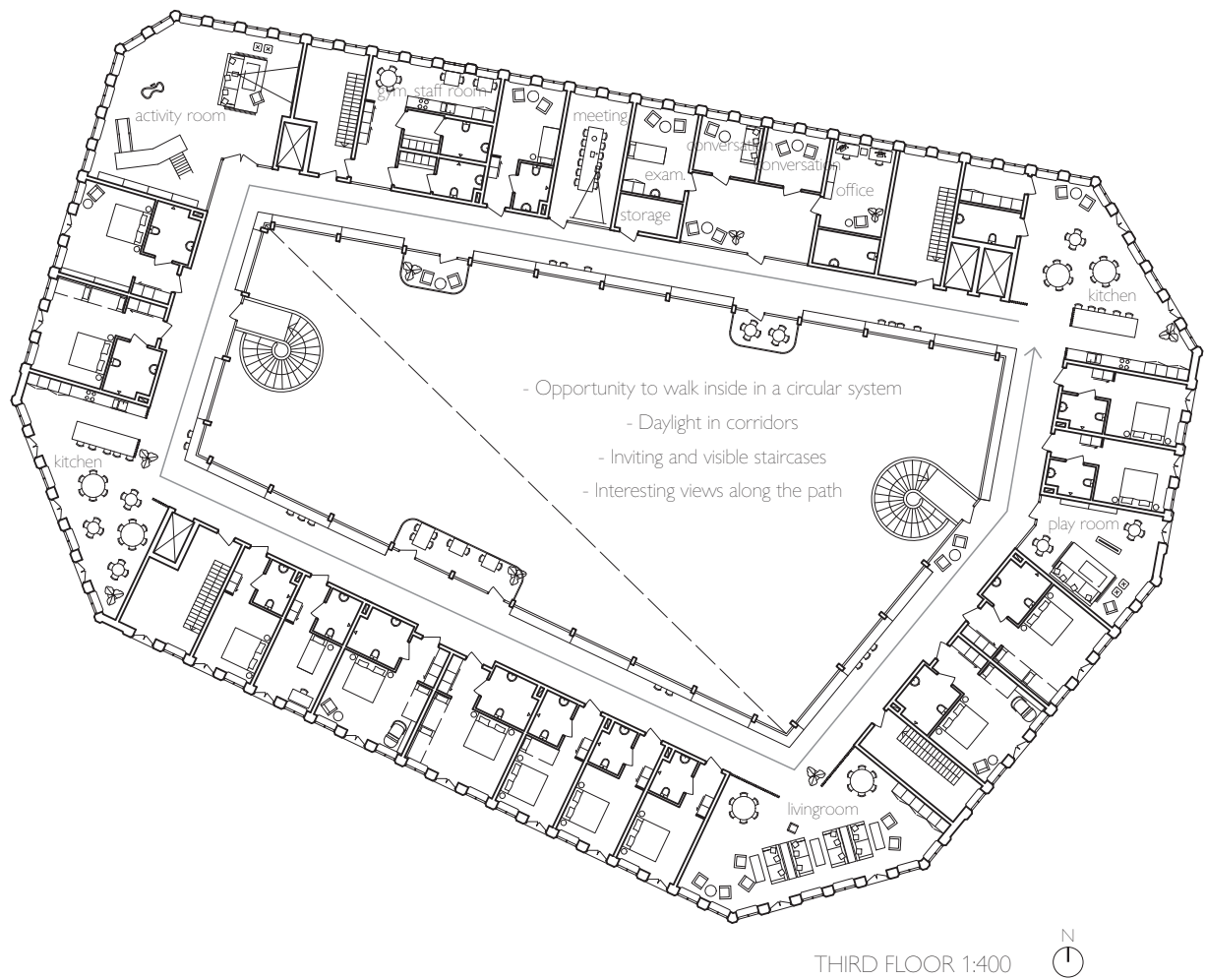


View that shows one of the kitchen and dining areas where patients can have an independently daily life.

Atmospheres of normality

The common areas for patients and relatives can be used to cook your own food, wash your clothes and have an independent daily life. Having family or friends over, you do not have to stay in the patient room to socialize but have a coffee in the dining area or maybe have a movie night in the living room.

THIRD FLOOR

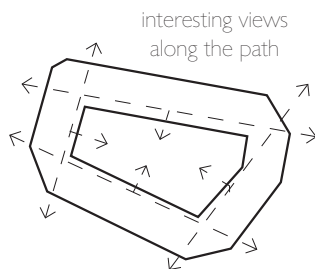
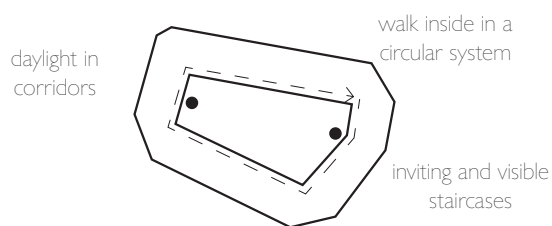


Active design and wayfinding

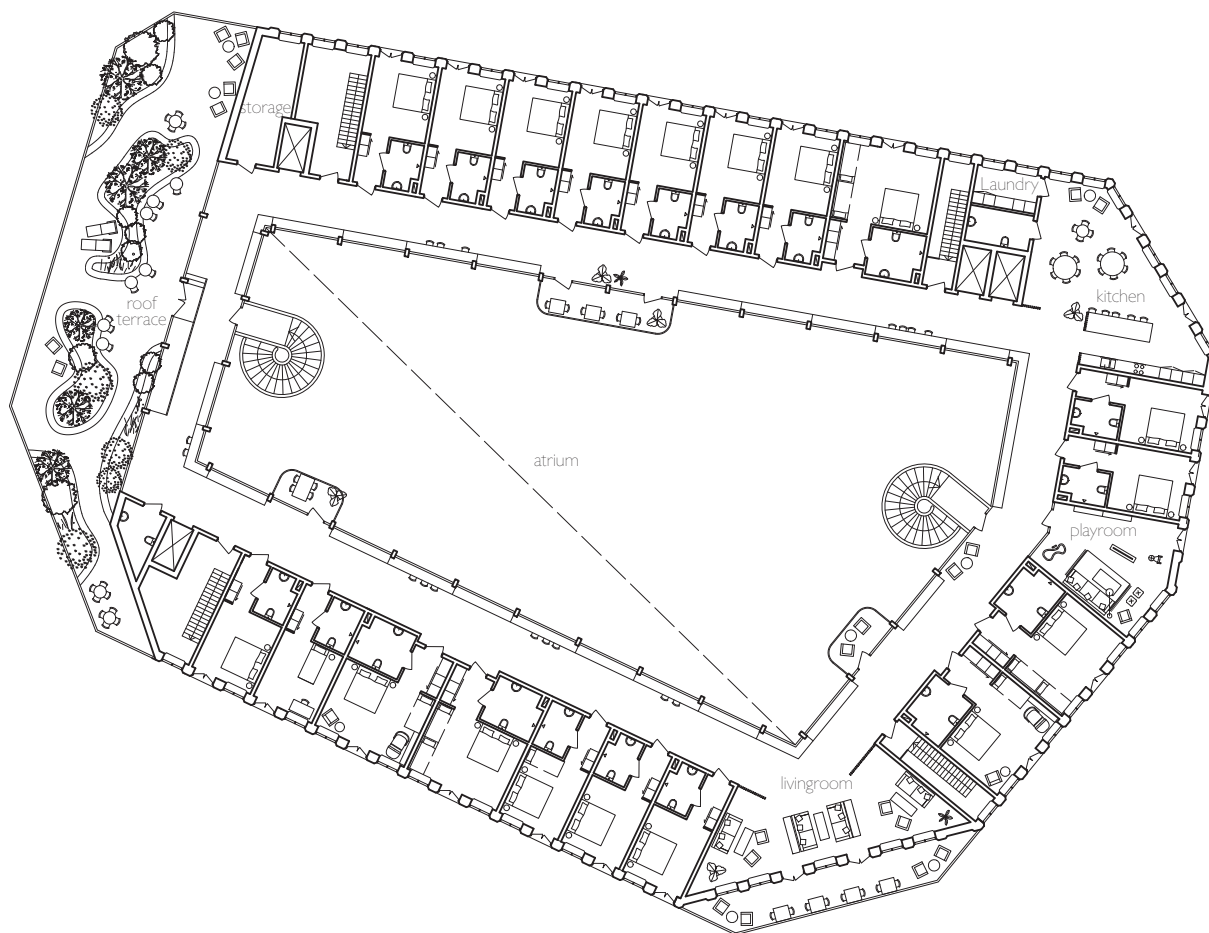
Natural materials, lots of daylight and interesting views of people oriented activities along a circular corridor system, invites for walking and to use the corridor for something more like for example reading or dining. The visible staircases and transparent corridors gives a good overview of the building and easy wayfinding.

(Bloomberg, 2010):

- *“The circulation system in a building provides opportunities for walking, the most popular type of physical activity.”*



FOURTH FLOOR



FOURTH FLOOR 1:400



Outdoor spaces

There are different kinds of outdoor spaces that varies in size and privacy where various activities can take place. In the roof garden, patients and their relatives can socialize in a semi private sphere and sit down to enjoy the greenery views of Skansparken. The winter garden, is an intimate space with opportunities for gardening or to use the space for relaxing in a hammock.

(Ulrich, 2002):

- *“...gardens in hospitals can reduce stress among patients and families by providing nature distraction and fostering social support. “*

Patients (+ family & friends)

Self-sufficient patients, before, during and/or after hospital stay can stay at the patient hotel as part of the care episode. Family and friends can stay at a lower cost.

Most common patients from Sahlgrenska Hospital:

- cancer patients
- patients before/after surgery

It can also be patients...

- ...healing after giving birth
- ...waiting for treatment
- ...during investigation
- ...who need rehabilitation
- ...with long travel distances
- ...with mobility limitations

Society

Society can also stay overnight at the hotel, when there are rooms available.

Employees

- nurses
- nutritionist
- psychotherapist
- physiotherapist

Plus other employees who work with public functions such as the restaurant etc.



Linda 40 - Cancer patient

HOTEL STAY: 5-7 weeks

HOSPITAL VISIT: 15 min every day

Linda was recently diagnosed with breast cancer and needs to visit Sahlgrenska Hospital once a day for 5-7 weeks. She is staying at the patient hotel due to the long travel distance from home. Even though she is having treatment every day, it feels better to get away from the stressful environment at the hospital with a lot of people, employees in medical uniforms and noise from the beeping machines. Linda can talk to a psychotherapist once a week at the patient hotel to regain strength and process what she is going through.

She is single with no kids, but her very close friend comes and visit her every weekend and they often have picnics in Skansparken.



Johan 15 & parents - Heart transplantation

HOTEL STAY: 1 night

HOSPITAL VISIT: First half year - once a week, after that - once a year

Johan is 15 years old and he had a heart transplantation at Sahlgrenska University Hospital five months ago. He needs to leave blood samples once a week during the first half year after the transplantation and after that he will have a yearly follow-up. He has a long travel distance and chooses to stay one night at the patient hotel in a family room before every hospital visit.

Johan can live a relatively normal life with the new heart and he is now enjoying the daily life and independence. He often brings both of his parents along with him and they like to go out and eat at a restaurant or take walks through Haga.



Emilia, John, child & newborn baby

HOTEL STAY: 2 nights

HOSPITAL VISIT: No visits after giving birth

Emilia and John just had a baby and are staying at the patient hotel in a family room for two nights. They also brought their child, Emma 6 years, who likes to play in the light and spacious corridors.

It is nice to know that there are always medical staff in the building if they are concerned about anything and they get some extra time to rest before they travel back home.

PATIENT ROOM

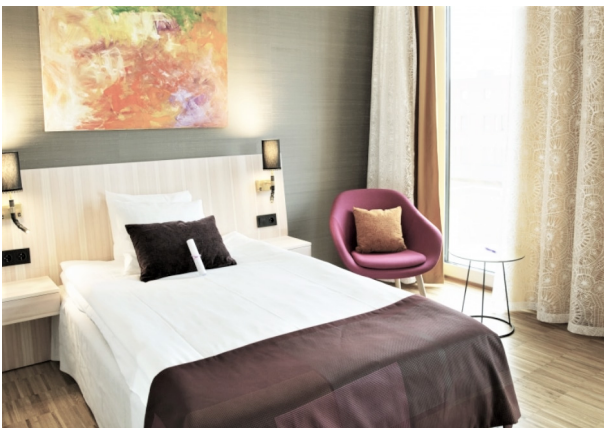
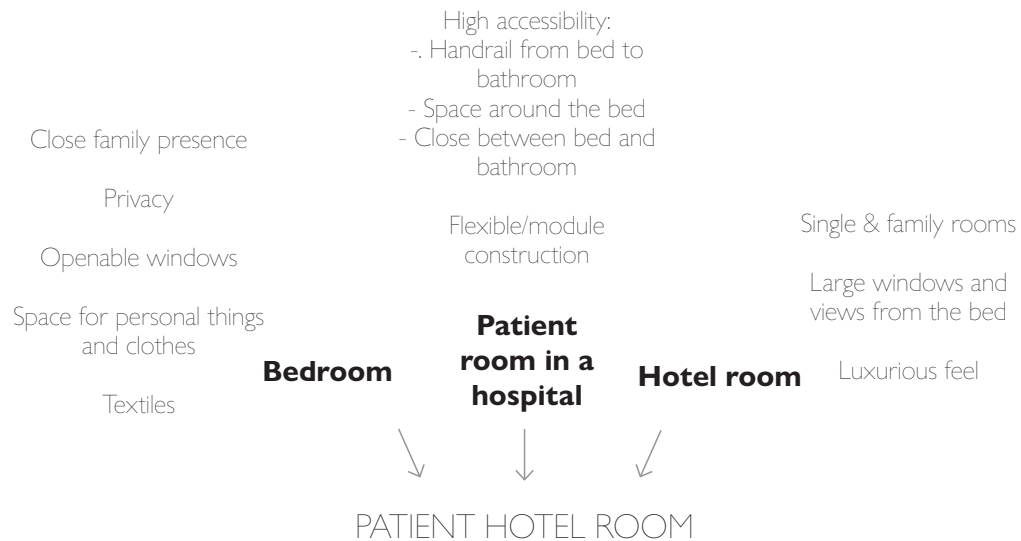


Figure 7: Skandionkliniken, small room

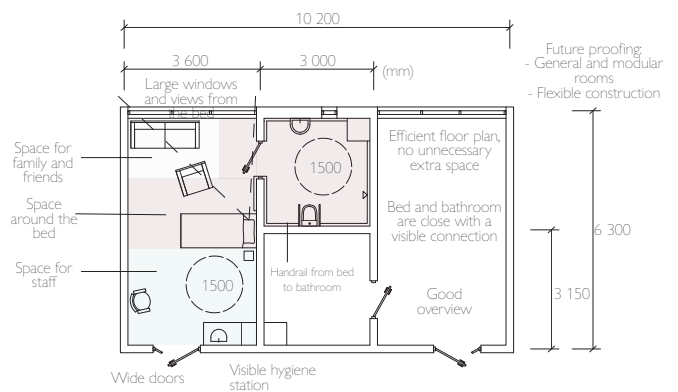
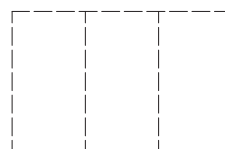
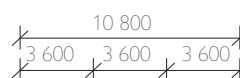
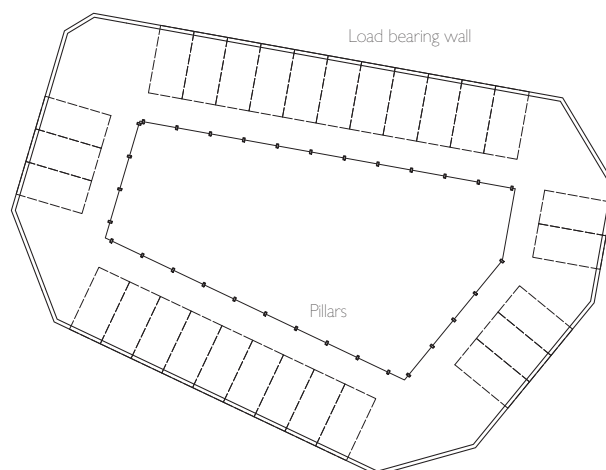


Figure 8: One example of a floorplan of a good patient room in a hospital where basic needs and qualities are illustrated (CVA, 2011)

Two sizes

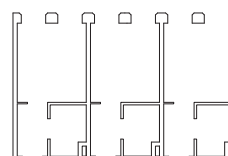
There are two different sizes of patient rooms depending on how many relatives and friends the patient takes with them and for how long they are staying. All patient rooms have large windows and a French balcony where patients can control temperature, get fresh air.

The rooms fit into a grid which makes the room layout flexible. In the future, the patient hotel can turn into an office or several other functions depending on the need.

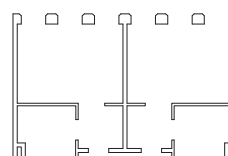


Universal design

Due to the large variations of patients, the rooms have a universal design with high accessibility that supports different needs. There is space for adding an extra bed when there is need for it to be able to have their loved ones close for social support during this tough period of their life.



Standard rooms
22,5 m²



Family rooms
32 m²

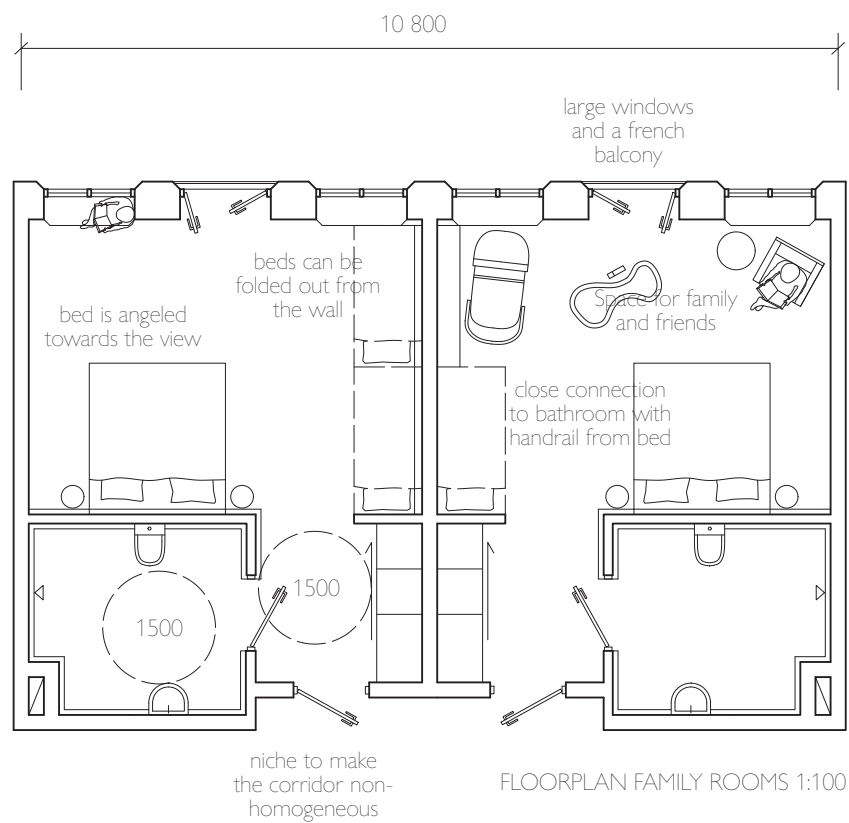
FAMILY ROOM



Johan 15 & parents - Heart transplantation



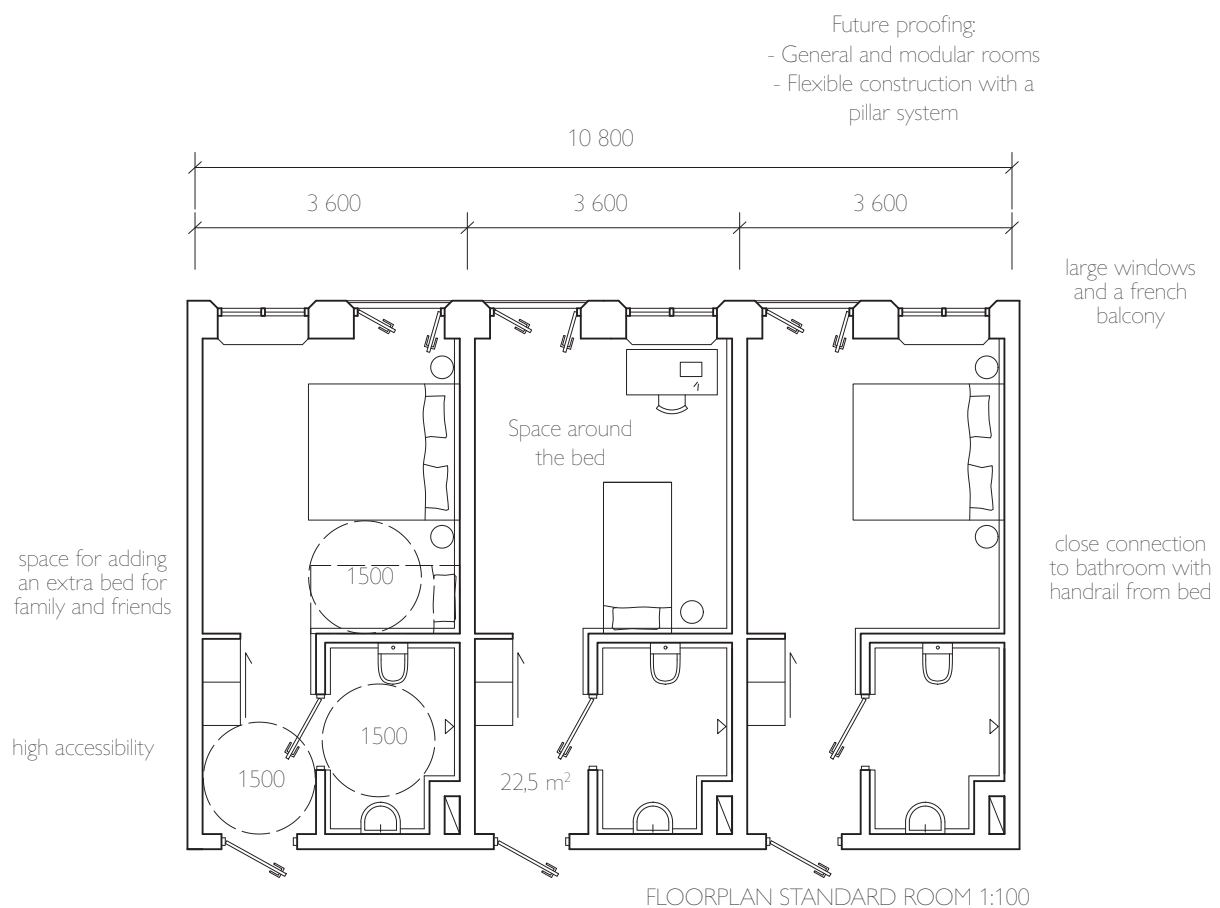
Emilia, John, child & newborn baby



STANDARD ROOM



Linda 40 - Cancer patient



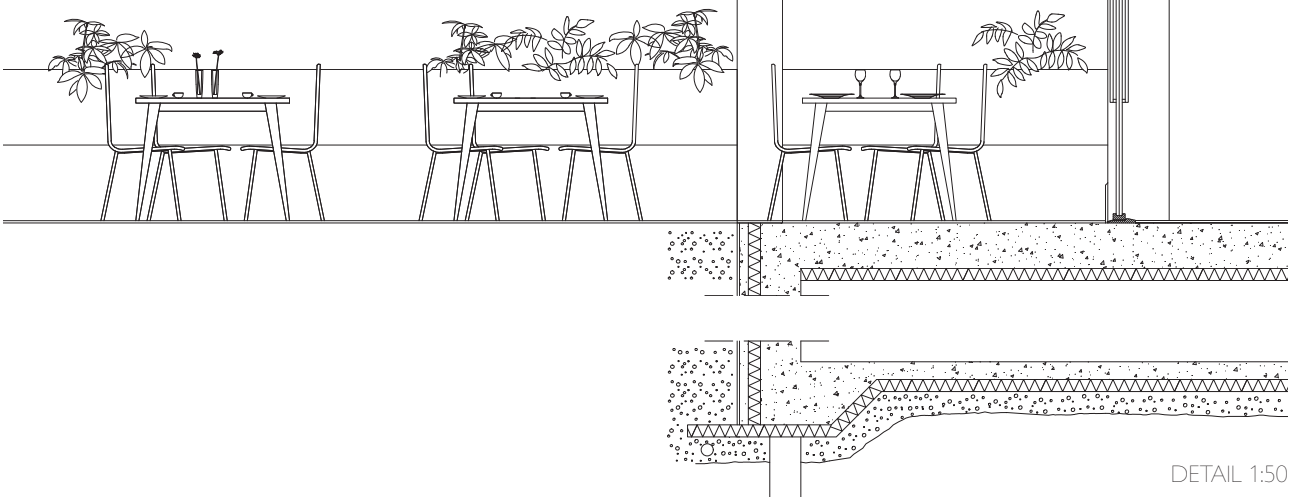
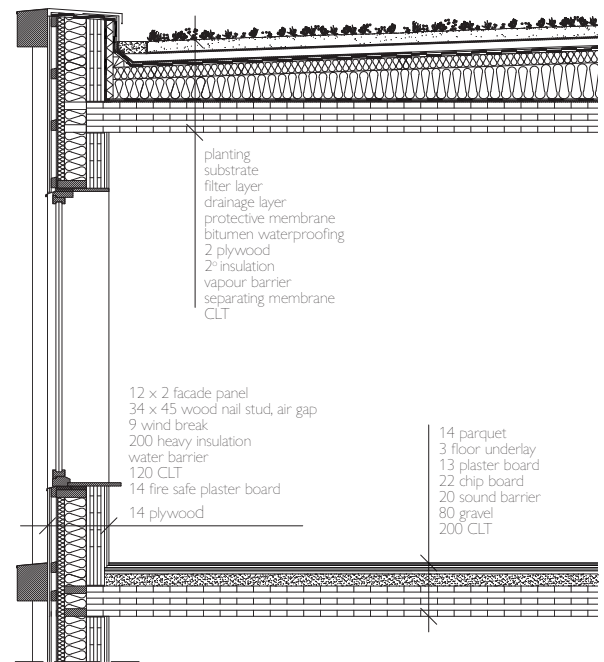




Sustainable choices

CLT wood is produced from renewable material in a process with minimal environmental impact. It is a natural part of the cycle and binds carbon dioxide throughout its lifetime. Thanks to its moisture-buffering properties, CLT also contributes to a good indoor climate. It also turns out that you sleep better in rooms built in wood, a material that breathes, in floors, walls and ceilings, with active relationship to season and relative humidity.

The sedum roof has several important qualities. It works as a noise buffer, binds air pollutants, has a positive impact on biodiversity, contributes to air purification, insulates the building and thereby saves energy and are almost maintenance-free.



DISCUSSION AND CONCLUSION

What is a patient hotel and why is it important?

In summary, the purpose of a patient hotel is primarily to provide overnight stay for self-sufficient patients who needs treatment within reach, but does not necessarily have to occupy a bed at the hospital ward. From a socio-economic perspective, Patient hotels have many advantages. The resources can be reduced and the care system gets more cost effective for the hospitals and thus also for society. More importantly, the patient queues at the hospitals can be reduced while at the same time creating healthier environments for a more rapidly recovery that considers patients to be part of the community.

The mental and social needs of patients are often neglected in hospitals where the clinical practice merely focus on treating illness. Treatment is necessary when one is ill, but to maintain health, supportive surroundings are always essential (Golembiewski, 2014). I believe that patient hotels can provide more appropriate environments for patients who does not need to stay at the hospitals, where the design is not limited by certain regulations and standards. It can be a recreational space that does not have to be associated with a healthcare building in the way we are used to, but more of a home away from home that encourage independency and meetings, as well as offering rooms that allow privacy, integrity and close family presence. This master thesis aims to address the importance of this winning building concept to a greater extent.

What is health promotion in relation to the built environment?

The research that exists now has several definitions, strategies and theories on how the built environment can promote health. As described earlier in this paper, these different perspectives could be divided into three main categories (Miedema, 2017):

- “A health promotion strategy focused on **sense of coherence**”

- “A health promotion strategy focused on **health behaviour**”

- “A health promotion strategy focused on **health equity**”

The definitions of health promotion are varying and linking research to building design can be challenging. There is a need for a clearer vocabulary and building references relating to this subject, and also one clear definition that describes health promotion in relation to the built environment. Is it possible to find one definition with design strategies of health promotion that can guide all different kinds of projects in relation to the built environment? I have no answer to that, but I believe that future research can continue to clarify health promotion and build on the foundation that already exists on this topic.

How can a patient hotel be designed to promote physical, mental and social health where patients feel like part of the community?

As mentioned, a salutogenic perspective is important when designing patient hotels, in order to create a qualitative and safe accommodation that promotes health and provides opportunities to maintain a healthy lifestyle. Based on research, another overview is created in this master thesis that points out health promoting factors in relation to a patient hotel and its surroundings. The following three health aspects are:

- **Physical health:** Environments that supports physical activity and a healthy community.

- **Mental health:** Manageability, comprehensibility and restorative environments.

- **Social health:** Social support, close family presence and community involvement.

It is difficult to include all of those different aspects of health promotion in one design proposal of a patient hotel.

As mentioned before, the three main health promoting strategies are focusing on health equity, health behaviour and sense of coherence. Physical health includes health behaviour for the whole society. Manageability and comprehensibility give a sense of control of the environment and your own health which is an important part of being mentally healthy. Meaningfulness relates to both mental and social health, where important factors are varying for different individuals. It can involve being part of the community and having meaningful relationships but also activities that make you feel valuable in some way.

The overall concept of patient hotel includes several perspectives of health equity. Patient hotels are focused on a vulnerable group of people while the concept at the same time is beneficial for the overall healthcare system and society. The concept provides a higher quality with a more appropriate care situation where patients can be close to their relatives and also a part of the everyday life of the community. At the same time, it makes the healthcare hospital beds more available for incoming patients who really are in need of care.

What have this master thesis added to the discussion?

What I hope to bring forward to the discussion is how the different strategies of health promotion can guide several design choices that could benefit everyone to live a healthier life. This does not only apply to healthcare buildings; however, this paper clarifies the need of a re-orientation of the healthcare system. This involves building patient hotels with design strategies of health promotion that ultimately benefits society.

I also want to highlight the importance of that how following one approach of health promotion can neglect other significant strategies. It was my intention from the beginning to build upon existing research to create a new design template for health promotion in relation to patient hotels. I chose to have a broad perspective to weave in as many aspects of health promotion as possible and at the same time also make

a design proposal that has all these qualities. What I didn't realize then at the beginning was that it was a fairly large project and essay subject that I chose to investigate. I think there is a lot of good qualities in the design proposal, but everything that needs to be taken into account in order to make it a good building reference in health promotion for patient hotels would probably require more time and a more thorough study of the subject. It might also require an even broader perspective than looking at physical, mental and social health where some aspects are neglected.

There is an awareness of how the built environment can promote health for patients, relatives and staff. However, research on how the built environment can support public health is not as extensive. Further discussion should focus on how healthcare facilities in general can promote health for everyone. It does not have to be a big hospital, but through a network of healthcare facilities integrated in the city that considers patients as part of the everyday life of the community in a home away from home.

Reflections on the design proposal and methods

It has been an iterative process that involves selection of site, building shapes and expressions that led up to the final proposal. If this was shown and described to a greater extent, it could have strengthened certain choices made during the course of the work to make it more clear for the reader. I realize that the choice of integrating the pre-school in this proposal stops the possibilities for Skansberget and its greenery to continue down to all the way to the square and thus limits the access and the ease of walking up to the mountain and Skansen Kronan.

The acoustics of the proposal needs a more thorough investigation, since single-sided rooms are placed against a noisy road. The acoustics in the atrium can also be perceived as problematic and require a more detailed investigation.

Something else I would have investigated if I had the opportunity to continue with this project is to compare costs. It would have been interesting to find out how much Sahlgrenska could save on such a building concept and how it could make healthcare more efficient to strengthen the argument of the lowered daily costs.

However, the result answers the research questions, highlight the importance of patient hotels and the opportunity to create a home away from home where patients can continue to live their daily life as a part of the community. The restorative environment support healthy behaviors, encourage social interaction and support, as well as offer spaces that allow privacy and integrity.

The design proposal also gives another perspective on how Skanstorget could be a new meeting point for society, patient and relatives. A place that everyone has access to, which thus creates a sense of belonging.

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Figure 1. Norladia Patient hotel. [Online image]
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Figure 2. Ronald McDonald house, Gothenburg.
[Online image] Reprinted with permission.
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Figure 3. Maggie's centre, cancer retreat designed
and engineered by Fosters and partners Architects.
[Online image] Reprinted with permission. Retrieved
2019-03-16 from [https://www.fosterandpartners.com/
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Figure 4. Skandionkliniken, garden. Designed by
Link Architects. [Online image]. Reprinted with
permission. Retrieved 2019-03-10 from [https://
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Figure 5. Skanstorget, overview. [Online image].
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Figure 6. Markethall at Skanstorget, year 1915.
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Figure 7. Skandionkliniken, small room. Designed
by Link Architects. [Online image]. Reprinted
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Figure 8. Reillustration of a floorplan of a good patient
room in a hospital. Reillustrated and reprinted with
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(Remaining pictures are taken by me.)

Jessica Pleijel
jessica.pleijel@gmail.com
+4673 424 71 88