

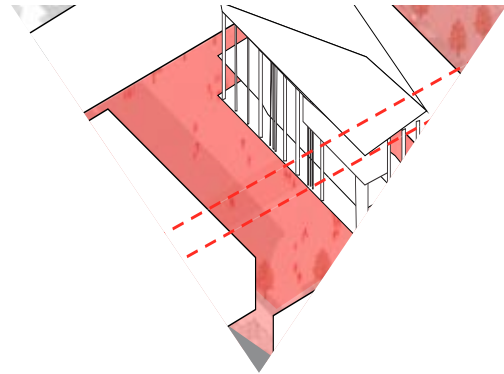


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## **Syllabus 02**

October 2021

### **Architecture Research Agenda**



**02**

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Syllabus presents experiences and research made inside formative courses at different levels: bachelor, master, doctorate.  
The goal is to offer these results, provisional and incomplete as they can be, to the scientific community, enhancing dialogues and exchanges.

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## Architecture Research Agenda

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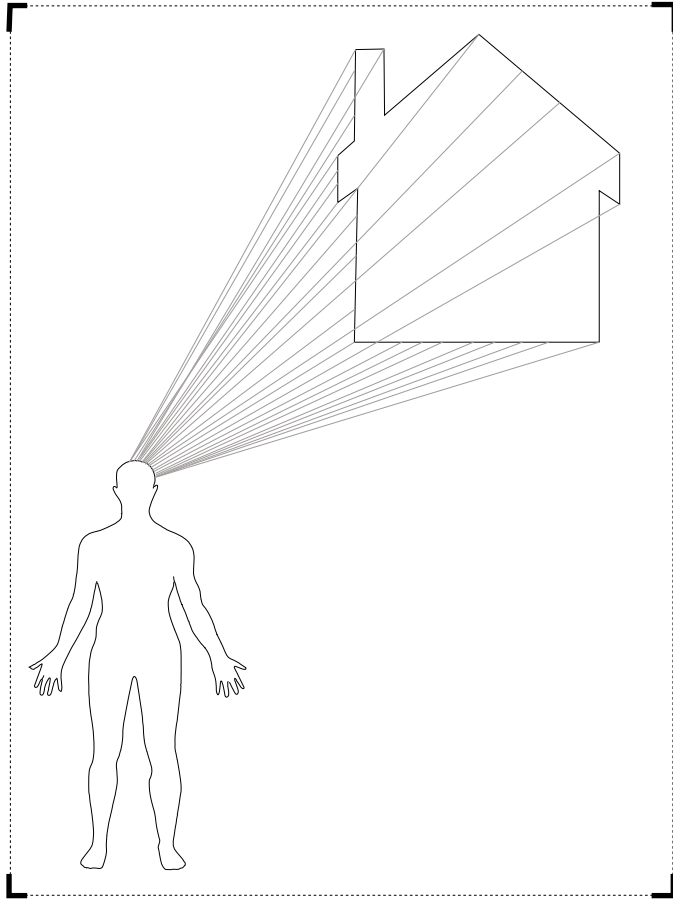
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*The role of architecture design on our well-being is one of great importance and my preoccupation. Our lives are spent mostly indoors; from work to home, from home to school, or even to the nearby cafe - our daily lives practically revolve around the built environment. However rarely as part of the design process do we ask ourselves “how does design contribute to well-being?” This essay is a reflection on the complex relationship between design and well-being - of what architecture has offered in the past and what it can offer in the future. Through a series of chapters, beginning from a personal project to those of pioneering architects, it tries to analyse how the theme has been approached. It intends to highlight the ‘power’ we have as designers of the built environment to make the world a better place to live in.*

**Rose-Ann  
Mishio**

**Architecture  
for well-being**

### Position Project: An architecture of emergency

#### *Retracing design decisions through the lens of well-being*

In this chapter, a personal project of emergency housing for refugee crisis using adaptive reuse of an old building is described and reflected upon. It tries to retrace the design decisions made in the project and how it contributes to aspects of well-being. With health in mind, it continues by adopting an index relating to physical, mental and social well-being in analysing the interiors.

#### *Introduction: Life beyond the tent*

In July 2016, Italy, one of the refugee destination countries in Europe rescued over 46,500 refugees (UNHCR 2016). About 300 of these migrants travelled through Como, a border city between Italy and Switzerland in attempt to cross the border into Switzerland; the neighbouring country. Originally, Como was not a point of destination for the refugees, nonetheless since Switzerland closed their borders in July 2016, almost all transiting refugees had returned to Como after being denied entry into Switzerland and therefore lodged in a cluster of tents in a park outside the railway station and were later sheltered in a temporary built camp (Amighetti 2016). The spontaneity of this occurrence, the possible recurrence and increment in number of refugees presented a major issue of

concern. The task was therefore a design response to the issue. The research started off with a delve into literature on the subject matter and then continued with a field survey and interviews. After the analysis and interpretation of the field survey, it showed that even though the refugees welcomed the help of the Italian red-cross and other associations, about 80% felt like outcasts as though with one hand welcoming them into the community, at the same time the other hand holding them at bay.

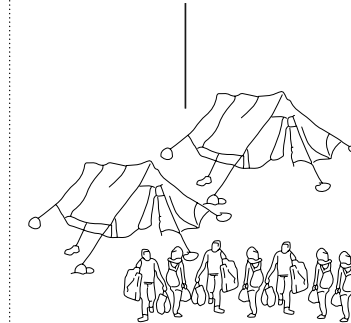
#### *Project aim and concept*

The project was to be a testbed that aimed to solve the core challenges by designing beyond the basic necessities of providing only basic shelter, but to use design to help them 'find a place'. This was done by the use of the concept of 'a new city' with two principal functions; a housing centre (to help identify a sense of place) and a community centre (to give back to the community and a response to social inclusion).

#### The Problem



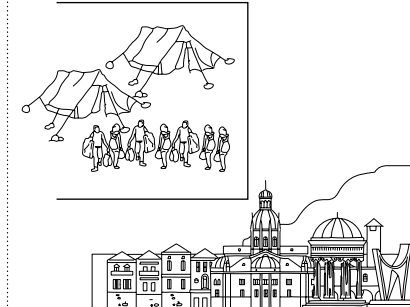
*Refugee crisis*



*Design Response: shelter (tents) -Basic needs*

#### Method used: State of the art

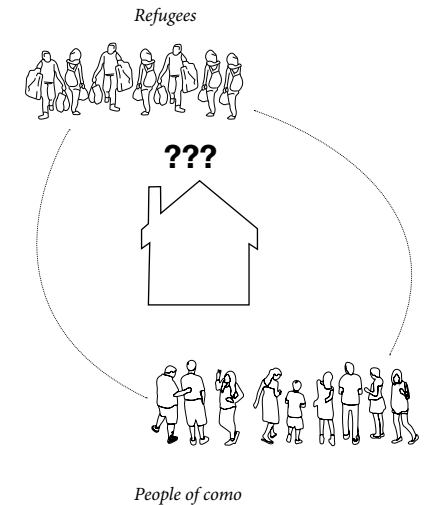
*Refugee camp located on the outskirts -  
Exclusion, segregation*



*The city of Como*

#### How can design help? (what if....)

1. A housing center for basic needs
2. Social inclusion through design



## 1. Method: Designing for well-being through siting, social inclusion and architectural poetics

### *Siting the project*

The choice of site for the project was an old abandoned barracks in Como (La Caserma di Cristoforis). Instead of siting the project on the outskirts as most refugee crisis projects, the proposed project was situated in the city to form a part of it. In unfolding the design through adaptive reuse, the large square of the barracks was opened up and connected to the streets as a continuous social space between the city of Como and the 'new city' of the refugees. In this way the ground floor became a public space with spatial quality connecting the 'interior' of the barracks (the piazza or square) and the rest of its environments. The existing barracks, made up of four blocks were repurposed with specific functions; 2 blocks for residential and working purposes, 1 for administration and a clinic and the last one as a community centre attached to a newly introduced building. The housing centre was fitted into the existing upper floors by introducing partition walls where necessary to form housing units for families, or communal living units for single people.

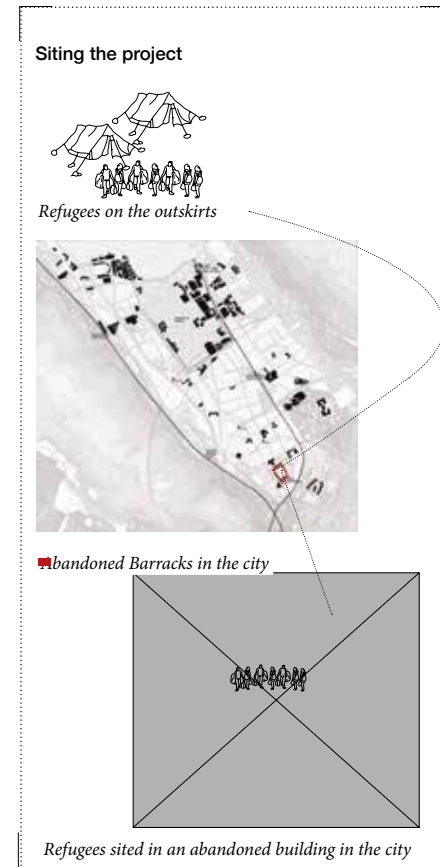
### *1.2.2 Social inclusion*

The function placed at the heart of the project was a

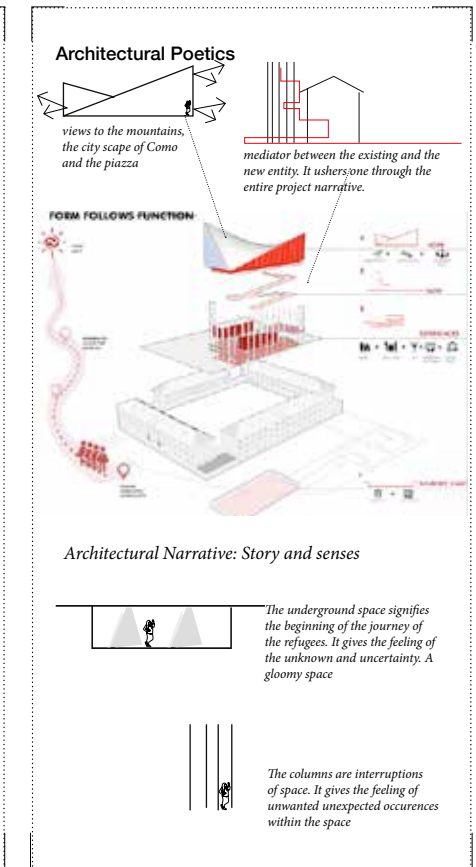
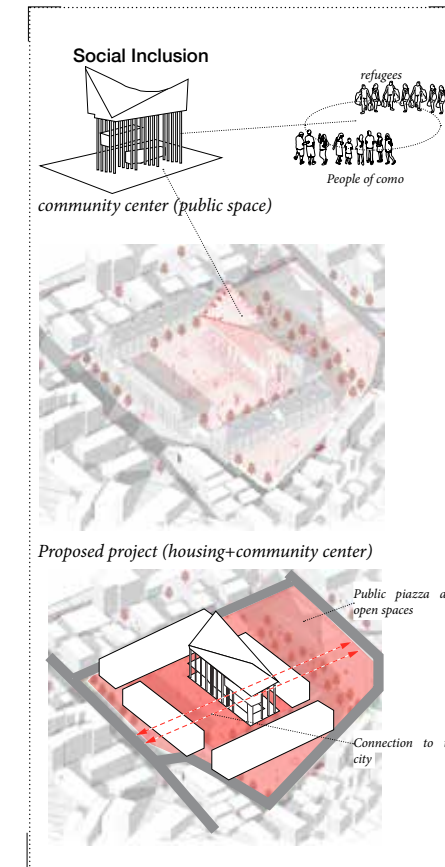
community centre for Como. By purposing such a space in the midst of a refugee housing centre, it sought to break the barriers of segregation through design and used its occurrence as a catalytic tool for integration within the city. Also, by opening up the ground floors of the community centre and the creating a connection between the refugee centre and the city, it tries to include the land of the 'foreigners' as a fabric and active part of the city. The use of ramps as an active part of the design and the introduction of elevators, catered for people with disability.

### *1.2.3 Architectural poetics*

The Architecture design was used to create an experience of senses by guiding users in the community centre through a path which conveyed the narrative of the life of the refugees: a journey from a place of uncertainty, hopelessness and despair to a place of hope. The spaces were designed to communicate with users through its elements; the place of despair was the entrance into the community centre characterised by a dark space in the basement of the existing block, the journey - a red ramp that guides users through the entire community centre manoeuvring through the existing building and the new building, and place of hope - a voluminous parametric block full of natural light inserted into the courtyard (piazza)



Retracing design decisions through the lens of well-being.



of the barracks that is accessible from the existing old building.

*What more could have been done?*

*Reflecting on well-being with a parametric index*

Considering about 90% of our time is spent indoors (Centers for disease control and Prevention 2006, Chap. 5) and each space contributes to our well-being (Prussin 2015, 78), what could have been different if from the onset in the design process, these questions were reflected upon?

- How does the design contribute to health and well-being?
- How should we design or modify with respect to well-being?

As an initial elaboration on these questions, I developed an index by dividing the project into the sub sections of design; interior design (micro scale), the architecture design(building scale) and the urban design (neighbourhood scale).

In this excerpt, the index is described with respect to interior design parameters as done by Cetinkaya Cigdem(2018) but can be adapted to other scales. The goal of this index is to deliberate on the best solution possible.

The analysis is done in terms of vulnerability - how susceptible it is to hinder health, and potentiality - in what way design can be used to promote, avoid, prevent or reduce

to a minimum poor health effects (see table 1).

*A developed set of questions for making design considerations for well-being*

*Parameter 1 - Ventilation*

- How is the space ventilated? (Natural or mechanical or both?)
- Is it a single sided ventilation or cross ventilation?
- How does the air flow through the space?
- Is the ventilation adequate?
- Does the air coming in get filtered?
- What happens during the winter, when its too cold to open windows?
- What happens during summer when the space is warm and how does the design respond?

*Parameter 2 - Layout*

- How is he design in relation to circulation from outside the house?
- What are the vulnerable areas of the house? (wet areas, entrances, etc.)
- Can design be used in the layout to help prevent the spread of diseases?
- Does the layout allow for privacy?

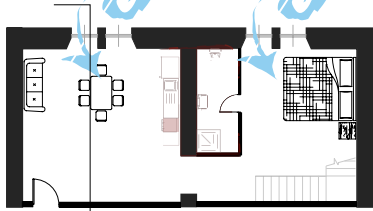
**Adopted index of analysis**

Table 1

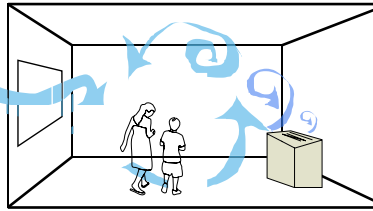
Parameter of Design	Health parameter	Vulnerability (weaknesses)	Potential (Proventive option to improve health)
Building Materials	Physical well-being (PW)		
	Mental well-being (MW)		
	Social Well-being (SW)		
	Prevention of disease (PD)		
Color	PW		
	MW		
	SW		
	PD		
Plan Layout	PW		
	MW		
	SW		
	PD		
Lighting	PW		
	MW		
	SW		
	PD		
Ventilation	PW		
	MW		
	SW		
	PD		

**Parameter 1**

Ventilation



Single sided ventilation. Is the ventilation adequate?  
-Does the air coming in get filtered?

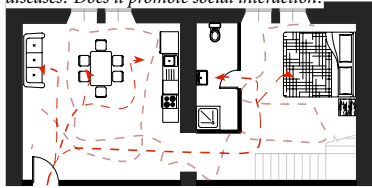


What is the main source of ventilation?  
Natural or mechanical?

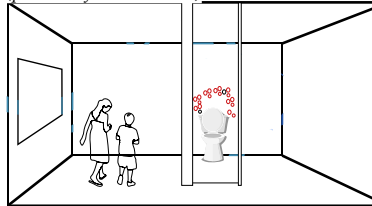
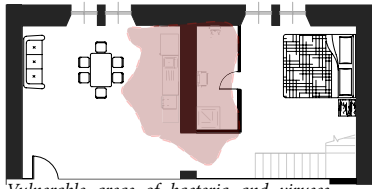
**Parameter 2**

Layout

Possible Ciculation routes. Does it buffer out diseases? Does it promote social interaction?



Vulnerable areas of bacteria and viruses (presence of water indoors)



- Does it include spaces for interaction among people?
- Is the circulation and movement in the spaces comfortable or obstructed?

#### *Parameter 3 & 4 - Materials and Color*

- Do the materials of the interior prevent noise?
- Do the finishes used have negative effects / pollute/ contain hazardous substances?
- What materials would be best suitable for the function of the space and why? (consider wet areas too)
- Do the colours chosen promote mental health? Does it match the function of the space?

#### *Parameter 5 - Lighting*

- What is the preliminary source of lighting?
- Is there sufficient lighting?
- Does it follow the rule of thumb of lighting?
- Does the lighting promote health?

The proposed table of analysis and questions suggested for deliberation during design processes to reflect on health is by no means exhaustive, but it is intended as a possible guide that can be adapted as designers see fit in deliberately designing for health. It is an initial elaboration on the subject matter that

opens up opportunities into further research.

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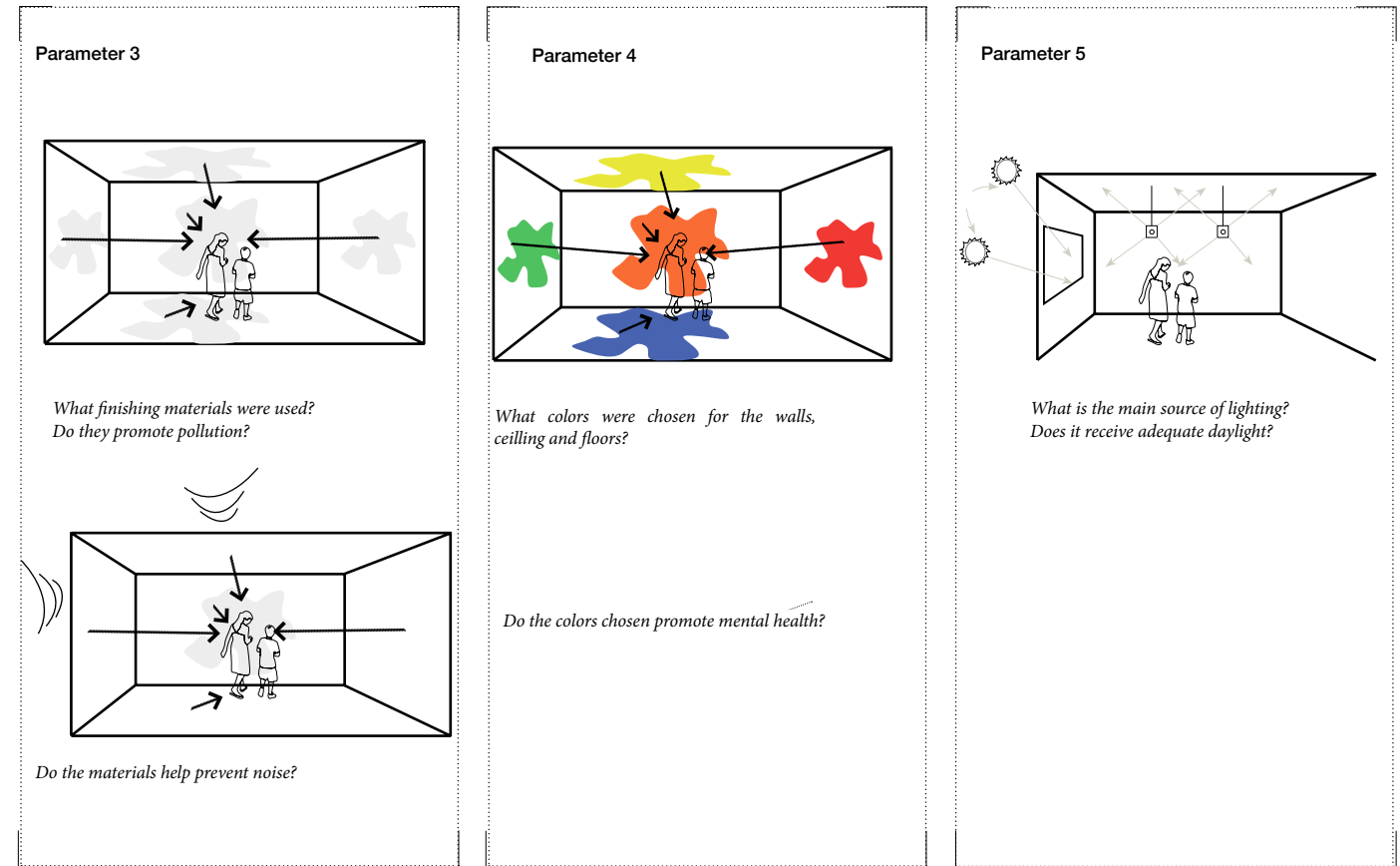
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Reflecting on well-being through interior parameters.



## 2. A new building typology: The architecture that cures

Architecture in the early 20th century was impacted by tuberculosis, and was an era of a new building typology; the sanatoriums. From its siting, building materials, organisation, architecture design, technology and interiors it encompassed an architecture of a collective dwelling type for a very specific group of people - a 'home' to tuberculosis invalids. It was developed by an active collaboration between architects and doctors, and was purposely designed as an architecture that cures a disease - tuberculosis. Many renowned architects in that century designed a sanatorium and it was a bench mark in their careers, very much akin to the Maggie's centres of today. In this chapter, the Paimio Sanatorium by Alvar Aalto which is widely known as a reflection of human empathy (Woodman 2016) and a great example for designing to care for 'sick' people as a cure is analysed from the perspective of a designer. It tries to draw out those characteristics of design that promoted health and well-being as a reference.

As one of the institutional buildings that greatly influenced modern architecture (Colomina 2019), the chapter continues by making an analysis between the design characteristics of some modern architecture and the sanatoria, and rounds off with a reflection on the design choices of the sanatoria in light of 'new' insights on designing for health.

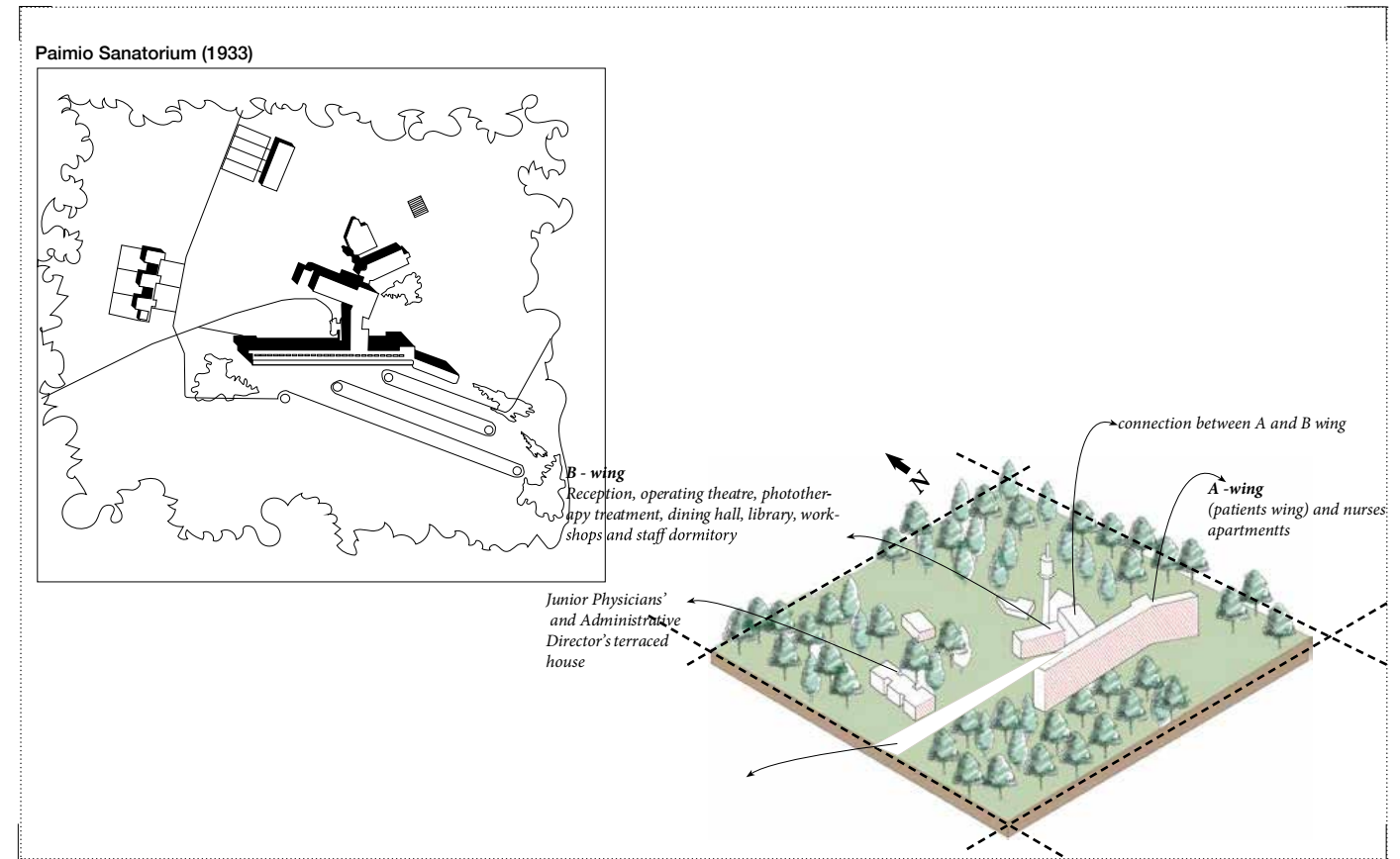
### *Paimio Sanatorium*

#### *1.1 Introduction*

The Paimio Sanatorium by Alvar and Aino Aalto was designed and built between 1926 and 1933 in Finland. It has been referred to by Sigfried Giedion as one of the three institutional buildings that gave rise to contemporary architecture (Colomina 2019), even though there's a parody that it was designed for sick people. Alvar designed the sanatorium taking inspiration from the patients and therefore took design decisions to foster the comfort and well-being. In the following subsections, the design would be expounded on in terms of siting, the relationship between outdoor and indoor spaces and the design characteristics of how he promoted physical well-being, social well-being and mental well-being.

#### *1.2 Siting : Is isolation the cure?*

The siting of the sanatoria was to be purposely isolated from the cities as though they were in a world of their own. On one hand this prevented the propagation of the disease and the susceptibility of 'abled' bodies catching the disease. But was isolation the cure? No. Instead, they were typically sited in areas in close proximity to nature since natural landscapes, sunlight and fresh air were the prime features of the sanatoria. For instance, they were in mountainsides like the Queen



Alexandria Sanatorium in the Swiss Alps (Davos, Switzerland 1906) by Otto Pflegard and Max Haefeli, or near lakes like Muskoka cottage sanatorium (Ontario's first sanatorium, Canada 1910) or at the coast like the sanatorieul Bugaz. And sometimes the 'natural landscape' was literally brought into the building and formed part of the organisation of spaces like the artificial beach in Aix-le-bens in France. Therefore, for architecture design instead, the issue of siting was the context of natural landscapes and the therapeutic effects of it. The Paimio Sanatorium wasn't any different. It was situated in a pine forest in Turku, 90 minutes away from Helsinki (Quito 2020). The relationship between the inside and outside were paramount. The roof terrace where they would take their 'cure' (heliotherapy - exposure to sunlight) was oriented towards the natural landscape so that they could experience the outside from the inside. The furniture arrangement was designed so that the chairs in the patients rooms were located near the windows with a view toward the pine forest. In a nutshell siting was strategic in such a way that it could frame the natural landscape both at the building scale and the interior scale.

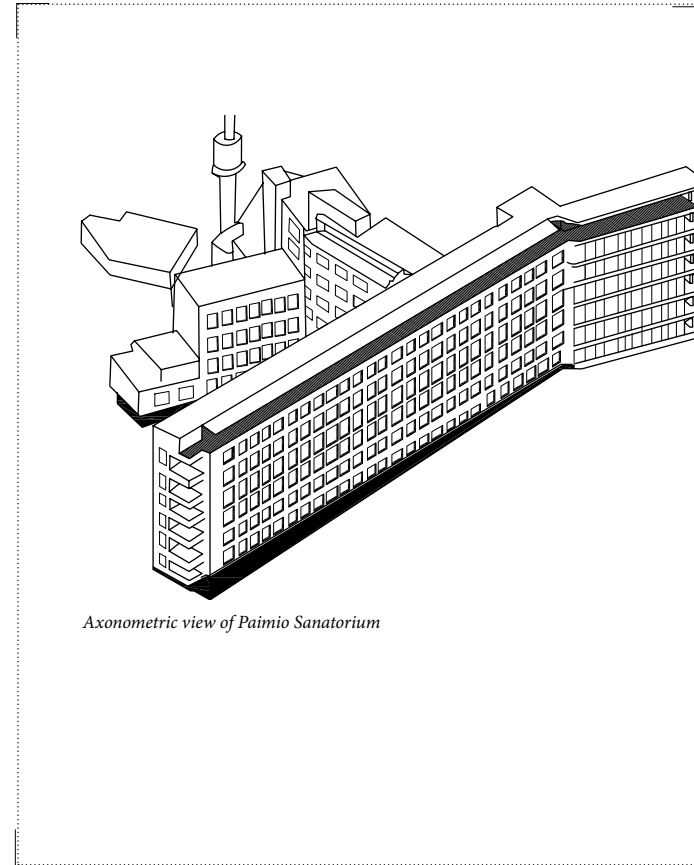
### 1.3 Design characteristics and approach

In this section, the core design characteristics with the lens

of health and well-being are discussed in parts; relating to physical well-being, mental well-being and social well-being.

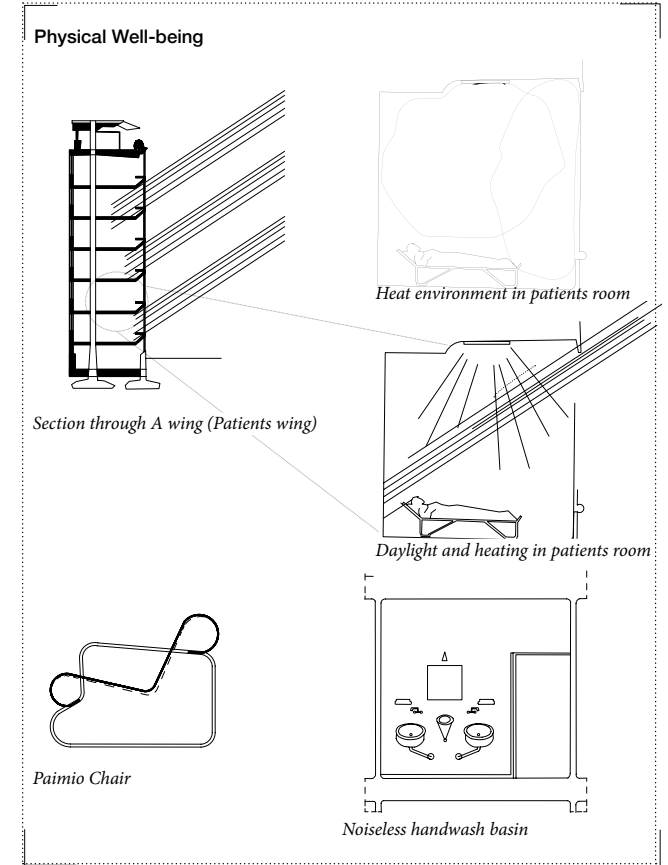
#### *Paimio and physical well-being*

How did Alvar Aalto design for physical well-being? Starting from the building scale, he oriented the building to receive maximum daylight. With a narrow plan and large windows, sunlight could be experienced directly from the interiors. The roof terrace at the top floor, seven stories high was designed as a space for regular doses of fresh air and sunlight. From the interiors, the layout of the room was designed not for a vertical man (standing upright) but to be experienced also from the horizontal (from the perspective of a man laying down). The furniture layout of the patient room was designed in a way that the beds were positioned to keep the feet warm while laying down and the head cool. There was also panel heating in the ceiling for an appropriate heat environment. The detail of the intersection of the floor and wall beneath the window were curved to prevent dust build up, and the walls were clean without any ornaments. The introduction of hand wash basins encouraged regular washing of hands and personal hygiene. The furniture and fittings were designed by the architect with special attention to physical well-being. For instance the handbasin was designed to prevent noise



*Axonometric view of Paimio Sanatorium*

Paimio and physical well-being.



**Physical Well-being**

*Section through A wing (Patients wing)*

*Heat environment in patients room*

*Daylight and heating in patients room*

*Paimio Chair*

*Noiseless handwash basin*

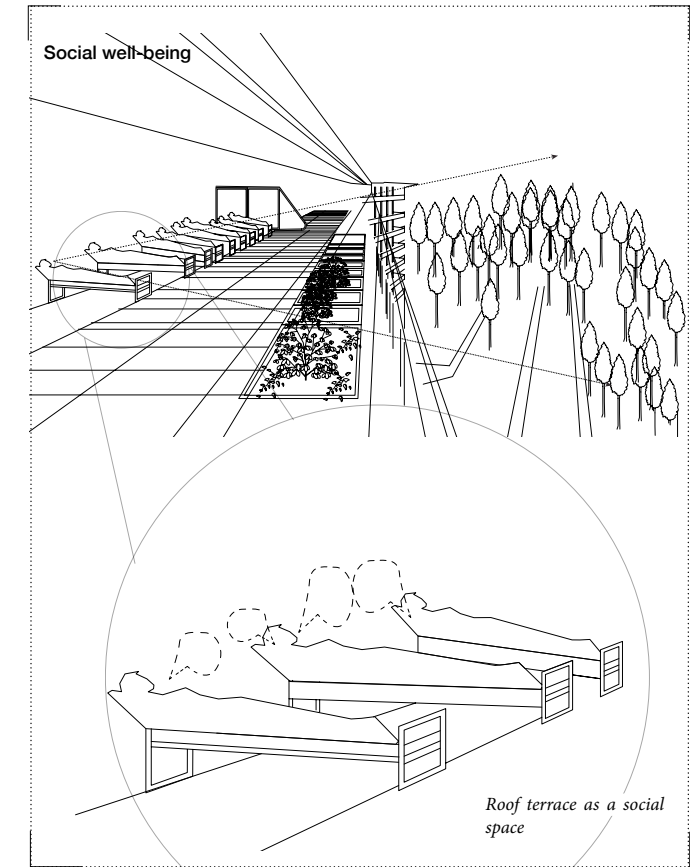
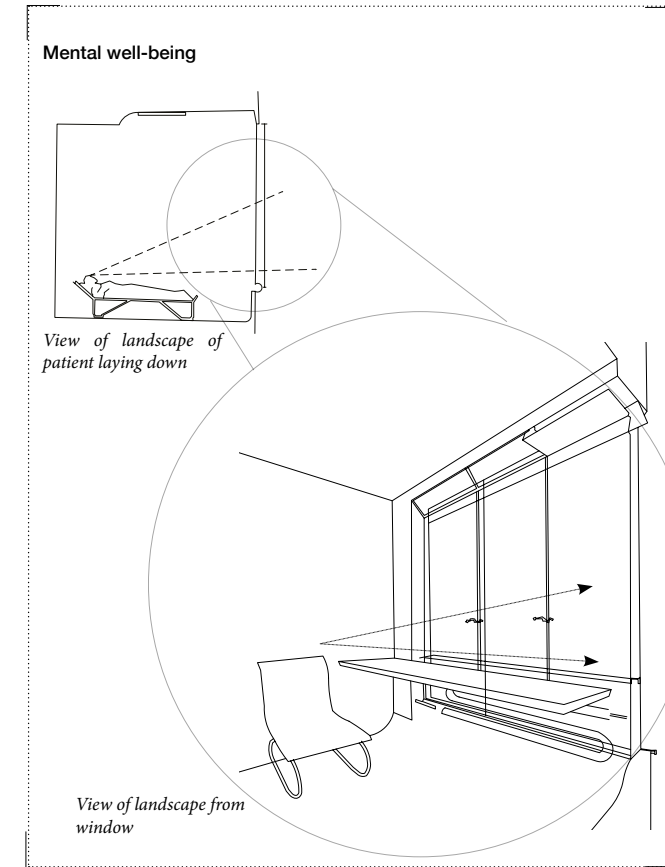
from splashing water by positioning the basin at 45 degrees and spittoons were also designed to minimise sound. The famous paimio chairs were designed to incline the back of the sitting patient to help him breathe comfortably and facilitate expectoration (the act of bringing up and spitting out sputum) with ergonomics that kept him comfortably seated for long periods (Anderson 2010).

#### *Paimio and mental well-being*

In tackling mental well being in the design from the interiors, the choice of colour for the patient rooms were not merely for aesthetics but also for the psychological and therapeutic reasons, opposed to the expansive use of white and grey for hygienic purposes of that era. The walls and ceilings were not of the same colour; dark and quiet hues were used for the ceilings and lighter shades were used for the walls. The furniture layout positioned chairs next to the windows framing the pine forest, so that the calming and relaxing views of the natural landscape could promote well-being. The size and level of windows were calculated such that a laying person could also benefit from the beautiful views. Each floor although quite identical was distinctive due to the assigned colours which prevented anxieties, and the paths, lobbies and access routes were in yellow to guide the user and to incite sunny optimism even on gloomy days.

#### *Paimio and social well-being*

The organisation of the spaces were done to promote social well-being among the patients as well as medical personnel. The infamous roof terrace was not sectioned by walls but instead was a barrier free space where patients could lay next to each other, chatting and interacting with one another. Even the short partitions which were placed after every 10 or so beds were thin and transparent so that visual connection was still possible to an extent. The dining areas and lounge recreation rooms that were included in the design served as spaces for social life and communal living as well. The efforts of the architecture design to promote social well-being was a confirmation to Roselyn Lindheim's theory that social contact was a relevant paradigm in designing for health (Lindheim 1985).



### 1.4 Reflection on design for well-being

#### *The Paimio Sanatorium and Modern Architecture*

Looking at the modern architecture and the Paimio sanatorium, there are many similarities that could be drawn. For instance the clean-lined bedrooms void of ornament in the Paimio sanatorium and the modernist architecture as a kind of ‘visual hygiene’ as in Villa Tugendhat by Mies van der Rohe. The use of the roof terrace for heliotherapy in the Paimio sanatorium and the roof tops of the modernist house for sun bathing and views to nature like Le Corbusier’s Villa Savoye or the large glass windows and simplicity of facades that brought in maximum daylight could also be likened. As Alvar Aalto designed for the sick with health in mind, soon it became the norm. The Paimio chairs that was designed for the sick were soon used in design in modern architecture by ‘normal’ people. Thus modern architecture was born out of illness as ‘a protective cocoon’ no longer only as shelter from the threats of the environment but also as a way of actively promoting health and well-being through design (Colomina 2019). In effect, the Paimio sanatorium was the research lab where the design for modern architecture was tested (ibid).

#### *The Paimio Sanatorium and therapeutic architecture*

The therapeutic buildings and homes of today have very

similar design features as those of the Paimio sanatorium. To begin with, nature and natural landscapes play an active role in the composition of the therapeutic buildings just as in the Sanatoria. Examples include the Casa Biblioteca by Atelier Branco Arquitetura in Brazil that is located in the ‘mata Atlantica’ in the Atlantic forest and Hog Pen Creek Retreat; Austin, Texas by Flato Architects which both are sited in the the natural landscape with a great emphasis on experiencing the outdoors from inside the building. Another feature of the Paimio sanatorium that is evident in therapeutic buildings is the inclusion of social spaces in the building so that social well-being is fostered by designing to encourage interaction between people. An example is the Ostra hospital designed by Stefan Lundin and White Arkitektr that replaced corridors with communal spaces for interaction with people. Although the approaches used differ, the principles of what contributes to well-being remain.

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#### Paimio Sanatorium and Modern Architecture

*Villa Savoye roof terrace*



similar floor finishes  
for easy cleaning

heliotherapy and sun  
bathing on roof terrace

*Paimio Sanatorium patient room*

*Villa Tugendhat Bedroom*



positioning of windows with  
a view of landscape



#### Paimio Sanatorium and therapeutic buildings

*Paimio Sanatorium aerial view*



Siting in natural landscapes (forests) away from  
the city



*Casa Biblioteca, Brasil*



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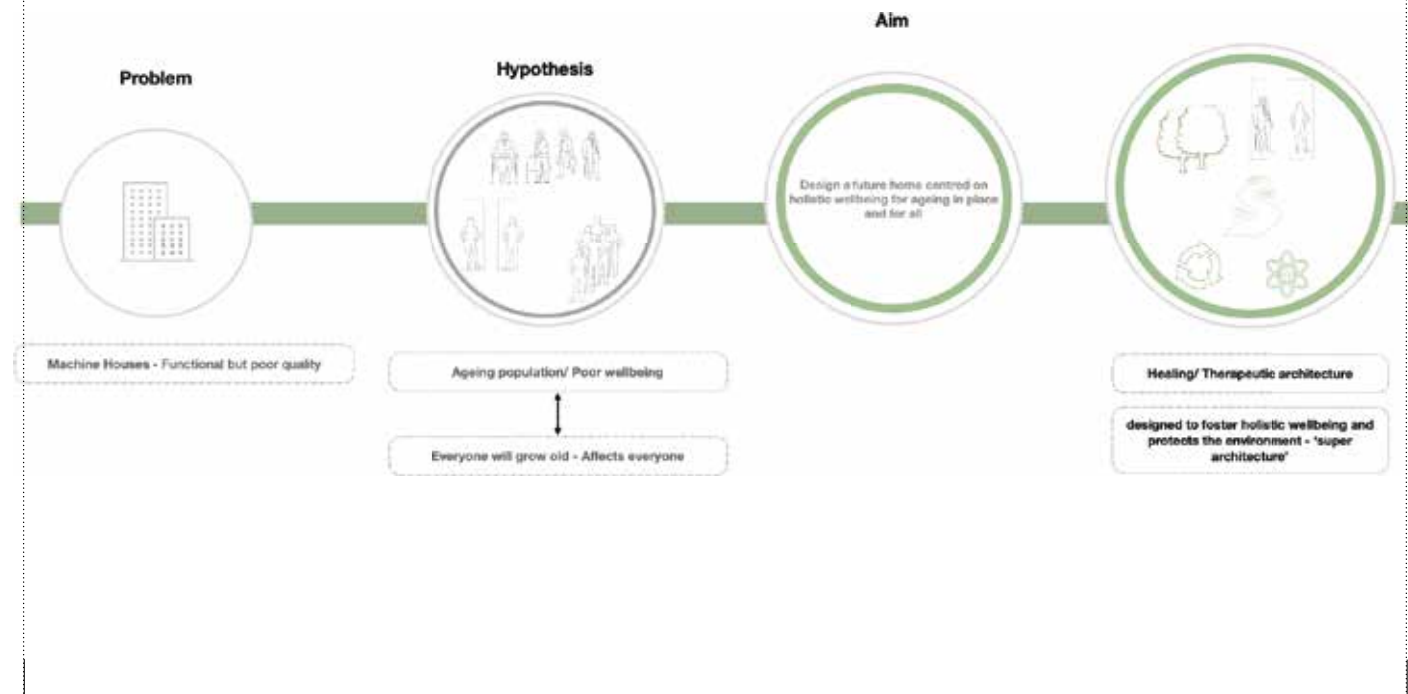
### 3. Homes, Well-being, Healing architecture, Designing with nature

In this chapter, three key words of designing for health are chosen and described. They form an entry way of designing for health with respect to housing. It tries to frame in a comprehensive way why we need to design with well-being in mind, its relevance and benefits and most importantly how we can do so by introducing a hypothesis as a test bed. It unfolds with a perspective that architecture design doesn't only 'really' matter for the 'unhealthy' but for all. Therefore through a series of sub essays, it tries to draw out how different aspects of well-being are supported through architecture design.

#### *Homes and well-being*

The home of today is faced with concurrent problems like not being ageing friendly (Chmielewski 2018; Healthy ageing project 2016; Byles 2012; Forsyth 2019), associated with poor well-being (Rainer 2016; Amelia 2020), pollution (Von der Leyen 2020), poor effects of the environment, poor accessibility and safety. For an elderly who spends about 72% or more of his time at home (Spalt 2017), with declining physical abilities and frailties, the negative impacts of the home are even more important. On the other hand, Europe's population is rapidly ageing (UN 2017), and even more so in shrinking cities like Taranto in the south of Italy. Although some solutions are underway, such as multigenerational co- housing, retirement facilities and care homes, they have already proven not to be enough in quantity to support an exponentially increasing ageing population (Byles 2012) and some of these solutions present the idea of segregating the older population with purpose-built facilities which do not go hand in hand with the ageing in place concept. Here a hypothesis is born by asking how design can help? The position taken in this essay is that perhaps we should design homes centred on an all-round well-being that also protects the environment; one that is suitable for ageing in place and healthy living, so that it takes into consideration the suitability

#### Framing the problem of housing and well-being

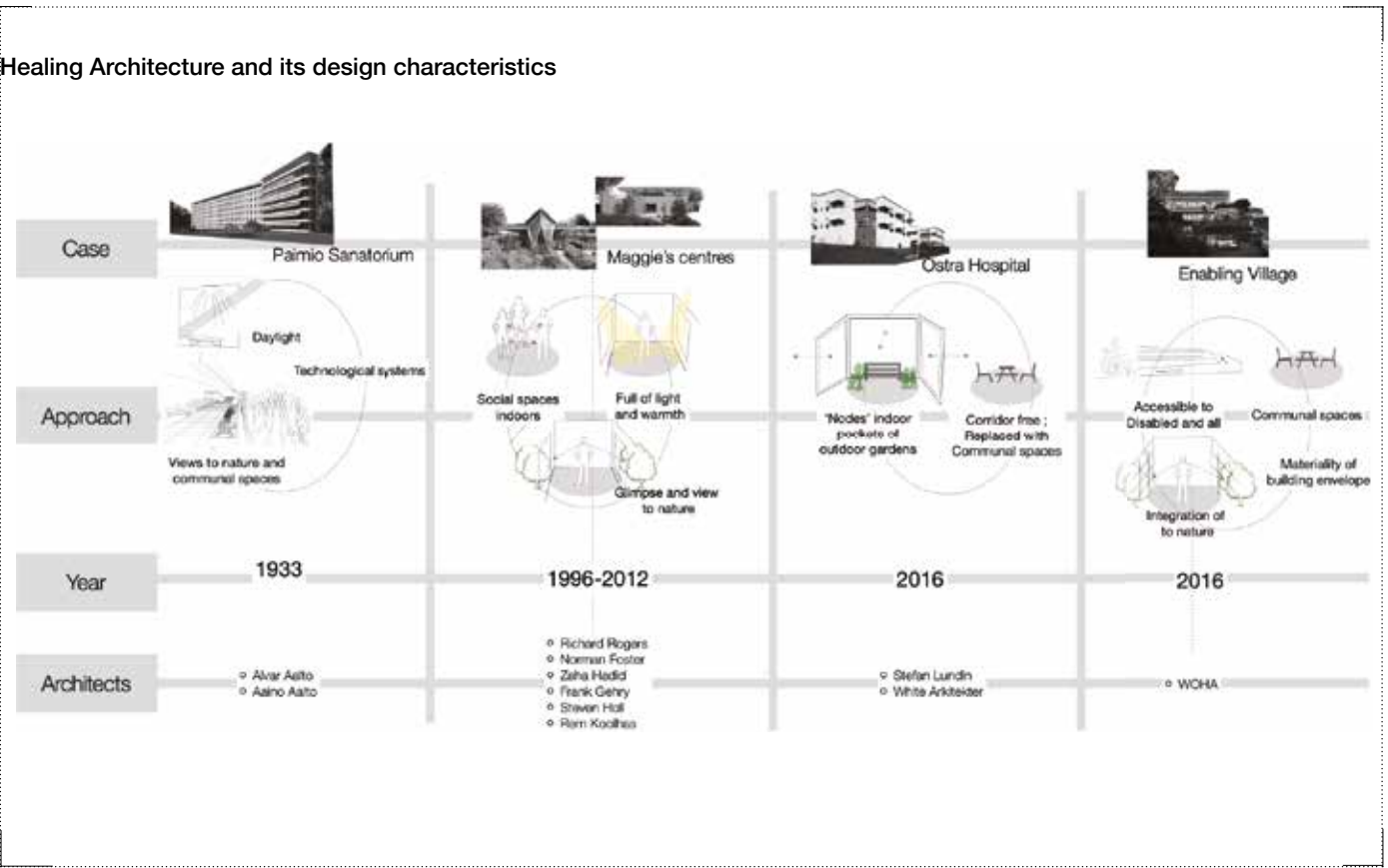


for everyone irrespective of health status and age. In searching for possible solutions, it poses these dire questions: How do we design buildings that foster holistic well-being? How do we design buildings that protect the environment? How can these be replicated in the design of the future home?

*Healing Architecture = Super Architecture?*  
Healing architecture may have paved a way for how architects can design buildings in present-day. Although the architecture itself does not heal, the design of these spaces creates ambiances that put the mind, body and spirit into cohesion and influences the behaviour of the occupant such that he is able to have an interrelationship with his built environment, nature and people. What's more, they are sustainable and protect the environment. It appears to be the very definition of what Terri Peters refers to as “super architecture” - one that offers positive benefits for both human well-being and his environment.

However, they have a trend of being designed for the frail, the sick and the ‘unhealthy’. It is almost as though these designs are deliberately considered when health fails, just as Charles Jencks mentions in an interview, “[...] The lower down the scale you feel [...] If you are deprived [...] in a hospital [...]

then the more architecture really matters” (Jencks 2015). Although the very connotation of the word ‘healing’ coincides with the imagination of a healthcare facility or something of its sort, for designers and architects instead, it leaves in its wake the possibility of a building to be super: To be able to integrate all aspects of well-being: physical, mental and social and be sustainable at the same time. This kind of architecture in itself becomes evidence that indeed the built environment could aim higher to be better for all people - irrespective of health status, age or gender. So then, the subsequent arguments would be “what is healing architecture and how are they realised?”. Healing architecture is an integrated approach of designing that uses theoretical concept of evidence based design to evoke senses of cohesion of mind, body and spirit, promote physical, mental and social well-being and support the health of the planet (Sabar 2020; Sakallaris 2015; Schaller 2012; Zakariah 2018). As shown by international healing architecture case studies of different periods, at the heart of these projects are always elements of nature, social and inclusive spaces and some form of technology. Each of these elements are replicated in different forms and ways by various architects, based on evidence, intuition or both. The co-benefit of being



sustainable and its degree of sustainability differs based on how the architects translated these elements in design. The core design elements foster the parameters of well-being interchangeably; nature is used to foster physical and mental well-being, technology to foster physical and social well-being and social spaces to foster social and mental well-being. Although the aspects overlap, the presence of all three elements in a building is able to foster all the parameters of well-being; thus holistic well-being.

#### *Designing with nature*

As Esther Sternborg describes in her book healing spaces, man was not created to live indoors (Sternberg 2009), and the human being finds comfort in elements of nature (Salingaros 2015).

Over the years, research has proven the therapeutic values in nature; from the theories of healing gardens, to greening cities and even the choice of siting of therapeutic facilities and buildings in natural landscapes. For the early 20th century sanatoria, for instance, “Nature was the cure!” and even looking at the most famous architecture designs by the fore fathers of architecture like Frank Lloyd Wright’s Fallingwater, Richard Neutra’s Lovell Health House and Le Corbusier’s Villa Savoye, the element of nature is always very present and

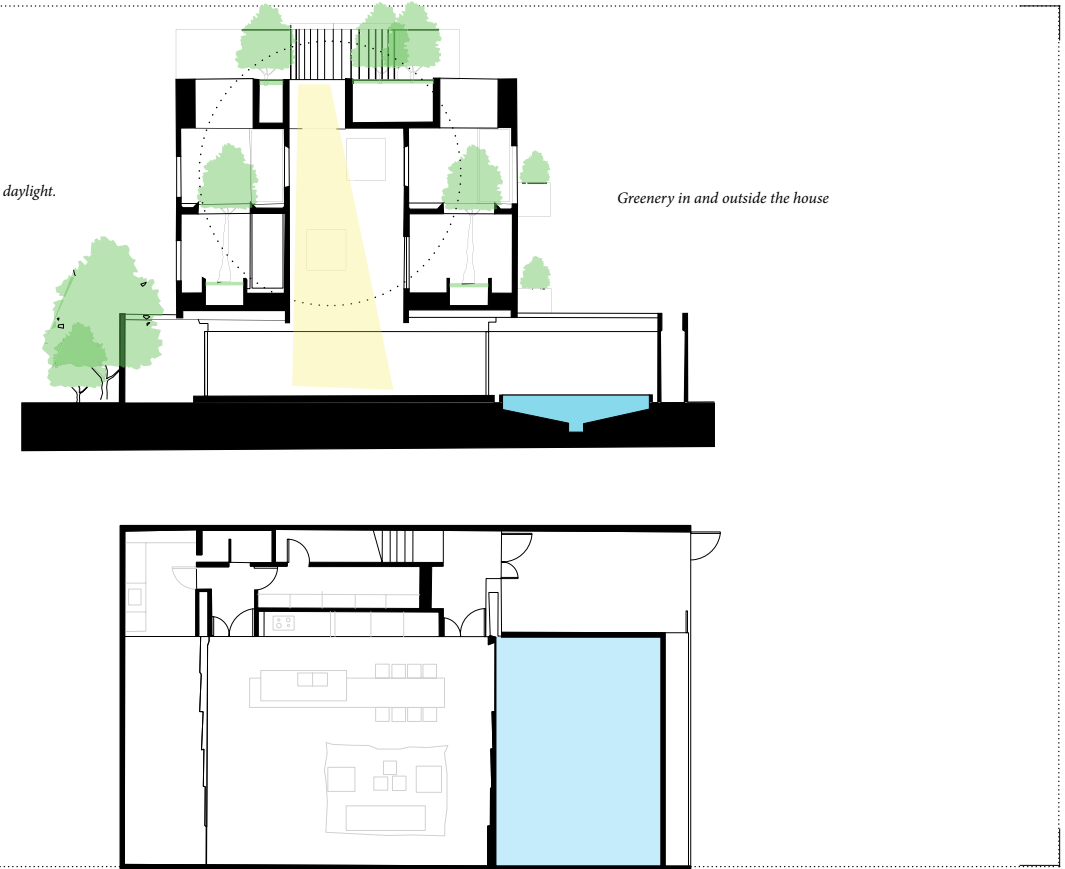
prominent. Fast forward to the 21st century, the first glance of most buildings referred to as ‘good’ for the environment and for man or environmentally conscious is an element of nature, thus the importance of designing with nature cannot be over emphasised.

Designing with nature has been approached differently by many architects. For some it has meant mimicking nature in construction (biomimetic architecture) like the Bamboo playhouse in Malaysia by Eleena Jamil Architects, for others it has been an entire construction out of wood like the Ogamichi house in Japan by Tomoaki Uno or Biophilic design which has been translated as weaving nature into the built environment for a strong human nature connection. The concept of Biophilia, developed by the biologist Edward O. Wilson, states that human needs to connect with living things in his environment. This theory goes beyond just placing the living things in man’s environment and includes taking inspiration from nature as well as man’s place in nature, and nature’s place in human society (Salingaros 2015). An example of such architecture is seen in The award-winning Sky House in Saigon -Vietnam by MIA studios built in 2019. It was constructed with the concept of architecture as a ‘living body’. The project uses the interiors to create connections between the spaces such that natural elements resonate

#### Designing with Nature

*Sky light that brings in daylight.*

*Greenery in and outside the house*



Sky House, Mia studios, 2018.

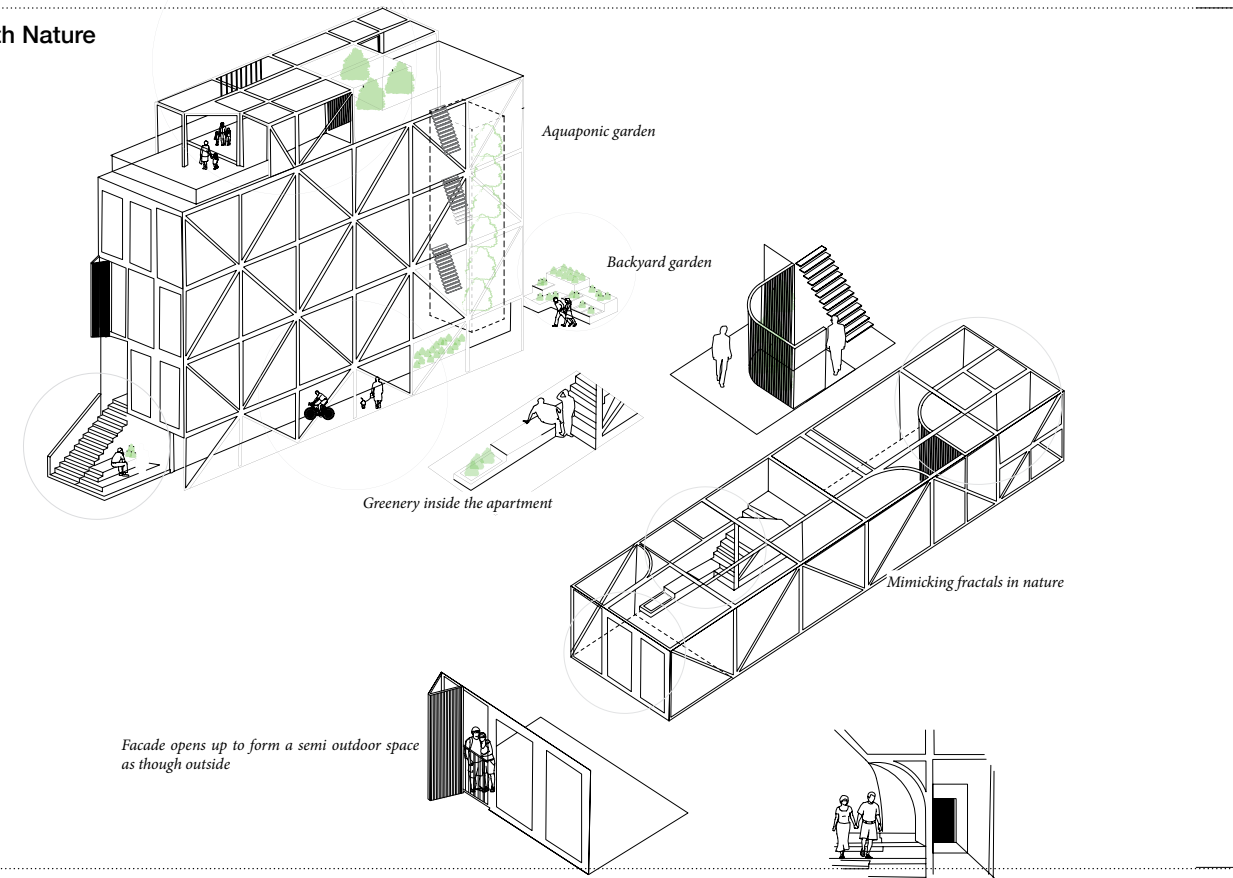
through the entire house. Its entire interior is designed such that there are both human to human and human to nature connections both horizontally and vertically. It is inspired by nature and manages to bring those elements (water, sun, wind and trees) into the interior such that its ambience relays the perception of a healing space. The sky house doesn't depend on its context which is embedded in the heart of the city but rather creates its own landscape from within. It manages to connect each layer with the other such that there are windows of connections that keeps an eye out on every level of the interior, creating the feeling of 'safety'. Its 'empty' space connects directly to the sky so that the 'outside' can be experienced from the 'inside'. The interiors harmonize with nature, not only by bringing the nature into the internal space but also using wood on the ceilings and walls to create a continuity.

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#### 4. Epilogue: A personal perspective. The future house must be super architecture: A Healing Home

Today, other building types other than healthcare facilities adopt the concept of healing spaces in their design. Debates on the design of the future house and what it must be are very apt considering the many challenges such as climate change, an ageing population, pollution and so on. Many built environment scholars have hinted that Biophilia design may be the solution to the future home, which is mainly translated into architecture as designing with nature. For others, it is technology or what John Ruskin refers to as the internet of things or better still the co-housing and intergenerational housing highlighting the need for social spaces. Indeed all these aspects highlighted that man is an ecological being and therefore thrives in nature, ascertained by medical sciences, cultural geography and other fields is true, or that man is a social animal and requires the presence of other humans and to interact with them also stands, or the culture of technology especially of the 21st century who are constantly glued to technological equipments, cell phones etc. and even rely on their mini robots to clean their houses etc. may have also proven that smart homes are the future. However, I take another standpoint in view of the future home. Each of

these perspectives of man though may individually thrive, it contributes only to one aspect of well-being. Physically well but not mentally well retranslates into poor well-being and interchangeably with all the other aspects. Therefore what should the future house be like? It perhaps should be a healing home; it should have elements of relating to all the multi-faceted nature of man in order to thrive. And how can this happen? Perhaps by posing the question during every design phase: How does this affect or contribute to health and well-being?