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REBUILDING

HOME, HEART & SOUL

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IREN KOOMEN
RESEARCH BOOKLET
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BY WARSAN SHINE **"HOME"**

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BY WARSAN SHINE

"HOME"

No one leaves home unless
home is the mouth of a shark.
You only run for the border
when you see the whole city
running as well.

Your neighbours running faster
than you, the boy you went to school with
who kissed you dizzy behind
the old tin factory is
holding a gun bigger than his body.

You only leave home
when home won't let you stay.
No one would leave home unless home
chased you, fire under feet,
hot blood in your belly.

It's not something you ever thought about doing,
and so when you did –
you carried the anthem under your breath,
waiting until the airport toilet
to tear up the passport and swallow,
each mouthful of paper making it clear that
you would not be going back.

You have to understand,
no one puts their children in a boat
unless the water is safer than the land.
Who would choose to spend days
and nights in the stomach of a truck
unless the miles travelled
meant something more than journey.

No one would choose to crawl under fences,
be beaten until your shadow leaves you,
raped, then drowned, forced to the bottom of
the boat because you are darker, be sold,
starved, shot at the border like a sick animal,

be pitied, lose your name, lose your family,
make a refugee camp a home for a year or two or
ten, stripped and searched, find prison everywhere.

And if you survive
you are greeted on the other side with
go home blacks, refugees
dirty immigrants, asylum seekers
sucking our country dry of milk,
dark, with their hands out
smell strange, savage –
look what they've done to their own countries,
what will they do to ours?

The dirty looks in the street
softer than a limb torn off,
the indignity of everyday life,
more tender than fourteen men who
look like your father, between
your legs, insults easier to swallow
than rubble, than your child's body
in pieces – for now, forget about pride
your survival is more important.

I want to go home,
but home is the mouth of a shark
home is the barrel of the gun.
And no one would leave home
unless home chased you to the shore
unless home tells you to
leave what you could not behind,
even if it was human.

No one leaves home until home
is a damp voice in your ear saying
leave, run now, I don't know what
I've become.

INTRODUCTION

It is September 2nd 2015 when pictures of a 3-year old Syrian boy, washed up on the Turkish shores of Bodrum, spread across international media like wildfire. In their attempt to flee Kobani, a heavily besieged city in the northern region of Syria, this boy and most of his family drowned while crossing the Mediterranean Sea to the Greek island of Kos when their boats collided and capsized. These heartbreaking pictures of Aylan, as the boy was called, became the face of the largest refugee crisis Europe has seen since the Second World War. A crisis that, if predictions hold true, has still not reached its summit and will continue to escalate into the foreseeable future.

The refugee crisis Europe faces today is one of almost incomprehensible proportions. While the influx of refugees arriving in Europe from the Middle East, Africa and Asia has been steadily rising since 2011, numbers increased exponentially in 2015. According to data collected by the International Organization for Migration (IOM), just shy of 300.000 refugees arrived in Europe in 2014, while in 2015 this number skyrocketed to a little over one million (IOM, 2016). For 2016, the European Commission has predicted the arrival of more than three million additional refugees (Stone, 2015). Most of these refugees come from a war-torn Middle East; 50% of all refugees are arriving from Syria, 20% from Afghanistan and 7% from Iraq (IOM, 2016). Of the remaining 23%, about a third come from other countries in the Middle East and another third from Africa.

The cause of the recent flow of refugees is, predominantly, the instability in the Middle East. Ever since the Syrian war started in 2011, civilians are fleeing the violence or they risk being caught between the fighting of Assad's regime and the rebellious opposition. Moreover, the presence of ISIS's ruthless Islamic State has caused many more people from Syria and surrounding countries to escape towards the west, in order to avoid becoming subject to their tyranny. On top of that, conflict still rages in Afghanistan and Iraq as government forces continue to fight the Taliban while in several other countries around the Gulf of Aden – both Middle Eastern as well as African – civilians are fleeing from oppressive regimes and raging civil wars.

Because of the enormous size of the current migration flow to Europe, its countries are faced

with a myriad of problems. First and foremost, many refugees attempt to access Europe via the Mediterranean Sea; a dangerous crossing that is ill-suited for most of the decrepit boats human traffickers use to smuggle refugees. After pictures of Aylan inflamed the debate on refugee aid, Europe ordered additional sea-border patrols to assist boats in distress. However, many refugees still never make it to the shores of Europe. The ones that do, are faced with even more challenges. The overwhelming numbers of refugees seeking asylum in Europe has taxed most host countries and their concerned organizations to their limits. Not only is there insufficient capacity to process these refugees and accept or deny their request for asylum in a timely fashion, but more immediate concerns such as the provision of adequate housing, material comfort, proper nutrition and health care are in too short supply to meet current demands.

Moreover, the large number of refugees that are being relocated across Europe from Italy and the Balkan has brought about a very vocal resistance to the acceptance of these refugees, both from countries themselves – such as Hungary, with their distrust of Islamic refugees – but also from large groups of inhabitants in host countries. This issue is exacerbated by infractions in these countries that are being attributed to the actions of refugees or asylum seekers. A prime example of this is how, after the incident at the central station of Köln – and several other large German cities – on New Year's Eve 2015, the collective German attitude towards the aid for refugees turned from benevolent to skeptical or even antagonistic overnight. Meanwhile, incidents like this are not all that surprising in light of the large

number of refugees that are simply unable to find proper refuge or receive the help in rebuilding their lives they expected. The recent European policy changes to the way in which refugees are admitted to Europe and relocated across its countries – or send back to Turkey in case of "illegal" entry – will somewhat slow the demands on the entire system, allowing it time to balance its supply with the demand. However, the issues associated with this refugee crisis will not resolve itself and action must be taken to structure and facilitate refugee settlement and integration in the host countries. For our field of architecture, of particular importance is the question of how we can help address the issue of refugee housing and (re)location.

1.

RESEARCH PROPOSAL

1.1
PROBLEM DESCRIPTION

The question of where to relocate refugees within host countries and how their housing needs can be met is, pre-eminently, a question for the building sector. However, established traditions and international policy is steering the debate away from innovate new ideas, instead relying on existing organizations and systems for refugee settlement and integration. While studies have proven the current integration of refugees into European host countries to be far from sufficient, with public support for humanitarian aid at a low point, it almost seems as if governments are hoping for the issues to simply disappear. It is therefore important that we, as architects, take our own responsibility and contribute to the debate by examining how architecture can play a role in addressing the current issue of refugee settlement and integration.

While it is clear that something must be done to change the current housing situation of refugees, no one seems to quite know *how*. This, perhaps, stems from the fact that the way in which countries currently facilitate the settlement and integration of refugees and asylum seekers has proven to be lacking, and in need of dire improvements and reformations. Indeed, research shows us that refugees and asylum seekers often end up in a position of *exclusion* within the host country.

At the end of the 20th century, the political concern for the issue of refugees and asylum seekers within the European Union increased (Duke, Sales and Gegory, 1999). The debate and push for a harmonized legislation across all European States shifted directions away from humanitarian consideration, instead predominantly focusing on conditions of entry into the European States (Duke et. al., 1999), and the access to welfare and social rights (Geddes, 2003). Of particular concern were the implications of refugees and asylum seekers on the limited national resources each European state has access to (Geddes, 2003). This has led to situations where international policy has started to negatively impact the integration of refugees and asylum seekers in the host countries (Lavanex, 2001). In the United Kingdom, for example, government policy has abraded the access refugees and asylum seekers have to social and economic institutions, thereby adversely impacting their social and economic settlement (Bloch, 2000). Yet it are exactly these institutions that are paramount to the process of integration as they are a source of social capital for refugees and asylum seekers (Zetter, Griffiths, Sigona and Hauser, 2002). Their neglect has resulted in additional poverty, as well as a position of increasing

exclusion within the mainstream society (Zetter and Pearl, 2000). Among the more dominant issues currently faced by adults and children alike are the lack of quality housing, material deprivation, restricted access to education and healthcare, poor nutrition and unequal social rights (Hek, 2005).

The exclusion from society, described as social exclusion, is not an issue that is unique to refugees and asylum seekers. Rather, models of social exclusions have been more broadly applied as a multi-dimensional measurement of poverty (Burchardt, le Grand and Piachaud, 2002). In relation to the issues faced by refugees and asylum seekers, Burchardt's dimensions of social exclusions are often used to assess their position within the host society (Taylor, 2004). These dimension are described as *consumption* of goods and services, *production* through participation in valuable social or economic activities, *political engagement* on a local and national level, and *social interaction* with family, friends and the larger society (Burchardt, 2000). The extent of exclusions is then measured and identified through the degree of participation in each of the four dimension. In recent years, attempts have been made to prevent the occurrence of social exclusion among refugees and asylum seekers. This has been done through, for instance, supporting the building of social networks among refugees' and asylum seekers' children (Beirens, Hughes, Hek and Spicer, 2007). However, an evaluation of these strategies showed that, oftentimes, they are ineffective because they fail to account for the multi-dimensionality of social exclusion, targeting only one dimension or another (Barnes and Morris, 2008).

It thus becomes clear that, while the settlement and integration of refugees and asylum seekers in their host countries has received a lot of – political – attention over the last two or three decennia, the current approach leaves much to be desired. After all, the outcome of successful integration is the *inclusion* in society, not the aforementioned exclusion. To understand where current policy is going wrong, it is necessary to understand what constitutes successful integration. While social exclusion is a useful concept to identify the extent and dimensions of societal exclusion among refugees and asylum seekers, it does not form a comprehensive model of successful integration. It were Ager and Strang (2008), who developed a first conceptual framework of refugee and asylum seeker's integration based on a combination of literature research, documentary analyses, and fieldwork in refugee settlements (see Figure 1). In their framework the authors define ten *core domains*; areas of activity that proved to be indicative of successful integration. These domains do not only include functional aspects of integration – e.g. housing and employment – but also consider social aspects of integrating – e.g. safety and stability. Furthermore, these different domains are organized by the role they play in the integration process – e.g. the domain of social bonds functions as a social connection to the host society, while the domain of language and cultural knowledge is a facilitator of integration through other domains. Important in Ager and Strang's (2008) model is the interaction and interdependence between the different domains; their research highlighting that successful integration does not pertain exclusively to one domain, but instead to all of them collectively. However, as the authors point out in the discussion of their model, it are exactly these

interactions between the different domains and their reciprocal exchanges that are – still – poorly understood.

Of particular interest to the current issue of refugee settlement and integration and our own field of architect is the domain of housing as both a marker, and a means, for successful integration. Not only does housing provide an anchor point for integration by determining refugees' and asylum seekers' local environment (Phillimore and Goodson, 2008), it also directly affects their physical and emotional health and well-being (Glover et. al., 2001). The place where we live is the pivot of our own local environment and can thus have far-reaching consequences, not only for integration, but also for the establishment of local public support. In a comparative study between Italy's and the Netherlands' settlement strategies for refugee integration, results showed that the duration of refugees' and asylum seekers' stay in isolated locations – e.g. asylum centres – is negatively correlated to their degree of integration in society (Korac, 2003). Similarly, a study in the United Kingdom has shown that relocating refugees in deprived urban areas negatively effects their integration due to its position of exclusion in society (Phillimore and Goodson, 2006). These same study also showed that current policy interventions predominantly address functional requirements of integration – e.g. housing – and neglect social requirements. When we consider these findings in light of Ager and Strang's (2008) framework of integration we can thus conclude that architecture must not only rethink refugee housing, but also think of its potential as a *means* that can allow for activity in other domains of integration.

Because the interactions between the different domains are still poorly understood, addressing the current issue of refugee settlement and integration from an architectural point of view has the potential to greatly enhance the ongoing debate. Until now, this debate has almost entirely focused on political and legislative issues, adhering to established traditions and accepted international policy. However, because of the enormous proportion of the current refugee crisis, what countries are in need of are innovate new ideas and insights that can help envision a restructuring and improvement of the current system. This is exactly what the field of architecture, wielded by the architect as a designer and out-of-the-box generative thinker, is singularly suited to achieve and contribute to the current issue of refugee settlement and integration.

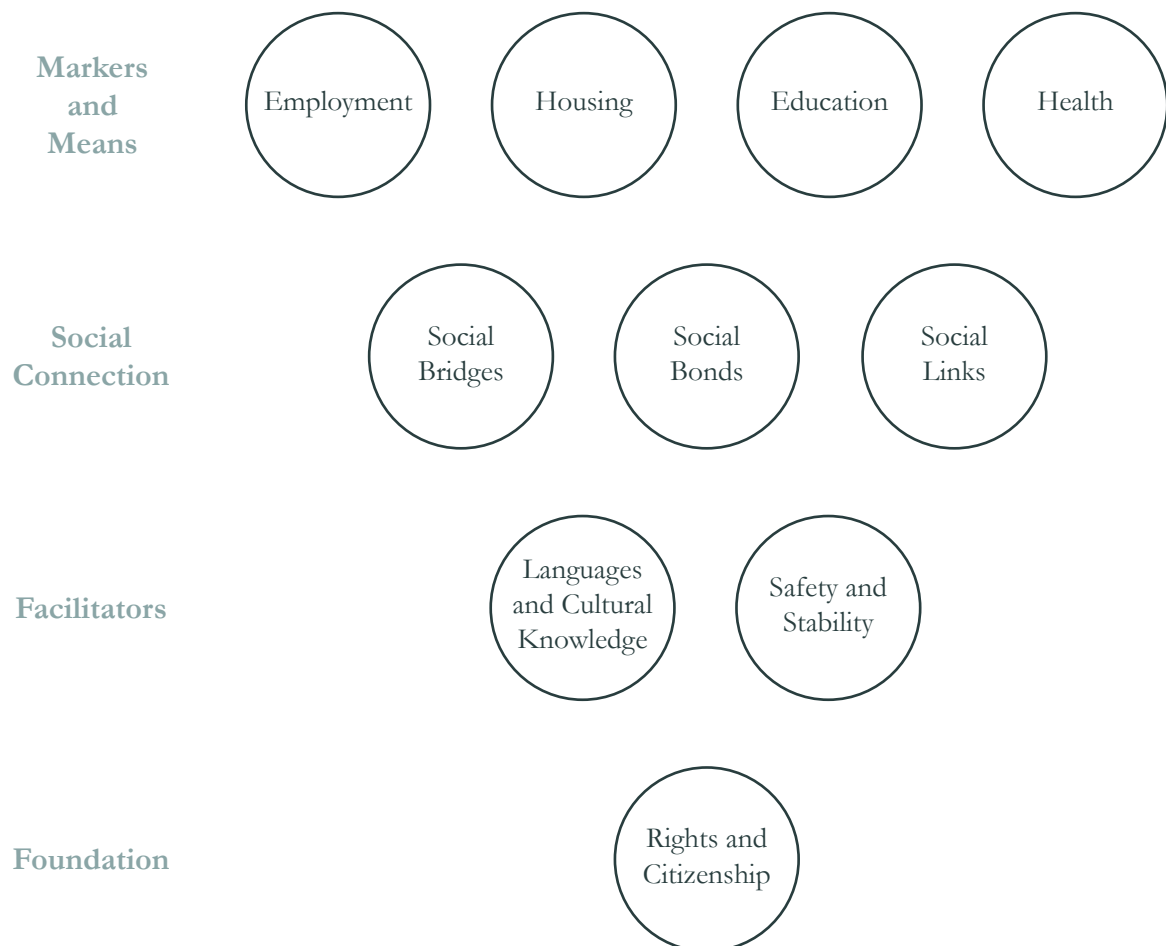## AGER AND STRANG'S (2008) FRAMEWORK OF INTEGRATION

**Markers
and
Means**

Employment Housing Education Health

**Social
Connection**

Social
Bridges Social
Bonds Social
Links

Facilitators

Languages
and Cultural
Knowledge Safety and
Stability

Foundation

Rights and
Citizenship

Figure 1: A Conceptual Framework Defining Core Domains of Integration
(Ager and Strang, 2008, p.170)

1.2
PROJECT AIMS

To examine how architecture can play a role in addressing the current issue of refugee settlement and integration, it is important to separate its functional qualities from its social qualities. Instead of considering architecture as physical elements and spaces that – together – create an aesthetic structure, we need to consider architecture through its entire process – from conception, to design, to execution, to physical manifestation. For it is in this process where we find most of architecture's social qualities; its ability to allow for activities such as participation, education and social interaction. It is also in this process where architecture's functional qualities can be enhanced by its social qualities.

If we are to consider housing not only as a marker, but also a means of integration, we first have to examine its possible interactions with the other domains of integration identified by Ager and Strang (2008). When we simply consider housing as the place where refugees live, only several interactions can be identified. These interactions are, mostly, the result of a direct relation between housing and that particular domain. Examples include the positive correlation between quality housing and improved physical and emotional well-being (Glover et. al., 2001), and the interaction between someone's place of residence and the formation of social ties with the direct community (Chavis and Wandersman, 1990). However, a large number of other domains of integration such as education, language skills and cultural knowledge, and citizenship and rights are not directly related to housing. In order for housing to become a means of integration, we thus have to expand the conventional meaning of housing as the place where refugees live. Instead, we have to consider the role it can play in a multi-dimensional approach to refugee settlement and integration that will allow for activity in the other domains of integration.

A concept that allows for such a multi-dimensional approach is that of assisted self-help housing. During the last century, assisted – or aided – self-help housing has been a commonly used housing program to facilitate housing for underprivileged groups (Stein, 1991; Ward, 2012). Assisted self-help housing has been around since the early 1900s, when governments started sponsoring citizens who could not afford to build their own home, which was – at the time – the dominant mode of building (Harris, 1999). However, it only gained momentum after architect John Turner established a theoretical

framework for self-help housing in which he considered self-help to be akin to social decision-making. His main idea was that the house itself does not matter; rather, what matters is what the house is to its owners (Turner, 1976). Turner was a firm believer that self-help housing could provide affordable low-income housing to the poor by supporting a relationship between the construction of a house, the house's occupants, and its direct environment, thereby allowing available resources to be used more efficiently (Turner, 1976). During the height of the self-help housing movement, there were a lot of political and theoretical debates about the merits and demerits of self-help housing programs (Ward, 1982), particularly in relation to its potential to improve low-income housing conditions, support a more equal distribution of resources, and facilitate social transformation (Fiori & Ramirez, 1987). However, in recent years, attention for these programs has diminished as housing demands have only continued to increase, forcing the housing sector to focus on more broadly applicable approaches (Bredenoord and van Lindert, 2010). Nowadays, assisted self-help housing is mainly associated with initiatives to build housing for the urban poor in third world countries (Joshi and Khan, 2009), as a user-initiated means to achieve affordable low-income housing in developed countries (Mullins, 2010), or as a hobby for those so inclined (Brown, 2008).

While it are in particular the funding, governance, and reproducibility of assisted self-help housing programs that have been put into question (Ward and Macoloo, 2009), studies have shown these programs to offer a myriad of benefits outside of its primary housing goal. For instance, surveys of participants in self-help housing projects have shown that participants report an above average satisfaction with their own housing situation, their neighbourhood and their neighbours (Burns, 1983). In addition to this, these surveys also showed participants to report a higher satisfaction with life in general, a diminished sense of powerlessness, and a gain of personal identity. Another study – in which a direct comparison was made between self-help housing projects and conventional housing projects – similarly reported that participation in self-help housing projects yielded a better housing quality, as well as better relationships with neighbours and the neighbourhood (Carmon and Favrieli, 1987). Furthermore, participants of self-help housing projects were shown to be more motivated to work at maintaining both their own home, as well as the larger community.

The aim of this project is to explore how such an assisted self-help housing program for refugees can facilitate functional and social integration, and what it could look like. By considering this program as a means that can allow for activity in as many domains of integration as possible, architecture can play a facilitating role in the settlement and integration of refugees. While existing self-help housing projects, as well as initiatives to support refugee settlement and integration can provide a framework for this research, its aim is to use this framework as a starting point. In order to avoid the caveat of staying within the boundaries of currently accepted legislation, systems and solutions, the project will adopt an architectural approach. Through harnessing the architect's qualities such as out-of-the-box thinking and generative design, this project aims to envision the innovate solutions that the current issue of refugee settlement and integration is in need of.

1.3
RESEARCH QUESTION

"How can assisted self-help housing for refugees aimed at their active participation facilitate functional and social integration?"

The main research question that this project will answer and aim to address is: *"How can assisted self-help housing for refugees aimed at their active participation facilitate functional and social integration?"* This research question highlights three different focal points within the research. Firstly, the functional and social integrations of refugees. Secondly, the active participation of refugees in assisted self-help housing. And thirdly, the interaction between assisted self-helping housing and the facilitation of functional and social integration.

In order to answer this research question, it is important to further examine several important aspects that are inextricably linked to its three focal points. These are captures in the three sub-questions that follow from the main research question:

Subquestion #1:
"How can the active participation of refugees during the building process promote integration?"

Subquestion #2:
"How can the active participation of refugees from different cultures be stimulated?"

Subquestion #3:
"What are the potential scenarios and physical design solutions for assisted self-help housing for refugees?"

1.4
METHODOLOGY

This project will rely upon a combination of methodologies, divided into two categories: top-down – a conceptual framework – and bottom-up – a pilot study. Because this project aims to explore how architecture can facilitate social and functional integration through active refugee participation, it is important to conduct top-down research. This research will enable the project to adequately relate to existing knowledge on the subject at hand, as well as the issues of the current refugee crisis. However, because this project also aims to generate innovative solutions, it is just as important to conduct bottom-up research in conjunction to the top-down research. This bottom-up research will enable the project to harness the architect's qualities of out-of-the-box thinking and the application of a completely new perspective – that of architecture – to an otherwise predominantly political and legislative issue.

TOP-DOWN METHODS
CONSTRUCTING A CONCEPTUAL FRAMEWORK

Literature Studies
Sub-questions #1 and #2 are the main components of the top-down approach. To answer these sub-questions, literature studies will be conducted that aim to address how active participation of refugees during the building process can promote integration, as well as how active participation of refugees from different cultures can be stimulated. The expected products of these methods are a diagram of the domains underlying integration and their interaction with (self-help) housing, as well as a list of the means by which participation of different cultural groups can be facilitated. These results combined will provide the outline of a conceptual framework of the interaction between active refugee participation, self-help housing and integration. This framework will then provide the basis for the bottom-up methods and ensure the design of the pilot study is grounded in existing knowledge and theories. Furthermore, these results will simultaneously be used as additional design and evaluation criteria within the pilot study.

BOTTOM-UP METHODS
CONDUCTING A PILOT STUDY

Research by Design
Sub-question #3 is the primary component of the bottom-up approach. To answer this sub-question, a research by design approach will be adopted that aims to generate potential scenarios, adjoining strategies and their physical design
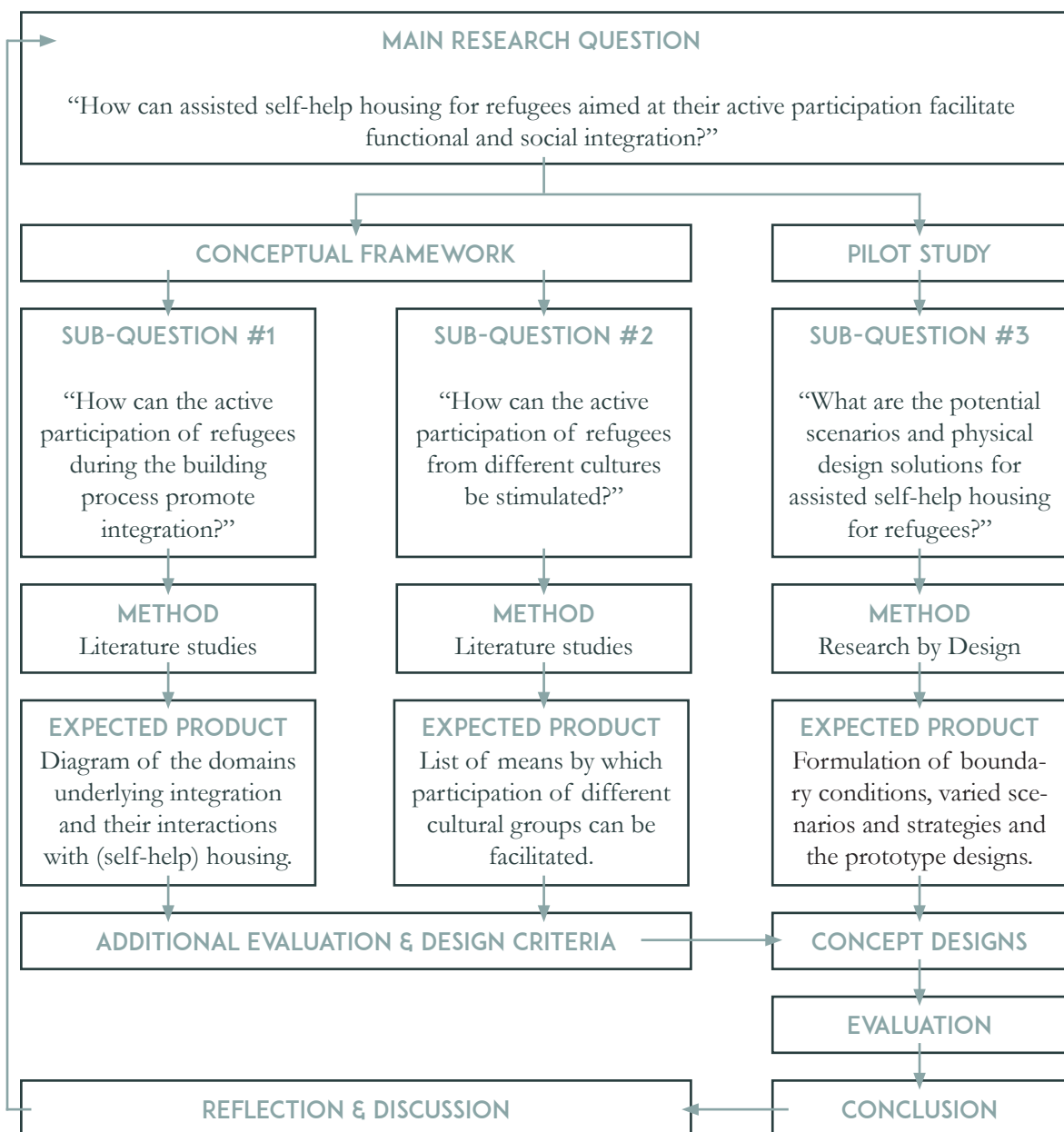
MAIN RESEARCH QUESTION

"How can assisted self-help housing for refugees aimed at their active participation facilitate functional and social integration?"

CONCEPTUAL FRAMEWORK

PILOT STUDY

SUB-QUESTION #1

"How can the active participation of refugees during the building process promote integration?"

SUB-QUESTION #2

"How can the active participation of refugees from different cultures be stimulated?"

SUB-QUESTION #3

"What are the potential scenarios and physical design solutions for assisted self-help housing for refugees?"

METHOD
Literature studies

METHOD
Literature studies

METHOD
Research by Design

EXPECTED PRODUCT
Diagram of the domains underlying integration and their interactions with (self-help) housing.

EXPECTED PRODUCT
List of means by which participation of different cultural groups can be facilitated.

EXPECTED PRODUCT
Formulation of boundary conditions, varied scenarios and strategies and the prototype designs.

ADDITIONAL EVALUATION & DESIGN CRITERIA

CONCEPT DESIGNS

EVALUATION

REFLECTION & DISCUSSION

CONCLUSION

Figure 2: Graphical outline of the research design and its methodology.

solutions for assisted self-help housing for refugees. The expected product of this method is the formulation of a variety of different future scenarios that address different (present and future) boundary conditions. Furthermore, the architectural strategy for each of these scenarios will be developed further, resulting in several prototype designs of assisted self-help housing for refugees. These different scenarios and strategies, as well as the different prototype designs, will all be created within the conceptual framework set forth by the top-down research.

TOP-DOWN & BOTTOM-UP
EVALUATION AND REFLECTION

Scenario Analysis and Appraisal
Once all prototype designs have been created, they will then be evaluated using the conceptual framework resulting from sub-questions #1 and #2, as well as through the scenario, strategy and boundary conditions resulting from sub-question #3. Moreover, more general design criteria will be used to compare the prototypes from an architectural point of view. Following this evaluation, a final design proposal will be created that addresses, and aims to answer, the main research question.

2.

INTEGRATION
THROUGH
ARCHITECTURE

2.1

ARCHITECTURE AS A MEANS

In order to examine the role self-help housing can play in the facilitation of both social and functional integration, it is first import to understand the possible ways in which refugee participation during a self-help housing project can interact with indicators of integration. To that end, a literature review will be conducted aimed at answering the question: "How can the active participation of refugees during the building process promote integration?". This review will first venture to gain an understanding of the concept of integration, after which it will look at the two different ways in which architecture facilitates integration. The first is focused on architecture's contribution to integration indicators through its pivotal role in the development of a place-identity. The second specifically addresses architecture's contributions to integration as a result of opportunities inherent to, and provided by, the self-help housing process.

When we aim to find an understanding of what integration entails, it quickly becomes apparent that the term lacks a clear definition, as well as a unified acceptance of its meaning. Integration is argued to be "[…] a chaotic concept: a word used by many but understood different by most." (Robinson, 1998, p. 118). The concept of integration is not only highly differentiated and debated, but also largely dependent on the context of its use (Robinson, 1998). A generally accepted definition, theory, or model of refugee and asylum seeker integration does not exist, and the concept itself continues to be a controversial one (Castles, Korac, Vasta and Vertovec, 2001). Because of this, it has been suggested that there appears to be little hope for a unifying definition (Robinson, 1998). While integration is often regarded as the ultimate goal of refugee and asylum seeker resettlement policies, it thus remains unclear what such policies describe (Robinson, 1999). In an attempt to find an operational definition of integration, Ager and Strang (2008) explored shared perceptions of what is regarded as "successful" integration. Their framework of integration (see Figure 3) incorporates ten core domains that reflect normative indicators if successful integration, and as such provides a useful first tool with which integration procedures and their outcomes can be assessed and analyzed.

Ager and Strang's (2008) framework of integration divides its ten core domains into four categories based on their role in the integration process; markers and means (1), social connection (2), facilitators (3) and foundation (4). The first, markers and means, describes areas of activity in the public realm that are indicative of successful integration (i.e. employment, housing, education

AGER AND STRANG'S (2008) FRAMEWORK OF INTEGRATION

Markers and Means

Employment   Housing   Education   Health

Social Connection

Social Bridges   Social Bonds   Social Links

Facilitators

Languages and Cultural Knowledge   Safety and Stability
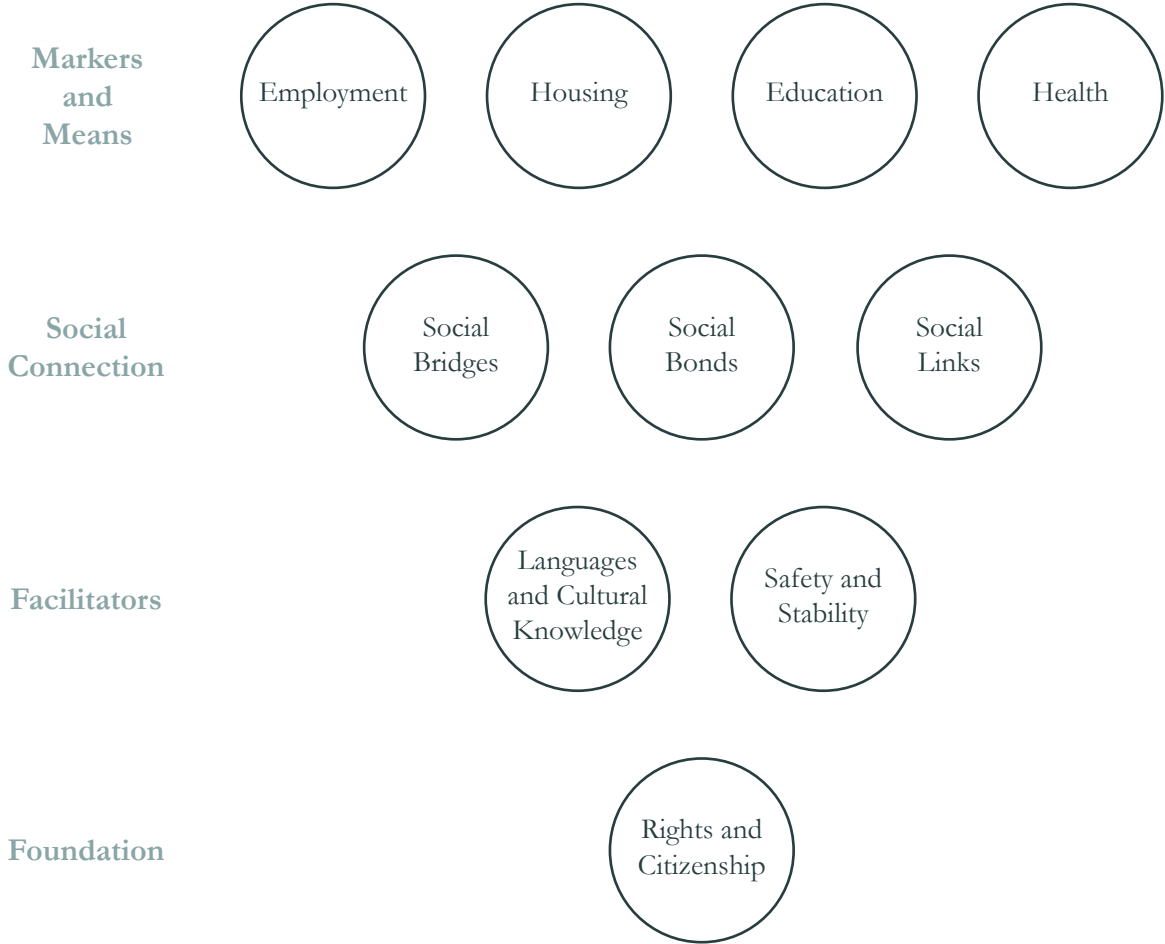
Foundation

Rights and Citizenship

Figure 3: A Conceptual Framework Defining Core Domains of Integration
(Ager and Strang, 2008, p.170)

and health). It is in this category that we find housing – and thus architecture – as a public realm in which integration occurs, but which can also contribute to further integration. The second, social connection, describes processes that mediate between the other categories of integration. Social connection thereby acts is a driving force behind the process of integration itself and includes bonds with family, friends and cultural groups, bridges between the refugee community and the community of the host country, and links that connect individuals to bodies of – local or national – governance. The third, facilitators, describe aspects of inclusions or exclusions that are, oftentimes, a barrier to integration. By means of investing in these domains, these barriers can be removed and integration stimulated. These barriers include acquiring language and cultural knowledge, as well as establishing safety and stability. The fourth and last category, foundation, only contains one domain of integration. Citizenship and rights are integral to integration, particular in the way they shape the definition of integration and support its implementation. This domain thus provides the foundation, as well as the boundary conditions, for the entire integration process within a particular host country.

In a subsequent paper, one of the authors reflects on the framework and identifies four areas of interest that the framework overlooks and thus require further attention (Ager, 2010). Firstly, the author argues that research has shown dominant views of nationhood and citizenship to be determinants of how integration is understood. This is unsurprising, in light of the earlier discussion about the concept of integration as being highly differentiated, debated, and dependent

on its context (Robinson, 1998). However, Ager (2010) takes this one step further by arguing that this contextual understanding of integration shapes the social space within a host country that is available to refugees and greatly influences their sense of "belonging". It is thus not only refugees' rights and citizenship that is a domain associated with successful integration, but also the attitude of the host country towards their rights and citizenship. Secondly, Ager (2010) points out that the concept of social capital is widely adopted as a means by which social relations and networks – the domains of social bonds, bridges and links – can be facilitated, thereby forming a basis for social integration. However, as the author rightfully addresses, the concept of social capital describes nothing more than the collectivity of social transactions such as norms, trust and responsibility (Ager, 2010). It does not explain anything about the manner in which these different transactions are established in social relations, which is a missing piece of information that could potentially lead to a better facilitation of these social connections. Thirdly, the author argues that integration is a two-way process, in which both refugees, as well as the host country, must make an effort to meet each other halfway (Ager, 2010). This means that success in the different domains is not only indicative of successful integration, but they can also be considered areas of attention for the host country. Ager (2010) posits that this notion of integration as a two-way process should be further elaborated in future research. By embracing that the contextual understanding of integration extends to a fluid assemblage of social meaning and identities, the concept becomes less hit-or-miss and starts to allow for a wide diversity of ways in which integration can occur within the

specified domains. Lastly, the author points out that, while their framework describes domains that are related to successful integration, it does not describe how this integration can be facilitated and the means by which integration trajectories can be designed (Ager, 2010).

Before we can look at housing as a marker and means for integrations, it thus becomes necessary to understand this fourth argument Ager (2010) makes; how can integration be facilitated? In order to address this issue, it is crucial to examine the way in which refugees and asylum seekers adapt to a new environment. After all, it is through the process of adaptation that refugees and asylum seekers assimilate in their host country, thereby offering meaningful insight into how integration across different domains can be properly facilitated. Research looking into the post-migration adaptation of refugees has focused on several distinct aspects of refugee adaptation, such as their physical and mental health, as well as their economic and cultural adaptation. Many of these approaches have built upon the work of Lazarus and Folkman (1984) by addressing refugees' cognitive appraisal of stressors and coping mechanism in different fields of study. In their canonical stress model, the authors define stress as "[...] a particular relationship between the person and the environment that is appraised by the person as taxing or exceeding his or her resources and endangering his or her well-being." (Lazarus and Folkman, 1984, p. 19). While initially a concept used to assess the extent of refugee adaptation post-migration, in recent years, this model has been the foundation for more elaborate, multi-dimensional, models of refugee adaptation. One such model is Berry's (1997) framework of

refugee acculturation, which is used to assess the psychological impact of intercultural contact as a measure of adaptation. However, these models have not been without critique, predominantly due to the fact that appraisal-based stress models remain subjective in nature and thus make it difficult to adequately assess refugee adaptation.

In an attempt to overcome this particular weakness, Hobfoll (2001) aimed to resolve this subjectivity in his Conservation of Resources (COR) theory. This theory redefines the cause of stress in the appraisal models as a loss of resources. While Hobfoll mentions that resource loss can still be assessed through appraisal-based models, he also posits that resource losses can be objectively quantified. Using the work of Hobfoll as a springboard, Ryan, Dooley and Benson (2008) have developed a theoretical resource-based model that can be used to explain and assess refugee adaptation post-migration. The authors consider refugees to possess four types of resources; personal, material, social, and cultural, allowing for a multi-dimensional approach to refugee adaptation. Furthermore, their resource-based model explains that resource loss and gain can only be understood in the context of a person's needs, goals, and demands. The authors argue that refugees will inadvertently compare their new situation to their old situation, and that "[…] the greater the level of need deprivation, thwarting of personal goals and exposure to stressful demands in the home environment, the greater the potential that the post-migration environment will have to generate a sense of well-being for the migrant […]" (Ryan, Dooley and Benson, 2008, p.8). In other words; they argue that it is necessary for the host environment to facilitate the reacquisition

of resources for refugees. It is this model that is especially interesting in light of the framework of integration developed by Ager and Strang (2008). It is suggested that spirals of resource (re)acquisition for refugees post-migration have the potential to serve as a basis for the creation of trajectories of integration that can facilitate integration across multiple domains (Ager, 2010).

Now we have addressed the domains that are associated with successful integration, as well as how integration in these domains can be facilitated by examining refugees' and asylum seekers' post-migration adaption to a new environment, we can start to look at architecture's potential contributions to this integration. Because we are primarily interested in the role housing can play as a means for integration, it is paramount that we first understand its meaning and significance in a person's life.

A person's place of residence is the pivot of their daily life, and as such plays an important role in their socio-spatial network. Indeed, it has been posited that each identity a person adopts – i.e. identities related to different roles – is partly defined by the physical dimensions and characteristics of the places they frequent (Proshansky, 1978). Furthermore, each person has a more general place-identity, which is a direct reflection of their individual socialization within the physical world. A place-identify is defined as "[…] those dimensions of self that define the individual's personal identity in relation to the physical environment by means of a complex pattern of conscious and unconscious ideas, beliefs, preferences, feelings, values, goals and behavioral tendencies and skills relevant to the

environment." (Proshansky, 1978, p. 155). This place-identity is thus an integral part of a person's holistic self-identity, which immediately gives insight into the importance of housing, as well as architecture – as its vehicle. It must be noted here, however, that place-identity is not merely confined to the physical boundaries of a person's place of residence. Rather, place-identity extends to the collectiveness of places within someone's physical network and can include places where friends or family live, where one works, shops, or goes to recreate (Proshansky, Fabian and Kaminoff, 1983). This is furthermore supported by a large body of research that aims to examine the relationship between spatial location and social inclusion – both focused on low income groups, as well as immigrants – based on the degree of segregation within that group's immediate environment. While different studies yield different results, careful review of the data seems to support the fact that, while a person's immediate environment – i.e. place of residence – is an important pivot of their daily lives, so are the other places within their own physical network that they frequent, which may be located outside their immediate environment (Bolt, Burgers and van Kempen, 1998).

An important distinction to make in regards to the relationship between housing and place-identity is that it requires someone to actively engage with their environment. As suggested by Frederickson and Anderson (1999, p.22): "[…] it is through one's interactions with the particulars of a place that one creates their own personal identity and deepest-held values.". This interaction however is a double-edged knife when we consider refugee resettlement. On the one hand, establishing a new place-identity in the host country could influence

refugees' interactions, from becoming a part of the local community and wishing to stay in their new environment to its maintenance and improvements (Pretty, Chipuer and Bramston, 2003). However, refugees are oftentimes violently and forcefully displaced from their own environment and may not wish to establish a new place-identity. Indeed, research has shown that refugees' feelings of belonging to their native country and environment actively undermines the formation of a new place-identity within the host country (Nagel and Staeheli, 2008). Overtly forcing refugees to deny their bonds to their home country, as well as their connection to their native culture and religion, has furthermore been shown to have an adverse effect on their integration (Valentine, Sporton and Nielson, 2009). Simultaneously, this appears to have a legitimizing effect on the negative attitudes towards refugees and migrants by the majority population in the host country (Valentine et. al., 2009). Controversial as it may seem, facilitating the formation of a new place-identity of refugees within their host countries relies on allowing them to maintain and cultivate their native place-identity and practice their own culture (Valentine et. al., 2008). Not only does this offer refugees a non-threatening way to integrate in the host country, it also fosters integration in the host country by emphasizing that there is a need to accommodate minorities and respect their needs (Nagel and Staeheli, 2008).

In recent years, place-identity has been an important concept within many different fields of study, all of which have aimed to facilitate place attachment – that is the bonding of people to a place – through their own means. Through its mediating effect on place-identity, and thus

self-identity, place attachment enables a person to form, maintain and preserve their identity as a person, group, or culture (Altman and Low, 1992). It thereby plays a pivotal role in cultivating self-esteem (again as a person, group, or culture), self-worth and self-pride (Altman and Low, 1992). Furthermore, place making stimulates positive emotions and affective experience associated with place, which has been reported to stimulate the formation of social capital (Flora and Flora, 1996) and enhance psychological need satisfaction (Scannell and Gifford, 2016). This, in turn, leads to an increased sense of community, as well as community participation throughout multiple domains (Perkins and Long, 2002; see Figure 4). Place attachment is a concept that subsumes different patterns, all of which contribute to place attachment in their own way (Altman and Low, 1992). These include attachments (affect, cognition and practice), variety of place in scale, specificity and tangibility, different actors and social relationships (individual, groups, cultures), as well as temporal aspects (place attachment may change or evolve over time in both a linear or cyclical fashion). The relation between these different patterns (except the temporal one) have been explained and portrayed by Manzo and Perkins (2006) in a grid where one axis represents the different forms of capital associated with one's physical environment, and the other the different scales, actors and social relationships (see Figure 5).

Figure 5 gives a first hint of the different domains indicative of integration – as defined by Ager and Strang (2008) – that could be facilitated through housing. These are mostly direct relationships between someone's place of residence and these domains, as they all describe different effects

	Psychological Domain	
	Cognition / Trust	**Social Behavior**
Organized Spontaneously / Informally	Sense of Community	Neighboring
Organized Officially / Formally	Collective efficacy / Empowerment	Citizen Participation

Figure 4: Four Psychological Dimension of Community-based Social Capital
(Perkins and Long, 2002, as visualized by Manzo and Perkins, 2006, p. 342)

	Community-Related Dimensions	
	Place	**Social**
Cognitive	Place identity	Community identity
Affective	Place attachment	Sense of community
Behavioral	Participation in neighborhood planning, protection, and improvement	Neighboring activitied, participation in crime prevention, community celebrations

Figure 5: A Framework for Organizing Psychological Concepts that Focuses on
Community in Both its Physical and Social Aspects
(Manzo and Perkins, 2006, p. 343)

of being *emplaced*. However, housing can create additional opportunities for the facilitation of integration through the process by which it is achieved; the building process. Not only does this process allow for the active participation of refugees, thereby inviting the aforementioned engagement with the local environment, it also supports a procedural approach to the way in which housing can facilitate integration. Such a procedural approach regards housing as a temporal process, from inception to realization, that can support interaction within domains of integration such as education, and language skills and cultural knowledge ,that are otherwise not directly related to housing. The concept adopted in this study supporting this approach is the concept of self-help housing; a concept which research shows to offer a myriad of benefits to the participating parties outside of its goal – i.e. housing itself. In a comprehensive overview of research conducted into self-help – or user-controlled, as the author calls it – housing, Carmon (2002) organized its benefits in five different categories. First, an *increase of social capital* – i.e. social transactions such as norms, trust and responsibility – due to communal activities, which increases people's ability to achieve their own, and community, goals. Secondly, the *compatibility with individual choice*, which allows for a better living experience as people are offered the freedom to adapt their house to their own way of living. Thirdly, *economic consideration*, as self-help housing has shown to be more cost efficient than conventional housing. Fourthly, *contributions to cultural and aesthetic value*, as self-help projects – over time – often result in authentic environments. And, lastly, the *prevention of neighbourhood deterioration* due to an increased sense of pride, responsibility, and community.

A tentative explanation for these benefits is offered in the form of a philosophical argument by Don Slater, who writes that a means through which people express their own identity and creativity is the "[...] exercise of free personal choice in the private sphere of everyday life [...]" (Slater, 2000, p.8). This explanation becomes especially interesting when we consider the current issue of refugee settlement and integration. As a marginalized group, it is even more important for refugees to re-establish and affirm their own identity as a means to generate empowerment (i.e. increased autonomy and self-determination), optimism and confidence (Tomlinson and Egan, 2002). Traditional self-help housing projects are primarily focused on providing people with the resources and training necessary to build a physical house. However, the notion of empowerment through self-help housing can furthermore be expanded upon by expanding its scope and adopting an empowerment-oriented approach. This approach can results in additional benefits – alongside the aforementioned ones – such as improved self-identity, self-esteem and personal competence, as well as increased social status (Ridgway, Simpson, Wittman and Wheeler, 1994). The scope of self-help housing projects can thus be significantly broadened in the context of refugee settlement and integration by not only providing resources and training, but also offering other non-housing activities such as language courses, cultural and integration support, social bridges and links and education.

The sub-question that this literature review attempted to answer was: "How can the active participation of refugees during the building process promote integration?". When we consider our findings in regards to the current issue of refugee resettlement and integration, it quickly becomes apparent that housing – and architecture – can facilitate integration in more of Ager's and Strang's (2008) domains than simply its own. Someone's local environment – including both their place of residence as well as other places they frequent, collectively referred to as their spatial network – play an important formative role in their *place-identity* and subsequent self-identity. Moreover, both these identities influence important concepts of someone's agency such as esteem, pride, and capital, both in relation to individual as well as group and cultural agencies. In the resettlement of refugees, housing can thus facilitate integration in Ager's and Strang's (2008) domains pertaining to health – here described as mental and psychological health – social bridges and bonds, as well as cultural knowledge and safety and stability.

Furthermore, by considering the potential for refugees to actively participate during the building process – through assisted self-help housing – they can be offered both physical resources, as well as training and education that may help them with future employment. By adhering to an empowerment-oriented approach, *assisted self-help housing* can increase refugees' ability to reaffirm their identity through creative, self-expressive means – separate of their place-identity. This in turn stimulates self-esteem, the development of competences and social status, all of which contribute to reestablishing their autonomy while offering them meaningful daily activities. Moreover,

because of the procedural nature of assisted self-help housing, other non-housing activities such as language skills, cultural knowledge, social bridges and links can be developed. Figure 6 aims to visualize the different ways in which the active participation of refugees during the building process (represented in a series of diagrams) can facilitate integration, divided into the contributions made by establishing a place-identity, as well as the self-help process.

Facilitated by place-identity

Health

Social Bridges

Housing

Safety and Stability

Cultural Knowledge

Social Bonds

Languages and Cultural Knowledge

Health

Housing

Social Bridges

Education

Social Links

Safety and Stability

Facilitated by the self-help process
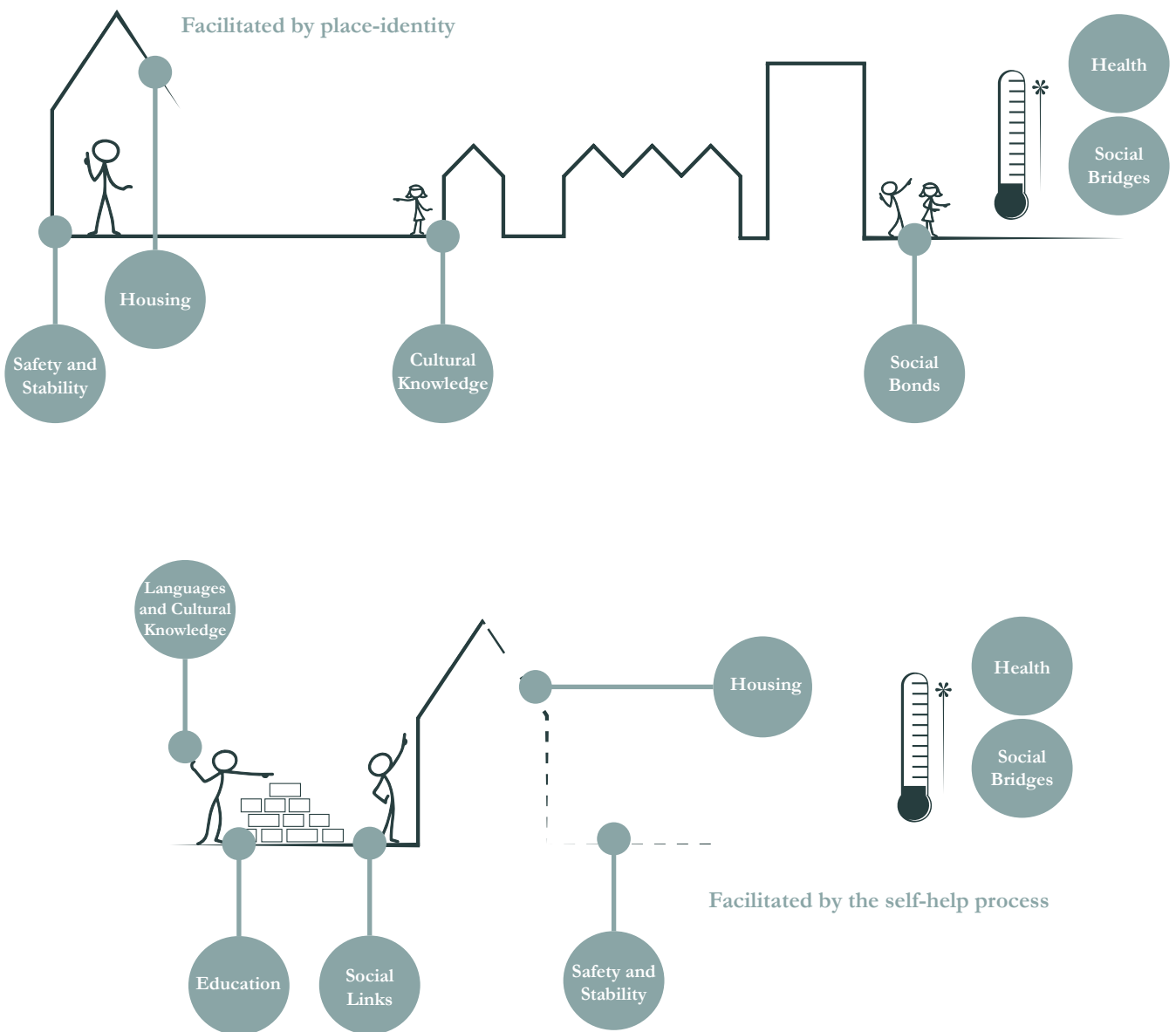
Figure 6: Diagram showing the domains underlying integration that can be facilitated by architecture in general and the self-help process in particular.

2.2

STIMULATING PARTICIPATION

The facilitation of integration through participation in self-help housing projects is posited to be predominantly reliant upon refugees' active engagement throughout the process. In order to achieve this, it is important to understand how such a project can engage with the diverse refugee populace. To that end, a literature review will be conducted aimed at answering the question: "How can the active participation of refugees from different cultures be stimulated?". This review will first venture to gain an understanding of the concept of participation, as well as review the dominant models and frameworks currently employed within the design of participatory processes. Following this review, an attempt will be made to formulate a framework that can work within the specific parameters outlined by the current refugee resettlement and integration issue. Lastly, the review will touch upon tangible ways in which engagement with, and participation in, these processes can be stimulated and maintained.

When we wish to address the way in which active participation of refugees from different cultures can be stimulated, it is necessary to first understand what participation is, and what the process of participation entails. The concept of participation has, from its inception, been grounded in a search for inclusion. While today, participation is sought after throughout a large number of procedures, from health services (Beresford and Croft, 1993) to architectural design (Cross, 1971), the concept was first developed in relation to citizen involvement in political decision-making (Roberts, 2004). In the latter half of the last century, following the Second World War, democratic societies saw a large increase in direct citizen involvement in public policy (Roberts, 2004). Changes to global politics and the reigning "Zeitgeist" caused a shift in the reliance on public officials and current administrations as political proxies. Instead, it was recognized that citizens should be more directly involved in the decisions that affect their own lives (Roberts, 2004). This notion has only grown and gained more support in subsequent years as democratic values continued to decentralize societies, thereby increasing the interdependency between political bodies and its citizens.

While participation of the people in their own government is a fundamental pillar of democracy, citizen participation goes beyond passive means, becoming synonymous to citizen power (Arnstein, 1969). Its core idea is that of a redistribution of power, in which there is a deliberate attempt to include citizens in economic and political processes that would, otherwise, be decided upon without their direct engagement. Citizen participation – or citizen power – thus becomes a means to induce social reform, by which every

citizen is able to share in the benefits of a society (Arnstein, 1969). Furthermore, research has shown that citizen participation does not only lead to an increase in perceived control, but also leads to an increase in psychological empowerment. Psychological empowerment is described as "[…] the connection between a sense of personal competence, a desire for, and willingness to take action in the public domain." (Zimmerman and Rappaport, 1988, p.725). Through psychological empowerment, citizen participation also positively influences leadership and leadership qualities while simultaneously decreasing feelings of alienation (Zimmerman and Rappaport, 1988).

However, these findings only hold true if citizens are granted the ability to definitively influence economical and political processes and their outcomes. It was Arnstein (1969, p.216), who first created the distinction between what she called *"the empty ritual of participation"* and *"real power"* by establishing a Ladder of Citizen Participation (see Figure 7) that describes eight rungs of participation and non-participation. Each rung corresponds to how much power citizens' have to affect an outcome or end-product. The lowest two rungs, manipulation (1) and therapy (2) are described as levels of non-participation. These two types of participation merely create the illusion of actual empowerment, as they are designed to enable a "powerholder" to educate or cure participants, without allowing them the option to engage with the program itself (Arnstein, 1969). The middle rungs, informing (3), consultation (4) and placation (5) are referred to as levels of "tokenism". These three types if participation are characterized by one-way communication, in which participation resolves around listening while speaking remains

absent (Arnstein, 1969). The highest three rungs are described as different degrees of citizen power ranging from partnership (6), to delegated power (7), to citizen control (8). These types of participation all incorporate decision-making within the participatory process, and the further up the ladder the process takes place, the larger the extent of decision-making authority (Arnstein, 1969).

While this eight-rung ladder is undoubtedly a simplification of the diverse range of participatory processes and the extent to which they offer citizens true power or control, Arnstein's (1969) categorization was the first model to highlight the important gradations of citizen participation. Its most important shortcoming, already pointed out by Arnstein (1969) herself, is that the ladder foregoes an analysis of the most important obstacles that stand in the way of true participation. For those in power, these obstacles include racism, condescendence and the refusal to reallocate power (Arnstein, 1969). As such, instances in which true participation was achieved are often categorized as the seizing of power by citizens, instead of the offering of such power by those in charge. In contrast, for those with whom the power is shared, obstacles such as a sub-par knowledge base and a poor socioeconomic structure within the community, as well as a difficulty to organize themselves due to feelings of alienation, distrust and futility oftentimes prevent the achievement of true participation (Arnstein, 1969). In spite of this, Arnstein's (1969) model offers tangible footholds to design and evaluate participatory processes that can offer true power and control and, as such, has been widely used and applied since its inception. To this day, it has remained one of

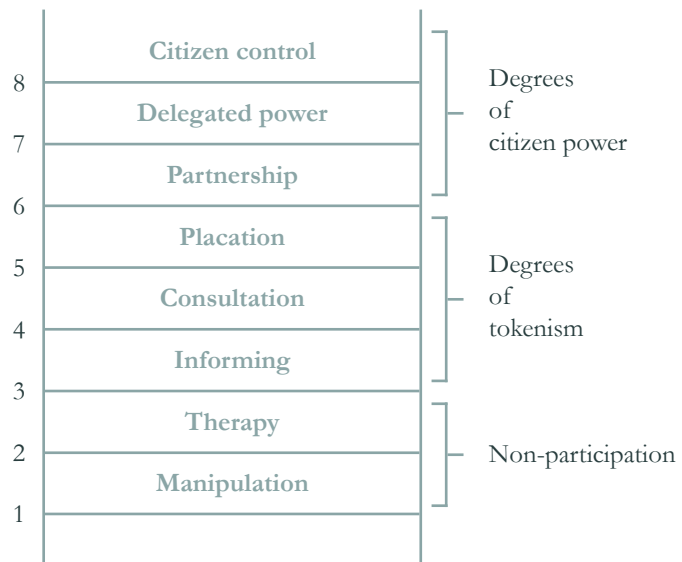|		
8	Citizen control	Degrees of citizen power
7	Delegated power	
6	Partnership	
5	Placation	Degrees of tokenism
4	Consultation	
3	Informing	
2	Therapy	Non-participation
1	Manipulation	

Figure 7: Eight Rungs on a Ladder of Citizen Participation (Arnstein, 1969, p. 217)

the fundamental pillars of user involvement and community engagement. It has been the basis for a variety of different participation models, such as a ladder that addresses the prevention and resolution of public controversy towards different types of – political and other – policies (Conner, 1988), as well as a ladder of community participation applicable in underdeveloped countries (Choguill, 1996). Furthermore, it has seen numerous revisions, such as the ladder of Wilcox (1994), who created a categorization of participation based on various aspects of user involvement – i.e. deciding together, acting together and supporting independence – thereby incorporating both degrees of participation, as well as the quality of engagement within his model.

However, in recent years, various other models of user involvement have been developed following trends in the globalization of public participation (Buch, 2002). In lieu of these developments, Tritter and McCallum (2005) have voiced the opinion that, after several decades of relying on Arnstein's (1969) ladder, it is time to look at a new model of user involvement. The argument to support this plea is that Arnstein's measurement of participation as the power to make decisions, and definition of true participation as the seizing of this power, is one-dimensional and actively undermines the potential within user involvement processes (Tritter and McCallum, 2005). They argue that Arnstein's model, with its emphasis on power, is based on the faulty assumption that power has a common basis for different actors within the participatory process. It thereby ignores that there are various forms of knowledge and expertise involved in participatory processes that are just as relevant as power, as well as the fact

that participation itself may be the ultimate goal. Tritter and McCallum (2005) divide their critique of Arnstein's ladder of citizen participation in three different categories; missing rungs, snakes, and multiple ladders. While they reflect upon these categories from a health policy perspective, with examples from healthcare research, their critique is applicable to any participatory process regardless of its area of implementation. Furthermore, with these three points, they do not only reflect on the problems found in Arnstein's ladder of participation, but simultaneously touch upon the most important issues and caveats found in all ladder-based participation models. To this day, these models remain the dominant theoretical frameworks informing participatory practices and Titter and McCallum's (2005) critical reflection can thus offer tangible footholds of what is necessary for these frameworks to improve upon.

The first category, missing rungs, describes the limitations of Arnstein's model in its lack of distinction between method, category of user, and outcome (Tritter and McCallum, 2005). The authors argue that taking different methods of involving users in a participatory process into account is paramount in stimulating active user participation at different levels; from decision-making of the individual to that of groups and organizations. Arnstein's model unifies means and ends, establishing the acquisition of power and control as the singular aim of participation, whereas there is a definite relationship between the aim of a particular participatory process, the user that participates, and the methods employed to involve them (Tritter and McCallum, 2005). In its simplification, it thus fails to account for the dynamic nature of user involvement and the

diverse range of its aims, users, and outcomes. Instead of the acquisition of power, many participatory programs are instead focused on improving user's empowerment; increasing their confidence and supporting the development of skills and expertise (Kenneth, 2008). Furthermore, not every user is the same, meaning that not everyone may wish to participate to the same extend, and some users may not wish to participate in a participatory process at all (Cornwall, 2008). Lastly, participatory processes may not result in any tangible outcome, yet through its process facilitate equally valuable developments, such as the formulation of objectives associated with participatory processes, or the development of trust and a reciprocal dialogue (Chanan, 2003).

Tritter and McCallum (2005) identify snakes as the second category, which describes the dangerous assumptions and suppositions that undermine the ability of Arnstein's ladder of citizen participation to increase user involvement. Argued by the authors is that the most dangerous "snakes" of the model are its impact on users and organizations, its limiting constraints on sustainability, as well as its promotion of decision-making based on what they call "the tyranny of the majority". Arnstein's model lacks information about the ways in which user engagement, participation, and the necessary implementation of these processes can be realized to achieve the most optimal results (Tritter and McCallum, 2005). This decreases the models usefulness as a design tool for participatory processes, since it fails to provide footholds for the creation of a participatory process that is sustainable over time. It ignores the scope and depth of user involvement, which skews the perception of a particular opinion's weight

or volume, and fails to provide opportunities for people with different opinions or needs to participate (Tritter and McCallum, 2005). The model's hierarchical structure and its emphasis on power and control are the root causes of its shortsighted view. Arnstein's ladder establishes the outcome of user participation – an increase in power and control – as the highest achievable result. However, it is oftentimes not the outcome but the process itself that provides the most opportunities and has the best chance of creating the most significant changes (Abelson et. al., 2003). Moreover, by only focusing on the outcome, Arnstein's model is also prone to meet the needs of some people more than the need of others (Quick and Feldman, 2011).

Multiple ladders is the third and final category identified by Tritter and McCallum (2005), and describes the lack of interactions and linkages between different types of user involvement. Outlined by the authors is that Arnstein's definition of citizen participation is one-dimensional, which inadvertently results in a failure to account for overlap in the different types of user involvement. As mentioned earlier, user involvement can take shape in many forms, such as a mechanism of governance, a way of enhancing or stimulating social capital, and even as integral to the design of a participatory process itself (Tritter and McCallum, 2005). Where Arnstein's model of citizen participation is a singular ladder – a vertical model – there are in fact as many ladders as there are types of user involvement. Furthermore, there are not only vertical relationships within a participatory process, but also horizontal ones, which describe the exchange between the larger organization that attempts to stimulate the

participation, and the individual users they are attempting to engage. Tritter and McCallum (2005) argue that a more dynamic, comprehensive model includes multiple ladders with different types of user involvement. These ladders would then require to be interconnected through bridges that create a horizontal integration, linking organizations with individual users. However, as they rightly point out, such a model would still retain a hierarchical structure heavily dependent on power and thus be unable to incorporate those outcomes of participatory processes that are associated with the process itself (Tritter and McCallum, 2005).

In order to "move beyond Arnstein", Tritter and McCallum (2005) argue that a more realistic model of user involvement should be developed. One that no longer adheres to the crass dichotomy of those in power versus those without power – inclusion versus exclusion – that can be found in Arnstein's original model. Instead, including a wide array of methods that focus on complementary groups of users, in which opportunities are provided for different types of users to participate in different ways, throughout different stages of the participatory process. Because of the complexity of such a model, the authors propose that a "ladder" is no longer a suitable analogy to look at user participation (Tritter and McCallum, 2005). They propose the "mosaic" as a new analogy to support the development of participatory processes that facilitate user involvement. To them, the mosaic: "[…] creates a picture that is the product of the complex and dynamic relationship between individual and groups of tiles." (Tritter and McCallum, 2005). It thereby describes that it is exactly all the different users, methods and goals of participation and their two-way relationships

	What participation means to the implemented agency	What participation means for those on the receiving end	What participation is for
Nominal	Legitimation - to show they are doing something	Inclusion - to retain some access to potential benefits	Display
Instrumental	Efficiency - to limit funders' input, draw on community contributions & make projects more cost-effective	Cost - of time spent on project-related labour and other activities	As a means to achieving cost-effectiveness and local facilities
Representative	Sustainability - to avoid creating dependency	Leverage - to influence the shape the project takes and its management	To give people a voice in determining their own development
Transformative	Empowerment - to enable people to make their own decisions, work out what to do and take action	Empowerment - to be able to decide and act for themselves	Both as a means and an end, a continuing dynamic

Figure 8: A typology of interests
(Cornwall, 2008, p. 273, adapted from White, 1996, p. 7-9)

(horizontal and vertical) that completes the "picture" of user participation. According to Tritter and McCallum (2005), creating successful user involvement within a participatory process requires connecting with all types of individuals and groups at local, organizational and nationals levels. Furthermore, according to them, this process should aim to establish forms of user participation in which they are invited to share their own experiences, while simultaneously enjoying the support of their interests' representatives.

While Tritter and McCallum's (2005) critique on Arnstein's original ladder of citizen participation – as well as on all the subsequent ladder models that have used it as its base – is well-grounded in accepted literature and rings true in regards to participatory practices, they have not developed a new model themselves. While they propose the

analogy of a mosaic to help develop successful user involvement in participatory processes and give several directions for its implications, it remains too abstract to be employed as the tool they describe. This, however, is a common problem within the field of research that focuses on participation, where people are prone to "clouds of cosmetic rhetoric" (Cernea, 1991). In an attempt to focus the debate towards practically applicable guidelines for user participation, Cornwall (2008) adopted the phrase "clarify through specificity" (originally coined by Cohen and Uphoff, 1980). Cornwall (2008) argues that one of the biggest obstacles in the field of participation research, to further our understanding of what participation means and can achieve, is vagueness. While it is exactly this vagueness that made the concept of participation popular – after all, while Arnstein's ladder may be outdated, it brought to light that,

oftentimes, participation was nothing more than non-participation or tokenism at best – it is also preventing the field of study from advancing. Cornwall's (2008) plea is for a renewed attention to, and descriptions of, the three most important and basic aspects of participation; who is participating, in what and for whose benefit.

Cornwall's (2008) clarity through specificity, defining the participating parties, processes, and purposes, is an adaptation of White's (1996) typology of interest (see Figure 8). This typology is originally based on Arnstein's model of citizen participation and thus, technically, a ladder. However, when examined more closely, it becomes clear that it is not so much as a ladder, as it is a way of working (Cornwall, 2008). As such, it functions as a tool that can help identify potential conflicts in ideas about why or how participation is used throughout which stages of the participatory process. The typology includes four broad categories of participation; nominal, instrumental, representative and transformative, in which the degree of participation varies. However, unlike all the other ladder models, White's (1996) typology includes not only what participation means for those who grant it, and for those who receive it, but was the first to include what the participation is for. As such, it acknowledges the fact that different purposes of participation also demand different forms of engagement, and there thus is not one "good" form of participation (Cornwall, 2008). Using White's (1996) typology of interest as a guideline, and Cornwall's (2008) three "clarities" as method of defining the participatory process, we can thus create a framework for participation that is likely to both address the common caveats of participation as described by Tritter and McCallum

(2005), as well suit the needs of the envisioned participatory process.

While we now have a clear understanding of what participation is and what the process of participation entails, as well as how participation can be facilitated, it has not yet revealed ways in which participation can be stimulated among the participating populace. Interestingly enough, within the field of participation research, this appears to be an underexposed subject. Research that does exist on the subject is very specific, attempting to address the promotion of participation in clearly defined actions and processes such as physical activity (Owen, 1996) or participation within shared decision-making healthcare trajectories (Towle, Godolphin, Manklow and Wiesinger, 2003). In regards to the participation of refugees and asylum seekers, there are two separate areas of study, though both have only seen a limited amount of research. One is focused on refugee participation in refugee research (Doná, 2007), the second focuses on involving refugees in community-based projects (van der Velde, Williamson and Ogilvie, 2009). The latter is of particular importance to the current study.

The research conducted by van der Velde et. al. (2009) is one of the few studies in which theoretical models formulated within participatory design research have been tested in practice. The authors conducted their study with a large group of multi-ethnic refugees that were all newcomers to a refugee housing settlement. The goal of the study was to engage these refugees in participating in a community-based healthcare project. Results of their study indicated that, surprisingly enough, active participation itself was the gateway towards

Participate?

What are the opportunities?

Individual becomes
involved

Actualizing the opportunities

Stimulates continued
participation

Gaining confidence: validating internal
knowledge and practicing new skills

Empowerment of self

Cycles of learning and
practicing, witnessing
change in self and others

Sharing resources and information

Empowerment of others

Critical mass / momentum

Advocacy and social change

Figure 9: Factors that stimulate and maintain participation in community-based projects
(van der Velde et. al., 2009, p. 1300)

participation in the project (van der Velde et. al., 2009). Contrarily, the acquisition of knowledge about the project – after the initial participation – as well as the acquired empowerment – through the participation itself – were found to be the determinants of continued participation in the project. The authors consolidated their findings in a visual diagram that portrays the factors that stimulate and maintain participation in community-based projects (see Figure 9). Furthermore, the research showed that the motivation to participate in the project varied based on people's ethno-cultural background. For instance, participation of Asian groups appeared to be linked to the opportunity to influence mainstream policies through the project, whereas Somali groups participated to learn about how other cultures developed a sense of community within their new environment (van der Velde et. al., 2009). Because there appeared to be as many incentives to participate as there were ethno-cultural groups, van der Velde et. al. (2009) conclude that, in order to stimulate participation beyond the boundaries of their model, it is important to be responsive to participants' motivational factors, as well as affirm individual and group strengths. This is supported by earlier research findings, in which results showed that one of the most important qualities to ensure and uphold participation within a participatory process is trust; trust in the participants to be able to decide for themselves, even if their decisions do not conform to pre-established action plans or funding priorities (McFarlane and Fehir, 1994). When dealing with a population that is culturally diverse, this is even more important than when a population is fairly homogenous. This is because multi-ethnic communities are faced with additional barriers to participation such as language

disparities, cultural differences and discrimination (Goodkind and Foster-Fisherman, 1994). By being responsive to different barriers and incentives to participation, the participatory process can not only stimulate participation itself, but also attempt to integrate diversity and foster interdependence between different cultural groups (Goodkind and Foster-Fisherman, 1994).

The sub-question that this literature review attempted to answer was: "How can the active participation of refugees from different cultures be stimulated?". When we consider our findings in regards to the current issue of refugee resettlement and integration, it becomes apparent that stimulating (and maintain) participation is largely dependent on the way in which the participatory process has been designed. Indeed, research showed that knowledge of the participatory process itself, as well as empowerment through initial participation are determinants for the stimulation and maintenance of participation. In order to achieve both a positive appraisal of the participatory process, as well as the aforementioned empowerment, it is important to offer a participatory process that benefits the participants. Only when a participatory process is responsive to the needs of its participation can it stimulate their willingness to continue their participation, as well as offer them meaningful avenues of participation that, in turn, promote empowerment. While a wide variety of frameworks exist that offer footholds for the design of a participatory process, recent reflections have shown that many of them do are not able to incorporate the diversity and variety of participatory dynamics. As proposed by Cornwall (2008), the design of participatory processes would benefit greatly from going back to its basics. By

clearly outlining who the participation is for, what they are participating in, and what the purpose of that participation is (i.e. for whose benefits), a very simply framework can be outlined that can offer tangible footholds for the process itself, but also allow it to remain responsive. This responsiveness is especially important in light of the current refugee resettlement and integration issue, since it includes a large variety of people with varying demographics, cultural background and personal situations. The ability to be responsive to their needs, wishes, and incentives for participating is pivotal in stimulating their participation. Figure 10 shows a summary of how to facilitate participation.

How to facilitate participation:

(as easy as ABC)

A: Arrange	Who the participation is for. What they are participating in. What the purpose of the participation is.
B: Bring	Knowledge of the participatory process Insight into the empowerment that occurs through the initial participation.
C: Communicate	Be responsive to the needs, wishes and incentives of the participants regardless of the process's outline.

Figure 10: List of means by which participation of different cultural groups can be facilitated.

3.

ARCHITECTURE
AS
INTEGRATION

3.1
PILOT STUDY OUTLINE

Following the research by design methodology set forth in this project, a pilot study has to be designed that will allow for the structural exploration of the research question from an architectural design's point of view. Because design is generally considered to be a generative, open-ended activity, it is necessary to outline a framework that will both structure the research as well as provide it with criteria for evaluation. By establishing a design approach and boundary conditions within which the research will take place, this project will be able to generate meaningful prototypes that can be studied, compared, and evaluated.

To structure the pilot study, this project will adopt a scenario thinking approach. Scenario thinking is often conceptualized as "[…] a dynamic, social, iterative and never-to-be-completed practice emphasizing the creative emergence of possibilities." (Sarpong and Maclean, 2011, p. 1159), and is predominantly focused on generating innovative ideas for a variety of different future contexts. It is used extensively in organizational contexts and has proven to facilitate creative emergence and "open-endedness" through the identification and explorations of opportunities for innovation (Sarpong and Maclean, 2011). Scenario thinking operates in three different dimensions, which are focused on human actions and practices in a context that aims to understand both the past, as well as multiple futures, in order to mitigate future uncertainties within the boundaries of the present (see Figure 11). Consequently, the scenarios created for this project will incorporate all three of these dimensions.

Before we can outline the different scenarios that will frame the current research, it is important to establish both the boundary conditions of refugee settlement and integration that will have to be taken into account, as well as the framework that will be used to envision these future scenarios.

The boundary conditions imposed upon refugee settlement and integration can be roughly divided into four categories; legislation, spatial conditions, social situation, and psychological well-being. The legislative boundary conditions are predominantly imposed upon refugee settlement and integration by the current asylum policies and procedures that prevent integration of refugees and asylum seekers into mainstream society until their request

SARPONG AND MACLEAN'S (2011) PRACTICE APPROACH TO SCENARIO THINKING

Scenario Thinking

Ontological Dimension — Human actions and practices in context

Epistemological Dimension — Understanding the past, and the future in the immediate present

Praxiological Dimension — Purposeful actions to cope with uncertainties
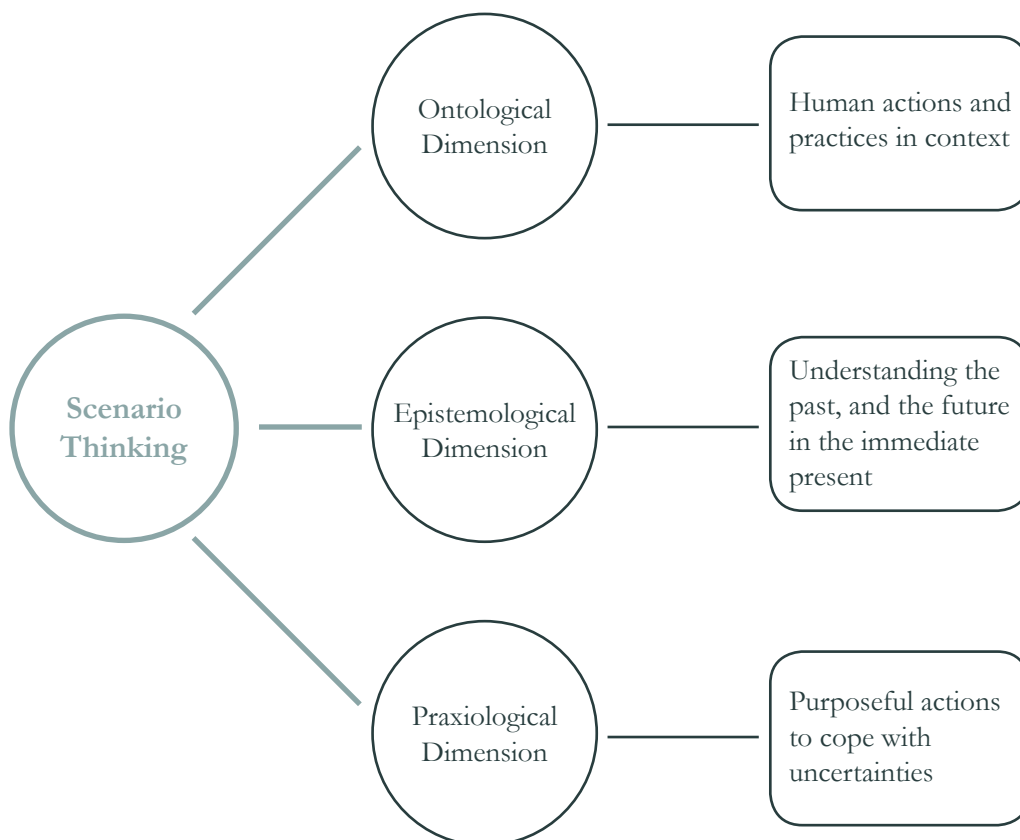
Figure 11: A Practice Approach to Scenario Thinking
(Sarpong and Maclean, 2011, p.1156)

for asylum has been officially accepted. Due to the increased influx of refugees, uncertainty over the possibility for a permanent visa can nowadays last for as long as 15 months after refugees' initial arrival in most European countries. Furthermore, while these procedures are underway, countries habitually move refugees around different housing locales to prevent integration in, and attachment to, their local environment. In addition to this, refugees are often not allowed to work until they receive a permanent visa, and in some countries – such as Germany – employment opportunities are delayed even further into the future to discourage fortune hunters from migrating. The issues associated with these boundary conditions that must be addressed by this project's scenarios include the possibilities of taking direct action to facilitate refugee settlement and integration while, at the same time, maintaining and accounting for the – unquestionably necessary yet unfortunately long-winded – asylum procedures.

The spatial boundary conditions imposed upon refugee settlement and integration are focused around two different issues. Firstly, different solutions are likely to require different spatial conditions. The necessity to provide immediate shelter to newly arrived refugees imposes constraints on the project's spatial requirements. Furthermore, these requirements may very well be different from the requirements necessary to facilitate long-term housing and either impose constraints on the project's ambitions, or expand its scope and thereby other considerations such as flexibility and cost. Secondly, countries generally pre-assign locations for refugee settlement. New locations are oftentimes subject to extensive procedures as the socio-spatial impact of the

refugee settlement must be determined, as well as public support for its acceptance must be won. While temporary housing may circumvent these procedures, the availability of locations for refugee settlement remain largely determined by national policy. This results in a lot of different spatial conditions that must be taken into consideration such as the possibility of the construction of new facilities, the re-use of old facilities and the renovation of un-used buildings of a different typology – e.g. offices. The issues associated with these boundary conditions that must be addressed by this project's scenarios include weighting the pros and cons of different solutions (long-term vs. short-term) and different spatial conditions (new vs. casco renovation vs. re-use) and aim to find innovative combinations that will allow for increased flexibility and adaptability.

When we consider the social situation of both refugees, as well as of the host countries, two separate sets of boundary conditions imposed upon refugee settlement and integration become apparent. Firstly, the social composition of refugees is continuously changing. Many families are not complete upon arrival in their host country, either because they have become separated during their journey, or because it has been decided that a part of the family will follow later. It is very common, for instance, for males to undertake the journey from their home country to their host country in groups, after which women and children follow when asylum procedures have been begun. On top of that, many refugees owe debts to human traffickers. This can not only result in friction within refugee communities, but it can also affect dynamics within the community permanently as every opportunity to pay off debts – including

illegal or illegitimate ones – is being exhausted. Secondly, apart from the social situation within the refugee population, the social situation of the host country also imposes boundary conditions upon refugee settlement and integration. Especially the lack of public support and the vocal resistance to both the settlement, integration, and provision of, aid to refugees can cause problems. Not only do predominant trends in the host society influence and sway national policy, it can also have more immediate negative consequences in the form of violence against, or subversion of, refugees. The issues associated with these boundary conditions that must be addressed by this project's scenarios include the consideration of flexible solutions that allows for different social situation. Moreover, it is necessary to conceive of innovate ways in which aid to refugees will not only benefit this group, but can – indirectly – also benefit the local environment in which the settlement and integration takes place. Especially considering the cultural and language barriers that exist between these opposite groups, envisioning participatory solutions in which architecture is the medium of exchange, rather than verbal language, becomes important.

The last category of boundary conditions imposed upon refugee settlement and integration is that of psychological well-being. Proposed in this project is a way for architecture to facilitate the integration of refugees. However, this approach revolves around refugees' active participation. In such an inclusive approach, participation can not be forced and refugees must be willing participants. This introduces a number of problems associated with refugees' mental health that may obstruct a participatory approach. Firstly, insecurity about

whether or not their request for asylum will be accepted may greatly affect refugees' willingness to participate in these programs. Secondly, fatigue from their journey and the continuous strain from stressful circumstances may, both mentally as well as physically, incapacitate refugees from participating. Lastly, the length of the program may adversely affect refugees' motivation, both to initiate the program, as well as to continue with the program once it has been initiated. The issues associated with these boundary conditions that must be addressed by this project's scenarios revolve around the dilemmas of how to create a program that is supportive, instead of demanding. A direct extension of this is the necessity to maintain realistic expectations, not only of the mental and physical demands of the project but also of the reality of refugees' procedural situation and uncertain future. It may be necessary to envision different project types with differing lengths, demands, and goals, in order to allow refugees to choose their own preferred degree of involvement. Moreover, another issue that needs to be addressed is whether or not it is necessary to conceive of a transitionary period between arrival and settlement that allows for a mental and physical "buffer".

Having established the boundary conditions imposed upon refugee settlement and integration, it is furthermore important to conceptualize the framework that will be used to design the different future scenarios. This framework is derived from the foregoing literature research, and adopts a research-based model of refugee adaptation to an assisted self-help housing settlement. In addition to the requirements put forth by the model itself, it will be especially important to consider its

implications of personal needs, goals and demands
in relation to the conception of a solution that is
flexible enough to accommodate different groups
of refugees, as well as different cultures. To
differentiate between these different needs, goals,
and demands, as well as their urgency, this project
will adopt Maslow's hierarchy of needs (Maslow,
1943; 1971) as a generalizable reference that can
be applied to refugees as a group, irrelevant of
gender, age, ethnicity, or culture (see Figures 12
and 13). Because the settlement will take shape as
an assisted self-help project, it is also important to
design for, as well as ensure the stimulation and
continued maintainance of, refugee participation.
This participation should address not only the
dominant majority within the refugee population,
but incorporate a responsive approach that
stimulates participation throughout different
cultures and different groups (e.g. women and
children).

MASLOW'S (1943; 1971) HIERARCHY OF NEEDS

Self-
actualization

Growth Needs

Deficiency Needs

Esteem Needs

Belonging & Love Needs

Safety Needs

Physiological Needs

Being Needs

Growth Needs

Deficiency Needs

Tran-
sendence

Self-
actualization

Aesthetic Needs

Cognitive Needs

Esteem Needs

Belonging & Love Needs

Safety Needs

Physiological Needs
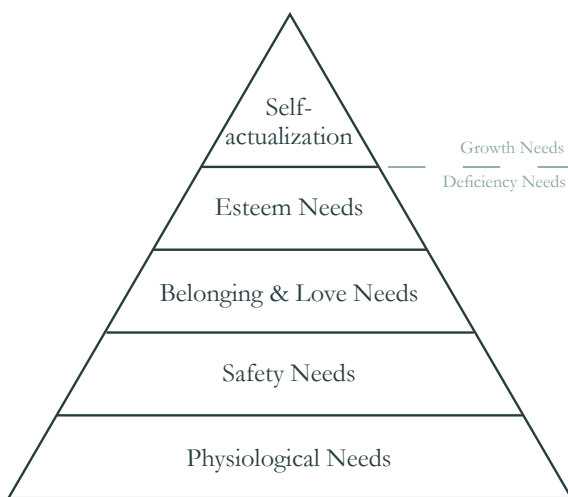
ORIGINAL HIERARCHY OF NEEDS

REVISED HIERARCHY OF NEEDS

Figure 12: The orginal hierarchy of needs as de-
scribed by Maslow (1943), portrayed in its most
well-known form as a pyramid.

Figure 13: The revised hierarchy of needs as de-
scribed by Maslow (1971), portrayed in its most
well-known form as a pyramid.

FIRST-AID
THE TENT

The Tent is a strategy developed for
the scenario that assumes refugee
settlements should be able to provide
"first-aid" upon refugees' arrival.
It aims to facilitate the acquisition
of basic needs by providing both
immediate shelter, as well as
an immediate start of language
lessons and special trainings.
These trainings are predominantly
focused on expanding refugees'
own living conditions from the
minimum necessities first provided
to them, which include not much
more than a bed and some storage
space. Throughout these trainings,
the focus is on developing practical
skills that help refugees
expand their own living
environment, social exchanges
with other refugees (in-
group communication) and
interactions with trainers and
local retail businesses (out-group
communication).

SCENARIO #1
FIRST-AID

The first scenario revolves around the premise that the envisioned refugee settlement must be able to provide "first aid". It is focused on the establishment and appropriation of refugees' basic needs (see Figure 14), including both physiological needs such as food, water, sleep and shelter and safety needs such as health, property and family and social stability. The scenario thus demands the provision of immediate shelter, where refugees are able to sleep warm and dry, can store their belongings somewhere safe, have a good meal and access to bathroom amenities. Furthermore, this shelter must provide them with a safe environment, in which they are able to recuperate from their journey, reconnect with family and friends and slowly start establishing a stable living environment with the other refugees in the shelter.
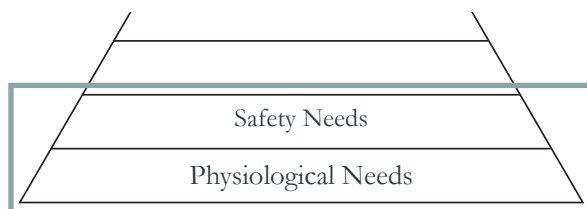
Basic Needs

Figure 14: Scenario #1 in relation to Maslow's (1971) revised Hierarchy of Needs.

STRATEGY #1
THE TENT

The Tent is the refugee settlement strategy that has been developed within the boundaries of the "first-aid" scenario. It is designed to be set up upon refugee's first arrival on the location, aiming to provide both immediate shelter, as well as an immediate start of language lessons and special trainings. It focuses on the well-known mantra "bed, bath, bread", adding the fourth necessity of "break" (i.e. a living area), to describe the four essentials of first-aid provision, as well as resettlement in general. Starting from the bare necessities of a personal "bed" and a communal "bath", "bread" and "break", the strategy aims to facilitate refugees (through the special trainings) in constructing a private micro-home that includes all four aforementioned essentials of living. By adopted a flexible approach to the construction of these micro-homes, the strategy allows for a diverse prioritization in the order each refugee (or family of refugees) chooses to add these modules to their micro-home, as well as the physical space allocated to each module within a predefined total. Because the strategy offers a gradual transition from a largely communal to a largely private existence, the larger shelter itself functions like an umbrella under which refugees are provided with a protected and safe environment in which they can recuperate, reconnect to those around them and, in short, start rebuilding their lives.

Social Program
The social program incorporated in this strategy aims to start as soon as possible after refugees' first arrival on the location and provision of their immediate shelter. The Tent's social program

consist of a combination of language lessons and special trainings. The language lessons are there to provide refugees not only with a very basic course in the Dutch language, but simultaneously function is a psychological tool to prompt refugees to interact with each other and their environment, talk about their arduous journey and slowly start to rebuild their social capital. The special trainings are predominantly focused on helping refugees to expand their own living conditions from the minimum necessities of a bed and some storage space first provided to them. The goal of these trainings is to teach refugees practical skills that will help in the design, construction and management of their own micro-home. In doing so, throughout these trainings, refugees' are participating in a variety of team building exercises, as well as empowerment and capacity building exercises. This will foster and facilitate the exchange between refugees, allowing for the (re)building of in-group communication and networks. It also allows for a first, tentative, exchange with assigned trainers and a handful of local retailers. This serves to not only to initiate out-group communication and network building, but also emplaces the refugee settlement within its local environment. This, in turn, can improve its reception and cultivate further social exchanges and integration. Lastly, through the acquisition of practical skills, refugees not only gain capacities and empowerment, but are also able to address (some of) their self-fulfillment needs by utilizing these skills to make choices in the construction of their own micro-home.

Architectural Program
The concept behind the architectural program for this strategy is an incremental system that starts with a modular bed and storage compartment and can be expanded over time (see Figures 16 - 19). It evolves from a large collective refugee settlement in which only their sleeping accommodations are private, to a multitude of private micro-homes within a larger, collective, context. At its core, the system uses a modular skeleton as basis for the living units, in which additional modules can be "plugged in", thereby creating a flexible, adaptable, and customizable environment. These modules are characterized by the aforementioned basic needs of "bed", "bath", "bread" and "break" and correspond to units designed as bedrooms, bathrooms, living areas and kitchens. While the system uses predetermined design principles that guide the expansion of the skeleton, refugees are able to both design, as well as physically construct, their own unit within the provided framework. The adaptable system will allow for a variety of different construction orders, so each household can choose what type of module they wish to add first and how much space they wish to allocate to each module (see Figure 18, left side). Moreover, the incremental system will ensure that modules are flexible enough to change and expand over time as refugees' needs, goals and demands may change. Furthermore, these units are moveable in the larger environment in which they are placed (e.g. inside an industrial building), allowing refugees to create their own communities within the larger establishment. The refugee settlement thereby becomes a dynamic "mini-city" that allows for organic and spontaneous congregation and segregation. This has the potential to facilitate culturally shared similarities between refugees and mitigate friction between refugees of different ethnic backgrounds.

The design concept includes three variants, which

differ both in the spatial settings they can be incorporates in, as well as their life-cycle potential. The first variant focuses on existing structures as makeshift homes, and only once the living units are completed can they be removed from that existing structure (see Figures 20 - 21). The second variant uses a permanent structure as a framework for the modules (see Figure 22 - 24). While unit placement is predetermined, this system allows for a large amount of flexibility within the existing framework. The third variant focuses on creating self-sufficient units; refugees are able to choose between several different exteriors, which are then later "plugged into" an exoskeleton to create larger constructions (see Figures 25 - 26).

Evaluation

The combination of the Tent's social and architectural program aims to facilitate refugees' resource acquisition through the first provision and further establishment of resources that meet their basic needs. This is achieved by focusing on their self-fulfillment needs through lessons and special trainings, which has the additional benefit of cultivating an environment that can address refugees' psychological needs (see Figure 15). The first-aid scenario, with the Tent as its strategy, has several distinct pros and cons, largely derived from the boundary conditions it incorporates or ignores. Pros of the Tent include its ability to provide refugees with immediate shelter, as well as an immediate start of the program, minimizing the time it takes for them to "wait" for something to happen. This not only by-passes the need for a transition period but it also offers refugees a meaningful daily routine almost as soon as they arrive. Moreover, integration also starts as soon as the program is initiated. While this is initially

focused on building and strengthening in-group communities, it gradually expands its scope to include integration in the local environment. In short, the Tent is able to "jump start" a new existance for refugees. However, there are also several cons. The first is the relatively short longevity of the housing situation. Because refugees are effectively building micro-homes (minimal living units), they offer only a temporary first housing solution. Over time, refugees will still have to leave their micro-homes and find a new place of residence, which puts pressure on the social housing system. The other cons are mostly associated with the biggest pro; the immediate start of the program. The program may prove too demanding right after refugees' arrival, both physically and psychologically, as well as generate little interest due to the uncertainties of the future most refugees still face. All of these factors may undermine refugees' willingness to participate.
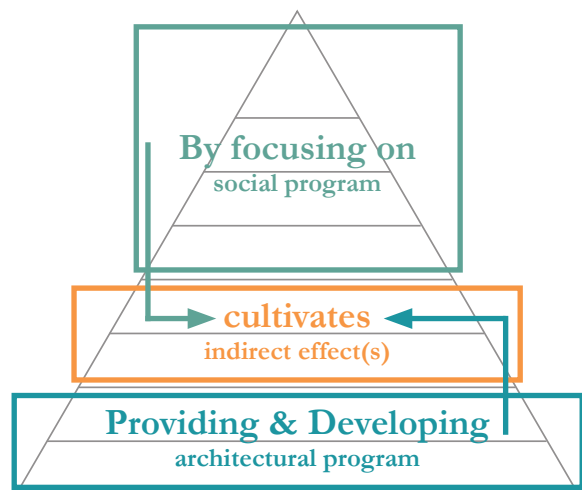
Figure 15: Strategy #1 in relation to Maslow's (1971) revised Hierarchy of Needs.

DESIGN CONCEPT
THE TENT

T_0 = ARRIVAL

T MODULE : IMMEDIATE SHELTER
BED + STORAGE
COLLECTIVE SPACE WITH PRIVATE AREAS
SEMI-PERMEABLE "BOUNDARIES"

(1) PHYSIOLOGICAL NEEDS
COLLECTIVE KITCHEN/DINER/BATH
PRIVATE SLEEPING/STAYING AREA

(2) SAFETY NEEDS
SECURE COLLECTIVE FACILITY
WITH: PRIVATE SPACES + VALUABLE STORAGE

(3) BELONGING & LOVE NEEDS
MOVEABLE PLATFORMS WITH PRIVATE AREA
REORGANIZATION OF SMALLER SUB-COMMUNITIES

PO

SEMI-PERMEABLE
TENT STRUCTURE
AS BOUNDARY

"OUTSIDE" PLATFORM
FOR SEATING
FOLDABLE CHAIRS
& TABLES

R

REMOVABLE AND MOVEABLE
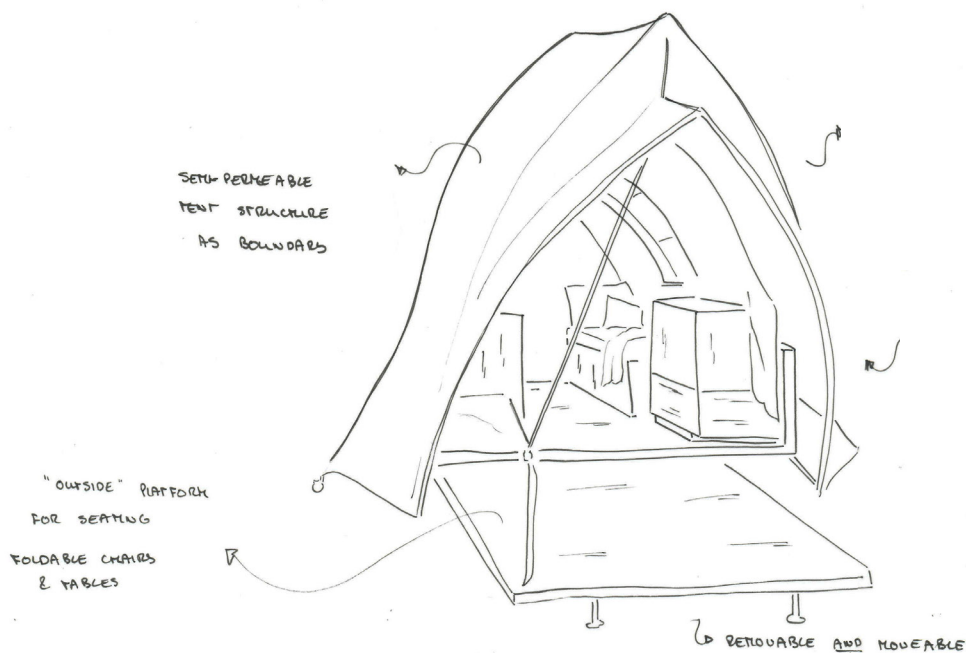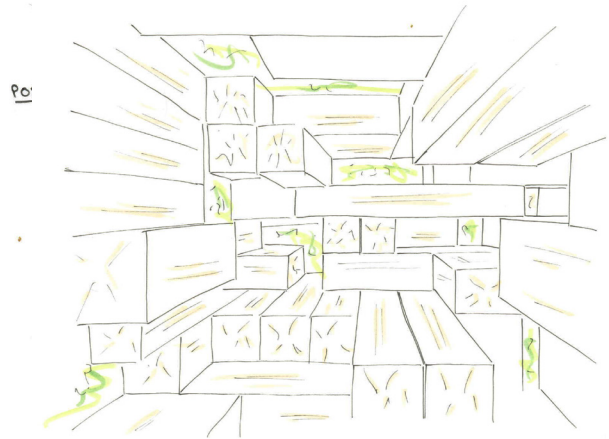
Figure 16: Sketches of the design concept behind Strategy #1: The Tent.

CLOSE-ABLE "HATCH"
CHOICE FOR PRIVATE
OR SEMI-PRIVATE SPACE

CONCEPT OF A "DAYBED"
NIGHT = SLEEP
DAY = COUCH

CLOSEABLE CURTAINS
OR FOLDABLE DOORS
↳ LESS PERMEABLE

POSSIBILITY TO
MOVE DOWN
AND BECOME
A TABLE

ADD CHAIR(S)

LOCKABLE
STORAGE

ON WHEELS / PLATFORM

INSIDE :
SLEEPING AREA / BED
+ STORAGE

POSSIBILITY TO BE
CHAINED FOR MULTIPLE
PEOPLE OR FAMILIES

IF BED IS FOLDED
SPACE FOR TABLE
+ CHAIRS

CLOSEABLE CURTAINS
OR FOLDABLE DOORS

LOCKABLE
HANGING
STORAGE

FOLDABLE
BED

LOCKABLE STORAGE
DRAWER

STRUCTURE ON WHEELS / PLATFORM

T_1 = START PROGRAM

ADDITION OF MORE MODULES

→ FROM IMMEDIATE SHELTER TO LIVING SPACE

CHOICE BETWEEN DIFFERENT OPTIONS TO PERSONALIZE

FIRST START TOWARDS BUILDING "OWN" LIVING SPACE

(1.) PHYSIOLOGICAL NEEDS

INCREASING LEVEL OF PRIVATE AREAS

(2.) SAFETY NEEDS

COLLECTIVE / SEMI-PRIVATE AREAS BECOME PRIVATE

(3.) BELONGING & LOVE NEEDS

ESTABLISHING MORE PERMANENT SUB-COMMUNITIES

COLLECTIVE "TRAINING" TO ACHIEVE GOAL

(4.) ESTEEM NEEDS

TRAINING TO PHYSICALLY SHAPE / CONSTRUCT LIVING SPACE

SELF-AFFIRMATION THROUGH PERSONAL CHOICES & RE-AQUISITION
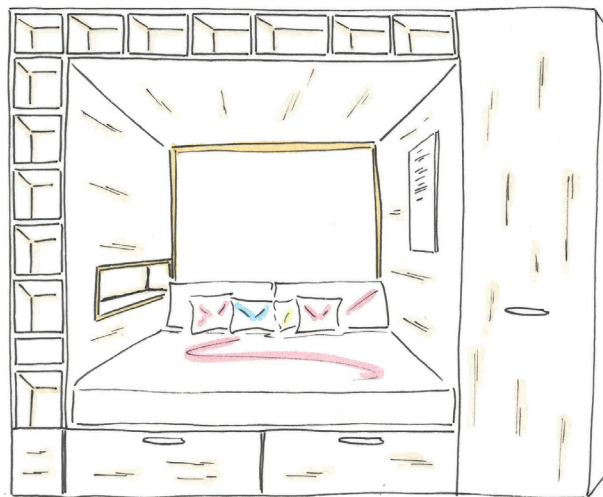
Figure 17: Sketches of the design concept behind Strategy #1: The Tent.
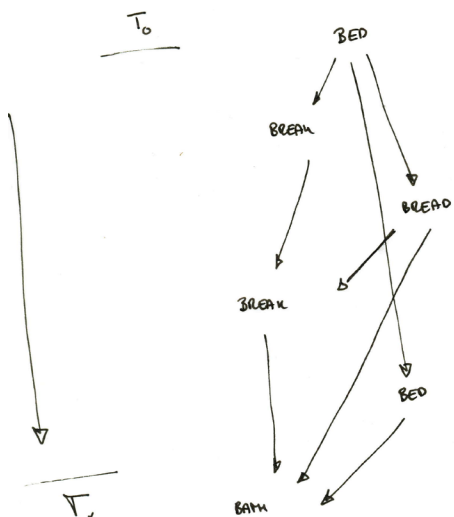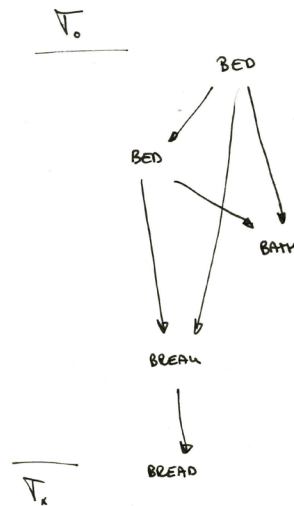
Figure 18: Sketches of the design concept behind Strategy #1: The Tent.

T_{1-x} = CONTINUATION OF PROGRAM

ADDITION OF MORE MODULES
→ FROM LIVING SPACE TO SMALL PRIVATE HOME

CHOICE BETWEEN MODULES THAT FORM PRIMARY STRUCTURE
COMPOSITION OF OWN HOME BASED ON LIVING STYLE

1: PHYSIOLOGICAL NEEDS
SELF-SUSTAINING HOME WITH ALL BASICS

2: SAFETY NEEDS
OWN - LOCKABLE - PRIVATE HOME

3: BELONGING & LOVE NEEDS
ESTABLISHED "IN-GROUP" COMMUNITY
→ SET-UP FOR "OUT-GROUP" MERGING AS TRAINING CONTINUES

4: ESTEEM NEEDS
CONTROLLED SELF-AFFIRMATION DUE TO TRAINING & RE-ACCLUSION

5: COGNITIVE NEEDS
MORE INTENSIVE/DIFFICULT TRAINING
LANGUAGE AQUISITION THROUGH OUT-GROUP EXPOSURE

6: AESTHETIC NEEDS
SHAPING OF OWN HOME: INSIDE & OUTSIDE
ENVIRONMENT CHANGES AS OWN HOME + SURROUNDINGS DEVELOP

GRADUAL APPROPRIATION OF SPACE

GRADUAL TRANSITION FROM PRIVATE → COMMUNAL

SLEEP SPACE FOR CHILDREN
→ PARENTS ABOVE STAIRS

FUTURE WINDOW
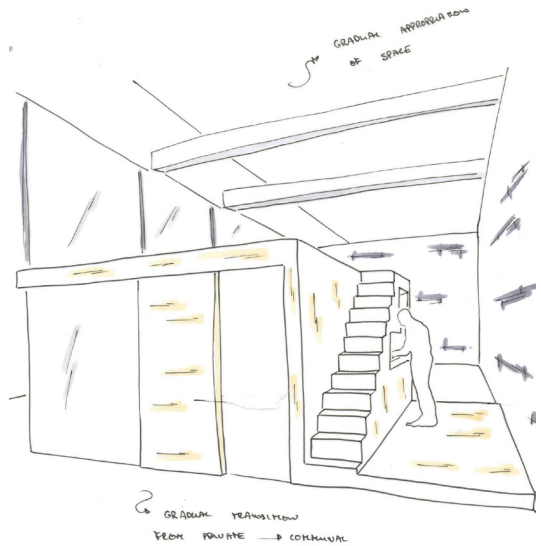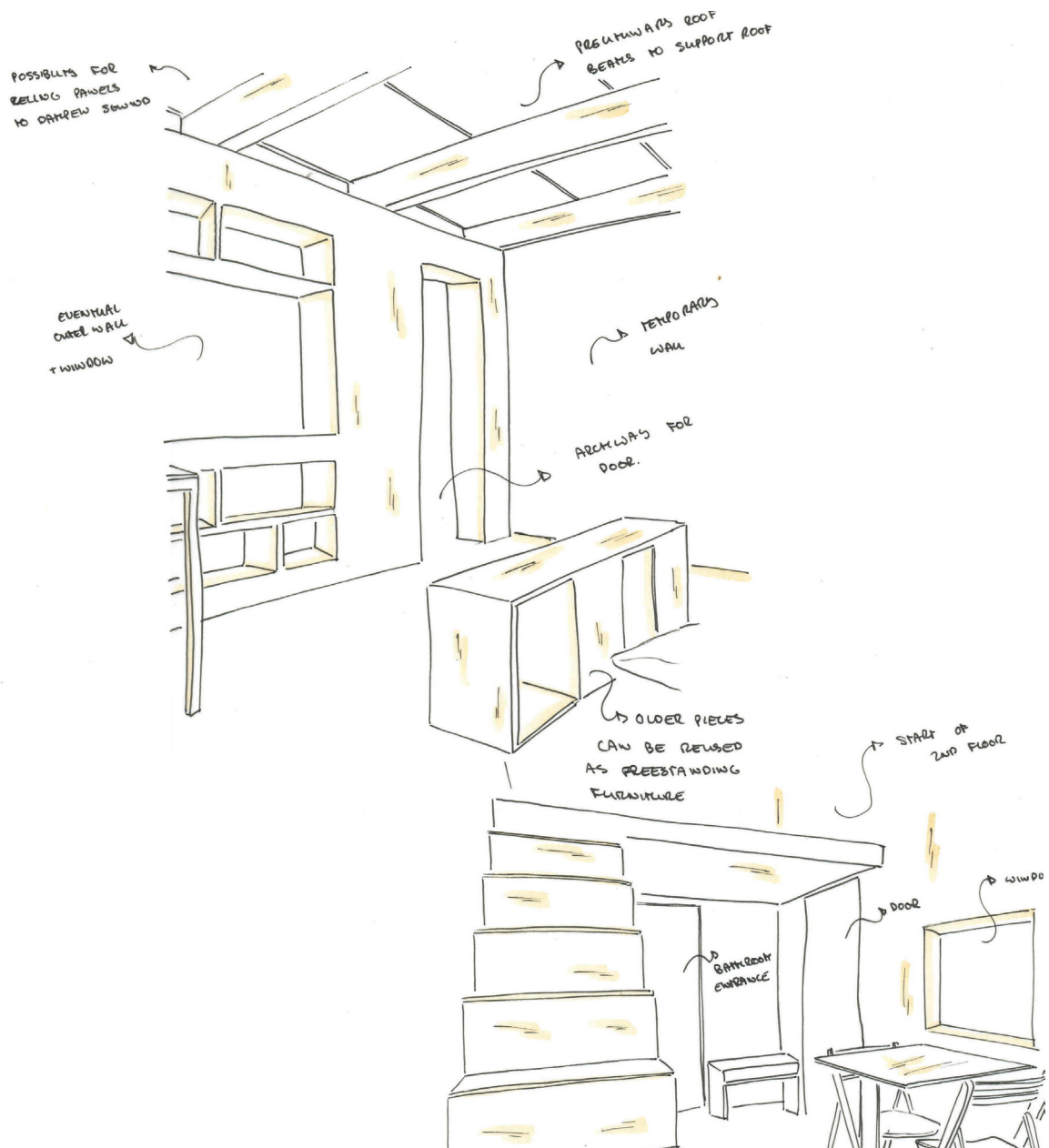
Figure 19: Sketches of the design concept behind Strategy #1: The Tent.

COMPOSITION / DESIGN
CHANGES BY RESIDENTS

CHOICE TO INTEGRATE
OUTDOOR AREA

WOODEN MICRO-
HOME PLACED
OUTDOORS

SLIGHTLY ELEVATED TO
ALSO ALLOW REMOVAL
RE-PLACEMENT

PLACED ON SEPERATE
FOUNDATION ELEMENT?

VARIANT #1
THE TENT

FIRST TEMPORARY SOLUTION

↳ SEMI-PRIVATE SPACE

↳ PERMEABLE SPACES

↳ ROOM FOR GROWTH

DEVELOPS INTO SMALL PRIVATE
SPACES WITH ROOM FOR
GROWTH

OR
RIDEABLE PLATFORM?
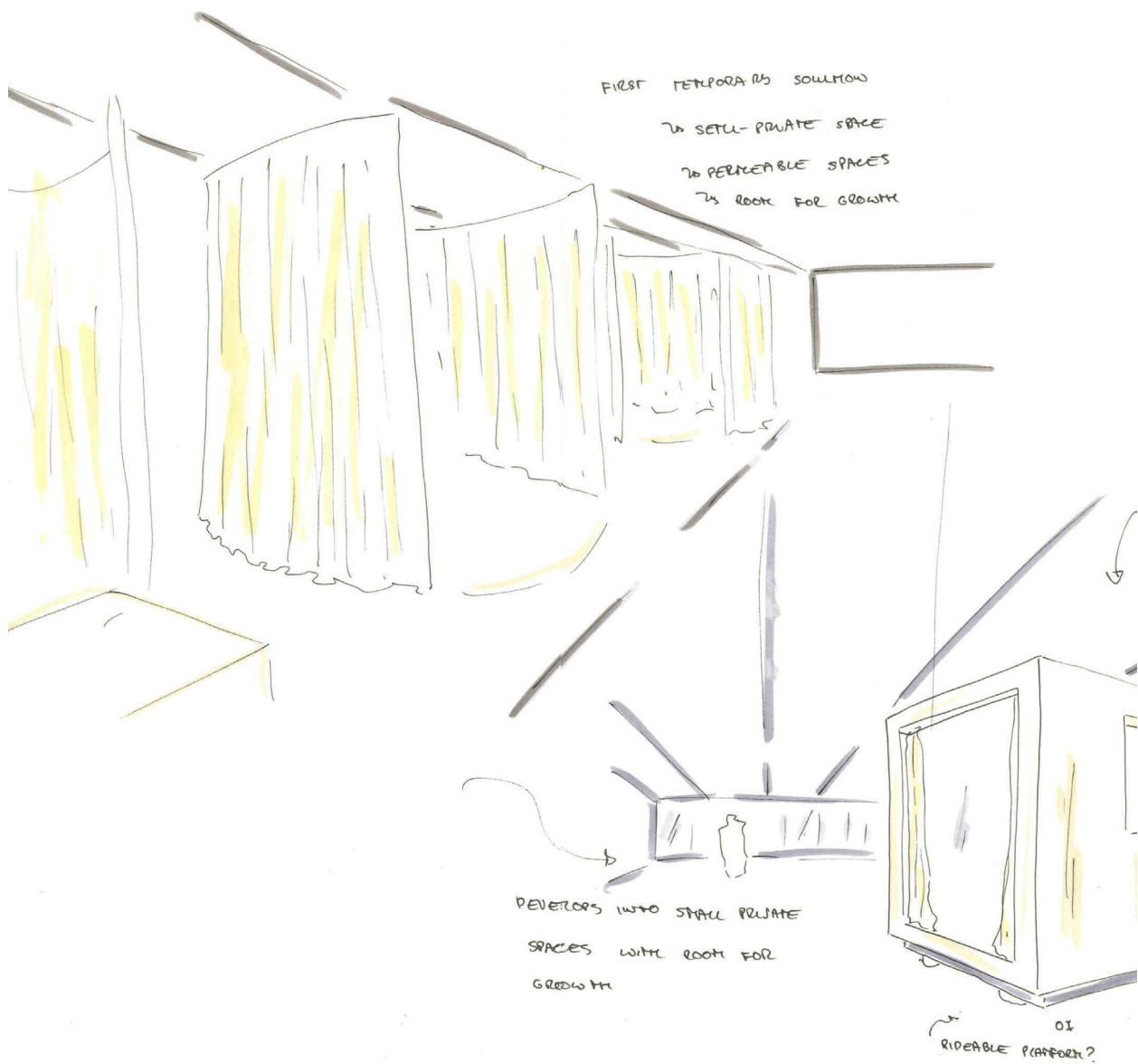
Figure 20: Sketches of the first variant for Strategy #1: The Tent.

CUSTOMIZATION
HOUSE = PERSONAL
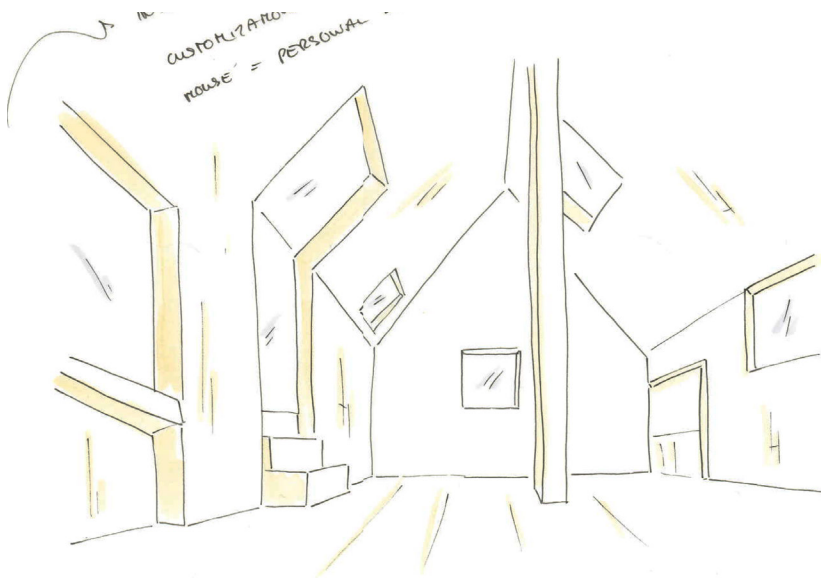
02
REMOVEABLE STRUCTURE?
↳ LARGE TENT?

"VOLUMES" CAN GO OUTSIDE
→ REMOVAL OF STRUCTURE
→ SLIDING OUTSIDE ON PLATFORM.
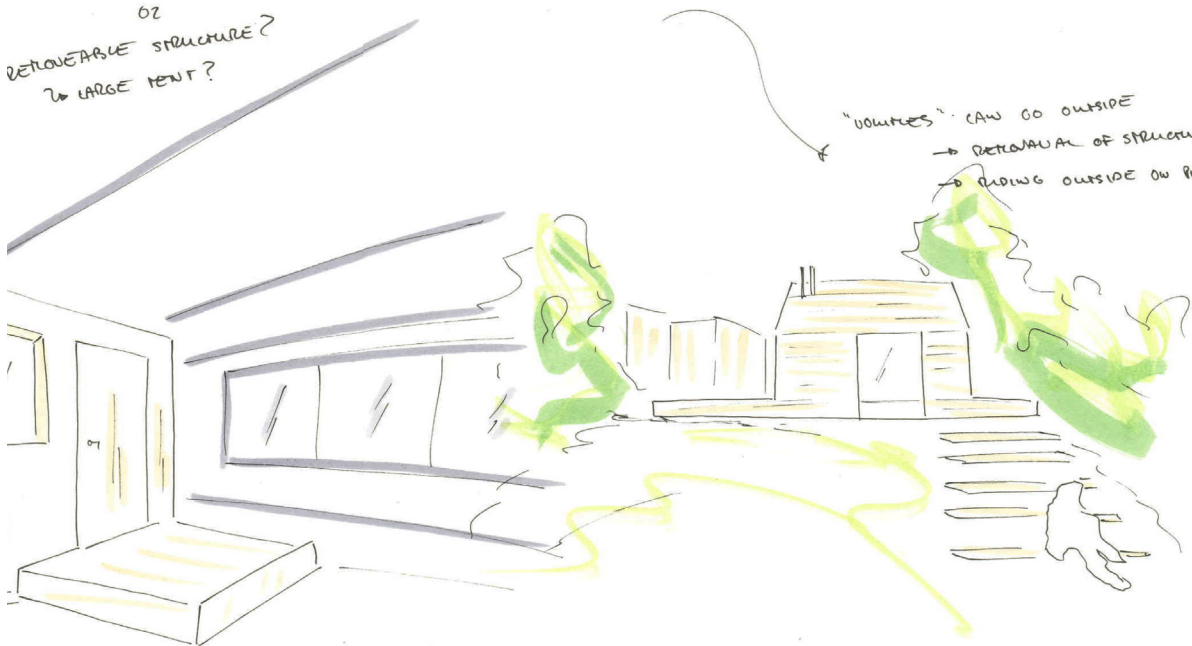
EMPHASIS + SPACE ALLOCATION / BUILD ORDER
DETERMINES UNIT COMPOSITION
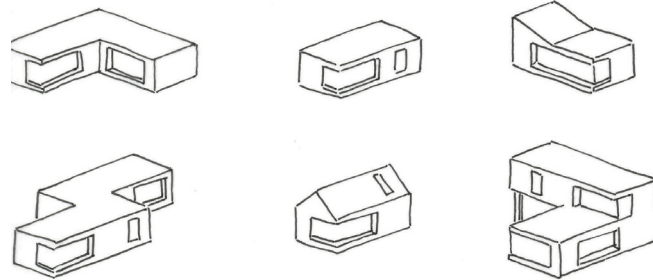
PERSONALIZATION CHOICES
VISIBLE IN APPEARANCE
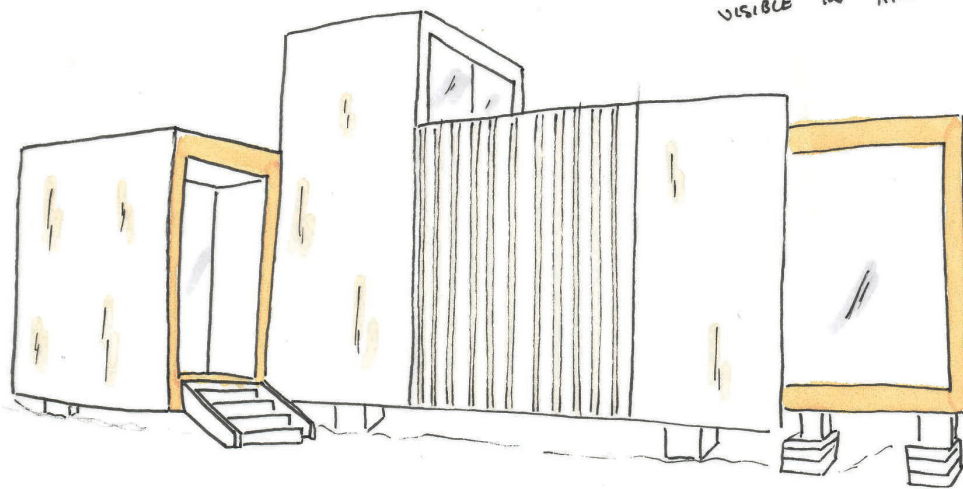
Figure 21: Sketches of the first variant for Strategy #1: The Tent.

CHOICES IN SPACE PERSONALIZATION
BECOMES VISIBLE IN THE DESIGN
BOTH INSIDE & OUT.

OUTER SHELL

INNER SHELL

VARIANT #2
THE TENT
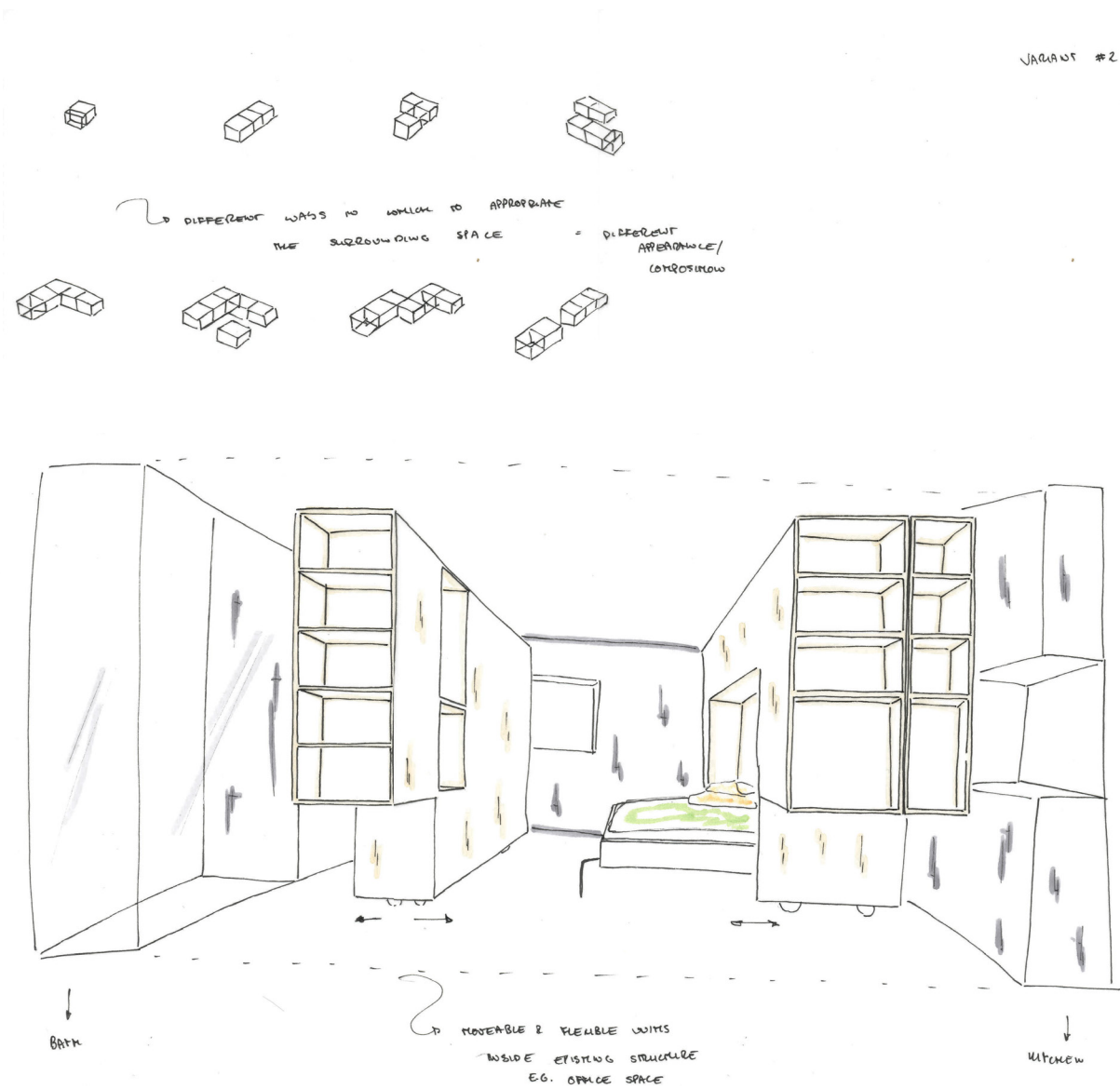
Figure 22: Sketches of the second variant for Strategy #1: The Tent.

SLEEPING UP + STORAGE
TO SAVE SPACE

PRESERVATION OF ORIGINAL
SPACES (OFFICE)
↳ SPATIAL ORGANI-
ZATION THROUGH
LARGE UNITS.

↳ BATHROOM
UNIT

↳ KITCHEN
UNIT

SPACE FOR
STORAGE

EXTRA "FREE"
SPACE FOR LIVING

GRADUAL APPROPRIATION
OF SPACE

SMALLER LIMIT
WITHIN TEMPORARY
SPACE SETUP

GRADUAL TRANSITION
FROM PRIVATE → COMMUNAL
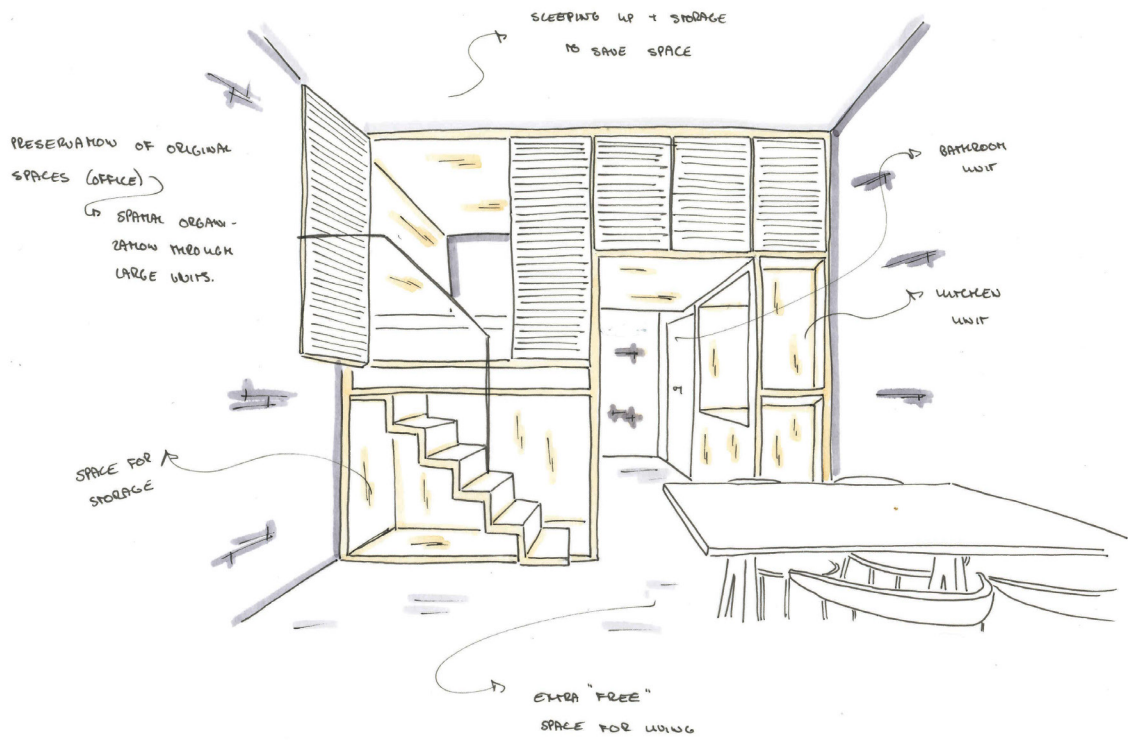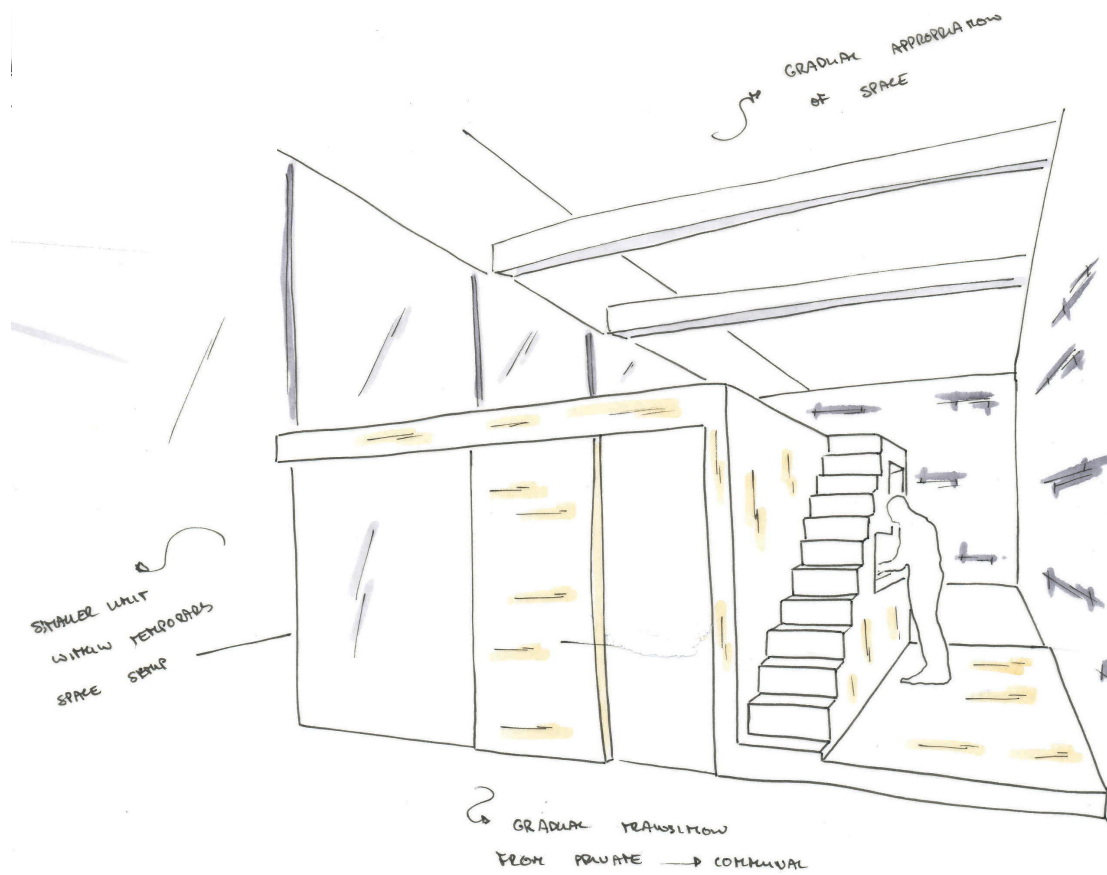
Figure 23: Sketches of the second variant for Strategy #1: The Tent.

ABILITY FOR
SPACE APPROPRIATION

USING UNITS/
SPACES IN OFFICES

OLD "OFFICE" LAYOUT
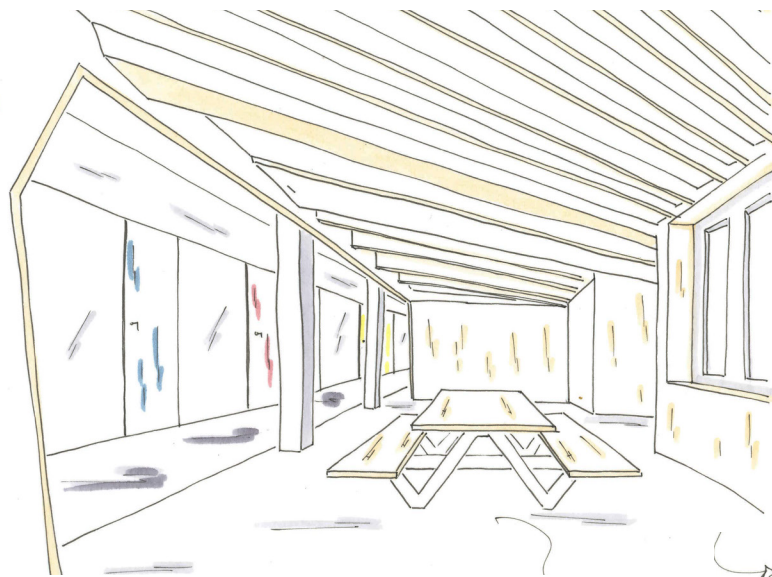
COMMUNITY
AREA
"OUTDOOR"

COMBINATION SPACE

↳ MORE FREEFORM STRUC

↳ STILL WITHIN IND

↳ REST SPACE = CO

↳ FILLED SPACE -
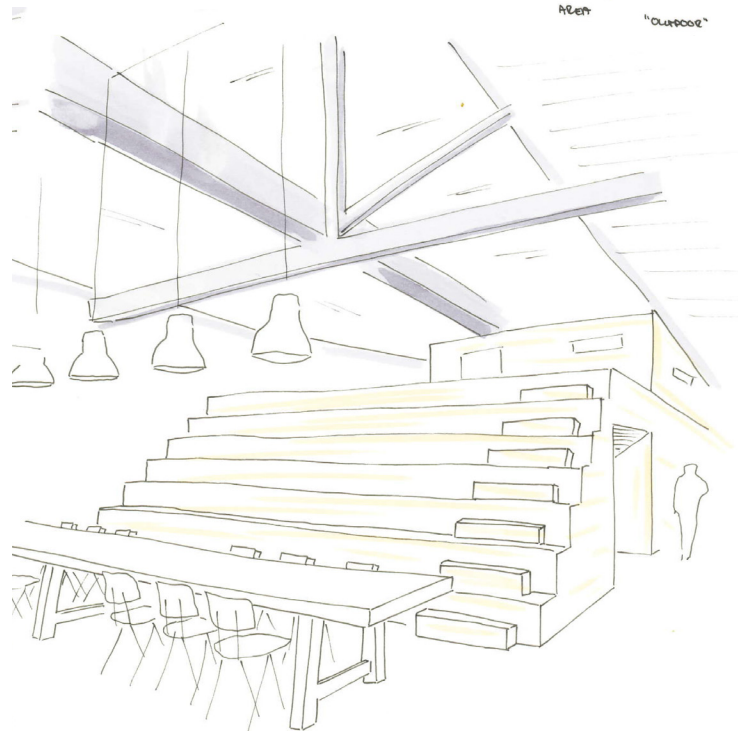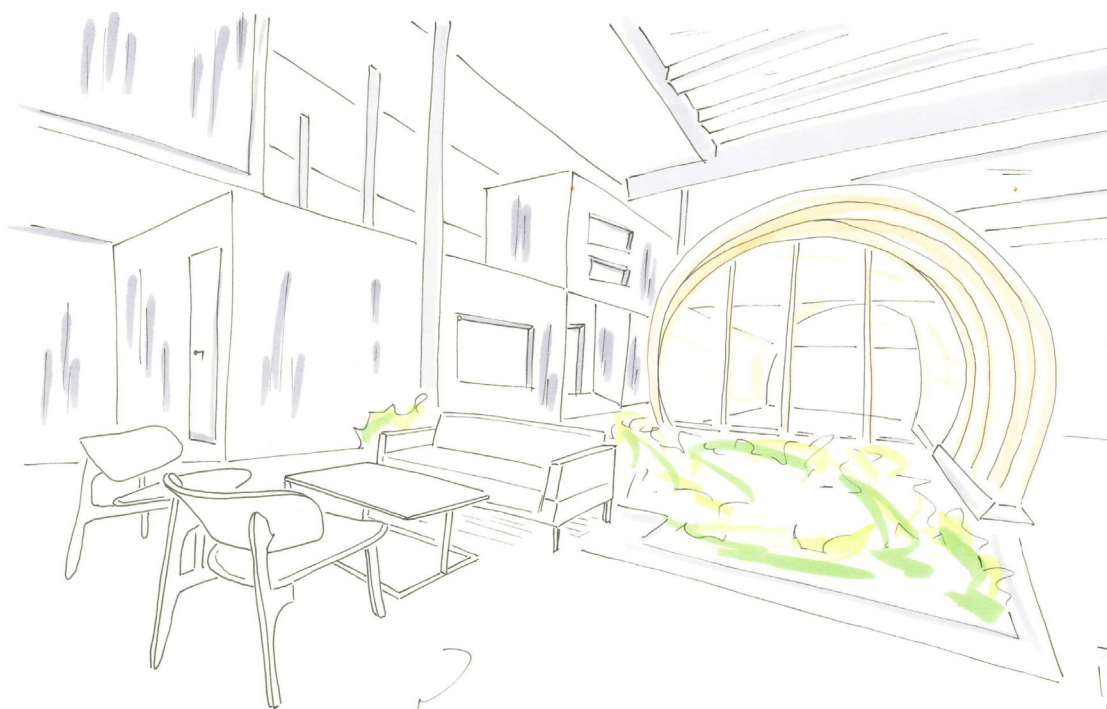
INDUSTRIAL STRUCTURE

↳ LARGE OPEN SPACE
↳ SMALLER VOLUMES
    INSIDE SPACE
↳ PRIVATE + COMMUNITY

OFFICE STRUCTURE

↳ HOUSES IN SIDE
↳ "GANG" AS INTERNAL
    STREET.
↳ REST SPACE

Figure 24: Sketches of the second variant for Strategy #1: The Tent.

INDOOR COMMUNITY / CITY

LARGE (INDUSTRIAL) BUILDING
OPEN SPACES +
LIVING UNITS IN EXISTING FRAMEWORK

SMALL VARIATIONS &

ALTERNATIVES POSSIBLE

WITHIN SET FRAME

THE TENT

VARIANT #3

ALLOWED HOME VOLUME
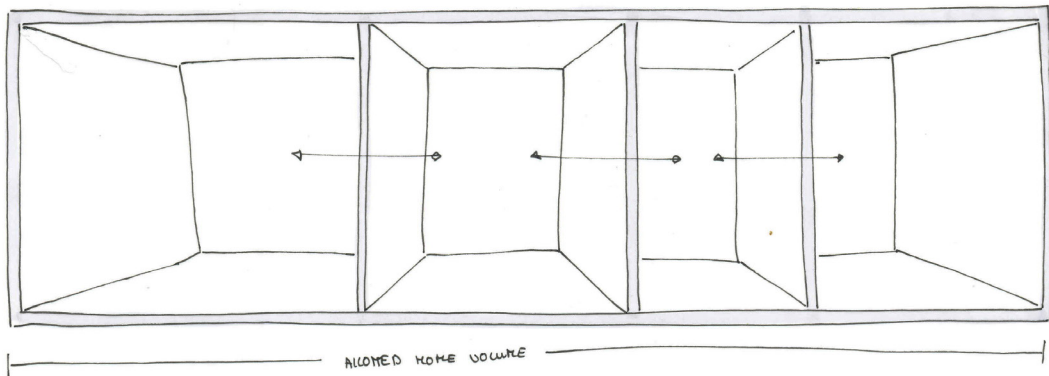
BED, BAID, BROOD + BREAK : 4 FUNCTIONS PERSONALIZABLE
WITHIN PRE-SET FRAMEWORK.

POSSIBLE APPEARANCE
END-UNIT
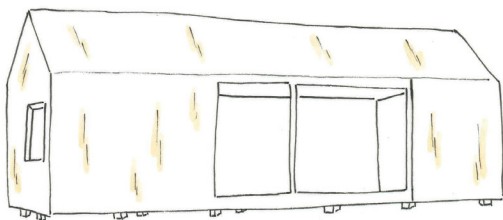
DURING CONSTRUCTION PHASE
SEMI-OPEN CONTAINER IN
LARGER ROOM.

BUILDING ON INTERIOR
THAN EXTERIOR.

MOVEABLE TO LARGER STRUCTURE
CHOICE IN SPACE ALLOCATION PER
FUNCTION + TRANSPARANCY

OPEN / CLOSE

AND CONNECTIONS

COMBINED / SEPERATE
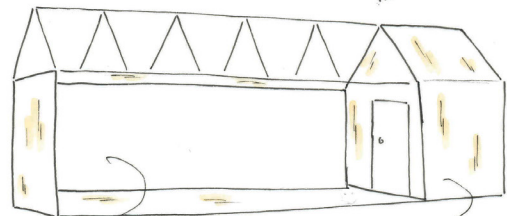
SEMI-PRIVATE LIVING
SPACE : CLOSEABLE

PRIVATE SLEEPING AREA
+ BATHROOM

Figure 25: Sketches of the third variant for Strategy #1: The Tent.

ORGANIZATION OF
MICRO-HOMES IN
A PRE-DETERMINED
FRAMEWORK.

PREDETERMINED FRAME
= PREDETERMINED HOMES

FEW VARIANTS / ALTERNATIVES

ORGANIZATION OF MICRO-HOMES
IN SMALL "NEIGHBOURHOOD"

PREDEFINED ORGANIZATION /
PLOTS = FEW VARIANTS
BUT SOME ALTERNATIVE
APPEARANCES.
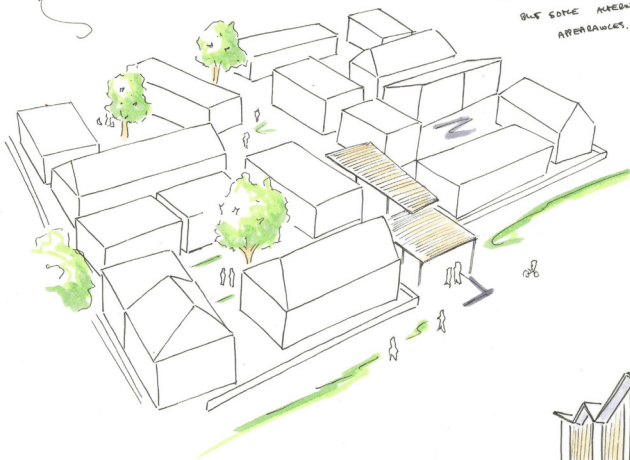
OPTIONS FOR INDIVIDUAL UNITS
OR UNITS WITHIN LARGER COMMUNITIES
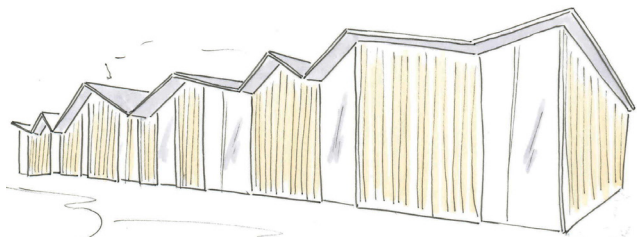
DEPENDING ON BUILDING:
DIFFERENT STRUCTURES ARE POSSIBLE
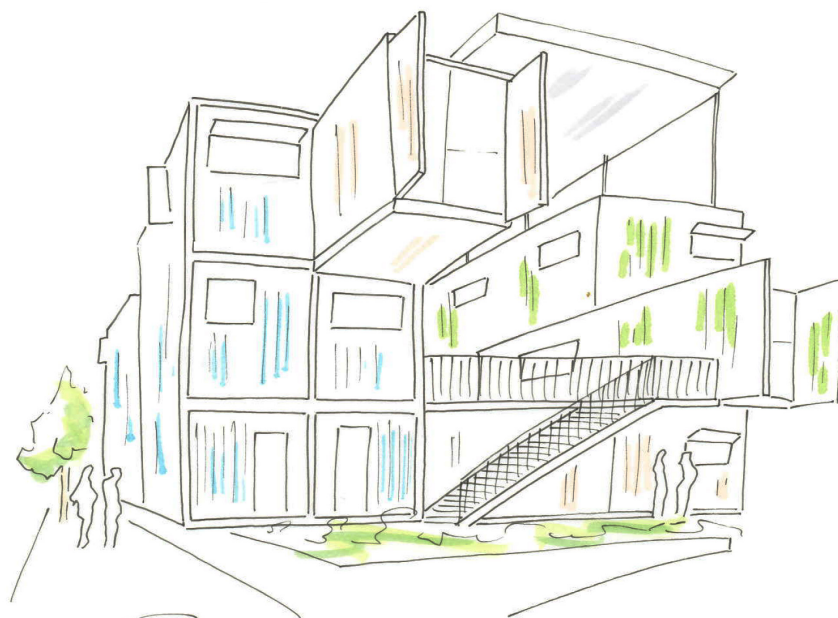
VOLUMATIC COMPOSITION
2b "CONTAINERS"
2b "CUBES"
2b "PREDEFINED ELEMENTS"

RIGID GRID
"PLUG-IN" VOLUMES

Figure 26: Sketches of the third variant for Strategy #1: The Tent.

COMBINATION SYSTEM

→ VOLUMES COMPOSITION IN GRID

→ RIGID _AND_ FLEXIBLE

→ INDIVIDUALLY CUSTOMIZABLE

→ COLLECTIVE PLUG-IN SYSTEM

LOCATION A-SPECIFIC
THE BACKPACK

The Backpack is a strategy developed for the scenario that assumes refugees do not settle down in one place, but instead move around different locations. It aims to facilitate the acquisition of psychological needs by establishing a home that is not tied to a single location, but instead can be moved when the refugees do. In this strategy, the social program becomes the binding factor by focusing on providing refugees with language skills, as well as with psycho-social tools, that allow them to take part in a non-localized community. Furthermore, the strategy also focuses on establishing a sense of self and building refugees' own capacities through small-scale architectural projects such as pieces of furniture and furniture arrangements. Everything that refugees develop thereby end up in their figurative "backpack", which they can keep expanding and always take with them when they move.

SCENARIO #2
LOCATION A-SPECIFIC

The second scenario builds upon the premise that refugees will move between different shelters in the initial stages of their asylum procedure, thereby postulating that the envisioned refugee settlement must be "location a-specific". It is focused on the establishment and appropriation of psychological needs (see Figure 27), including both needs of love and belonging such as friendship, intimacy and sense of connection, as well as self-esteem needs such as confidence, achievement and respect of others. The scenario thus demands that the individual be put first, aiming for the development of a social environment of mutual respect where refugees are able to share time and experiences with friends and family, have meaningful interpersonal interactions with other people, as well as (re)build a larger community in which they feel at home. Furthermore, this social environment must also provide them the opportunity to regain personal confidences and achievements, as well as the respect of others in their direct and indirect environment.

Psychological Needs
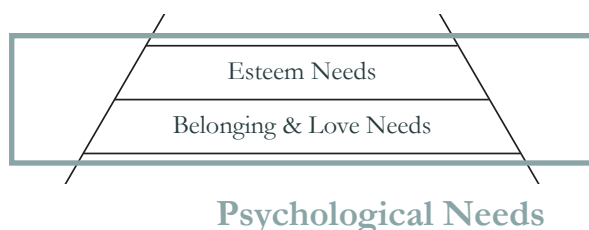
Figure 27: Scenario #2 in relation to Maslow's (1971) revised Hierarchy of Needs.

STRATEGY #2
THE BACKPACK

The Backpack is the refugee settlement strategy that has been developed within the boundaries of the "location a-specific" scenario. It is designed to allow for refugee settlement and integration without a permanent location, aiming to establish a social and physical "home" that is not tied to a location, but rather to the refugees themselves. It focuses on facilitating the development of a non-localized social environment, as well as a physical environment, through a variety of language lessons and special trainings. On the one hand, these lessons and trainings aim to help refugees connect to those around them, as well as take part in and further develop the community that exists within their shelter. Because this community is tied to a shared social environment (i.e. all the offered lessons and trainings), it generates not only a localized, but also a non-localized quality that is transferable between all the different shelters where this strategy is employed, irrelevant of location. On the other hand, these lessons and trainings also aim to facilitate the acquisition and development of easily moveable household effects such as pieces of furniture and furniture arrangements. This provides refugees with a personalized physical environment that can transfer with them to a different shelter in a different location. It also reestablishes their sense of self and (re)builds their capacities and confidences by connecting to pieces of a new home, as a stepping stone in rebuilding their lives.

Social Program
The social program incorporated in this strategy aims to provide the glue that keeps together a non-

localized community through the use of language lessons, as well as social and practical skill trainings. The Backpack's lessons and trainings are similar in all locations in which refugee settlement occurs, thereby creating a stable and familiar environment in the midst of a tumultuously and constantly changing social environment (i.e the environment within the settlement) as a result of refugee relocation. The language lessons in this strategy aim to provide refugees with some useful ground principles of the Dutch language, allowing them to start interacting with the local environment in which they are placed. Because of the constant relocation of refugees in this scenario, facilitating basic interaction with local communities will not only improve the reception of, and support for, the refugee settlement, but also helps refugees to start integrating into their environment more quickly. Allowing for these out-group social interactions to take place before refugees have to move again is crucial in giving integration a chance to occur in spite of these relocations.

The Backpack's social skill training are predominantly focused on providing refugees' with psychosocial tools that will allow them to take part in a non-localized community. By facilitating refugees' development of social capacities and a "new" sense of self in the host country, their personal agency and social capital increases, empowering them to interact with their environment. This includes contact with other refugees in the settlement, regardless of whether they already know them or how long ago they relocated there (thereby creating an open and inclusive community that quickly adapts to relocations). It also stimulates contact with local residents, which in turn facilitates assimilating

in the host country irrelevant of a permanent, unchanging place of residence. The practical skill trainings are focused on the development of skill capacities by helping refugees to create small pieces of furniture, or furniture arrangements, to personalize their living environment. Because of the small scale of these architectural elements the trainings can offer a wide variety of practical skills, both traditional and non-traditional, thereby lowering the threshold for participation by minority groups such as women, children and the elderly. The scale also allows for a large amount of creative freedom, which can support the social skill training by allowing refugees a conduit for their psychological stresses and traumas. Furthermore, the acquisition of these practical skills not only facilitates refugees' empowerment but also offers them the chance to address (some of) their self-fulfillment needs as they work on their own personal projects.

Architectural Program
The concept behind the architectural design for this strategy is a supportive system that focuses on flexible, moveable, foldable and/or deconstructable objects (see Figure 29-30). Through the creation of highly personalized items, refugees will be able to rebuild their existence using these elements, rather than their larger home. Depending on the available spatial conditions, these elements can range from decorative pieces (such as rugs or pillows) to small pieces of furniture that can be deconstructed or folded, or even somewhat larger pieces that can be moved. These pieces can be used to personalize and customize their larger living environment, which will take shape in the form of very basic spaces such as appropriated offices or classrooms. Because the scope of the architectural

design concept is limited to easily transferable architectural elements, refugees have a lot of creative freedom in choosing their own projects within the program.

This design concept also includes three variants, the main difference between which is the physical size of the "backpack" and the ability to recustomize the larger living environment. The first variant focuses on creating pieces of furniture that are either easily deconstructable or foldable, allowing them to be moved very easily (see Figures 31 - 32). The second variant uses small architectural models that can take the shape of normal luggage but, when opened up, can be folded or reshaped into a small room (see Figures 33 - 35). In the third variant, the architectural elements are even larger, in the event proper transportation (e.g. trucks) between different locations is available (see Figures 36 - 38). In this variant, refugees are able to construct smaller pieces of a larger whole that can form a room, or architectural elements within a room, that shape refugees' personal environment.

Evaluation

The combination of the Backpack's social and architectural programs aims to facilitate refugees' resource acquisition through the cultivation of their psychological needs and the facilitation of a stable social environment. This provides a strong basis that allows refugees to address their self-fulfillment needs through the creative pursuit of resources that can also further reinforce their basic needs (see Figure 28).

The location a-specific scenario, with the Backpack as its strategy, has several distinct pros and cons, largely derived from the boundary conditions it

incorporates or ignores. Its main pro is that it attempts to work with the asylum policies and procedures that are currently in place, thereby increasing its chances of being supported, both by reigning political parties as well as mainstream society. Furthermore, by focusing first and foremost on refugees as individual, it recognizes the physical, social and psychological stresses they may still experience as a result of their journey and loss of home, and attempts to address those within the program. Lastly, it attempts to facilitate integration irrelevant of a consistent local context. There are also several cons, however, not least of all the recognition that constant relocation remains an unoptimal condition of refugee settlement. Furthermore, questions can be asked about the durability and longevity of the backpack. Question remains about wether or not the backpack will be able to mitigate the adverse effects of constant relocation and if it will, in fact, be transferable.
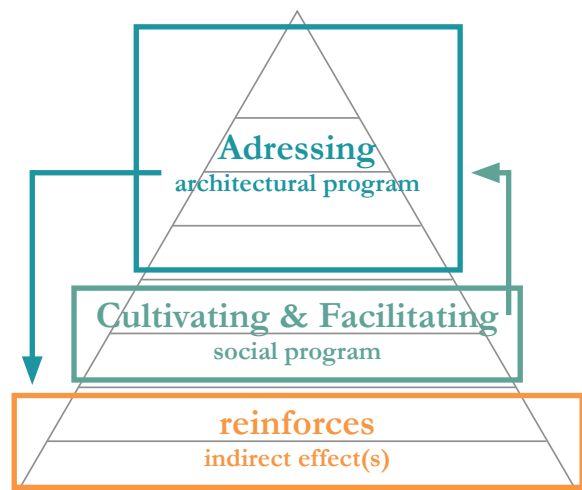
Figure 28: Strategy #2 in relation to Maslow's (1971) revised Hierarchy of Needs.
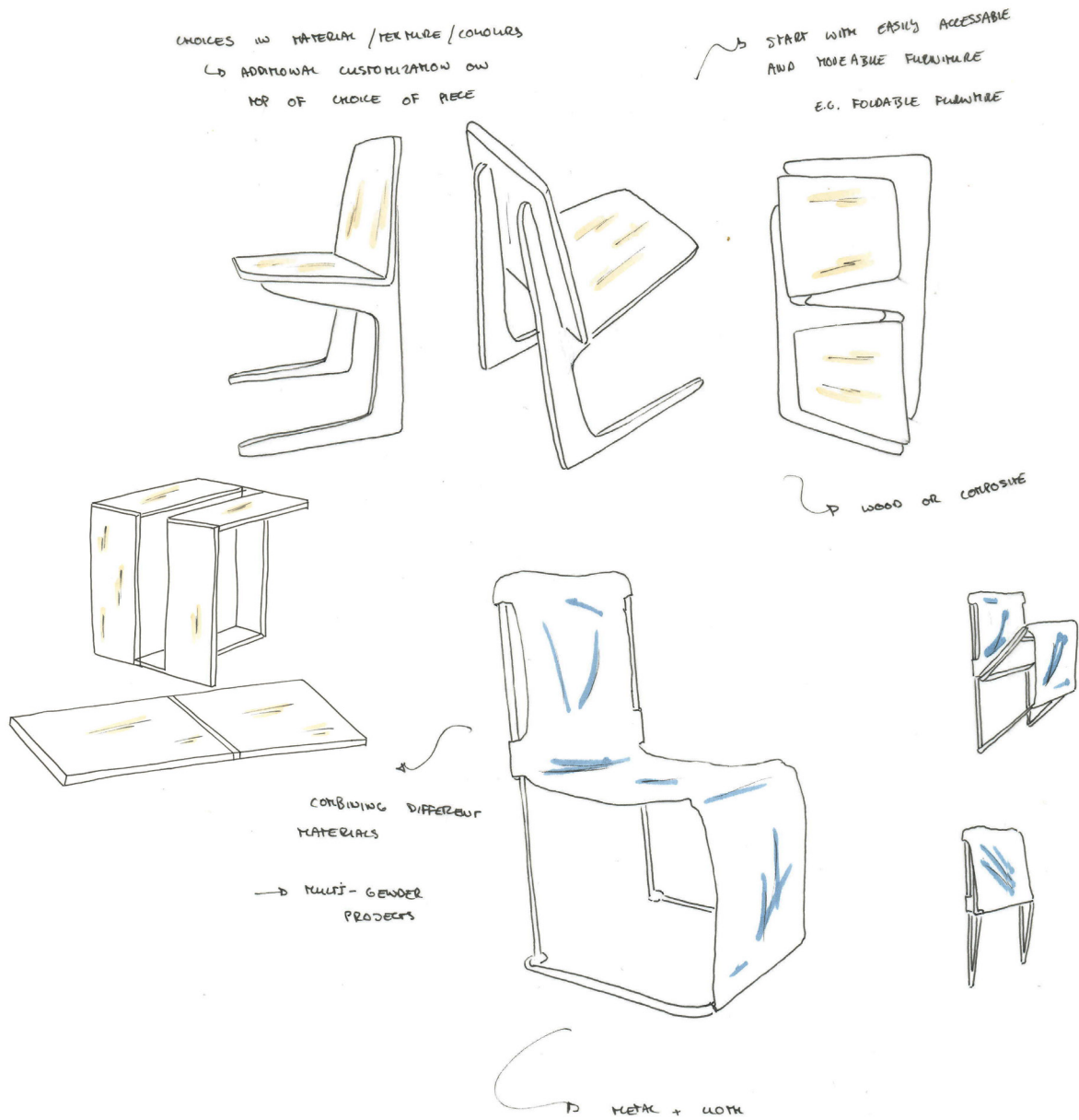
DESIGN CONCEPT
THE BACKPACK

Figure 29: Sketches of the design concept behind Strategy #2: The Backpack.

T_0 = ARRIVAL

→ VARIANT #1

SET-UP FOR PERIOD OF "UTILIZATION"
CREATION OF SMALL PIECES OF FURNITURE
↳ PERSONALIZATION OF LIVING UNIT
+ GROUP PROCESS & THERAPY

1. PHYSIOLOGICAL NEEDS
   COLLECTIVE OR SELF-PRIVATE
    TEMPORARY HOUSING

2. SAFETY NEEDS
    RECONNECTING TO SELF & FAMILY
    ESTABLISHING EXISTANCE IN HOST-COUNTRY

3. BELONGING & LOVE NEEDS
    PARTICIPATION IN "WORKSHOPS"
    CREATION OF TIES TO IN-GROUP MEMBERS
    WORKSHOPS AS SCAFFOLDS FOR "THERAPY"

4. ESTEEM NEEDS
    ABILITY TO EXPRESS OWN CREATIVITY
    FURNITURE AS ESTEEM-BUILDING ENDEAVOUR
    ATTACHMENT TO FURNITURE AS NEW "HOME"
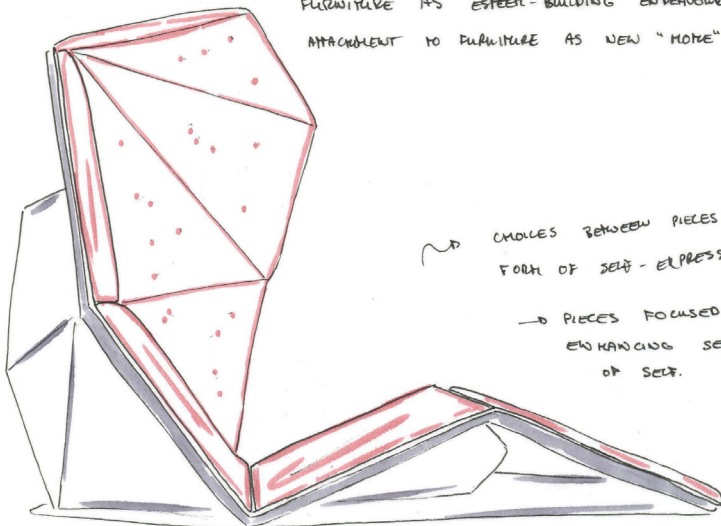
↳ CHOICES BETWEEN PIECES AS A
FORM OF SELF-EXPRESSION

↳ PIECES FOCUSED ON
ENHANCING SENSE
OF SELF.

VARIANT #2

LARGER ELEMENTS THAT RETAIN TRANSPORTABLE YET, WHEN ASSEMBLED, CREATE A FLEXIBLE SPACE

ELEMENTS CAN BE MADE BY RESIDENTS & SPATIAL ORGANIZATION CAN CHANGE PER LOCATION

PIECES CAN VARY OFFER PERSONALIZATION & VARIATION.

SMALL MULTI-PURPOS FURNITURE THAT CAN BE BOXED AND TRANSPORTED
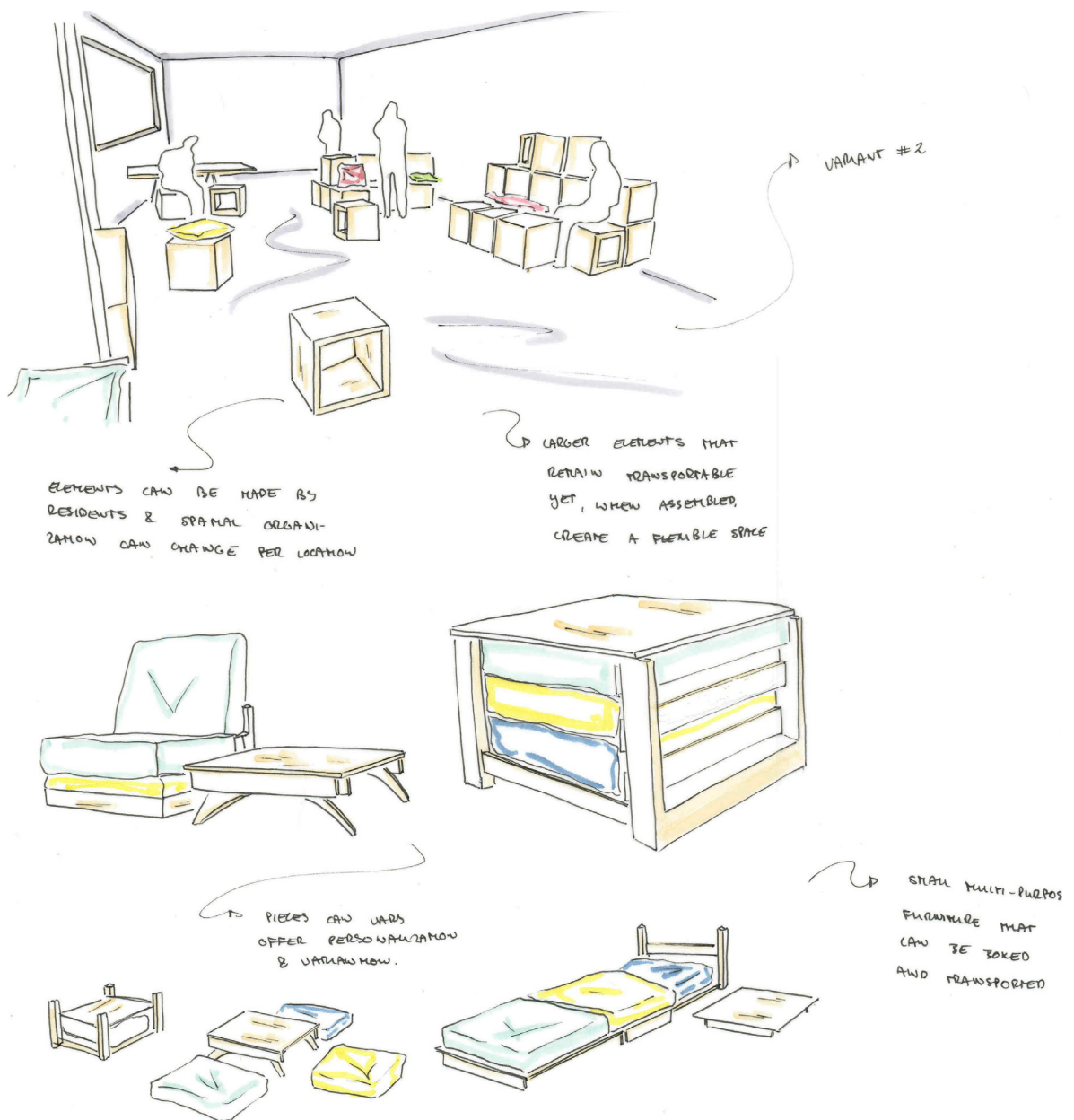
Figure 30: Sketches of the design concept behind Strategy #2: The Backpack.

T_{1-x} = START PROGRAM

→ VARIANT #2 & #3

START OF THE ACTUAL PROGRAM
MORE STRUCTURED APPROACH WITH EDUCATION
↳ DEPENDING ON LOCATION &
MEANS OF TRANSPORTATION
CHOICE FOR V#2 OR V#3

① PHYSIOLOGICAL NEEDS
MORE PRIVATE & SEMI-PRIVATE OPTIONS
STILL TEMPORARY HOUSING W. PERSONAL ELEMENTS

② SAFETY NEEDS
ESTABLISHING NEW HOME IN HOST COUNTRY
HAVING "PERSONAL STUFF" IN SPITE OF MOVING

③ BELONGING & LOVE NEEDS
COORDINATION OF MORE TARGETTED CLASSES
QUICK RE-ESTABLISHMENT OF IN-GROUP TIES UPON
MOVING DUE TO SHARED PARTICIPATION

④ ESTEEM NEEDS
LEARNING EXPORTABLE SKILLS IN CLASSES
INCREASED EXPOSURE TO OUT-GROUP
AND LEARNING OF HOST-LANGUAGE

⑤ COGNITIVE NEEDS
EXPANDING ON OWN PERSON
↳ THROUGH SKILL & LANGUAGE
START-UP EDUCATION

⑥ AESTHETIC NEEDS
INCREASING OPTIONS TO PERSONALIZE
PERSONAL SPACE + MAKE COLLECTIVE
LIVING MORE PRIVATE
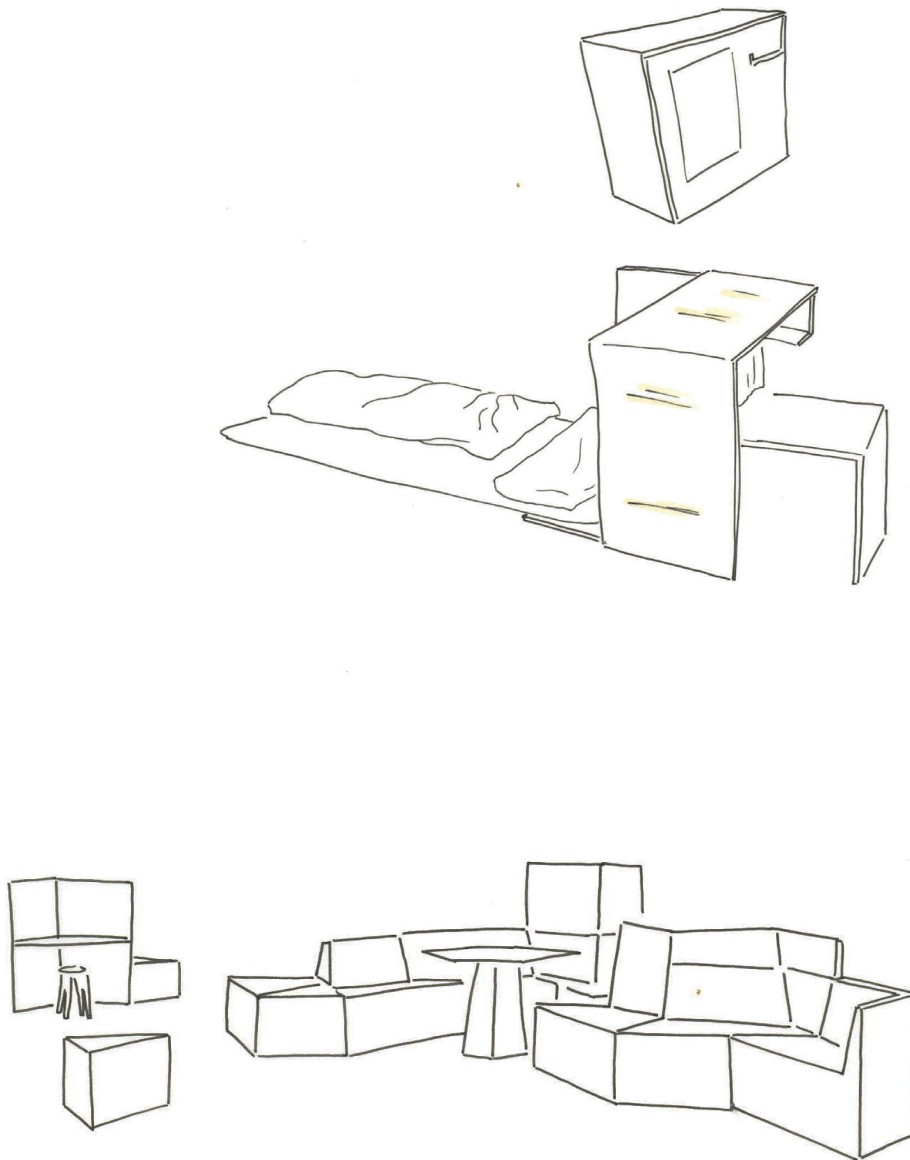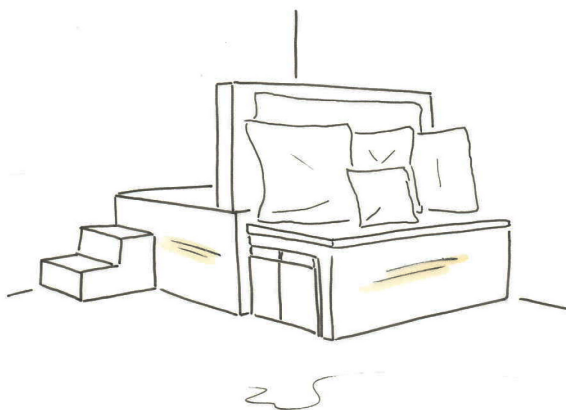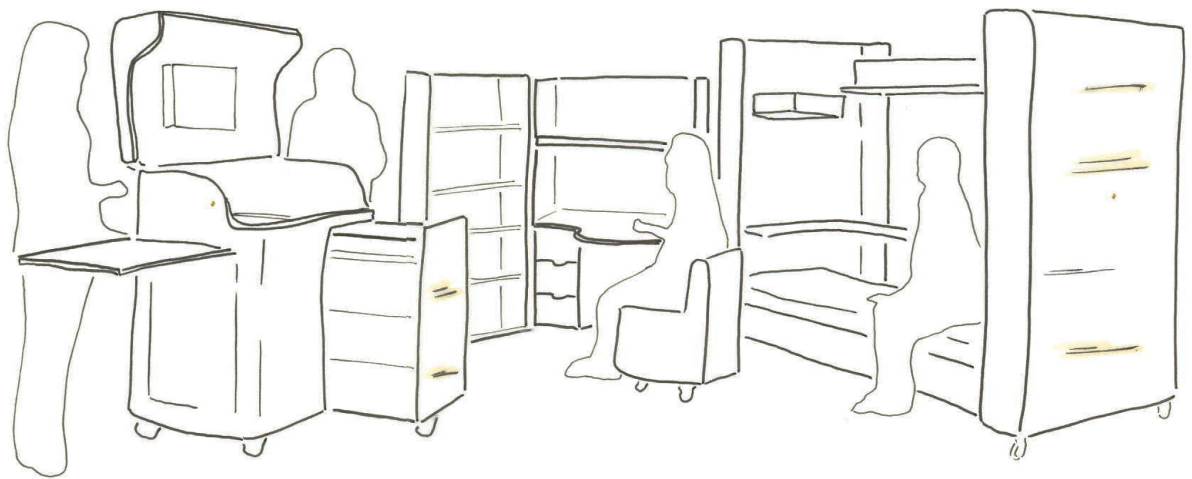CHOICE IN APPEARANCE & DESIGN.

VARIANT#1
THE BACKPACK
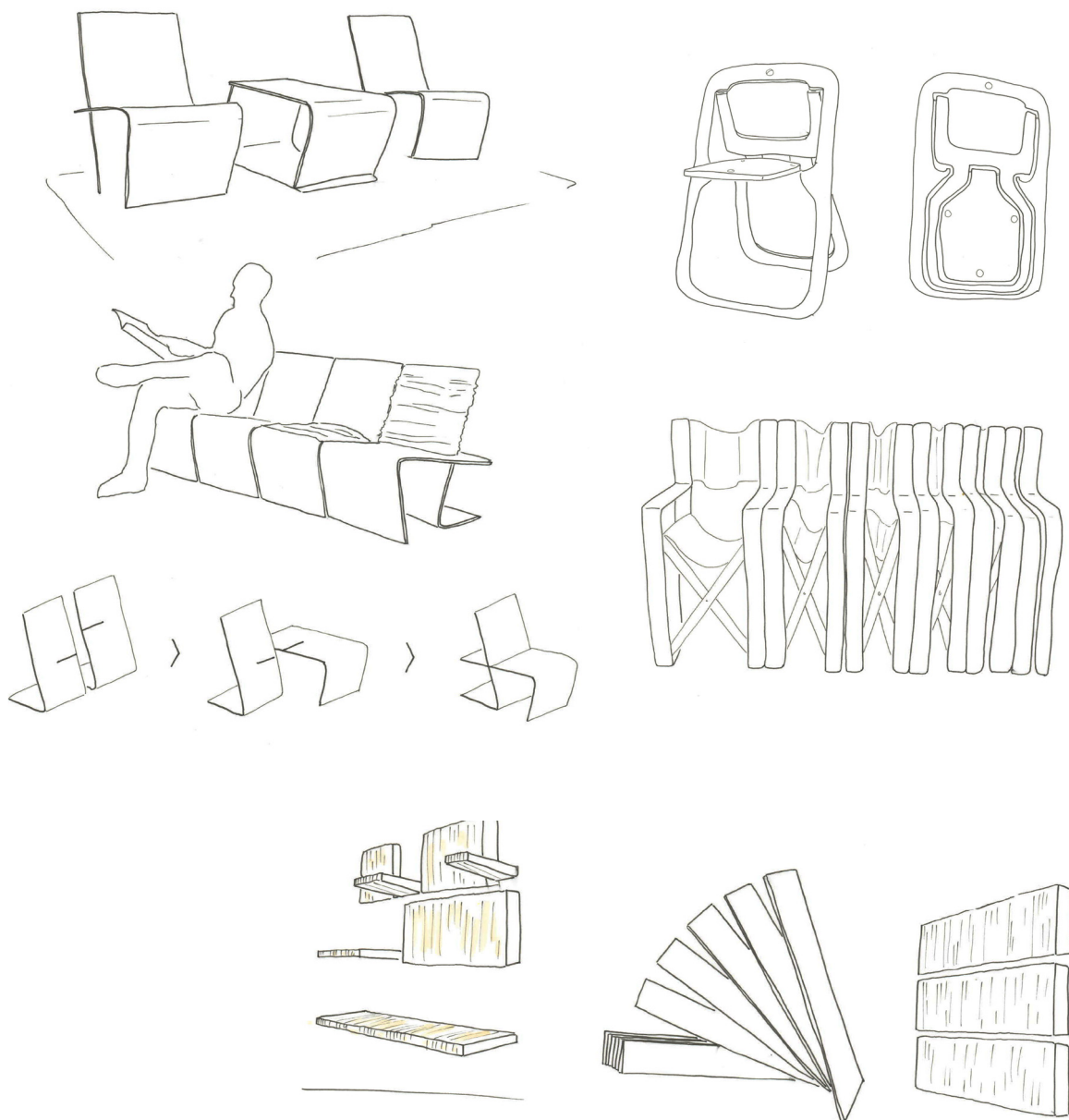
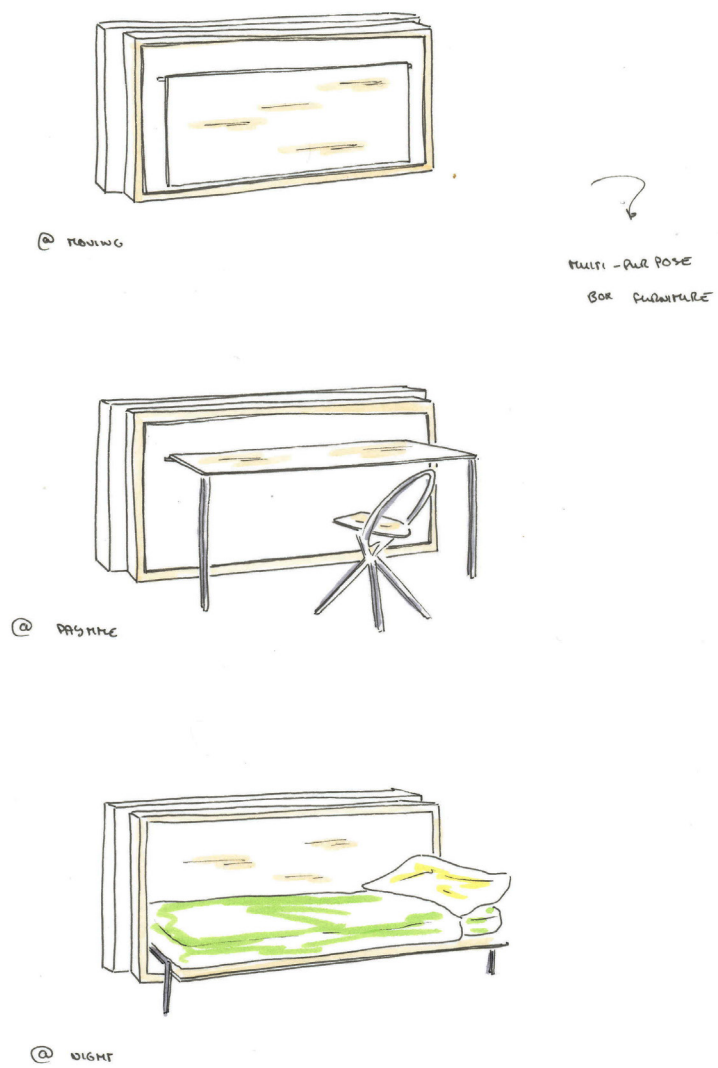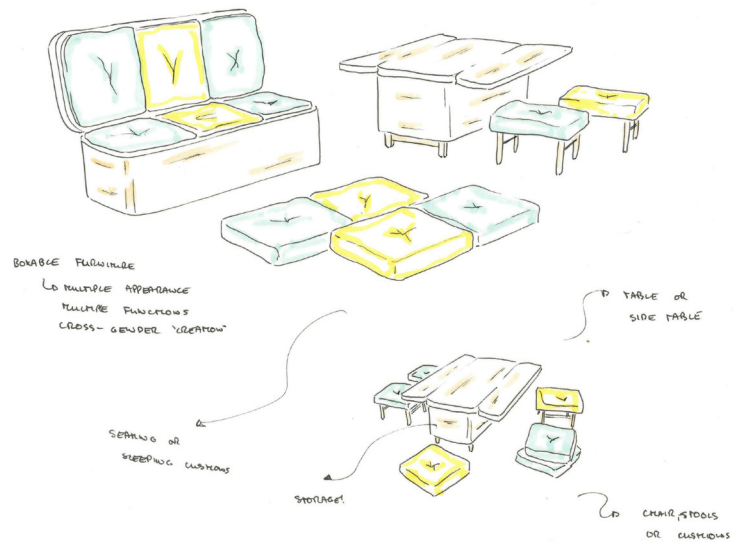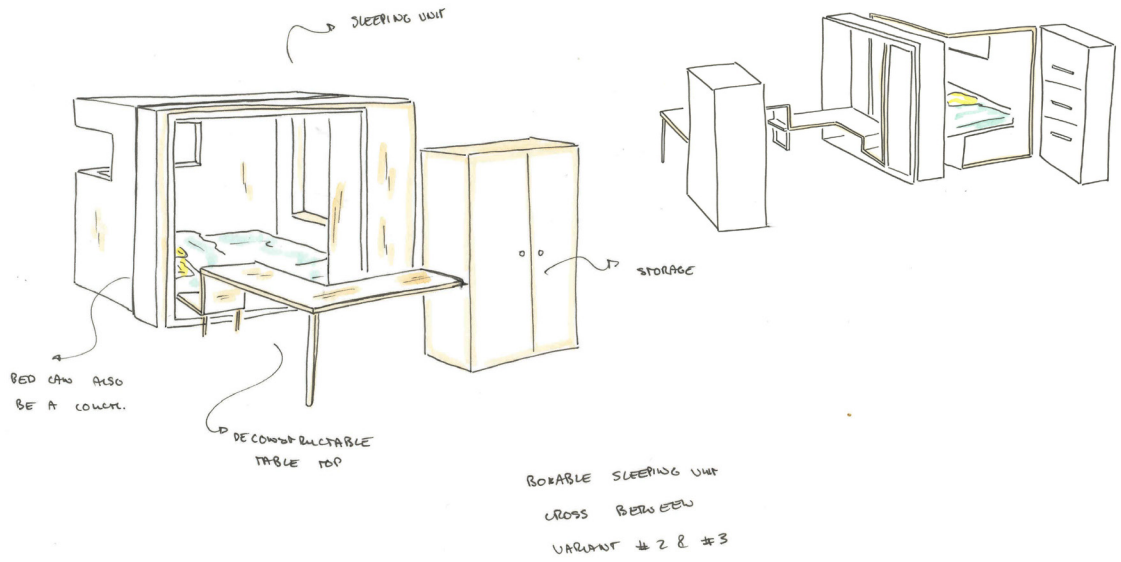Figure 31: Sketches of the first variant for Strategy #2: The Backpack.
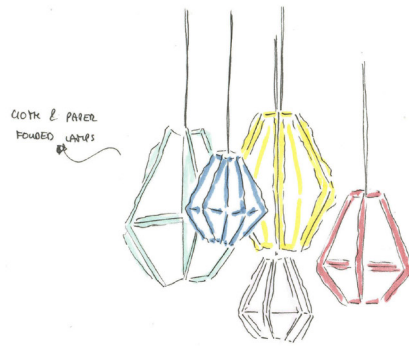
CLOTH & PAPER
FOLDED LAMPS

DIVERSIFICATION OF OBJECTS

- RUGS
- LAMPS
- STOOLS

↳ MEANS DIVERSIFICATION IN
MATERIALS : CLOTH
THREAD
&
LEATHER

TECHNIQUES
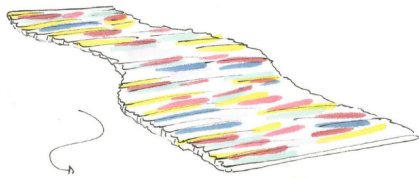
KNOTTED / KNITTED
RUG

FOLDED & STITCHED
LEATHER STOOLS
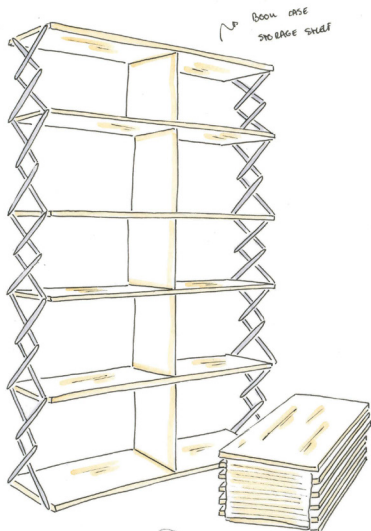
BOOK CASE
STORAGE SHELF

STORAGE SPACE
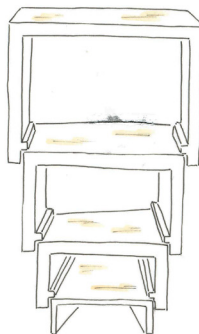
OPTIONS FOR
STORAGE
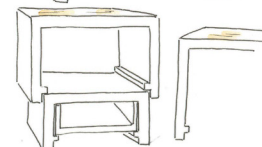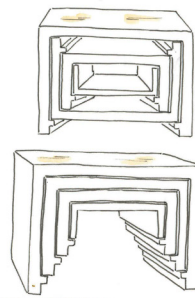
↳ ALTERNATIVE PIECES OF FOLDABLE/
EASILY TRANSPORTABLE FURNITURE

↳ MULTI-PURPOSE
+ MOVEABLE

FLOUDABLE CARTBOARD CHAIRS

D FURNITURE FOR CHILDREN

EASS MATERIALS ALLOWING THEM TO ITSELF

SIMPLE " COUCH" + HAND-MADE CUSHION = SMALL PRIVATE SPACE

Figure 32: Sketches of the first variant for Strategy #2: The Backpack.

THE BACKPACK

Figure 33: Sketches of the second variant for Strategy #2: The Backpack.

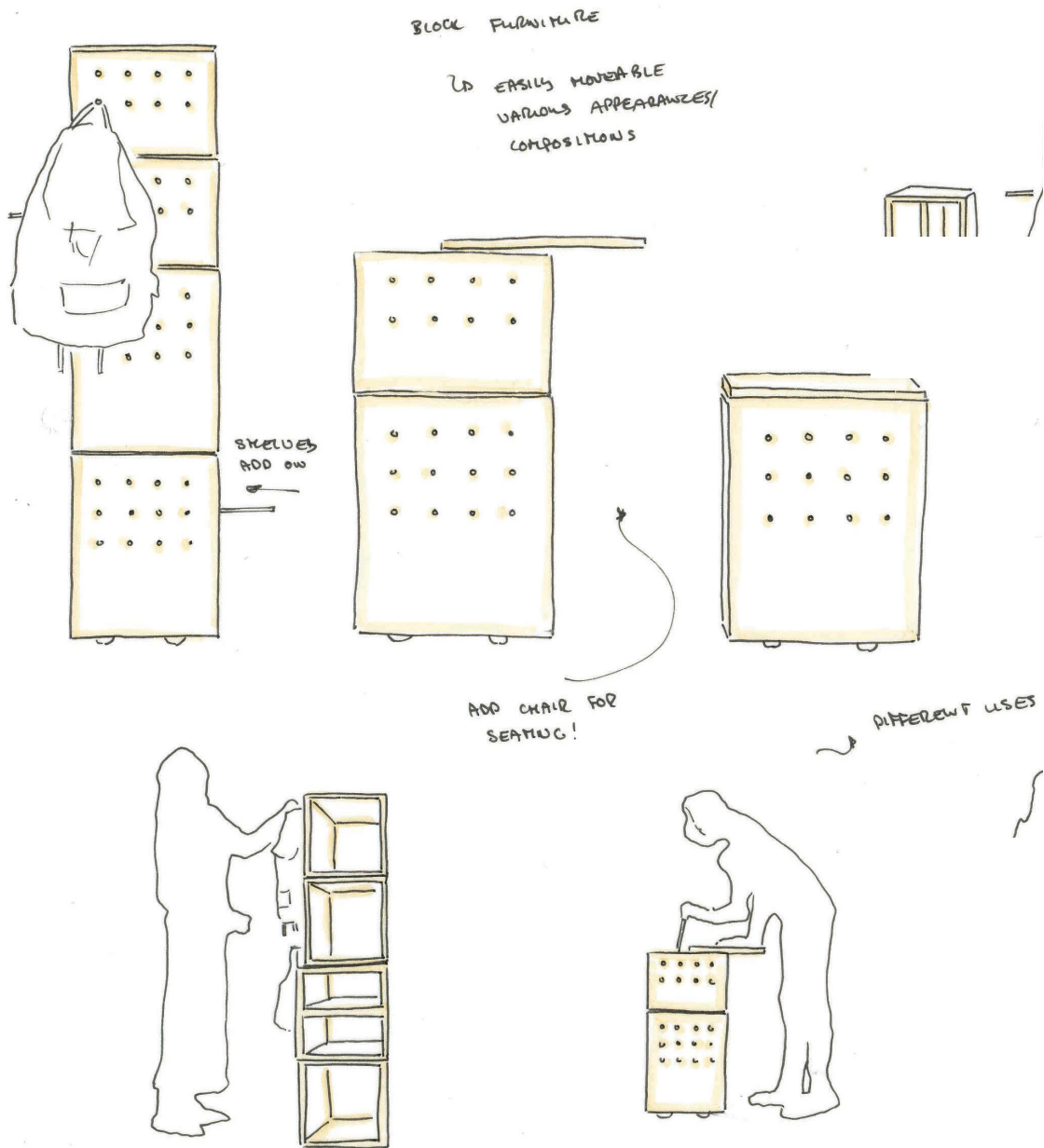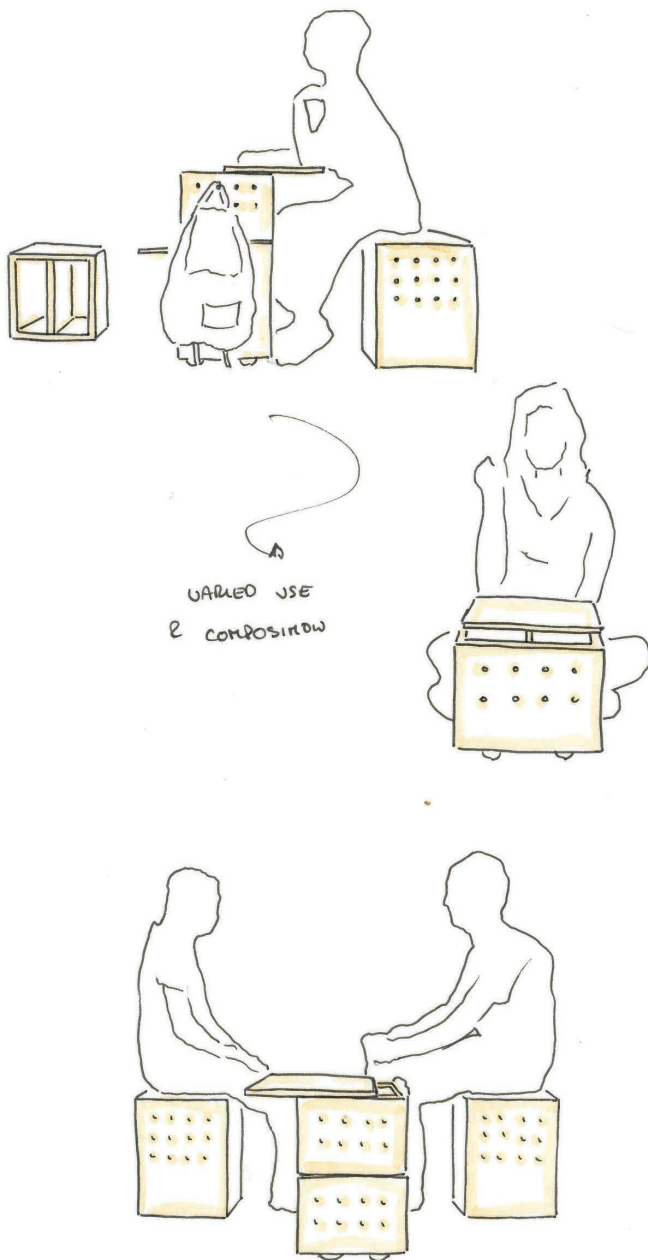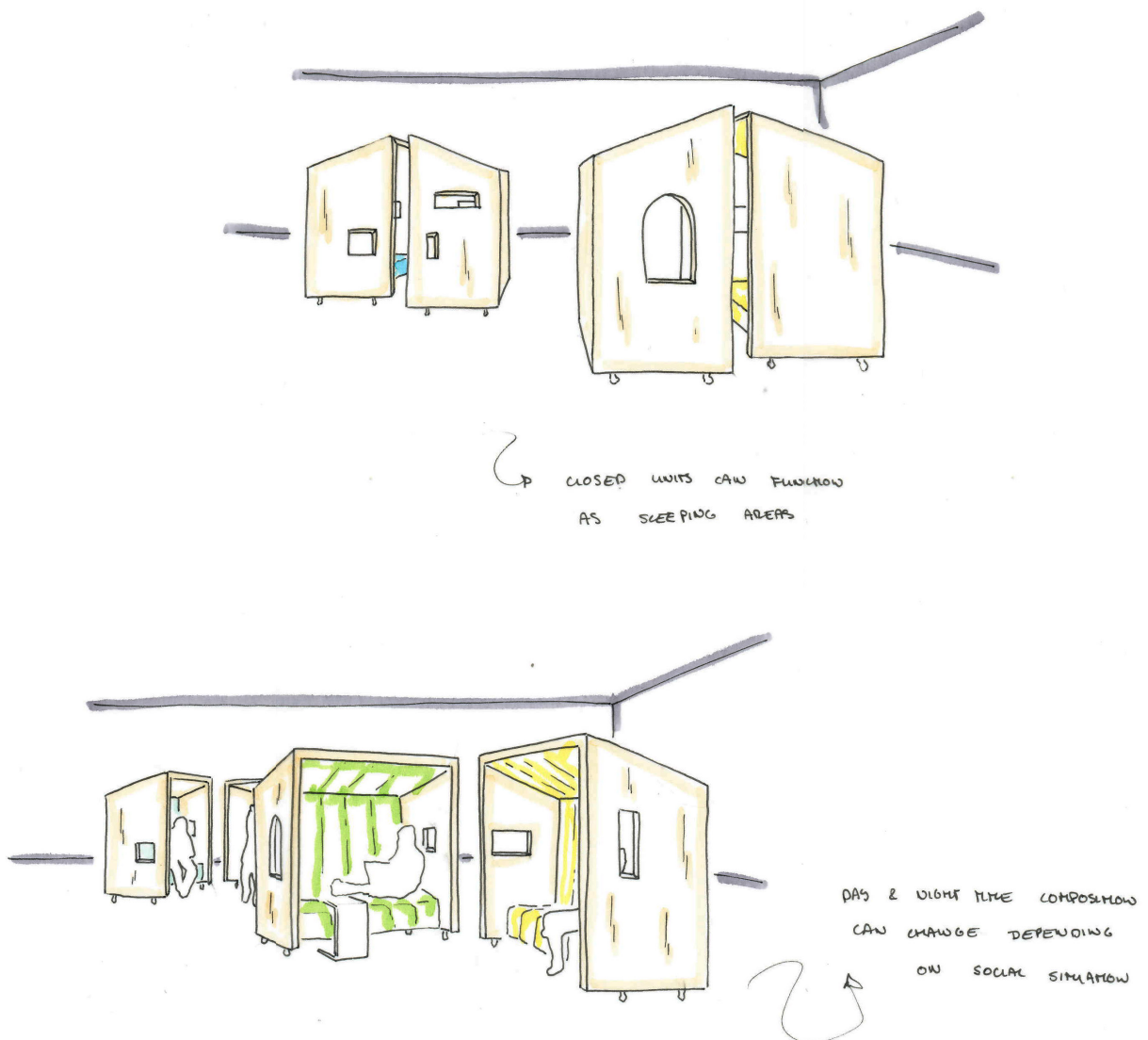Figure 34: Sketches of the second variant for Strategy #2: The Backpack.

SLEEPING UNIT

STORAGE

BED CAN ALSO
BE A COUCH.

DECONSTRUCTABLE
TABLE TOP

BOXABLE SLEEPING UNIT
CROSS BETWEEN
VARIANT #2 & #3

BOXABLE FURNITURE
ᒪᓂ MULTIPLE APPEARANCE
MULTIPLE FUNCTIONS
CROSS-GENDER "CREATION"

TABLE OR
SIDE TABLE

SEATING OR
SLEEPING CUSHIONS

STORAGE!

CHAIR/STOOLS
OR CUSHIONS

BLOCK FURNITURE

2D EASILY MOVEABLE
VARIOUS APPEARANZES/
COMPOSITIONS

SHELVES
ADD ON

ADD CHAIR FOR
SEATING!

DIFFERENT USES

Figure 35: Sketches of the second variant for Strategy #2: The Backpack.

VARIED USE
& COMPOSITION

THE BACKPACK

CLOSED UNITS CAN FUNCTION
AS SLEEPING AREAS

DAY & NIGHT TIME COMPOSITION
CAN CHANGE DEPENDING
ON SOCIAL SITUATION

Figure 36: Sketches of the third variant for Strategy #2: The Backpack.
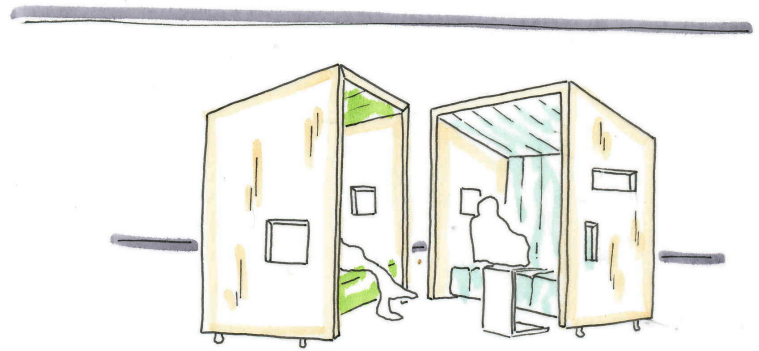
DURING DAYTIME THE UNITS CAN BE
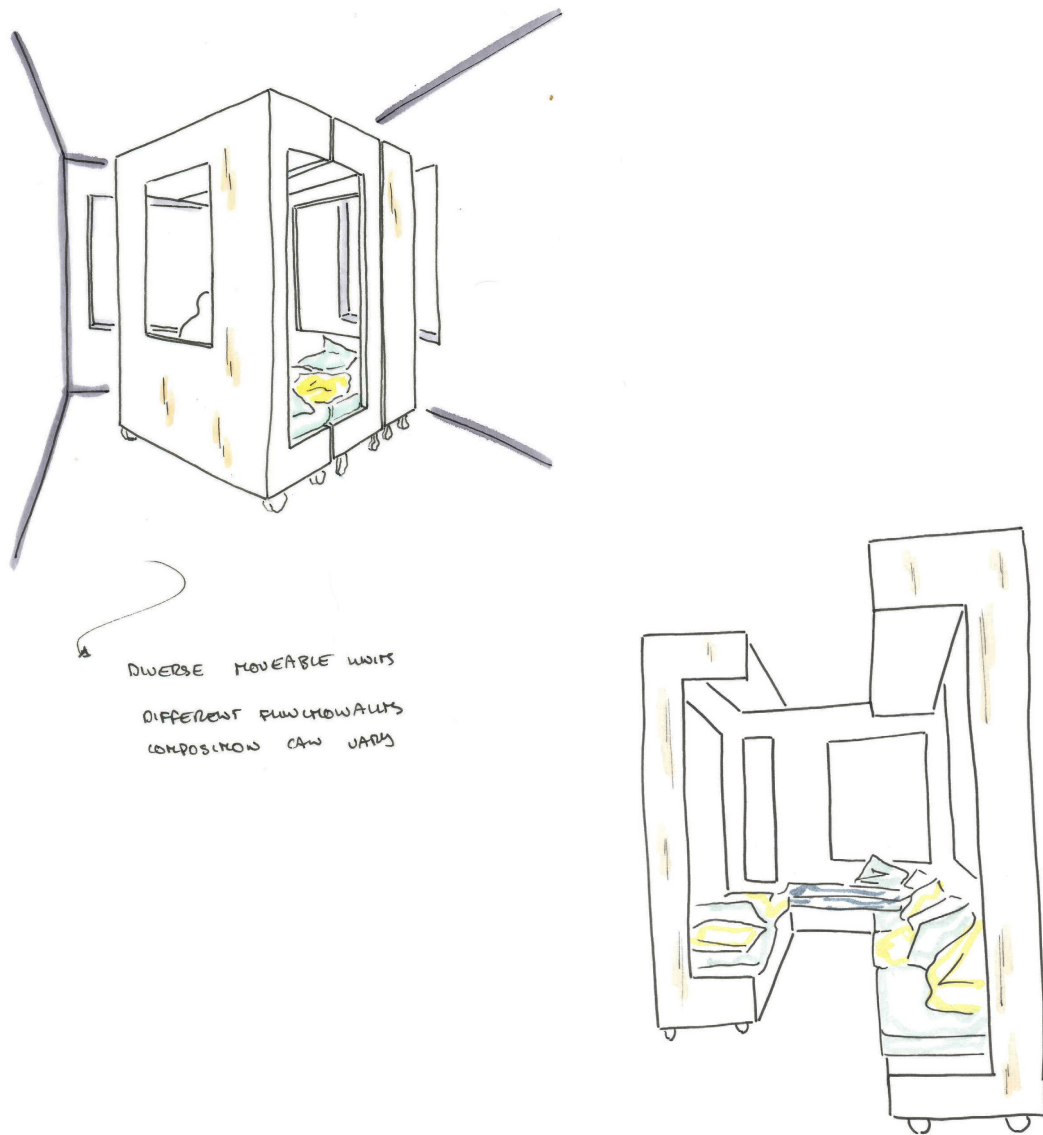OPENED TO ALLOW FOR SEATING
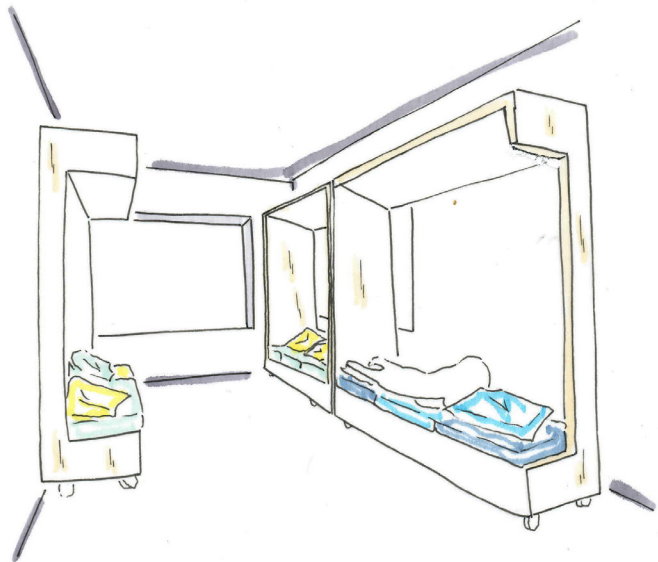+ GUEST. TABLES CAN ALSO BE ADDED

DIVERSE MOVEABLE UNITS

DIFFERENT FUNCTIONALITIES

COMPOSITION CAN VARY

Figure 37: Sketches of the third variant for Strategy #2: The Backpack.

↳ RE-COMPOSED
   UNIT

- SLEEPIN
- COUCH
- STORAGE
- STUDY

MORE TRADITIONAL
ROOM FURNITURE

COMPOSITION OF
SPACE

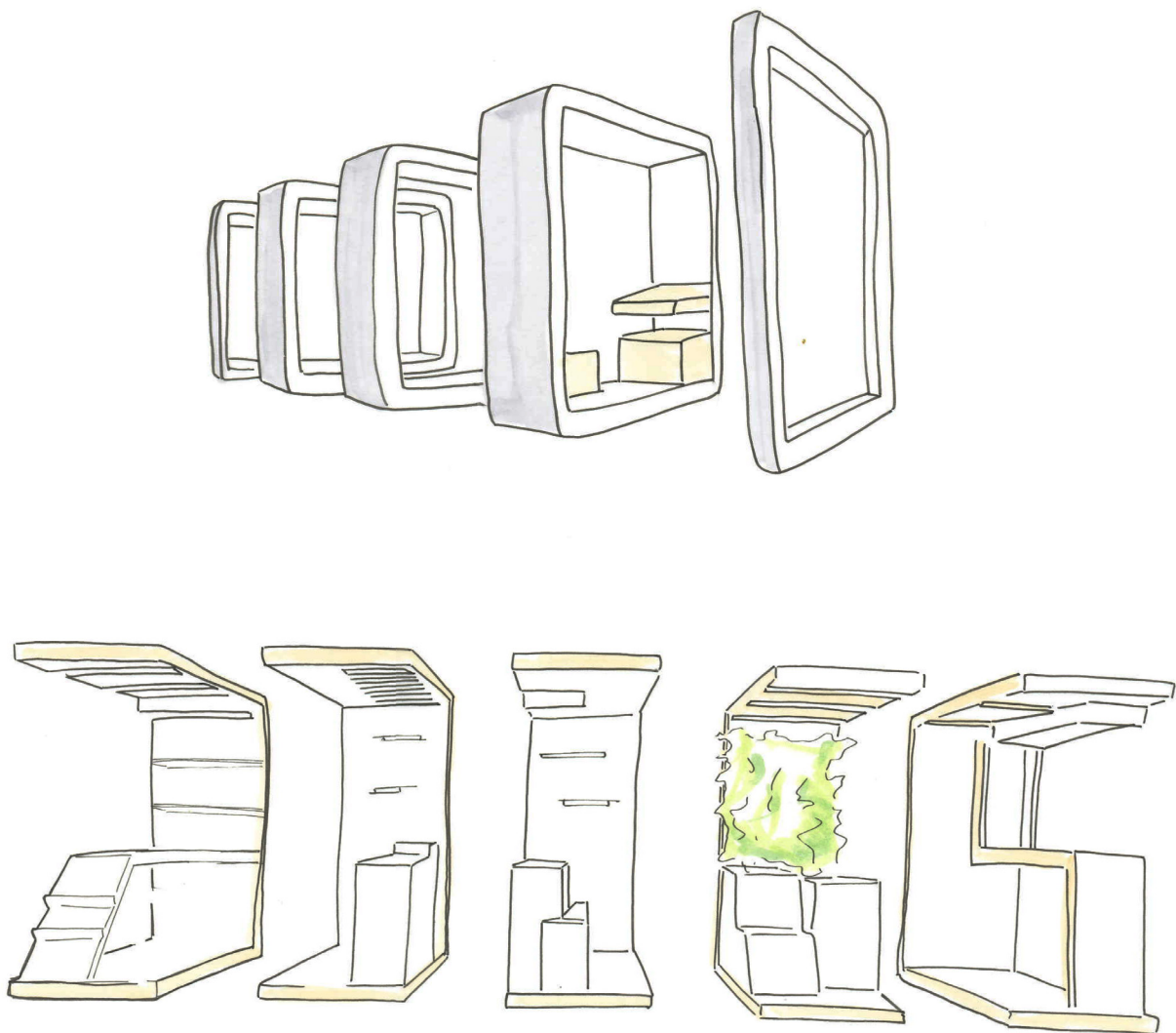↳ POSSIBLE
   DECONSTRUCTION
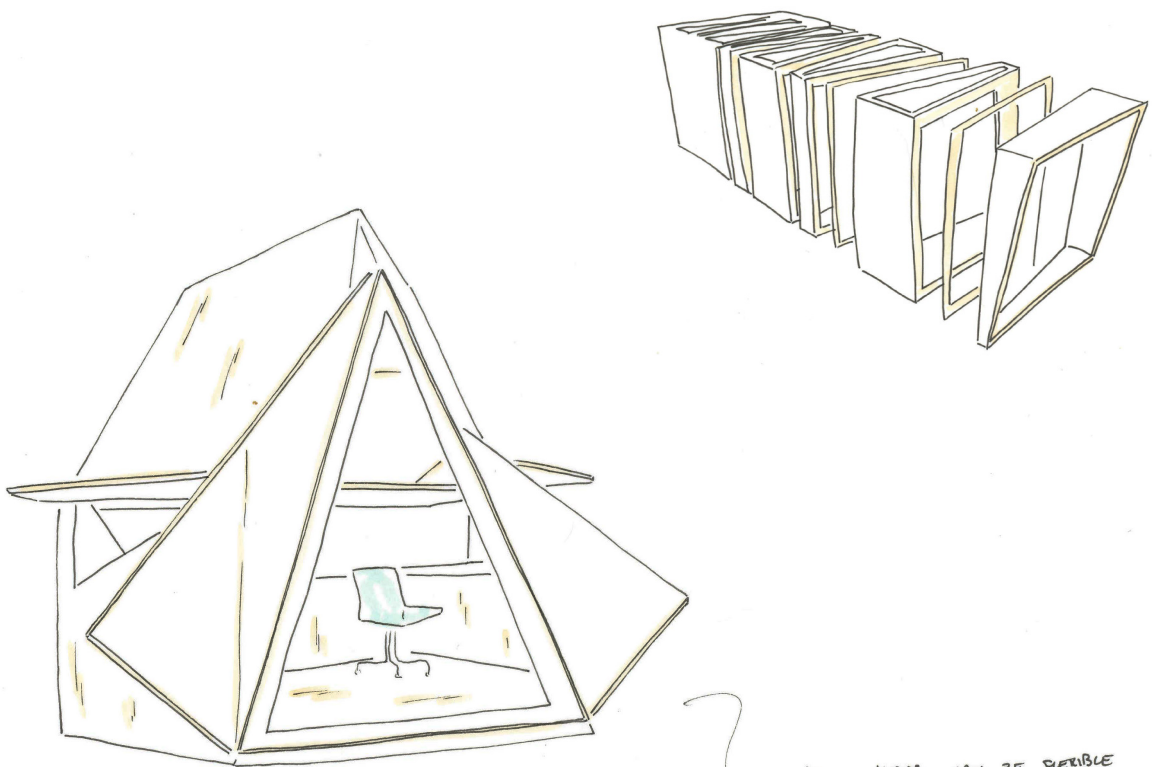   OF SEPERATE
   ELEMENTS

Figure 38: Sketches of the third variant for Strategy #2: The Backpack.

UNITS CAN BE FLEXIBLE
MULTI-PURPOSE & FLEXIBLE
OR DIVERSE FUNCTIONS
AND USEABLE BY
EVERYONE

LONG-TERM
THE HOME

The Home is a strategy developed for the scenario that assumes refugee settlement should be a long-term solution that replaces the need for additional social housing, based on the premise that refugees already have access to temporary housing. It aims to facilitate the acquisition of self-fulfillment needs by appropriating the required physical housing and the associated building process as a tool for education. Allowing refugees to reshape their own lives and strengthen their labour market position while simultaneously creating a long-term social and physical home environment. The educational component of this strategy focuses on both practical as well as theoretical skills, akin to education found within schools that offer programs within the building sector. Because of the long-term scope of the strategy, refugees are able to choose between many different specializations and work experiences.
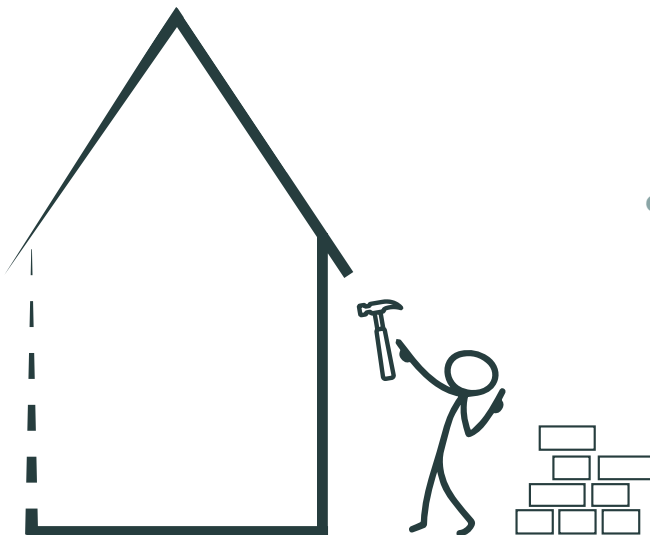
SCENARIO #3
LONG-TERM

The third scenario focuses on the premise that the envisioned refugee settlement must be able to provide a "long term" solution, replacing the need for additional social housing and facilitating entry into the labour market. In this scenario, the assumption is made that refugees already have access to a basic, temporary shelter, providing them with more possibilities. It is focused on the establishment and appropriation of refugees' self-fulfillment needs (see Figure 39), including both cognitive and aesthetic needs such as knowledge, self-awareness, beauty and form, as well as their self-actualizing and transcendence needs such as personal growth and helping others to achieve self-fulfillment. The scenario thus demands the development of a permanent, long-term settlement for refugees, throughout which refugees are able to gain knowledge and create new meaning in their lives, as well as express themselves through creative and non-creative pursuits culminating in a personalized aesthetic. Furthermore, the development of this long-term settlement must also provide refugees with adequate challenges and ways to overcome them, the opportunity to set and achieve goals, and a social environment in which they are able to help other refugees.
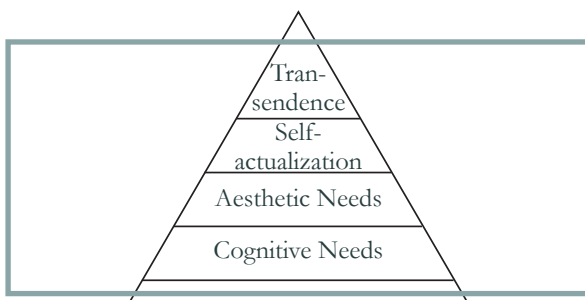
STRATEGY #3
THE HOME

The Home is the refugee settlement strategy that has been developed within the boundaries of the "long-term" scenario. It is designed to give refugees the chance to strengthen their labour market position by offering in-depth training in a wide variety of skills associated with the building sector (i.e. the construction, maintenance and management of buildings). This is achieved through both theoretical lessons, akin to education found in recognized educational institutions, as well as the practical experience of planning and constructing their own homes. This strategy thereby aims to facilitate the development of both a long-term physical environment (i.e. refugee settlement and housing) and social environment (i.e. shared participation in the skill training). This provides refugees with the opportunity to reshape their own future and re-educate themselves within their own area of interest. It also allows for the integration of language lessons, as well as interpersonal interaction between refugees partaking in these skill groups, as well as mainstream society (i.e. through tutors, suppliers and contact with neigbours) throughout the entire process. Moreover, this strategy aims to involve refugees from the very start of the building process

Self-Fulfillment Needs

Figure 39: Scenario #3 in relation to Maslow's (1971) revised Hierarchy of Needs.

(i.e. project inception and design) to the very end (i.e. maintenance and after-care). By adopting an open approach to the building process, it thus enables refugees to influence and (partially) design their own future home based upon their own functional and cultural habits and aesthetic preferences.

Social Program
The social program incorporated in this strategy is predominantly an educational program with language lessons as a supportive tool. The Home's social program consists of in-depth skill trainings that can be compared to an official education in a profession associated with the building process. It allows refugees to choose an educational program in which they are offered both theoretical courses and practical skill training. The aim is to provide refugees with a recognized documentation at the end of the program that improves their chances on the labour market. Refugees are able to choose from a very wide variety of programs, allowing them to address their own self-fulfillment needs (see Figure 42, right page). These programs include the more traditional and practical profession but also includes non-traditional, management and maintenance oriented professions that can appeal to women and elderly. The language lessons function as a supportive tool to enhance refugees' proficiency in the Dutch language, allowing them to communicate with instructors, other students (both refugees and natives), local residents and retailers.

The entire program revolves around the integration of refugees into mainstream society. This is where the educational program differs from a traditional education. The goal of the program, apart from

acquiring knowledge, skills and capacities (i.e. self-fulfillment needs), is the construction of their own long-term place of residence. By working together in middle-to-large sized groups, the program promotes social exchange between future residents and neighbours. Moreover, it allows for the emplacement of both the educational program and the future settlement by stimulating interaction with local residents and retailers. This not only promotes integration but also improves the reception of the envisioned settlements. Furthermore, the program allows a unique opportunity for Dutch schools to allow their students to participate in this refugee resettlement and re-education program, from which they can gain knowledge and experience. This also allows social and cultural interactions and exchanges to be made between refugee students and local students.

Architectural Program
The concept behind the architectural program for this strategy is based on a modular system, focused on providing a long-term residence with as much customization as possible (see Figures 41 - 43). This means that, at its core, this scenario aims to address issues of spatial ambivalence, flexibility and adaptability. The goal is the create a design framework that allows for an infinite amount of combinations and customization, so that refugees from different ages, genders, ethnicities and cultures can personalize their home to their own needs, goals, and demands. This will require the design of service cores, as well as function neutral spaces of flexibly composable volumes that can be combined together to create the home of someone's choice. Because of the nature of the program and its heavy education component, this scenario aims to create collective communities in

which refugees do not exclusively build their own home, but rather focus on a specialization (e.g. plumbing or electrical networking) and then apply that specialization to all homes within the collective community.

Like the previous design concepts, this one also has three different variants, differing from each other in their collectivity. In the first scenario, larger buildings are created in which refugees can claim their own home (see Figures 44 - 45). Decision-making in the design of the building's exterior is thus a collective process, as are the eventual living conditions. In the second scenario, a trade-off is made between collective buildings and individual residences in which refugees are offered more freedom of choice, and the eventual building is a mixed composition of these different choices (see Figures 46 - 47). In the last scenario, there are only individual buildings (see Figures 48 - 49). While these buildings do still form a larger community, the amount of individuality and privacy is much higher than in the previous two variants.

Evaluation
The combination of the Home's social and architectural program aims to facilitate refugees' resource acquisition through the development of their cognitive and aesthetic needs. By achieving their self-fulfillment needs throughout the educational program, refugees are working towards a new home that reinforces their basic needs and cultivates their psychological needs (see Figure 40).

The long-term scenario, with the Home as its strategy, has several distinct pros and cons, largely derived from the boundary conditions it incorporates or ignores. Pros include the ability

of this strategy to offer refugees a permanent place of residence without the need for additional social housing. Moreover, the delayed start of the program may alleviate some of the conflicts refugees face in regard to their legal status and future uncertainties, something that poses a problem in both other strategies. Furthermore, it also allows refugees a period of rest and recuperation after their arrival. These pros however are also the strategy's main cons. The delayed start of the program may hamper integration and leave refugees without a meaningful daily routine after their arrival. This is especially problematic when we consider this strategy actively assumes a certain amount of previously acquired language skills and integration into the host country's society. A good basis remains a requirement for the success of this program given its long-term commitment and time and energy intensive design, further implying it may not be suited for all refugees.
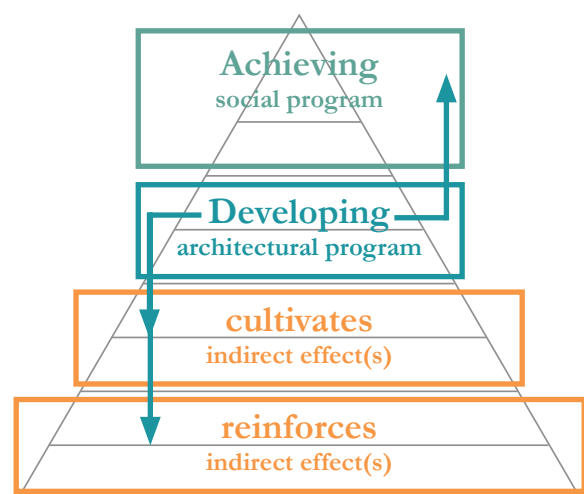

Figure 40: Strategy #3 in relation to Maslow's (1971) revised Hierarchy of Needs.
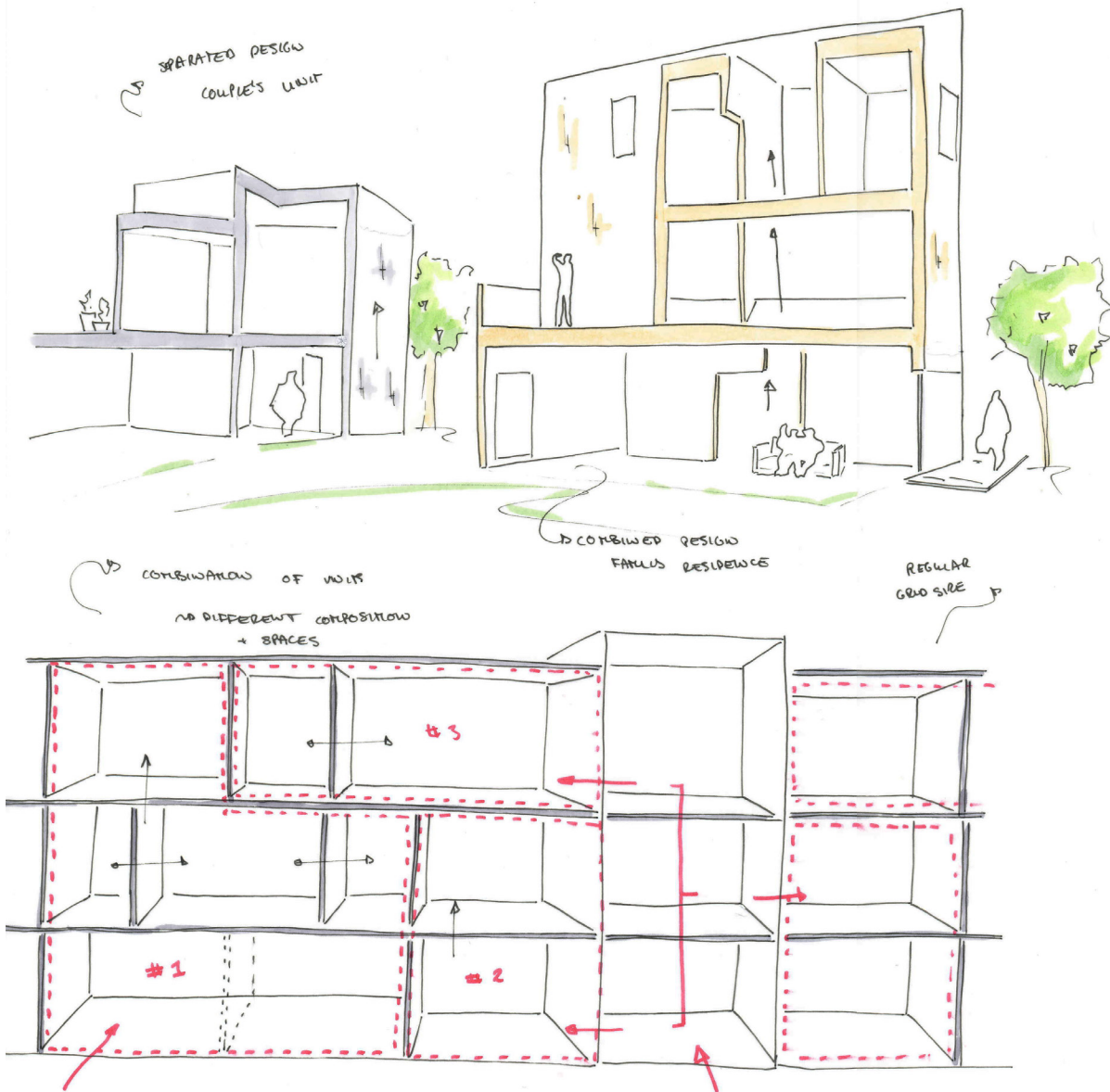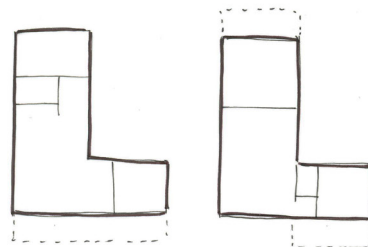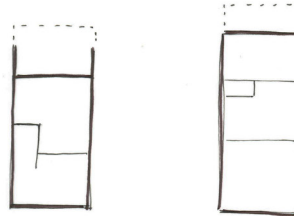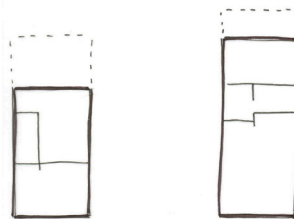
DESIGN CONCEPT
THE HOME

Figure 41: Sketches of the design concept behind Strategy #3: The Home.
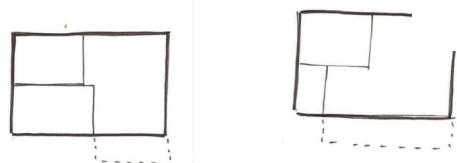
T = 1 - X → DESIGN + CONSTRUCTION LIVING UNIT

1 MODULE = NEUTRAL SPACE FOR 1 FUNCTION

2 MODULES MINIMUM : LIVING + SLEEPING

ADDITIONAL UTILITY UNIT : KITCHEN + BATH

MODULES ARE CONNECTABLE & REDIVISABLE

1: PHYSIOLOGICAL NEEDS

OWN PRIVATE HOME WITH ALL FUNCTIONS

2: SAFETY NEEDS

PRIVATE HOME WITHIN COMMUNITY & SOCIETY

3: BELONGING & LOVE NEEDS

ESTABLISH "IN-GROUP" TIES + LOOSE COMMUNITY

→ INTEGRATION & CONNECTION TO HOST-COUNTRY
→ OUT-GROUP TIES

4: ESTEEM NEEDS

CHOICE OF RE-EDUCATION

→ BOOSTED POSITION BECAUSE TO WORK FORCE

WORK (+ LEARNING) DURING THE PROGRAM

5: COGNITIVE NEEDS

INTENSIVE / PRACTICAL TRAINING + EDUCATION PROGRAM

DEVELOPMENT OF SKILLSET AS FUTURE JOB

6: AESTHETIC NEEDS

DESIGN OF OWN HOME : INSIDE & OUTSIDE

LARGE RANGE OF OPTIONS & PARTICIPATION

TOGETHER WITH "NEIGHBOURS" CHOICE OF

LIVING SITUATION + APPEARANCE OF COMPLEX

NEUTRAL SPACE MEASUREMENT
1 MODULE = 1 FUNCTION
FLEXIBLE AA ARRANGEMENT
PERSONALIZATION IN EMPHASIS

NEUTRAL SPACE MEASUR
1 MODULE = 1
FLEXIBLE AA ARRAN
PERSONALIZATION

FLEXIBLE MODULES AS BASIS FOR HOUSE DESIGN

SECOND SLEEPING MODULE ON TOP (CHILDREN/ELDERS)

"UTILITY CORE" WITH STAIRS + BATHROOM

BLINDS CAN MOVE

"CUBE - LIKE"

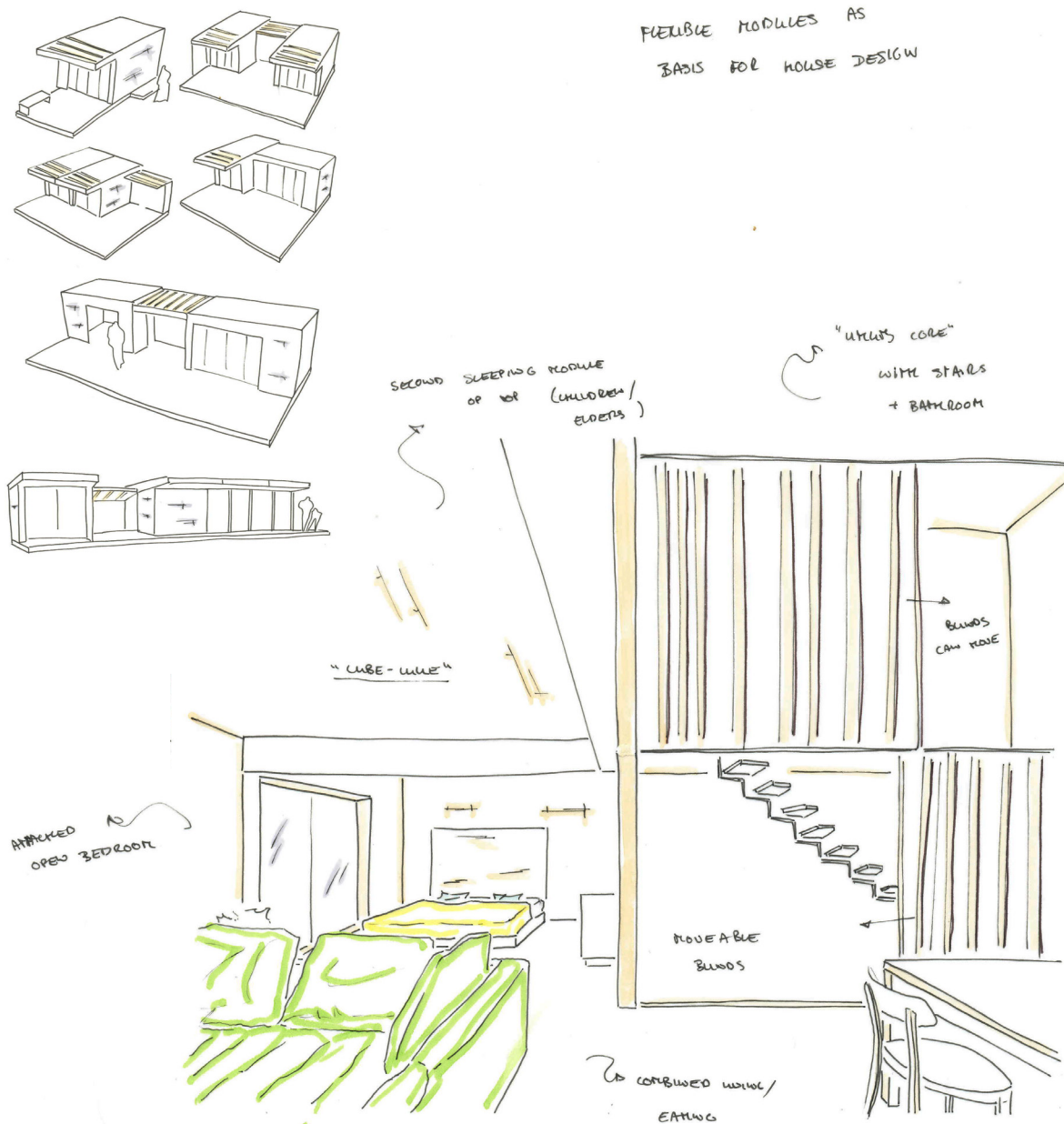ATTACHED OPEN BEDROOM

MOVEABLE BLINDS

COMBINED LIVING/EATING

Figure 42: Sketches of the design concept behind Strategy #3: The Home.

BUILDING & INFRA

→ CONCRETE WORK

- DRILLING
- REPAIRS
- STEEL - USE
- CARPENTRY

→ ROOF WORK

→ GROUND, WATER & ROADS

→ MACHINE DRIVERS

→ FACADE & WALL

- BRICKWORK
- TILING
- NATURAL STONE
- CARPENTRY

→ SCAFFOLDING

→ WORK PREPARATION/
  EXECUTION

→ ADDITIONAL NON-BUILDING TRACKS:

- CLEANING
- SERVICING
- MANAGEMENT
- LANDSCAPING

→ INCLUDED IN COLLECTIVE
  BUILDING COMPLEX (RESIDENTIAL)

FINISHING, WOOD & MAINTENANCE

→ ENVIRONMENT, MANAGEMENT & PUBLIC SPACE MAINTENANCE

→ FINISHING FLOORS

→ GLASS PLACEMENT

→ INTERIOR FINISHING & MAINTENANCE

→ MAINTENANCE & REFURBISHING

→ PAINTING

→ STUCCO

→ INTERIOR FABRICS

INSTALLATION & MAINTENANCE

→ METAL, ELECTRA, & INSTALLATION TECHNIQUE

→ INDUSTRIAL PRODUCT & SYSTEMS

→ INFRA TECHNIQUE

→ SERVICE MACHINES & MAINTENANCE

→ PLUMBING

→ LIGHTING

FREE CHOICE OF MODULE COMPOSITION + COMBINATION

ALLOWS PERSONALIZED SPACE RE-DIVISION

+ FLEXIBLE SEMI-OPEN
MODULE

OPEN CONNECTION
BOTTOM + TOP UNITS

TOP MODULES
FOR SLEEPING

MINIMAL KITCHEN
& BATHROOM MODULES

ADDED SPACE
FROM UNITS
MODULE

Figure 43: Sketches of the design concept behind Strategy #3: The Home.

VARIANT ARE DETERMINED BY
EXTEND OF COLLECTIVENESS

↳ COMMUNITY COMPOSITION
= SPATIAL COMPOSITION

VARIANT #1
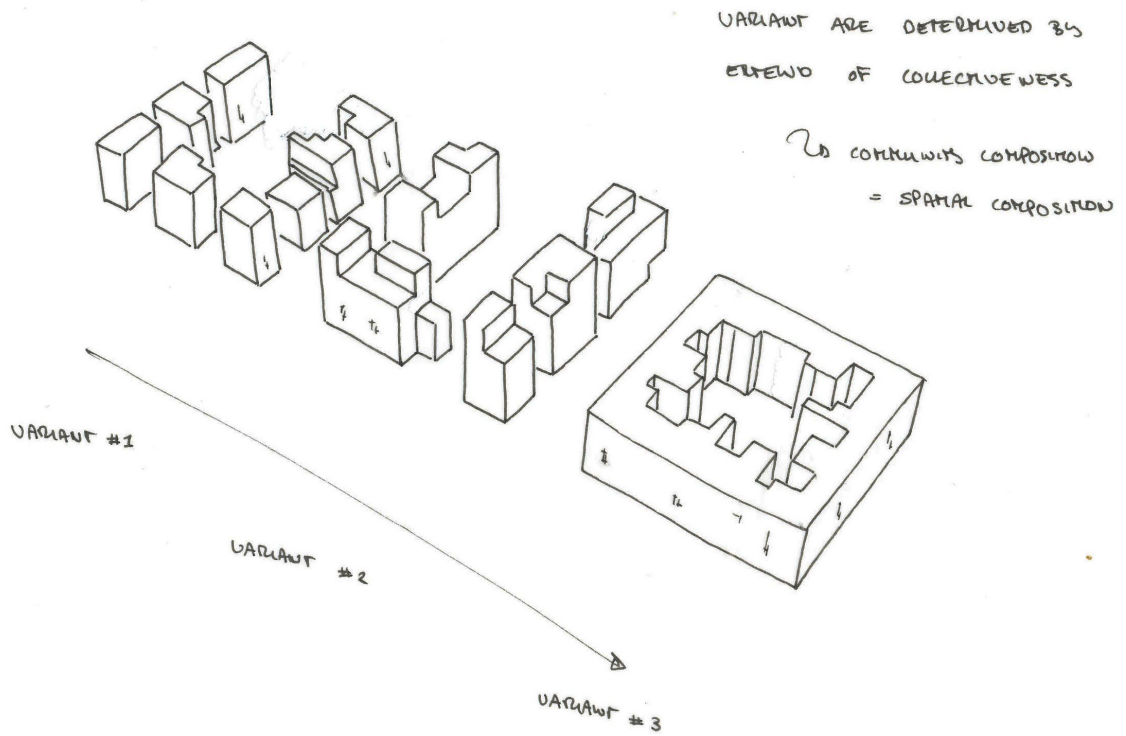
VARIANT #2

VARIANT #3
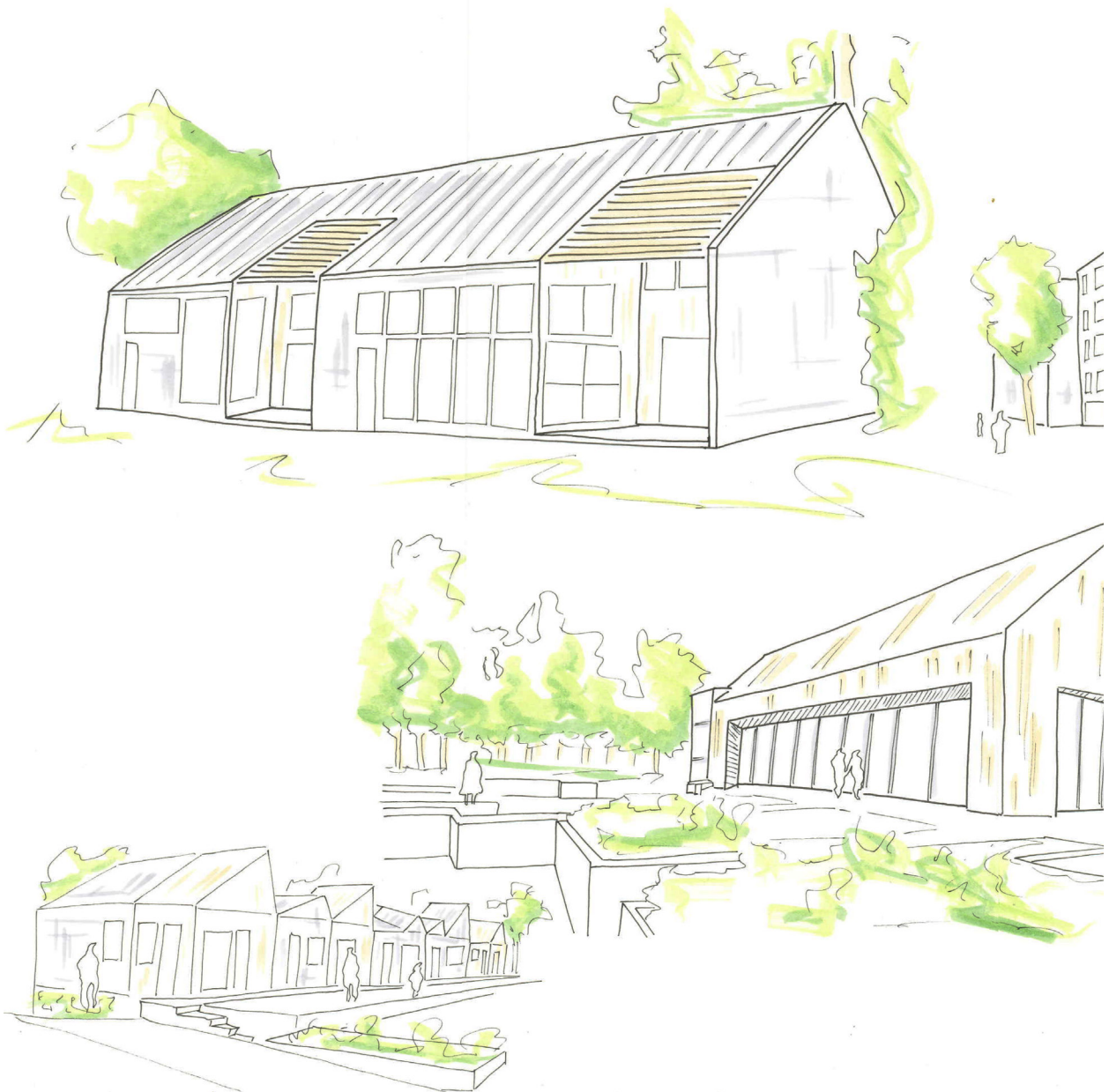
VARIANT #1
THE HOME

Figure 44: Sketches of the first variant for Strategy #3: The Home.

COLLECTIVE HOUSING SYSTEM

⟶ SHARED HOME WITH S...
⟶ UNIFORM ARCHITECTUR...
⟶ CUSTOMIZATION OF ...
        ⤷ POSS...
⤷ RESIDENCE
⤷ COMMUNITY SPACES
⤷ LANDSCAPING

⟶ EITHER NORMAL-STORS...
⟶ POSSIBILITY FOR RE-U...

VARIANT #1

COLLECTIVE LIVING IN "LARGE" COMBINED COMMUNITY

CAN ALSO BE
SEMI-STACKED:

COLLECTIVE
BALCONY

MORE LOOSE COMBINATION
OF UNITS

SHARED
ENTRANCE
WITH COMMUNAL
FUNCTIONS
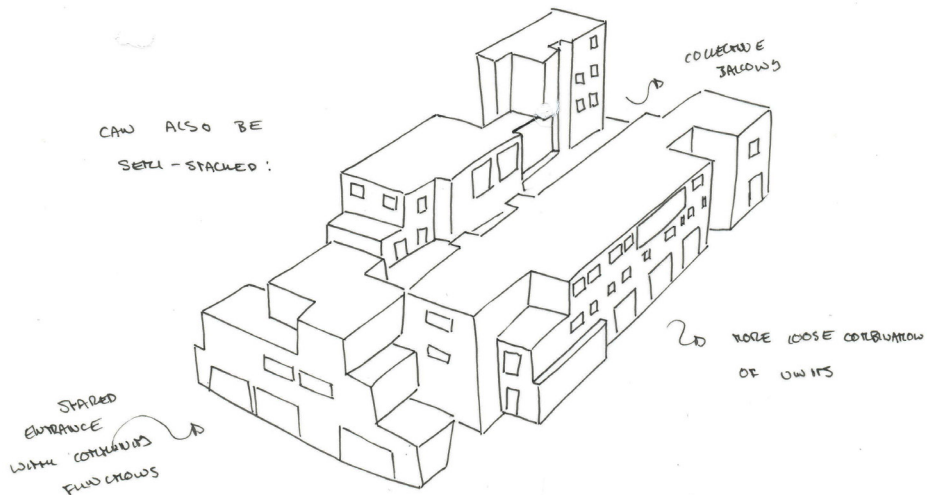
Figure 45: Sketches of the first variant for Strategy #3: The Home.

COLLECTIVE/COMMUNITY

LIVING

VARIANT #1

INDIVIDUAL
HOUSING

COMMUNI
GARDEN
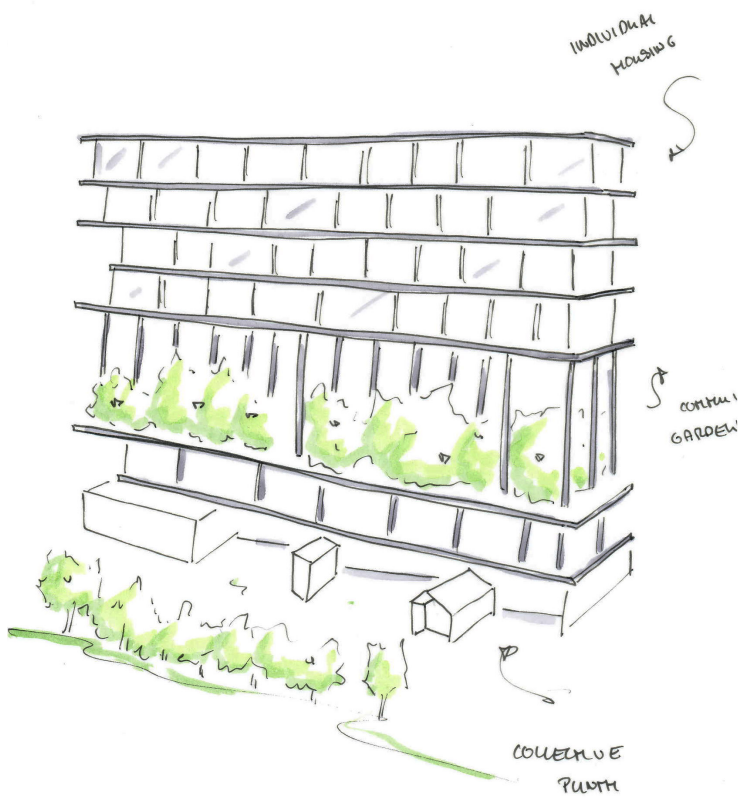
COLLECTIVE
PLINTH
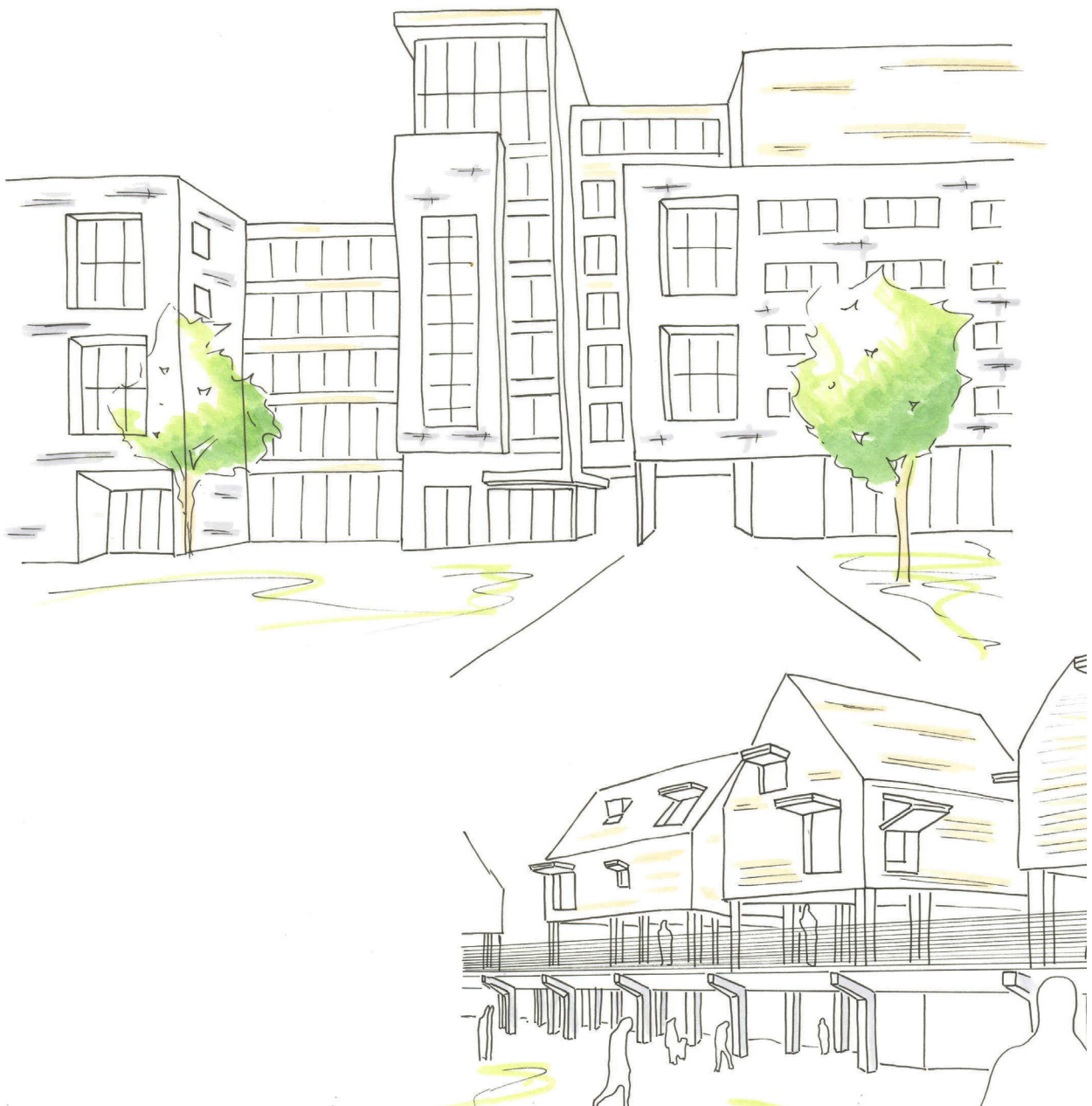
VARIANT #2
THE HOME

Figure 46: Sketches of the second variant for Strategy #3: The Home.

2. COLLECTION OF INDIVIDUAL RESIDENCES

PRIVATES HOMES IN COLLECTIVE COMPOSITION

LESS COMMUNITY FUNCTIONS & PLACES

AS VARIANT #1

LITTLE MORE FREEDOM IN EACH INDIVIDUAL'S

DESIGN CHOICE: STILL SIMILARITIES.

Figure 47: Sketches of the second variant for Strategy #3: The Home.

POSSIBILITY TO
ADD SOME
COMMUNITY FUNCTIONS

THE HOME

APPEARANCE VARIANT #3
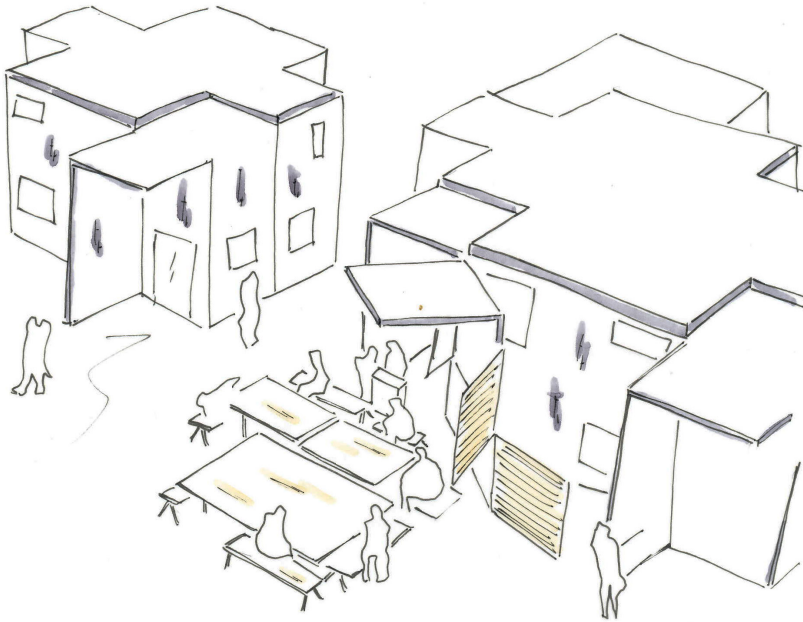
Figure 48: Sketches of the third variant for Strategy #3: The Home.
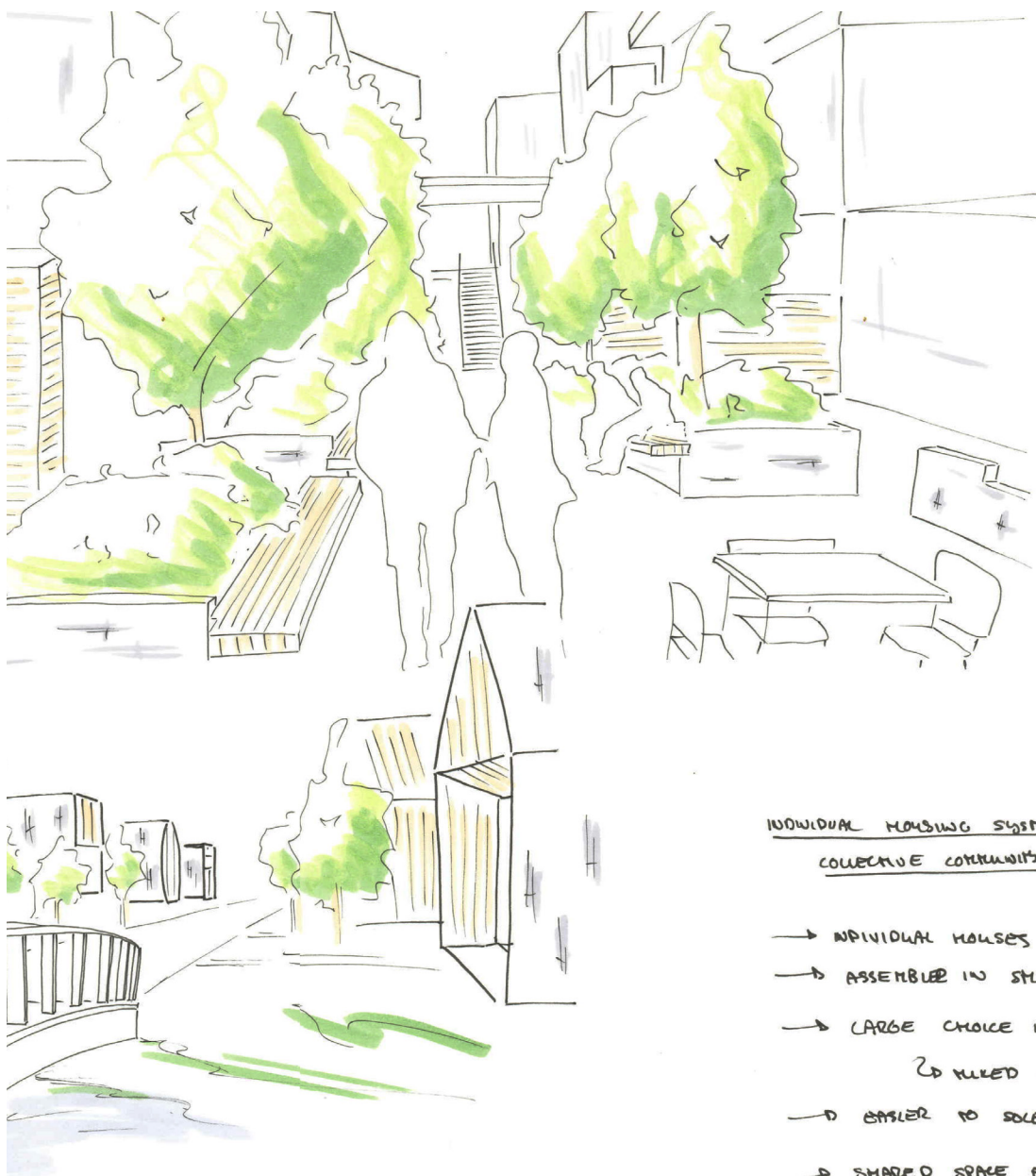
INDIVIDUAL HOUSING SYSTEM
COLLECTIVE COMMUNITY

→ INDIVIDUAL HOUSES

→ ASSEMBLED IN SMALL COMMUNITIE

→ LARGE CHOICE IN STYLE OF
    ↳ MIXED OR UNIFORM

→ EASIER TO SOLE US BUILD O

→ SHARED SPACE AS COMMUNITY

→ PRIVATE, SEMI-PRIVATE OR
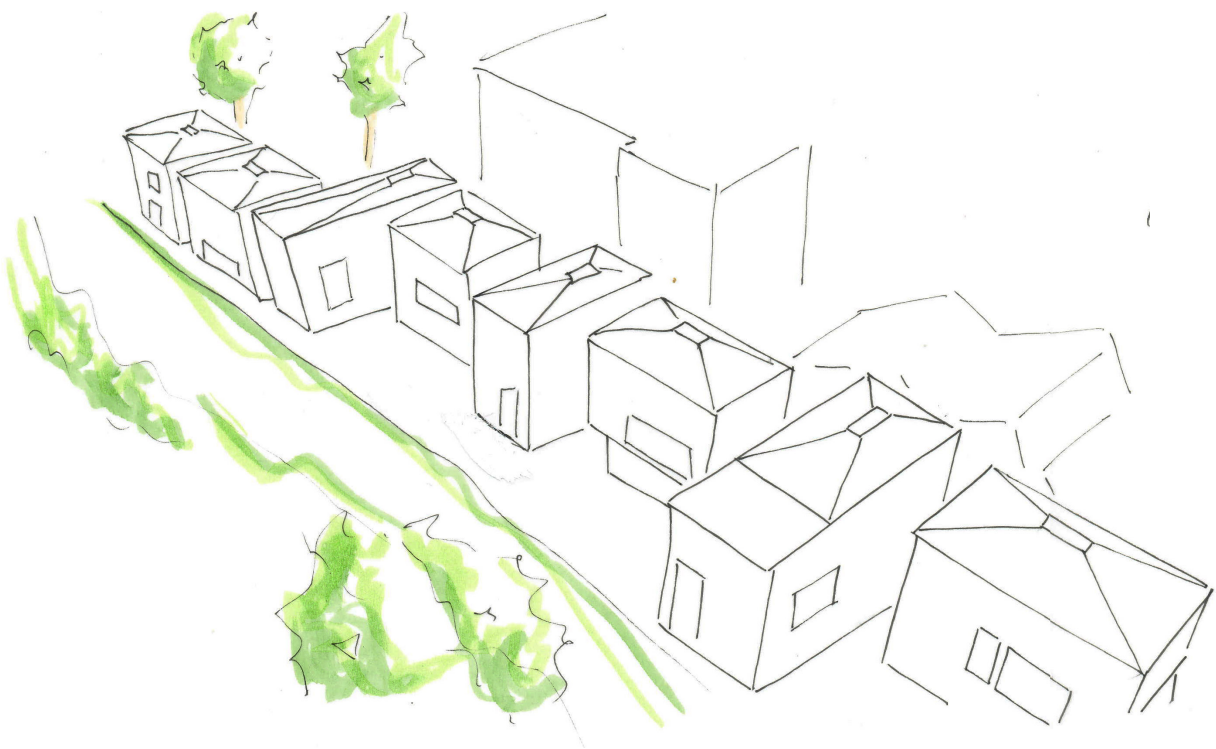
Figure 49: Sketches of the third variant for Strategy #3: The Home.

VARIANT #3

COMMUNITY IN PROXIMITY INDIVIDUAL VIEWING UNITS
INDIVIDUAL HOMES : SHARED DESIGN APPROACH

→ EDUCATION PROGRAM REQUIRES
REPEATABILITY IN DESIGN.

INDIVIDUAL HOUSES IN SMALL COMMUNITY
BUT: NECESSARY TO MAINTAIN SIMILAR (ISH) DESIGN
FOR CONSTRUCTION

REPEATABLE
DETAILING

CONCLUSION

The current project addressed the ongoing refugee crisis Europe faces in the second decade of this millennium from an architectural point of view. The immense scope of the current refugee crisis is taxing every country's systems to its breaking points and new, innovative, solutions are sorely needed. By utilizing the qualities of architects as out-of-the-box, generative, thinkers, this project envisioned three different strategies (the Tent, the Home and the Backpack), grounded in existing knowledge and scientific research, that can promote and facilitate the social and functional integration of refugees through an open and participative, assisted self-help (re)settlement process. While each strategy has its pros and cons, the real value lies in the combination of these strategies as a diverse and flexible approach to refugee integration and settlement that can suit different refuges with different needs, goals and demands at different times in their asylum process through its fluid process.

International policies and established asylum procedures and legislation still dominate refugee integration and settlement, in spite of the fact that research shows these to be lacking and in need of reformations (Lavanex, 2001). Current procedures not only fail to provide adequate living conditions, but also fail to facilitate integration (Korac, 2003). Refugees often end up in positions of exclusion in the host society (Zetter and Pearl, 2000), and the resulting negative effects do nothing to temper the hostility towards humanitarian aid that is rising among the general public. Because refugee integration begins with their settlement (Glover et. al., 2001; Phillimore and Goodson, 2008), the aim of the current study was to examine how architecture can play a bigger role in addressing the current issues of refugee settlement and integration. This is of particular importance to the ongoing debate because architects, as out-of-the box and creative thinkers, are able to look at the aforementioned issues from an entirely new perspective and envision a variety of innovative ideas and solutions that the more traditional, political and legislative, perspectives can not conceive of.

The current project aimed to look at both the functional and social qualities of architecture by looking beyond the physical elements and spaces that create an aesthetic structure, to see its underlying architectural process from inception, to design, to execution, and only then to manifestation. This multi-dimensional approach was given shape by looking at self-help housing; a type of architecture that not only recognizes the merits of the architectural process but has also been shown to offer a variety of social benefits through its participative approach. These benefits

would greatly enhance refugee settlement and include a higher satisfaction with living conditions and neighbours, a higher satisfaction with – and a higher quality of – life, a loss of powerlessness and a gain of personal identity (Burns, 1983; Carmon and Favrieli, 1987). Moreover, a participatory approach also offers more opportunities and possibilities to interact with refugees and transform a "simple" building process to a "complex" integration process. The main research question this project aimed to answer was: "How can assisted self-help housing for refugees aimed at their active participation facilitate functional and social integration?". This was done through a combination of top-down and bottom-up methods that, together, created a methodology that was able to relate to existing knowledge and scientific research on the subject of refugee integration and participation through literature studies, as well as harness the architect's qualities of out-of-the box, generative, thinking through a research-by-design study.

In order to answer the main research question, it is necessary to first review the three sub-questions it consists of. The first sub-question, aimed at outlining a part of the project's conceptual framework, was: "How can active participation of refugees during the building process promote integration?". Through a literature study, the first step towards answering this sub-question was made by outlining a comprehensive understanding of what integration entails. While it quickly became apparent that integration is a highly differentiated, debated, and contextual concept (Robinson, 1998), an understanding of its meaning was provided through a study that explored the shared perceptions of what is regarded as successful

integration (Ager and Strang, 2008). This study culminated in a framework of integration that describes ten core domains, divided in four categories, that are associated with successful integration (see Figure 3, p. 27). While research looking at how integration in these domains occurs is still underway, a first suggestion is given by the author of the framework that spirals of resource (re)acquisition for refugees (post-migration) have the potential to do this (Ager, 2010). Resource acquisition is a concept derived from a resource-based model of refugee adaptation describing that refugees have four types of resources: personal, material, social and cultural (Ryan, Dooley and Benson, 2008). Refugees lose a lot of these resources during their migration and the adaptation to their new environment is guided by reacquiring these resources, based on each refugees' personal needs, goals and demands. For refugees, integration can thus be promoted by facilitating the reacquisition of resources in the different domains of integration.

Architecture – in the framework described as housing – is only one of these ten domains. In order for the building process (with architecture as its end result) to promote integration, it thus needs to facilitate the reacquisition of resources in the other domains of integration as well. This can be done in two ways; through its significance as a person's place of residence and the process by which it is achieved. The first way in which architecture can contribute to integration in other domains is derived from its pivotal role in a person's place identity (Proshansky, 1978). This place identity describes the identity of a person in relation to the physical environment – and its social structure – in which that person lives. By

facilitating the creation of a new place-identity for refugees, it has the potential to cultivate their self-esteem, self-worth and self-pride (Altman and Low, 1992), stimulate their social capital (Flora and Flora, 1996), and enhance psychological needs satisfaction (Scannell and Gifford, 2016). This, in turn, also stimulates a sense of community and increases community participation (Perkins and Long, 2002). The second way in which architecture can contribute to integration in other domains is derived from the process by which it is derived, particularly when participation in this process occurs through an assisted self-help approach. Research shows that assisted self-help housing leads to benefits in five different categories, namely, an increase in social capital, the compatibility with individual choice, economic considerations, contributions to cultural and aesthetic values and the prevention of neighbourhood deterioration (Carmon, 2002). The answer to the first sub-question: "How can active participation of refugees during the building process promote integration?" is thus that the open and participative nature of assisted self-help housing allows refugees to reacquire resources throughout multiple different domains of integration (and not just architecture). The facilitation of resource acquisition in these domains can be achieved by utilizing the positive benefits of the self-help process, as well as the benefits of architecture as anchor in refugees' local environment and its pivotal role in establishing a place-identity (see Figure 6, p. 35).

The second sub-question, also aimed at outlining a part of the project's conceptual framework, was: "How can the active participation of different cultural groups be facilitated?". Through another literature study, the concept of participation was

first introduced in its initial incarnation as a tool to increase direct citizen involvement in public policy (Roberts, 2004). Over time, participation gained more support due to the decentralization of societies under its democratic values. The key concept of participation is best described as a redistribution of power, where participation becomes synonymous to power itself (Arnstein, 1969). However, this is only true in the case of real power and not when it is simply an empty ritual. Arnstein (1969) created a canonical Ladder of Citizen Participation that has shaped the discourse about participation and participatory processes since its inception. In this ladder, visible are the different rungs on which participation can occur, ranging from non-participation to degrees of tokenism and, finally, to degrees of power (see Figure 7, p. 38). In recent years, however, criticism has been voiced on Arnstein's model, as well as on all the other ladder models that shape the dialogue about participation and participatory processes. The most prominent critique argues that Arnstein's measurement of participation as the power to make decisions, and the definition of real participation as the seizing of this power, is one-dimensional (Tritter and McCallum, 2005). It actively undermines the dormant potential within participatory processes by focusing so heavily on the acquisition of power.

Tritter and McCallum (2005) divide the critique in three different categories; missing rungs, snakes and multiple ladders. The category of missing rungs describe that Arnstein's model ignores the relationship between the aim of a participatory process, the users that participate and the methods employed to involve them. In some participatory processes, for instance, users benefit more from

– and are involved to – facilitate empowerment through the gaining of confidences, skills and expertises (Kenneth, 2008). The category of snakes describes several dangers of Arnstein's model such as its focus on the outcome of participation, ignoring the depth of user involvement and the opportunity for people with different opinions or needs to participate (Quick and Feldman, 2011). It also fails to account for a workable model of how to stimulate participation, not least of all because it fails to account for the process of participation in which most of its opportunities for change can be found (Abelson et. al., 2003). The last category of multiple ladders describes that Arnstein's model assumes there is only one ladder of participation, while there are in fact as many ladders of participation as there are types of user involvement. Most of these are applicable simultaneously within a participatory process, as they often include multiple types of user involvement – e.g. a large organization vs. local residents, each of which participate for different reasons – e.g. obtaining public support vs. trying to influence decision-making. In order to "move beyond Arnstein", Tritter and McCallum (2005) propose the mosaic as a new analogy to help think about, and structure the conversation of, participatory processes. The problem with their analogy is that a mosaic, while accurate in its dynamic complexity, remains too abstract and too complex to do what it proposes.

In order to account for the dynamic and complex nature of participatory processes – which we can visualize as a mosaic – while maintain a "workable" quality, Cornwall (2008) proposes that we go back to the basics. She argues that the key to successful participation is clarity through specificity, in which definitions are given of the parties that participate,

the processes through which this participation occurs and the purposes of the participation. This approach is resonated in a study that aimed to test theoretical models of participation in practice. Results of this study showed that, surprisingly enough, participation itself is the ultimate gateway to participation (van der Velde et. al., 2009). Users' initial participation serves as a way for them to gather information about the process and its opportunities. If they like what they see and become involved, the benefits of the participatory process itself are enough to stimulate further participation (see Figure 9, p. 43). The same study also showed that, even within a single participatory process, users' motivations for participation widely vary based on their ethno-cultural background. This means that, in order to stimulate continued participation for a wide variety of users, it is important to create an open participatory process and listen to what each user has to say regardless of the definition of the process that was made in advance. The answer to the second sub-question: "How can the active participation of different cultural groups be facilitated?" is thus, quite simply put, that participation can be facilitated through the creation of an open dialogue between the different users of a participatory process. To that end, a simple "ABC" checklist is proposed that outlines the best way to facilitate participation is: to **A**rrange for a general definition of the participatory process, to **B**ring this and insight into the benefits of the process to the attention of the users, after which all that remains is for the initiator(s) of the process to **C**ommunicate with the users and be responsive to their needs, wishes, and motivations (see Figure 10, p. 45).

The third and last sub-question, aimed to support a research-by-design pilot study, was: "What are the potential scenarios and physical design solutions for assisted self-help housing for refugees?". To structure this research-by-design pilot, a scenario-thinking approach was adopted. Scenario-based thinking is an approach that has the capacity to facilitate creative emergence and maintain "open-endedness" within a design process while also providing it with a structured framework that identifies and explores opportunities for innovation (Sarpong and Maclean, 2011). These different scenarios were created by first choosing to either honour or ignore the boundary conditions that are imposed upon refugee integration and settlement. These boundary condition all fall within one of four categories; legislation (e.g. asylum procedures such as the inability to work before asylum is granted), spatial conditions (e.g. pre-assigned locations for refugee settlement), social situation (e.g. the incomplete composition of refugee families upon their arrival), and psychological well-being (e.g. physical and emotional trauma and exhaustion as a result of refugees' journey). Following a selection of boundary conditions, each scenario also choose to focus on specific needs, goals and demands refugees might have. This was done to promote the resource (re)acquisition spirals that facilitate integration as described earlier. In order to keep these needs, goals and demands applicable to all refugees, regardless of age, gender or ethnicity, Maslow's revised Hierarchy of Needs (1971) was chosen as a generalizable model of widely recognized human needs, goals and demands.

The answer to the second sub-question: "What are the potential scenarios and physical design

solutions for assisted self-help housing for refugees?", the current project created three distinct scenarios within the research-by-design pilot, each with several avriants. Each scenario is complemented with a strategy that describes the design concept envisioned within that scenario. This design concept includes both social, as well as architectural design solutions for assisted self-help housing for refugees. The first scenario can be describes as a first-aid scenario, in which it is assumed that refugee settlement should be able to provide immediate shelter and basic provisions. It aims to facilitate the acquisition of basic needs through a strategy named "the Tent", its concept designed to be set up upon refugees' first arrival on the location in the form of a private sleeping area with some storage space, while all other necessities remain collective. Supported through a social program that also reinforces language skills and interpersonal in- and out-group interactions alongside its skill trainings, refugees are able to expand their private sleeping area over time into a micro-home through the additions of flexible modules that include the four basics (bed, bath, bread and break). By adopting a flexible system, refugees can choose the priority they give to each of these four modules, as well as the space allocated to each. Furthermore, the basic design of these modules can widely expanded and varied upon, so that each (family of) refugee(s) can design their own micro-home. Documentation of the physical design solutions for this scenario, consisting of three variants, can be found in Figures 16 – 26, p. 54 – 79.

The second scenario can be described as a location a-specific scenario, in which it is assumed that refugees are not allowed to settle down in a

single location but, instead, continuously move around different locations. It aims to facilitate the acquisition of psychological needs through a strategy named "the Backpack", its concept designed to create a social and physical "home" that is tied to the refugees themselves instead of to a physical location, allowing it to be moved when refugees do. It is carried by its social program, which aims to cultivate refugees' psychosocial tools and language proficiency, empowering them to build, maintain, and participate in a non-localized community of refugees within the same program. This is furthermore supported by creative workshops and trainings that facilitate the creation of small pieces of furniture or furniture arrangements that can give their social home a physical appearance. Because these architectural elements are relatively small, allowing them to be transportable, there is a lot of creative freedom in its design, its construction methods and the materials used. Documentation of the physical design solutions for this scenario, consisting of three variants, can be found in Figures 29 – 38, p. 80 – 103.

The third and final scenario can be described as a long-term scenario, in which it is assumed that refugee settlement must provide a permanent place of residence, replacing the need for additional social housing. It aims to facilitate the acquisition of cognitive and aesthetic needs, as well as self-fulfillment needs, through a strategy named "the Home". Its concept is designed to offer refugees the opportunity to design and construct their own home, while simultaneously allowing for a re-education within professions associated with the building sector, as a means of improving their labour market position. Its

social program, consisting of language lessons, as well as theoretical and practical courses within their educational program, is the backbone of the concept. Alongside this social program, refugees are given the opportunity to design and construct their own home, as a mean of practicing their acquired skills and knowledge. These homes are designed in such a way that they allow for spatial ambivalence, flexibility and adaptability by adopting function neutral spaces and freely composeable volumes, offering as much freedom as possible for individual choices throughout the design process. Documentation of the physical design solutions for this scenario, consisting of three variants, can be found in Figures 41 – 49, p. 104 – 125.

After answering all three sub-question, we can now address and aim to answer the main research question: "How can assisted self-help housing for refugees aimed at their active participation facilitate functional and social integration?". As became apparent throughout the documentation of the three sub-questions derived from this main research question, assisted self-help housing for refugees can facilitate integration by utilizing both architecture's physical and social qualities. Integration can be facilitated by stimulating spirals (or chains) of resource (re)acquisition for refugees. In order for architecture to facilitate both functional and social integration, it should stimulate the (re)acquisition of resources throughout more domains of integration than just its own. This occurs when architecture transforms from merely a physical manifestation to a participatory design and building process. This is achieved by the assisted self-help process, in which refuges are active participations in the design and construction of their own housing arrangements. Through the

benefits of an assisted self-help housing process (as outlined in sub-question 1), participatory processes in general (as outlined in sub-question 2), and the place-identity the combination of such a participatory self-help process and the housing itself can provide (also outlined in sub-question 1), architecture is able to facilitate integration in almost all domains of integration. This includes functional integration such as housing, education and health, as well as social integration such as social links, language and cultural knowledge.

A visual answer to the main research question is provided by the research-by-design study (as outlined in sub-question 3), which gives tangible examples of how several design strategies of assisted self-help housing can facilitate functional and social integration. Interesting to note is that, after careful evaluation, it appears as though not all self-help housing strategies have the potential to contribute to every domain of architecture, nor do they contribute to overlapping domains to the same extent (see Figure 50). The Tent appears to be the most well-rounded strategy, facilitating integration in all social domains and all but one (employment) functional domains. Furthermore, it has an average contribution to almost all of these domains. This means that, while it is undoubtedly a useful strategy to facilitate functional and social integration, it is unable to realize its full potential in any of the domains. Similar to the Tent, the Backpack also facilitates integration in all social domains and all but one (employment) functional domains. However, there is a large difference in the extent to which it facilitates integration in these domains. Its main strength is its ability to facilitate social integration, realizing a large portion of its potential in almost all social domains. In contrast,

its facilitation of functional integration is much weaker and only realizes a small portion of its full potential. The opposite is true for the Home. While this strategy is the only one that facilitates integration in all social and functional domains of integration, it is much more efficient at facilitating the functional domains of integration than it is the social domains of integration.

Figure 50 gives a clear visual scheme of what becomes apparent when we consider the evaluation of each strategy's pros and cons (as outlined in sub-question 3). In this evaluation, many of the pros of one strategy were the cons of another, and vice versa. Similarly, Figure 50 shows that while each strategy fulfills its purpose of facilitating functional and social integration, each strategy has different strengths and weaknesses. It is thus impossible to conclude that any single strategy is better than another, but rather, the conclusion must be drawn that each strategy is simply different. This is certainly one of the surprising findings of this study, in which the initial aim was to find how assisted self-help housing could facilitate integration. The results now show that there are not only several distinct mechanisms through which integration can be facilitated (as outlined in sub-question 1 and 2), but that there are also several different ways in which these mechanism can be used within an assisted self-help process. Each of these have their own strengths and weaknesses, and each of these focuses on one, or multiple, different domains of integration. Against the expectations of the research, the results thus form one large library from which methods can be chosen that best suit the needs of a given refugee, or group of refugees.

FIRST-AID
THE TENT

LOCATION A-SPECIFIC
THE BACKPACK

LONG-TERM
THE HOME

Employment

Housing

Education

Health

Social Bonds

Social Bridges

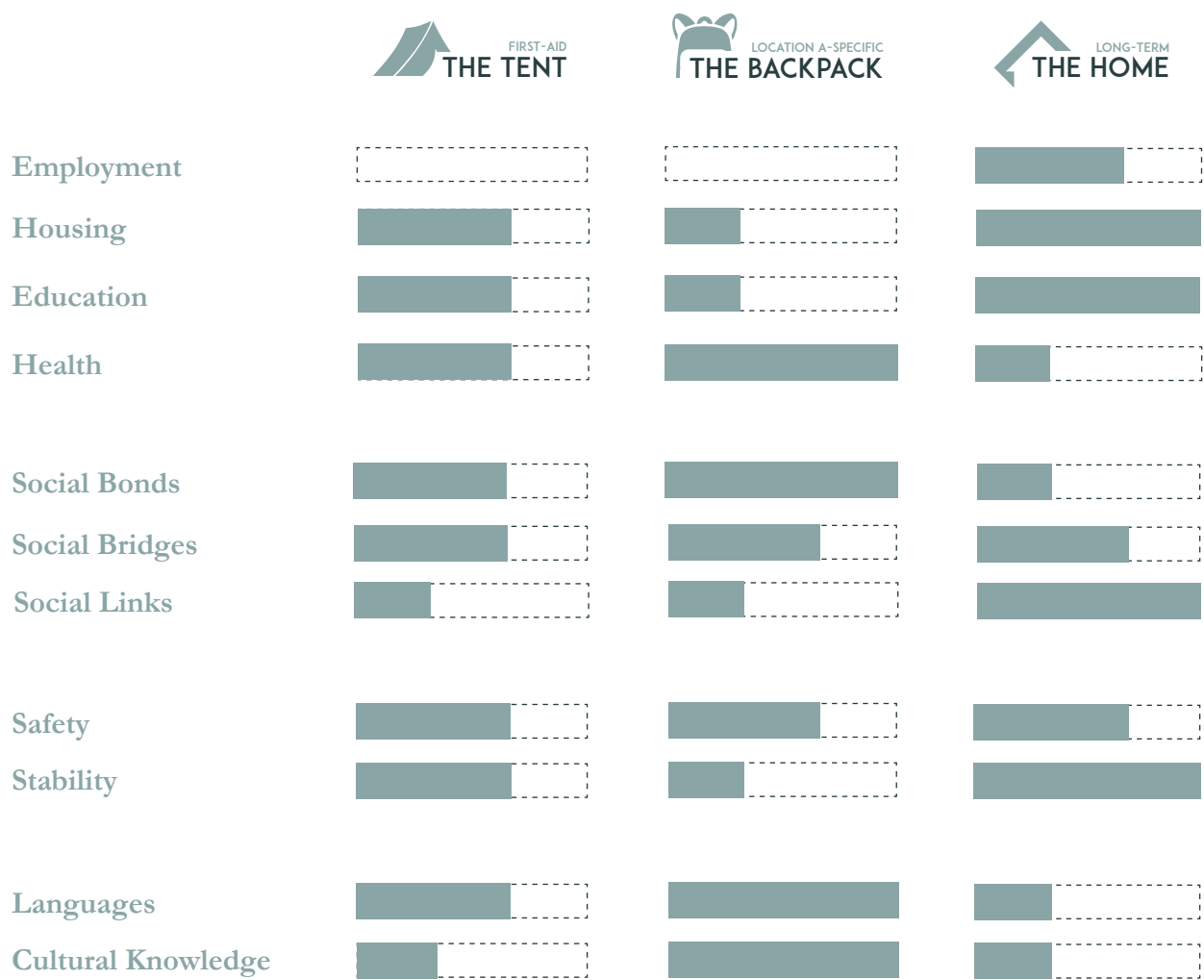Social Links

Safety

Stability

Languages

Cultural Knowledge

Figure 50: Evaluation of the three different strategies and the extent to which they
are able to facilitate integration in each of the domains of integration.

Additionally, when we look beyond the ability and extent to which each strategy facilitates integration, another striking feature becomes apparent. All three strategies can be organized on a timeline based on the extent and impact of their design solutions and their possible implementation in the asylum process (see Figure 51). The combination of this timeline and the aforementioned differences in the extent to which they facilitate integration in each domain of architecture results in what can be described as "fluid strategies". Rather than static and closed concepts, each strategy becomes a fluid and open concept that allows for the gradual transition from one strategy into another. The combination of all three strategies creates a "life-cycle" of refugee settlement and integration that has the potential to be one fluid process. Throughout this life cycle, each strategy puts emphases on different domains of integration and different types of architectural solutions that facilitate this integration, creating a single process of varied yet complementary strategies. The beauty of this single process, as shown in Figure 51, is that all the resources that have been (re)acquired within one strategy are transferable to the next. This is not only true for the personal, social and cultural resources that have been (re)acquired through facilitation of the social domains of integrations. It is also true for the personal and material resources that have been (re)acquired through facilitation of the functional domains of integrations. Pieces of furniture or furniture arrangements from the Backpack can be used to furnish or construct the micro-home conceptualized by the Tent, which in turn can provide the basic foundation for more expansion that, ultimately, culminate in the long-term residence of the Home. However, the transition of personal and material resources

from one strategy to the next is not a requirement. Because each strategy is fluent, but also a concept on its own, refugees do not have to participate in each strategy and transition from one to the next. In fact, it is preferable to allow for a flexible and responsive approach to participation in which refugees choose the strategy that best fits their current needs, goals, and demands. They might still find themselves changing their opinions and choices over time, as their needs, goals and demands change, but this is also something that can be mitigated with the concept of fluid strategies.
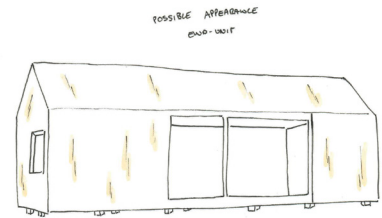
Derived from this responsive approach to refugees' needs, goals and demands, these fluid strategies also open up a myriad of solutions to problems that have been largely ignored within the scope of the current project. For instance, the entire project revolves around active refugee participation. However, as the research has shown, participation can not be forced and must be something refugees want to achieve, are capable of doing, and motivated to do. It is more than likely some refugees do not wish to design and construct their own home, may it be because they have two left hands, are physically or emotionally incapable of participating in such a program, or simply have no interest in it whatsoever. In that event, these fluid strategies can provide solutions in the form of "second-hand" architectural elements. As refugees progress through these strategies and integrate into the mainstream society, it is conceivable they leave behind or replace several or all of their earlier acquired material resources. These can range from pieces of furniture and furniture arrangement in the Backpack to partially or fully completed micro-homes in the Tent and completed long-term

residences in the Home. When refugees part with these material resources, they become available for people who can not, or do not want to, participate in the program. The opposite scenario can also occur, in which refugees are finding such enjoyment in the design and construction of these material resources (again across all different strategies), that they start making them for others after they have made them for themselves. Thereby, these three strategies and their fluid nature can facilitate social and functional integration through the active participation in a self-help housing process, but also offer housing to refugees that do not want to participate in this process, while still providing an environment that facilitates integration (albeit a little less).

T.

POSSIBLE APPEARANCE
END-UNIT
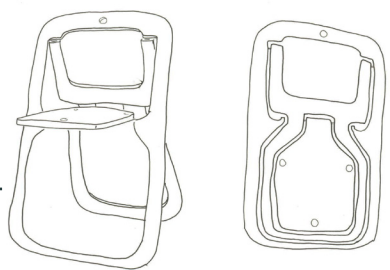
MOVEABLE TO LARGER STRUCTURE
CHOICE IN SPACE ALLOCATION PER
FUNCTION + TRANSPARENCY

OPEN / CLOSE
AND CONNECTIONS
COMBINED / SEPERATE

B.

T_0

B.

T.

POSSIBILITY FOR
ROLLING PANELS
TO DARKEN SPACE

PRELIMINARY ROOF
BEAMS TO SUPPORT ROOF

EVENTUAL OUTER WALL

+WINDOW

TEMPORARY
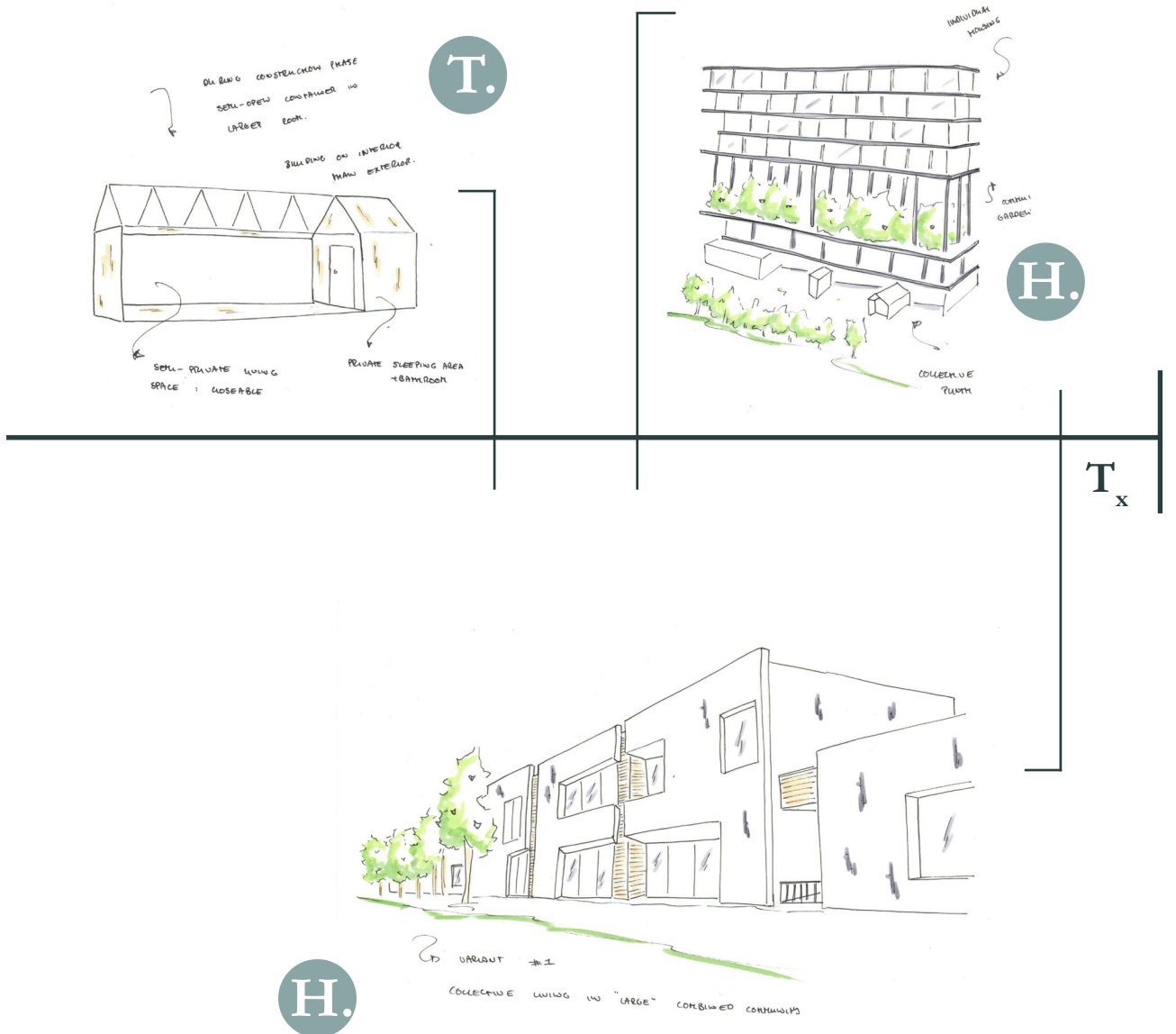WALL

ARCHWAY FOR
DOOR.

OLDER PIECES
CAN BE REUSED
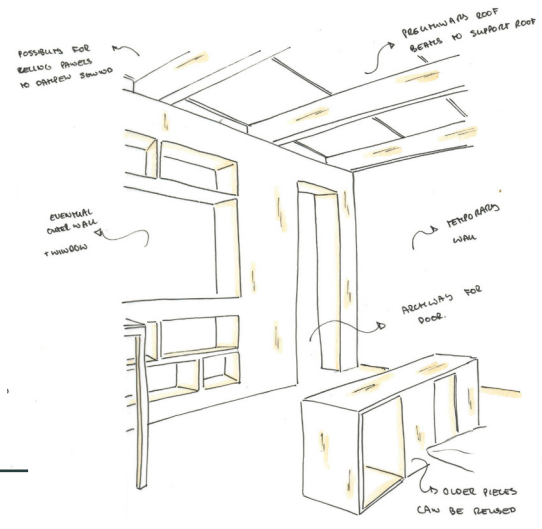
Figure 51: Visual repesentation of the three different strategies as a single fluid process over time.

REFLECTION
DISCUSSION

The biggest shortcoming of the research conducted in the current project is that its design concepts and proposals are not based on scientific evidence. While the conceptual framework – developed through literature studies – in the first part of the research provides a solid foundation for the following research-by-design pilot study, it is not evidence-based design. Evidence-based design is characterized by designs that are informed by scientific data gathered from existing and already realized design projects. This in contrast to the current project, where only theoretical research informed the design and not data gathered from existing, realized design projects. While, within the current project, all precautions have been taken to ensure that the pilot study is based in evidences and theories and supported through scientific research, thereby creating the "likelihood" that the assumptions and hypotheses made within the pilot study are feasible. However, this "likelihood" or "feasibility" can not be guaranteed until the current pilot study is transformed into a real, executable and enforceable, research study that aims to validate its assumptions with scientific data. This, however, falls outside the scope of the current research and remains a recommendation for future study.

Because of the novelty of the current project, such an evidence-based design approach proved impossible. The only research from which some transferable conclusions can be drawn is that of health architecture. In recent years, health architecture has seen a large impulse to its evidence-based designs. In a comprehensive overview of existing research data, Ulrich (2001) outlines several design guidelines that have been proven to result in reduced stress and anxiety for patients within healthcare environments, as well as reduced pain and improved sleep quality and patient satisfaction. Furthermore, these design guidelines have also been proven to include several other benefits for employees working in these healthcare environments, such as reduced stress, improved satisfaction, reduced turnover rates, improved capabilities of workplace attractiveness and quality employee retention (Ulrich, 2001). While these research findings are in no way directly transferable to assisted self-help housing for refugees, it is interesting to note that the design guidelines Ulrich (2001) describes are all qualities of a personalized, quality, home environment, such as establishing control and privacy, cultivating social support, providing access to nature and several other positive distractions. While not transferable to the current research, these research findings do lend additional support for the assumptions and hypotheses made within this project about the positive psycho-social effects of facilitating the (re) building of a new home environment for refugees.

A second shortcoming of the research conducted within the current project as its continuous assumptions of refugees' needs, demands and goals. While Maslow's (1971) revised Hierarchy of Needs serves as a basis for a generalizable model of needs, demands, and goals, it remains a theoretical construct. In order to ensure that the scenarios and strategies developed within this project suits refugees' needs, demands and goals in reality, they would have to be engaged in the further development (or revision of) these scenarios and strategies. As described more than

once throughout this project, a "true" participatory process revolves around communication and responsiveness. The design of a participative self-help housing process for refugees should therefore include this participation. The same is true for participation with refugee organizations and political bodies that may be crucial towards realizing a project like the one outlined in this research. While this was not possible within the scope of the current project, it remains a major shortcoming that, in future studies or revisions of this research, should be taken into account and improved upon.

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