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Student Housing – Student Homes?

Aspects of Student Housing Satisfaction

Thesis for the degree philosophiae doctor

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Table of contents

Abstract 7

Part I

1 Introduction 8

Research field 9
Objective of the study 10
Research questions 11
Outline of the thesis 12

2 Theoretical background 13

Housing pathways of young people 13
Housing preference and satisfaction 16
Home 18
Identity and home 20
Home and institution 21
Architectural aspects 23

3 Case study methodology 29

How to select a case? 30
Interviews 31
Survey 32
What has been done? 32

4 Student housing 35

Brief historic overview 35
Student housing in Norway 40

5 The case studies 44

Description of the case-study buildings 44
Conducting interviews 49
Analysis of the interviews 51
Reflections on methodology 52

6 Summary of the articles 53

7 Findings 55

8 Conclusions and reflections 71

Implications for further research 75

References 76

Appendix 83

Interview guide 83
Questionnaire 86

Acknowledgments 95

Part II
Appended articles

Abstract

The main objective of this thesis has been to examine socio-cultural and architectural aspects that influence student housing satisfaction.

The study applies case study methodology with focus on three selected student housing projects in Norway and a survey conducted among the student population in Trondheim. Students in the three case-study buildings were interviewed on how they perceive their specific housing situation. The survey reviewed housing preference and satisfaction on a general level, and tested also differences in satisfaction between institutionally provided accommodation and other types of student housing.

Three articles (Part II) constitute the empirical section of the thesis, while part I presents the theoretical background and describes the methodology applied. Moreover, findings from all three articles are summarised, discussed and compared here. From these findings, conclusions and implications for future research are drawn.

The findings show that important general indicators for student housing satisfaction were the location and the type of tenancy. Further that the possibility for identity building through personalisation and sufficient privacy and social life also played a vital role together with the perceived degree of an institutional character.

Architectural aspects that the students found important for housing satisfaction and for a home experience were the buildings exterior and the use of materials and colours, in addition to the spatial organisation of circulation areas and entrances. The usability of common facilities and private rooms, and their interconnection were also regarded as important in this context.

Part I

1 Introduction

“Students desperately hunting for housing” (Adresseavisen, 07 Aug. 2003).

In recent decades student numbers have risen steadily in Norway, and also in other Western countries. This situation increases the demand for student accommodation, and newspaper headlines such as the one above usually herald in the new autumn semester. The institutionally provided accommodation facilities in Norway generally have few vacancies, and each year the number of applicants exceeds the available accommodation. The majority of the student population rents accommodation on the private housing market. A report from 2004 by Brattbak & Medby analysed the current situation in Norway, and found that there is a distinct need for new student housing today and in the years to come. Bearing this situation in mind, questions related to the housing situation of students have become an issue in both public and professional debates.

The topic of student housing has been addressed from a number of perspectives: Fields such as urban development and planning, geography and housing policies are concerned with issues related to student settlement, as it has been observed that a high concentration of student residents in specific areas has consequences for these urban neighbourhoods, as for instance on the social structure. Other concerns are related to questions on how to accommodate students and what is suitable housing for these temporary residents. The type of housing, the standard and the architectural design are important issues in this context. To understand what students consider to be suitable and satisfactory housing, we have to investigate their points of view.

The focus of this thesis is on the latter perspective, and the main objective is to contribute to knowledge on different aspects that influence student housing satisfaction. Information on housing satisfaction is important for reflection on existing buildings and as a basis for future planning processes. How architectural design, among other aspects, influences housing satisfaction is of special interest.

According to the Student Welfare Organisation in Oslo (SiO), the demand for expensive and high-standard accommodation has risen, while cheaper and non-rehabilitated accommodation is no longer preferred (*Adresseavisen* 17 Jan. 2007). The same article is even entitled *“Students want luxury”*, thus strengthening the impression that students have become very selective when it comes to housing quality. Though this article indicates that the demand has risen, other sources document that, in general, students live in lower standard housing than the rest of the Norwegian population (Statistics Norway 2006a). It is therefore uncertain whether there is a common trend where students prefer high-standard housing or if they only wish to improve on an unsatisfactory housing situation.

One important characteristic of student housing is its temporary nature. Due to the transient situation of students, housing quality might not have the same degree of importance for them as for others. Nonetheless, an article in the Norwegian newspaper *Dagbladet* on new student housing design in Stavanger states that block housing with tiny rooms for students is no longer regarded as good enough, suggesting that the quality of student housing is actually an important issue – despite its temporariness. Commenting on this, one architect said that today it is important to design housing for students where these temporary inhabitants can develop a feeling of belonging, which is also the most difficult task (*Dagbladet* 05 Oct. 2003).¹

A feeling of belonging can be understood as part of a home experience. A home experience goes beyond the practical aspects fulfilled by the physical form; it is a place that the inhabitants attach meaning to and identify with. Efforts and wishes to personalise and express personal identity have been acknowledged as important processes of making a house into a home. One may ask, however, if students in a temporary housing situation also expect their accommodation to feel like home, and, moreover, how aspects such as personalisation and the design of the accommodation influence their experience of housing.

This study will address and elaborate on these topics.

Research field

This thesis is situated within the field of housing research. Housing can be examined from various perspectives, such as an architectural, economic, social and cultural viewpoint. In recent decades the interest in research on housing has risen and various methodologies, theories and perspectives have been applied by housing researchers from a wide range of disciplines (Lawrence 2005). Lawrence (2005) divides existing housing research into two classes: Urban and housing politics and sociology, and studies of people and their surroundings. Urban and housing politics and sociology has in general contributed to understanding the market mechanisms of housing supply and demand, and the living conditions of different social groups. The second category, studies of people and their surroundings, has commonly focused on the viewpoints of the individual on housing. As housing is a complex field that comprises many disciplines, Lawrence calls for an interdisciplinary research approach that applies the knowledge from various disciplines and thus enables us to simultaneously address interdependent factors (Lawrence 2005).

Clapham (2005) argues with reference to King (1996) that the meaning of housing in contemporary society has changed, as it has become a means of personal fulfilment: “*What is sufficient in terms of the quality and quantity of a dwelling is for the individual household to decide*” (King 1996, in Clapham 2005). This quotation emphasises the

¹ Original quotation in Norwegian: “Det er viktig å finne løsninger som en flyktig beboermasse føler eierskap til, og som knytter dem til lokalmiljøet. Det er også det vanskelige, mener arkitekten” (*Dagbladet* 05 Oct. 2003).

need to take the subjective perspectives of the residents into consideration, as these are key elements for understanding differences in housing satisfaction. Clapham (2005) emphasises the need for housing research to focus on the subjective attitudes of the residents, on the one hand, and on the structural factors influencing opportunities and constraints, on the other hand.

The housing situation of young people and students has been a subject of interest in research by Rugg *et al.* (2000), Smith (2005), Kenyon (1997) and Macintyre (2003). These projects focus on the influence of student demand on local housing markets and the consequences the rising student numbers have on popular areas in university cities. Other research focuses more specifically on the physical aspects of student residences; aspects that Clapham (2005) calls *objective* or measurable physical attributes of housing, as for instance the size of rooms and number of people sharing facilities as studied by Oppewal *et al.* (2005). Little could be found on students' *subjective* views on student housing and their satisfaction with different housing arrangement. Mayer (2002), working with housing preferences of young people in Vienna, states that only a few research projects have been pursued on housing satisfaction and preferences of young people. This may be due to the low economic status of this group (Mayer 2002), or another reason may be that housing for young people is often of a temporary nature where the quality is not regarded as important as in a permanent dwelling.

Van der Ryn & Silverstein (1967) studied students' perceptions of their residences at Berkeley from a behavioural perspective, and Baum & Valins (1977) compared the influence of the floor plan layout of different residences on social interaction. Bearing in mind the year of publication of these two studies, it must be concluded that another study within this field is long overdue.

The present work is an example of interdisciplinary research which involved researchers from the fields of sociology and architecture, which is my own background. The focus is on the perspectives of the individual student residents, contributing to studies of people and their surroundings.

Objective of the study

This research focuses on socio-cultural and architectural aspects of student housing satisfaction and the main objective of this study is to investigate:

1. The meaning of housing satisfaction for students
2. The aspects that influence their housing satisfaction and preference
3. The architectural aspects that students regard as important for housing satisfaction

I interviewed students in three case-study buildings about how they perceived their specific housing situation. On a more general level, I also conducted a survey on

housing preference and satisfaction that also tested differences in satisfaction between institutionally provided accommodation and other types of student housing.

The three articles, each focusing on a different topic, constitute the empirical section of the thesis.

Research questions

Research questions are asked on two levels. A specific research question is posed for each article as the three articles explore different topics related to student housing satisfaction. The findings from the articles then form the basis for answering the main research questions in the section on findings.

The main research questions addressed in this work are:

- *What is important for student housing satisfaction?*
- *Which aspects influence student housing satisfaction?*
- *Which architectural aspects do the students regard as important for housing satisfaction?*

The research questions posed in the first two articles cover perspectives on housing satisfaction by taking the specific characteristics of the three case-study buildings into consideration. These articles are based on qualitative data from interviews.

Article 1:

- *How do the residents make a home in an experimental student house? How do they use the special possibilities of the case “TreStykker”²?*

Article 2:

- *Which attitudes do the students have about institutionally provided student housing? Do they link it to an institutional character, and if so, which architectural elements strengthen or counteract an institutional perception?*

Article 3 uses the quantitative survey data and asks more generally:

- *Which aspects are decisive for student housing satisfaction in Trondheim? Is there a difference in satisfaction between students renting from the Student Welfare Organisation in Trondheim (SiT) and others?*

² The cases are introduced in the section entitled “Description of the case-study buildings”.

Outline of the thesis

This thesis is article based. The articles are appended in *Part II* and can be read independently of *Part I*. Part I examines the theoretical background, describing the discussions that have been relevant as background knowledge for the articles and the analysis and interpretation of the empirical material. The theoretical background addresses a number of topics where a great amount of research has been conducted previously. Housing satisfaction is the most important aspect for the study, but also other topics as the meaning of home, identity and home, and perception of architectural aspects are necessary theory background. Each of these topics could have been the basis for a separate study and comprises many aspects that could not be followed up in the discussion, even if pointed out in the theoretical section.

The section on methodology outlines the research approach and discusses the applied methodologies. The next section, on student housing, provides a brief overview of the historic development of student housing, and of today's student housing situation in Norway. The findings section answers the main research questions by summarising and comparing common findings from all three articles. From these findings, conclusions and implications for future research are drawn. The appendix contains the interview guide and the survey questions.

One advantage with an article based thesis is that each article submitted to a scientific journal must undergo a peer-review process. A broader audience is reached by publishing articles in journals representing a number of scientific fields, supporting the interdisciplinary nature of the research project. Disadvantages are that the process of publishing articles is time-consuming due to the review process and the revision of the articles by the authors, and that the length of each article is limited to a given number of words or pages by the journals. This limited the possibility to discuss all relevant issues in detail. Some issues are therefore discussed more thoroughly in the section on theoretical background. However, each article must contain a section on theory and methodology to be able to stand on its own. Consequently, it was impossible to avoid the repetition of some issues.

2 Theoretical background

The theoretical background provides an overview of the topics that have been relevant for understanding the various issues that influence students' perception of their housing situation.

The chapter begins with a description of *housing pathways* as a framework for analysing the perceptions of the individual in a specific life phase. Previous research has conceptualised a *student pathway* as one housing pathway of young people. The next section defines *housing preference and satisfaction*. Then the meaning of *home* and *identity in homes* is examined, and what is of interest here is what this means for a temporary housing situation. The question of perception of an institutional character of student housing and its meaning for a home experience is focused on in the section on *institution and home*. The physical aspects of buildings communicate information about their purpose and use. When, for instance, a building is ascribed an institutional character, which architectural aspects are linked to this notion? The last chapter *architectural aspects*, introduces the influence of spatial and aesthetic aspects on the use and perception of housing.

Housing pathways of young people

The term housing pathways serves as a framework for housing-research analysis with a main focus on the perceptions and attitudes of the individual throughout the life course. Clapham (2005) defines housing pathways as, "*the social practices of a household relating to housing over time and space*" (Clapham 2005:34). He introduces housing pathways as a critical reflection of existing housing-research approaches, which are, according to him, undoubtedly useful but often tend to focus on housing from the limited perspective of a specific field, such as housing policy, studies of the housing market or geography. Briefly, the problem he describes is that these approaches assume a simple and universal distribution of attitudes among people as a basis for research analysis, not recognising the complexity and unpredictability of human behaviour. To capture the broadness of the attitudes and perceptions of the individual, Clapham (2005) emphasises the importance of an interdisciplinary approach within analysis of the housing field. A dynamic relation of the meaning of the physical structure and the socio-cultural and psychological dimensions of the home are important to bear in mind.

"The pathway approach is particularly appropriate in a postmodern society where housing is predominantly a means of personal fulfilment ..." (Clapham 2005:239). Moreover, "*traditional forms of positivist research in housing*" are, according to Clapham, "*ill-adapted to the context of postmodern society*" as they are not able to capture the dynamic relations of housing and the individually attached meanings of households (Clapham 2005:239). The pathway approach as framework for empirical research focuses on the individual meanings ascribed to it, but also on the structural factors that influence individual action, thus enabling research to gain a more holistic picture of the complex meanings of housing.

According to Clapham (2005) each person follows a unique pathway throughout the life course, which is influenced by social and cultural circumstances and by personal abilities and choices: “*The housing pathway is influenced by changes in household structure relating to marriage, the birth of children or divorce. Along the housing pathway individuals and households make choices among the opportunities open to them*” (Clapham 2005:2). Ideally, the focus of analysis is on the individual pathways, however, to enable wider discussions and analysis we need to try to identify common pathways or ideal pathways (Clapham 2005).

The term *housing career* has also been applied in a similar sense as housing pathways, describing the use of housing facilities according to life phase, financial situation, individual choice and strategies (Frønes 2003). However, the term housing pathway seems to be a better description than career as career implies the gradual improvement of one’s housing situation over time, which in reality is not a necessary outcome (Rugg, Ford & Burrows 2004; Clapham 2005).³

The time when one is a student is included in what Frønes & Brusdal (2000) describe as the *young-adult* phase, a phase that is characterised by the way young people live: without established families, and searching for ideals, friendship and new experiences. The young-adult phase has become a prolonged period in life and the field of Sociology of Youth defines it more according to living circumstances, interests and needs than according to age (Mayer 2002). Nowadays, the time spent on education and living alone is a period that stretches from leaving the parental home and up to the establishment of one’s own household. Becoming a student is the reason why many young people in Norway move to a new city and leave the parental home. This is a period where new definitions of social interaction and living conditions are required and own decisions have to be made. Finding *accommodation* is one important part of this process.

In relation to housing experiences, researchers within the field of youth studies have focused on the different *housing pathways* of young people in seeking independent housing, and on the role of housing for one’s personal development in an independent adult life (Rugg *et al.* 2004; Ford, Rugg & Burrows 2002; Jones 2002; Kenyon 1999). When young people take their first independent steps into the housing market, it is often argued that they potentially enter a “*youth housing market*” characterised by temporary and shared housing, and insecure conditions, which are different from the more stable “*adult market*” (Ford *et al.* 2002:2456). In this context, Ford *et al.* conceptualise five typical pathways for young people after entering the housing market: “*a chaotic pathway, an unplanned pathway, a constrained pathway, the planned (non-student) pathway, and a student pathway*” (Ford *et al.* 2002:2455). These pathways differ mostly in the degree of personal motivation and the abilities of the young people to live independently, the number and extent of constraints faced when entering the housing market and existing family support, both financial and in terms of planning an independent life.

³ It should be remarked that article 1 however, uses the term housing career but since housing pathways appeared to be a better description it was used in the following. This change is a result of the process and literature studies.

It is important to note that the *student pathway* is conceptualised as a one common pathway of young people after leaving the parental home. Moreover, it is described as a *privileged access* (Ford *et al.* 2002) to the housing market when compared to other young people's possibilities. This is in spite of statements that students face difficulties in the housing market, and often live in bad standard housing. However, when compared to other young people, students actually have privileges which are due to structural factors, such as supply of housing through higher education institutions, semi-public institutions and family support (Ford *et al.* 2002). Bearing this in mind, Ford *et al.* (2002) also state that despite the increasing emphasis on the role of personal choices in our society, they found that young people's housing pathways are still largely dominated by such structural factors as family, economic background and possibility of being admitted to higher education. They discuss their findings in relation to theories of reflexive modernity (Giddens 1991) that emphasise the reflexive relationship of socio-structural aspects of society and human agency. The increasing importance of personal choice on daily life activities and its meaning for the definition of identity are described by Giddens as follows: "*Each of us not only "has", but lives a biography reflexively organised in terms of flows of social and psychological information about possible ways of life. Modernity is a post-traditional order, in which the question, 'How shall I live?' has to be answered in day-to-day decisions about how to behave, what to wear and what to eat – and many other things – as well as interpreted within the temporal unfolding of self-identity*" (Giddens 1991:14).

The role of housing in this context is not explicitly mentioned in Giddens's (1991) quote but is presumably included under "*many other things*". Also referring to Giddens (1991), Clapham (2005) focuses more specifically on housing and points to the increasingly important role of personal choice of housing as an element of lifestyle choice, supporting identity expression and self-esteem. Both statements acknowledge the role that personal choice plays today, however, the degree to which people can choose is dependent on, and varies according to, various accompanying structural factors. In relation to young people it is interesting to see if the increasing emphasis on personal choice is reflected in housing preferences, even if, as Ford *et al.* (2002) claim, the socio-structural aspects are still as important as personal choice and have a major influence on the type of housing pathway they enter. As the students' housing pathway, according to Ford *et al.* (2002), is more influenced by structural aspects than other young people's housing pathways, the role of personal choice might be less relevant or less an option to them.

The different housing pathways that Ford *et al.* (2002) conceptualise just within the group of young people, point out the complex nature of the pathway approach. In this context, it should also be acknowledged that within each conceptualised housing pathway, the biographies of the people subsumed under one category differ widely. However, the pathway approach can identify general tendencies within a group, which is, for instance, necessary knowledge for planning suitable housing for different groups in society.

Housing preference and satisfaction

“If the difference between your preference and your choice is great, you may be unsatisfied with your residence ...” (Gifford 2002:241).

People’s housing preferences depend on such personal factors as different phases in life, social and cultural background, financial situation, expectations, and on the architectural characteristics of a building or a dwelling (Gifford 2002). Gifford (2002) defines housing satisfaction as the feeling resulting from the perception of a *positive balance between preference and choice* in relation to one’s dwelling. If housing preferences and actual housing situation (choice) differ greatly, people are likely to be dissatisfied with where they live (Gifford 2002; Richter 2004). In investigations, housing satisfaction is tested against a real housing situation, while housing preferences, on the other hand, can be defined more generally, without referring to a actual housing situation, as they depend much more on expectations and ideals (Gifford 2002; Mayer 2002).

When evaluating housing satisfaction, the time perspective – long term or temporary, or the purpose a dweller sees in a residence can have a crucial influence on satisfaction. The purpose people see in a residence can be based on the time they intend to spend in it, but also on the decision to invest money. It is likely that housing satisfaction differs between home owners and people who rent their accommodation (Gifford 2002). Mayer (2002) defines housing satisfaction as an important part of people’s quality of life (*“Lebensqualität”*). In German, she uses the term *“Wohnqualität”*, which translates into housing quality. In the context of her descriptions, the definition of her *Wohnqualität* is comparable to Gifford’s (2002) definition of housing satisfaction. She defines it as: *“The correspondence of an objectively good housing situation with the subjective perception and evaluation of this situation for individual satisfaction”* (Mayer 2002:31, my translation⁴). She defines the three aspects of housing situation, personal background and experiences, and subjective evaluation as mutually influencing housing preferences and satisfaction.

Mayer (2002) distinguishes between investigations of housing preference and housing satisfaction. She states that empirical investigations of housing preferences usually reveal a gap between preferences and actual housing situation, giving information on unfulfilled needs and wishes of the residents. On the other hand, investigations into housing satisfaction have a tendency to show that a majority of people are relatively satisfied with their housing situation (Mayer 2002; Häußermann & Siebel 2000). Häußermann & Siebel (2000) call this phenomenon *satisfactory paradox*. The satisfactory paradox indicates that social groups do not necessarily compare their own situation to the average standard in society, but refer to the standard of the group they belong to. People belonging to different social groups consequently show different levels of satisfaction with the same housing condition (Häußermann & Siebel 2000). People living in low(er) standard housing are often equally or even more satisfied with their housing situation than people living in high(er) standard housing, due to their

⁴ Original quote: *“(Die) Übereinstimmung objektiv guter Bedingungen in einer spezifischen Wohnsituation mit der subjektiven Einschätzung dieser Wohnbedingungen als individuelles Wohlbefinden”* (Mayer 2002:31).

respective expectations and preferences. Housing satisfaction also increases over time of residence even without changes. Discrepancies between housing situation and preferences are usually forgotten about after some time, and the perception of reality is adjusted accordingly. If this does not occur, people are likely to move (Häußermann & Siebel 2000). In this context Mayer (2002) claims that it is useful not only to ask whether people are satisfied or dissatisfied with a housing situation but to focus on the discrepancies between preference and actual housing situation. These can tell us what people lack or wish they had in a concrete housing situation, giving comprehensive information and better explanations as to why people are either satisfied or dissatisfied with their homes (Mayer 2002; Gifford 2002).

In Mayer's (2002) work on housing and young people in Vienna, housing preference is the main focus. According to her, the evaluation of general preferences goes beyond the focus on satisfaction with a concrete situation, and thus can reveal tendencies within a group in society. She also emphasises, just as Clapham (2005) that when we want to understand the preferences of a specific group, we have to focus on the opinions of the individual (Mayer 2002). Nonetheless, housing preferences are not determined by people alone, but are a product of long-lasting societal processes (social, economic, political, cultural). Thus housing preferences change over time, and when comparing young people's housing situation in the post-war period to housing preferences and contemporary demands, the preferences and demands are different (Mayer 2002).

Young people develop housing preferences in the first place through the influence of their parents and their views as to what appropriate housing is. Additionally, the mass media are important for the distribution of opinions on how to live. Received housing ideas are then re-produced on the level of human relations, as when interacting with parents or friends (Mayer 2002; Clapham 2005). In the case of students, the future preferences for the time after their studies are also likely to differ from their preferences for the temporary period when they are students.

As pointed out in the section above, there is a difference in the definition of the terms preference and satisfaction. Preferences are defined as general information, not necessarily referring to concrete examples, while satisfaction is tested in relation to a specific situation.

In this thesis, I focus on investigating actual housing situations. Housing satisfaction with a dwelling is seen as one important indicator of the students' quality of life. The subjective perception and evaluation of one's housing situation are main indicators for housing satisfaction, and this is a major focus of this thesis. Yet, the collected data also provide information on general preferences that are influenced by personal experiences, ideals, or by alternatives on which the students have information, as for instance a friend's situation. When the students talked about their housing situation in the interviews, comparison to other housing projects and to previous housing experiences were key elements. Hence, the interviews provide information on housing satisfaction and preferences, and discrepancies between these (see Articles 1 and 2). The survey asked about both elements, satisfaction with the current housing situation and

preferences if the students were to move (Article no. 3), however, the analysis focuses on aspects that influence housing satisfaction with the current situation.

Home

“If the difference between your preference and your choice is great, you may be unsatisfied with your residence and it may never develop into a home” (Gifford 2002:241).

Gifford’s quote indicates a close connection between housing satisfaction and an experience of home. A home is generally understood as a significant place for all people, but academic literature focuses on various aspects of home. The characteristics of a home can be defined as *“haven, order, identity, and connectedness, warmth, and physical suitability”* (Gifford 2002:238). These characteristics have a positive connotation, but it should be mentioned that a home can also be associated with negative experiences. A home can be a place of violence and abuse, and despite this fact it is often virtually impossible for the abused person to leave this home. In those cases the home experience probably resembles a prison more than to a safe place and haven.

Even though a home has a physical form, the definition above points out that a home is something more than its physical form. It is a place that people attach either a positive or negative meaning to. Moreover, a home is also formed and adjusted by its inhabitants to express their identity (Clapham 2005; Gifford 2002). The meaning and importance of the home in people’s lives varies due to what stage they are at in their housing pathway, as well as to their cultural and social contexts (Clapham 2005). Després (1991) reviewed literature on the meaning of home from various theoretical perspectives and gives an overview of the state of research up to 1989. One conclusion of her article is that the meaning of home in the context of “non-traditional housing” needs more investigation. Non-traditional in this sense means all types of home besides the stereotypical single-family unit which previous research dominantly investigated as the good home. In many contexts, the single-family home is still seen as the ideal home, ignoring that the reality for many people is quite different. The other forms of housing than the single-family home have to be investigated to the same degree. The focus of research on different home environments has certainly broadened since Després’ (1991) review, however, in relation to student housing, Heath & Cleaver (2003) find that it has not been acknowledged sufficiently that student accommodation is often regarded as “home” by students.

Moreover, the focus of the investigations on the meaning of home has been limited according to the field of study from which the examination originates. According to Després (1991) home has primarily been focused on from a behavioural/human perspective, and she proposes that the focus on the meaning of the built form should be expanded. Along the same line, Moore (2000) states that: *“It is ironic that while home is examined largely because it has physical form, this feature of home has been left relatively unexplored in comparison with the personal and psychological aspects”*

(Moore 2000:213). The book “Architecture of the Home” by Nylander (2002) can be mentioned as an exception as it examines what Moore (2000) states was a lack of focus in research on the home. He investigates the “*non-measurable architectural attributes of the home*” (Nylander 2002:19) and identifies architectural attributes that influence our perception of the home (see section on architectural aspects).

In our Western culture, the home is usually understood as a permanent place (Gifford 2002), and Saunders (1990, in Clapham 2005) describes the home as *the* fixed place in our lives. Literature on the home suggests that in today’s society the importance people ascribe to the home has increased as a counteraction to growing mobility and pace (Clapham 2005; Mayer 2002). However, home is not necessarily bound to one physical place and new places can become homes over time (Després 1991). People can also have several homes of a different nature and with different meanings attached to them. Second (or even third) homes, such as leisure housing or commuter homes are also common (Quinn 2004). Due to the growing affluence of society, the demand for flexibility in professional life and increasing mobility, the circulation of people between different places is no longer seen as an anomaly but has become a characteristic of many people’s lives (Quinn 2004). When bearing this perspective in mind, it can be argued that the home in practice is not that stable, and that the differences between temporary homes and permanent (fixed) homes are less clear than implied by the terms.

Family homes are typically considered as permanent homes, even if the degree to which they are permanent is unclear. Student housing is considered as temporary home. Temporariness in this case is clearly defined by the limited time one spends as a student, which is also described as a transitional phase towards adulthood (Jones 2002). The term transitional or temporary points to a period in-between two phases, expecting a more permanent phase to follow. If a housing situation is anticipated to be a temporary or transitional period, it could be understood as a less important period than a permanent one.

Students are also likely to attach different meanings to different homes. The parental home might be a place of control and restriction, while freedom and personal independence is achieved by moving to student housing. Taking these aspects into consideration, Kenyon (1999) interviewed students about their definition of home away from the parental home and found differences in the definition of (and expectations for) a parental home and a temporary home. The parental home is still the ‘home-home’ but it is dominated by the parents’ taste and cannot be adapted to one’s own wishes. The students in Kenyon’s study expected “real” home to be a stable entity, and a place for reflecting identity and needs. They did not want to put too much effort into their student homes to make them into a meaningful home due to the temporal aspect and the rules of institutions and landlords. The given rules seem to be contrary to the expectations for a “real” home. The student homes do not live up to homes the students imagine after graduation, when they see the real possibility of creating a home (Kenyon 1999). However, how temporary a student home is varies significantly, as some students move often, while others remain living in the same place during their entire time of study. As the youth phase and the years spent on education have been extended, compared to the past, in some cases temporary student living may therefore last longer than permanent

living later in life. This shows the difficulty in trying to define exactly what temporary living is. Nonetheless, and importantly, expectations and purpose may be different in the two cases, pointing out that the notion of being a temporary or permanent dweller also has a psychological dimension. When buying a house as a family, this would be expected to be a more or less permanent home, while student homes are expected to be temporary.

Identity and home

The meaning of home is influenced by societal changes. With the increasing prosperity of Western societies the focus on raising housing standards and quality has increased. The 1990s were, according to Mayer (2002), characterised by the focus on the home as a place to identify with, a place of enjoyment and a status symbol. The emphasis on the definition of identity is due to societal tendencies where we see the increasing importance of individuality and a decline in the role of traditional family relations. Scholars state that the need to express identity is reflected in people's consumption patterns, in the rising variety of choice and in their leisure time activities (Giddens 1991; Miles 2000). Consumption has become a key issue in the context of identity building, and referring to Kellner (1992, in Furlong & Cartmel 1997), Furlong & Cartmel point out that there is now a shift in the way people define their identities: "*...whereas identity was previously shaped in occupational settings, in late modernity 'identity revolves around leisure, centered on looks, images, and consumption'*" (Furlong & Cartmel, 1997:61).

Miles (2000) summarises that identities are constructed through cultural, personal and social aspects, comprising, for instance, living patterns, activities, consumption, social contacts and appearance. Redecorating a home and adjusting its appearance is part of an identity defining process (Després 1991). We can influence the appearance of our home to a certain degree, depending on the respective setting. In this context, Easthope (2004) observes an increasing importance in what people ascribe to the image of their homes. This is expressed by the fact that people spend more and more money on home redecoration and refurbishment as part of the expression of personal identity and taste.

Comparing the attitudes of different age groups, Hauge & Kolstad (2007), who studied dwellings in Norway as an expression of identity, found that middle-aged and especially young people reflected more upon the meaning of their dwelling for identity than older people. In Norway, home decoration and refurbishment as part of the expression of identity and taste, have become very important. Norwegians spend more money and time on home decoration than people in other Western countries (Cold 2007; Frønes & Brusdal 2000). In addition to cultural and societal developments, rising affluence in Norwegian society is probably an important reason for this. People have enough money to afford refurbishment, and affluence in this respect supports the wish to build the identity of the individual.

In his work on youth lifestyles Miles (2000) defines consumption as the material expression of identity. Housing, and where and how we live, can be seen as a part of this, and our home contributes either in a negative or positive sense to the definition of our identity. Along the same lines, Frønes (2003) finds special characteristics in the housing preferences of young people. He names choice of location and proximity to leisure time facilities as important aspects that are linked to lifestyle and the definition of identity. The students in Kenyon's (1999) study (see section on home) wish for the creation of a "real" home after graduation, however for their temporary accommodation, the possibility to personalise rooms and to exhibit their personal belongings, creating a sense of familiarity, were important for the students too. Moreover, the design of the house was also mentioned, and the lack of aesthetically pleasing architecture was considered to be an obstacle to accepting it as a home (Kenyon 1999).

Home and institution

When we see a building, as for instance a school or a hospital, we are usually able to categorise the building's function according to specific characteristics and previous experiences we have had with that particular type. We have learned how a specific type of building looks in our culture, and expect a predictable physical environment. Its function generates assumptions of a way of life and of how to behave. In this context, it can be said that different types of building both express cultural aspects and stand for social structures (Robinson 2004). A building's character is conveyed by many parts and elements that add to an identifiable pattern contained in our personal "library" of knowledge on buildings. In her research, Robinson (2004 & 2006) uses this as a background for conceptualising characteristics that trigger people's perception of buildings as having either a homelike or institutional character, and claims that it is possible to identify many of the characteristics associated with these aspects. According to Robinson (2004 & 2006), the architectural design of buildings plays an important role in the expression of an institutional or a homelike character. Presenting an example, Robinson contrasts the spatial structure of a single-family residence with a restrictive institution, such as a prison: "*The house design (single family, J.T.) responds to the desire for maximum control by the residents. (...) ... the design of the traditional institution responds to the need for the managing organization to control groups of people ...*" (Robinson 2004:63).

Four aspects are mentioned as contrasting values of home and institution, in which the main theme is the degree of personal control: "*The residents' control versus organisational control; autonomy versus dependence: individual orientation versus group orientation; the use of subjective versus objective criteria for environmental decisions*" (Robinson 2004:61). Subjective versus objective criteria for environmental decisions in this context should probably be understood as individual criteria versus criteria that an institution decides. Robinson defines institutionality in relation to domesticity and to the degree of institutionality perceived in the design of different types of building. Her research is an example of studies that define the single-family home as the ideal home and other forms of housing as less homelike. This approach can

be criticised if we argue that a “home” is dependent on many other aspects than simply living in a single-family home, and that people in other types of housing may feel as at home as people in single-family houses. However, Robinson (2004) states that her classification is based on this stereotype in order to define gradual differences between building types. In Robinson’s description the idealised detached single-family home, row-houses or semi-detached houses are seen as the least institutional houses. The people living in a single-family, row or semi-detached houses are defined as having more control over their housing situation than people living in a flat in a residential building.

Traditionally, institutions of any kind have been to a varying degree associated with providing care, shelter and surveillance, but little with the provision of a home. Since a home is regarded as generally desirable for most people, its meaning has become more significant in relation to many institutions (Robinson 2004; van der Horst 2004). Examples are initiatives to provide a permanent home for homeless people (Hansen 2006), or housing for the elderly that has now been assigned two tasks: to provide care to the needy, as well as a home, providing familiarity and belonging (van der Horst 2004).

In general it would be wrong to categorise institutions as negative places and homes as positive ones, as homes can also be associated with negative experiences and institutions with positive experiences. Nonetheless, when moving to a new place, it can be a difficult process to adapt to and feel *at home*. Especially when the physical environment does not provide what people expect from their home environment, and when efforts to make one feel at home are restricted, such as in institutional settings. Studies have examined this process particularly in relation to residential care institutions for the elderly, but some have also focused on university students. These studies indicate that well-being may suffer from a lack of personal control and lack of identity building when moving to institutions (Gifford 2002; Van der Ryn & Silverstein 1967). Student housing is mentioned within Robinson’s (2004 & 2006) classification of institutionality as well, and is defined as a partial institution, located in-between the domestic single-family house and complete institutions, such as hospitals, or repressive institutions, such as prisons (Robinson 2004). The definition of student housing as a partial institution is due to the aspects of the inhabitants’ partial dependency on an organisation, focus on housing a group and the individual’s lack of influence on housing–environment decisions. However, as this is a general classification, it should be kept in mind that the degree of personal control, autonomy and individuality depends both on the type of building provided for students and the aims of the respective organisation. Hence, there can be great variation in the degree to which a building is perceived as having an institutional or homelike character.

Architectural aspects

One of the main aims of this thesis is to investigate how students perceive the role of architectural aspects in housing satisfaction. As mentioned in the section on home and institution, a building's appearance mediates information about its purpose and use. A building is composed of various architectural elements that comprise aesthetic aspects, such as colours, materials, light and furniture, and functional aspects that determine the spatial organisation, meaning the shape of the rooms and their interconnection. The spatial organisation influences behaviour and social interaction, while the aesthetic aspects define "how things look" and are perceived as more or less beautiful. Both spatial and aesthetic aspects are also mediators of symbolic meanings that are perceived and interpreted by the users. The understanding of and associations with symbolic meanings are dependent on cultural, social and personal values (Nylander 2002).

Nylander (2002) has investigated the meaning of architecture for a home experience. He states that, "*Architecture can either enhance or inhibit the process of appropriation by which residents establish a sense of home*" (Nylander 2002:49). Appropriation describes "*the process by which a person incorporates his home into his life*" (Nylander 2002:20). In this context, he conceptualises seven groups of architectural attributes that are significant for our perception of the home:

- Materials and detailing
- Axiality
- Enclosure
- Movement
- Spatial figure
- Daylight
- Organisation of space

Most of the groups of attributes contribute – though each to a different degree – to both an aesthetic and a spatial experience. Exceptions are materials and detailing that primarily influence our aesthetic experience, while the organisation of space is of primary importance to the spatial experience. The spatial organisation and the use of materials and colours are also relevant aspects in this thesis, as will be pointed out in the findings chapter. Even though the spatial and aesthetic aspects are closely connected when experiencing architecture, the following section addresses these two categories under separate headlines.

Spatial organisation

Architects translate the anticipated needs of the future users of a building into the functional organisation of the space. Drawing floor plans is a major tool in this context that determines the organisation of rooms and the relationship between the interior and exterior spaces. Information on use, structure of social relation and even culturally determined habits can be read to some degree from the spatial organisation of buildings.

The way of organising the spaces inside and outside of a house can provide an important support in the home experience (Nylander 2002). Moreover, spatial organisation can also be consciously applied to structure the user's interaction, as for instance to constrain contact through physical barriers, as in prisons, or to influence interaction in a more subtle way (Baum & Valins 1977). Thus it can be said that the architectural design of the built environment affects our experience and behaviour. The role of the spatial organisation in this context has been investigated from many perspectives.

One example is Hillier & Hanson's perspective (1984). They have even introduced a methodology, "Space Syntax", to assess the organisation of space and its influence on social relations. The aim of Space Syntax is to describe patterns in spatial organisations of floor plans that we, more or less unconsciously, perceive and behave accordingly to. This type of analysis calculates and graphically describes the location of rooms in relation to their accessibility and their linkage to each other (degree of internal integration or segregation of rooms). Space Syntax is a useful method, for instance, when assessing changes in floor-plan patterns over time, as exemplified by Hanson (1998) in an analysis of English farmhouses, and Manum (2006) in a study of housing in Norway. The figures below show an example of the graphic analysis (Fig. 2) of the floor-plan layouts of four houses (Fig.1) of similar shape but profoundly different spatial organisation. The internal connection and accessibility of the rooms is illustrated by the graphs to the right.

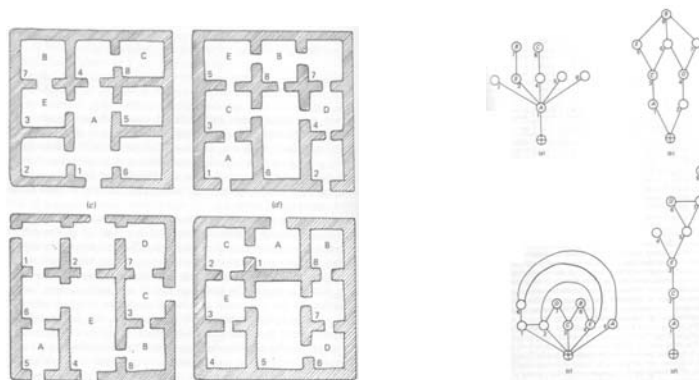


Figure 1 & 2: Floor plans of four houses (left) and the graphic description (right) of the accessibility of the rooms (source: Hanson 1998)

Space Syntax is a method that examines the spatiality of plans without considering the experiences of the users as additional information. Even if considered as an optional methodology for this thesis, it was not applied because the main focus is on the subjective experiences and views of the students and the survey. It would, however, be interesting in further investigations to systematise a typology of student housing that could give information of the development of the plan layout and on possible changes in spatial organisation over time.

Robinson (2006) has also used Space Syntax as one method for illustrating the differences in organisational structures of floor plans, especially focusing on the connections of private and public spaces in homelike and institutional settings. Another part of Robinson's work (2004 & 2006) focuses on aspects of spatial organisation as a symbolic image embedded in our cultural knowledge. In this context she conceptualises stereotypical images of institution and home, illustrated by paired, contrasting sketches. They illustrate aspects on the three levels of context and site, building organisation and rooms and spaces.

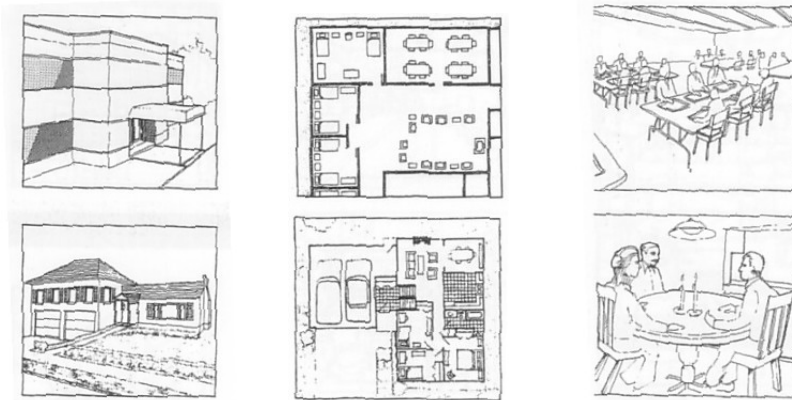


Figure 3: “Entrance situation, massing and size” (left), “Size and use of space” (middle), “Size and furnishing of common rooms” (right), the sketches on top symbolise an institutional character, the sketches below a homelike character (source: Robinson 2006).

Context and site consider the exterior aspects of the building; its neighbourhood, the building's scale, siting, massing and elevation (Fig.3, left).

Building organisation means the organisation pattern of the interior spaces; control, internal circulation and inside-outside relation.

The design of rooms and spaces is the third category. This means the scales, shape and the interconnection of the rooms (Fig.3, middle). In addition to the floor plan layout, furnishing is another important issue in the context of perceiving a building as homelike or an institutional environment (Fig.3, right).

The sketches are a way to illustrate findings, but they are also personal pictures of how the author interprets the findings and illustrates the stereotypical images of homes and institutions.

Baum & Valins (1977) have undertaken a study that examined the influence of the spatial organisation in student accommodation on social contacts among students in different types of residence, and used a similar approach as this thesis, interviews, a

survey and field observations. They tested the degree of interaction between students living in single rooms aligned along a corridor with shared bathroom/kitchen, and other student accommodation in shared flats. Their study reports major differences in social contact due to the different types of housing. The students living in the corridor rooms were socially defensive and showed few attempts at interacting with the others. One explanation is that the spatial organisation inhibited the possibility to form social groups, a possibility that was given in the suite accommodation (Baum & Valins 1977). In commenting on this study Richter (2004) found that it exemplifies the role of the spatial organisation as one important issue for regulating the quantity and quality of social contact in student housing. Robinson (2006) also added to the Baum & Valins study, stating that the most problematic issue of the corridor residence (Fig.5, right) is the lack of a gradient between public and private space. The private space opens directly into the public area and the residents must go along the public corridor to access the bathroom. In addition to this, the lounge is segregated at the end of the corridor and does not function as informal social space. The suite design (Fig.4, left) showed less functional difficulties in the context of distinguishing between private-public spaces (Robinson 2006).

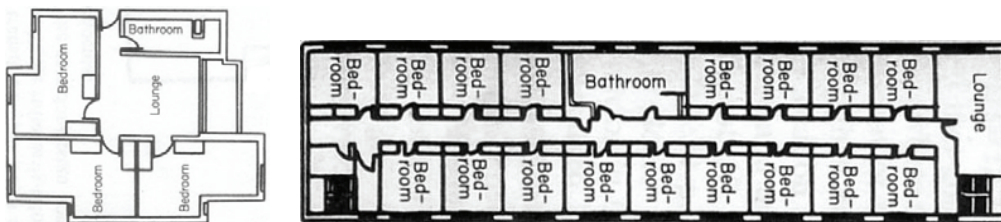


Figure 4: Floor plans of the residences examined by Baum & Valins (1977), left: suite accommodation (example of one cluster), right: corridor accommodation (source: Baum & Valins 1977)

Aesthetics

In addition to the spatial organisation, architecture comprises aspects of colour, material, detailing, furniture and light. These aspects make it possible to influence the desired experience of architecture by emphasising special characteristics of a building, or by creating a specific atmosphere (Rasmussen 1964) that can be combined under the umbrella term aesthetics. The Encyclopædia Britannica (2007) defines aesthetics broadly as the study of beauty and taste. The philosophy of art is one main branch within the study of aesthetics; another is the study of people's perceptions and responses to objects and nature. The term aesthetics is, however, difficult to define clearly, as it is used in different senses and has been modified throughout history. Cold (2007) summarises the three meanings ascribed to aesthetics as:

- What we perceive through our senses (aesthetic – anaesthesia: lack of sense impression)
- The nature of beauty describing the beautiful, pure and harmonic, usually referring to what is culturally defined as beautiful (aesthetic – unsavoury, ugly, disharmonic (in Norwegian we find the word *uestetisk*, meaning: “un-aesthetic”)
- The theoretical study of aesthetics in arts, literature, music and architecture, which also go beyond the cultural and public definition of beautiful by, for instance, challenging the culturally accepted norms of what is regarded as beautiful

The first meaning described above, the perception of aesthetic through our senses is of major importance in this thesis. In this context the visual impressions are of major interest, yet it should be mentioned that the perception of aesthetics is not limited to our visual sense but also includes hearing, touching and smelling.

Nasar (1994), working in the field of environmental psychology and design research, has investigated visual preference and evaluative qualities of housing exteriors, and in this context has divided the term aesthetics into formal aesthetics and symbolic aesthetics. Formal aesthetics comprises aspects such as shape, proportions, colour and scale, while symbolic aesthetics refers to the meaning the individual associates with a building. Westerman (2001, in Cold 2001) describes the experience and evaluation of building exteriors as the perception of surfaces, textures, edges, corners and lines that create the visual experience that is evaluated as more or less positive. When looking at a building we combine the perception of formal aesthetics and symbolic aesthetics and test a building's appearance against knowledge of buildings accumulated in our memory, dependent on personal experiences, and social and cultural background (Cold 2001; Nasar 1994). Nasar (1994) claims that buildings that look familiar to us are often found pleasant, while with increasing mismatch to known structure, the positive evaluation may decrease.

There is also a difference in how architects and laypeople perceive buildings. Nasar (1989 & 1994) states that architects differ from laypeople in what they prefer in building design, and that they use different criteria when evaluating buildings. Laypeople focus more on the symbolic meanings they associate with building design. Sørby, referring to Rapoport (1982, in Sørby 1992), maintains that laypeople perceive buildings through their decorative details rather than through perceiving a comprehensive picture of functions and aesthetics. The meaning of a column as a construction element is usually not important to laypeople but the *association* of columns with, for instance, a house of high status is significant (Sørby 1992).

The shapes and form of a building, together with such aspects as colours, materials, detailing, furniture and light influence the experience of a building. On use of material, for instance, Richter (2004) claims that different materials are associated with different functions of a building, and they may strengthen or diminish associations with a homelike character. According to Richter (2004), wood, for example, is often associated with a home environment. However, associations are also dependent on the cultural context and on personal background. Moreover, colours are a useful means for emphasising details and singular elements in buildings. Colours can bind rooms

together or differentiate them from each other, or even contribute to a specific expression (Richter 2004). In addition to being an issue of personal taste, colours are also ascribed different symbolic meanings or psychological meanings. For example, psychological meanings are ascribed to red and green; red has an exciting effect and green a relaxing effect. Symbolic meanings differ culturally and have been passed along over generations (Richter 2004).

Each of these above-mentioned aspects is a broad field on its own and cannot be dealt with comprehensively here, where *it is important to find out which of the aspects are significant to the students* when reflecting on architecture. The discussion in the findings chapter is limited to topics that emerged through data analysis of the interviews and comprise materials, colours and exteriors.

3 Case study methodology

Case study methodology has developed within the social sciences, having its early roots in anthropological studies of the 19th century (Johansson 2005). It is a preferred methodology when investigating a complex setting or phenomena within a real-life context when there is little control over the events (Yin 2003), and it has become an important method in architectural research (Johansson 2005). Case studies are useful when a number of variables are of interest but only a few units (people) are focused on (Stake 1995). Among scholars, there is general agreement that case study methodology is characterised by the use of multiple methods, triangulation and the purposeful selection of case(s). However, there are differences in the literature regarding the research approach. Yin (2003) emphasises the importance of the choice of methodology when conducting a case study, while Stake (1995) emphasises the importance of the interest in the individual case. The point of departure for qualitative research is usually in the perception and actions of the people studied, while quantitative research uses the researcher's assumptions and categories which are then tested in the investigation. Yin (2003) adopts a more quantitative approach and argues that the theoretical proposition should be made before starting the research. The new knowledge will then add to the theoretical knowledge or disprove/validate a hypothesis posed prior to the study. Stake's (1995) approach is more qualitative and opens up for the development of the proposition during research. However, Yin (2003) also maintains that the outline and focus of the research has to be adjusted during the research process.

One shortcoming, but perhaps also an opportunity in case study methodology compared to other scientific methodologies is that there are few established rules to be followed in the research process (Groat & Wang 2002). Therefore, the limitation of the research must be defined clearly or the general scope may be too broad. Case study research can also be described as a "conceptual container" (Groat & Wang 2002), which as a strategy comprises more than just one research approach. In this way, results can be "*triangulated*". Triangulation is used in case studies to validate and confirm interpretation of research results. This is achieved by applying different methods and multiple sources of evidence to examine the same issue from different angles. Other ways to validate research findings are triangulation of investigators or explaining findings by applying a number of theories (Stake 1998 & 1995).

It should also be pointed out that research cannot be regarded independently from the researcher, and research findings are always the result of interpretation. A traditional view on research, especially in the natural sciences, is that it follows a defined scientific method to create "objective knowledge" on a phenomenon. This "reality" is based on collected empirical data ("pure data" or "uninterpreted facts"), which are the basis for conclusions, generalisation and theory-building (Alvesson & Sköldberg 2000). However, Stake (1995) states that knowledge is not discovered, but constructed, revealing different perspectives of equal or similar value. The researcher is not objective but has to make choices and take standpoints during a research project. Bearing this in mind, the validity of the data collected and the credibility of the results depend on the researcher's ability to carry out the research in a way that is trustworthy. Trustworthiness is a prerequisite for good research and is enhanced through

triangulation of data, cooperation with other researchers and the awareness of subjective choices and possible bias. Alvesson & Sköldbberg (2000) also point out that the interpretation of empirical data is always influenced by social, cultural, linguistic, political and theoretical elements. Therefore, careful interpretation and reflection upon the research findings is crucial (Alvesson & Sköldbberg 2000).

How to select a case

A case that is of interest for a research project is characterised by specificities rather than generalities. Cases are described as complex, bounded systems (Stake 1995) which are influenced by many factors. Hence, there is no comprehensive control over events. Cases are not static and changes may occur during the research process, which will then require adjustments in the research design.

Stake (1995) describes two possible ways of selecting a case. A case may be *given* to the researcher as a case of intrinsic interest. The purpose of an intrinsic case is foremost to understand this particular case in its context, not aiming at generating theory (Stake 1998). The second possibility is to conduct an instrumental (one particular case) or collective case study (a number of cases), which are purposefully *selected* by the researcher according to the type of information he or she is interested in. In instrumental or collective case studies, theory building or refinement of knowledge is important. The study of the case(s) is the way to come to an understanding of something else, other than just the case in its context (Stake 1998). A collective case study has the advantage of gathering information on different cases, and thus provides the grounds for comparison.

When choosing a case, there are different alternatives due to the outline and purpose of the research. Cases could be typical or representative, critical, unique or extreme cases. Typical cases may reveal information that is valid for many similar cases, while extreme or unique cases may reveal atypical information. Discussing the choice of cases and the type of information one may obtain, Stake states that: "*It is better to learn a lot from an atypical case than little from a magnificently typical case*" (Stake 1998:101).

One criticism on the case study method is the lack of a base for generalisation from one or a few cases because data is only collected from a few examples. One common misunderstanding is to compare statistical generalisations in the natural sciences to the analytical findings of case study research. Stake (1998) states that a refinement or a modification of understanding is reached through a case study ("petite generalisations"). If the goal of a research project is to generalise findings formally, other research designs than the case study would provide a stronger basis for generalisation.

Nonetheless, examples show that theories can be developed even from studying a *single* case (Flyvbjerg 2004). These theories may be tested through investigation of other cases later. However, hypothesis testing is also possible in single-case-study research. Flyvbjerg (2004), referring to Popper's falsification theory, mentions the example of the

black swan. The hypothesis that all swans are white is falsified by one example of a black swan. “*The case study is well suited for identifying ‘black swans’ because of its in-depth approach: what appears to be ‘white’ often turns out on closer examination to be ‘black’*”(Flyvbjerg 2004:424).

Groat & Wang (2002) maintain that the findings from case studies are of a descriptive, explanatory or exploratory nature, and can be generalised to theory. In the social sciences or in architectural research the analytical information derived from a case may be even more valuable than statistical information for the understanding of examples or the further development of practice, as Flyvbjerg states: “*That knowledge cannot be formally generalized does not mean that it cannot enter into the collective process of knowledge accumulation in a given field or in a society*” (Flyvbjerg 2004:424).

Interviews

The qualitative interview is one of the main methods used in this research. Interviews are useful when: there is not only one answer to a question and when the intention is to inquire on people’s personal experiences and motivations. The information on the life-world of the interviewees revealed in interviews is detailed and explanatory information on personal points of view.

May (1993) describes interview techniques as one of the main research methods in the social sciences and divides interviews into more quantitative and more qualitative techniques. The *structured interview* is formally more standardised and close to a quantitative survey, while the *unstructured* or *focused interview* is (ideally) free from pre-formulated ideas of how the interviewee is supposed to answer the questions. The *semi-structured* interview uses techniques from both, the structured and the focused interview. Interview guides of semi-structured interviews can vary considerably according to how structured the researcher elaborates them. Questions are specified but still not as standardised as in structured interviews. The flexible structure gives the interviewee the possibility to respond freely, and vice versa, the interviewer to ask questions again, more thoroughly or formulated in another way if necessary.

Group interviews are another form of interview and the responses obtained from these may differ from individual interviews on the same topic due to group dynamics and social interaction patterns. To gain knowledge of social relations and interaction, group interviews may give us important insight (May 1993). The group interview provides a highly interactive setting with chances to influence each other.

Conducting an interview can be described as a balancing act between remaining neutral as an interviewer while still establishing a relationship of trust with the interviewee. Before starting an interview ethical questions have to be considered. The interviewer is as much the “author” of the interview situation as the interviewee, and it is important to be aware of the interviewer’s role and influence on the material collected. There is a potential for bias in interview situations if the researcher asks leading questions. Good

preparation before the interview and awareness of how to ask questions can reduce any bias (Kvale 1996).

Survey

The aim of a survey is to describe basic characteristics or experiences of a sample of a population (Dillman 2000; Groves *et al.* 2004). A survey can have different aims, such as descriptive statistics focusing on the distribution of elements in a population, while analytical statistics measure the relation between two or more variables (Groves *et al.* 2004).

The point of departure of a survey is the researcher's assumptions and categories for developing hypotheses, which are then tested in the investigation. In many disciplines the facts acquired in a quantitative survey from a large population are still considered more trustworthy than the attitudes and personal experiences of a few people investigated in qualitative research. However, to a certain extent, attitudes can also be measured in surveys (May 1993). Using attitude questions, it is believed possible to construct profiles of personality types that can give information on the attitudes of smaller groups of the population (May 1993). When for instance asking for the number of people planning to refurbish their home, we can also add explanatory variables that are measured on scales, and ask why people want to refurbish so we can learn more about their attitudes. However, the explanations we obtain from surveys are limited. The survey does not give us in-depth information about people's motivations that goes beyond the researcher's pre-formulated hypothesis. In order to obtain personal explanations and reasons it can be useful to combine quantitative and qualitative methods, as they aim for different types of answer.

What has been done?

To investigate student housing in Norway, case study methodology was found to be the most appropriate method to illuminate the students' perception of selected housing projects comprehensively. A preliminary theoretical proposition was developed before starting the field work, but new issues and statements emerged during the study, leading to changes in the proposition. The focus of this work has thus been adjusted and narrowed down several times, acting in accordance with Stake's (1995) approach that allows for theoretical learning and development during the process.

Within the framework of the case study methodology, I carried out qualitative interviews and a quantitative survey of students. In addition to these, other kinds of data, such as reports, newspaper articles and drawings were reviewed and analysed. An interview protocol was written to remember the interview situation and to be able to impart this additional information to others, if this should be required.

The survey was conducted in cooperation with Trondheim local authority⁵ As the housing office ('Boligenheten', in Norwegian) was planning a similar survey it would have been superfluous to conduct two surveys aimed at the same population within such a short period of time. It was an advantage working together with several researchers when planning the survey and involving other researchers and disciplines assured that different perspectives on the topic were included. Triangulation of data in this case study is achieved through the use of different methodologies and cooperation with other researchers/the local authority.

However, as two parties with slightly different interests were involved, more information was obtained from the survey than was required for this thesis. Hence, the comprehensive survey data still has the potential to be used in further analysis. As my research started off with the qualitative interviews, only some specific survey questions were important to me to obtain quantitative information about the same topics as discussed in the interviews.

The survey was available to all students at the city's higher educational institutions and campuses for two weeks in May 2006 on the NTNU intranet. A link to the survey was posted on the NTNU homepage, and flyers and posters were distributed on the various campuses. A cover letter on the intranet explained the purpose of the research and was intended to encourage the students to answer the questions. A reward was also offered to increase the motivation to participate. The topic was supposed to be of interest to students. Viewing a survey as personally important constitutes a good premise for increasing response rates (Dillman 2000). An internet-based survey gave the possibility of attaining wide coverage at low cost.

The survey respondents are students in Trondheim and not residents in the case study projects. Thus the information collected from 1444 respondents gives general information about students' housing satisfaction and preferences, and their reasons for choosing a place to live. The data were collected through an internet-based survey asking 33 questions (see appendix). This type of survey is anonymous and impersonal, which avoids bias from personal interaction, a factor that can be a problem in interviews. The aim of the analysis of the data is to explain the relationship between the dependent variable "housing satisfaction" and several explanatory variables by applying a multiple regression analysis (analytical statistics). The variables, the analysis and the limitations of the survey are described in the methodology section in Article 3.

Limitations were a necessary part of the process, where deciding for one option also meant downgrading others. Housing research has a variety of topics that can be focused on. The main focus in this study is the students' opinions about their housing situation. This focus is only *one perspective* that is used here to evaluate existing buildings quality, and to discover how users respond to the floor plan layout, aesthetics and technical aspects. This information is valuable for both architects and the Student

⁵ The translation of *Trondheim Kommune* into English varies in the thesis due to reviewers' comments. In Article no. 3 Trondheim Municipality is used instead of Trondheim local authority.

Welfare Organisation (in Norwegian: *Samskipnaden*⁶, the term will be used in the following) when planning future housing projects. With this focus on the users' perspectives, other perspectives, such as the projects' architects, or other actors, such as *Samskipnaden*, were not considered, even though, undoubtedly, interesting and important insights would have been gained from these parties as well. They would have given information from a different angle on such issues as the planning process, economic constraints, experiences with previous projects, and on their ideas on how students would like to reside. If these perspectives were considered, the focus of the thesis would have been different.

The three case-study buildings (see description of the case study buildings) can give information on particular projects; while the survey can reveal more general information on housing preferences and satisfaction. The choice of which buildings to evaluate was a limitation, but also an important decision in terms of narrowing down the focus. Comprehensive data collection is required to understand each case in its complexity, and thus it is not possible to investigate many cases at the same time.

⁶ Institutionally provided student housing is the responsibility of the Student Welfare Organisation, *Samskipnaden*. *Samskipnaden* operates independently in each university city, providing a wide range of services in the areas of health, sports, bookshops and student accommodation. The translation of *Samskipnaden* into English varies in the articles due to reviewers' comments. In Article no. 3, Student Union is used instead of Student Welfare Organisation. However, Student Welfare Organisation appeared finally to be the best translation.

4 Student housing

The following will shed light on when and why the idea of institutionally provided student accommodation developed. Then the current situation in Norway is briefly described.

Brief historic overview

The university, as we know it in the Western hemisphere has origins back to the medieval cities of Bologna, Paris and Oxford around the year 1200 (Bender 1988). Throughout its history, university has attracted large numbers of students of different nationalities and backgrounds. Yet, during the early years of the university, institutionally provided student accommodation did not exist and it was common for students to rent a room from local citizens or to rent a house to share with other students (Caldenby 1994; Adelman 1969). In the Middle Ages in Europe, students were often a noticeable part of a town's population, and even back then there was often a severe problem where and how to accommodate the student inhabitants. Adelman (1969) describes this situation in 13th-century European towns as follows: "...there were approximately 3000 students enrolled in Oxford, 10 000 students attending lectures in Bologna, and almost 30 000 in Paris. Given the small size of the towns in the Middle Ages – few had a population of more than 5000 – the problem housing such a vast number was clearly acute" (Adelman 1969: 20).



Figure 5: Master teaching students, 1330 (source: Cobban 1999)

The ratio of students to local inhabitants shows that students in many cases must have dominated the towns and cities, and bearing this in mind, we can see how challenging it must have been trying to accommodate them. During this time student housing was exclusively private business and the provision of student accommodation must be regarded as a source of huge economic profit for the cities. The beginning expansion of the universities in the Middle Ages led to even more financial profit for the cities, landlords and private people offering lodgings:

"The presence of a large assemblage of masters and students created an academic enclave that was wholly dependent for its support upon the wide range of services that were provided by the citizenry. Of prime importance here was the availability of accommodation" (Cobban 1999: 183).

The provision of accommodation for students by private persons in the early years of the university can be seen as an interaction between the need of students to find a

“shelter” and landlords interested in financial gain. More structured types of student accommodation developed gradually along with the university, and initially not as an initiative taken by the universities.

“*The nations*” were the first type of student residence to which we can ascribe an institutionalised character. They provided more for the students than just a place to stay under uncertain conditions. In the 13th century they were a common type of residence in such countries as Italy and France. When the universities were being established, students used to board with local residents or together in groups of students, often with students from the same country or district as themselves. Some students would rent a house together. These houses later became known as “the nations” because they revealed information about the students’ place of origin. These were not a university provided accommodation in the beginning, but universities successively overtook responsibility (Adelman 1969).

Within the first century of the existence of universities “*the college*” evolved as another type of residence in addition to the nations (Adelman 1969). Originally, the colleges did not have an academic purpose, and their predecessors can be found in “the hospice”, where the poorest students could find a shelter (Caldenby 1994). The colleges developed their own philosophy and these institutions combined teaching and living in the same place. The *essential* difference of the concept of the colleges compared to other student residences is the *integration of teaching*, interest in discipline and the educational influence on the individual (Adelman, 1969). This aim is also known as “*in loco parentis*”, meaning that the institutions overtake the responsibility for an adequate education of the student instead of the parents (Adelman 1969; Caldenby 1994). The term college is often associated with the traditional universities in England, especially Oxford and Cambridge, and also with the later American university concept. But initially colleges also existed in other European countries (Brothers & Hatch 1971), for instance the Sorbonne in Paris, founded in 1257, is one of the most famous colleges from the Middle Ages (Caldenby 1994).

The colleges were characterised by their typical building structure that was inspired by the cloister’s organisational principle and its quadrangle structure. A courtyard surrounded by buildings, isolated from the outside world, became the prototype of the college building. This typical building structure can be read as an expression of the educational philosophy and the aim to exercise control over the student body. It is a good example showing that the spatial organisation is a way of structuring the social relations of its users.

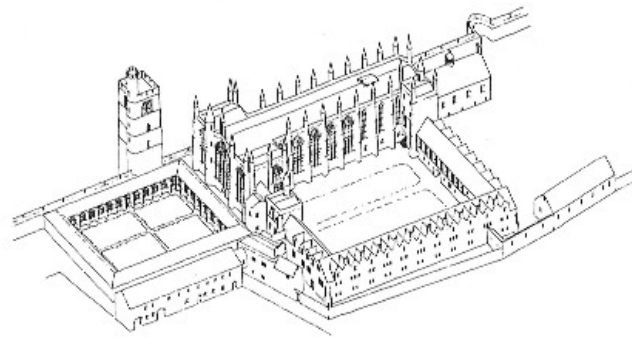


Figure 6: The New College (1379) in Oxford, whose image served as a model for all the subsequent college buildings in England for a long period of time (source: Caldenby 1994).

The idea of the North American campus university derives from the British college and follows a similar educational idea. Harvard, in Massachusetts, is the oldest college in North America and was founded in 1623. At that time, the building known today as the “Old College” housed all functions including student housing (Caldenby 1994).

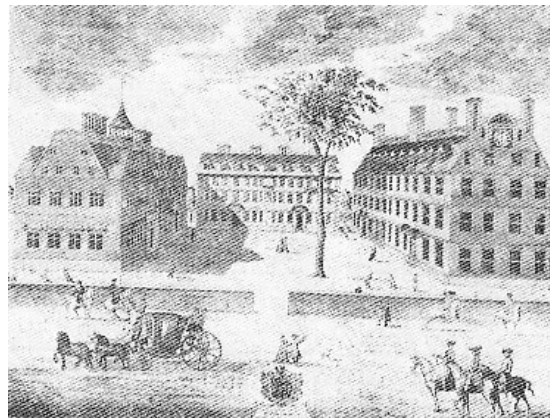


Figure 7: Harvard University in 1726 (source: Caldenby 1994).

What distinguishes the campus university from the colleges is a different building structure. The campus university did not follow the British college examples and use cloister-like structures, but consisted usually of detached buildings surrounding a green field, the campus. The tendency of integrating university buildings into the city structure, as known from the colleges in Great Britain, is rarely found in the American tradition. The campus university is often located outside cities and comprises a large unit. However, the structure of both the college and campus universities’ buildings aims for a high level of control; the colleges by building a closed structure within the city and

the campus university by building outside the city. Andersson (1976) states that the community spirit and control aimed for in the colleges and campus university could only be exercised in a suitable building structure.

The *halls of residence* is another type of student accommodation that represents a different university philosophy and a different perspective on accommodating students. The halls of residence first developed in the 20th century as a compromise between, as Adelman put it, the “*full fledged educational residences and the absence of any institutional backed residences*” (Adelman, 1969:29). The development of halls of residences can be linked to the universities and the civic colleges in Britain, whose philosophy differs from the traditional college and campus universities. The exclusiveness of the British colleges, failure to meet the existing needs of the time and to adapt to social changes led to profound reforms in the English educational system during the 18th and 19th century (Brothers & Hatch 1971), and new concepts were launched for colleges and universities in Britain. They differed from the old traditions by admitting people who hitherto had been excluded from studying because of faith, economic background and class. The emergence of the civic college represented a change in the view on university’s role and also on student accommodation, and it approached the continental European university philosophy (Brothers & Hatch 1971). The University of Leiden in the Netherlands, founded in the 16th century, is seen as one of the prototypes for the continental European university tradition (Bender 1988), which according to Adelman (1969) followed a “*non-residence tradition*”. The teaching and educational philosophy of the continental European university focused mainly on the accumulation of knowledge and on the sciences. The personal development of its students in an educational sense was not the goal as in the colleges. Leiden can probably be seen as one of the predecessors of what Andersson (1976) classifies as *departmental university*. The departmental university developed fully in the 19th century when the rapid growth of the natural sciences demanded more space and could no longer be located in one building (Caldenby 1994). The Scandinavian university is found in this tradition. This type of university is characterised by the integration and mixture of the university into the structure of the town, and did not provide student accommodation until the end of the 19th century, when halls of residence were introduced. This type of residence became common in countries that, according to Adelman (1969), used to have a non-residence tradition, such as Germany and also the Scandinavian countries. The halls in Britain also became increasingly more popular due to the rising student numbers which made it practically impossible to accommodate all students in colleges. Originally, the halls provided a sense of community and can be seen as places of transition from living at home to adult life. Even if they were not built to pursue the educational goals of the colleges, they also had rules that had to be followed. Adelman (1969) goes on to describe that developments in the 20th century witnessed a convergence of the British and continental European traditions, and nowadays the term halls (of residence)⁷ is generally used to denote student housing provided by the university.

⁷ For instance the German term “Studentenwohnheim” translates both as hall of residence and student hostel (Pons Dictionary 1983)

Norway

Not gaining its independence until 1905, Norway does not have a long university tradition. For a long time Norwegian students had to travel abroad to study due to the lack of academic institutions. To support the idea of establishing a university in Norway, the “Selskabet for Norges Vel” organised a countrywide donor drive. Finally, the donations of ordinary citizens and affluent businessmen enabled the authorities to found “Kongelige Fredriks Universitetet” (Royal Fredrik University) in Oslo in 1811 (Aardal Hagen 1999).

In the years after the foundation of the Norwegian University there was generally little concern about housing the Norwegian students. The student numbers were low and it was easy to rent a room on the private market. However, the situation changed after World War II when the housing market was tense and it became more difficult for students to find a place to stay. Moreover, the number of students steadily rose, bringing residential questions more into focus (Høivik 1962).

The first student residences after the war were integrated into soldier barracks left behind by the Germans. The housing conditions during those years were dissatisfactory, and students who could rent a room privately lived under better conditions (Ottosen 2005). In 1948 the Samskipnaden was founded to deal with accommodation and social services (SiT⁸ 2004). Samskipnaden is a non-profit organisation with a majority of students on the board (www.sit.no; www.sio.no). The first student residence in Norway built by Samskipnaden was the 350-room *Sogn studentby*, built in 1952 (Ottosen 2005). Sogn was originally built as the Olympic village for the winter games.



Figure 8: Sogn student housing from 1952, Oslo (source: www.studenttorget.no).

⁸ SiT, SiO, SiS are the abbreviations for the respective Student Welfare Organisation in three Norwegian cities: SiT (in Trondheim), SiO (in Oslo), Sis (in Stavanger)

With a few exceptions institutionally provided student housing in Norway followed the halls of residence concept. Exceptions are *Blindern Studenterhjem* in Oslo and *Singsaker Studenterhjem* in Trondheim, providing common meals and recreational activities. Teaching and living as integrated concepts as in the colleges was never a part of the student housing concept in Norway (Høivik 1962).

Student housing in Norway

The university developed gradually from a historically high-cultural elite institution into a contemporary comprehensive university. This extension of higher education institutions over recent decades has consequently led to rising student numbers in Western countries (Rugg *et al.* 2000). As a result of this development, it has become quite a challenge for the institutions in many university cities to accommodate students. In Norway, the students population has also increased, from 180 049 to 223 000 from 1998 - 2006 (Statistics Norway 2006c) and with this has come a growing interest in addressing the issue of student accommodation. A majority of the Norwegian students *rent* accommodation, contrary to the rest of the population, of which 75 per cent were *home-owners* in 2004 (Statistics Norway 2006a & 2006b). Students as home owners still constitute a small group within the student population, and the private housing market covers the major part of student demand for rental accommodation (Brattbak & Medby 2004).

City	Own	Rent privately	Rent other
Oslo	14.6	47.9	37.5
Trondheim	8.2	59.9	31.9
Bergen	8.9	62.2	28.9
Stavanger	8.1	67.1	24.8
Kristiansand	6.9	66.7	26.4
Bodø	7.4	71.8	20.8
Tønsberg	9.2	77.5	13.3
Notodden	4.8	69.2	26
Halden	6.5	61.1	32.4
Ås	4.0	56.2	39.8
Bø	2.7	54	43.3
Volda	3.1	62.7	33.8
Sogndal	4.3	72.2	23.5

Figure 9: Percentage of students who own, rent privately or rent from others¹ in 2003 in selected Norwegian cities (source: Brattbak & Medby 2004).

Private rental accommodation is provided by home-owners who rent out parts of their houses to students and by (semi-)professional landlords. Semi-professional landlords buy houses to let to students, and by doing so they provide approximately 40% of the rental accommodation for students in Trondheim (Oust *et al.* 2003). It is common practice to change the structure of these houses to increase the number of separate units and single rooms. In doing this, maximising the economic profit of the landlords, this has often led to illegal changes in buildings (*Adresseavisen* 06 Oct. 2003). The results of these changes have often led to insecure conditions and low standard housing, and also to a concentration of students in those areas where housing is offered. In terms of student concentration in particular areas, other residents complain about noise, littering and a lack of responsible behaviour on the part of their student neighbours. According to the local paper, residents of one central area in Trondheim demanded that a ban be placed on letting further rooms to students (*Adresseavisen* 11 Jan. 2006). However, as long as the cities and the educational institutions rely on the private market as the main actor in providing rental accommodation for students, it will be difficult to control this development.

According to *Samskipnaden*, there are five main problems associated with the private housing market: *high rent, low housing standards, insecure contract terms, lack of available housing and housing far away from campus* (Brattbak & Medby 2004). Other sources also indicate that the housing standards and conditions experienced by students are lower than those experienced by the rest of the Norwegian population. Concerning housing conditions, Statistics Norway (2006a) reports that on a national basis, 14 per cent of the students suffer from a damp indoor climate. This is a considerably high number when compared to the rest of the population, where only four per cent report the same. When it comes to living space, there is an even larger discrepancy, as 36 per cent of the students state that they have very little living space compared to only six per cent in the rest of the population. Unfortunately, this statistic does not provide detailed information about the type of rental accommodation the students are reporting from, but presumably the major part refers to privately rented accommodation, as on a national basis only 15.9 per cent of the Norwegian students live in institutionally provided housing (Fig.10). The degree of coverage for institutionally provided housing often differs widely from one area to the next. The rural areas usually have a higher percentage of coverage than the university cities.

<i>Samskipnaden in</i>	Accommodation coverage in %
Stavanger	10.2
Finnmark	34.1
Nesna	33.2
Tromsø	22.1
Harstad	7.3
Bodø	17.0
Narvik	40.5
Trondheim	13.6
Nord-Trøndelag	12.7
Romsdal og Nordmøre	16.4
Sunnmøre	14.3
Sogn og Fjordane	16.5
Bergen	11.3
Stord/Haugesund	13.7
Agder	17.9
Telemark	20.0
Vestfold	5.2
Buskerud	17.7
Oslo	19.6
Oslo/Akershus	10.7
Hedmark	13.3
Oppland	35.0
Ås	36.0
Østfold	4.9
Indre Finnmark	55.4
Average	15.9

Figure 10: Percentage coverage of institutionally provided student accommodation in the different regions of Norway in 2003 (Brattbak & Medby 2004:17).

The local *Samskipnaden* in the various regions stated that vacancies are normally not a significant problem. Figures on a national basis show that only 3.5 per cent of all institutionally provided accommodation was not occupied in the autumn of 2003 (Brattbak & Medby 2004). With respect to types of dwelling provided, 60 per cent of the institutionally provided accommodation in Norway is single-room accommodation with shared kitchen and bathroom, 8.5 per cent is single-room accommodation with own bathroom and kitchen, and the remaining 32.5 per cent is flats for couples, either with or without children (Brattbak & Medby 2004).

Institutionally provided student housing lies within the realm of *Samskipnaden* and is financially supported by the state (Ministry of Education and Research). It is seen as a

supplement to the private market's housing offer, which underscores the significance the private housing market has in terms of accommodating students. A general goal of *Samskipnaden* is to provide 20 per cent of the accommodation for students in each university city. In some places they have succeeded in doing so, or provide even more than 20%, but in most of the larger cities, as for instance Trondheim, Bergen, and Stavanger, this goal has yet to be reached (Fig.10).

New student housing is financed by government grants and loans in the Norwegian State Housing Bank (*Husbanken*). In 2008 the maximum cost per new housing unit is limited to NOK 600 000 in Oslo, Bergen, Trondheim, Stavanger and Tromsø, areas that are defined as highly pressured housing markets. For the rest of the country, the limit is set to NOK 400 000. For each housing unit a maximum of NOK 250 000 is given as a grant, the rest has to be financed through the Housing Bank (Husbanken 2007; KD 2007).

The practice is that the local *Samskipnaden* has to document the situation and local needs for housing and has to apply for grants each year. As financial resources are limited, there is no guarantee that they will receive the support they applied for and thus it is often difficult to finance new housing (Brattbak & Medby 2004). The Brattbak & Medby report examined the student housing situation in Norway and concludes that it is most difficult for the students in the larger cities, such as Oslo, Bergen and Trondheim. This is due to pressure in the housing market and high rent rates. According to the report, there is a distinct need for new student accommodation in most of the Norwegian cities in the years to come, and an urgent need in at least nine cities (Brattbak & Medby 2004).

bathroom but shared kitchen (by six students), and flats for couples. Most of the accommodation is provided in new housing blocks, but there are also a few units in a converted building dating from 1929. The new building's main construction material is concrete. The façades are a combination of wood panel and brick. The landscape was designed by Snøhetta Architects. The main attraction of the area is the channel and its surrounding garden and plants. The channel serves as a rainwater collector.

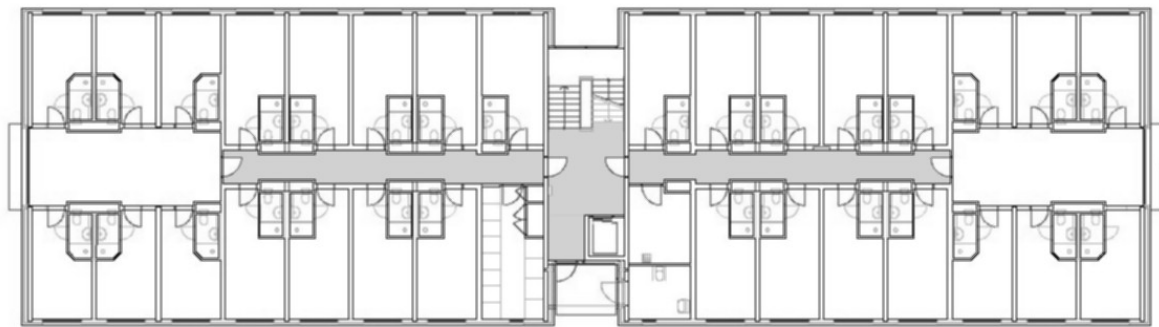


Figure 13 (top left): View of Bjølsen with the water channel to the left.

Figure 14 & 15: Typical section (top right) and typical floor plan of Bjølsen (source: SiO).

Mosvangen in Stavanger is a *small-scale* project in comparison to *Bjølsen*. Helen & Hard Architects converted a youth hostel into 19 individual student residences in 2003 (Ecobox Prosjektdatabase). *Mosvangen* is a unique example, both regarding the type of flats and the design. The flats provided are all different from each other, offering accommodation for one person, couples/family and shared housing that is between 22-60 m². Many of the flats are maisonettes. The hostel has been transformed, partially excavated and face-lifted using recycled building materials. *Mosvangen* is located outside the city centre, in-between the university and the city centre, close to a lake and a park.



Figure 16: Location of Mosvangen in Stavanger (www.gulesider.no/kart).



Figure 17 & 18: Mosvangen elevation (left) and entrance hall (right, source: www.hha.no/works).

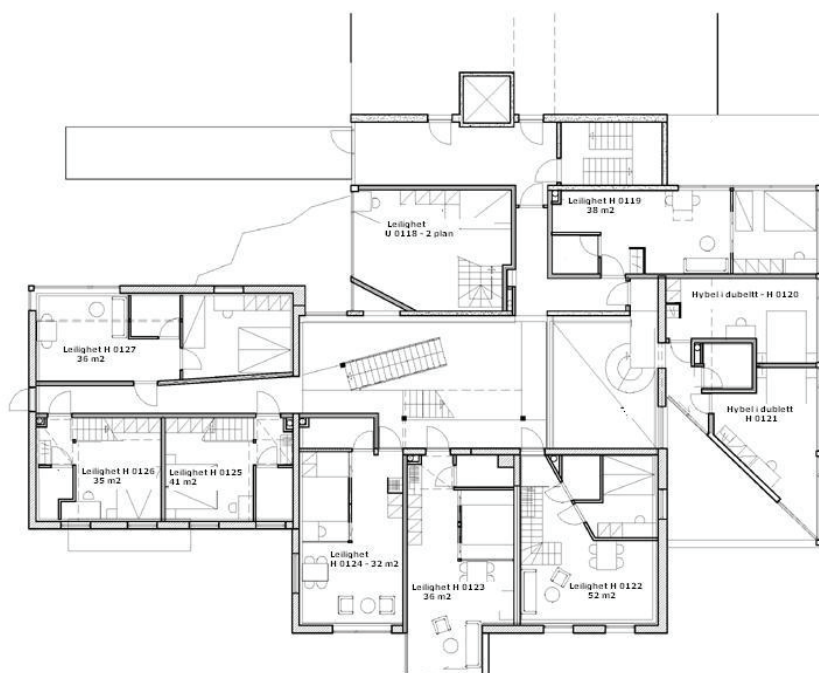


Figure 19: 1st floor, Mosvangen (source: Ecobox prosjektdatabase).

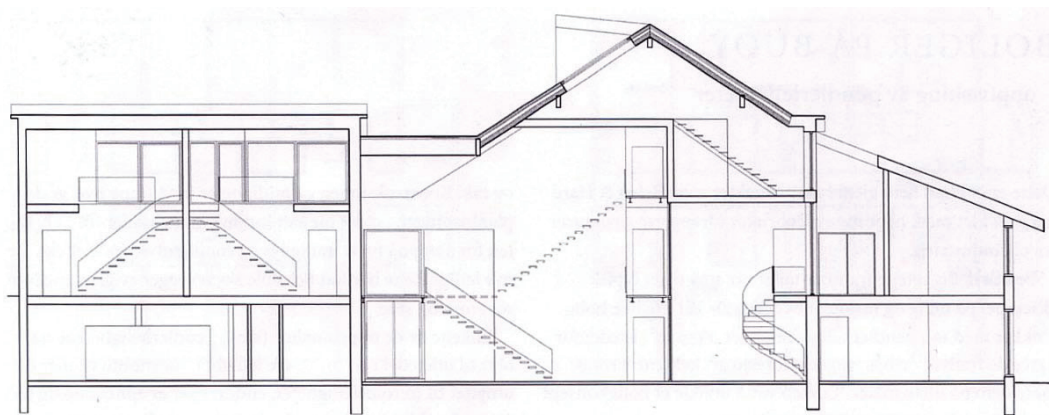


Figure 20: Section, Mosvangen (source: Ecobox prosjektdatabase).

TreStykker is a *small-scale experimental* project in Trondheim, constructed as a result of a student workshop in the summer of 2005. The house was a *temporary* project that was to last for about a year. The project resulted in a *centrally located* house with a 45 m² open space. It is constructed in wood and was designed for three people inhabiting moveable “sleeping boxes” as minimal private spaces. The boxes were flexible elements that could be moved around to divide the open room into different zones. This project was chosen as a case because of its unique and experimental nature. It also has special interesting because it has been designed by students for students.



Figures 21 & 22: Location of *TreStykker* in Trondheim (left, source: www.finn.no/kart), view of the house from the river side (right; source: *TreStykker*).

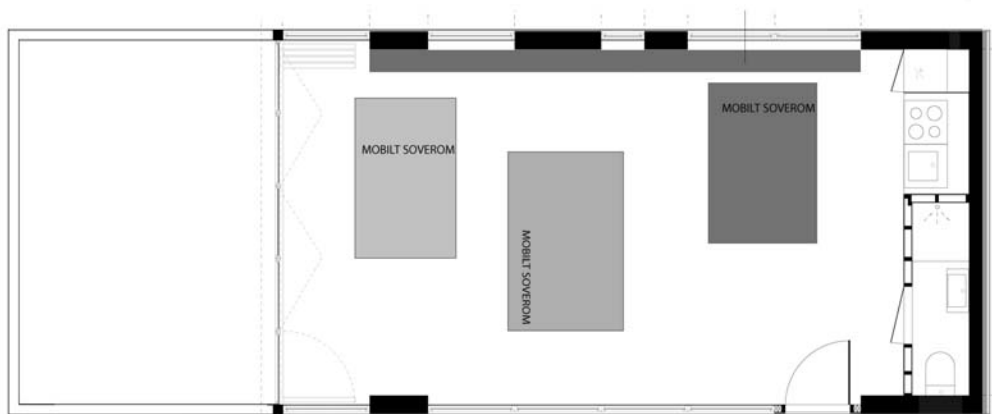


Figure 23: Floor plan, *TreStykker*, showing the “sleeping boxes” (source: *TreStykker*).



Figure 24 & 25: Interior of TreStykker (left), exterior view from the parking lot (right) (source: TreStykker).

Conducting interviews

Semi-structured interviews were conducted with the inhabitants of the case-study buildings. The interviewees at *Bjølsten* and *Mosvangen* were contacted through *Samskipnaden*, SiO and SiS.¹⁰ A letter was sent to the inhabitants and explained the research's main interests, asking for students willing to be interviewed. Both the SiO and SiS offices offered a token monetary sum to each student who agreed to participate.

At *Bjølsten* 35 students reported their interest. The potential interviewees were asked about the type of accommodation they were staying in, their age, gender and length of stay at *Bjølsten*. The intention was to select an equal number of female and male students of different ages and to cover different types of accommodation. Then, the final interview partners were selected according to the information given.

At *Bjølsten* nine students were interviewed. Five of them lived in shared units, whereof three lived in flats for couples, and two in a unit with own bath and a communal kitchen shared by six students. The other four students at *Bjølsten* lived in single units containing bathroom and kitchen. Five of the nine students interviewed are male and four are female, between 20 and 28 years of age. All of them have lived at *Bjølsten* for at least 10 months and up to three years.

¹⁰ SiO: *Samskipnaden* in Oslo; SiS: *Samskipnaden* in Stavanger

At *Mosvangen* the response rate was low. Since the project is much smaller than *Bjølsten*, containing only 19 units, the goal was to talk to at least three, preferably five students. But it turned out to be easier to find nine interviewees out of 1000 at *Bjølsten* than three out of 19 at *Mosvangen*. Finally, three students reported their interest and thus there was no possibility to choose from among several. Fortunately, the students' living circumstances turned out to be quite different: The male student lived alone in a flat; one female student lived together with her son and another female student shared a flat with her boyfriend. They were 24, 36 and 40 years of age and have lived at least one year at *Mosvangen*. The students living at *Mosvangen* are on average older than the students living at *Bjølsten*, which may be due to the different type of dwellings offered in the projects.

In *TreStykker* three students, two male and one female student between 22 and 27 years of age, stayed in the house for a period of one year. These students agreed to be interviewed several times during the time they spent there.

The *TreStykker* case was treated differently from the other cases. As it was a temporary and experimental project, it was followed up more thoroughly to ascertain whether attitudes changed over time, and additional methods were used to elaborate on this specific project. In this case, *group interviews* were used as another interview technique and conducted in addition to the individual interviews.

The (group) interviews are characterised by the interaction of the interviewee(s) and the researcher. In contrast to the (group) interviews, diaries were used as an additional method. They were used to let the students elaborate on their experiences without having to interact with their co-habitants or an interviewer. Diary methodology has been used in various research projects where personal detailed records are regarded as useful data (Dingwall 1997). The diary method provides time for self-reflection.

When talking to the students in the three projects it was important to be open to adjustments during the interviews, and to let the students report unrestrained about their experiences; though it was also important to provide a minimum of structure to ensure that each student would talk about the same topics. It was emphasised that all information was given on a voluntary basis and consent was asked for to tape-record the interviews. Since the topic of the interview is not considered sensitive, ethical questions were not as important as they are in other fields. In this case, the interviewees answered all the questions posed and were not concerned about anonymity, but were of course given full anonymity.

At *Bjølsten* the interviews were conducted in a pleasant SiO office located at *Bjølsten*. The situation was relaxed, though it appeared a bit business-like since the location was a regular office. Only one of the students was interviewed in his flat. That interview situation turned out to be better than in the office as I could examine the room and the details he was talking about. This interview lasted approximately 30 minutes longer than the interviews conducted in the office. This does not necessarily imply that the information received is more informative, or that the interview would have been shorter when conducted in the office; this particular student had a lot to tell.

Before conducting the interviews, the different housing types at *Bjølsten* were visited in order to examine the different solutions first-hand. Therefore, it was not imperative to conduct each interview in the flats, though it would have been an advantage. The length of the nine interviews at *Bjølsten* varied from 35 minutes to one hour and ten minutes.

At *Mosvangen* the interviews were conducted in the students' flats. In this case it was necessary to visit the flats because all floor plan solutions there are unique. The interview atmosphere at *Mosvangen* was relaxed and the length of the interviews varied from 40 minutes to one hour.

Several interviews were conducted in *TreStykker*. The first interviews were individual interviews conducted with each of the students before they moved in, aiming to ascertain the students' expectations. The interviews about expectations lasted for only 15 minutes, while the later interviews lasted for about 45 minutes. The first individual interviews were not conducted in the building but at the local university because the students had not moved in yet. Later, some interviews were conducted in the building, and some at university for reasons of convenience. Altogether two individual interviews with each student and two group interviews were conducted. In the case of *TreStykker*, two interviewers conducted the interviews as the project is also part of a Master's degree thesis in sociology. In addition, a weekly *diary* was written by the *TreStykker* students to reflect on the housing situation and its development. In the interviews and the diaries the students talked about their visions and how they approached their daily life in the house.

Analysis of the interviews

The objective of the analysis of qualitative data is to make sense of things and to understand the important issues related to the research. People's behaviour and opinions in the particular case are explained and interpreted. The interview data was first transcribed and then coded. The documents and codes were systematised with the aid of the HyperResearch program, where the material could be organised into manageable parts. The coding procedure was developed as an own strategy following own understanding and intuition, not following a straight description of data analysis in literature. However, the analysis is close to what is described as an inductive analysis of data, also used in grounded theory, where categories and patterns are developed when analysing the data (Patton 1987). As a first step, I read the interviews and noted preliminary codes, summarising the meaning of what each statement was about. These codes were compared across the interviews to find differences and similarities. In a second step, the codes were reduced and refined, pointing out the main topics of the interviews. After having started to analyse the data, I also could develop more specific ideas about aspects that were important to the students.

The analysis and interpretation process can be described as a spiralling analysis where it is in a circular rather than a linear process, repeating and refining interpretation and analysis several times (Creswell 1998). By refining the coding, the focus is sharpened.

The refinement of understanding in the sense of Stake's (1995) "petite generalisation" is one goal of this procedure. The findings add to existing theories, for instance on young people's housing preferences and pathways, and the meaning of architecture for the appreciation of a place to stay. The findings may also contribute to practice within the field of architecture and future planning of student housing.

Reflections on methodology

While working on the thesis, I had to narrow down the focus of investigation several times, which is a natural process in the case study method. Consequently, not all the issues that were discussed in the interviews turned out to be equally important in the end and there is certainly enough material left to write another thesis with a different focus. However, I found it necessary to keep the interviews open to be able to capture a broad picture of each student's perspectives. I found the qualitative interviews very informative, offering the possibility to meet people and to add new perspectives to my own assumptions about living in a student residence. One disadvantage of the interviews was that the coding process and the analysis of the data is time consuming due to the amount of data collected and the re-reading of the interviews.

Being an interviewer was also more difficult than I had imagined. I learned that it requires some experience to find the right questions to ask and to formulate the questions in a way that generates useful answers. It is also a challenge to acquire enough useful information in relation to the objectives of the study.

The survey provided informative data and even revised some of the expectations I had. Limitations of the survey data appeared while interpreting it, as the background information needed to fully understand their meaning was lacking. I learned for instance that students find the size of their flats important for housing satisfaction, or that they want practical floor plan solutions, however, the data does not reveal what the respondents understand as a practical floor plan or sufficient room size. This shows the difficulties in asking useful questions. It can be a dissatisfactory experience to have obtained results, but not being able to learn about the deeper meaning behind them. However, when combining qualitative and quantitative methodologies, the in-depth explanations can be obtained through the interviews. On several topics, the interview and survey results complemented each other very well, as for instance in the case of what it meant for housing satisfaction that a building had an institutional character. Both, the interviews and the survey confirmed that a perceived institutional character of student housing influences housing satisfaction negatively. The interviews provided a detailed description of what is understood as being institutional, an explanation which would not have been provided by the survey alone. Bearing these issues in mind, I found the combination of the methods successful.

6 Summary of the articles

1. “*Changeable Space as Temporary Home*” investigates the unique *TreStykker* project where primarily an experimental and temporary housing solution is tested. The article focuses on three themes: the daily use of flexible solutions and changeability of the room; social life and privacy; and the meaning and image ascribed to the house by the inhabitants. The research questions answered in this article were: How do the residents make a home in an experimental student house? How do they use the special possibilities of *TreStykker*?

The findings from *TreStykker* indicate that the flexibility provided by this experimental building encouraged the inhabitants to create and re-create their own living space, which seemed to generate an attachment to this temporary place. Privacy was very limited in this dwelling, which could have caused problems in the long run. However, the communal aspect of this form of housing was highly valued and the particular type of space supported social interaction. Moreover, spatial design and a high standard seemed to a certain degree to compensate for minimal living space. Practical solutions and sufficient storage are essential to make daily life function in such a dwelling. The image and design of the project also seemed to contribute to the personal identification of these students with this temporary home.

2. Interviews with inhabitants of *Bjølsten* and *Mosvangen* are the basis for “*Home Experiences in Student Housing*”. The article focuses on students’ reflections on the subjectively experienced aspects of architecture for the appreciation of institutionally provided housing. In this context, the meaning of accommodation having an institutional character is discussed. The main research questions posed were: Which attitudes do the students have towards institutionally provided student housing? Do they link it to an institutional character, and if so, which architectural elements strengthen or counteract an institutional perception?

The findings from the interviews at *Mosvangen* and *Bjølsten* indicate that many students associate institutionally provided housing with an institutional character. Various architectural elements were either associated with an institutional character or a homelike character. The architectural elements that were referred to were such aesthetic aspects as material, colour, light, furniture and the organisation of the space, in particular the entrance situation and the relation of private flats to communal areas. The lack of communal spaces and, consequently, the lack of social interaction were criticized in both cases. The possibility for personalisation and individual adjustments in flats was mentioned as an important element for achieving a feeling of home. Living in satisfactory housing was regarded as an important part of one’s general satisfaction.

3. “*Aspects of Student Housing Satisfaction*” presents the results of a survey conducted among students in Trondheim which focused on the significance of the following five aspects of housing satisfaction: 1. Type of tenancy/ownership, 2. The influence of demographic variables, 3. Housing location, 4. Different housing characteristics, and 5. Individual facilities (kitchen/bathroom). The research questions posed were: Which

aspects are decisive for student housing satisfaction in Trondheim? Is there a difference in satisfaction between students renting institutionally provided housing and others?

The findings from the survey in Trondheim reveal that students living in institutionally provided student housing were more satisfied than students renting accommodation privately. Institutional student housing was popular among a broad part of the respondents, and twice as many as those renting institutionally provided housing today could imagine renting institutionally provided housing in the future (approximately one-third of the respondents). The survey data also shows that the notion of an institutional character influenced housing satisfaction negatively. Housing characteristics, such as size of the flat, light conditions, practical arrangements, the possibility for personal adjustments and level of housing standard were all significant for housing satisfaction, as was a location close to the place of study and the city centre. Having one's own bathroom, kitchen or a separate entrance was surprisingly not amongst the most important factors.

7 Findings

In this section the main empirical findings from the three articles will be discussed in relation to the research questions and their assigned sub-topics:

1 What is important for student housing satisfaction?

- *Identity and personalisation*
- *Home, not institution*
- *Privacy and social interaction*

2 Which aspects influence housing satisfaction?

- *Type of tenancy*
- *Location*
- *Architectural aspects*

3 Which architectural aspects do the students regard important for housing satisfaction?

- *Exteriors*
- *Materials*
- *Colours*
- *Common space*
- *Circulation space and relation to outdoors*
- *Usability of space*

1 What is important for student housing satisfaction?

If housing satisfaction depends on the resident's background, values, stage on the housing pathway and the specific housing situation, what does this imply in the relation to students?

There are certain preferences and expectations linked to the different stages in life, and also to the period when one is a student. In terms of housing, students have to make decisions as to whether they should live in institutionally provided accommodation, privately rented accommodation or purchase own housing, as well as whether they should live in shared housing or alone. The preferences students have for housing depend very much on what is available on the local housing markets. According to Rugg, Rhodes & Jones (2002) the rental market of available housing for students does not always provide satisfactory quality and students often end up renting low standard accommodation. This is due to high pressure in the markets in university cities and students' limited economic resources, but also to their low demands and expectations for their temporary homes (Rugg *et al.* 2002; Kenyon 1997).

One could also argue that expectations for living and housing standards in Norway must be particularly high concerning the societal and economic developments in Norwegian society. However, the reality for students often differs from the generally high housing

standard of the country (Statistics Norway 2006a). As is the case for other groups in society, students are likely to adjust their expectations to the reality and the living conditions of the group they belong to (Mayer 2002). The temporary nature of student housing is another reason why expectations are low and why unsatisfactory housing conditions can be accepted. Thus, it is likely that students are satisfied with accommodation that would not be perceived as satisfactory by other groups of the population in a more permanent housing situation. Despite these assumptions, a closer examination of aspects of housing satisfaction showed that students are *very well aware of the physical conditions of their housing environment* and the positive and negative aspects they ascribe to it for their housing satisfaction.

The findings from the survey show that the general level of satisfaction is high (Article no. 3). The comparison to previous housing situations or other housing alternatives that students know or have information about through friends is one way of explaining this. The interviews also reveal that the students compared themselves to other students, and not to the average Norwegian society when evaluating their housing satisfaction, similar to what has been described as a satisfaction paradox by Häußermann & Siebel (2000). Seen in the context of the other findings of this study, the finding that the general level of housing satisfaction is high, should however, not be regarded as the most important finding of this thesis but is *one result amongst others*, which combined give more detailed information on various aspects that influence housing satisfaction.

In the following, important indicators for housing satisfaction, such as identity and personalisation, an experience of home or institution and aspects of privacy and social life will be focused on.

Identity and Personalisation

Personalising a home through decorating, adjusting and furnishing is part of an identity building process (Després 1991). The expression of personal identity through the home has in general become more important in contemporary society and this is particularly true for young people (Hauge & Kolstad 2007; Frønes 2003). Due to these societal developments it was assumed that many students have experienced a high focus on home decoration and a high living standard at their parental home, and that this would be important for their future homes as well. However, whether or not this would apply to student housing was questionable. As student housing is a temporary housing form, it was interesting to see how the aspect of identity building was viewed in relation to this housing type. Kenyon's study (1999) shows that the future home after graduation was seen as the real home and that it would be more important to adjust it to personal wishes than the student home.

In this study, however, identity and personalisation seemed to be more significant to the students than what was described in Kenyon's work (1999). Personalisation was an important topic in the interviews, and was also a significant aspect influencing housing satisfaction in the survey (see Article no. 3), even though the respondents were in a

temporary housing situation. The interviews show that personalisation was possible to widely varying degrees in the case-study buildings, which depended on the respective house-rules and the physical structure of the house. Flats or rooms where only minor changes and adjustments were allowed were criticised, and consequently provided few possibilities for identity building (see Article no. 2). When asked what they understood personalisation to mean, statements show that despite the temporary housing situation, the students often wished to personalise their home through similar means as established homeowners, for instance through redecoration. This expectation was often difficult to fulfil when there was either little mutual support between inhabitants in shared housing, or when restrictions given by landlords had to be respected. If changes were restricted, it was less likely that a residence was regarded as home. This emphasises the close relationship between expressing identity and home.

Not only the possible degree of personalisation but also the type of dwelling can support the expression of identity. This was exemplified by the experimental building called *TreStykker*. In this case the students saw a supportive image in the dwelling's uniqueness for identity construction (see Article no. 1). They felt that they influenced the house, as the house influenced their identity. Personalisation of space in *TreStykker* was provided through the flexible solutions of the "sleeping boxes" that could be moved around to change room configurations. Even if there were practical problems linked to this particular solution, it is important to note that personalisation was achieved in a unique way in this project.

Home, not institution

The discussion as to whether the concept of the home is as stable as it used to be, and how the home's meaning varies during the different stages in life, was introduced in the theoretical section. In this context it was emphasised that different meanings of home in relation to various housing forms should be given more focus in housing research.

With respect to student accommodation, Heath & Cleaver (2003) claim that previous research has not sufficiently acknowledged the fact that even though it is temporary, student housing is often regarded as "home" by students. My interviews show that both parental and student accommodation could be regarded as homes, but different types. Among students living away from their parents for at least a few years, the student accommodation was seen as the main home. Several aspects are involved in experiencing a place as a home. The physical aspects play an important role in this context, and as mentioned in the previous section, the adaptability of the physical environment is seen as a means for personalisation and expression of identity. However, the physical aspect may also have a negative influence on housing satisfaction and counteract the development of a home experience, such as when a building is perceived as being institutional. Institutional in student housing was generally seen as a negative aspect, both in the qualitative and the quantitative investigation (see Articles 2 & 3).

Student housing as a *building type* was associated with institutional housing by many students, which reveals the image student housing (still) has in the public eye. The findings also reveal that there is a common understanding among the students as to what “institutional” is and that it can be linked to specific physical aspects (see section on architectural aspects). Despite this, it was surprising that the students did not regard *their home* as institutional, neither in the interviews nor in the survey. This may either indicate that the housing experienced by the respondents and interviewees is indeed not very institutional, or that the personal home is foremost experienced as home, even if it has some institutional characteristics. This finding indicates that a home experience can also develop in a partially institutional setting, and that it depends on the perspective, resident or not, from which a building is evaluated. Moreover, it can also be argued in accordance with Häußermann & Siebel (2000) that discrepancies between one’s housing situation and expectations are usually forgotten over time, and the perception of reality is adjusted accordingly.

Privacy and social interaction

The built environment influences the degree of privacy and social interaction in residential settings (Richter 2004; Baum & Valins 1977). Social aspects of student life and the need for contacts among the various inhabitants are probably more important in a student house than in other residential settings. Especially in the case of young students, who are used to living with their family around, new social relations need to be established when they move into their own place. Housing satisfaction among the students was influenced by such qualities as contact with flatmates or neighbours, and also by sufficient possibility of privacy. The importance of a balance of privacy and social contact can also be seen as a necessary balance of individuality and communal life. The private space plays a significant role for an individual’s identity building, and the student phase is a time when personal identity has to be developed independently from the parental home. Having the possibility to be alone and to have a private space to personalise are important aspects in this context. But social life is also important when moving into a student home. The interviews at *Bjølsten* show that communal living is given little attention there, which was seen as a major drawback of this student residence. In contrast to *Bjølsten*, *TreStykker*’s housing concept is based on social interaction, to which the inhabitants responded positively. What was less positive in this case was the lack of privacy. Compared to *TreStykker*, *Bjølsten* was too extreme on both fronts: too few possibilities for social contact, and a high degree of privacy that had the negative outcome of anonymity.

The situation at *Mosvangen* was different due to the personal situations of the interviewees and to the type of dwellings provided. The interviewees here were older than the other students I interviewed and they had been studying for some time. One of them had a child, another shared a flat with a partner, and they all had established contacts in the city. Therefore the need for new social contacts in the residence was of minor importance to them. Due to their personal situation and due to the fact that the dwellings at *Mosvangen* provide space for both privacy and social life within the flats,

the need for communal life outside of one's flat was less important than at *Bjølsen*. Even so, some of them expressed that they missed common spaces for social meetings.

2 Which aspects influence housing satisfaction?

According to the survey results, the following aspects had significant influence on housing satisfaction (Article no. 3).

Type of tenancy

The majority of students in Norway rent accommodation, whereof 15.9 per cent of the students rent institutionally provided housing (Brattbak & Medby 2004). The influence of the type of tenancy on housing satisfaction among students has not been tested in any other research in Norway, as far as I know. Before conducting the survey, it was assumed that privately rented housing would be the major preference due to more freedom and less restrictions compared to institutionally provided housing. No other research could be found that has examined whether institutionally provided housing is preferred to privately rented accommodation or vice versa. UK studies indicate that institutionally provided housing is popular, but the limited number available is often reserved for first-year students, and for many of them it appears to be a preferred way of living as it is a convenient transition to student life (Christie, Munro & Rettig 2002).

In the survey, the type of tenancy was surprisingly the most important aspect in explaining variations in housing satisfaction (see Article no.3). The results show that students owning their dwellings were most satisfied, which is not surprising since they have made the important decision to invest in property. It is thus likely that they have a different relationship to the residence than students who rent and that they have made a satisfactory choice when compared to their preferences for student dwelling.

Students renting institutionally provided housing were more satisfied than students renting privately together with others. This result revised earlier assumptions that privately rented accommodation would be preferred to institutionally provided housing. The result indicates the multitude of choice and quality available in the private rental market with which students have both positive and negative experiences. Compared to this, institutionally provided housing offers a secure and controllable way of renting and a certain level of quality assurance which is not a given in the private market. These aspects seem to contribute to an overall satisfactory result among those who rent institutionally provided housing. This finding indicates that as an institutional provider of student housing, *Samskipnaden* is evaluated as positive. When referring to the institutional nature of student housing, it is therefore useful to distinguish between the *physical aspects* and the *organisational aspects*. The organisational aspects of the institution, such as secure tenancy agreements, responsibility for maintenance and security, were definitely evaluated as positive aspects of living in institutionally provided student housing.

Location

There has been a growing amount of research on the significant role of location when students choose a place to stay, as well as on the consequences of this demand for the local housing markets and areas in university cities (Rugg *et al.* 2000; Smith 2005; Kenyon 1997; Macintyre 2003). It was not surprising that living close to the city centre and close to the place of study was significant in the survey, and influenced housing satisfaction positively. What was surprising is that in addition to the importance of location, the findings show that *several architectural aspects were rated just as important as a good location* (see Article no.3). This comes in contrast to what has been the main focus of public discussions, where students' preference of specific locations usually is the main concern due to the possible consequences for those areas. In this context, UK Universities (2006) pointed out that a high concentration of students in popular areas may lead to physical, social, cultural and economic changes, which may have both positive and negative impact on areas. Citizens and politicians in the city of Trondheim have begun to discuss the problems and changes in downtown areas due to student housing. According to *Adresseavisen* (11 Jan. 2006) local residents' association activists have even discussed if landlords should be prohibited from renting out single rooms in some downtown and other central areas.

Even if not discussed in Article 3, it seems necessary to add some additional information on location here. The results from the survey give also information on the distribution of students in the different areas of Trondheim. They show that only one-third of the respondents live in those areas that have been subject to public discussions on student concentration (Eikemo 2006). Areas that students would prefer as their first choice if they were to move correspond with the "problematic areas" discussed in newspapers, confirming that there is indeed high pressure and demand for accommodation in these areas. However, the results also show that the number of respondents that actually live in these areas was less than suggested. The problems, such as noise and littering that are often connected to the student population, are not less relevant though, but they might not only be due to housing provided to students, but also to other amenities such as cafés and nightclubs, attracting the student population, and not least, other young people as well. These issues should be further investigated.

Opinions on location were not explicitly focused on in the interview-based Articles 1 and 2, and will therefore not be discussed here.

Architectural aspects

The term *architectural aspects* in this thesis comprises both aesthetic and spatial aspects of housing. In previous studies, the architecture of student accommodation has been investigated by focusing on *measurable aspects*, such as size of rooms, or the number of students sharing a bathroom and/or kitchen, for example Oppewal *et al.* (2005). The *subjective perception* of aesthetics and space, and their influence on student housing satisfaction have received very little attention. One example of a study that has focused

on the subjective perception of students' housing situation is Van der Ryn & Silverstein's (1967) examination of the role of both aesthetic and spatial aspects in the notion of an institutional character.

The presence of various housing characteristics (the term used in the survey, in the following it will be described as architectural aspects) was significant in the survey (see Article no. 3). Sufficient size of accommodation, good lighting, practical solutions, a non-institutional character and newly renovated housing were as important for housing satisfaction as good location. When it comes to the case-study buildings, the interviews show that various architectural aspects were important for the students, even if they were not the most important aspects when looking for a place to stay. Nonetheless, most of the interviewees were aware of the design of the case-study buildings and it was seen as a positive aspect if a building "*looked nice*" (Article no. 2). The wish to live in new or newly renovated housing was another key aspect emphasised in the interviews. The architecture also played an important part in the description of the building in terms of being "boring", "old-fashioned" or "trendy". These adjectives revealed whether or not the student residence had the potential to support personal identification, to be accepted as a home, or to be regarded as institutional.

3 Which architectural aspects do the students regard important for housing satisfaction?

The interviewees mentioned several aspects that left them with either positive or negative impressions of the case-study buildings. These can be divided into *aesthetic aspects*, as for instance façade design, materials, colours and aspects of *spatial organisation*. In the context of the spatial organisation, circulation space, common rooms and the entrance situation were especially important.

When reflecting on their surroundings, it is also striking that no general judgments on the building or the situation as a whole were made. What the respondents pointed out were individual aspects, mostly related to aesthetics, such as nice colours, pretty materials and green surroundings. These findings correspond to what Sørby (1992) and Nasar (1989 & 1994) characterise as general differences in laypeople's and architects' evaluation of buildings. Users are more likely to comprehend a building through associations and symbols rather than by understanding the comprehensive picture (Sørby 1992). Nasar (1994) claims that lay people notice details of a building's exterior, while the massing, construction and interconnection of spaces are more important to architects. In this context, Nasar (1989) states that architects could better meet the preferences of the users if they had more information on which aspects laypeople found important and what meaning they ascribed to them.

The statements made by the students in the following provide information on how different aspects are perceived and what associations are made.

Exteriors



Figure 27: Façade, TreStykker
(source: TreStykker).

Studies show that the aesthetic features of the exterior are important for the perception of a building. The styles of façades, their elements and shapes mediate a symbolic meaning and may have an emotional impact on the observer (Gifford 2002; Nasar 1989). Moreover, the building's exterior gives information as to what type of building we are looking at, "*this must be a school; this must be student housing*".

In the interviews, monolithic blocks, characterised by the extensive use of the same material and repetitive elements in the façades were mentioned as negative but also as typical examples of an exterior design associated with student housing. These features were described in relation to older examples of student housing, and seen as a type of architecture that gave little room for personal identification. A façade of uniform expression was more likely to be ascribed an institutional character. The façades of the three case-study buildings did not resemble the example described above, and their design was appreciated by most of the interviewees. Variation in materials, and shapes integrated in the façade were identified as means to reduce uniformity, as well as the perceived size of a building in the urban context. Even if it is a huge project, *Bjølseren* was mentioned as an example that is well integrated into the existing urban context.

Mosvangen had "atypical" elements added to the previously existing façade. Students state that "*the architecture is exciting*", and that the exterior design evokes interest among passers-by. They also thought that this design was not what people usually expect student housing to look like. *TreStykker* had the same effect, that is, not associated with student accommodation, not even a residential building, as it used an uncommonly large amount of glass and in this way revealing the inhabitants' daily activities to the outside world.

The façade is an important element that gives the first impression of a building, and information about the building type. In terms of residential buildings, it may also play a crucial role in determining the degree to which people identify with a place, "*that's where I live!*"

Materials

Materials in an aesthetic sense have both visual and textural qualities. The visual characteristics of a material comprise colour and texture, and the texture also adds a tactile dimension (Richter 2004). Nylander (2002) describes the use of materials and detailing as key elements in our perceptions of the home. He links this significance to

the symbolic signs of materials that we relate to or “*interpret(ed) as indications that the resident is important to someone*” (Nylander 2002:21).

When considering the symbolic value of materials it is interesting to note that “cheap”, “boring” or “worn out” materials were described as typical pictures of institutionally provided student residences. One student said that old houses are in general charming, but in the case of student housing, old simply signifies unpleasantness and worn-out materials. However, the actual year of construction is not important, rather *the level of maintenance*. *Mosvangen* is a converted building, but as it was rehabilitated and face-lifted, it was regarded as new housing.

Materials used in the interior were also discussed in terms of how they influence the experience of different spaces. A student at *Bjølsten* criticised the type of doors opening into the private units as typical institution doors that were heavy, plain and closed, giving the corridor an impersonal feeling. The type of flooring was mentioned in the same context. Vinyl or linoleum flooring used both in the private and public spaces was criticised for not differentiating between those areas. It was seen as having little homelike character in the private spaces, and associated with non-residential buildings such as offices. Nylander (2002) explains that when, for instance, vinyl flooring is not associated with “home” it is due to the lack of authenticity of the material, a perception that depends on the awareness of its origins and understanding of its production. He names the example of wood flooring: it conveys its origin, its way of production and use, while in comparison only few people know how vinyl flooring is made.

The materials used for the exterior of the case-study buildings were appreciated in all of the three cases. In this context the combination of materials was emphasised as positive, as was the untraditional use of material which challenged standard images of student housing and could contribute to an unexpected experience of a house, as very well exemplified at *Mosvangen*.

Colours

A certain spirit and atmosphere may be associated with colours as we ascribe different meanings to different colours. In building design, colour can be a useful means for differentiating rooms and emphasising details (Richter 2004).

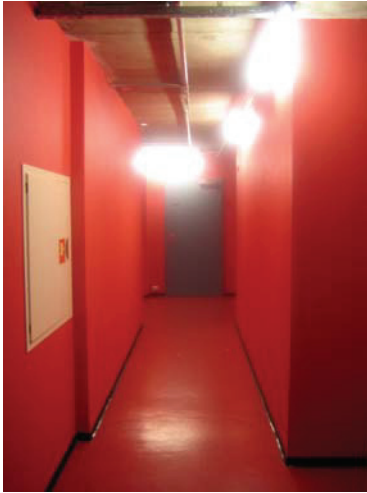


Figure 28: Bright red in corridor at Mosvangen

Colours were important for the students when reflecting on their home environment, and they were controversially perceived. The differences in opinion showed clearly that colours are a difficult issue as they depend to such a high degree on personal taste. *TreStykker* did not apply many colours in the interior. Patterned wallpaper was used to accentuate a few areas in the common room or in the private sleeping boxes. The true colours and textures of the building materials were exposed in this project. At *Bjølsten*, colours were used to differentiate the houses from each other. The colour concept means that the curtains in the private rooms have the same colour as the doors, the entrance hall and corridors. Findings from *Bjølsten* show that a colour that was appreciated in the entrance area could be perceived as less pleasing or even as being too dominant in the private space. A similar example at *Mosvangen* shows that one student thought a bright red colour used in the corridor was acceptable there, but she did not appreciate it in her flat and it took her some time to get used to it. There was a different level of tolerance concerning the use of colour in private and common areas, which may be explained by the amount of time spent in the different types of space. The corridor is a room to pass through, while one stays in the flat for longer periods.

At *Mosvangen*, the architects' designed each flat individually and the interior design was modelled after different mottos, such as "squatting". Making each flat unique is basically a good idea in terms of identity construction. However, the student living in the "squatting" flat was unhappy with the carelessly done concrete work in his bathroom and ceiling, which was meant to accentuate its motto. This and the previous example indicate that special solutions may also lead to negative effects in terms of identification, and that the inhabitants have to tolerate solutions they cannot identify with.

Common space



Figure 29: Example of a common room in combination with the entrance area in Willow Street student housing, New Orleans (source: *Architecture (NY)* 2001, Vol. 90, No.9, p.134).

The spatial organisation gives information about the anticipated relations of the users when planned, and consequently influences social interaction when built (Richter 2004; Baum & Valins 1977). This has been exemplified in a study by Baum & Valins (1977) of the role of the floor plan layout in promoting social contact in student housing.

The spatial organisation of the three case-study buildings prepares the occupants very differently for student life. *TreStykker's* main focus was on communal living, which was expressed through constructing the common room as the main space, and nearly neglecting the need for private space. *Bjølsten* provides a common room for the units that share a kitchen, but none for the students living in single-room units. The interviewees at *Bjølsten*

were from both single-room units and from the units that shared a kitchen. The students living in the rooms with the shared kitchen had contact with their flatmates, and they had chosen consciously to live in a shared flat. However, how *much* contact they actually had was dependent on how well these random flatmates got along with each other. The students living in the single-room units at *Bjølsten* had little or no contact with other students there. The places where they occasionally met other students were the entrance area or the laundry room. Several said that they did not even know who their neighbours were, and some were also not interested in getting to know them, while others said that they would appreciate a common room to support social interaction between the residents. The lack of common rooms at *Bjølsten* was seen as one of the great disadvantages of living there.

As *Mosvangen* provides varied types of flats, for singles, couples and shared housing, the need for common rooms was not seen as important as at *Bjølsten*, where single rooms are the main housing type. However, even if not seeing an urgent need, the interviewees at *Mosvangen* said that a common room would be a good possibility for supporting the social aspect of student life, as, according to one student, the laundry room at *Mosvangen* also the most social of all the rooms.

In relation to facilities, such as bathroom and kitchen, the survey results show that having one's own bathroom, own kitchen and own entrance (see Article no.3) was not significant for satisfaction. The survey informs about priorities, and other aspects were ranked as more important than having these facilities alone. Samskipnaden in Oslo stated that an own bathroom was one of the most important aspects for students when choosing a place to stay (Adressavisen 17 Jan. 2007), nonetheless, the survey results do not support this assumption. However, the opinions in the interviews were divided.

Several of the students interviewed emphasise the importance of having one's own bathroom, and one girl even mentioned it as *the* reason for moving to *Bjølsen*. As the findings give varying results, this aspect should be investigated further, especially as there is a great difference in building costs if bathrooms are to be built for each resident.

Circulation space and relation to outdoors

A building's entry situation, the organisation of the circulation space and its relation to the exterior are important for the characterisation of a building type. According to Robinson (2004 & 2006) these aspects can reveal patterns of either institutional or homelike environments. Nylander (2002) describes the importance of spaces that allow us to move between inside and outside, between public and private, and to meet others, as extremely important to our experiences of the architecture of a home.

The entry situation, circulation space, and the relation to outdoors are dissimilar in the case-study buildings. *Mosvangen's* and *TreStykker's* private spaces have direct access to the outdoors through second entrances, terraces or loggias, while *Bjølsen* does not offer any of these possibilities. A differentiated indoor-outdoor relation is a means of providing different degrees of privacy and personal choice. An informant at *Mosvangen* emphasises that a personal entrance or an entrance shared by a few people enhances the notion of privacy and individuality. On the other hand, *Bjølsen's* entrance situation, with a fire-proof door separating the staircase from a corridor without natural light, was described as impersonal and institutional. *Mosvangen's* spacious entrance area, resembling an atrium, was described in positive terms. Besides being an access space, the circulation area has the potential to provide meeting places and semi-private zones, and a student wished that the spacious entrance hall at *Mosvangen* could be set up as a common room as well.

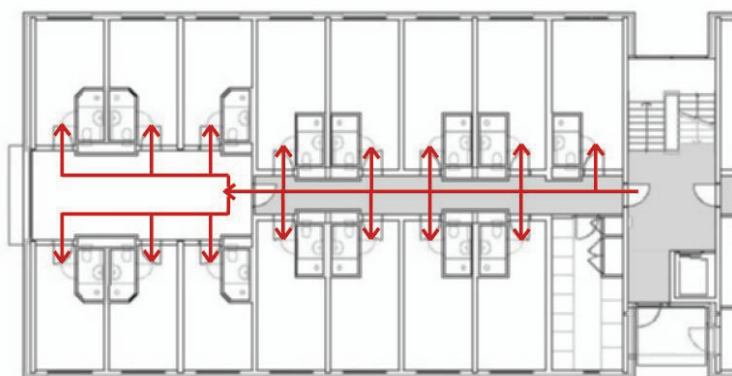


Figure 31: Illustration of the entrances to the private units from the corridor, Bjølsen.

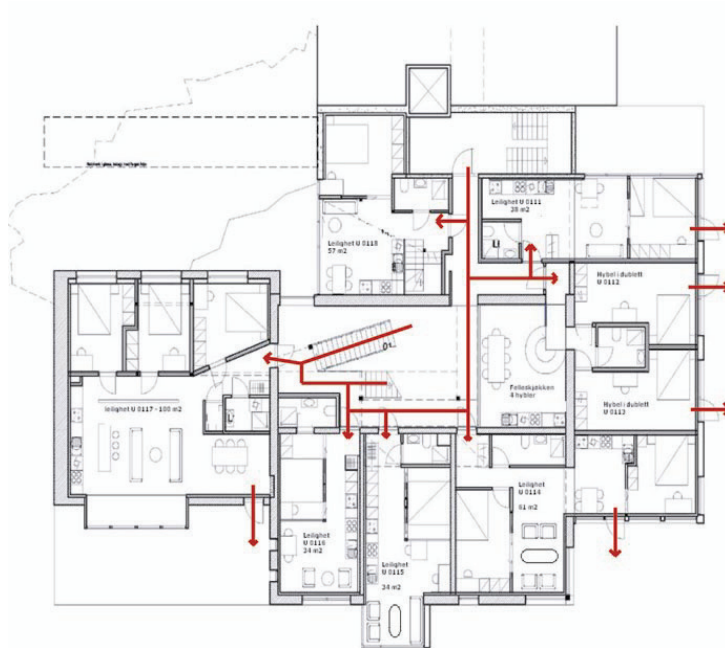


Figure 32: Illustration of the main entrances from the central atrium and secondary connections to the outdoors, Mosvangen.

As it was more like a small house, *TreStykker* had all the aspects of living in a detached house – though in an urban context, without a garden and direct access from the street. Its glass façade revealed daily activities to the outside world. This supported social relations in a positive sense as friends could easily drop by. However, this unrestrained access was also a disadvantage as the privacy of the inhabitants was not always sufficiently protected and strangers also came to have a look inside, as there was no hierarchy indicated between public and private spaces. In such cases, a visible differentiation of areas can be useful in defining a gradient between private and public space which can inhibit people from “intruding” (Richter 2004; Nylander 2002).

Usability of space

The rooms at *Bjølsten* that share a common kitchen are also accessed through the same space. The plan layout of the common room was criticised by the inhabitants as not being functional as social meeting point. One student complained that all the space along the walls was used for doors so it was difficult to furnish the room. There was a lack of possibilities to differentiate zones within the room to provide different degrees of privacy and activity. As a result, the space was mainly used as circulation space and as a kitchen, but did not fill residential purposes.

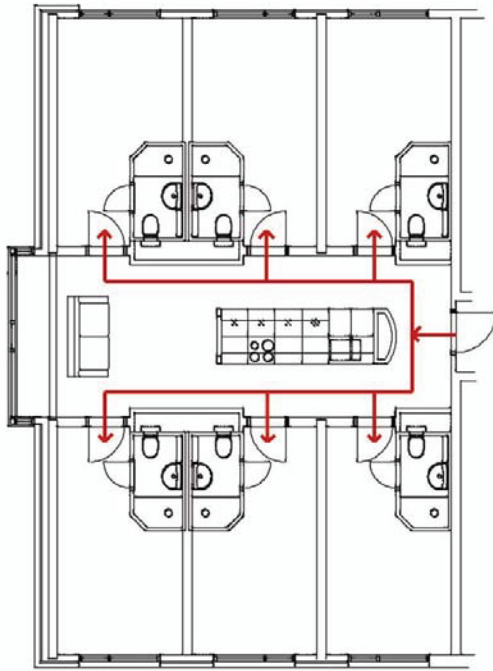


Figure 33: Illustration of communication lines through the common area in shared flats, Bjølsen.

The 17m² single units at *Bjølsen* contain kitchen, bathroom, storage and a combined sleeping and living space of 8m² (2.8 x 2.9m). There were no common rooms provided for these units. The compact and narrow shaped units do not give enough possibility for adaptation and re-furnishing.

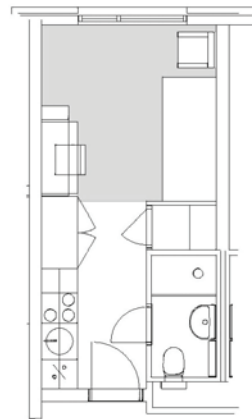


Figure 34 & 35: Furnished single unit at Bjølsen and the floor plan.

As a contrast to this type of dwelling, the common room at *TreStykker* provided space for flexible and multiple use, where different types of zone could be created by the inhabitants. The students appreciated this idea and explored its possibilities. Even though the 45m² of *TreStykker* provided less square meters per student (15m²) than the 17m² of the single units at *Bjølsten*, the possibilities for change and variation were greater. When comparing the two projects, they show very different ideas about student living, which are expressed in a common solution and in an extreme solution for arranging the space.

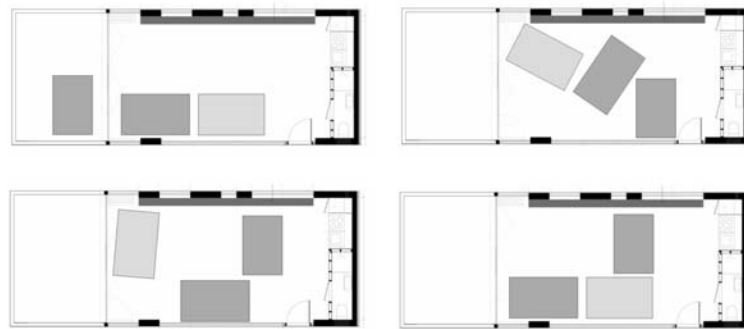


Figure 36 & 37: Students at *TreStykker* (left, source: *TreStykker*), example of different positions of the “sleeping boxes” in the room (right).

Mosvangen's rooms are also not a common type of student accommodation, as all the units and flats are unique. The rooms are either combined with common spaces or are flats with a separate bedroom or alcove, bathroom and kitchen. The flats are spacious (minimum of 22m²) when compared to *Bjølsten*'s single-room units, and are thus easier to adapt to different wishes and needs. Many of the flats have two stories, hence adding a vertical dimension to the flat. The housing offered at *Mosvangen* is adaptable in the way that students in different situations can live in the flats. Some flats can be shared by couples, but also student families and friends can live there.

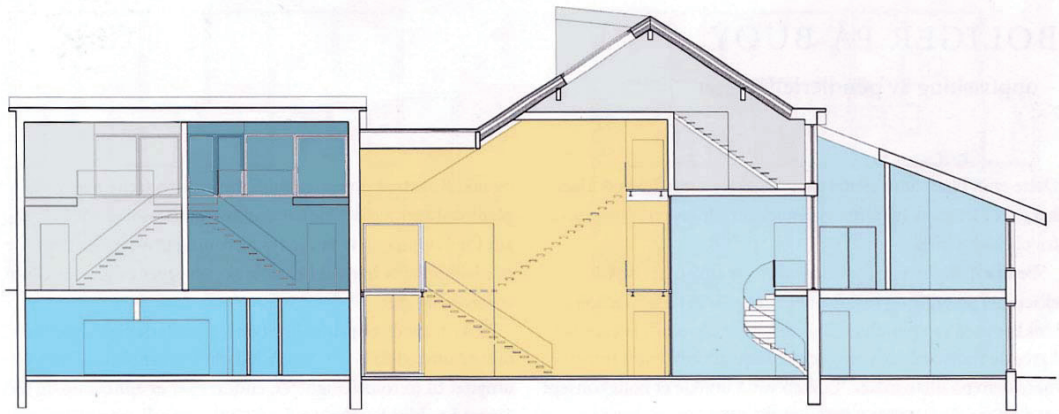


Figure 38: Section of Mosvangen showing different types of flats and the central entrance room.



Figures 39: Views of different types of flats, Mosvangen (source: www.hha.no/works).

8 Conclusions and reflections

The objectives of this study have been to investigate various aspects influencing student housing satisfaction and to gain knowledge on the degree to which student housing is perceived as home by the occupants.

The findings show that important general indicators for student housing satisfaction were the possibility for identity building through personalisation, sufficient privacy and social life, and the perceived degree of an institutional character of housing. These aspects have an important impact on a home experience. In this context, the focus was on the role of architecture for either enhancing or inhibiting the process of establishing a sense of home among residents (Nylander 2002). This study identifies building exterior, the use of material and colours, the spatial organisation of circulation area and entrance, the usability of common facilities and private rooms, and their interconnection, as architectural aspects that the students found important for housing satisfaction.

Personalisation and Identity

Previously, it was suggested that the focus of student life is on leisure-time activities and studying, more than on “home”. While this might be true to some extent, the temporary home was nonetheless important to many. Personalising accommodation and identity expression were discussed by the students, and these factors play a significant role in a home-making process (Articles 1, 2 & 3). The process of home-making includes personal actions such as adapting a place to personal wishes, furnishing or redecorating. Personalisation in student housing can be interpreted as a part of the development of an adult identity. Other studies have also found that identity definition is especially important for students and other young people in contemporary society (Miles 2000), and that they are more aware of identity expression in their homes than elderly people (Hauge & Kolstad 2007). Thus the wish to personalise accommodation can be linked to the development of an independent adult identity, but also to general societal tendencies that increasingly emphasise the importance of identity expression in many domains in life – also in housing, which according to Clapham (2005), has become a way of personal fulfilment.

Student homes

Student housing is temporary in nature, but that does not necessarily mean that it is not perceived as a home by the residents. Temporary student homes are usually regarded as a housing form in-between the “real” homes, such as the parental home and the future home after graduation. In many cases in today’s society the student home is, however, just the first home of several shared and temporary homes along young people’s housing pathways (Heath & Cleaver 2003). As the phase of youth has extended in life courses and the establishment of a family home is postponed by many young people, the distinctions between temporary student homes and other forms of (temporary) homes can often not be drawn clearly. Thus it is important for further theoretical discussions that we acknowledge that student housing is one form of non-familiar living arrangements that expands the meaning of home, going beyond the stereotypical focus

on the (permanent) family home (Heath & Cleaver 2003). This is also due to the fact that the traditional thinking of having one home during the life course is less common today, and having multiple homes has become more usual. This means that people usually experience different types of homes, and even different homes, at the same time.

The framework of housing pathways (Clapham 2005) emphasises the changing meaning and nature of home over time, depending on one's personal situation. In some stages on one's pathway, home may be less important than in others, however, this approach acknowledges that along people's life courses in today's society we find a diversity of living circumstances with different requirements. In this context, it can be argued that there is a wish at all stages for a home environment, also for students in a temporary housing situation.

Privacy and social life

Articles 1 and 2 shed light on the meaning of privacy and social life for student housing satisfaction. The degree of privacy and the interaction of students, which was fostered by the different organisational characteristics of these three projects, were not the same. The spatial organisation of the circulation area, the interconnection of private and common areas, and the entrance situation are crucial for regulating the quantity and quality of social contact. In *TreStykker* (Article 1), there is no gradient between private and communal space, and the lack of privacy would have been problematic in the long run. A balance of privacy and social contact is a necessary balance of individuality and communal life. Too much emphasis on privacy may turn in the negative direction of anonymity, as seen at *Bjølsten*, where contact with neighbours is rare. In this case there are no spaces that function as what Nylander (2002) calls *boarder spaces*. The design of boarder spaces, such as semi-private spaces, entrance areas, verandas, and zones between the most private rooms and public areas, are critical to our experiences of a home environment. These spaces allow residents to move between inside and outside, to observe and guard their territory, and to meet others. In institutionally provided student housing, often too little emphasis is put on the design of the zone between private and public. This has also been pointed out by other studies (Robinson 2004; Richter 2004; Baum & Valins 1977). An exception in this study is Mosvangen, which provided terraces, outdoor spaces and second entrances (Article 2).

Institutionality in student housing

Another aspect of interest in this work was the role of the physical aspects in relation to perceived institutionality in housing and its meaning for housing satisfaction and a home experience. The qualitative and the quantitative data (Articles 2 & 3) show both that a perceived institutional character of accommodation had a negative influence on housing satisfaction and that there was a common understanding among the students as to what institutional is. As student residences can be classified as a partial institution (Robinson 2004 & 2006), it seems natural that they should reveal both characteristics of a home and an institution. Student housing as a building type was in general associated with images of institutional housing (Article 2). However, most of the students did not regard their particular accommodation as being institutional, even if some architectural

elements (see chapter on findings) were described as institutional. The study showed that a home experience could develop in a partially institutional setting such as student housing. The *perceived degree of institutionality* seems to have a crucial influence on housing satisfaction. Aspects enhancing an institutional notion can be tolerated to a certain degree if they do not dominate the overall image. Also important in the context of an institutional notion is the personal relationship towards a place that is usually developed during time of residence. Thus people's perspectives are different when judging housing lived in and other housing, and it is likely that one's own place is not perceived as institutional.

Renting institutionally provided housing

When discussing institutionality it is useful to distinguish between the architectural aspects linked to an institutional character and the administrative aspect of renting from an institution. The architectural aspects that enhanced an institutional impression had a negative influence on the students' perception of accommodation. On the other hand, the administrative aspects of the institution as landlord were positively described. The institutions offer secure tenancy agreements, and the students reported that they appreciated receiving only one bill per month including electricity, internet and rent. Moreover, the institutions take responsibility for services and repairs, leaving few duties to the students. Other reasons why many students are comfortable with the uncomplicated conditions offered by institutionally provided housing are probably linked to a lack of earlier experiences of the housing market, or to either knowing about other's or having had bad experiences. Institutionally provided student accommodation is a convenient way to move from the parent's home and to gain housing experience, especially for young students.

The survey also shows that this form of renting was preferred to renting from private landlords (see Article 3), and it is interesting to note that this offer, characteristic of the student pathway (Ford *et al.* 2002) is actually a preferred way of living, even though personal freedom might be limited in this kind of housing arrangement. The advantage of this support when compared to other groups of young people becomes evident. In relation to a wider debate on how to react to rising student numbers and rising demand for housing, it should be acknowledged that institutionally provided housing is an attractive alternative for many students and indeed an important supplement to the housing offered by the private market. Nowadays, institutionally provided housing only covers a minor part of the student population in most Norwegian university cities and it is therefore not a very strong competitor to what is offered by the private housing market. To provide attractive housing and to challenge the monopoly of the private market, it could be fruitful to discuss an extension of the institutionally provided housing to a larger part of the student population.

How to design future student housing?

The study has looked into architectural aspects that contributed to both positive and negative perceptions among student residents. The building exterior, the use of materials and colours, the spatial organisation of circulation area and entrance, the usability of common facilities and private rooms, and their interconnection, had impact

on the students' perceptions of the building and influenced, for instance, an individual or anonymous notion, or an institutional or home-like character (see findings chapter).

When looking further into the findings it could be concluded, for instance, that a long corridor should be avoided in future designs since this aspect was criticised for creating an impersonal entrance situation. However, if the corridor had natural lighting or a window with a view at the end, or other materials had been used or if there had been integrated meeting spaces, it might have been perceived as a positive space. This example illustrates that the specific design of the respective corridors is decisive for the spatial experience. It should also be kept in mind that the design of each building is a unique task that responds to a particular context and environment, its specific purpose and the users' needs. It is therefore difficult to give very specific advice for future designs.

The following key points address implications for design on a more abstract level than the corridor-example described above. They are formulated as indicators of what, according to the findings from this study, may contribute to attractive student housing, no matter what the given context and housing form is:

- *Variety instead of uniformity*, in relation to the design of dwelling types, the use of materials and the building's exterior design
- *Non-standard instead of predictive design*, focusing on material use and exterior design
- *Robust yet aesthetic solutions*, in material use and detailing in order to tolerate frequent use
- *Differentiation of spaces and provision of private, semi-private and public areas*, through the interconnection of spaces, a gradient between public-private and the definition of meeting points and common spaces ("boarder spaces")
- *Small groups instead of large groups*, in relation to the number of students sharing an entrance and common facilities to enhance a feeling of belonging
- *Floor plan solutions that allow for individual adjustments*, considering the shape of rooms and their usability for e.g. re-furnishing

Implications for further research

In investigating how students perceive the architecture of their accommodation, several important aspects were identified. As each aspect comprises a broad theoretical background there is definite potential for a deeper analysis of their meaning with respect to a home experience.

In relation to the meanings ascribed to various architectural aspects, it should be interesting to expand on the knowledge gained by Nylander (2002) on the meaning of the non-measurable architectural aspects of architecture for a home experience of housing in general, and in particular of student housing and other temporary housing forms. Few research projects have been conducted on this issue.

Aspects of student housing as a temporary housing form are generally relevant for research on the home experiences of different societal groups and on non-traditional housing forms. In relation to discussions on the changing meanings of homes and the meaning of identity and lifestyles for housing, they should be further explored.

In the context of institutional character it would be interesting to investigate several student residences, being described as institutional, from the perspectives of residents and non-residents. The question of whether institutionality is perceived differently by residents and non-residents could be examined in more detail.

The situation in the private housing market for students in Norway is only peripherally touched on in this work. This market and the problems related to student accommodation, and the consequences of a high concentration of students for urban neighbourhoods in small and medium-sized university cities, should be examined further. In this context, the deliberate location of institutionally provided housing in areas different from those already “affected” by a student concentration should be investigated as one option for addressing these problems. In this context it would be interesting to explore in more detail how, or if, positively perceived architecture can balance the choice for a less popular location.

Moreover, the conversion of existing buildings into popular student housing has been discussed by other research (UK Universities 2006; Macintyre 2003). The case-study building Mosvangen is one Norwegian example in this context. Further examples should be examined as alternatives for providing popular student accommodation. As converted buildings often have unique characteristics not associated with typical student housing, it could be asked if these qualities enhance such aspects as identity building.

Bearing in mind the future building processes of student housing, other perspectives than the students’ are also important. As this thesis has focused on the students’ views, investigations into the perspectives of the actors in planning and designing student housing, such as those of architects and builders (e.g. *Samskipnaden*), would add other viewpoints on the balance and constraints of economic and planning aspects.

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Adresseavisen (11 Jan. 2006) Flere ønsker hybelforbud [More and more want a ban on bed-sits]

Adresseavisen (17 Jan. 2007) Studenter vil ha luksus [Students want luxury]

Dagbladet (05 Oct. 2003) Bor som i ”Big Brother” [Living like in ”Big Brother”]

Figures

The sources are given underneath each figure; Judith Thomsen is the source of those figures where no other source is given.

Appendix

Interview guide

My introduction

- Introduction to the topic
- Structure of the interview and its aim
- Mention that: interviewees will be anonymous
- Inform that interviewees do not have to answer each question

General questions

- Age
- Field of study
- How long have you been living here?
- Where did you live before?
Keywords¹¹ for additional questions, if necessary: type of tenancy, type of dwelling?
- Could you mention your reasons for moving here?
- Which role does your flat play in your daily life? Could you tell me about it?
Keywords for additional questions: what does student life signify for you? What do you use your home for? Activities? How much are you at home? Do you invite friends? Do you make dinner at home?

Case study projects:

- Imagine that I do not know the student village/residence? How would you describe it to me?
Add several questions about location, the building, flat, type of dwelling (alone or shared) if not mentioned yet. Adjust to the particular project

Location:

- What do you think of the residence's location? What are the advantages and disadvantages of this location from your point of view?
Keywords for additional questions: available facilities, distance to university, leisure time activities?

¹¹ The keywords and questions were a reminder to me to keep track of the topics the main questions were aiming for. If the students' answers did not cover the topics, or did not go in the 'right' direction, I could ask additional questions.

- Do you think this area has a particular reputation/image among students/other people? How would you describe it, and is it of any importance to you?
Keywords for additional questions: role of personal identification? What do your friends think about the area?

- Do you use areas outside of your flat/residence? Which?
Keywords for additional questions: common rooms, public spaces, semi-private spaces, meeting places, which characteristics do they have?

Residence:

- When you think of the residence's exterior, how would you describe it?
Keywords for additional questions: architecture, materials, expressions?
- Which meaning does a building's exterior/architecture have for you?
Keywords for additional questions: identity, image to others, satisfaction?
- How would you describe the contact among the inhabitants in the residence (or in the flat, if shared accommodation)?
Keywords for additional questions: degree of contact, friendship or anonymous? What is it like to live in shared housing with others you did not know from before?

Dwelling:


- What type of dwelling do you live in?
- Do you prefer this type to other types (single room, preferred to shared, or vice versa)? And why/why not?
- What is important for you to be satisfied with your accommodation?
- How does this particular accommodation attend to your needs and wishes?
Keywords for additional questions: activities, adaptability, personal adjustments, personalisation?
- How important are common spaces? How are they used according to your experiences?
- Could you name the three physical characteristics of your accommodation that you appreciate the most? And the least?

Samskipnaden's student residences:

- How would you describe this residence in comparison to other *Samskipnaden* residences?
- Could you imagine living in another residence provided by *Samskipnaden*? Which and why? (In the case of *TreStykker*: Would you live in *Samskipnaden's* residence at all?)
- What characteristic do you associate spontaneously with *Samskipnaden's* student residences?
- Do you think there is a difference between renting from *Samskipnaden* and renting accommodation privately? If so, what is the difference?

- Do you associate *Samskipnaden's* residences with institutional housing (ask finally, if topic has not been mentioned). If so, which characteristics would you describe as being institutional?

Questionnaire (English version, displayed as in original)


engelsk

Page 1 of 14

Dear student in Trondheim

This is an opportunity to both influence the student housing situation in Trondheim, and to win a trip for two to Prague!

This is a survey from the Trondheim municipal government, which aims to identify the students' housing situation and housing preferences. The information will be used to improve the students' housing situation.

The survey is supported by the Student Union in Trondheim. NTNU Social Research is responsible and questions may be directed to Aksel Tjora, ph 9804 2113, e-mail akselht@svt.ntnu.no

We would be extremely grateful for your reply.

If you answer the questionnaire, you have the opportunity to win 3 main prizes and 10 consolation prizes:


1st prize: Two plane tickets to Prague (month of your choice). Worth NOK 1500
 2nd prize: Cinema tickets, Trondheim Cinema. Worth NOK 500
 3rd prize: Gift voucher Pirbadet. Worth NOK 300
 10th-13th: Gift voucher Tapir /SIT café. Each worth NOK 150

Answering the questionnaire will take you approximately 10 minutes.

MUST BE RETURNED BY THE 28th OF MAY.

This questionnaire consists of 33 questions, but all the questions need not to be answered by all respondents. Of course you can choose to skip questions that you do not want to answer, or are unable to answer.

Data from this survey will be treated confidentially. The e-mail address you fill in to have the opportunity to win, will not be saved together with your answers. The answers can not be traced back to you.


engelsk

Page 2 of 14

1. How satisfied / dissatisfied are you with your own housing situation on a scale from 0 to 10, where 0 is extremely dissatisfied and 10 is extremely satisfied?
 0 1 2 3 4 5 6 7 8 9 10

2. Do you consider it realistic / unrealistic to change accommodation in Trondheim within a time period of 2 years?
 Realistic
 Unrealistic
 Are moving away from Trondheim
 Do not know

3. If you were to change accommodation, would it be of interest / not of interest to (one mark pr line):

	Of interest if housing is centrally situated	Of interest no matter where situated	Not of interest	Do not know
Rent alone (or with partner)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Rent together with others (multi occupied house)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Buy housing to live in yourself (or with partner)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Buy housing with others	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Buy housing to live in yourself and rent parts of it to others	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

4. We would like to know how you like it as a student in Trondheim, and will ask you to place yourself on a scale from 0 to 10, where 0 is extremely dissatisfied and 10 is extremely satisfied.

	0	1	2	3	4	5	6	7	8	9	10
Housing for students in Trondheim	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Student activities / student environment in Trondheim	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Public transportation in Trondheim	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Outdoor opportunities in Trondheim	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Trondheim City life (culture, nightlife, cafés, shopping etc)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Study opportunities	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

5. Do you rent housing from The Student Union, SiT ?

- Yes No

6. Would you consider to rent housing from SiT in the future?

- Yes No Do not know

Back

Next

7. What kind of tenancy / ownership do you have for your present accommodation?
(just one mark)

- Own housing yourself (or with partner)
- Own housing together with friends
- Own housing yourself and rent to friends
- Life for free at parents' / relatives' place (they do not live there)
- Live for free with parents
- Live for free with relatives / friends
- Own housing together with parents / relatives (they do not live there)
- Rent housing from private student housing enterprise (eg Voll student housing complex)
- Rent housing from parents / relatives
- Rent housing from friends
- Rent private housing alone (or with partner)
- Rent private housing with others (multi occupied housing)
- Got nowhere to live / looking for housing
- Other, please specify:

Back

Next

8. The questions that follows deal with your landlord (the person you rent from).

	Yes	No	Do not know
Does your landlord live in the same building?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Does your landlord organise several tenancies?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

9. For how long have you signed your tenancy agreement? Fill in number of months:
(If you don't know, fill inn '99')

10. How long is your period of notice? Fill in number of months:
(If you don't know, fill inn '99')

11. How do you trust your landlord? Place yourself on a scale from 0 to 10, where 0 is extremely low level of trust and 10 is extremely high level of trust.

0 1 2 3 4 5 6 7 8 9 10

12. As a tenant, do you have responsibility for: (one mark pr line)

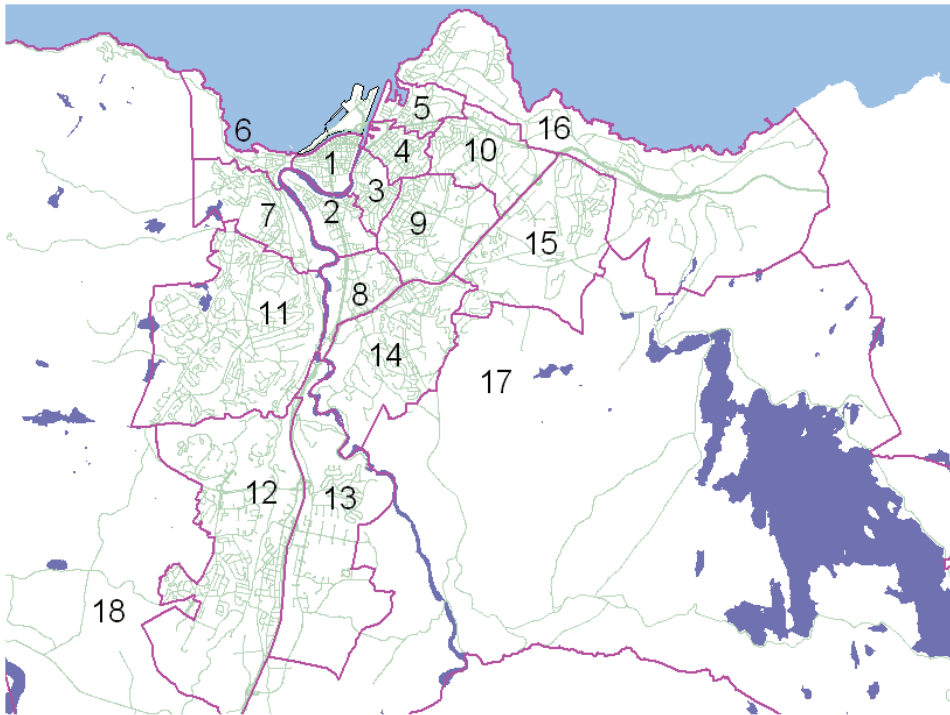
	Yes	No	Do not know
Washing / cleaning of staircase / common area	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Common voluntary cleaning/tidying of common outdoor areas	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Snow clearing	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Various gardening	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

13. Do you feel that you have contributed more, exactly enough or less than what has been expected of you in relation to your obligations?
(If your answer to question 12 was "no", you do not have to answer this question)

- I have done more than what has been expected of me
- I have done exactly what has been expected of me
- I have done less than what has been expected of me

Back

Next



14. In which neighbourhood do you live?
 (Use the map above, if you are uncertain about the name)

15. were to move to other accommodation, which neighbourhood would you like to live in?
 (Use the map above, if you are uncertain about the name)

16. If you were to move to other accommodation, which neighbourhood would be your second choice?
 (Use the map above, if you are uncertain about the name)

17. In what kind of housing do you live?

- House (single unit) or row house
- Duplex or quadruplex (semi detached house)
- Apartment building (wood)
- Older apartment building (brick house) built before 1940
- Modern apartment building (brick house) built after 1940
- Do not know
- Other, please specify:

18. Indicate the size of the living space (square metres) (Please include rooms you share with others):

- Less than 20 m²
- 20 m² - 39 m²
- 40 m² - 69 m²
- 70 m² - 99 m²
- 100 m² - 149 m²
- 150 m² or more

Back

Next

19. How much are you willing to pay as your share of monthly living expenses? (including rent, electricity etc.)

- Less than 2000 kr.
- 2000 kr. to under 3000 kr.
- 3000 kr. to under 4000 kr.
- 4000 kr. to under 5000 kr.
- Over 5000 kr.

20. Where is your main place of study situated?

- Tyholt / Moholt
- Gløshaugen / Øya
- Midtbyen / Kalvskinnet / Brattøra / Nedre Elvehavn
- Leangen / Rotvoll / Tunga
- Dragvoll
- Other

21. How do you normally get to your place of study?
(One mark pr line)

	Walk	Bicycle	Scooter/ motor cycle	Car	Passenger in a car	Public transportation
During the summer	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
During the winter	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

22. How far away is your main place of study? Indicate the approximate distance in km, one way.

Back

Next

23. A normal study term ('semester') has a workload of 30 credits (ECTS-points) How many credits are you planning this term?
(Fill in the number of credits below)

24. you have a job in addition to your studies, how many hours per week do you work?
(Fill in the number of hours below. If you don't have a job, write '0')

Back

Next

25. Are you registered as a citizen of Trondheim at the National Registration Office in connection to your studies?

- Yes
- No
- I come from Trondheim (originally)

26. Gender

- Male
- Female

27. How old are you?

- Under 20
- 20 - 24
- 25 - 29
- 30 - 34
- 35 or more

28. What is your marital status?

- Single without children
- Single with children
- Married / Cohabitant without children
- Married / Cohabitant with children

[Back](#)[Next](#)

29. Where is your fiscal (municipal) domicile?

- In Trondheim
- Around Trondheim (Orkdal, Melhus, Skaun, Klæbu, Malvik or Stjørdal)
- In the rest of Trøndelag
- In the rest of Norway
- Outside Norway

30. Do you travel out of Trondheim in the holidays/weekends?

- Every weekend
- 2-3 times a month
- 1 time a month
- 1-3 times pr study term
- Never

[Back](#)[Next](#)

31. If you were to change accommodation, which factors would be important to you? Place yourself on a scale from 1 to 5 where 1 is of very minor importance and 5 is of major importance. (One mark pr line.)

	1	2	3	4	5
To live close to the forest	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
To live close to the town centre	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
To live close to the place of study	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
To live close to cafés / pubs / clubs / cultural facilities	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
To live close to a bus stop / tram stop	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
To live close to friends / family	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
To be able to have a cat / dog in your own home	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
To live in a neighbourhood with outdoor areas for active / social use	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
To be able to party without inconvenience to others	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
That the accommodation has a garage or parking space	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
To be able to get away from cleaning staircase and common areas	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
To have access to broadband Internet connection	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
To have your own bathroom	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
To have your own kitchen	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
That the apartment / accommodation is large	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
That the apartment / accommodation has a healthy indoor climate (no problems with moist, rot or fungus)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
That the apartment / accommodation has good light conditions (from the windows)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
That the apartment / accommodation has good storage capacities	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
To be able to fit the apartment / accommodation to your own personal style	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
That the building does not have an 'institution character'	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
That the apartment / accommodation has its own entrance	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
That the apartment / accommodation has a practical floor plan	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
That the apartment / accommodation has safe emergency exits	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
That the apartment / accommodation is new / newly renovated	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Back

Next

32. We would like to know to what extent the following factors are present in relation to your current accommodation. Place yourself on a scale from 1 to 5 where 1 is to very small extent and 5 is to large extent. (one mark pr line)

	1	2	3	4	5
Do you live close to the town centre?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Do you live close to the place of study?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Do you live close to a bus stop / tram stop?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Does your neighbourhood have outdoor areas for active / social use?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Are you able to party without inconvenience to others?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Is the apartment / accommodation large enough?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Does the apartment / accommodation have a healthy indoor climate (no damage from moist, rot or fungus)?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Does the apartment / accommodation have good light conditions?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Does the apartment / accommodation have good opportunities for storage of goods?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Have you been able to fit the apartment / accommodation to your own personal style?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Does the building have an 'institution' character?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Is the apartment / accommodation newly renovated?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Does the apartment / accommodation have a practical floor plan?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

33. Answer yes or no.

	Yes	No	Do not know
Do you have access to your own garage or parking space?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Does the apartment / accommodation have access to broadband?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Do you have your own bathroom?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Do you have your own kitchen?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Does the apartment / accommodation have its own entrance?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Does the apartment / accommodation have safe emergency exits?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Back

Next

Thank you for answering our questions! Click "done" to get to the prize site.

Back

Done

Acknowledgements

Writing this PhD thesis would not have been possible without the help of many people, and I thank all of you who took part in this work and supported me with professional advice and help.

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Thank you!

Judith Thomsen

Part II

Appended articles

Changeable Space as Temporary Home

A Qualitative Exploration of Life in an Experimental Student House

Judith Thomsen & Aksel Tjora

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Judith Thomsen, PhD-student at the Dep. of Architectural Design and Management, NTNU, Trondheim, & Aksel Tjora, Associate Professor at the Dep. of Sociology and Political Science at NTNU, Trondheim

TOPIC: TIME-BASED DWELLING

Abstract:

Changeable Space as Temporary Home. A Qualitative Exploration of Life in an Experimental Student House.



This article reports from a study of living experiences in a time-based and experimental student house, "TreStykker"; that was designed and then subsequently constructed in Trondheim, Norway, during a student workshop in the summer of 2005. The use of the flexible solutions provided by TreStykker has made the project relevant for a reflection of "time-base" as architectural design premise. In this article, the term time-based denotes a non-permanent house, where moveable elements are used to change its interior space, adapting it to different needs from time to time. By analysing interviews and diaries of the inhabitants, three themes dealing with living experiences have emerged: (1) the dwelling as a changing scene, examining the daily use of flexibility and changeability of the

room; (2) social life as collaboration, examining issues of social life and privacy; and (3) the dwelling as image statement, examining the meaning ascribed to the house by the inhabitants. Our findings in this specific case indicate that the flexible solutions engage the inhabitants in creating their home environment. Enthusiasm in (re-)creation of the house is a way of generating attachment to a temporary home. On the practical level, the space supports various social activities, but limits privacy, and therefore collaboration between the inhabitants is needed. Further, the experimental housing form supports the contemporary lifestyle of the inhabitants. In general, aspects such as adaptability of the living space and the possibility for social interaction are considered important to increase personal attachment to one's place even if a person only stays for a short period.

Key words:

Student housing, temporary housing, experimental house, flexibility, lifestyle

Introduction



– I live in a large box with no walls and a lot of windows all the way round. And in the room there are three boxes one lives in. The boxes are exactly the same size as your bed with a few

shelves. It's very nice and social but it's quite obvious that you have to have a lot of consideration for the others as well. And people often ask: - don't you have anywhere you could hide yourself away or be by yourself? (Anne)

The way in which houses are spatially organised and rooms are designed and distributed, may provide or restrict possibilities for privacy and social life. Ideas on how social relations are materialised in buildings (Østerberg 1998), as plans, forms and location of houses, may tell us about the anticipated needs and uses when they were planned and built. Beside information about presumed social activities of the users, the spatial organisation is also a reflection of societal values that may depend on period, culture and societies (Hanson 1998).

The functions ascribed to the rooms of a dwelling usually define their sizes and the overall organisation of a house. They may also be seen as a limitation in the use of a dwelling's rooms for non-ascribed purposes. Instead of different rooms for different purposes, TreStykker provides a multi-functional room that can be customised for different purposes, making it possible for three students to share a limited space and still adapt it to different needs.

In this article we present the evaluation of an experimental student house. The main questions addressed are: How do the residents make a home in an experimental house? How do they use the special possibilities of TreStykker? And, how do they experience and cope with problems that arise?

We will emphasise that even though it is not possible to generalise findings of the TreStykker research to modern living as such, the actual "avant-garde-ness" of the project has produced some interesting reflections concerning qualities and challenges related to life in a flexible dwelling. We will argue that these themes are relevant, in varying degrees, to different forms of time-based dwelling and perhaps also to more permanent housing.

The TreStykker Project

Three NTNUⁱⁱ students initiated TreStykker in Trondheim during the spring of 2005. Later, 35 students of architecture from Bergen, Oslo and Trondheim participated in the workshop to design, finance and build a small experimental student house during the summer of 2005. The workshop was run independently by the students, but mentored by the architectural firm 3RW Architects from Bergen. Around 70 local companies and organisations supported the project financially with a sum of approximately 2 million NOK. The proposed solution can be regarded a result of the students' fields of study, their personal experiences and lifestyles, as well as a critical point of view towards existing (student) housing solutions. The project group's overall intention was to propose a different way of designing and conceptualising a student residence.

The project resulted in a unit that provides a 45 m² open space, containing an open kitchen and a separate bathroom (see drawing).

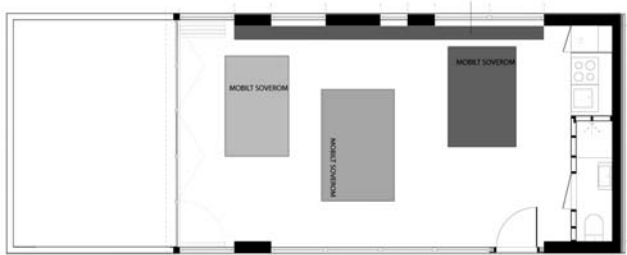
The unit is constructed of massive-wood elements. Two of the four outer walls consist mostly of large floor-to-ceiling windows and doors, rendering the main living space open to passers-by, as well as providing great views. The location is strikingly visible and centrally located in a large parking lot in downtown of Trondheim. The unit is designed for



The sleeping boxes during daytime



three inhabitants, with moveable "sleeping boxes" (see pictures) about a size of 2,5 m² as minimal private spaces. The boxes are not designed alike, but each has its own characteristics. They can be opened and closed by folding and sliding wall elements. The boxes have openings to let in air and light when closed. The sleeping boxes, tables and small storage boxes on wheels represent the flexibility of the house, and are the most unusual elements in the unit compared to a common housing solution. The furniture was designed for the house and the students did not bring any other furniture except two beanbag chairs.



Drawing of the floor plan, showing the open room and the size of the sleeping boxes within.

On the whole, ordinary student housing projects do not provide flexible accommodation for students, and are often characterised by a repetition of housing types. TreStykker suggests a different variant of shared housing, providing minimum private space and asking for - or rather demanding - maximum social visibility and interaction.

TreStykker is meant to provide the inhabitants with the freedom to adapt their space to immediate personal requirements. In fact, the inhabitants have to work actively with their in-door arrangement and the creation of their housing environment. However, the intended freedom can become a limitation if the inhabitants are not willing to make use of the changeable elements, or feel a need for more privacy.

Students as dwellers

Students, as all other people, are not a homogeneous group, but have different social, economic and cultural backgrounds. Still there are certain common factors characterising the time spent as a student. The student life is an important phase that marks the establishing of an own "housing career" comprising the choice of how, where and with whom to live. The term housing career refers to the use of housing facilities according to life phase and economic possibilities, including individual choice and strategies. A housing career goes through different phases, each characterised by specific patterns of housing needs and preferences. These preferences are also dependent on societal norms, economy and personal background (Frønes 2003). It is not possible to conceptualise housing preferences of "the students" in general, but some major tendencies for different cohorts may be identified.

The extension of youth in the life cycle, prolonged time of education, and also the changing role of young women are decisive for the emergence of new establishment pattern

of young people (Frønes & Brusdal 2000). A consequence of this development is a postponed settling-down of young people, so that it is more usual to stay longer in temporary dwellings than before (Støa & Sandnes 2001).

The search for individuality, personal identification, and the definition of one's own lifestyle in the culture of Western societies has become increasingly important, especially for young people (Miles 2000). Young people are involved in a wide range of leisure pursuits, which are often consumption-based and supposed to highlight individuality (Furlong & Cartmel 1997). Also housing preferences can be seen as a part of people's consumption patterns and choices. Consumption is partly a cultural act, and different social groups use consumption items to signal their belonging to a specific group (Gram-Hansen & Bech-Danielsen 2004).

In his work about housing consumption patterns due to generation, life cycle and ethnicity, Frønes (2003) states that at the moment housing preferences of young people and students are focused around central locations and the proximity to leisure time facilities. It is assumed that the representation of an appropriate "image"ⁱⁱⁱ, representing one's lifestyle and personality through a place to stay, plays a more important role among young people's housing preferences today.

Research Methods

TreStykker is analysed as a single unique case in the context of student housing, but may provide an understanding of how such a dwelling functions and is experienced in a real-life context.

Based on insights from architecture and sociology, a combination of various qualitative research methods has been used to collect data about the use and the perceptions of the dwelling unit. *Semi-structured interviews* were applied to address expectations and experiences of flexibility, privacy, social life, and general thoughts about the experiment. *Group interviews* were applied to allow for discussions between the inhabitants, to catch inter-subjective experiences and shared stories from their life together in TreStykker.

Diaries on weekly bases were written by the students to reflect on the housing situation and its development. Diary methods have been used in various research projects where personal detailed records are regarded as useful data (Dingwall 1997).

The students who lived in TreStykker during the study were two male students, Peder^{iv} and Kristian, and one female student, Anne. Kristian studies architecture and was one of the initiators of the project. His experiences with TreStykker must be seen in the relation to this background. The initiators of the project advertised the dwelling, and Anne and Peder were selected as the new inhabitants. In January 2006 the first dwelling period of 5 months came to an end, and Kristian and Anne moved out, leaving place for two new students. The empirical data in this article is collected from the first period, with the first 3 inhabitants. Further analysis of the whole period will be reported later^v.

The different data collection strategies made us able to some degree to test statements put forward. The group interview providing a highly interactive setting with chances to influence each other, whereas the diary method providing time for self-reflection. The interview material was transcribed, coded on basis of themes arising in the informant's statements, and then compared to the themes of the diaries.

Findings

The Dwelling as a Changing Scene



View on the river from the window of a sleeping-box.

Even if TreStykker may not be *the* prototype for new student housing, the physical statement made on privacy, flexibility and use of space contribute to general considerations about housing and what housing *could be*. Before moving in, many expectations for the use of the room and the sleeping boxes were uttered:

The boxes are a bit weird. That's actually what I like best about it. The room should almost have been a bit bigger so that we could have the possibility of actually moving the boxes into a corner and then suddenly having a dance floor. (Peder)

Reflecting on the flexibility, Peder thinks that human beings quickly establish a routine, which is what he expected from the use of the boxes. However, he hoped that they

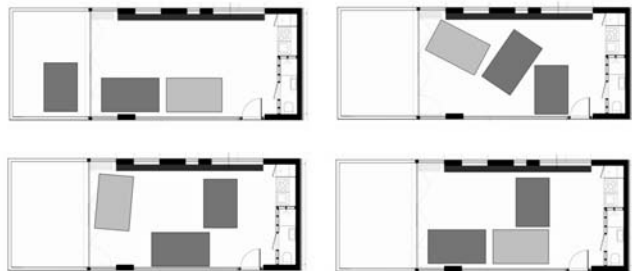


Interior of the house: Storage shelf covering one wall of the room.

would move the boxes around occasionally, at least in the beginning to find a practical solution. Also Kristian expected the boxes not to be moved several times per day. But once in a while, when a new room constellation was required they would take advantage of the flexibility.

Hence, the dwelling can be compared to a changing scene, where room constellations are time-based. The open room is the main scene, which is used to sleep, to eat, to work, and to party. The sleeping boxes and other furniture on wheels are the requisites to alter the scene according to immediate needs:

Everything can be moved around. The boxes can be re-built to become sleeping boxes or furniture during the day, and we can use the boxes to create new spaces. And you can shape it according to mood, state of mind, as required, with a few simple manipulations. (Peder)



Sketches showing some possible arrangements.

The room has to function for weekday activities as well as for the weekend. A division can be made between private and social activities, as when having guests. Kristian describes the advantages of the flexibility in social situations, compared to other dwellings:

The house can be adapted to different social situations. One can make the house bigger by moving and tidying the furniture and the sleeping boxes so that the room is for many people. One groups together in a special way when there are a lot of people here. (Kristian)

When having guests, the students use the unit's flexible qualities efficiently. Even if they found some basic configurations of the room suitable for daily use, they report about *infinite* possibilities in using the room. They are curious to find out if they will manage to find new and better solutions each time they want to create a different space. It seems that it has become a kind of competition to create new rooms and scenes every time they invite people:

And we have been very aware of trying to create new rooms for each party as well. And it becomes a sort of theme. We can make a big room, which is more like a nightclub. We can make several small rooms that make it bit more sort of loungeish. And you also see that people move around according to how the boxes are standing. (Peder)

To change the dwelling's ambience and try different scenes for parties is a learning process about how the spatial constellations work out. The boxes were also moved onto the veranda to gain more space. One of the boxes was even moved onto the porch before a party, but it caused unexpected difficulties to move the box back in. Despite of these problems of practical character, the various possibilities to adapt the space to different occasions and the possibility to divide the space within the dwelling into different zones are regarded as very important. The students name several examples where they organized two rooms within the unit:

... I placed my box so that we created a small room with our boxes and in that way we got two rooms in the house - the small private room and the one where the kitchen is. I thought it was an exciting way of organizing it. (Peder)

As important as the boxes for the creation of different arrangements is the other flexible furniture:

For several days the tables (on wheels) have stood together as a sort of island. (Peder)

In the diary Peder reflects on the fact that the boxes once were not moved around for several days. He thought it was interesting to see how quickly patterns would develop if people did not engage in the creation of the living environ-

ment. People less willing to adapt the space would end up with a more or less permanent arrangement. Still, after having lived in the unit for some time, the students agreed that the sleeping boxes functioned well in many occasions. All the students saw a big potential in moving around the boxes to maintain a changeable space.

Each box must also be changed on a daily basis to provide other functions available to all inhabitants. The bed in Anne's box is for example converted into a sofa during daytime, by sliding the mattress out of the box's back wall. Although the students' comments are often enthusiastic, they do also reflect difficulties with the housing form, as Anne writes in the diary:

I use the sofa that belongs to my box less and less because it takes up a lot of space and makes [the box] bothersome to move around. (Anne's diary)

It was also criticised that there is hardly any place for storage. Therefore, there is a need to be tidy so as not to bother the flatmates. More storage would be helpful to avoid untidiness. Storage and functionality are just as important in time-based housing as in more permanent housing types.

Peder emphasises in the interviews and diaries that the room is too small to use the whole potential of flexibility and that the link between the boxes and the room should have been considered more carefully.

Anne recalled the reason for moving to TreStykker as curiosity. For a short period it is possible to explore an experimental housing form without being bothered too much by problematic aspects. When she was asked what she thought is most important for a temporary dwelling situation, she answered that it was that daily life would function and that you do not feel that it is all just temporary. Because of the temporary situation it is also more difficult to develop an attachment to a place. Level of standard and the quality of design were also discussed as a matter to compensate for challenges as being temporary. Peder emphasised that the level of comfort and quality was much higher than in other places he had stayed before.

The TreStykker approach was based on a belief that moveable elements and the flexibility provided would invite to

adaptations and changes of the daily scene. In this case the flexible solutions firstly seem to have created a high level of involvement in the organisation of the everyday space. And secondly, this appears to have fostered an attachment to the house. More generally, it could be asked if the adaptability of the dwelling in fact contributes to the creation of a "place of one's own" in an easy way.

Social Life and Collaboration

The TreStykker housing design is different from other shared housing, where a private room is usually provided for each inhabitant. Why did the students in the TreStykker project propose such a physical solution? The starting point may have been general considerations made on student housing as a social way of living. It is supposed that students often consider meeting places as especially important, though they are not always provided in student houses. Social arenas can be either part of a dwelling or located outside of a dwelling to serve as meeting point for inhabitants of different dwellings. In our case, the whole dwelling is *the* meeting point. Examples from the interviews and diaries have documented a high degree of socializing and great need for collaboration, as prerequisites for this housing form.

The students did not expect much private life when moving into the unit. All three of them emphasised that their need for privacy was low, and according to themselves probably lower than it would be for many other people. Intimacy might become a critical aspect when living so close together with others, Peder said, but he did not expect this to become a problem for himself. He sees the main intention of the project as challenging the degree of privacy people expect having at home. Kristian said that everybody needs to spend some time alone, occasionally, but he was more interested in living together with others in a common place, than in a place with more private sphere.

The experiences of the students show that when living so close together, it is important to take each other's activities into consideration in the planning of the daily life. According to Anne, a high level of tolerance was needed, as well as not being too dependent on specific personal habits. The low level of privacy has been pointed out frequently, especially in public discussions of the project. In Norway,

a country with an average of 50 m² living space per person (Frønes 2003) the voluntarily abandonment of a spacious private area is difficult to explain to many people. However, also students with a collective attitude sometimes look for privacy:

I had a visit from a mate on Sunday and I discovered that my box could be used for talking about love life and that sort of thing. We put two Beanbag chairs in the box and closed the canopy. And it became a nice private sphere even if the other two were in the room "outside". (Peder)

Despite of Peder's discovery, Anne commented that there never was time for privacy. She prefers to lead private conversations with her boyfriend or close friends outside of the house. Anne also mentioned that this housing form would be very convenient for a couple, where questions of privacy were not as relevant as when sharing with friends. A better sound insulation of the sleeping-boxes would at least increase the level of privacy, and is also to recommend generally for shared housing. Problems in regard to privacy are mostly due to acoustics. Therefore, it is also an advantage to have a similar day/night rhythm to not disturb each other. Anne noticed that she avoided going to bed earlier than the others, because the boys then would have to take special considerations and be quiet.

The meaning of social life is frequently accentuated and seems to be more important than privacy for the inhabitants. The students think that the room works well as a social meeting place in various social settings, even better than other places they have lived in before. Still, in some situations they see the difficulties of reduced private life, for example when having girl- and boyfriends as frequent visitors. Anne also sees difficulties for people who are more at home than she is:

Of course it depends a lot on what sort of life one has as well. If one is a lot at home it might not be that favourable. If you're at home to work and the others are home as well, trying to work is hopeless. (Anne)

The housing form and the spatial organization of a dwelling influence on social life of the inhabitants, and may foster or hamper different forms of behaviour and use. Anne thinks

that the housing form invites her to socialize with her flat-mates more than she probably would have in another type of dwelling:

I appreciate that it's social. Specially if I come home and think I'll just go to bed and then you sit down with the others and chat and play cards and make something nice to drink. You're not forced to be social but encouraged to be more social than you would normally be. (Anne)

Hence, the attitude of the inhabitants is also important to make this housing form function well. At the moment, the lifestyle of the students matches (or can be matched!) with the requirements of the housing form. Still their living situation is likely to change after some time, and a housing form that is so dependent on the collaboration of the dwellers is hardly imaginable to be more than a temporary solution.

The Dwelling as Image Statement



Detail of the façade

A building has several functions. First of all it is a protective shelter against climatic influences and danger. Moreover, the spatial organisation of a building should provide an optimum support of social activities. Beside these utility functions, buildings mediate cultural and symbolic meaning to the outside world. This includes aesthetics and design issues, as well as people's interpretation of a building's appearance (van der Voordt & van Wegen 2005). When appreciating a physical solution, people may feel that they can identify with a building because of the embodiment of certain ideas they support. Therefore, the way people dwell may reveal information about their way of life and be part of the expression of a lifestyle. Lifestyle can be defined as a part of one's self-identity, constructed through specific behaviour and consumption goods, influenced by existing societal structures and personal decision-making. Giddens (1991) describes lifestyles as routinized practices:

the routines incorporated into habits of dress, eating, modes of acting and favoured milieus for encountering others; but the routines followed are reflexively open to change in the

light of the mobile nature of self-identity (Giddens 1991:81).

Miles (2000) states in his work on youth lifestyles that young people are more active in the creation of their lifestyles today than they have been at other times. He suggests also that a person's lifestyle is not simply a mirror image of consumption habits, but that consumption provides a language or code within which lifestyles are constructed. The "language" or "code" as Miles (2000) puts it, mediates information or images to other people about a person's lifestyle. A person may also use these languages or codes, consciously or unconsciously, as a manner to construct a certain image of oneself in public or amongst friends. The idea of what to represent to the outside world is also important for the development of identity among young people. To adapt modes of consumption, pursue certain leisure time activities or to wear a specific type of cloths are ways of showing one's belonging to a specific lifestyle group (Miles 2000). In the case of TreStykker, it can be asked if the students see a supportive image in the dwelling's 'unusualness' for the development of what they perceive as their lifestyle.

A lifestyle is not solely determined by consumption and conscious adaptation of styles, as the term and clichés ascribed to it imply. Lifestyle has become a notion of contemporary living that pervades every person's life due to increasing options and choices within our society (Giddens 1991). The dwelling is a part of the choices people make. According to the students, TreStykker does not match every student's way of life, but only students who have certain "characteristics":

They are sort of creative, dare to gamble and take a few chances, to be a bit risk willing. You have to be social, flexible and tidy. It's "experimental" students or people who are interested in being in on things. (Anne)

Peder is aware of how he signals to his surroundings by making specific choices. He offers a clear definition of his personality and his aims in the interviews and diaries. Before moving in, Peder reflected consciously about the image of the dwelling and its connection to his way of life:

It's a unique chance for me to take part in something special. In general I think it's fun with something a bit out of the

ordinary. I seek to stand out a bit as a person normally. Mostly through what I do and when the chance of doing something new and a bit crazy turns up, it's definitely welcomed. (Peder's diary)

Furthermore, Peder had even the expectation to change his lifestyle while living there, and regards this dwelling experience as important for his personal development:

It's been an important part of my new hope of a different lifestyle. It's been an important transition in my development. Yes, I've become a bit more nomadic. My lifestyle has changed a bit to match TreStykket. And then it in a way becomes a part of one's personality as well. (Peder)

Peder describes 'nomadic' more closely in an interview as being minimalist, just having a few things in a bag, being ready to leave. Nomadic living could also be interpreted as related to time-based housing.

Anne's attitude towards TreStykket is more relaxed, but she thinks that her active lifestyle matches the unit's dwelling form better than other students' way of life would. She does not consciously focus on any image for her lifestyle and appears more ambiguous towards identifying with TreStykket than the others. She is even not sure if she identifies with being a part of TreStykket, but sometimes she feels proud of living in the house:

No, I don't identify with or feel like a "TreStykket". But every time I talk to someone about it a lot of people ask: "Is it true you live there?" Yes! I am a bit proud of it then. (Anne)

Anne thinks it is important that the place she lives in does not have a negative reputation among her friends:

It's good that it doesn't have a bad reputation. If it had been like: "Oh, poor Anne who lives there. It's so awful and I don't understand how she..." then it's obvious that it's not something positive for oneself. (Anne)

Kristian says he identifies with the house, and he believes that his friends identify him with it as well. He demonstrates that the opinions of other people may play an im-

portant role for his definition of his own lifestyle. Generally, friends are important for young people having left their parents' home. This relation usually defines the standard, status and prestige of a way of life, and (housing) attitudes are re-produced and discussed when interacting with the parents or with friends (Mayer 2002). The opinions of others may either positively or negatively influence one's perception of a place. It is clear that the students are engaged in a positive notion of the house in public and among their friends. They appreciate that people are interested and curious about their dwelling.

Reflections

Buildings are not timeless objects and have always been adapted to changing purposes over time. As a vision or a manner to create adaptable dwellings, flexibility has for a long time been a relevant issue in architecture. One can argue that programs and user needs change more rapidly nowadays, and therefore time-based buildings represent ways of approaching sustainability and adaptation to changing user needs.

Flexibility in housing should not necessarily be seen as moveable elements but may include a "neutral" plan solution, where no specific use is pre-scribed to rooms, for example with all rooms of equal size. Flexibility can be based on different time-spans. Some flexible solutions may be changed within a couple of minutes, while others involve greater effort and would occur less frequent.

In a temporary housing situation it is an advantage to be able to adapt the interior without much effort to different needs over time. Even small adaptations may serve to develop a more personal feeling towards a home. It should be a goal to create a varied - or rather a variable - offer of housing units for students.

One of the biggest challenges for a time-based dwelling, as a student house, is to create a pleasant solution that appeals to students' lifestyles. It is a mistake to think that most of all students have the same requirements and preferences. Students' lifestyles are not uniform and the perception of a good dwelling, and the effort one is willing to invest in such, differs from person to person.

In the case of TreStykket, the housing form matches the

momentary independent and explorative lifestyle of the students. It is seen as supportive element to represent a lifestyle, where also friends' acceptance plays a significant role.

Concerning young people's housing preferences, there is evidence that they are willing to trade-off size to other housing qualities, or for a special location. It is therefore especially important to consider alternative housing forms for young people and students (Støa & Sandnes 2001).

TreStykker focuses on other qualities than private space. The adaptability of living space and room for social interaction are both considered important elements, as well as level of standard and design quality. Good standard is more than spaciousness, and little space may be compensated by architectural innovation and design quality, to improve a positive feeling towards a dwelling, even if only time-based.

The daily routine of living is different in TreStykker from what most people are used to. It requires an active participation of the inhabitants. The students themselves conclude about the applicability of the housing form, that other people think the housing form is exciting, but it would be too experimental for many people. It is too far from what people understand and expect from a dwelling. Even if this solution might not be convenient for everybody, the flexibility in TreStykker has proven to be a good way of engaging people in the creation of their living space and thus generating an attachment to a temporary home.

TreStykker creates doubtlessly an exiting and explorative living environment, but reveals also practical difficulties: The acoustics of the boxes should be improved to increase the private sphere. The boxes should be constructed lighter and easier to be handled by one person. The storage for private and common belongings is also a practical problem that should be addressed better when developing similar projects. The flexibility of the boxes could have been used more efficiently if the common room would have been bigger.

The advantages and disadvantage of the different spatial constellations were not explored in particular in this article, but could be an issue for further investigations.

The *ideas* and *elements* incorporated in this project may be seen as *sources of inspiration* for architectural practice. It may

be further discussed to which extent flexibility and changeability is adequate and practical for time-based buildings in general. It is important to take opinions and preferences of contemporary students into consideration, to be able to build satisfactory housing for these temporary dwellers.

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Notes

- ⁱ TreStykker: tre = three (num.) or tre = tree, wood (subst.), stykker = pieces
- ⁱⁱ Norwegian University of Science and Technology
- ⁱⁱⁱ *Image* is used in this context as: a picture of oneself that a person wants to mediate to the outside world.
- ^{iv} All names are fictional
- ^v Further reports from the TreStykker project will be reported as part of Judith Thomsen's PhD-project at the Department of Architectural Design and Management, Norwegian University of Science and Technology, NTNU.

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Home Experiences in Student Housing: About Institutional Character and Temporary Homes

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Paper II

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Aspects of Student Housing Satisfaction: A Quantitative Study

By Judith Thomsen & Terje A. Eikemo

Submitted to *Journal of Housing and the Built Environment*

Abstract The aim of this article is to attain a better understanding of which aspects influence students' housing satisfaction in Trondheim, Norway. Due to rising student numbers in the last decade in Norway, there is a distinct need for new student housing. It has been stated previously that students prefer specific, often central locations in university cities, and that they have become more demanding when it comes to the standard of accommodation. Questions related to how and where to accommodate students have become an issue in both public and professional discussions. This study adds to knowledge on different aspects that influence student housing satisfaction, and thus offers background information for further discussion on the student housing situation in medium-sized university cities. Data were collected through a quantitative survey, which emphasised the following five aspects: 1. Type of tenancy/ownership, 2. The impact of demographic variables, 3. Housing location, 4. Different housing characteristics, and 5. Individual facilities (kitchen/bathroom). The survey data indicate that the most important variables for student residential satisfaction were first, the type of tenancy/ownership, second, the quality of different housing characteristics, and third, the location. In this study, individual facilities and demographic variables did not have a significant effect on housing satisfaction.

Key Words: housing preferences, housing satisfaction, student housing

1 Introduction

1.1 The student housing situation

The provision and development of student housing is a challenge for many university cities in Western countries as a result of the ongoing expansion of higher education institutions and rising student numbers. In this context there has been an increasing amount of research focusing on student housing, the influence of student demand on local housing markets and the impact on the development of university cities, as research from the UK shows (Universities UK 2006; Smith 2005; Rugg *et al.* 2002; Kenyon 1997). In Norway, the growth in student numbers from 180 049 to 211.559 from 1998 - 2006 (Statistics Norway 2006a) has led to greater interest in questions related to student accommodation, which should have a comparative value to other European countries.

This study addresses the housing situation of students in Trondheim, a medium-sized university city in Norway. Here, out of a total population of 28 000 students, 91.8 per cent rent accommodation (including 13.6 per cent renting institutionally provided accommodation) and 8.2 percent owning their own flat (Brattbak & Medby 2004).

Contrary to the rest of the Norwegian population, of which 75 per cent were home-owners in 2004, a majority of students *rent* accommodation (Statistics Norway 2006b & 2006c). The private housing market covers the major part of student demand for rental accommodation (Brattbak & Medby 2004).

1.2 Institutionally provided student housing

The experience of being a student in Norway does not necessarily include staying in institutionally provided accommodation, as the university tradition in Norway does not define student accommodation as the universities responsibility. Nowadays, institutionally provided student housing lies within the responsibility of *Samskipnaden* (Student Welfare Organisation) supported by the government (Ministry of Education), and the objective is to *supplement* the private market's housing offer.ⁱ

To estimate the need for new student housing each year, and to justify the allocation of government grants, the housing situation in each of the university cities needs to be well documented. In 2008 the maximum cost per new housing unit is limited to NOK 600 000ⁱⁱ in areas that are defined as highly pressured housing markets. For the rest of the country, the limit is set to NOK 400 000. For each housing unit a maximum of NOK 250 000 is given as a grant, the rest has to be financed through loans in the Norwegian State Housing Bank (Husbanken 2007; KD 2007). As financial resources are limited, the local Samskipnaden usually does not get as much support from the government for new student housing as it applies for. This makes it difficult to reach the goal of increasing the provision of institutionally provided housing by up to 20 per cent. By providing more and more attractive housing, the intention is also to relieve the pressure in the private housing market. After a period with little building activity, several new residences have been built in Norway since the end of the 1990s. However, the major part of the available accommodation still comprises housing constructed before 1975 (www.sit.no; www.sio.no).



Figures 1 and 2: Examples of recently built student housing in Trondheim (2003) (pictures taken by the author)

The institutionally provided accommodation in Norway usually has few vacancies, and each semester the number of applicants exceeds the available accommodation. Statistics show that the main group renting institutionally provided accommodation comprises students up to 29 years of age (16-17 per cent), while only 7 per cent rent of those over 30 rent such accommodation (Statistics Norway 2006b).

Demand is high but varies according to the different residences. Figures from Oslo show that at the beginning of the academic year, students are usually queuing for rooms in newly built residences, while older student residences are less popular (Aftenposten 2001; Dagsavisen 2005). In newspaper articles and public discussions it is commonly acknowledged that this is due to the student's high demand with respect to standards. Students seem to have developed clear expectations as to how and where they wish to live. They do not want to share a bathroom and kitchen with other students anymore, and they are willing to pay more rent for a better location, view and internet connections. Old student villages are '*unpopular, disgusting and small*' (Aftenposten 2001; Dagsavisen 2005). Even if it appears that students prefer newly built accommodation, these statements are not based on clear evidence. Perhaps students today want more comfort, probably as a reflection of general tendencies in Norwegian society, and due to what they are used to from their parental home, as the standard of Norwegian dwellings is generally high (Brattbakk & Hansen 2004). However, it could also be that students just demand a little better accommodation than hitherto available, both in institutionally provided residences and on the private housing market.

1.3 The private housing market

According to *Samskipnaden*, there are four main problems associated with the private housing market aimed at student tenants in Norway: *high rent, low housing standards, doubtful contract terms, lack of available housing, and housing far away from campus* (Brattbak & Medby 2004). When it comes to housing quality, it has even been reported that on a national basis, 14 per cent of students suffer from a damp indoor climate, which is considerably high compared to the rest of the Norwegian population, where only four per cent report the same. With respect to living space, there is an even larger discrepancy, as 36 per cent of the students state that they have very little living space compared to only 6 per cent in the rest of the Norwegian population (Statistics Norway 2006b). This statistic does not provide detailed information about the type of rental accommodation the students report from. It shows, however, that the housing standard experienced by students is generally lower in comparison to the rest of the Norwegian population.

Private home-owners renting out parts of their house to students and (semi-)professional landlords dominate the rental market for students in Trondheim. Semi-professional landlords buy houses to let to students, which comprises approximately 40 per cent of the rental accommodation for students (Oust *et al.* 2003). It is also common that the building structure of these houses is changed – sometimes even illegally, to make more separate rental units (Adresseavisen 06.10.2003). This speculative ownership is often

concentrated in specific areas and is a significant factor in attracting students to move there. In Norwegian, this development has been given the name *hyblifisering* (a *hybel* is a bed-sitter, usually sharing kitchen and bathroom with several others). In the Norwegian context *hyblifisering* has a negative connotation, describing changes and problems such as illegal changes in housing stock, population replacement and neighbour complaints about noise and rubbish. Research on a comparable phenomenon has been undertaken in the UK by Universities UK (2006) and Smith (2005), on what Smith (2005) describes as 'studentification'. 'Studentification' can have both positive and negative impact on city areas, as for instance, influencing property prices and the local economy, upgrading or downgrading areas, and the replacement of previous residents (Smith 2005). Smith also states that the students are not the initial 'pioneers' of 'studentification' but that landlords are the actual driving force behind this trend. In Trondheim, we still do not know enough about these developments in the private market and the dynamics of *hyblifisering* has not yet been thoroughly understood.

2. Focus of this article

Brattbak & Medby (2004) reported that there is a distinct need for new institutionally provided student housing in several Norwegian cities in the years to come. In this context, it is important to learn about how students would like to live and which aspects they regard important for their housing satisfaction. This knowledge can be useful for future planning of student housing, and also for the development of housing policies in relation to processes of *hyblifisering* and accommodation provided by the private market.

According to *Samskipnaden*, the location, standard, and 'non-shared' housing solutions are the most important aspects for students when choosing a place to stay, while the rent level is of surprisingly minor importance (Brattbakk & Medby 2004).

In general, housing satisfaction depends on such personal factors as different phases in life, social and cultural background, financial situation, expectations, and on the architectural characteristics of a building or a dwelling. People evaluate their housing satisfaction by comparing their preferences to their actual housing situation. If these differ greatly, they are likely to be dissatisfied with where they are living (Gifford 2002). There is also a difference of housing satisfaction among different social groups. Social groups do not necessarily compare their own situation to the average standard in society, but refer to the standard of the group they belong to. People belonging to different social groups consequently show different levels of satisfaction with the same housing condition (Häußermann & Siebel 2000).

Clapham (2005) argues also that the meaning of housing in contemporary society has changed, as it has become a means of personal fulfilment and identity expression. In this context, Hauge & Kolstad (2007), who studied dwellings in Norway, found that middle-aged and especially young people reflected more upon the meaning of their dwelling for identity than older people. This can be linked to young people's need to develop and express an own identity. Thus, it can be assumed that also students in a temporary housing situation are aware of these aspects. One important characteristic of

student housing is its temporary character. When evaluating housing satisfaction, the time perspective – long term or temporary can have a crucial influence on satisfaction. Students in a transient housing situation may therefore consider different aspects important for their housing satisfaction than people in a permanent housing situation.

The questions addressed in the following are:

- Which aspects are decisive for student housing satisfaction in Trondheim?
- Is there a difference in satisfaction between students renting institutionally provided housing and others?

3. Data

A survey is regarded as a useful research method when many informants are needed to answer a few questions to reveal the distribution of characteristics in a population (Dillman 2000). We collected our data through an internet-based survey which was available to all students at the city's higher educational institutions and campuses for two weeks on the NTNU intranet. The survey was conducted in the spring of 2006 in collaboration with the municipality of Trondheim and NTNU Samfunnsforskning AS.ⁱⁱⁱ The students were asked a number of questions about their present housing situation and about their preferences if they were to move. There were 33 questions, of which some had sub-questions. Thus, the collected data are rather comprehensive, and only parts of the information obtained are used in this article. Trondheim local authority has also published a report based on this survey (Eikemo 2006).

4. Method

We applied a five-step multiple linear regression analysis to explain the relationship between the dependent variable housing satisfaction and several explanatory variables. Linear regression analysis is the most commonly used method within the social sciences (Hamilton 1992) and is given by the formula $Y = a + bX_1 + bX_2 + \dots + bX_n + e$, where Y equals the dependent variable, which is explained linearly by the independent variables X_1, X_2, \dots, X_n .^{iv}

By adding the five explanatory variables stepwise into the regressions, we learn how much each explanatory variable influences the dependent variable, but also how and if the previous results change. Some of the statistical concepts, as shown in Table 1 (description of variables) and Table 2 (results of regressions), should be clarified further: While the *mean* quotes the average value of the variables respectively, as seen in Table 1, the *standard deviation* supplements this information by describing the spread of answers around the mean. The more students agree on a given question (variable) the lower the standard deviation will be (i.e. if all students answer the same, then the standard deviation is zero). However, one can only compare standard deviations for variables which have the same scale (i.e. from 0 to 1). With respect to results shown in Table 2, it is first important to determine whether a relationship is *significant*. It is common to state that if a given coefficient would provide the same result in at least 95 out of 100 surveys, then it is significant (with 95% certainty). The *p*-

value is then 0.05 or lower, and all results stated as significant in this study fall within this limit and are **boldfaced** in Table 2. The coefficient *B* calculates how much the expected value of *Y* changes, if the independent variable increases by one unit. A positive number for *B* means a positive relationship between the explanatory variable and housing satisfaction. Furthermore, if the independent variable is a dummy variable (has two values; 0 and 1), then the number of *B* will show the difference between 0 and 1 (for example between men and women). *Beta*: is calculated by dividing the unstandardised coefficient (*B*) with the *standard error* (not given in the model). *Beta* is also interesting as it provides information that enables us to compare the importance between the variables. The closer to -1 or 1 , the more important the association is negatively or positively, respectively. Each model has a number which gives the explained variance (*adjusted R²*). This measure denotes the percentage of variation in the dependent variable accounted for by the independent predictor variables. An adjusted R^2 of 0.2 would mean that the model explains 20 per cent of all variation in housing satisfaction.

4.1 Limitations of data and methods

There are certain limitations associated with the data collection and the applied statistical method. Although we had the potential of spreading information about the study to all students, we cannot control to what degree this actually occurred and which students answered the questions. Trondheim has roughly 28 000 students and our survey comprises 1444 student responses. The relatively low response rate could be a potential problem if some students are over- or under-represented in the survey. However, figures show that the number of respondents within each institution, male/female students, age and type of housing (SiT, ownership, other rent) in the survey corresponds to the actual distribution in Trondheim, which reduces possible bias (Eikemo 2006). Nonetheless, it is important to interpret the results with care, as this is a Trondheim-based study only.

We are assuming that the relationship between the variables is linear. In practice, however, this assumption is seldom confirmed. Fortunately, multiple regression procedures are not greatly affected by minor deviations from this assumption.

One major conceptual limitation is that only certain relationships can be ascertained, implying that it is complex to determine the degree of actual *causality*. It is also hard to measure subjective perception quantitatively. Our survey results do not give in-depth information as to the respondent's motivations and personal perceptions of a situation. In addition to the survey, qualitative interviews with students in three housing projects in Norway have been conducted as a part of the PhD-project this article is related to. The qualitative data provides information on the interviewees' personal attitudes. The combination of the two methods is useful to collect different type of information. However, due to limited space and focus on the quantitative part of the research, the qualitative data cannot be discussed here, but the two articles that have been published on the qualitative data will be referred to (Thomsen & Tjora 2006; Thomsen 2007).

4.2 Variables

The *dependent* variable in this analysis is student satisfaction with their housing situation. This dependent variable was tested against several *independent* variables. The independent variables presented in the following section were chosen because there appears to be a consensus in public discussions and newspaper articles that they impact student housing satisfaction, even if this has not been thoroughly demonstrated. First, we tested the effect of the type of *tenancy/ownership* on housing satisfaction. Our aim was to find out whether there is a difference in the level of satisfaction between students living in institutional accommodation provided by Samskipnaden in Trondheim (SiT) compared to students who own their residence, rent alone, rent together with others or rent with friends. To avoid missing cases, the category “other” was also included as a dummy variable. We hypothesised variations in satisfaction due to different conditions and premises of institutionally provided student housing and other housing.

In the following models we add other explanatory variables to see what influence they might have on housing satisfaction, and if they have an additional effect on the satisfaction with the type of tenancy/ownership. The next variable added is *demographic aspects*, giving age, gender, residential background and the monthly rent students are willing to pay.

The third variable is the *location* of the residence. We believe that it is of interest to the students whether they live near the city centre or the campus. We chose to examine location in accordance with previous research pointing out the importance of location to students (Universities UK 2006; Smith 2005).

The fourth part consists of variables describing whether a number of *housing characteristics* are important or not. This includes information on the perceived size of the flat, light conditions and whether the flat has a practical floor plan solution or is newly renovated. In addition to measurable aspects, such as the size of rooms, we were also interested in more subjective perceptions, for instance if the possibility of being able to adapt an flat to one’s own style is important, or if a building perceived as being institutional decreases the level of housing satisfaction. The aspects we have chosen to examine here focus on architectural aspects of a dwelling. We assumed that students were aware of these characteristics and that they contribute significantly to the perception of housing quality and satisfaction. A study by Kenyon (1999) describes similar aspects that are important for students in order to accept a student residence as a temporary home.

Finally, we examined whether having a separate entrance, bathroom and kitchen was important to the respondents. This could be traced back to the wish to have *individual solutions*, and thus a high degree of privacy.

An overview of the variables is provided in Table 1, while the results are shown in Table 2.

Table 1. Descriptive statistics for all variables included in the linear regression analysis

Variable	Description	N	Min.	Max.	Mean	Std.
<i>Satisfaction with housing situation</i>						
Satisfaction	How satisfied/dissatisfied with housing situation	1433	0	10	7.31	2.029
<i>What kind of tenancy/ownership</i>						
rent_SiT	Rent housing from SiT (<i>reference</i>)	1424	0	1	0.19	0.396
own_housing	Own housing alone or together with others	1444	0	1	0.13	0.335
rent_priv_alone	Rent housing from private landlord alone	1444	0	1	0.18	0.388
rent_priv_others	Rent housing from private landlord with others	1444	0	1	0.37	0.483
rent_friend_fam	Rent housing from family or friends	1444	0	1	0.06	0.241
Others	Other or no renting	1424	0	1	0.05	0.215
<i>Demographic</i>						
Youngerthan_25	Students younger than 25	1436	0	1	0.72	0.450
Women	Gender, 1=female, 0=male	1434	0	1	0.55	0.498
Trondheim	Fiscal domicile in Trondheim (<i>reference</i>)	1444	0	1	0.23	0.420
Trondelag	Fiscal domicile outside Trondheim in Trøndelag	1444	0	1	0.12	0.320
other_places	Fiscal domicile in all other places	1444	0	1	0.66	0.475
monthly_rent	How much are you willing to pay as your share of monthly living expenses in NOK (including rent, electricity, etc.). One unit = NOK 1000.	1437	1.5	5.5	3.24	0.735
<i>Location of housing</i>						
near_city_center	Do you live close to city centre?	1431	1	5	3.45	1.297
near_study_place	Do you live close to campus?	1430	1	5	3.37	1.395
<i>Housing characteristics</i>						
large_enough	Is the f/a large enough?	1430	1	5	3.73	1.236
light_enough	Does the f/a have good light conditions?	1430	1	5	4.01	1.085
personal_style	Able to fit f/a to own personal style	1431	1	5	3.34	1.241
inst_character	Does the building have an "institution" character?	1430	1	5	1.98	1.259
newly_renovated	Is the f/a newly renovated?	1430	1	5	3.06	1.359
<i>Individual facilities</i>						
own_entr	Does the f/a have its own entrance?	1421	0	1	0.85	0.354
own_bath	Do you have your own bathroom?	1424	0	1	0.59	0.492
own_kitchen	Do you have your own kitchen?	1423	0	1	0.57	0.495
Valid cases after list wise deletion		1359				

f/a = flat/accommodation. ^a Min.: minimum value, Max.; maximum value, Std.: standard deviation. N=1359 for all cases.

5. Results and Discussion

The six key findings of the study may be summarised as follows:

1. The general level of housing satisfaction in Trondheim was high.
2. The type of tenancy/ownership was the most important aspect in explaining variations in housing satisfaction.
3. Gender, age, residential background and finances were not significant for housing satisfaction in this survey.
4. Living close to the city centre and close to the place of study was significant for housing satisfaction.
5. The quality of different housing characteristics was essential for housing satisfaction. Housing characteristics were as important for satisfaction as location.
6. Having one's own bathroom, kitchen and entrance was not significant.

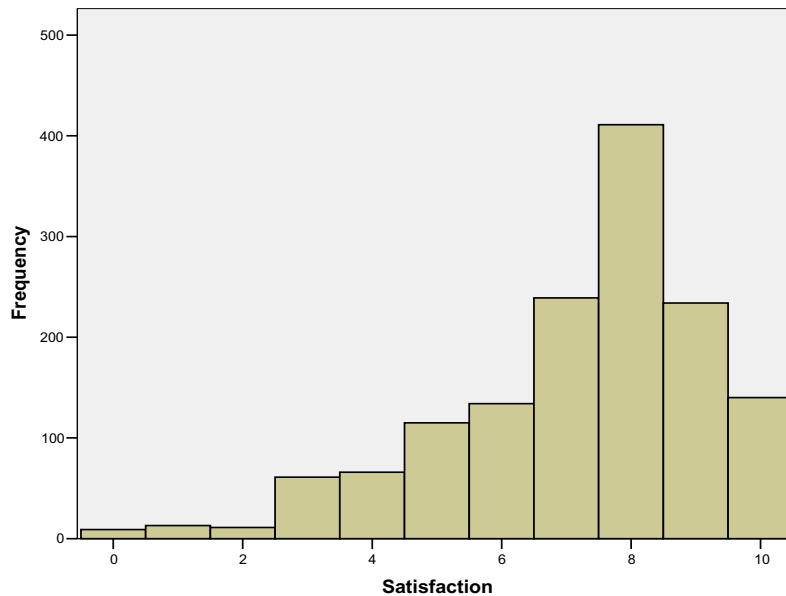
The following section is organised thematically into sections presenting and discussing the results for each variable.

5.1 General Satisfaction

The general level of housing satisfaction in this survey was high (mean 7.31), even if students often live in low standard housing compared to the rest of the Norwegian population (Statistics Norway 2006b). The standard deviation, which measures the spread of the observations around the mean, was estimated at 2.03. This suggests that there is variation yet to be explained.

Figure 3. Degree of satisfaction with housing situation (frequencies):

“How satisfied/dissatisfied are you with your own housing situation on a scale from 0 to 10, where 0 is extremely dissatisfied and 10 is extremely satisfied?”



Mean=7.31 Standard deviation = 2.029

Expectations and preferences among students are produced through comparison to how other students live and through commonly told stories about student housing. Every year, newspapers describe the difficulties in finding accommodation, especially for first-year students. In 2003, the local newspaper *Adresseavisen* reported that Samskipnaden in Trondheim (SiT) had only 51 units to rent out in the beginning of the semester, while there were applications from 1225 students. One landlord wanting to rent out a private flat counted 200 responses to her advertisement (*Adresseavisen* 07.08.2003). Bearing this situation in mind, expectations may be low, especially among the youngest students who maybe satisfied just finding a room with whatever standard.

Even if students live in lower standard housing than the rest of the Norwegian population (Statistics Norway 2006a) the result shows a high level of satisfaction. When housing satisfaction is described as the result of a comparison between preferences and reality, it is a subjectively perceived quality. In accordance with Häußermann & Siebel (2000) who found that social groups do not necessarily compare their own situation to the average standard in society, it is assumed that students compare their housing situation to those of their peers and adjust their own expectations accordingly. Due to their respective preferences and level of expectations, people living in low(er) standard housing are often equally or even more satisfied with their housing situation than people living in high standard housing (Häußermann & Siebel 2000; Mayer 2002).

That the general level of housing satisfaction is high should however not be regarded as the most important finding but there are multiple factors that influence general housing satisfaction, as will be pointed out in the following.

5.2 Tenancy/ownership

Our results show that the type of tenancy/ownership is the most important aspect in explaining variations in housing satisfaction, as the standardised Beta-values (Table 2) are highest for this category. In the analysis we defined SiT renters as the basis ($B=0$) to which the level of housing satisfaction of other students, those not renting from SiT, was compared. The results show that students renting from SiT were significantly less satisfied with their housing situation compared to students who owned their place of residence ($B=1.676$) or rented from family or friends ($B=0.834$). However, the SiT students are more satisfied than people renting from private people together with others. When taking a closer look at regression model 1 in Table 2, we see that the adjusted $R^2 = 0.105$, which indicates that 10.5% of the variation in housing satisfaction is dependent on the type of tenancy/ownership.

The fact that students who own their flats are the most satisfied is not very surprising, considering that they, alone or with their parents, have made the conscious decision to invest in property. They chose a place they found satisfactory – balancing their housing wishes with their financial means. Difficulties with landlords and leases are not relevant issues in the case of ownership. More interesting, though, are the students in our study that rent accommodation. Results show that students renting from SiT are more satisfied than students renting privately. A general impression before conducting the survey was that students have become more demanding and criticise institutionally provided student housing for characteristics such as lack of personal choices and unpopular locations (Adressavisen 20.07.2004). It was assumed that the opportunity for independence and control over one's living circumstances would be important for students, developing an own adult identity. These aspects are better ensured in privately rented accommodation as the private market offers more variation in accommodation types and location, and less institutional control. Nonetheless, within this multitude of choices in the private rental market for students, it has a partly negative reputation in the public eye (Adresseavisen 06.10.2003). Institutionally provided student housing represents a more secure way of renting and an organisation without personal interests involved. It is administrated by an organisation where a certain level of quality assurance and control is expected, which is not assured in the private market. We believe that better general satisfaction among SiT renters is due to this combination of aspects, which are altogether perceived as good conditions, even though some of the aspects may not represent the most preferred characteristics in every case. Perhaps some trade-off in preferences is acceptable for an overall satisfactory and secure housing situation. This assumption is supported, as 531 of the 1,444 respondents could imagine renting from SiT in the future, which is twice as many as respondents renting from SiT today (Eikemo 2006). This is an important finding in relation to the question of how to accommodate students in the future. It indicates that institutionally provided

accommodation is not as unpopular as assumed, and that many students would actually appreciate a housing offer from SiT.

5.3 Demographic variables

The pattern remained stable when we tested the influence of gender, age, residential background and financial possibilities on housing satisfaction. Surprisingly, none of these variables had a significant effect in this survey. We expected that age and monthly rent would influence housing satisfaction because it is likely that older students have had the possibility to find more suitable accommodation over time, and students that can afford to pay more rent can also afford better housing quality. This was not the case as the results show that older students or students who are willing to pay more rent and have more experience in hunting for accommodation are not significantly more satisfied with their housing situation. The lack of influence of age and monthly rent on housing satisfaction shows that the housing situation of students in Trondheim is not perceived as significantly different. This may be an indicator for little differences in housing types and standards provided to students. The high rate of fluctuation among students indicates also that students adjust their housing situation to changing needs and expectations (Statistics Norway 2006b). This result does, however, not correspond to results from qualitative research undertaken on the housing biographies of students. The findings from Christie *et al.* (2002) point out that students improve their skills at finding satisfactory accommodation over the years, and that older students are usually more satisfied.

5.4 Location

The explainable variance in housing satisfaction increased slightly when adding location in Model 3 (adjusted $R^2 = 0.129$). We found that living close to campus had a positive and significant effect on the degree of satisfaction ($B=0.154$). Moreover, students living close to the city centre reported slightly higher levels of housing satisfaction ($B=0.162$) than students living further away. Interestingly, when testing for the influence of the variables monthly rent and location on housing satisfaction together, monthly rent had a significant (and negative) effect. This suggests that satisfaction with a location and monthly rent influence each other. The feeling of living centrally or near the place of study has a positive effect on housing satisfaction, but this satisfaction becomes even stronger for students who pay low rent.

The preference of location is the variable that has significance beyond the individual, since a concentration of students in the same area may have considerable impact on urban development. Universities UK (2006) pointed out that a high concentration of students in popular areas may lead to physical, social, cultural and economic changes, which may have both positive and negative impact on areas ('studentification'). This phenomenon is often linked to the modification and subdivision of houses by property owners to single room occupancies to accommodate students. The problematic aspects arising such as littering, noise, and lack of integration in the local community are

usually cited and are problems that have to be dealt with. Nonetheless, it is also important to note that students also contribute positively to the cultural and social life of university cities, as well as to economic development (Universities UK 2006).

In contrast with much of the available private accommodation, the majority of the institutionally provided student residences in Trondheim are not located in the city centre. Living in a less central location is assumed to influence housing satisfaction negatively. Therefore, the result that students prefer areas in close proximity to their place of study or a location close to the city centre is not surprising. It should however, be asked to which degree the students decide consciously on where they want to live and to which degree the property owners encourage students to move to certain areas by offering accommodation in certain areas. In relation to a high concentration of student in specific areas, the previously discussed finding showing that institutionally provided accommodation is a popular alternative for many students should be considered as a means to provide accommodation in different areas than the private market.

When examining student living in Bristol, Chatterton (1999) points out the meaning of location for supporting a student way of life. This meaning goes beyond housing and education. He links the popularity of certain areas to the provision of cultural and social amenities that aim at a student population, providing an arena for students. This should be kept in mind, when discussing the location of student housing, as it indicates that the popularity of areas is also strongly linked to leisure time activities, attracting students from all over the city. Reported problems such as for instance noise may therefore not only be linked to housing. Complaints about the student population may also be linked to the fact that students as a part of the population live a life-(style) differently from that of the majority (Chatterton 1999). Interestingly, our results show that many students actually do not live in those popular ('affected') areas. The three most preferred areas in this survey are central areas, or being close to one of the two largest campuses. However, when looking at where the students actually live, the results show that only 33 percent live in these three popular areas, but another 27 percent could imagine moving there. On the other hand, 18.4 percent of the respondents live in an area that is characterised as a non-central location, also containing the largest student residence complex in Trondheim. Only 8.3 percent of all respondents would choose this particular area as their first preference.

This result confirms that certain areas are more popular than others, nonetheless, it also shows that *only one third of the respondents live in the most popular places*. In relation to the common perception of areas as 'affected' by a high concentration of students (Adresseavisen 11.01. 2006), this indicates that this perception can only be partly linked to housing and that other amenities aimed such as cafés and cultural facilities have a significant influence on attracting students and certainly also other people to these areas. In this context, it is significant to understand that the boundaries between students and other groups of the population may be difficult to draw, and negative outcomes should not be seen as the general responsibility of the student population.

5.5 Housing characteristics

The quality of different housing characteristics seemed to contribute substantially to housing satisfaction (Model 4 in Table 2). Feeling that the place of residence was large enough ($B=0.351$), having enough light ($B=0.113$), being able to add personal style ($B=0.122$), having a practical floor plan solution ($B=0.283$) and living in a newly renovated place ($B=0.088$) all had positive and significant effects. The only negative association was reported in relation to the degree of an institutional character ($B= -0.116$). The higher students placed themselves on this scale, the less satisfied they were. The difference in satisfaction between SiT renters and people renting on the private market (alone) reached significance after adding housing characteristics, and SiT renters were more satisfied (Table 2). On this point there was also no significant difference between students renting from family/friends and SiT renters. After including these variables, the explained variance was found to be adjusted to $R^2=0.375$, meaning that in this survey, we were able to explain 37.5 percent of aspects influencing housing satisfaction among students in Trondheim. This is a surprisingly high proportion, considering that attitudes are difficult to measure and explain.

The significant influence of housing characteristics on satisfaction for students renting privately (alone and together with others) indicates that housing characteristics of accommodation available on the private market are perceived as less satisfactory than the SiT residences or privately owned housing. Even if this clearly does not apply in every case, the results add to a picture of little satisfactory conditions in the private market (Brattbak & Medby 2004).

In relation to housing characteristics, the independent variable with the greatest significance for student housing satisfaction was the feeling of having enough space. When as many as 36 per cent of the Norwegian students reported limited space (Statistics Norway 2006b), the focus on living space seems natural. Other significant variables were having enough light, living in a newly renovated flat and the degree of practical floor plan solutions. Unfortunately, in a quantitative survey, we do not obtain a detailed description of what students understand to be a practical floor plan solution. A student interviewed by the local paper stated that he wants '*as much space as possible within very little space*'. He added that the floor plan should be open, with roof heights above the average standard for vertical storage space (Adresseavisen 09.02.2004). In & - (2006:16, removed for review) a student finds it convenient that "*the house can be adapted to different social situations*". Hence, a practical floor plan may be seen as a solution contributing to a more convenient everyday life, which is especially important for small student flats where space is limited.

Being able to add *personal style* turned out to be another important variable, even though one could assume that in temporary student housing personalisation might not be as important as in more permanent housing. Adding personal style to one's place is a part of an identity-building process and has influence on a home experience. The home plays a significant role in defining the identity of the individual. Identity is created through furnishing, personal belongings and decoration, while the exterior appearance

of a house also plays an important role in terms of representing identity (Robinson 2004). Literature within the field of youth studies states that the definition of identity through housing and other means has become increasingly important for young people in Western society (Furlong & Cartmel, 1997; Miles 2000). In this context, a student quoted in Thomsen (2007:593) explains that “*Many young people are very preoccupied by style, to feel well. (...) Many are very demanding. The way society is now is that they’re very preoccupied with everything being stylish and nice*”. Also Kenyon’s (1999) study on students’ transitional experiences of home points out the meaning of aesthetically pleasing architecture of student accommodation for a home experience.

When moving into a new place, it can be a difficult process to add a personal note, especially where efforts to make oneself feel at home are limited, such as in temporary student housing. The survey’s results reveal, however that also students in a transient housing situation would like to personalise their place of residence. This is also indicated by Thomsen’s (2007) and by Kenyon’s (1999) findings. The degree to which one can make individual adjustments in the flats supports identity expression and is an indicator of the student’s housing satisfaction.

Perceived institutionality in housing is another factor that may inhibit processes of identity building. The survey results show that the students did not want to live in a building whose architecture has an institutional character, and also the students interviewed on the same topic were less appreciative of buildings with institutional characteristics than buildings not perceived as institutional or only partly institutional. One student describes institutionality in his accommodation, stating that “*it makes it a rather institutional character when everything is the same (...) It makes it a bit impersonal*” (Thomsen 2007:589).

Robinson (2004) documents that ‘institutionality’ and ‘homeyness’ are housing qualities that are understood by the general public. She defines institutionality in relation to domesticity and to the degree of institutionality perceived in the design of different types of building. Institutionally provided student housing is classified as a partial institution by Robinson (2004). This is based on the aspects of the inhabitants’ partial dependency on an organisation, focus on housing a group and the individual’s lack of influence on housing–environment decisions. It is also possible to identify many of the architectural elements that evoke associations either with being home-like or institutional. Contextual settings and architectural elements, such as facades, entrances, materials and a buildings’ spatial organisation influence our perception and categorisation of buildings. In this survey, the term institutional evoked a clearly negative association. Nonetheless, Robinson (2004) states also that home and institution are no strictly opposite terms, and that homes can be associated with negative experiences and institutions with positive experiences. Qualitative interviews also show that student residences can be appreciated by the inhabitants despite institutional characteristics (Thomsen 2007). In the context of the architecture of student housing, *the balance of the physical attributes* seems to be decisive for the overall perception. An example shows that a corridor solution in a residence is described as sterile, impersonal and with too many closed doors, which the students link to an institutional nature. However, the overall judgement of the same residence resulted in a positive

connotation, since other elements were perceived positively, balancing impressions (Thomsen 2007). This emphasises that there can be great variation in the degree to which a building is perceived as having an institutional or homelike character. Moreover, the perceived degree of personal control and individuality in institutionally provided housing is also influenced by the rules of the respective organisation.

5.6 Individual solutions

We put the aspects separate bathroom, kitchen and entrance under the category individual solutions. Samskipnaden reports that accommodations with shared bathrooms and kitchens are difficult to rent out (Brattbak & Medby 2004). Many new institutional student housing projects now offer separate bathrooms for each unit. We assumed that today's high housing standards in Norway may also be reflected in a demand for higher housing standards in student homes.

However, when adding these variables, which we believed to be important, no significant effects were found. A tolerance test (Hamilton 1992) showed that the three variables were strongly correlated with each other, indicating that respondents who have their own entrance also have their own kitchen and bathroom. Considering the survey's results, one could however, assume that the provision of separate bathrooms, and thus privacy, is overemphasised. Interestingly, the findings from the survey are contradictory to the statements of Samskipnaden and to the previously mentioned newspaper articles (Aftenposten 2001; Dagsavisen 2005), stating that students do not want to share a bathroom anymore. The personal opinions of students interviewed also indicate that individual solutions are important to many, as for instance a private entrance can enhance the perception of individuality and having a flat of one's own (Thomsen 2007).

An explanation for the survey result could also be that students appreciate a separate bathroom, entrance or kitchen, but consider aspects such as a central location or other housing characteristics as more essential for their housing satisfaction. Since the findings on this topic are controversial, it would be worth to further investigate the need for private facilities. Even if a separate bathroom certainly increases housing satisfaction, it is nonetheless a high cost factor and the economic resources for new student housing are limited.

6. Concluding remarks

Many of the aspects we examined in the survey were based on general impressions but lacked representative documentation.

The authors did not expect to find that students renting institutionally provided housing were more satisfied than students renting private accommodation, and that considerably more students could imagine renting institutional accommodation in the future. This is an important finding, documenting that institutionally provided student housing is a preferred way of living for part of the student population. The offer of institutionally

provided accommodation is, therefore, important in university cities. It should also be seen as a possible counterbalance to the monopoly of the private market, whose dynamics and quality are less controllable. Renting institutionally provided accommodation was evaluated positively, while housing characteristics linked to an institutional character had a negative influence on housing satisfaction. It can therefore distinguished between the organisational aspects of the institution, including secure tenancy agreements, responsibility for maintenance and security, and the physical aspects linked to an institutional character.

The significance of housing characteristics was surprisingly high. Some, such as the size of one's room and a practical floor plan solution, had even a higher effect on housing satisfaction than location, which traditionally is focused on as the most important variable in public discussions. Personal style and a non-institutional character were also important aspects influencing housing satisfaction. These aspects can be linked to the wish of identity expression, which has become increasingly important for young people in contemporary society (Miles 2000; Hauge & Kolstad 2007). These findings show that also students in temporary accommodation perceive their physical environment as an important factor for housing satisfaction, even if it was assumed that these aspects were less important than in more permanent housing.

In cases of high concentrations of students in certain locations and observed problems in this context, it should therefore be noted for further planning and policies that housing characteristics are a very important part of an attractive housing offer. When students consider these the same way as they consider location they are perhaps a reason for which students could be willing to live in a less popular location. It should be addressed how and if the development of new institutionally provided accommodation could contribute to this.

To approach questions concerning location, more investigation is necessary. Policies that address these issues in Norway have yet to be developed, and discussions on restricting the renovation of housing stock to make smaller units (*'hybler'*) in specific areas has not yielded any results so far. As long as the private market covers the major part of student demand, it will be difficult to have significant influence on the development described above.

At last, but not least, it should be pointed out that the presence of students in cities also contributes positively to society, culture, and local economies. The fact that students are educated individuals that are an important resource for the future of the cities and the country is rarely mentioned in discussions.

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Endnotes

ⁱ *Samskipnaden* founded in Norway in 1948, is a non-profit organisation with a majority of students sitting on its board (www.sit.no; www.sio.no). *Samskipnaden* operates independently in each university city, providing a wide range of services in the areas of health, sports, bookshops and also student housing.

ⁱⁱ 600.000 Norwegian Kroner are approximately 75.000 Euro (8 NoK = 1 €)

ⁱⁱⁱ NTNU Samfunnsforskning AS is a Norwegian R&D company owned by the Norwegian University of Science and Technology (NTNU) and operating mainly within the social-science field.

^{iv} Not all of the variation in Y might be explained, and this unexplained part (residual) is represented by the error term e . The constant, a , gives the (expected) average value of Y , and the variation around this mean is calculated on the basis of the coefficients (b) of the independent variables (X).