



# **A narration of landscape identity with focus on the people's activities in Uppsala**

Case study: Luthagen, Uppsala

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Independent project • 30credits

Swedish University of Agricultural Sciences, SLU

Faculty of Natural Resources and Agricultural Sciences

Landscape Architecture for Sustainable Urbanisation - Master's Programme

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# Abstract

Understanding landscape identity. Through understanding the landscape identities and how residents identify their landscape, future plans can be considerably sustainable by preserving and promoting the characteristics of identity of the landscape and conducting the planned changes towards sustaining those values, meanings, and identities that are important for an integrated society.

I show that perceiving the distinctive characters and ascribing them as identities occurs through a dynamic interaction with the landscape. I discuss how landscape can be seen as a social product and that the characters by which a landscape is identified can also be cultural and existential apart from being personal and spatial.

Spatial refers to visual aspects and spatial characteristics of a place. The meaning and value that the landscape may have for someone, is basically related to personal experiences. When a common value is accepted by a group, they constitute cultural aspects of identity. It can be shaped as landmarks, toponyms, common memories of events, etc. The existential aspect concerns memories and associations and signifies an inherent quality of a landscape perceived by individuals.

Taking Luthagen in Uppsala as an example, I demonstrate how a conceptual framework of Stobbelaar and Pedroli (2011) can be applied in understanding landscape identities to know what to protect, strengthen or develop.

I run a survey consisting of interviews and a questionnaire to the residents of Luthagen. The four aspects of identity are taken as test variables as categorized by the mutual relations of the four essences of identities.

Through data analysis, I present how many times and to what importance each aspect of landscape identity was mentioned by the residents.

I developed a method compatible with opinion measurement techniques to infer descriptive information from the multiple-choice-answers to find which aspect of identity was meant using machine learning techniques to handle more extensive data and towards inclusiveness. The results comparability shows that this method can be used in future works using quizzes and questionnaires, which are fast, effective, and can gather a populated dataset for field research.

Ethnicity and understanding the landscape identity were mentioned in one of my research questions. I dug in and achieved some points that can help architects and planners design a more meaningful and valuable environment for immigrants.

I found that regardless of backgrounds people tend to know their landscape by its spatial identities rather than existential. The attention is gradually drawn from personal toward cultural aspects over time.

**Keywords:** *landscape identity; Uppsala; urban environment; machine learning; conceptual framework; landscape elements; landscape attachment; Identity Weight Matrix.*

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My beloved Mehdi, thank you for your unlimited support. I am forever grateful for our times together since we met, and you opened a different perception of love for me.

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Stabbyskogen

One of the important elements for Luthagen in public's view.

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# Introduction



Tionde skorsstenen  
One of the Cultural and Spatial  
elements.

Our environment is a significant factor in defining who we are (Proshansky et al. 1993). We carry the places where we grew up as possession or anchors and continuously develop and reaffirm our attachment to regions, districts, and neighbourhoods (Twigger-Ross and Uzzell 1996, Knez 2014). This feeling of attachment to a place is not only because we officially own a part of it on a signed document, not even because we live there at the moment, but also because the place makes our memories. A feeling of attachment to a place can be developed in several ways through senses, colours, shapes, biographies, storytelling, smells, and a few more. Feelings of attachment can define the actions individuals undertake in the context of the surrounding landscape. Some of these actions are our responses to the values we find in the landscape to which we see, live, experience, and feel attached (Egoz 2013, Gnädinger et al. 2015, Castiglioni et al. 2015, Ramos et al. 2016). Such responses can be observed in the following narration transcribed from an interview with an international student at Uppsala University:

*“The first year after I came to Sweden, I used to walk a forest that begins on the other side of the street, where I used to live and stretched towards the university. The forest parts different types of landscapes but the scenery of the woods generally reminded me of my hometown, especially where a very derelict wooden cottage was built on the top of a hill. I made that place of my own for so long since I lived there. Even though I never felt of Sweden as my home for many years after that. I took care of the cottage. One day before I moved away, I planted an apple tree on that hill.”*

The landscape is defined in European Landscape Convention (CoE 2000) as “[...] an area, as perceived by people, whose character is the result of the action and interaction of natural and/or human factors”. Landscape can be distinguishable and unique based on characters that are ascribed by the people who share the landscape, either personally or in as a group. The personality that is ascribed to the landscape by people is a result of a process of understanding the environment and finding meanings and values in the surrounding landscape.

We identify our landscape through all our senses, memories, cultural backgrounds, stories, forms, shapes, colours (Lynch 1960, Stobbelaar and Hendriks 2006), and lifestyles (See e.g., Egoz et al. 2001, Butler and Sarlöv-Herlin 2019). The landscape identity is very much related to landscape characters (Ramos et al. 2016), as distinct and recognisable patterns that give the landscape a unique characteristic as perceived by individuals (Antrop 1998, Egoz 2013, Ramos et al. 2016). Apart from the physical and spatial features of a landscape that can be characterized and assessed as distinct identities (Egoz 2013), the historical, cultural and social aspects of a landscape also contribute to the landscape identity. The process of perceiving the distinctive characters of the individuals and assessing them as identities, then ascribing them to the landscape occurs through a dynamic interaction with the landscape.

As a landscape may attribute specific characters, which are developed by the interaction of natural and human factors and so be identified by them, the individual's and group's identity can be shaped by the landscape. The identity of people is shaped through many environments such as social class, religion, ethnicity, and gender (Paasi 2002) and in the interaction with the physical world where they live (e.g., Proshansky et al. 1983, O'Brien 2006). Individual practices strengthen a common understanding of our cities, neighbourhoods, and districts as

the individual perceptions of the environment merge into a commonly accepted identity in a group (Ramos et al. 2016)

We identify ourselves in a search for who we are, where we belong (Proshansky, et al 1993, Ramos et al. 2016), and in the process of evaluating ourselves, individually and in a group, and assessing our abilities to reach situational goals (Twigger-Ross and Uzzell 1996). Identifying myself or ourselves correlates strongly to a defined territory around me or us. The environment that “I” feel belongs to is a crucial part of my identity. Generally, we identify ourselves by the area where we grew up. Then, this perceiving entity (I or we, a person or a group) tries to find meanings and values in its surrounding in an effort to understand its environment, which may, sometimes, lead to negative values and, therefore, make the entity slide to other (more positive) identities (Stobbelaar and Pedroli 2011, Ramos et al. 2016). For example, someone who lives in a low-class district near a more prestigious one may develop a feeling of attachment to the “better” district.

As the daily practices of groups and individuals are a significant driving force in forming the landscape, these practices need to be studied and understood in the changing context of the surrounding landscape. Imagine a landscape undergoes a relatively abrupt change in its physicality; the area gets overpopulated over a pace of a couple of years. Hyper stores replace the vivid environment of open markets, and narrow alleys shadowed in the vicinity of building complexes become their backyards or waste storage. These changes may cause many activities to disappear and lifestyles to be forgotten. In this imposed new landscape, some people who used to define themselves by how they used to interact with their surroundings and other groups of people miss their values and meanings and may lose their sense of attachment. They may no longer help create, develop, and strengthen any understanding of their environment (Antrop 2005, Dossche et al. 2016, Llewellyn et al. 2019). They face the risk of getting isolated and even forgotten. Their stories would not be heard, nor their actions are granted. The city's development is an enormous driving force that will neglect instead of adapting and integrating different narrations, lifestyles, and activities. In fast-developing urbanism, a natural process is that the attachment factors are losing weight, confronting other acting drives of the landscape.

The importance of landscape identity is mentioned in several policy documents and numerous pieces of academic literature; In the UNESCO world heritage convention, aspects of the cultural landscape are exemplified as “our collective identity” (UNESCO 1992). It is essential to detect and understand people's and landscape identity for sustainable development of an urban or a rural area, district, or region. The European Landscape Convention states that each country in the convention should “recognize landscape in law as an essential component of people’s surroundings, an expression of the diversity of their shared cultural and natural heritage, and a foundation of their identity” (CoE 2000). The quality of life in the future of our cities, towns, neighbourhoods, villages, and forests is tied to understanding the landscape identity. Landscape identity can play a driving role in society, for example, by preserving elements of the landscape relating to living norms of a society (Egoz et al. 2001) or by searching for new replacements in social and private activities after the abrupt change occurred to the landscape (Butler et al. 2018).

## 1.1. Background

In this thesis I investigate the feasibility of a practical method to study the identities of landscape of Luthagen, a major district in Uppsala. Luthagen is generally known for its popularity in the housing market, spectacular monuments, massive cultural record, and historically supportive industries to the region (Karlsson 2013, Stener 2014), with urban and semi-rural features also, forest, archaeological sites, farms, and it underwent enormous land-use change during the last century (Wahlin 2004, Stener 2014) and it has clear generally known social characteristics (Uppland 2018, Stener 2014). The selection was partly based on ease of connection and communication, the accessibility of the information and data to process design, timeframe, and inclusiveness.

Many research projects have studied landscape identity using similar methodology in one subregional area (Egoz 2013, Røe 2014, Gnädinger et al. 2015, Dossche et al. 2016, Butler et al. 2018, Sao et al. 2020). In my opinion, one reason for not investigating multiple cases in one project is that the landscape identity is a multifaceted problem and studying in order to be inclusive needs a significant amount of data handling and analysis. Although the selection of just one case study is not satisfying the “maximum of variety” principle, which is needed to document the success of a practical method, this can be a start point for a systematic solution about landscape identity and the recommendation for future research projects is an objective of this work.

Attachment to the landscape can be taken as a component of landscape identity (Hernández et al. 2007, Stobbelaar and Pedroli 2011 and Ramos et al. 2016). To be inclusive in urban planning while the objective is to study landscape identity, it is important to analyse people’s views based on demographic predictors. One of the predictors of the landscape identity is length of residents, and it is often seen that persons who have lived longer in a place feel greater attachment to it (Taylor, Gottfredson, & Brower, 1984) and could identify more characteristic elements in the context of landscape or create stronger bands related to landscape identity.

Landscape related identity (Butler et al. 2018), also called place identity (Hernández et al. 2007) described as a component of people’s identity (Hernández et al. 2007, Ramos et al. 2016). Another predictor that needs more research is related to ethnic groups. Some research work suggest that the characters of the landscapes shaped and created under the influence of a specific non-native group (Hernández et al. 2007) described as a component of people’s identity (Hernández et al. 2007) may be different from that of persons with longer time of residents (e.g., Smith 2004, Hernández et al. 2007, Sallay & Egyed 2011, ETLAS) Specifically, when it comes to American urban identity then one of the strongest measures is the association of the city with one ethnic group and its landscape (Arreola 1995). Castiglioni et al. (2015) explored if the way that immigrants, who identify themselves by an ethnic group, perceive and see their landscape is different to the non-immigrants?

Towards an inclusive landscape planning, it is desirable to participate diverse groups of people who are rather resistant to be involved in such research. For this purpose, I interviewed people from Iranian diaspora, with Iranian backgrounds, who identify themselves as Iranians, to see if there are any significant differences in the case of the landscape identities as they

perceived and make attachment to. The selection was based on the ease of communication for that I know speak their language and the same general knowledge about what is called the locus memoriae (Den Boer 2008). The 1979 Islamic Revolution, the outbreak of war with Iraq and the violent oppression of the political opposition caused a huge migration to western lands including Sweden, while before that time the migrants were mainly guest students. Another flow of migration from Iran occurred after 2000 because of the changes of the Swedish migration policy (Khosravi 2018). Some general beliefs about Iranian diaspora in Sweden are that they are easily integrating into the host society, mostly from urban middle-class and well educated (Khosravi 2018).

## 1.2. Motivation

What motivates me to study the inhabitant's connection to landscape is partly grounded in the importance of such a connection that, in my opinion, is not recognised in many detailed plans that I studied around Uppsala during my education. What motivates me to study the inhabitant's connection to landscape through landscape identity is partly grounded in the importance of such a connection towards a more inclusive landscape planning that, in my opinion, is not recognized in many detailed plans that I studied around Uppsala during my education. In my essay for the course "Theory of Landscape," I investigated the success of four detailed plans recently constructed in my residing district in connection with people and their activities in the landscape. I used a socio-cultural approach to test the relationship between people and their newly changed urban landscape using a set of evaluators in newly built residential blocks. Some evaluators I tested dealt with identity, such as the "link to the place" and the "sense of ownership." A train station was planned in the area covered by these four detailed plans in northern Luthagen. I questioned whether people might lose their link and sense of ownership to the place when the area changes its form and therefore loses existing elements (characteristics) and spaces for activities after establishing public transportation. I found that the approaches used by the planners and reflected in those detailed plans were mainly materialistic. I argued that these approaches ignore the social and cultural aspects, the sense of place, its representation and everyday practices, which form the identity of the landscape.

During my studies, I found that people from different ethnic groups who already have a sense of attachment to their landscape are more motivated to be involved in the development and maintenance of their environment than those who just see the place as a temporary residence (Buchecker, Hunziker, et al. 2003). People who found or created their attachments were much more likely to contribute to preservation activities and local communities by, for instance, continuously writing to local tabloids about the area and what they thought needed to be done in the form of letters, chronicles, and recensions (Buchecker, Hunziker, et al. 2003). Towards a more inclusive participation in landscape planning, based on my Persian background, and the ease of communication for the same language, I investigated among the people with Persian background, to see how they perceive and see their landscape through its characters and identity aspects.

Throughout this thesis where I refer to ethnic groups then it should be regarded as socially constructed units and not as essentialistic entities: “a society of people, who distinguishes itself from other groups of people due to culture, language, religion, history, identity or other characteristics.” (UN Statistical Division)

Following my previous works, many questions flourished to be pursued in the current study. The main question is to find the elements/characters of/in the landscape that may create a sense of attachment with the people. This question is among my thesis's research questions as it helps understand the landscape identity.

### **1.3. Aims and purpose**

The ultimate view for studying landscape identity is to achieve social welfare and sustainability through promoting inclusiveness and the sense of belonging in the planning and decision making. Being familiar with the challenges faced during the desk research I part this master thesis to be structured as it will approach the objectives aimed:

- I. Problem analysis of identity and landscape as well as the inclusiveness and attachments in public participation in landscape planning regarding earlier projects, already published research papers, field observation and current field experts and enthusiasts.
- II. Analysis and evaluation of the attachment with the landscape, landscape identity and landscape related people's identities, current public perception, and their involving practices and activities in their landscape.
- III. Development of a method and a recommendation for an inclusive participation process to capture and analyse public's views regarding the identities of their landscapes and to evaluate their involvement and attachment with their landscapes as a result of getting acquaintance with and being involved in recognizing and introducing landscape identities.

### **1.4. Research Questions:**

Understanding landscape identity is linked with a dynamic interaction between people and their landscape which leads to two principal questions targeting the landscape and the people: what and how, what elements shape the unique character of a landscape in the people's view through the pace of time and how people understand the unique characters of the landscape? It is also connected to people's identities ascribed in the context or by means of landscape. In this thesis I am going to answer the following research questions in accordance with the landscape in Luthagen, Uppsala, as a case study:

1. What factors, elements, and media in the context of landscape make individuals find attachments and create connections to their landscape?
2. Which spatial or cultural elements constitute the landscape-related identities?

3. How and through which socio-psychological connections do the residents identify their Landscape?
4. How does identifying the landscape change among different groups of people and how landscape identity contributes to inclusiveness?

## **1.5. Outline of the thesis**

After the Introduction in Chapter 2, I put forward a review on the theory and definitions of landscape identity.

In Chapter 3 the design of methodology that I used in this study is described, followed by its development and limitations. Finally, a plot of survey towards a case study, in the urban area of Luthagen, Uppsala is presented.

Chapter 4 deals with the case study. I describe the area of study, its history and characteristics, as well as a study review of the related works. Then I apply the method and analyse the survey data to understand the identities of landscape in different aspects of the people's perception and how they find themselves connected to the place. These results close this chapter.

The discussions are in Chapter 5 and

Chapter 6 concludes the thesis.



## 2. Understanding Landscape Identity

Landscape is proven to be an important asset of the quality of life for the people who live in and share the landscape (Egoz 2001, Antrop 2005, Stobbelaar and Pedroli 2011, Ramos et al. 2016) People interact with the landscape in multiple and complex ways (Ramos et al. 2016)

Landscape changes almost continuously as a result of natural processes and planned actions by people (Antrop 1998, Butler et al. 2018) Detecting and understanding the changes has been performed through different approaches like mapping features, detection of temporal changes, entropy measurement, and by understanding the dynamic of the interacting forces (Antrop 1998) Detecting and understanding the changes in the landscape is not a matter of this work. However, it is essential to presume that the landscape we deal with in the current state, is a product of continuous changes and a result of dynamic interactions of natural and cultural forces in the environment (Antrop 2005, Stobbelaar and Pedroli 2011).

Landscape can be seen and perceived through its material reality and immaterial set of images (Lynch 1960, Schama 1995 Antrop 2005, Matsuoka & Kaplan 2008). It may provide practicability to the life also it has a holistic character which bridges natural, cultural (Antrop 2005) as well as personal and existential aspects (Stobbelaar and Pedroli 2011. Most people experience landscape through their perceptions. They read (Antrop 2005) the landscape and connect it to what they remember and know and place their own narration inside their own cultural context (Antrop 2005, Den Boer 2008).

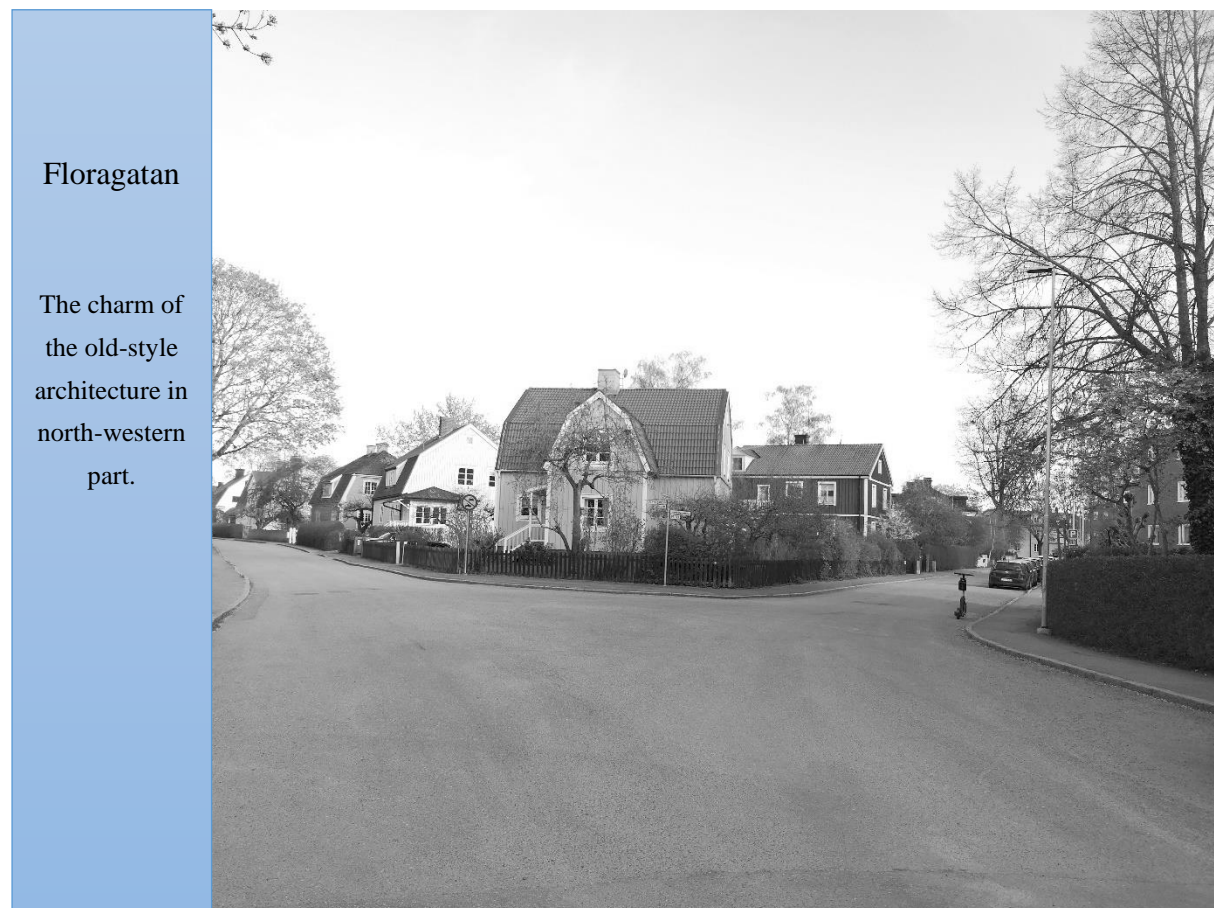
The characteristics of the landscape that make it recognizable and unique and remained physically or holistically unchanged in the pace of time make the identity of the landscape. Special places and monuments, for example, receive a symbolic value and make the landscape identity in time and space (Antrop 2005).

The coherence of particular properties defines identity (Antrop 2005) Changing these characteristics occurs inevitably when the landscape changes interacting with cultural and social derivatives. The landscape is therefore a social product wherever the interacting cultural force is emerged from the people's desires and the needs of living (Antrop 2005) The main question that may receive the planners and decision makers is what should be changed and how much so that the landscape still preserve its identity and not become alienated?

A sustainable planning is desired to be as practical as possible while addressing the well-being and quality of life on the side of the people who share the same landscape (Røe 2014, Ramos et al. 2016). Understanding the natural forces that create changes to the landscape is crucial in a sustainable design (Matsuoka and Kaplan 2008) but as the landscape changes based on a dynamic interaction with people, their activities and their planned actions (Antrop 1998, 2005) then it is also important to understand the cultural motives. The other factors that affect a landscape's design in its evolution are mainly anthropological and sociological (Stobbelaar and Pedroli 2011). They are those factors related to humans and their interaction with their environment. Critical historical points, crises, wars and invasions, may be noticeable reasons for the difference that one can observe between two landscapes that experienced almost the same environmental changes. To study the landscape from this perspective, one needs to account for other factors related to people and, as well presented by Ramos et al. (2016), their perception of their landscape and their action toward the landscape.

In the pace of time, people chose to act towards the landscape, leaving a visual and analysable footprint on the landscape that can be studied (Antrope 1998, 2005, Stobbelaar and Pedrolí 2011, Ramos et al. 2016, Dosche et al. 2016). One should explore their thoughts, views, and emotions that make the values, codes, ties, and connections to their landscape that make them put into action what they already perceived. One way to study how people perceive, act and interact with their landscape is through understanding the values, meanings and connections that people acquire to their landscape and tend to preserve them (Stobbelaar and Pedrolí 2011, Ramos et al. 2016), namely, through understanding the dynamic of landscape identity.

This study is carried out in a discipline called landscape identity, which has become more prevalent in recent decades. Landscape identity is categorized under human geography (James and Martin 1981) and described in the followings.



## Floragatan

The charm of the old-style architecture in north-western part.

### 2.1. What is the Landscape identity?

Landscape identity has been mentioned by numerous literature and policy documents in the last two decades and with a significant increase in number after the European Landscape Convention (2000), where the landscape is recognized as an entity to construct identity (Read

the Council of EU portal!). Another term I need to reckon with relatively less frequently is a cultural landscape, which is the epistemologically upper hierarchy of our primary subject, i.e., the landscape identity. For the first time, the cultural landscape was presented in the first few years of the 20th century as an academic term. It is the landscape created by human culture as used and defined by Otto Schlüter, a pioneer of landscape sciences and human geography (James and Martin 1981). Here I do not intend to enter the debate on the cultural landscape (see, e.g., Selman 2012), but for the purposes of this thesis adhere to the assumption that the identity of people is shaped through interaction with many environments, such as social class, religion, ethnicity and gender (Paasi, 2002, Stobbelaar and Pedroli 2011)

For the purpose of this thesis, such a definition can be put forward in a few lines despite the plurality and challenge of description around the literature: Landscape identity is the perceived uniqueness of the place as defined as a “working definition” by Stobbelaar and Pedroli (2011).

However, it is a good idea to see how I get to this definition among others (e.g., Shao et al. 2020, Ramos et al. 2016, and Butler and Sarlöv-Herlin 2019). This conceptualization around the definitions has proved to help make a basis for understanding the identity, and it also affects the approaches to studying a landscape and identity (Barney et al. 1998, Ramos et al. 2016).

The definitions used by different authors vary slightly, but they can be categorized from two perspectives. These works either focus on the people’s identity in the context of landscape or the characteristics that can make it uniquely recognisable. Ramos et al. (2016) argue that these two categories of meanings of identity dynamically affect each other in the process of interacting with people and landscape, which they called creating a “newer” landscape. The two foci, coupled with the different perspectives of the landscape, develop different approaches and results mentioned by many (see Ramos et al., 2016, Butler et al., 2018). In the following, I review two perspectives of landscape identity..

### *2.1.1. Individual and collective Identity*

The first perspective of identity that I will be discussing in connection to a landscape is the people’s identity (Dossche et al. 2016) or the identity that people ascribe to themselves in connection to their landscape. This perspective of identity is also described as the landscape-related identity (Butler et al. 2018) and it concerns more-or-less the identity on the side of people and not the landscape but still be ascribed in connection to the landscape. “Landscape identity unites inhabitants to each other or the area and distinguishes them from inhabitants of other area” (Stobbelaar and Pedroli 2011).

We define ourselves by our landscape (Ramos et al. 2018, Butler et al., 2018) Identity is related to the desire to see “me” in contrast with the “others,” a deep search for those characters that group “me” apart from others (Stobbelaar and Pedroli 2011, Ramos et al. 2018) . Individuals identify themselves by making social classifications connecting with other humans and their landscape (Proshansky 1983, Ramos et al. 2018, Butler and Sarlöv-Herlin 2019). It has been argued that people’s identity being either individual or collective cannot be placeless (Dossche et al. 2016, Butler et al., 2018) landscapes can act as media that impersonate collective memories, experiences, events, traditions and feelings by which we uphold and make different types of identifications (Wang, 2008).

There are two kinds of people's identity usually discussed in literature viz. individual and group identities. The meaning of identity is more understandable when it comes to individual identity while the definitions of different studies collide when the subject is a group identity (Stobbelaar and Pedroli, 2011, Dossche et al., 2016, Ramos et al., 2016). Wylie (2007) even argued that such a group identity does not exist, and it is a term supporting those policies that enormously benefit from the territorial approach. Some characteristics of group identity which are the cause of the collision of different perceptions are mentioned in Ramos et al. (2016): It can be

Switching; Identity can be activated based on the specific context it shapes inside.

Time-dependent, and

Negative/Positive.

Group identity is a time-dependent transition from an identity to a more accepted, prioritized one. People can take the identity of a neighborhood with a higher prestige (positive) instead of the negative one they used to possess and define themselves with. One identity can be switched off, and another can be activated in a specific context (Stobbelaar and Pedroli 2011). People may forget for a while or simply put aside identifying themselves by their gender or nation (being global), for example, and attach with being a productive farmer.

By using the concept of identity, people can define themselves as a member of a group that shares common characteristics (Ramos et al., 2016). Aspects of both individual and group identities can be discussed with their interaction with the landscape. We should mention that there is a negative side to identity when it comes to being a source of discriminating "ours" with "others" (Wylie 2007, Stobbelaar and Pedroli 2011, Ramos et al. 2016).

This process of acquiring and shifting a group identity can be seen as a balancing act, and we are constantly negotiating different identities depending on the circumstances. Group identity in a studied area results from this process, at the particular time, us as observers can perceive. In this process, the effect of the interacting environments is inevitable, and it eventually makes a dynamic system of interaction and recreation of both identity and landscape (Ramos et al., 2016).

The first perspective searches how people define themselves under the effect of the landscape they share. As described in the previous section, identity can be also multiple for each individual (Butler et al. 2018, Dossche et al, 2016, Ramos et al. 2016). Individuals can shift from one identity to another one. In this sense, the multiplicity of identity can not necessarily coincide. Still, it moves from one to another, which would be preferable at the time (Ramos et al. 2016).

"People are gaining their identity under the influence of the landscape." This quote emphasizes the people's identity that can be shaped by the landscape and simply reflects the conceptual perspective that follows in most of the policy documents. In European Landscape Convention (CoE 2000, Chapter II, art.5a), the contribution of the landscape to the "European identity" is notified. The article is repeatedly recited in research works in an attempt to build up a theoretical background to their studies (see, e.g., Stobbelaar and Pedroli 2011, Shao et al.

2020, Butler et al. 2018, Dossche et al. 2016, Ramos et al. 2016, Butler and Sarlöv-Herlin 2019), while the main concern is the people's identity.

Identifying means recognizing the distinguishable characters of an entity. Then, the landscape-related identity deals with those qualities of the landscape that may help people distinguish themselves as individuals or in a group. But how can people's identity be defined in relation to the landscape? The central element to this question is the sense of belonging (Ramos et al. 2016). The landscape, here, acts as a constructive entity by introducing the values that a group of people defines themselves by. For instance, Egoz et al. (2001), studied the relationship between farmers and their environment, i.e., a farmed landscape in Southern New Zealand, through several paradigms. They concluded that the landscape is a symbolic environment through which people define themselves by “furnishing it with meanings and forms.” They concluded that the traditional farmed landscape formed a social value and became a symbol of the identity of the community of conventional farmers who define themselves as “good farmers” in contrast to recently and politically encouraged organic farming.

### 2.1.2. *Landscape identity*

The identity of landscape constitutes all those characters of the landscape that make it distinguishable (Stobbelaar and Pedroli 2011, Ramos et al., 2016) and as an analogy to people's identity make a landscape to be seen against other landscapes. The main point of this definition is that the distinguishing characters of the landscape should be seen and perceived by people. Individuals perceive the distinguishable characters of the landscape, create a mental image, and ascribe their identity to the landscape (Lynch 1960, Proshansky et al. 1983, Stobbelaar and Pedroli 2011). Different aspects of landscape identity can be distinguished by understanding the dynamic interaction between individuals and their environment.

In other words, the landscape identity is given to the landscape by the way people see it and contribute to its formation (Antrop 2005). However, what is called landscape characters in the literature is mainly related to physical and spatial characteristics of landscape (Antrop 2005, Ramos et al., 2016), while the social and cultural traditions determine the identities of a landscape, another culture, another social structure or another way of living (Ramos et al. 2016). Understanding and valuing other aspects of landscape identity rather than just the materialistic ones are still ongoing and gaining more and more attentions recently. Butler et al. (2018) argued that most of the plans regarding forest management ignored the socio-culture aspects of the landscape identity and mainly considered the materialistic aspects. In my research project I have noticed that the social and cultural aspects are almost overlooked in detailed plans for Uppsala between 2005-2014 (Heirati 2020). Moreover, other aspects of landscape identity deal with personal and existential connection and interaction between people and their landscape (Stobbelaar and Pedroli 2011), common memories of a cafeteria, a sport club or stories of non-monumental happenings of a landscape that people tend to rememorate and share.

The identity of landscape in literature is more systematically used to assess the identity based on some characteristics that a landscape may possess – in contrast to other landscapes -

and in connection with the people (Antrop 2005, Stobbelaar and Pedroli 2011, Ramos et al. 2016, Butler and Sarlöv-Herlin 2019). This perspective is the one that may find a way through mapping “landscape types” and drawing lines to define its identifiable elements (Ramos et al. 2016, Butler and Sarlöv-Herlin 2019). Different approaches have been developed in the recent two decades based on recognizing the characteristics of the landscape, which make it distinguishable, memorable, meaningful, and interesting for the people. These approaches provide a basis for answering:

1. If the landscape lacks the measures of its identity or
2. whether the identity of a place changes after an abrupt change or
3. how and by use of which elements a landscape identity should be held.

Here, the landscape identity has a quantitative and/or visible character (Stobbelaar and Pedroli 2011). The visual focus of landscape identity is a reason for different definitions and leads to distinct and divergent conceptualizations. This focus can be put on historical legacy as it sensed through the tangible aspects of landscape, or a cognition based on existentialist views. It can embrace the memories and attachments or explore the impact of economic aspects. In this perspective, landscape possesses a living character and a set of distinguishable characters for the human-observer.

The concept of landscape identity appeared in the discipline of cultural landscape in exploring the interaction between people and their environment. The ground for conceptualizing identity of a landscape is to see landscape as a social product of an almost continuous interaction with the people (Stobbelaar and Pedroli 2011, Ramos et al. 2016).

A plurality of definitions occurs when the Landscape is tagged with identity because neither landscape nor the identity have been firmly defined (Ramos et al., 2016, Butler and Sarlöv-Herlin, 2019). The measures of the involvement of people's identity in their landscape can be viewed by detecting changes in the landscape contents of physicality, memories, or social practices and cultural traditions. The mechanism by which the landscape can be seen as a social entity (Dossche et al. 2016, Stobbelaar and Pedroli 2011, Ramos et al. 2016) or that can construct people's identity is not definite (Egoz 2013, Ramos et al. 2016).

Different definitions may focus on physicality or social practices, putting the subject on the human perceptions of the landscape or on actions to the perceived environment (Ramos et al. 2016).



## Hällby Planting Association

An important  
element of  
Cultural and  
Spatial aspect  
in public's  
view

## 2.2. The ambiguous definition

That the landscape identity has no unified definition. At the same time, it is a matter of focus in landscape policy and planning (e.g., Stobbelaar and Pedroli 2011), which lies on the grounds that there is no standard or “conventional” way to measure it. In other words, landscape identity was very well understood but never in enough detail to make it a measurable set of parameters, especially regarding policy- and decision making.

The “vagueness” issue that Stobbelaar and Pedroli 2011 (also see Ramos et al. 2016, Dossche et al. 2016) repeated numerous times is a problem that each of the works mentioned above took as a central problem in placemaking (e.g., Urban, and rural design and management). Thus, many proposed or applied a way through. The common rationality of all these solutions is specifying the definition of landscape identity and finding a way to assess it from different aspects. The definition always is limited to the observed landscape. Some of these works reduced the definition to aspects visible in the landscape they searched for (e.g., Shao et al. 2020). Wylie 2009, for instance, searched for a narration inside a phenomenological view based on Derrida’s critical reading of Merleau-Ponty and cantered his landscape writing entered with questions of memory and “..., hence within senses of self-identity, community and belonging”.

All the studies concerning landscape identity, which was discussed as the 2<sup>nd</sup> perspective, use the same method. They select some elements in the landscape representing respective characters of the place of their focus, then search for the importance of each of these elements in the views of the people or, alternatively, search for the effect of each of those characters in building identity for individuals or among groups. The elements themselves are results from the interviews and the researcher's field observations, which means that the elements are a primary output from the same sources, which are the inhabitant, residents, and users or, simply, the people who share the landscape.

Perspective 2, as mentioned in the prelude of this chapter, is what I mean by landscape identity. I search for the characters in the landscape that generate an identity as it is perceived by the people who reside, visit or use the landscape. However, as I mentioned before, "selecting" this perspective and putting the focus on the landscape characters would not end up discussing multiple definitions. Yet, different definitions still arise and need to be addressed further and specified based on the elements that introduce the in-value characters of a place and those identities these elements may invoke.

Another issue is that, as far as our discussion deals with identity, both people and landscape identities should be scrutinized since they affect each other in a dynamic process (see, e.g., Butler et al. 2018, Dossche et al. 2016, Ramos et al. 2016).

The ambiguous definitions and the methods of selecting the identifiers for the characters or identity, such as attachment, memory, sensibility, aesthetics, economic aspects, etc., force the author to get back to the basics and revisit the main question every time in an effort to build the methods over it. This ground is questioning and perceiving the interaction between people and landscape, and it is a continuous analysis and perception of the relationship between humans and their environment.

In the next chapter, I will put forward and, eventually, set up my method to investigate the landscape identity in Luthagen. The primary materials that I take from scanning the theories, different themes, and approaches in searching for the connection between people and their landscape are:

1. The distinguishing characters of self and the landscape identity (Ramos et al. 2016)
2. The co-presence of self and landscape identity and their mutual (Wylie 2009, Ramos et al. 2016) and temporal dynamic interaction (Butler et al.18)
3. The absent elements of landscape identity (Wylie 2009, Stobbelaar and Pedroli 2011)



### 3. Methodology





Fyrisån

I perform a survey consisting of interviews and a questionnaire with inhabitants. Through this survey, I intend to understand the elements of the urban fabric, landmarks, places, activities, cultural heritage, and social practices, which are valuable, meaningful, and essential for the participants and their lives and find out in what sense a connection to the landscape can be created and how it is created and evolved through the time that spans their residing time and the time of their knowledge about the stories of the place. Using the method in this study, I will detect the relationship between the landscape elements, activities and the identity of the landscape. Finally, I will propose a proper design and distribution of communal places over the study area concerning landscape identity. The approach of this research is conducted in the following steps:

1. Theoretical desk research and literature review: I study review the basis for the theory of Landscape Identity to a) find a practical definition of landscape identity that can be used and seamlessly referred to during the survey and analyzing people's views, b) set up the elements and indicators of landscape identity and c) developing a framework of to be applicable for this study.
2. The selected framework for the research: Following the theoretical desk research I describe the aspects and dimensions of the framework of Stobbelaar and Pedroli (2011) and the necessity to develop it for this study.
3. Observation, visual analysis, and semi-structured interviews with experts: I started the field study by observing the area's main activities in the summer of 2021. Activities were the main target because they guided the study toward all the places where activities were held. Besides, the activity holders were very helpful in transferring the knowledge about the history, importance of the place and the value of the happenings linked to a place. The focus is on understanding the character of a landscape and practicing my ability to detect the physical, socio-cultural, personal and sensory elements in the landscape that mark its unique characteristics and may be connected to the landscape and people's identities.
4. Selecting and conducting the case study: The case study is partly a recommendation from the experts interviewed and partly individual selection. The selection was mainly influenced by ease of connection and communication, the accessibility of the information and data to process design, timeframe, and inclusiveness. However, the lack of the financial support impeded a case study based on "maximum of variety" principle and my case study is restricted only to Luthagen a relatively massive district of Uppsala with mainly urban and semi-urban features. On the other hand, my effort is due to densify the data in order to satisfy inclusiveness. I interview a number of residents about the landscape identity and their connection to the landscape also, distribute a questionnaire.
5. Analyzing the answers and Map analyses: I detect different elements related to the identity in the views of individuals, groups, and communities in the area. The main elements of the area which may relate to identity or be important to the people are mapped either utilizing documents and existing maps or the data from the interviews. Every single spatial point that may relate to the landscape identity is mapped. Consequently, I can localize the subareas that convey much weight related to the attachment.

In the followings, I present the method as a development of the framework of Stobbelaar and Pedroli (2011) and explain how this method can clarify the relation between people's and landscape identity and how it can resolve the dynamic interaction with the landscape.

In the first section, I draw outlines from important studies for the creation and applicability of the method used in this thesis. Then I dig into the framework and characterize its main elements and how I will recognize them in the context of the landscape case. Crucial for this work is that the method successfully associates the elements of the landscape with the identities. In Section [3.1](#), I describe how such an association can be carried out successfully through a survey with the residents. As the method is more applicable to the case, I dig into more details, plot the survey, and present different data analysis methods to interpret the responses.

### 3.1. Developing a Theoretical frame

Most of my study review was devoted to finding proper rationality to understand the landscape identity generated by the interaction between people and their landscape. For the purpose of this thesis, I searched for an application framework to make understanding and analysing the landscape identity feasible.

I have not performed a thorough study review in the field of landscape identity, mainly because of the extensive borders and plethora of discourses in the field, but I picked the pioneers and the outstanding works in their disciplines or schools and drew from the thorough reviews undertaken by Ramos et al. (2016) and more recently Shao et al. (2020).

While reviewing the following works, I managed to draw a line between two outer borders of the duality that either focused on the landscape characters or the people's identity. This duality was dealt with in Section 2.1.

I start the study review with three works that provided the ground in theory and methodology that I use, thus explained more extensively.

Ramos et al. 2016, searched what is referred to as landscape identity in literature and policy documents and tried to classify different aspects of the concept. They were the first who distinguished between people's identity in relation to the landscape and the identity of landscape as a duality that can be investigated as well as their interaction and overlapping meanings. Their classification of the two perspectives is the starting point of my thesis. Ramos et al. put forward a transitional model of landscape identity as a circular process and described it under the section devoted to the people's identity in relation to the landscape, as follows (Ramos et al. 2016 p. 37):

“... people are influenced by the landscape; they change or interact with the landscape; which again creates conditions for new relations and thereby influencing people's perceptions of it. This familiarity gives a sense of autobiographic and “social insideness”

When it comes to the identity of landscape, they dealt with the landscape characters that make it unique and distinguishable. These aspects are not just physical, morphologic, and physiognomic but also historical, social, and cultural (Stobbelaar and Pedroli 2011). Thus,

despite sharing the same characteristics, places can evolve differently due to diverse cultural practices and make new landscapes with entirely different identities (Ramos et al. 2016). Eventually, Ramos et al. (2016) grounded the conceptual basis based on empirically collected knowledge from experts. They delineated the features in the landscape. These features are either related to the action and interaction with the landscape, which brings the manufactured structures, specific land-use, and monuments or on the perception of landscape, also symbolic values and memories.

Work by Stobbelaar and Pedroli (2011) aimed to find a definition for landscape identity. They defined landscape identity as the “perceived uniqueness of a place.” In conclusion, they expand to include, "We can now add the notion that perceiving is both a personal and social matter and that ‘uniqueness’ is based on the interaction between spatial factors and social factors" They reached this definition by challenging a history-line of literature review in the field and challenging concepts. By framing the concept this way, the authors strengthen the people’s perspective rather than the factual landscape. They focus on the landscape identity, which is the characteristics of a distinguishable and unique landscape in the people’s view, and not on its contribution to social and personal identity. They propose a framework that can be used in place of an instrument to quantify the association of various aspects of identity to the landscape. The 'circle of landscape identity' that Stobbelaar and Pedroli (2011) develop constitutes the two extreme aspects of identity, which are spatial and existential on one axis and the second axis on personal and cultural. The identities that people in the landscape can perceive can be, on one side, spatial, physical, factual, and visible: on the other side, existential, sensorial, and memorial. The landscape contributes to people’s identity from a personal or cultural aspect. From this point, the circular process mentioned in Ramos et al. (2016) occurs between these two axes.

Not all works necessarily should consider all the possible identity aspects inside an exploratory approach. For example, Gnädinger et al. (2015) factorize the elements of identity into four; cultural, milieu, social and temporal elements, search for their interaction with people’s identity from an anthropologic perspective and line out its counter effects on the landscape.

Butler and Sarlöv-Herlin (2019) introduce a special issue on the changing landscape identity and make a review of all the works in the ensemble. The first and the last paper, those with practical studies in the ensemble, are also about abrupt short-term changes and their effects on people’s individual and group identities. Another work that uses the “instrument” in Stobbelaar and Pedroli (2011) as a methodological basis is Shao et al. (2020). Again, they investigate an abrupt change in a rapidly urbanising city in China through an exploratory approach. They tried to take in the identity elements that may exist in the area under consideration. They concluded that the method was feasible and easy-to-use in terms of obtaining meaningful data for analysis.

I may pick out Butler et al. (2018) despite all the similarities with the projects mentioned above. The reason is that they develop the theory of Stobbelaar and Pedroli (2011) and then Ramos et al. (2016) further by taking into account more interactions as a recursive temporal process between the two kinds of identity: People’s and the landscape identity. They reviewed different aspects and areas of research in the landscape identity related to an abrupt change of

physicality and noted that most of the studies related to such an abrupt change as a forest fire focus on the economic loss and tangible qualities of the landscape, while the relation between people and their landscape has multiple facets, which should be considered for a sustainable design. The activities that take place in the environment have a magnificent role in shaping the people's identity and feeding it into the landscape.

When it comes to the people's identity (see Sect. 2.1.1), the population's first perspective in the landscape identity discourse, ethnicity, and background has been discussed massively. Chapter 6 in *In Landscape Culture-Culturing Landscapes* (Xiu et al. 2015) is devoted to the interconnection between landscape and people of diverse backgrounds, socially constructed units, ethnic groups, and immigrants, despite the challenges of finding proper definitions for these terms. The last paper of the trilogy, by Gnädinger et al. (2015), investigates how different ethnic's groups perceived the landscape in Transylvania and how it affected the economic development and environmental protection of the landscape. They have already developed ethnic landscape studies inside an international workshop, the "Ethnic Landscapes" (ETHLAS) network. They analyse the perceiving process, elicit the factors and conditions that influence the perception, and eventually draw a "mental map" providing group-specific contents. Castiglioni et al. (2015) underline a rapid change in the population of immigrants in Italy among the youngsters and demonstrate how the process of integration is fast the children by field research in Padua, populated by 5 million in the plain area attributed by a mixed rural and urban landscape, which underwent rapid changes losing its traditional rural features. They performed auto-photography as their research method by two class groups in the regions with the respective portion of immigrants in Veneto. The method is cited as attractive among scholars searching for the connection between people and their landscape. "The method allows children to see the landscape in terms of physical place and meaning." They classified the landscape elements in the photos, which eventually included some of the aspects in the Landscape Identity Circle (Stobbelaar and Pedroli 2011), and scatterplot the elements in two dimensions (In there-out there and I-we), which can resemble existential-spatial and individual-sociocultural. They mentioned that the sample groups were not big enough to draw clear conclusions. Xiu (2015) conducted a qualitative survey in Uppsala, Sweden to investigate the perception and recognition of the temple (Buddhistic) landscape. They picked three groups of believers, visitors, and neutral few people and interviewed them to find the quality of their connection with such a Buddhistic temple. The research focus, however, is on religion and beliefs rather than gathering the inhabitant's views from other perspectives related to identity.

Dossche et al. (2016) mentioned a rapid and fundamental land abandonment that caused a large transformation in the landscape of northern Apennines in the 1950s. They investigated the people's connection to the futures in the landscape that underwent a change, abolished, during this time and observed a loss of attachment that occurred over a pace of two centuries in their study areas. They searched for changes in the elements of landscape identity (characteristics of the area) and their relation to the people's identity from the perspective of their backgrounds and ethnicities.

### 3.2. A Framework for studying landscape identity

In this study, I adapt the framework of Stobbelaar and Pedroli's (2011) to understanding landscape identity and the relation between the people's and landscape identity. This approach has been tested a number of times as mentioned in the previous section. The reason that I use this method is not only that it is one of the most documented approaches but also that it covers most of the aspects of the interaction between people and their landscape.

As described in previous chapters understanding landscape identity is very much related to understanding the dynamic interaction between people and landscape. Landscape changes its physicality and thus the characters in the pace of time because of natural and spontaneous as well as planned and manmade driving forces. The coherence of particular properties constitutes the landscape identity (Antrop 2005). These characters of landscape are holistic and mainly are related to the image that people have constructed of their landscape (Lynch 1966) Some characters of a landscape are visual and spatial, but others are cultural and social (Antrop 2005), moreover there are other aspects of landscape identity which are personal and existential, related to memories and sensory motives (Stobbelaar and Pedroli 2011).

Different studies deal with the formation and understanding of landscape identity by the people's perception as well as their activities. These studies focus on some aspects of identities considering mainly spatial and visual ones and some of them searched for cultural and social aspects (see Ramos et al. 2016 for a review on different approaches) however the sensory, personal and existential aspects are usually overlooked in these studies. The identity of the landscape is constructed in the way that people see and perceive their landscape. People develop their image of their landscape and evolve its physicality by their activities elicited from their perception (Ramos et al. 2016). It means that the dynamic of the interaction that creates an image of the landscape is also important to be taken into account for an analysis in order to understand the landscape identity.

The framework of Stobbelaar and Pedroli (2011) considers all these aspects up to the temporal changes of the perception which it does not account for (Butler et al. 2018). In this study I use the same framework and develop it as it could account for temporal feedbacks as described in Butler et al. (2018). I use a more accurate version of the framework together with the considerations about the temporal evolution of people's perception and activities by incorporating people's views using a set of in-depth interviews and a complementary questionnaire.

Concisely, in this framework that I will use throughout my thesis, there are four different aspects through which individuals identify their landscape. Individuals identify the landscape through its distinguishable characters and perceive these as being personal, cultural, existential, or spatial. Figure 1 is the "circle of identity," as presented by Stobbelaar and Pedroli (2011).

The horizontal axis in Figure 1 represents the first duality between a landscape's existential and spatial characters/features.

Existential concerns memories and associations and the distinguished physical features of a landscape. It signifies an inherent quality of a landscape perceived by people. The existential identity deals with the people's identity in the context of the landscape.

How people define themselves by the influence of the landscape is acquired by the features of the physical environment as well as by memories and symbolic values attached to the landscape (Schama 1995, Stobbelaar and Pedroli 2011, Shao et al. 2020). This aspect of landscape identity was categorized under the first perspective in Section 2.1, where the focus was on the people's identity and attachment to the landscape. However, as mentioned by

Ramos et al. (2016), the interaction between people and their environment is a dynamic process, so an existential identity can be referred to as the distinguishable character of the landscape, including physical, that may create a feeling, memory or something sensory for individuals. When the focus is on the landscape's characters that make it unique, the people's perception still shapes these characters (Butler et al., 2018; Dossche et al., 2016; Ramos et al., 2016). The main focus of the existential aspect is the physical features, sounds, memories, and symbolic meanings that attach the perceiving entity to its landscape.

Spatial refers to concludes visual aspects such as distances, orientations, forms of alleys, and spatial characteristics of a place. The physical qualities of landscape make it intensely present to the senses of the perceiving mind. Kevin Lynch (1960) considers the visual qualities of a city in which the city can be identifiable and recognisable by studying the mental image of the city which its citizens hold. While the city is not only the object to be perceived by people of diverse classes and character, but also it is a product of many builders (Lynch 1960). The physical aspects of a city as it perceived by city dwellers through the visual features of the urban landscape such as paths, distances, orientations, districts, nodes and by means of media consisting of colours, shapes and structures that facilitate identifying those features and make a connection to them. The process through which residents identify, classify, symbolize, memorize, and create a mental image of a city (Lynch 1960) using such media could be a basis to study landscape identity by e.g., Stobbelaar and Pedroli (2011), and constitutes the spatial aspect of identifying the landscape. These are the visual features of the environment that can be recognizable by the individuals thus making a mental image of the landscape.

The vertical axis deals with another distinction in the meaning of identity that this paper discussed in Sect. 2.1, which arises from the complexity that a group identity causes. Lynch(1960) argues that such a common consensus of identity cannot be realized by the features in the environment, but every individual has a distinct image of the landscape, and it is only during the socio-cultural interaction that proximity to a more compelling image is created. The meaning and value that the landscape may have for someone, is related to individual experiences and biographical events. Moreover, when a common value is going to be accepted by a group of people, it can be shaped as landmarks, toponyms, signs of victory and caring of the place, region, or landscape, common memories of events, historical milestones of the area, victories, and religious features (Stobbelaar and Pedroli 2011 and the references within).

The mental images of a landscape that is perceived through visual and tangible features such as colours, shapes, and smells, firstly, tend to be unique for every person, then, by means of the connections and social interactions, are resolved into more compelling images, and form a group meaning (Lynch 1960). The issue of group meaning is related to landscape character, as Stobbelaar and Pedroli (2011) state and that is the grounds for the cultural-spatial aspect.



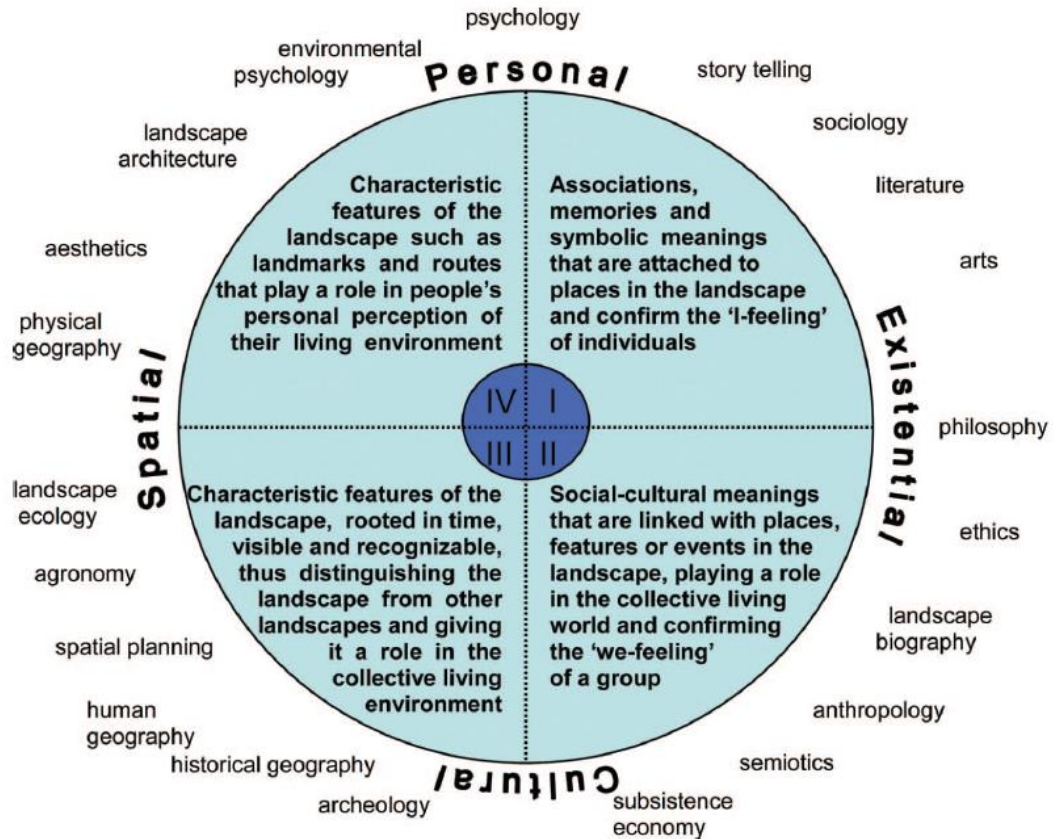


Figure 1 Circle of identity (Stobbelaar and Hendriks 2006)

Each of the abovementioned aspects creates discourses in the cultural landscape. Stobbelaar and Pedroli (2011) listed the number of studies that used one or some of these discourses as their basis to search for an attachment to or meaningful values in the landscape. Understanding the landscape identities can be applicable in decision-making and planning when it helps understand how a “feeling” of attachment to the landscape is created, either individually or generally accepted inside a group. These aspects of identity are shaped by each quadrant of the circle in Figure 1. For the sake of brevity, this paper use abbreviation for each aspect at the quadrants as: Personal–Existential (PE), Cultural–Existential (CE), Cultural–Spatial (CS), sensory and Personal–Spatial (PS) identities (Stobbelaar and Pedroli 2011).

The Personal-Existential aspect of identity consists of those bands that make the place special for people because their biography is linked to them. In each person’s life, there are sites, locations and places with a personal meaning. People feel more attached to a special place that has meaning to them (Stobbelaar and Pedroli 2011).

The Cultural-Existential aspect has been studied in a national scale while the interaction between a region and people are mostly overlooked (Stobbelaar and Pedroli 2011). Those identities that a group of people may find still exists in a region or even in a district.

The Personal-Spatial aspects of identity consist of those features and elements that are mostly visual, in the landscape, important for an individual and make the landscape recognizable through forms, shapes, paths, districts, landmarks and all those media that help an individual to find herself in the surrounding environment. Personal-Spatial is a very

important aspect in planning an area when it comes to personal identity discourses (Stobbelaar and Pedroli 2011).

In the Cultural-Spatial aspect, one deals with regional identity, the features in the landscape that be perceived by “anyone” and find their nest into the common knowledge of the area, such as spatial composition, land use, wildlife, vegetation, colours, forms, building material and spatial design (Stobbelaar and Pedroli 2011).

### 3.3. The elements of the landscape identity

An essential question in understanding the landscape identity is, “How and through which socio-psychological connections do the residents identify their Landscape?”

Individuals have associations with some part of urban landscape, the city, and this image is soaked in memories and meanings” (Lynch 1960). Following Kevin Lynch (1960), some elements of the city make it unique and recognizable in the view of people. A city is an object that can be perceived by the citizens. Not only the stationary physical parts of a city can be important and regarded as perceived characters of the city but also people and their activities, as stated in Lynch (1960). When people themselves are parts of the landscape character, then the perception is partial and related to each person and their relationship with each other.

In defining the landscape identity as the perceived uniqueness (Stobbelaar and Pedroli 2011), one needs to deal with the mental image of the landscape which is held by the people who share it (Gnädinger et al. 2015).

Throughout this thesis, landscape identity represents small-scale to medium-scale places such as city quarters, to street levels, parks, and natural resources with a focus on the activities. These places and activities provide features in and in relation with the landscape that create a recognizable mental image of the place. This image provides a “feeling” through one or a combination of the memory, sensory, social, and physical perspectives.

The Circle of Identity (Figure 1) represents a comprehensive framework for exploratory research (Ramos et al. 2016, Butler et al. 2018) as well as practical (see Section 3.1). This thesis will identify where on the circle in Figure 1 elements, memories, activities, etc., fit. In other words, instead of picking predefined elements, being able to elicit them from the responses of interlocutors being held in an active discussion and from field observations. The connection of people to their landscape, as already mentioned in Stobbelaar and Pedroli (2011), is created through the landscape identities which occur on the quadrants in Figure 1, each of which represents a discourse on landscape identity (Stobbelaar and Hendriks 2006, Butler et al. 2018, Dossche et al. 2016, Ramos et al. 2016).

When it comes to people’s identity, we search for all the aspects, such as anthropological, sensational, existential, biographical, and so forth, again excluded from the individual’s responses during an active discussion. I search, for example, if they have roots in the area, feel attached to something in their environment, or identify themselves by a culture, heritage or lifestyle that constitutes the area's characteristics.

The focus, however, will be on the people’s activities in the landscape context. People undertake some activities because of the meanings and values they “see” in their landscape, so they react and contribute to their environment and consequently recreate it for new use (Proshansky et al. 1980, Egoz et al. 2001, O’Brian 2006, Gnädinger et al. 2015, Castiglioni et al. 2015). Not only some daily activities are formed by the landscape but also the way that

individuals take these activities is an effect of the landscape and what the environment provides.

The people's activities dynamically redefine the landscape (Dossche et al., 2016, Butler et al., 2018). For example, if the landscape consisted of farming societies and agrarianism and recently, tourism took the upper hand and became the prevailing economic subsistence, the activities related to tourism, such as sight-seeing or organic farming, change the character of the place and, even, the identity of people (Barney et al. 1998, Egoz et al. 2001). A change in the interaction between people and their landscape could affect their identity. The transition time from a society that admires traditional farming towards that with more organic farming in a pace of half a century can be a case to study for the vicarage farms in Luthagen (see Egoz et al. 2001 for a similar case in Newzealand).

To answer the research questions, I prepare a list of the important elements for residents, and therefore, named either during the field observation or during interviews. I select as many elements as possible in the context of landscape identity. Some of them were already picked in flyers, press, media, and short stories about the area around the world wide web as peculiarities and eccentricities. I completed the list by adding all the cultural features as listed and mapped by the municipality (Uppsala Kommun).

These elements can be visual, physical, historical, cultural, or existential, related directly to the landscape characteristics as it is seen or to the people's memories, feelings, and values. Through an active discussion, I will understand which elements are valuable and essential as they might convey identity to the landscape. To do this, I need to have a suitable means to interpret the answers. Having the answers interpreted, I show which element is important and in what aspect of identity for people, which will obtain all needed from the data.

To mark the elements of identity, those features in the context of landscape that make a distinguishable character for Luthagen, I searched through documents, tourist guides, maps, writings on the World Wide Web, and tabloids. Uppsala Municipality, above all, provides an interactive web application (Kommunkarta) within. I was mainly interested in the culture and historical maps layers and their owned Esri features. However, just a few open data are linked to the layer files, such as wandering routes which, among its objects, only Eriksleden is inside the borders of Luthagen. Most of these are non-featured layers packages and thus cannot be edited, analysed, or used as a feature-based class. It can be used as an underlying background map. If I needed other data from the Kommunkarta, I either created them or simply digitized them.

Up to this point, with these elements in hand, the primary material for the questionnaire and interviews are ready. However, it is just the beginning because not all the elements are related to identity. The importance of a monument, a cafeteria, or a lovely design in the views of people-observer cannot be a matter of landscape or people's identity. A function of the analysis step is to detect those elements in the landscape that are of high value to people that make them act and react to their environment, that shape their identity, or make Luthagen unique in their views, as described in Section 2.1.2. Furthermore, it is also essential to understand the cycle of perception and action in the dynamic interaction between people and the landscape. Not just the importance and values one may give to landscape are associated with identity but understanding the value and the meaning and subsequently creating a part of landscape occur in the process of identifying the landscape. To understand the people's attachments to their landscape through landscape identity, I need to show in what sense each of these elements are important to people who participate in the survey. Up to this point, with these elements in hand,

the primary material for the questionnaire and interviews are ready. However, it is just the beginning because not all the elements are related to identity. The importance of a monument, a cafeteria, or a lovely design in the views of people-observer cannot be a matter of landscape or people's identity. A function of the analysis step is to detect those elements in the landscape that are of high value to people that make them act and react to their environment, that shape their identity, or make Luthagen unique in their views, as described in Section 2.1.2. Furthermore, it is also essential to understand the cycle of perception and action in the dynamic interaction between people and the landscape. Not just the importance and values one may give to landscape are associated with identity but understanding the value and the meaning and subsequently creating a part of landscape occur in the process of identifying the landscape. To understand the people's attachments to their landscape through landscape identity, I need to show in what sense each of these elements are important to people who participate in the survey.

### 3.4. Case Study selection and formation

To answer the research question and to evaluate the developed framework, I needed to select cases to study the identities of landscape. The selection was based on various factors namely, ease of communication with participants, accessibility of the field, accessibility of the information and related data, the feasibility of the designed process of the field study, the timeframe, and the ability to be inclusive regarding the participants.

One important factor to conduct the case study is to be provided with sufficient financial support. During my research I missed any financial support partly because the research was performed during my parental leave and partly for the special situation under the outburst of a SARS-COV pandemic. This impeded a case study based on "maximum of variety" principle and my desire to investigate the method in various landscape contexts.

Consequently, my case study is restricted only to Luthagen a massive district of Uppsala with mainly urban and semi-urban features. I prepared a data sheet to summarize the main features of the selected case. However, this data sheet was prepared in a view to be useful in case of multiple cases. Now it can be used for the probable future works as mentioned in the recommendations.

- **Data sheet (summarized table)**

<b>Name</b>	
<b>Picture</b>	
<b>Location</b>	
<b>Investor</b>	
<b>Planning institution</b>	
<b>Actors</b>	
<b>Moderation, Management</b>	
<b>Size</b>	
<b>Inhabitants</b>	
<b>Planning timeframe</b>	
<b>Costs</b>	
<b>Key terms</b>	

- **Project description (text)**
- **Project analysis (graphic and text)**
  - Project biography/ Phases (graphic)
  - Analysis (text)
- **Process evaluation (table + diagram)**
- **Conclusions (text)**

My method consists of desk research, field observation, interviews, questionnaire, data analysis, data inference, visualization, and presentation of the results.

### 3.5. Interpreting peoples' views

The test variables of the analysis are the four aspects of identity on the quartets of the Circle of Identity. The population constitutes the residents. I measured the test variables on one side against the elements of landscape identity and, on the other side, against the factors of people's identity.

The characters of the landscape are selected as described in Section 3.3. I found some of these elements after the interviews, while there was unknown a priori.

Two input factors from the survey population are important to this thesis's objectives: a) their backgrounds and b) the length-of-stay. The former is selected a priori to answer the numbered four research questions, and it is an important factor related to understanding people's identity (Section 3.1). To test another factor makes a comparison justifiable because a pattern that can be seen in mentioning characters of the landscape identity by different backgrounds may be because of other factors. Among a set of imaginable factors, I chose the length-of-stay. The other candidates, like age, family size, and economy, could either be seen as uncorrelated in a first glance (likely, because of the sparsity of the data for "age") or out of the scope of this thesis and suggested as a future study.

One issue to be solved before drawing a fair comparison is related to the different sizes of the classes in the population. Here, I scaled the number of the elements mentioned by each class divided by the size of the corresponding class. In other words, I give greater weight to the answers from one class with a smaller number of participants. The number of elements mentioned by each length-of-stay class is divided by the size of the class and multiplied by the total number of participants in order to be normalized.

The first quantity to be investigated is a measure of importance in the residents' views. It is related to showing what elements in the landscape context and to what extent are seen and perceived by the residents as meaningful and valuable. An item as a character for landscape identity in Luthagen is either presented by the surveyor or the interviewee. The core of the analysis is to associate the answers with the aspects of identity in the Circle of Identity. The interviewees took part in an active discussion and my questioning repeatedly continued until a satisfactory answer was taken, which could be associated with an identity.

To analyse the answers to the questionnaire and to associate them with the identities in the Circle of Identity is not as straightforward as it was in analysing the interviews. This is an advantage of having an active discussion and a supervised interview, which was not in hand when it came to the questionnaire.

To infer from the questionnaire answers, I need to find out to what extent a mentioned element is important and meaningful for the participant. This would be possible by simply asking them to grade the importance of each selected element.

However, the problem is that it is not always clear with which aspect of identity one element can be associated with for the elements, as mentioned before, that have multiple identity values in the views of participants. I will discuss this issue later in Section 4.5.2.

To tackle this problem, I use an intercorrelation function resulting from another (say auxiliary) question i.e., Question 6, to measure the weights that participants may give to different aspects of identity. In Question 6, the participants answer, “Why Luthagen is important for you?” I picked multiple choices of answers as each of them could represent only one aspect of identity. Again, I asked them to give a grade to each of those representatives of the four aspects of identity.

In what follows, I explain how such an inference is made possible, step by step and through data analysis. Note that the information gathered from Question 6 is useful by itself to answer the people’s identity-related questions. We get back to this discussion in the next subsection.

Step 1. *Deriving an Elements’ filter matrix.* This matrix gives the elements those identities they can have using the results from the interviews.

The purpose of understanding the elements of identity in the landscape, as described in Section 3.2, is to associate them with one aspect of identity in each person’s view. Each element is digitized against the four aspects of identity, with one as “true” and 0 as “false”. This piece of information is deduced from my observations, also using the feedback from interviews.

Step 2. *Inferring an Identity Weight Matrix (IWM)* which assigns one of the identities to each participant who answered Question 5.

The matrix is nothing but a people’s sympathy-meter which weighs the importance of each aspect of identity for individuals, with a method almost the same as opinion counting or sympathy counting. The grounds for this, as mentioned before, is to be able to select the most likely correct aspects of identity, among Personal-Existential, Cultural-Existential, Cultural-Spatial or Personal-Spatial, for those elements that are related to more than one aspect of identity.

Step 3. *Filtering the elements’ identities by IWM.* The IWM shows which aspect of identity a person would mean in the case of the elements with more than one identity. I use the IWM to filter each element to find what aspect each person means from each element of landscape identity. For example, when a participant number mentioned one element that can be categorised as either Cultural-Spatial or Personal-Spatial, then we have good reasons to guess that this participant targets the personal-spatial aspect of it more than the cultural-spatial, because this person, based on the IWM, is searching for the Personal-Spatial meanings in the landscape.

Step 4. Now we are at the right place to be able to interpret the results of the questionnaire. After three steps with a reasonable likelihood, we are at the same place as we have already started with the interviews.

## 4. Characteristics of Luthagen - the case

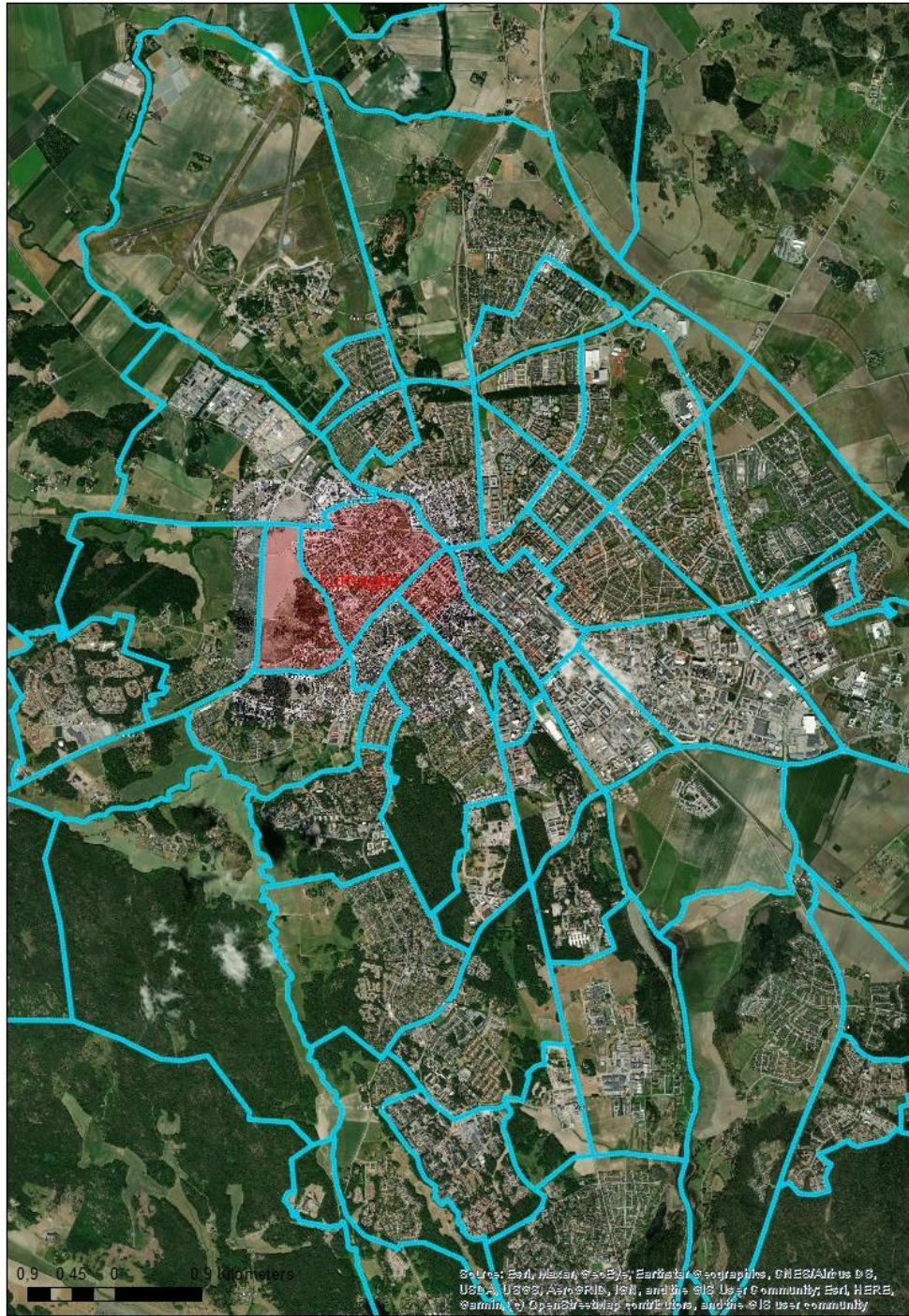
### 4.1. Describing the geographical character

Luthagen is a city district, located immediately northwest of downtown Uppsala. It consists of an inner-city part.

In 2015, with 15333 inhabitants, Luthagen was the second most populated district, before Innerstaden (Statistics are from Uppsala Kommun throughout this section). This statistic is taken inside the official borders of Luthagen, which is smaller than the conventional and rather accepted one among residents, the discussion which I undertake in the next section. In Luthagen, rental apartments and condominiums were evenly distributed between households. In 2015, only 4% lived in a villa, compared to 25% in the whole of Uppsala. More than half of households were included in the group of single people without children, which was more than for the whole municipality (39 percent). The population was relatively young, as 56% were between 20 and 44 years old, compared with 39% in Uppsala municipality. Luthagen is also home to many academics, teachers, and students, but relatively few of the inhabitants used to have a foreign background, 17% compared with 23% in the whole municipality. The statistics can be interpreted as meaning that the residents here are doing quite well. The average income is admittedly lower than for Uppsala municipality, but so is unemployment. The so-called ill health rates are low.

From a historical perspective, around 100 years ago, it looked different. Poverty was high and Luthagen was one of many areas in Sweden where working families lived cramped, and the homes often consisted only of a stove room with a small wood fireplace in front of the tiled stove. Luthagen did not really belong to the city itself but consisted largely of pastures and swamps. The first houses were built in the late 19th century, but it was not until the 1930s that the current district began to take shape.

According to the tourists' flyers, real-state brochures, and short writings around the internet, Luthagen, today, is one of Uppsala's most popular areas, thanks, in large part, to the proximity to the downtown and the fact that many green areas have been preserved. Luthagen is growing and new homes are being built both within and around the district boundaries. The population increased to 17090 plus 5890, including the borders as in residents' views, in 2017, which was more than the municipality's forecast (16,000 in 2019).



*Figure 2 Location of Luthagen in the urban area of Uppsala in consensus with people’s and historical view (red meshed area). The light blue lines are the NYKO level 3 i.e., official city districts (ArcGIS online Kommunkarta), no label given by the source. The red meshed area is not entirely consistent with the district’s lines.*



## 4.2. Outlining the Social-Spatial identity of Luthagen

To have an overview of the social activities and communal areas, we should better start from the borders to the downtown, where its most economic attractiveness is. There, the part of the river to frame the internal 10-min walk circle around the central train station is about to start, and the climax of student clubs occurs. Little further northward, towards the heart of Luthagen, private and small galleries, Science Park and Linnes Garden are located. Communal activities in Luthagen are centred around the main old building blocks of Uppsala University and stretch towards the borders of the city center but never pass the strand zone of Fyrisån. These vivid markers of attractive social, communal places continue to the esplanade, where the inner part of Luthagen starts, and the old cultural quartet of Erikslund is located. Here, Tiundaskolan and Eriksskolan, the new and the old one, the flashy and the hidden one in the hills of Berthåga, stay on the western and eastern sides of the Tiundagatan, respectively. From here to Cementgjuteri, gardens and villas and building blocks present a residential area, almost without any public services, such as cafeterias and grocery stores. The transition between a vivid pattern of social activities and a quiet residential street is almost abrupt.



*Figure 3 Names and borders of areas inside the borders of Luthagen (see Figure 2) These names are very well known and accurately attributed to the historical borders. People rather mentioned these names as their living neighbourhoods. Magnified at the left-top corner: The monument of the Concrete Queen by Anna-Karin Brus, 2015*

The borders of Luthagen are, however, not definite among municipality and real states on one side and the people on the other side. The main conflict occurs about the southern border, which divides it from the tourist attraction central and downtown Uppsala. Most of the people among those who participated in my interviews know the Skolgatan as the divided line of what they were counted as Luthagen. For many of them, Luthagen was a wider name concluding different local places known by their local names such as Eriksberg, Cementgjuteri and Stabbybacke rather than “a part of Luthagen.” The light red shades in Figure 2 show the Luthagen’s area in people’s views and from historical perspectives in the urban area of Uppsala. The blue lines border Uppsala in its districts, according to the municipality. The light

blue lines are the NYKO level 3 i.e., official city districts (ArcGIS online Kommunkarta). The borderline of Luthagen is a posteriori to my survey. It is a result that emerged from interviews and knowing the extent of each local inscribed place. I get back to this discussion in Chapter 4.5.

I found that the name of Luthagen and its limits are very well in agreement amongst the residents. This agreement is even further precise when it comes to the subdivisions of the district. Despite the name being accepted for the whole area, people hardly used the name Luthagen for the neighbourhood they lived and rather used the names of the subdivisions shown in Figure 3. These names and their definite borders are attached to the histories and identities of these areas.

A well-known characteristic of Luthagen, frequently mentioned in popular documents and real states' announcing, is the excellent preservation either for greenery and communal spaces and historical objects. Many changes, however, underwent since the 1970s, which profoundly changed the morphology, land use, and generally, the area's character. Summing up these two facts, one may expect that the cultural legacies related to any subdivisions should somehow be held while the changes have occurred. One example is the monument of the Concrete Queen by Anna-Karin Brus, 2015 placed in the middle of the new construction blocks in Hällby (finished 2010). Another example is a powerful identity for the old residents of Stabby Backe and the nowadays Northern Luthagen and Hällby that they were proud of a productive farming society, a very strong theme of agrarianism, for the lands of the church. This identity has completely vanished over time, and the same fields now attribute ecological farming ruled by the municipality.

### 4.3. Elements of landscape identity in Luthagen

To mark the elements of identity, those features in the context of landscape that make a distinguishable character for Luthagen, I searched through documents, tourist guides, maps, writings on the World Wide Web, and tabloids. Uppsala Municipality provides an interactive web application (Kommunkarta) within. I was mainly interested in the culture and historical maps layers and their owned Esri features. However, just a few open data are linked to the layer files, such as wandering routes which, among its objects, only Eriksleden is inside the borders of Luthagen. Most of these layers are mostly non-featured layers packages and thus cannot be edited, analysed, or used as a feature-based class. It can be used as an underlying background map. If I needed other data from the Kommunkarta, either created them or simply digitized them.

Those places which may find meanings and values in cultural and social interaction between people and their landscape are to be recognized. The map in Figure 4 shows historical places, monuments, art objects, galleries, several wandering routes, parks, forests, sports facilities, cemeteries, and features related to other activities registered in the Uppsala Municipality ArcGIS database. I have had this map with me in front of participants and have gone through it with them. In addition, participants were mentioned elements of identity and attachment that

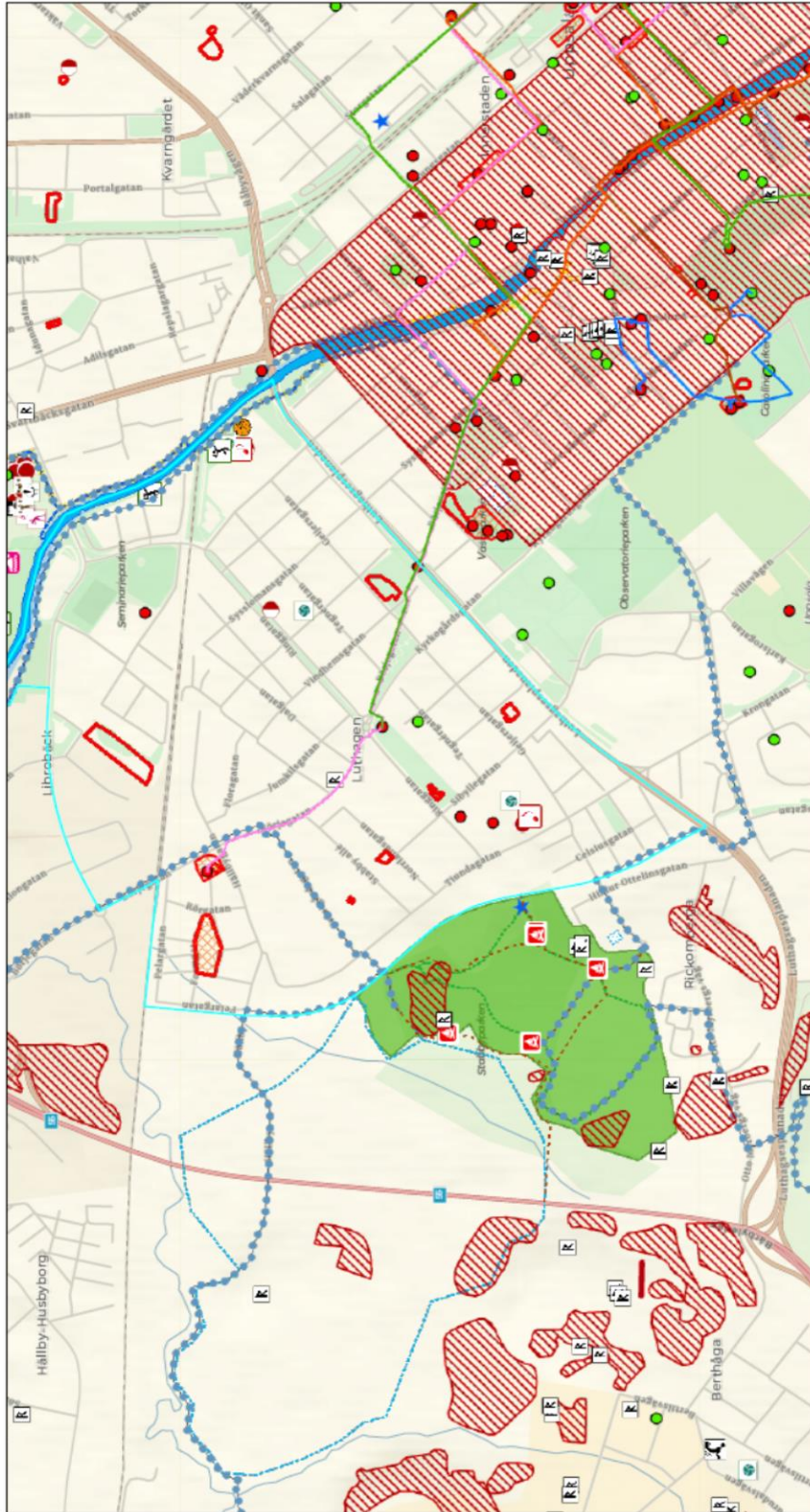
were not listed by the database nor were documented in manuscripts to my knowledge, which documented and taken to the lists in the questionnaire.

The temporal changes in the physicality of the landscape in recent years may also affect the landscape's character. Luthagen is the second most populated district in Uppsala. As mentioned in Sect. 3.3 the city characters can be shaped by people and their activities. People also build parts of the city, which concerns the city's moving character (Lynch 1960). A city landscape is constantly modified by the constructors who build and destroy it for their own reasons (Lynch 1960). A city is a moving art of continuous shaping.

From analysing historical maps and the municipality archives (see supplementary material), the landscape towards Dalabanan (the common edge between Eriksdal and Enhagen) and Northern Luthagen has undergone profound changes since the 1970s. The industrial zone, the vast factory, and the railways were either crumpled or completely disappeared. As an essential feature, a motorbike club vanished with the development of densely constructed urban qualities. Traditional rural features disappeared, and organic farms took shape in place. Apart from this subarea and the area along the riverbanks, the other parts underwent stealthy changes, which have not affected the characteristics of the landscape. Some features such as the row houses in Eriksdal from the 70s, the brick houses in Enhagen, the villa area in Eastern Stabby that stretches through Norrlandsgatan westward towards Rekomberga since the early 50s, are almost unchanged, as well as the densely urban features in Främre Luthagen (Stener 2014).

The economic benefits and the need for accommodation may harm the landscape in some people's view and satisfy others, mainly the contractors, housing companies, and real states market. During my field observation I found that some people detest recently constructed areas, and they think that they have lack of aesthetics, charm, and sense of memories however they embraced the facilities the new building plans have provided to their residents. In the northern part of Luthagen, when it comes to neighbour Stabby, Hällby, and further towards the industrial zone, four detailed plans have been set up since 2010. These recently constructed buildings expanded Luthagen's residential areas, vastly increased its population, and reshaped the demography of the place. Meanwhile, the plans almost ignored the area's identity in its visual qualities. To understand the people's connection to their landscape, it is also important to survey the temporal changes in the physicality as well as in the perception circle of the dynamic landscape-people relation (Ramos et al., 2016, Butler et al., 2018).

# Kartutsnitt Uppsala kommun



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- Fomfällningar, for
- Fomfällningar, linjer
- Fomfällningar, punkter
- Konvent
- Övriga ägare
- Restriktionsområde
- Stråket för det oväntade mötet
- Stråket för platsens historia
- Stråket kvinnliga konstnärer
- Stråket för ursprung och identitet
- Fredsstråket
- Fruktområden och naturreservat
- Vindskydd
- Vandringleder
- Båt spåret
- Entledaren
- Gröna stigen
- Gula stigen
- Svalstaden
- Upplandslådan
- Värdstrå strandområde
- Avdes ån
- Ulfgrän
- Sändstaden
- Skidspår
- Ridsågar
- Raststugor
- Områdesleder
- Mountainbikleder
- Linestigar
- Leikplatser
- Fiskeledare
- Fiskeledningsområde samt kommunens vatten
- Fotbollspåsar
- Fiskeförbud mellan 1 april och 10 maj
- Totalt fiskeförbud året runt
- Libanor
- Gripplatser
- Fågellom och utskjutplatser
- Mötesplatser
- Fotbollspåsar
- Grus
- Gräs
- Koningsgård
- Gräns för fiske ledarehåll
- Ej fullstor
- Fullstor

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Figure 4 Exported layers related culture, environment, activities, and monuments from ArcGis Kommunkarta, Uppsala Municipality



Figure 5 Luthagen expands northward as planned since 2004. Four thematic detailed plan maps are overlaid to show the expansion, with the older was ready in 2005. Clockwise ordered are a) Börjetul (2017), b) kv. Klockaren (2005), c) Kv. Cementgjuteriet (2010), and d) kv. Gimo (2011) The southern part of Luthagen is not shown here. The map is cropped within a 10 to 30 minutes walking distance towards the downtown viz. Located in the southeast. The river that stretches NW to SE is Fyrisån; the railway cut the map in the middle.

I will detect those private and social activities, places, memories, and people's connections to the landscape, which could be a unique characteristic of the area. Not all activities or memories can be covered. I will explore them as much as possible from the maps, documents, own experiences, and interviews with locals, which provide a candidate set of elements (see Figure 6) to be investigated further to have any representation of the landscape identity.

To get to all the possible items of landscape identity in Figure 6, I divided them into 1) the nominal and 2) deduced ones. The former are those elements that were known and repeatedly mentioned in tour guide documents, tabloids, comments around WWW, and Google Map guide comments as typical features, thus, a well-known characteristic of the area. The latter, however, is an a priori guess from field observations as well as from interviews in the first glances, so it includes the elements in the former group.

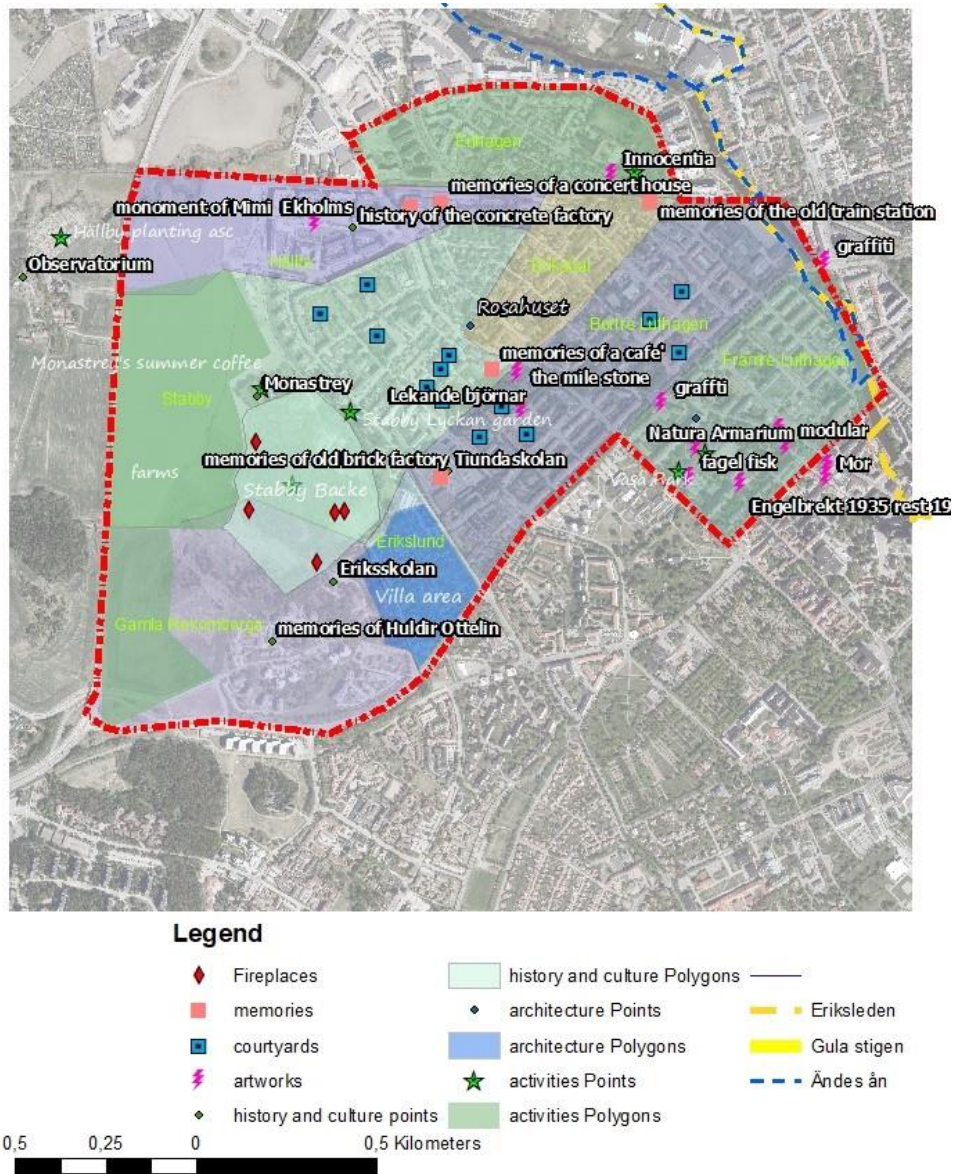


Figure 6 The possible socio-cultural elements that may relate to landscape identity are selected as the preliminary data source to be further investigated.

The makers in Figure 6 are divided into subclasses listed in the Legend. Again, they are some preliminary categorizations. Furthermore, some elements can either be in more than one group, such as Stabby Lyckan garden, which is now grouped as activities but also can be inside design and architecture, Vicarage can be associated with either architectural or historical/socio-cultural values, and farms can be grouped in the activities or as a living style, in culture. Important is how people value and see these elements. I deal with categorising elements throughout the survey to classify the people's views according to the Circle of Identity until the classification of the results. I will discuss the problems in categorising in Sections 4.4 and 4.5.

Some of the elements are hard to have any spatial definition as well as being localized on the map, such as merely sensory memories which are not linked to a place or generally accepted Cultural-Existential characteristics of the area, e.g., higher education level among the residents. When it comes to such elements, they are either not visualised, rather listed, or just exemplified by a marker on the map, such as memories of cafeterias.

Some elements of identity, which are important in people's view, may not exactly be located inside the red borders of Luthagen in Figure 6, yet they have high values for the people and I will discuss them with the interlocutors and ask them to participants.

#### 4.4. Plot of a survey

I performed in-depth interviews with 12 people, and they were free to discuss about the area. For the purpose of this thesis, specifically, to answer question numbered 5 in Sect. 1.3, I divided the sample group equally among Iranians and Swedes. By this, the people who identify themselves as Swedes are namely in Group S and those with Iranian backgrounds in Group P. The reason for this classification is to see the possible differentiation between backgrounds related to culture and diverse ways of perceiving the landscape.

*Table 1 personal information of the interviewees*

Index	Gender	Time of residence	Background	Age	Education level
1	F	15	S	38	4
2	F	25	P	47	3
3	M	42	S	70	5
4	M	18	S	51	4
5	M	33	P	47	3
6	F	23	S	54	4
7	F	10	S	37	4
8	F	1	P	37	5
9	M	4	P	40	5
10	F	4	P	41	4
11	F	4	S	50	3
12	F	10	P	60	4

The participants are either aware of the subject of identity and its relation to a place or given introductory information before the conversation takes place.



The discussion occurs in a cafeteria or a garden in Northern Luthagen. I ask the questions and involve the participant in an open discussion until the question is satisfactorily answered. The main questions point to attachment to the place and try to find a band to a person's identity from a character in the landscape of Luthagen. The endpoints of this band located in the individual's perception and, on the other end, in some places in Luthagen. I will find out which place, element, memory, activity in Luthagen awakened a feeling of being attached to the environment in the observer. My list of queries is in the Appendix. All the conversations are recorded and transcribed.

In order to densify our knowledge, I distributed a questionnaire among some of the residents who were members in a Facebook group namely, Luthagen (See Appendix!), as well as to a number of Iranians since only one Iranian was in that Facebook group, who refused to take part.

A predictor that I already introduced as my analysis predictors of the survey, in Section 1.1, is related to ethnic groups, which still demands more research.

For this purpose, I interviewed people from Iranian diaspora among them only those who identified themselves as Iranians and stated to belong to the respective ethnic group. The reason for this selection was the ease of communication and to remove the impedance of language which helps interpreting and therefore associating their answers with the aspects of identity.

The attachment itself (the band) can be studied in different fields, which are placed around the Landscape Identity Clock (LIC) in Figure 7. Let us take the LIC as a clock (C stands for "Clock" and not "Circle" as in Figure 1). My questions are such as what you like or what is important for you in the area, in which sense and how much important, how do you feel connected to the area, have you ever been told stories about here, are you rooted here, can you identify yourself with Luthagen and so forth. The output of this discussion/questionnaire is a resemblance between the answers and the fields placed as hour numbers around the clock. To help the answers be as independent as possible, I arrange the questions as they point to different quarters on the clock. If the first question seeks a biography, storytelling, or "sensory" attachment, the immediate one will be about the social or cultural impacts. I put this clock over each answer to find to which hour number it belongs to, which helps us understand where the attachment is placed in human perception and the landscape's spatial character.

I questioned the total number of 68 people in a population of more than 17000 Luthagen residents. To have an inference with 95 % certainty, we need, say, 500 at least. Nevertheless, we still can understand the connection between people and Luthagen and the kind of this connection which lies in Personal-Existential, Cultural-Existential, Personal-Spatial, and Cultural-Spatial. I instead call this extent the Cloud of Understanding of the landscape identity (see Figure 8). In other words, I am not intended to draw solid conclusions for use in the final stages of decision-making, such as in legislation and policy-making. However, it should not be

taken as a drawback, with insight into the timing of a Master's thesis, but namely, the “cloud of understanding” still covers those results from a survey that can be used to understand the landscape identity of a place to its utmost advanced level, which can be achieved after answering the four question marks in Sect. 1.4 about Luthagen.



Figure 7 The template based on the Circle of Identity (Stobbelaar and Hendriks, 2006) was adapted to each conversation during the survey.

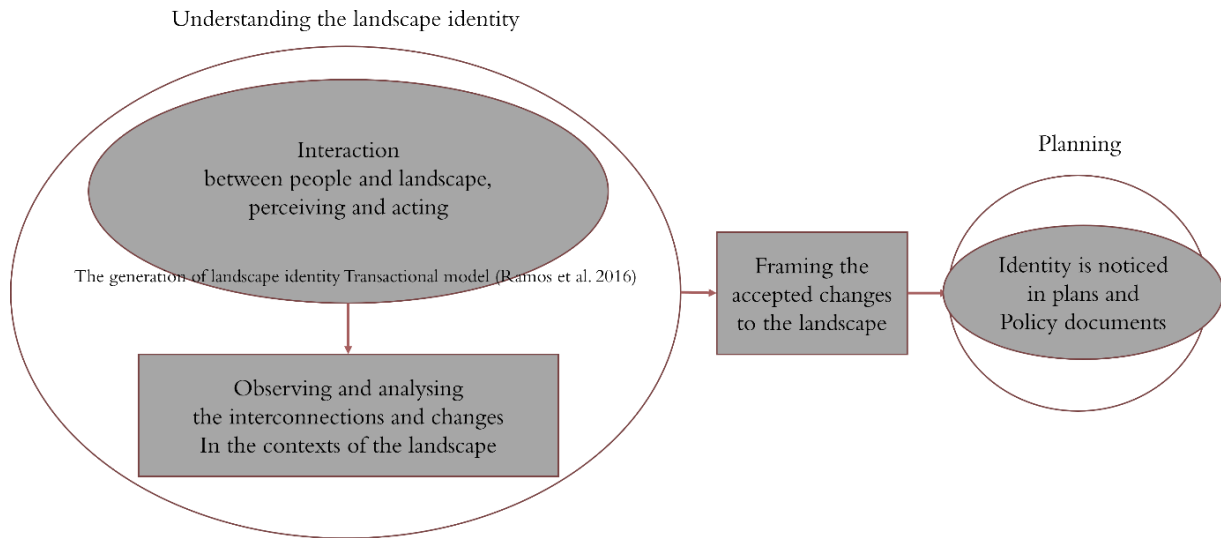


Figure 8 *Understanding the landscape identity is important in the process of place-making*

## 4.5. Results

The results of data analysis from interviews and questionnaires are outlined. When the answers have got collected, they are processed and categorized, then visualized and finally analysed to be ready for drawing conclusions. I deal with the results from interviews and questionnaires separately. For each, the elements of landscape identity are categorised into the four quadrants described in Section 3.2 and, more specifically, in Section 4.4.

To understand the landscape's identity, I intend to realize which elements in the Socio-Cultural context of the landscape have distinguishing characters. They should be mentioned by individuals, as being important and valuable. The number of individuals who mentioned an element in one category also indicates the distinguishable character of that element, so the number is counted.

To aim for people's identity, which is the individual and group identity ascribed by the landscape, the results are being analysed based on two important factors for the aims of this research (see Section 1.4), namely, the background of participants and the length-of-stay.

### 4.5.1. Interviews

#### *The elements of landscape identity in Luthagen*

Table 2 shows the analysed results after reviewing the recordings and studying the transcribed version. At the same time, the raw data are in the appendices. Every element mentioned by the interviewees reflects at least one aspect of identity. Some elements are related

to more than one aspect in the views of the participants, like, Stabby Backe and the Berthåga Cemetery. Some of them are very important to the interviewee and a few have even been mentioned with negative impressions, such as Public Transport mentioned by two as a dislike and lack of functionality, and the lack of sport clubs. In the more detailed version (Appendix), I grade or let them grade their answers from 1 to 5 to catch the subject's importance to the interviewees. I am searching for those important elements, histories, sensational factors and activities that give value to the landscape and present it to be identified.

At first glance, people mentioned very few elements that can be classified as Cultural-Existential elements, which is an expectable result because, as mentioned in Sect. 3.3, it is very hard to find Cultural-Existential elements on a city-district scale, and this aspect usually deals with regional and national identities. However, it is still expected that folk music, way-of-living or a local ritual break down from a larger territory and exist inside a subdistrict region, which I am interested in capturing in people's views and studying.

Some of the activities are under Cultural-Existential. The respondents viewed these activities as culturally valuable, favouring the district, like the summer coffees in the vicarage and the activities of an association, namely, Gröna sköna Stabby, in maintaining and persevering the area.

*Table 2 The summary of interviews categorized into four different aspects of identity Personal-Existential (PE), Cultural-Existential (CE), Cultural-Spatial (CS), sensory and Personal-Spatial (PS).*

PE	CE	CS	PS
Memories of Cross Rose concert	New buildings	New buildings	The railway
Stories of Norra Luthagen	Berthåga cemetery	Proximity to downtown	Nice architecture
Memories from everywhere	Ethics	Ekonomikum parken	Industrial design of new buildings
Berthåga cemetery	The naming of Luthagen	Demography	Stabby Backe
Routes towards observatorium	Sandicas	Bronze ages' graveyard	The milestone
Torget	Monastrey association	Academic population	Routes towards observatorium
The milestone	Good economy	Monastrey Historical background	Safety
Banks of Fyrisån	The actions of Gröna sköna Stabby	Communal spaces	Brickhouses i Tegnergatan
The nature	Stabby Dagen i September	Berthåga cemetery	Vasahuset
Feel like home	monastrey summer coffees	The old railway	Rosa Huset
Culture	Good people	The memory of a Cafe	Borders of Luthagen
Memories of old train station		Proposal arena	New buildings
Luthagsnytt		Public Transport (PT)	Sheep in Stabby Backe
Monastrey association		History of concrete factory	Proximity to nature
Birds		Skying	Jakuten 1a maj social activity
Easy to socialize and find company		Vividty in Främre Luthagen	Inner courts
Tranquility		Stabby Dagen i september	Birds

Academic population	Memories of old train station	Calmness
Love this area grown up here	Memories of Cross Rose concert	Berthåga cemetery
My ideal neighborhood	Deficit of sportclubs	Memories of a café
New buildings	Memories of a MC club	Water sceneries
Knowing people	Memories of the old railway	Oppen landscape
strong band friends and relatives	Nice people	Tegnerparken
Hilder Ottelin	Changes from industrial zones	Stabbylyckan
Grills in Stabby Backe	Changes demography negative	Linne' Stige
Stabbylyckan	Higher class	Canoing and bathing in Librobäck
mordärbacken	Memories of the Brick industry	Feeling of belonging
Strong relation to Erikslund	Ideal proximity to nature	A bridge
people and vividity	Hilder Ottelin	View to Linne gården from the Castel
Litterature	Proximity to the downtown and yet tranquillity	The domkyrka
farms	Eriksskolan	Linneä stige pillars
friends	Memories of a café	The Fyrisån
Fyrisån	Nice architecture	Nice views
Teachers' population	Stabby Backe	the shape of the roads and streets and quarters
Seminariehuset in Enhagen	Mixed class in the new buildings	
Safety	Vividity and socializing	
monastrey	Bronze ages' graveyard	
Cleanness	Memories of the train station	
Restaurant Arom	Academics population	
	Farms	

Some of the memories of a place are categorized under Cultural-Spatial and not only Personal-Existential. A cafeteria was frequently mentioned by numbers 3, 4 and 6, who were Swedish and had lived in the district for more than 18 years, so that they could remember the place. Media also have a significant role in passing on the preliminary knowledge of the Cultural-Spatial related features. Two dailies for Luthagen and one for Stabby are some examples. In the last decade, social media also played a comparable role. Several groups on Facebook are now dealing with cultural and spatial activities. In addition to media and social media, many of the connections I found among interviewees were established through art, such as paintings, stories, artifacts, and the artists themselves. Monuments are one of them.

A very typical human-geography characteristic of the area, which is related to demography, is namely, the relatively low percentage of immigrants, which was picked by 7 interviewees (3 S and 4 P) with neutral to positive impressions. However, they believed that the population is getting more mixed by the time being, both demographically and socially (See the regional statistics!) Half of the interviewees mentioned that Luthagen is known with a massive academic

population. However, they welcome more mixed backgrounds and social classes due to the new housing projects recently.

Some memories and spatial-historical features related to the Cultural-Spatial aspect can be found in any documents about the history of the area. However, I refer to Sterner (2014), who made a review of the historical elements and happenings for most of the area, Erikslund, Rekomberga, and Stabby.

Hildur Ottelin (1866-1927) was a persona of the area mentioned who made history through her attempts to make new living styles mainly for the daily wage population around 1905. She was mentioned as a very important cultural character by 3 Swedes.

The old railway, Uppsala-Enköping (1912-1984), and the old train station in Eriksdal are among those memories mentioned as either nostalgia or an important cultural achievement of whom have been living here for enough long time.

I was expecting that Linne's routes, which stretched through many parts of Uppsala and were mentioned in the very simple brochures, would be a part of the individual's identity, but it was never mentioned as a cultural heritage. It has a significant part as a Personal-Spatial concept of identity as mentioned by 2, with either background (P and S by 1- and 10-years length-of-stay, resp.) They personally selected the routes for wandering. The routes got interesting for them when they learned about using notices and poles, known as Linne's poles.

Among the Cultural-Spatial aspects are the good distribution of parks and green spaces, tranquillity of the northern part and vividness of the Främre Luthagen which are mentioned by most of the interlocutors as important parts of the visible social and special characteristic of the area.

The "beautiful" and "old-style" architecture of the houses around the whole area, proximity to the downtown and the nature at the same time are among Personal-Spatial types as they deal with physical geography, aesthetics, and architecture. Moreover, preserved old houses, started from Eriksdal, the northern side of Norrlandsgatan, and continued to the other side of Erikslund and the borders of Gamla Rekomberga, were noticed and mentioned by 2 of the interviewees as a "charming" legacy of urbanism.

An interesting example of how people may see and perceive their environment comes from one interviewee who mentioned that Norrlandsgatan is the only street aligned with the sunrise point at the summer solstice.

#### *Background and the length of stay*

The survey population is categorized based on the two input factors (Section 3.5), a) their backgrounds and b) the length-of-stay. I divided the length-of-stay into four time-intervals shown in Figure 9.

The number of elements in each aspect of identity, which are mentioned by participants, is counted and listed in Table 3.

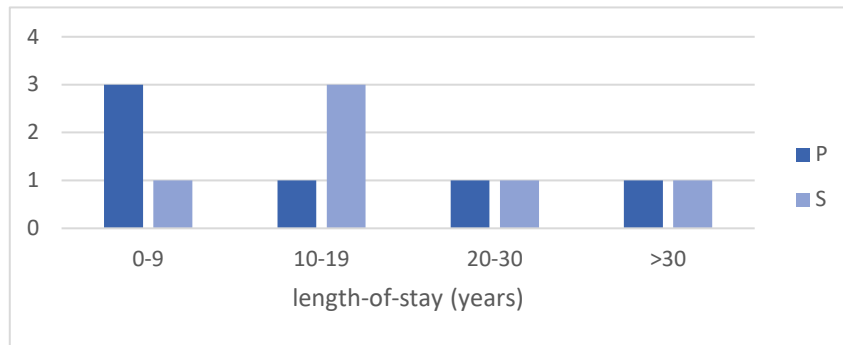


Figure 9 The number of Swedes (Group S) and Persians (Group P) participants for each length-of-stay interval

Table 3 The number of elements mentioned by each participant. The indexing from Table 1 follows. Personal–Existential (PE), Cultural–Existential (CE), Cultural–Spatial (CS), sensory and Personal–Spatial (PS)

Index	PE	CE	CS	SP
1	7	1	4	7
2	4	1	7	8
3	3	4	13	3
4	4	0	10	5
5	1	1	4	4
6	10	4	8	10
7	10	3	9	10
8	4	0	5	10
9	6	2	4	3
10	6	1	4	5
11	3	1	2	6
12	2	0	5	4

The first quantity to be investigated is related to showing how many elements in the landscape context are seen and perceived by the residents as meaningful and valuable. The number of elements in each aspect of identity mentioned by each of the two background groups in varying length-of-stay classes is shown in Figure 10.

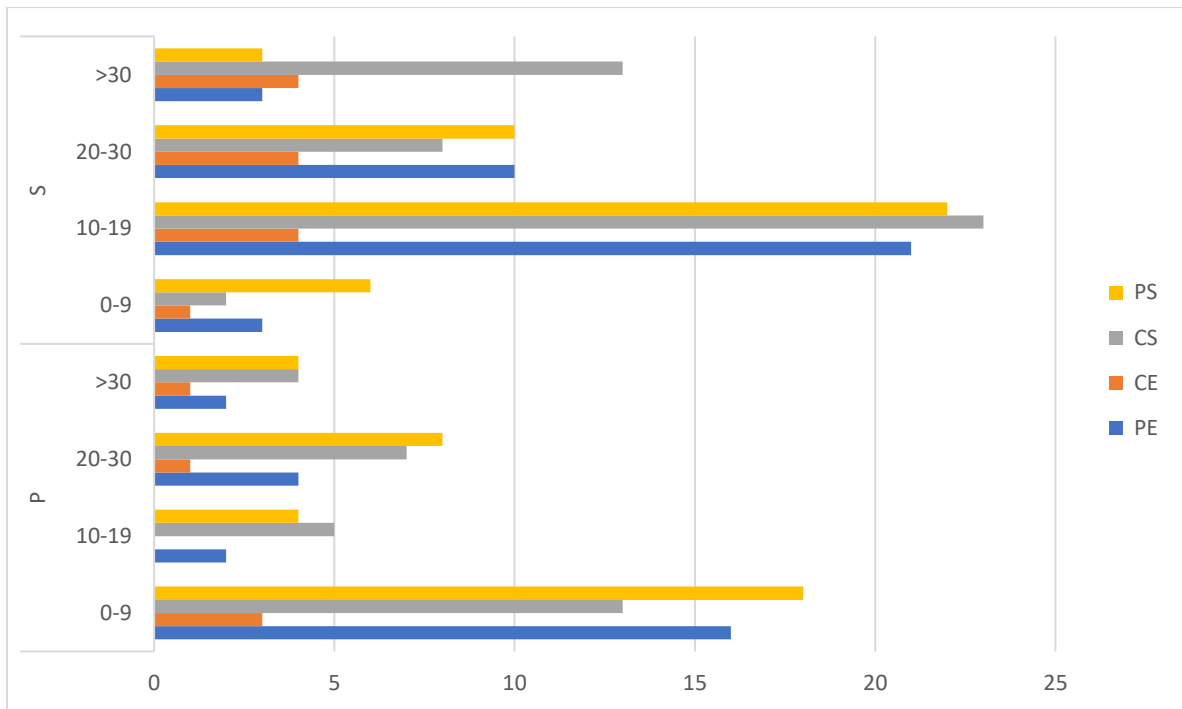


Figure 10 The number of items (elements) mentioned for each aspect of identity (Personal–Existential, PE, Cultural–Existential, CE, Cultural–Spatial, CS, and Personal–Spatial, PS) by each group (Persians, Swedes and in different length-of-stay interval).

When the purpose is to compare the number of items mentioned by each time group, the intervals should be normalized as if the sizes of the classes were equal as described in Section 3.5. From Figure 9, for example, the number of Persians who live in the area for less than ten years is three times the number of Swedes, while it is other-way-round when it comes to the class of 10-19 years. I carry on this normalization to disaffect the varying size of each time-interval class, and the results are shown in Figure 11.

Figure 11 shows which aspect of identity gains more sight from the individual’s responses. A dominant pattern of importance is almost the same for both groups. The cultural-existential aspects are the least mentioned except for Swedes with more than 30 years of residence. The existential aspects are generally less mentioned than the spatial ones except for Swedes with 10-20 years of residence.



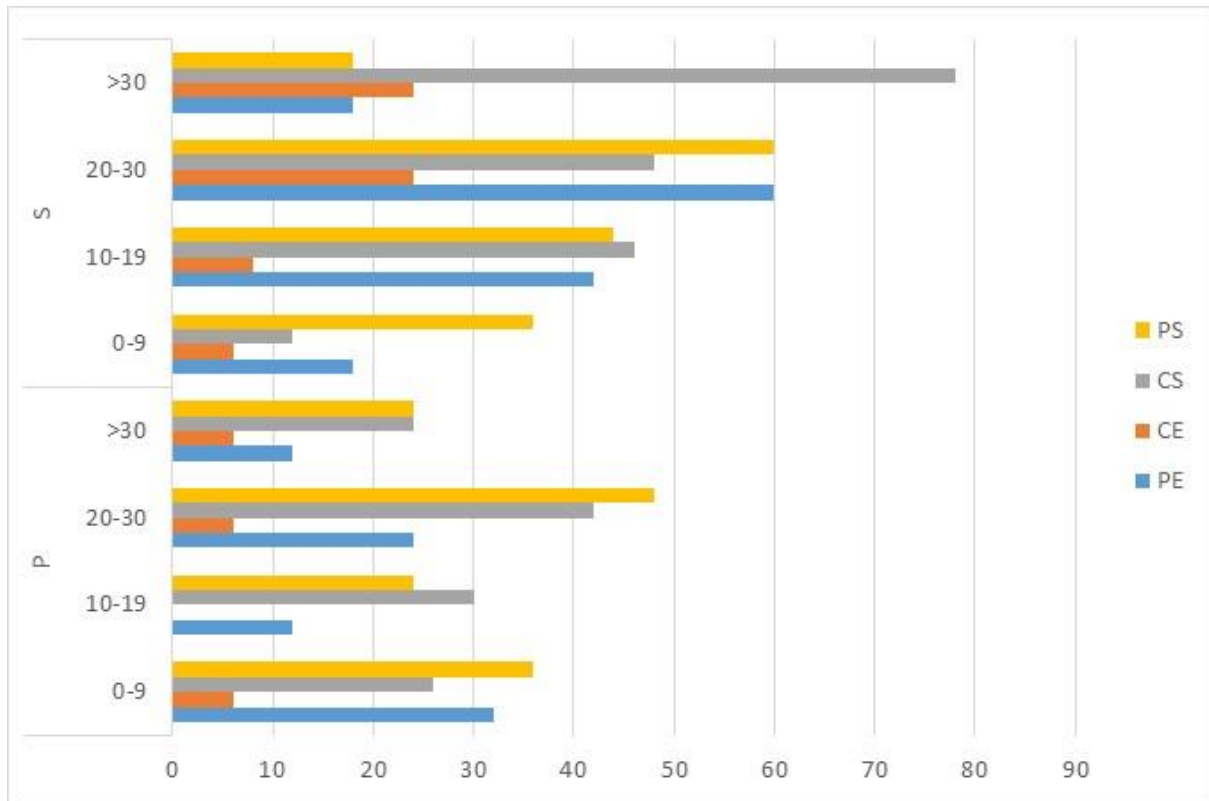


Figure 11 The normalised results of Figure 10. The numbers scaled by the size of each class of Length-of-Stay. Personal–Existential (PE), Cultural–Existential (CE), Cultural–Spatial (CS), sensory and Personal–Spatial (PS)

The spatial aspects of the landscape are seemingly more important, but they are differences between cultural- and personal-spatial aspects. This overall pattern can be realized regardless of background (see Figure 12) or Length-of-Stay. The elements mentioned by Iranians in the 0-9 class are a scaled replica of Swedes in the 20-30 class, and these two classes are the only deviation from the pattern of less existential aspects.

Another trend is that the Cultural-Existential identity is gaining more attention over time. The cultural-existential identities are more complicated and developing over time, which is more evident among Swedes. This aspect of identity, as mentioned before, are rarely can be seen on more minor scales than national, regional, or ethnic groups, and it is related to a “we-feeling” of a group of people. Such a consensus is hard to achieve (Lynch 1960, Stobbelaar and Pedroli 2011). The participants arose some of the Cultural-Existential identities as they refused to identify themselves by Luthagen and saw themselves as residents of sub-districts. According to the results shown in Figure 11, the attention is gradually drawn from personal toward cultural aspects over time.

Table 4 lists an overall view between two ethnic groups as been declared by participants and the mentioned items counted for any identity aspect. Swedes mentioned 1.5 times as many elements as Iranians, which are distributed almost evenly among the classes of Length-of-Stay.

Table 4 The total number of elements mentioned by each Backgrounds group and in different identities: Personal-Existential (PE), Cultural-Existential (CE), Cultural-Spatial (CS), sensory and Personal-Spatial (PS)

Groups	PE	CE	CS	PS	Total
P	24	5	29	34	92
S	37	13	46	41	137
<b>Total</b>	61	18	75	75	

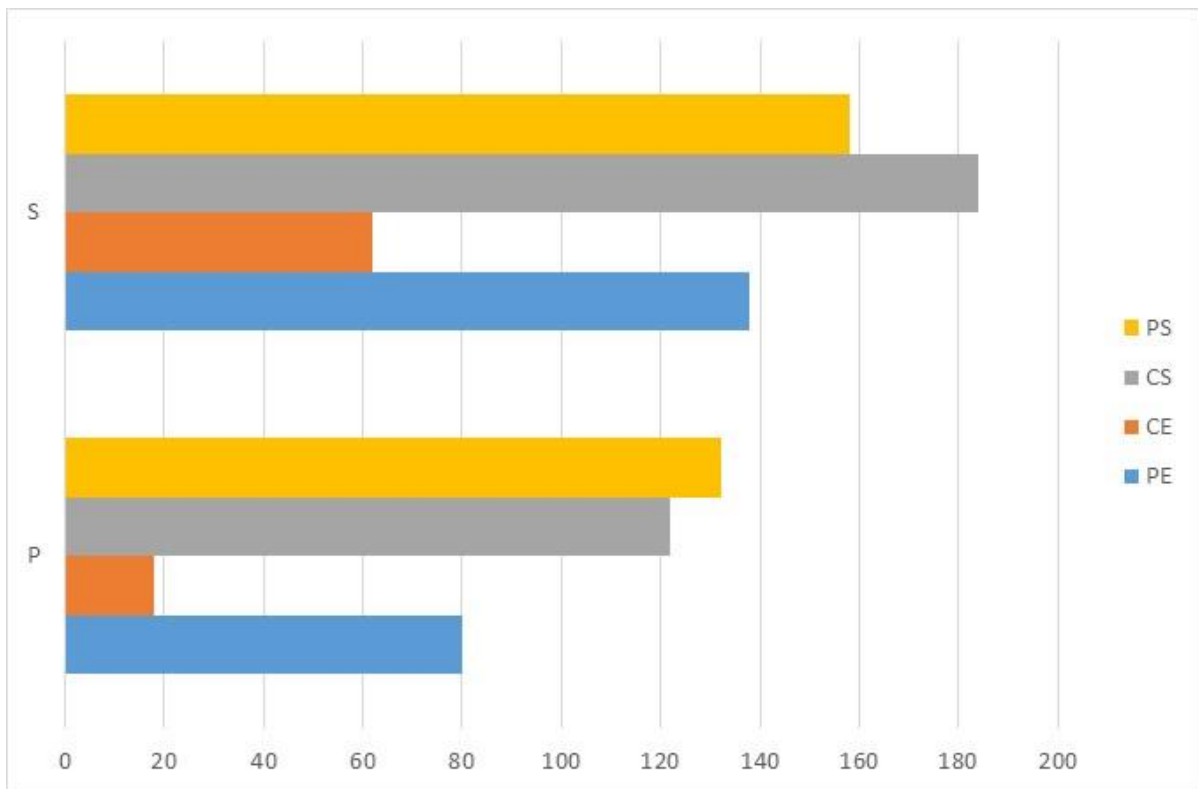


Figure 12 The normalised results of Table 4. The numbers scaled by the size of each class of Length-of-Stay and accumulated for each background. Personal-Existential (PE), Cultural-Existential (CE), Cultural-Spatial (CS), sensory and Personal-Spatial (PS)

The main results from the interviews are 1) to understand the contention of the people to their landscape, 2) to understand which elements represent which part of the identity of the landscape, and finally, 3) to calibrate for the questionnaire. Because from a passive questionnaire - when the respondent is not actively participating in a discussion – it is unclear which aspect of identity is meant by selecting a feature and grading it as wanted.

#### 4.5.2. Questionnaire

##### *The elements of landscape identity in Luthagen*

As in Appendix A.3, a questionnaire was prepared and sent to 60 residents, while four answers were either duplicated or obsolete. Remained and accepted were 56 answers.

The first quantity to be investigated is a measure of importance in the residents' views. It is related to showing what elements are in the landscape context and to what extent they are seen and perceived by the residents as meaningful and valuable. However, analyzing the answers and associating them with the aspects of identity in the Circle of Identity (Figure 2) is not as straightforward as analysing the interviews (Section 4.5.1). The interviewees participated in an active discussion, and questioning continued until a satisfactory answer was taken, which could be associated with an identity, which is an advantage of having an active discussion and a supervised interview, which was not in hand when it comes to the questionnaire.

To infer from the questionnaire answers, I need to find out to what extent a mentioned element is important and meaningful for the participant, which would be possible by simply asking them to grade the importance of each selected element. However, the problem is that it is not always clear with which aspect of identity one element can be associated. As mentioned before, some elements have multiple identity values in the participants' views. For example, Stabby Backe may have either ecological or personal values related to one's memories (See Table 5).

*Table 5. the aspects of identity (Personal–Existential, PE, Cultural–Existential, CE, Cultural–Spatial, CS, and Personal–Spatial, PS) that may be seen in each possible element of landscape identity in Luthagen*

<b>Elements</b>	<b>PE</b>	<b>CE</b>	<b>CS</b>	<b>PS</b>
Stabby Backe	0	0	1	1
Grills in Stabby Backe	1	0	0	1
Benches in Stabby backe	1	0	0	1
Banks of Fyrisån	1	0	1	0
Linnéstigen	0	0	1	1
Rosahuset	0	0	1	1
Vasahuset	0	0	1	1
Stabbylyckan garden	1	0	1	0
Art galleries	0	0	1	0
my courtyard	1	0	1	1
my kolonilott	1	0	1	1
Hällby planting asc	0	0	1	0
Berthåga cemetery	1	1	1	1
the monastrey	1	0	1	0
the monastrey's summer coffees	0	1	0	0
History of concrete factory	1	0	1	0

monument of Mimi Ekholms	0	0	1	0
memories of a cafe	1	0	1	1
memories of a club	1	0	1	0
memories of the old train station	0	0	1	1
Observatorium	1	0	1	1
memories of the Concert house	1	0	1	0
memories of a MC club	1	0	1	0
the milestone	1	0	1	0

As described in Section 3.5, I use an intercorrelation function resulting from another (say auxiliary) question, i.e., Question 6, to measure the weights participants may give to different aspects of identity. In Question 6, the participants are to answer, “Why is Luthagen important for you?” and to pick from multiple choices of answers as each of them could represent only

one aspect of identity. Again, I asked them to give a grade to each of those representatives of the four aspects of identity. I averaged their grades, and the results are in Table 6.

*Table 6 The identity weight matrix: The matrix weights the importance of each aspect of identity (Personal–Existential, PE, Cultural–Existential, CE, Cultural–Spatial, CS, and Personal–Spatial, PS) in the people’s views.*

Index	Sum of Average of PE	Sum of Average of CE	Sum of Average of CS	Sum of Average of PS
1	2.7	1.8	3.3	4.0
2	2.9	2.3	5.0	4.5
3	2.0	2.0	4.0	1.0
4	3.6	2.8	3.3	4.0
5	3.3	3.8	4.0	3.0
6	4.4	3.8	3.7	5.0
7	3.0	4.0	4.0	5.0
8	4.3	3.2	5.0	5.0
9	4.0	3.8	4.3	4.5
10	4.0	3.5	3.7	4.5
11	3.3	2.8	4.0	4.5
12	3.7	4.2	4.7	3.0
13	3.6	3.5	3.3	5.0
14	3.6	3.5	4.7	4.5
15	3.6	2.2	3.3	4.0
16	3.7	2.5	3.0	2.5
17	3.4	3.0	4.3	4.5
18	3.4	3.8	4.7	4.5
19	1.7	3.2	3.7	4.0
20	3.6	3.3	4.0	5.0
21	2.9	3.0	4.0	4.5
22	4.7	4.0	3.3	4.0
23	3.0	2.7	4.3	3.0
24	3.0	3.3	4.7	4.5
25	3.3	3.7	4.7	4.5
26	3.3	2.7	4.3	2.5
27	3.0	3.3	3.3	5.0
28	2.9	2.3	3.0	2.5
29	1.3	0.8	3.0	2.5
30	3.1	3.0	4.0	2.5
31	0.7	0.8	2.7	0.0
32	3.3	3.2	4.7	4.0
33	3.3	3.5	3.7	3.5
34	4.3	3.7	3.7	5.0
35	2.9	2.8	4.3	2.5
37	1.7	2.2	3.3	3.5
38	3.9	3.7	5.0	5.0
39	3.4	3.3	4.3	5.0
40	4.3	4.3	4.7	4.0
41	3.1	3.8	4.3	5.0
42	2.4	2.7	2.7	3.0
43	3.0	3.7	3.7	5.0
44	3.0	4.0	5.0	5.0
45	3.0	3.0	3.3	4.5
46	4.0	4.5	4.3	5.0
47	2.7	3.2	4.3	4.0
48	3.0	2.8	5.0	4.5
50	3.3	3.5	4.0	5.0
51	2.6	3.0	4.3	4.5
52	4.4	3.3	4.0	5.0
53	2.3	2.3	3.0	4.0
54	3.3	3.3	5.0	3.0
55	2.3	2.0	4.3	3.5
56	3.9	3.8	5.0	5.0
57	3.9	3.5	4.7	4.0
58	2.6	3.0	5.0	4.0

The information from Question 6 (Why?) is beneficial in calibrating the results to Question 8 (Which?), where I seek the response to 24 selected elements of identity in Luthagen (see Section 4.3). In other words, if someone mentioned Stabby Backe as highly significant in Question 8, then, based on another question, I can guess to which identity aspect was he/she inclined to, Cultural-Spatial or Personal-Spatial, either ecology aspects or memories made up his/her interest in Stabby Backe.

The purpose of understanding the identity elements in the landscape, as described in Sections 3.2 and 4.3, is to associate them with one aspect of identity in each person's view. These elements and the meaning of identity that they might convey are listed in Table 5. I am not aiming to defend the logic in Table 5 to all costs, and it may still be a matter of debate. However, despite the likelihood that one may expect from Table 5, it is the best presumption I could reach. One critically thinking maybe that Table 5 can be updated using further questioning and more feedback, which is valid as a suggestion for future works, but it falls beyond the scope of this thesis right now.

The results of Question 6 show for each participant which identity aspect is important and to what extent relative to other aspects (Section 3.5). The Identity Weight Matrix (IWM) in Table 6 shows which aspect of identity a person would mean in the case of the elements with more than one identity. I use the IWM to filter each element in Table 5 to find what aspect each person means from each element. For example, when participant number 13 mentioned Stabby Backe, we have good reasons to guess that this participant targets the personal-spatial aspect of it more than the Cultural-Spatial, because this person, based on the IWM, is searching for the personal-spatial meanings in the landscape. Here, the guess' likelihood odds are 5 to 3.3, and so forth.

Summarizing the results from all the answers, the number of people who think each element has a meaning of either Cultural-Existential, Cultural-Spatial, Personal-Existential, or Personal-Spatial is listed in Table 7. In Question number 8, I also asked people to grade the elements 1 to 5 as the least to the most important, including zero as an "irrelevant question." The averages of these grades are depicted as bars in the same table, with zero being the white/empty cell to 5, which is full blue.

From Table 7, one understands how the connection between people and their landscape is made through 24 selected elements in Luthagen. Using the data in Table 7, one can pick the most critical identity elements in the context of the landscape in Luthagen, which are very important for the municipality, designers, real estate brokers, and planners.

Table 7. The statistics of the results of Question number 8: The number of people and the average grade (the blue bars graded 0, white to 5, full blue) they gave to the specific realization of identity (Personal–Existential, PE, Cultural–Existential, CE, Cultural–Spatial, CS, and Personal–Spatial, PS) of each element in their views.

Elements	PE	CE	CS	PS
Stabby Backe			27	27
Grills in Stabby Backe	13			42
Benches in Stabby backe	12			42
Banks of Fyrisån	9		45	
Linnéstigen			27	27
Rosahuset			27	27
Vasahuset			27	27
Stabbylyckan garden	9		45	
Art galleries			54	
my courtyard	2		26	26
my kolonilott	2		25	26
Hällby planting asc			53	
Berthåga cemetery	2		26	26
Vicarage	8		44	
Vicarage's summer coffees		53		
history of concrete factory	9		45	
monument of Mimi Ekholms			53	
memories of a cafe	2		25	26
memories of a club	9		43	
memories of old train station			26	27
observatorium	2		25	26
memories of concert house	9		43	
memories of MC club	9		43	
the mile stone	9		44	

It is clear that the summer coffee in the Stabby Vicarage is important for the people and only as a Cultural-Existential aspect. In addition, the Summer Coffees is the only element attributed as a Cultural-Existential identity of Luthagen, and the memories of a cafeteria possess an emotional characteristic only for two out of 54 participants. The data is also decisive in finding out that the milestone in Tegnerparken has a cultural identity.

Except for the Grills and Benches in the Stabby Backe, the Summer Coffees, the My Kolonilott, and the memories of the Motorcycle club, the remaining 20 elements have over-averaged importance as a cultural-spatial meaning to the people, governing that the elements are well selected and important for the people in cultural and spatial perspectives.

#### *Background and the length of stay*

Among the accepted answers, 41 are Swedes, and 15 are Iranians (P), so the population arrangement differs from that of the interviewees. The same categorization based on the length-of-stay is summarized in Figure 13. The majority of the participants (roughly 93%) lived less

than 20 years in the area, and only four have been living longer than 20 years. The participants' distribution in Figure 13 differs clearly from that of interviews shown in Figure 9.

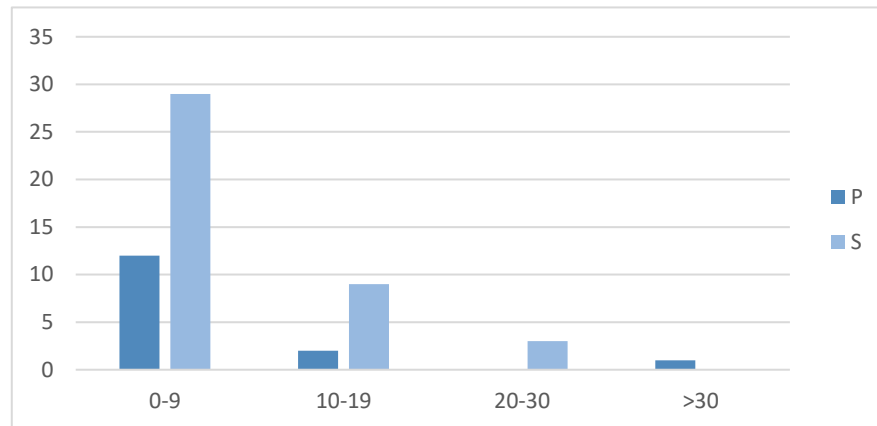


Figure 13 The number of Swedes ( S) and Iranians ( P) who filled the questionnaire for each length-of-stay interval

Question number 6 asks, “Why is Luthagen important for you?” Multiple choice answer is set in front of participants to grade significance 1 to 5 (the least to the highest importance, including 0 as irrelevant). Each of these answers is merely related to one aspect of identity (Table 8). In this way, a mean value grade of significance, given by every participant, is computed for each aspect.

Table 8 shows how in Question 6 (see Appendix A.3) the subject of queries is associated with the aspects of identity (Personal–Existential, PE, Cultural–Existential, CE, Cultural–Spatial, CS, and Personal–Spatial, PS)

Subject of query	Aspects of identity
close friends and relatives	PE
friends	PE
private activities	PE
roots	PE
feel home	PE
memories	PE
part of me	PE
social activities	CE
my club	CE
history	CE
good economy	CE
education level among people	CE
safety	CE
activities related to nature	CS
public transport design	CS
proximity to centrum	CS



design of houses	PS
design of communal places	PS

The results as listed in Table 9 for the selected demographic classes and Table 10 after disaffecting the various class-size show no significant differences between ethnic groups, while it is clear that people are keener to intensify spatial elements rather than existential ones. The Personal-Spatial and Cultural-Spatial aspects gain more points than PE and Cultural-Existential. Another result is that the two aspects either on the left (spatial, PS and CS) or on the right semicircle (existential, PE, and CE), gain almost similar points, which may indicate that the selective questions are associated well with the aspects of identity.

*Table 9 Inferred from Question number 6, the sum of the points given by people to each aspect of identity (Personal-Existential, PE, Cultural-Existential, CE, Cultural-Spatial, CS, and Personal-Spatial, PS), categorized in length-of-stay and background*

<b>length-of-stay</b>	<b>PE</b>	<b>CE</b>	<b>CS</b>	<b>PS</b>	<b>class count</b>
0-9	128.1	128.0	167.7	163.0	41
10-19	36.3	34.2	43.3	44.5	11
20-30	10.7	9.0	11.3	12.0	3
>30	3.4	3.8	4.7	4.5	1
<b>Groups</b>					
P	53.3	51.7	67.0	67.0	16
S	125.3	123.3	160.0	157.0	40
<b>Grand Total</b>	<b>178.6</b>	<b>175.0</b>	<b>227.0</b>	<b>224.0</b>	<b>56</b>

*Table 10 The normalized results of Table 9 categorized based on backgrounds of the participants*

<b>Groups</b>	<b>PE</b>	<b>CE</b>	<b>CS</b>	<b>PS</b>
P	3.3	3.2	4.2	4.2
S	3.1	3.1	4.0	3.9

Now we shift to Question 8, the most direct question to investigate the connection between participants and the elements of the landscape. I asked, which of the already selected elements in Luthagen are important for them and to what extent. The results of the questionnaire are categorized and shown in Figure 14. Then, following the same normalization (Section 3.5), the varying size of each time-interval class is neutralized, and the results are shown in Figure 15. Attributing answers to the identities is carried out using the Identity Weight Matrix described in Section 3.5, stepwise, and applied in the previous subsection. The following figures show the results of different identities of the classes and groups of the sample population based on the same questions used for the results shown in Table 7. While in Table 7, I target the elements, in Figure 14, I target the people who made meaningful responses. Then, to neutralize the effect of the different class sizes, each number is scaled by the class size as shown in Figure 15.

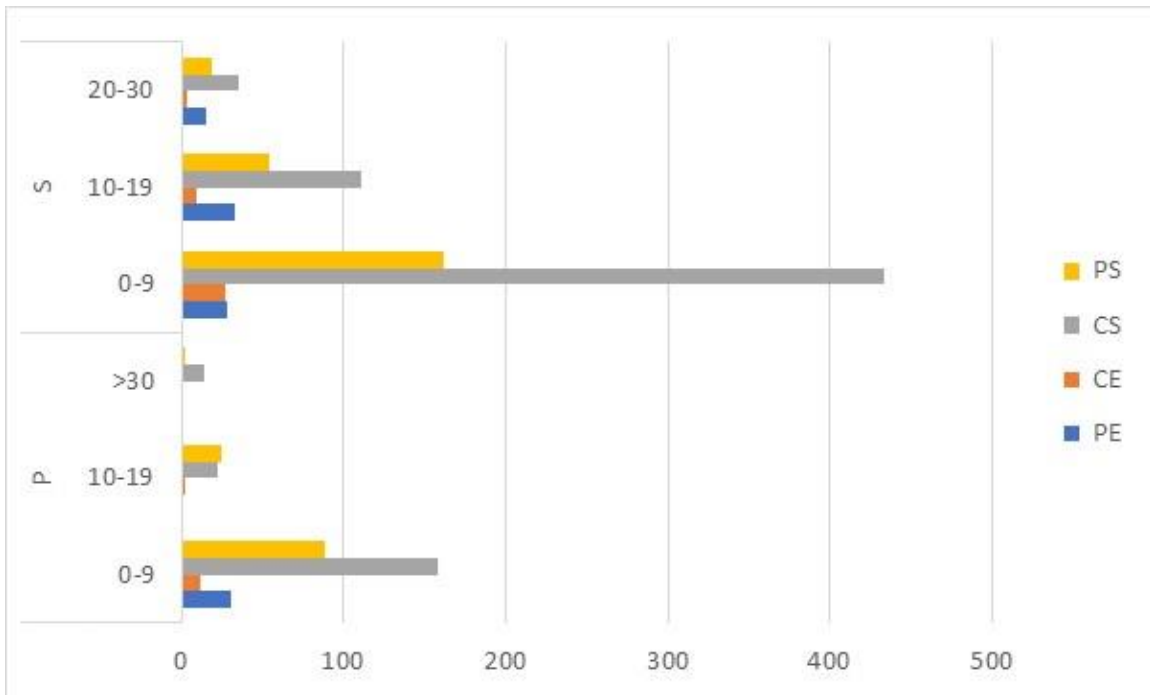


Figure 14 The number of items (elements) mentioned by people at each backgrounds group (Persians, Swedes) and with different length-of-stay. Attributing answers to the identities: by IWM as described in Section 3.5. (Personal–Existential, PE, Cultural–Existential, CE, Cultural–Spatial, CS, and Personal–Spatial, PS)

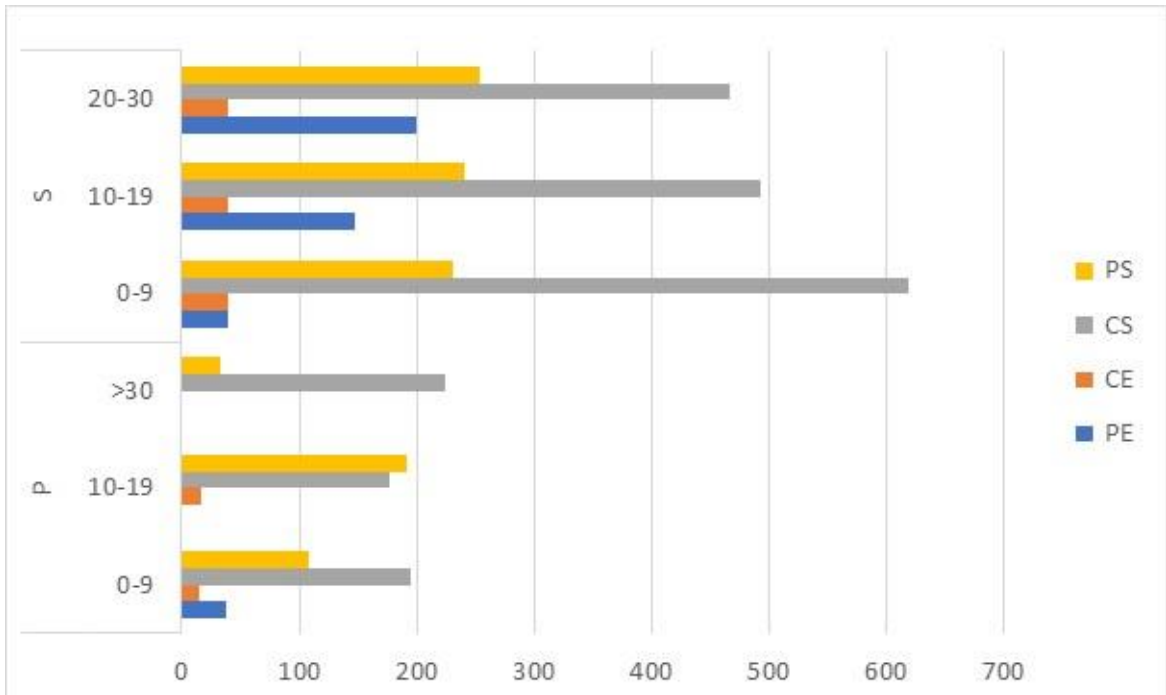


Figure 15 The results of Figure 14 as scaled by the size of each class of Length-of-Stay. (Personal–Existential, PE, Cultural–Existential, CE, Cultural–Spatial, CS, and Personal–Spatial, PS)

From Figure 15, a fair comparison can be made for each class because the different sizes of classes now have no effect.

The number of cultural vs. personal aspects is significantly different. For Iranians who have been residing 10 to 19 years in Luthagen, which may be sufficient to get known the cultural aspects, there is no personal-existential relation worth mentioning to the elements of identity in the area. While, and maybe it is promising that such kind of relation is being made for newer neighbours.

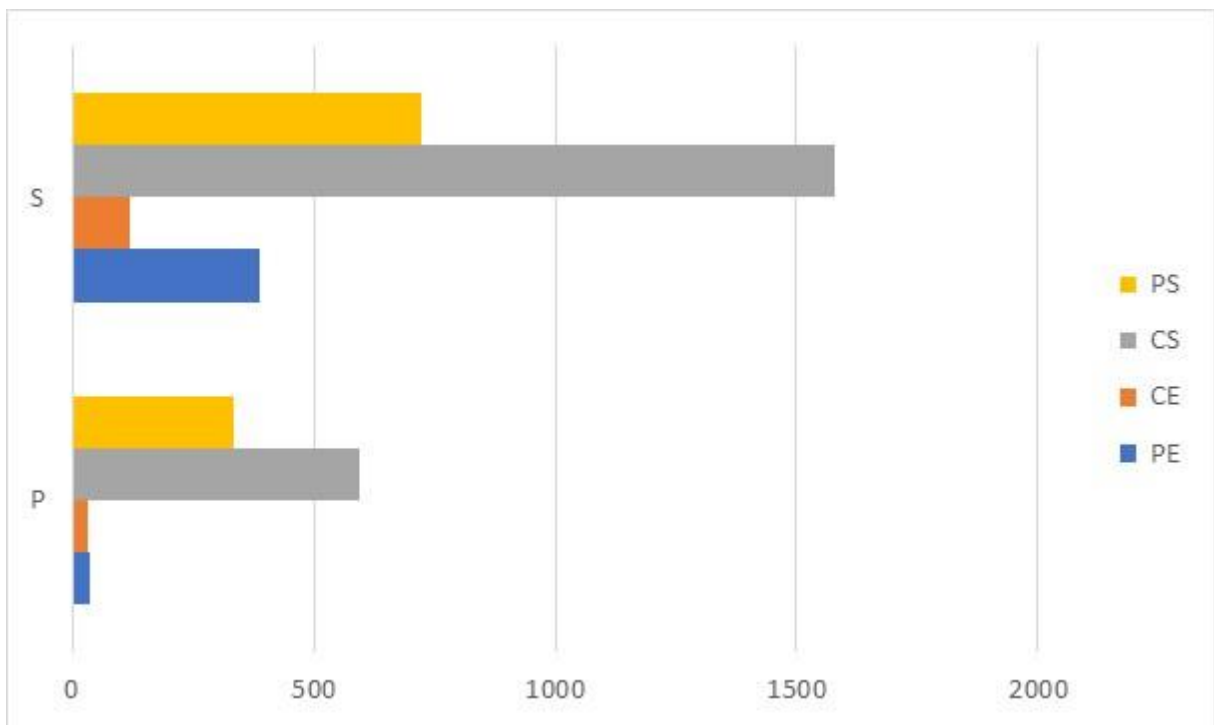


Figure 16 The same as Figure 15 but just showing the Backgrounds

The pattern of the significance of the four identities between Swedish and Iranian are the same (Figure 16). The exact order of Cultural-Spatial then Personal-Spatial, and by a meaningful difference, Cultural-Existential and Personal-Existential are almost seen around the classes. The only exception here is for the Iranians of class 10-19, where the Personal-Spatial takes over Cultural-Spatial. This exception can be due to the small sizes of the groups, and it would be interesting to see what happens in a case of sufficiently large participants.

Not only is the number of Swedish participants at least four times more than Iranians, but the number of elements they mentioned is systematically higher for all the aspects (roughly by a factor of 1.5) after the different sizes were normalized. Iranians picked a smaller number of elements and were unaware of some elements that Swedes seem to have good information about and made strong bands with, in some cases, mainly, about art, artists, and historical lineages of Luthagen.

I introduced 24 elements in the landscape to the participants and asked them to grade. Some of them mentioned more than others. So far, I have dealt with the count of the elements mentioned, which is a measure of the connection between people and the landscape. The grades are another measure to see how much these elements are in value or, on the other hand, not valuable to the participants. The average of the grades in Table 11 is counted only for those who responded. Let us leave aside the classes with too few participants from the discussion at the moment. From Table 11, the cultural-spatial aspect is graded slightly over the average by almost all the classes and meaningfully lower than other aspects. Amongst the identities, Cultural-Existential is the most complicated for someone to see in the landscape. That is why it is picked less than other identities by the people. However, once picked, it gained a very high value of importance. Still, it is clear that the personal-special issues are the most mentioned values in Luthagen, but the difference between Cultural-Existential and Personal-Existential is not significant. The personal-spatial identity is among the first to develop since it is a mutual interaction of “I” and the texture of the landscape, including mostly visible, physical, and contextual ones. The first elements in the landscape to be observed are those related to finding the locations, routes, and destinations in everyday life, such as visible landmarks, the number of green spaces, and the shapes of buildings. One may conclude that all the aspects of identity are equally important for the participants who noticed them and, thus, responded. Table 11 shows that the identity aspects of the landscape fall almost to the same importance as those who replied. Table 12, however, shows how an identity aspect was mentioned by participants, irrespective of the Backgrounds groups.

Table 11. The average of the grades given to each aspect of identity (Personal-Existential, PE, Cultural-Existential, CE, Cultural-Spatial, CS, and Personal-Spatial, PS) by different classes and Backgrounds groups.

Groups	Length-of-Stay	Mean of PE	Mean of CE	Mean of CS	Mean of PS
P	0-9	3.0	3.8	2.9	3.7
	10-19	0.0	3.5	2.5	3.6
	>30	0.0	0.0	4.4	4.5
S	0-9	3.6	3.1	2.7	3.3
	10-19	3.0	3.7	2.9	3.6
	20-30	3.5	3.3	2.8	2.6

Table 12 The number of identities (Personal-Existential, PE, Cultural-Existential, CE, Cultural-Spatial, CS, and Personal-Spatial, PS) picked by participants and scaled with the class size.

Length-of-Stay	PE	CE	CS	PS
0-9	79	53	807	341
10-19	168	56	677	397
20-30	280	56	653	355
>30	0	0	784	112



Stabby alle

“One of the elements that brought vividity in this street”, stated one participant.

## 5. Discussions

This thesis aims to understand the connection between people and the landscape, how this connection is made, and how it affects the planning and decision-making through landscape identity studies. As given in the first research question, I searched for the meaning of landscape identity in academia and among people. I searched for the media in the landscape, such as colours, shapes, feelings, memories, personal connections, and social activities, through which individuals make an image of their landscape. The answer to this question constitutes the conceptual foundation of this thesis because it provides the material that helps understand the connection with the landscape. Answering this question is a journey through landscape and identity literature which results in setting up several ways through which an image of the landscape can be created, and through this image, the landscape will be identified. Understanding how people identify a landscape requires training in the ability to recognize the patterns and elements in the landscape and the perceiving mind. Through study reviews, I found that the elements that can be considered unique and distinguishable in the landscape are initially either cultural or spatial. The landscape-related identities can be identified when people see and perceive the landscape through a socio-psychological approach. People identify the landscape through an image of the landscape, and this image can be personal, existential, or cultural. In return, people ascribe identities to the landscape that are not only cultural and spatial but also personal and existential. As a result, I found that landscape identities are ascribed through a dynamic interaction with the landscape and realized how these identities are categorized, as described in the following sections.

To answer the rest of the questions, I developed a conceptual framework, trained it using samples, and in order to test it, I applied it in Luthagen. I performed a survey to figure

- a) the cultural and spatial features in Luthagen that make it unique and convey a meaning of identity for the residents
- b) how people identify their landscape, whether it is a personal, social or deep inside, existential that is sought by residents of luthagen
- c) how such an attachment varies between locals and immigrants.

I adopted a methodology developed by Stabbellar and Pedrolli (2011) through investigating the landscape identity. I did some interviews and distributed questionnaires among residents of Luthagen in Uppsala to understand how such a connection is created, changed, and gained values and how the landscape elements and, subsequently, the activities taking place in the landscape weigh down or up the identity of landscape in views of people and community?

The test variables of the analysis are the four aspects of identity on the quartets of the Circle of Identity in Figure 17. Principally, I measured the test variables on one side against the elements of landscape identity in Luthagen on the other. Using the survey, I aim at

characterising the landscape-related identity elements in Luthagen and classifying how individuals identify their landscape through those elements.

I interviewed a dozen residents who participated in an active discussion and were free to memorize and mention the elements by which they may identify Luthagen. I asked why and in which sense Luthagen is important for them and if they identify themselves by Luthagen. Each element that participants mentioned was associated with at least one aspect of identity. This association is made by the definitions as well as developed through the active discussions in the interviews.

Fifty-six residents answered the questionnaire. The same questions as for the interviews were put forward. In contrast to the interview, 24 cultural-spatial elements of Luthagen's identity were already provided as a list. These elements can be visual, built, physical, spatial, cultural, memorial, existential or historical, which are selected in three different ways:

- 1) From the interviews,
- 2) Using several cultural map layers, mainly from Uppsala Kommun GIS web application, and
- 3) From initial field observations.

Interviews were time-consuming; each took at least half an hour, limiting the number of participants. Such limitations vanish by answering questionnaires, The questionnaire could be sent to many, and it takes around ten minutes to answer.

I actively discussed the elements and their connections with the interviewees, so they were free to mention the elements. Realizing which aspect of identity each person meant by mentioning an element was consecutive.

While in the case of a questionnaire, such a descriptive answer could not be desired. Here, I provided a list of the elements, and the participants were to select and grade them (1 to 5, the least to the highest importance, together with a "non-relevant" option) To realize through which aspect the individuals identify each element, I used an auxiliary question to calibrate the participants' answers. Then using a method like opinion measurement techniques (Section 3.5), I measured the sensitivity of individuals to the identity aspects. Using this method, the comparability of results shows that questionnaires can favour future works by providing a more populated sample set.

A potential threat to the integrity of society is that different backgrounds get isolated because they find themselves alienated from their environment. By understanding how people from different backgrounds identify and likely get engaged with their landscape, planners and decision-makers can provide a solution to such a risk. To answer question 4, I grouped and

classified my sample population into two factors of people's identity, namely ethnicity and dwelling time.

I found that people perceive their landscape and its elements through several identity aspects. People either tend to attribute the landscape's elements with an identity, as if it is a distinguishable characteristic, or they like to define themselves by the values and meanings they give to their landscape, individually or in a group.

To search for the people's identity, the variables measured against the test variables (Personal-Existential E, Cultural-Existential, Cultural-Spatial, and Personal-Spatial) are 1) the background of the participants and 2) the length-of-stay. These connections of the elements to people happens to fall in each category around the circle of identity.

In the followings, I draw the main traits of landscape-related identities in Luthagen and their associated aspects of identity. Then I discuss how sampled immigrants identify and likely get engaged with their landscape compared to those who identified themselves as Swedes.

### **5.1. Personal-Existential aspects of landscape identity in Luthagen**

This kind of attachment originated in several ways that I searched for them while analysing and classifying the interviews:

- Those answers convey a personal feeling of belonging to a place, a feeling of "I am from Luthagen" or "I identify myself with Luthagen."
- Those sites/elements (not necessarily visual) that have emotional significance and thus found their way into the person's biography
- Such characteristics of landscape, like the forest, a church, or even a train station, which make memories of the place and can be transferable from place to place,
- Those feelings (in the people's perception domain) that are associated with a value of a social or personal living, such as being proud of a place that manifests agrarianism values or reflects a movement or even a single important person attached to a place,
- The feeling of being safe in a surrounding landscape is a character located in the Personal-Existential domain and is related to functionality, which can include a reliance on a good economy or higher education.

Historical happenings, dramatic characters, paintings, and pieces that reflect a part of the landscape are sought by interviewees. Among Iranians, only one (insignificant number) showed to have such an attachment to Luthagen. Two of the interview participants of group 2 emphasised that this kind of attachment was related to their old landscape in Iran and not here. On the contrary, most Swedes (5/6) have a personal attachment through art to the area. For example, for those Iranians (2/6) whoever noticed the Tiundaskorsten in Tegnerparken, it



conveys an iconic meaning of the area and a sign that holds the importance of the city in Europe, while for group 1, it has artistic meanings - they knew the artist and the piece in detail - rather than a semiotic meaning.

During the interviews, around 40 elements were categorized as Personal-Existential. Some of them have multiple identity associations, even pointing to more cultural than personal values, such as the vicarage association, which 1 participant mentioned as conveyed personal characteristics through friends and the members. Another example was the legacy of Hildur Ottelin which should be a Cultural-Spatial identity, but for one participant, it was linked to childhood stories.

The banks of Fyrisån were mentioned by two interviewees and 9 participants in the questionnaire as a personal existential value of Luthagen. Other examples of the critical Personal-Existential elements are the benches and the grills in Stabby Backe with 13 and 12 counts, respectively. These elements also have more significant Personal-Spatial value among the participants.



*Figure 17. Grill places in Stabby Backe are highly mentioned as Personal-Existential and Personal-Spatial aspects of the landscape identity*

Other examples of the personal existential identities of the area belong to those elements that no longer exist. These elements, including a motorbike club, a cafeteria, and an old train station, convey memories but are related to a unique characteristic of the area. Luthagen used to have a strong trait of industrial characteristics with the concrete factory, the industrial zone, and the brick factory. The area was full of labour residentials. The train station and old railway platform, which used to end the factory and the motorbike club, were linked to the industrial characteristics of the area.

It seems that a personal attachment through literature, drama and art have never been created among Iranians as far as the sample count may be representative. However, belonging to the group 1 or 2 is not an evident observation because half of the Iranians have been living in Luthagen less than 10 years while for Swedes the largest class of interviewees are 10-20 years, a more likely sufficient time to get familiar with the art and drama. The correlation of any perception through art and drama with the dwelling time is more significant than that with the background. This result was confirmed by the questionnaire. From Table 10 despite the difference in number (40 to 16, Swedes to Iranians), there is no significant difference in the aspects of identities seen, perceived, and mentioned by the two Backgrounds groups after normalization.

The Personal-Existential aspect is the third most mentioned identity regardless of the background, and it is a strong pattern almost everywhere across the classes that one may conclude is the third kind of connection people make with their landscape.

## **5.2. Cultural-Existential aspects of landscape identity in Luthagen**

The social processes that make a place significant for a group are on the hunt amongst interviewees' answers. The sense of “we” in the perception domain and those significant events, historical happenings, and recreational activities linked to the landscape create a strong meaning of a group identity and images of a shared future.

Even though a cultural existential aspect is a geographically wider phenomenon such as regional and national and may include dialects, folk music, and a farming culture, it still exists inside a smaller spatial region. One reason is the demand in social media to make up groups with values linked to Luthagen. Half of the interviewees were active members of a Facebook group. “One of my questions asks if they like to actively participate in a campaign to preserve the values and ethics?” Their answers show they are keen to consolidate those elements of cultural identity in Luthagen, among others.

I search the attachment of the interviewees to those places that may have a wight of collective social practices, such as housing associations, communal gardens, playgrounds, clubs, group activities. The social activities mentioned by the participants needed already established relationships among the involved people, such as socializing with people in the

inner garden that used to belong to the housing association (brf), which are a characteristic of the urban landscape design in Stabby and Borte and Norra Luthagen. Social and cultural character activities also occur in a few restaurants and bars around the area or organised by the social associations and groups, such as Stabby vicarage association.

It is almost impossible for youngsters to go out and hang out in a place built especially for socializing and acquainting purposes. Previously, near the concrete factory, there used to be a motorcycle club, a dance floor, and a concert house, but all were destroyed, and nothing was thought to be replaced.

“You can walk hours after hours along the nice scenery of forest and river, visiting families and students on the way, saying hello and sometimes receive a nod in return, but there is almost nowhere to go for enjoying a night out with other people that you already do not know, no theatre, concert house, club or dance floor.”

Religion is usually a solid motive to follow in the answers from two perspectives: a) A religious man sees the landscape as not homogeneous but divided into sacred and other spaces, and b) Common beliefs usually lead to all the social practices and gatherings and all those aspects of the community that mentioned above with them to the landscape. The latter (b) is a religious-originated band in the area created mainly by the church and subsequent associations, which is important to one person in group 1. Interestingly, there was not even one notation or implication that could have related to a religious society among group 2. I get back to the former perspective of religion in the next Section.

The cultural-existential identities are more complicated and developing over time, which is more evident among Swedes. This aspect of identity, as mentioned before, are rarely can be seen in more minor scales than national, regional, or ethnic groups, and it is related to a “we-feeling” of a group of people. Such a consensus is hard to achieve (Lynch 1960, Stobbelaar and Pedroli 2011). According to the results shown in Figure 11, the attention is gradually drawn from personal toward cultural aspects over time.

The vicarage summer times coffee, the farms, the berthåga cemetery, educated population, and overall good household economy were among the candidates I chose from the interview answers to gain a cultural existential sight from the people. Interestingly, the only one that could be considered cultural existential was the vicarage summer times coffee.

The farming culture values and agrarianism could be mentioned through the farms in Stabby, which might have a cultural existential aspect, but those 6 out of 12 people who ever picked them in the interviews either meant personal spatial or cultural spatial. The Kolniallott could be picked as a more tangible form of a gardening culture just succeeded in gaining attachments through personal spatial. Other good candidates that I missed putting forward in the questionnaire were the overall wealth and the ethics mentioned by just one interviewee

each. Moreover, they were too conceptual to be understood easily in a questionnaire. Berthåga cemetery, mentioned by 3 out of 12 as a Cultural-Existential was picked and put forward for the questionnaire and gained a mass of interest as a cultural existential attachment.



*Figure 18 The front yard of the vicarage where the summer coffee times holds*



Figure 19 People gather for the vicarage where the summer coffee times. <http://stabbygarden.se/>



*Figure 20 Sightseeing at the Day of Stabby (Stabbydagen). <http://stabbygarden.se/>*



*Figure 21 The bells of Bethåga Kyrkan, top, its memorial lagoon from <https://www.svenskakyrkan.se/>, down left, and the cover of Uppsala Nya Tidning, which reads “Tranquility and music with no guide,” down right.*

### 5.3. Personal-Spatial aspects of landscape identity in Luthagen

This aspect of identity should be very much of interest to urban planning. A typical example for Luthagen is Tiundaskorsten in Tegnerparken, which plays an essential role in orienting. However, as I mentioned before, this element may convey Personal-Existential aspects when it is perceived as a piece of art, and the viewer signifies its iconic aspect. The Personal-Spatial aspects of identity consist of those features and elements that are somewhat tangible in the landscape, important (practically) for an individual to live and make the landscape recognisable through forms, shapes, paths, districts, landmarks, planning, landscape architecture, land-use and all those media that help an individual to find herself in the surrounding environment. Personal-Spatial is a very important aspect in planning an area, when it comes to personal identity discourses and maybe one of the very first to acknowledge.

The personal-spatial identity is among the first to develop since it is a mutual interaction of “I” and the texture of the landscape, including mostly, visible, physical and contextual ones. The first element in the landscape is very likely to be observed are those which are related to finding your location and ways, destinations in everyday life, visible landmarks, the number of green spaces, the shapes of buildings and so on.

Much of the effort in analysing the answers are put into distinguishing between this aspect and the Cultural-Spatial. I tried to delineate which elements have importance equally for a group of people and which ones are just for individuals. The public transportation, the design of the playgrounds, and the distribution of benches in Stabby Backe are among those personal spatial aspects mentioned by the interviewees.

Such a connection was seen in 41 mentioned elements among Swedes and 34 mentioned elements among Iranians (the number of each group is 6). Swedish participants in the questionnaire picked 235 Personal-Spatial elements, while the number for Iranians is 114 (the number of Swedes is 2.7 times the number of Iranians). The main traits of personal spatial elements are the proximity to the downtown and nature at the same, planning of the communal spaces, planning and maintaining the greenery, the design of the houses and villas, the safety, and the ease of getting in touch with the neighbours.

One rather subtle feature of a Personal-Spatial aspect is preserving the villas and charming old architecture from the 1940s and on in a triangle restricted by Hällbygatan, Norrlandsgatan, and Börjegatan. The old villas continued south-westward along the eastern side of Stabby Alley to the downhill of Stabby Backe, meeting an old apple garden Stabby Lyckan and continued along the pathway that used to be the old railway and keeping the link to Erikslund and Gamla Rekomberga. This chain of charming houses and gardens, preserved since the 1940s, bears the names of designers such as Gunnar Leche. Five interviewees mentioned the architecture and the aesthetic aspects of these buildings.





*Figure 22 Stabby Lyckan, the apple garden viewed from the pathway of the old railway*



*Figure 23 The pathway at the place of the old railway (left), Norrlansgatan 30, the pink house (Right, up) Floragatan 10 (Right, down) as examples of the 1940s architecture*

In the previous chapter, I mentioned two aspects of religious-oriented bands in the landscape (Eliade 1959). However, aspect (a) has nothing to do with a Cultural-Existential aspect but belongs here.

These people make some places their “own” religious places. They frequently visit sites such as Berthåga cemetery and a small meadow or stream in the Stabby Backe to find a religious attachment. They find a “feeling of connection to their inside,” “thinking deeply about death,” or “praying to mother nature,” or “just praying” This is a kind of personal activity shadowed by beliefs in other forces. It is hard to distinguish between a personal feeling and a religious connection. Either may fit in this category, but I liked to distinguish them by asking, “Are you religious?” and “If is there any place you visit to have a spiritual journey?” Although I needed to endure some kidding, they eventually gave definite answers.

The scaled measures based on the size of groups led to 158 against 134 for the Swedes and Iranians, respectively. Accordingly, no significant correlation between people's backgrounds and Personal-Spatial attachment is observed. However, there is a clear pattern around the different dwelling times classes. For two classes, 10-19 and over 30 years, the Cultural-Spatial prevails, while for 0-9 and 20-30, the Personal-Spatial valuest gets attention. For those who make a living is becoming more realistic, the Personal-Spatial aspects are more important.



*Figure 24 The planning and the well-keeping of communal spaces are very important elements of the identity of Luthagen*

## **5.4. Cultural-Spatial aspects of landscape identity in Luthagen**

Stabby Backe, the brick buildings in Enhagen, and the raw houses in Eriksdal are some very typical features, very clearly perceived by the interviewees, even are among the nominal identity elements of Luthagen. Mimi Ekholm's memorial is another element of the Cultural-Spatial aspect.

Historical features that may not exist anymore but are nested in the memories of a group as it emphasizes a characteristic of the area belonging to this aspect of identity. Some participants noted the significance of the old railway station in Eriksdal.

One person in each background group lived for more than 30 years. The Swedish mentioned 13 elements related to Cultural-Spatial, while the Iranian came up with four examples. Here, the size of classes is too small to draw any conclusions, but those who lived 20 to 30 years mentioned almost the same number of examples. Maybe a conclusion would be that it correlates with the residing time. When people live more interacting with the landscape, they

would like to understand more about their identity. It is very premature in this stage and with such a small sample to draw conclusions.

Other characteristics of Luthagen mentioned by five interviewees were the ease of hanging out with others and the vividness among the population, which led to mentioning café lingering – maybe under the influence of our conversation in a cafeteria – and recollecting solid memories of the old café by 2 of them. Finding a place to chat and hang out with friends is very hard in Luthagen. The Mimis Café in Stabby started after the building of the new residential. In addition, there are a few restaurants and pizzerias at the same place. Then there is no place until the Framre Luthagen, a 15 minutes walking distance. Forty-three participants mentioned their memories of the motorbike club as a cultural-Spatial aspect. Linked to the industrial legacy of Stabby and grounded on the lack of sports clubs in the area, this or something similar can be a good choice for injecting more vividness towards saving the industry identity of the area.



*Figure 25 The monument of the concrete queen in the place of the old concrete factory. In surroundings are the new building blocks of Cementgjuteriet DP.*



*Figure 26 Hildur Ottelin at her home in Skolgatan. <http://kulturellaspar.se>*

A visible trend among the interviewees was defiance against the new housing plans (6 out of 12). Most of them emphasized that they were “speculating” but still believed that the criminal happenings such as robbery, burglary, and drug dealing around the Tiundaskolan high school and in Främre Luthagen increased after the new houses got peopled. Two of them were positively impressed by the possibility of integrating different classes and ethnic backgrounds to an area that was attributed to hosting fewer immigrants. 2 of them mentioned that they do not “like” the design or that the buildings are unfit for the surrounding texture.



*Figure 27 The new building blocks of Cemntgjuteriet DP just adjacent to the farms in Stabby Backe (left) and viewed from Hällbygatan (Right)*



*Figure 28 The entrance to Stabby Backe from the vicarage's side. On the tableau reads some information about the deglaciation and the land rising during the three last millennia as well as about the bronze-age graveyards*



Figure 29 Wandering routes in Stabby Backe



Maybe if one Cultural-Spatial item is to be mentioned, it should be Stabby Backe or Stabby forest. It contains a naturally preserved forest, the bronze-age graveyards of the Celtic kings, the farms, the vicarage, and reaches the Berthåga Cemetery to the west. Stabby Backe is also home to many activities such as wandering, Skiing during winter, gardening, grilling, biking, and bird watching. A seasonal art exhibition is being held in one of the vicarage's cottages. The bird watchers' society is very active from late winter times and during spring, and they also publish a magazine.



*Figure 30 The banks of Fyrisån*

## **5.5. Ethnicity and understanding the landscape identity**

1. The ambition and a factor of idealism is seen in immigrants who lived a sufficiently long time in the area, such as indexed 2, 5 and 9 among the interlocutors. It seems to be an attribute of immigrants who made some of their ambitions in search of a better place, which they found in Luthagen. That is a solid factor in making an attachment to the landscape and should be embraced by designers. What they could

see and perceive in the landscape that makes them “love” and “wish” to live in the area is among those landscape identities that should convoy.

2. Iranians who participated in the interviews mentioned almost 1.5 times less than Swedish in all the categories. The size of the background groups who answered the questionnaire is not level. After normalizing, Iranians picked 1.5 times fewer elements than Swedish in each category. The ratio is the same for interviews and questionnaires. The difference is that the interview was carried out as an open discussion, so the interviewee was set free to think, remember and select the elements while, in the questionnaire, I put forward already a set of 24 elements so the participants would not need to think and remember about the elements. Therefore it was expected that more elements would be picked. However, it is not the case, and from Figure 12 and Figure 16, the ratio between the elements mentioned by either of the background groups is the same.
3. For Iranians who have been residing for 10 to 19 years in Luthagen, which is sufficient, there is no personal-existential relation worth mentioning to the elements of identity in the area. While, and maybe it is promising that such kind of relation is being made for newer neighbours.
4. Despite the difference in the two groups in terms of the number of mentioned elements in each category, Table 11 shows that the importance of each category is the same between the two groups. It means that Iranians are likewise sensitive to understanding and attaching to their landscape, to observe, feel, define, understand, and make it of their own but could not do it as much as Swedes. They picked a smaller number of elements because they were unaware of some elements that Swedes seem to be very well aware of, mainly about art, artists, and historical lineages of Luthagen, which can be dangerous, providing that the number of immigrants is rapidly surging. Half of the interviewees also mentioned the changing of the demography, which makes it a changing characteristic of Luthagen in the last decade.

On the other hand, the information from this work can be in use to change the pace from segregation to integration. We know that at least the group of immigrants I picked for my investigation were keen to make attachments to the landscape, but they lacked being informed. The reason is that the population of Swedes is definitely larger and based on the same linguistic codes they may communicate much more easily, so the stories about the area go viral. They talk more to each other, and they know more from sources that are not familiar to Iranians. The solution is that the information, mainly about the existential aspects of Luthagen, be delivered to immigrants. They should be guided by media and events. Another

suggestion is to fill up the gap of gathering places such as cafeterias, clubs, and exhibitions in the northern part of Luthagen, which was mentioned by many, and design it so it can be a host for discussion, cultural activities, and be attractive mainly for the upper (more than 30 years) and the middle class (10-19 years).

## 5.6. Limitations and drawbacks

There are acknowledged some limitations in the finding of evidence and analyse methods for the topic understanding landscape identity towards inclusiveness.

Associating identity aspects to the public's examples is a challenging issue. My approach was based on categorizing different aspects of identity to find the essence of identification. These categories or aspects of identity is sufficiently understood and bordered with closest neighbouring aspects in the developed version. However, the challenging issue is when the answers are to being interpreted and finally associated with these aspects.

I developed a semi machine learning (ML) approach based on a training set that improves understanding of the participants views (the identity weight matrix, IWM, Table 6) using the rest of the data. The training set was too limited to have a reliable inference of the data. For example, the demographic classes are not evenly dense and that we have zero indication of some elements for the residing time classes of over 30 years is because that the class is not sufficiently populated.

To find a way to automate associating the participants' answers to identity aspects (Personal-Existential, etc.) when they mention elements that can be associated with more than one aspect, I developed a training set based on an auxiliary question to measure the tendency of each contributor to one aspect relatively to other aspects which led to the identity weight matrix (IWM, Table 6) . There is no measure to show how reliable this training set is before validating. The validation is an important step of a machine learning techniques which is absent in our study thus the term semi machine learning technique.

Language was a personal limitation that encountered during the desk research and the survey. The documents, the Uppland's museum archives and news articles were just in the Swedish. Moreover, the interviews should be carried out in the original language to capture the feelings and attachments' level. I could eventually overcome this issue based on my language proficiency, but it was time consuming and challenging.

The pandemic situation hindered us to apply for a sufficient fund which was needed to conduct the survey in various landscape contexts. It was the reason that the case study have been limited only to one case in Luthagen, which in my view, is not sufficient to draw a clear conclusion about the feasibility of the methodological approach.

As with every statistical approach, which is a core of the data analysis in this work, the sample population's size and the random distribution are crucial. I kept my sample randomized by having participants from all over the area. However, I could not control this when it came to the questionnaire. Two solutions for this issue are proposed:

- 1) to find a correlation function of the participants and their locations, then disinfect the location-dependency
- 2) to distribute the questionnaire randomly in all sub-districts and check the randomness before starting analysing data

On the other hand, the same issue can be seen when dealing with different classes. It is also favourable that the data is dense enough to have all the classes, for example, of length-of-stay, populated sufficiently well. Despite 56 answers to the questionnaire, the classes of higher length-of-stay remained sparse.

Another drawback of this study, which can easily be overturned, is creating a list of elements based on three different sources, interviews, available GIS database, and field observations. I distributed the questionnaire before the interviews finished because of the time scope of a master thesis. It was provided that I missed a few elements that could be in the list provided to the questionnaire, mainly for the Cultural-Existential.

In the method I used to associate the identities to the mentioned element in the answers to the questionnaire, the role of a so-called training set is important. The training set of this work, formulated in question 6, has been taken up with utmost concern. Nevertheless, a training set's primary use is when feedback is gained after analysis to be used for another run, which was dismissed in this work and left to the future.

The method of understanding the landscape identity, which is developed as a conceptual framework in the Circle of Identity Figure 1, is still a meter of debate, and it misses some deeply theoretical connections between people and the landscape like the dynamic essence of such an interaction, the temporal changes of physicality (Dossche et al. 2016, Butler et al. 2019) and demography (Castiglioni et al. 2015) and how this should be incorporated in the framework.

## **5.7. A proposal for a future work**

The achievements of this thesis in the methodological approach, data analysis and machine learning based inference can be seamlessly used in a greater scale to have more inclusive public participation in landscape planning.

In view of further development, this work's gaps should be primarily overcome.

By overcoming the overmentioned deficiencies, the same approach can be used in future landscape studies, for which I present some suggestions as follows:

- 1) With the method used in this thesis, it is now feasible to infer which identities every participant meant by mentioning an element in the landscape. Using questionnaires can favour landscape identity studies with denser and faster data samples. The answers can be updated on a temporal basis and use a Web API to have people incorporated in the study. It is easy to develop.
- 2) Also, by having it updated temporally and tracing the changes in the physicality and population simultaneously, academia can have ground to find a way to incorporate the changes in the conceptual framework.
- 3) Another advantage of having a web-based service for the project is that more people get involved and think about their landscape. They will understand that the values and meanings they see in their landscape and now can share them may yield in designing their future environment accordingly.
- 4) The method that I presented to infer which identity aspects were meant by the participants in the questionnaire is based on a training set, i.e., the multiple choices in Question 6. The training set should be improved using more concrete choices. Training sets are usually meant to provide feedback, and using the feedback, the inference can be improved. For a future plan this can provide a more reliable Machine-Learning system.
- 5) The variable tested among the sample population were background and residing time. The other candidates, like age, family size, and economy, could be tested or measured against the different aspects of identity using the same method in this thesis.

The results of this research can be used in planning and designing communal places. Residents of Luthagen already mentioned that they missed some of them, such as, cafeterias and sports club.

## 6. Concluding remarks

For the questionnaire, I prepared a list of elements presumed to shape the characteristics of Luthagen. These elements consist of monuments, sculptures, communal places, landmarks, activities, associations, landscape architecture, and planning. I spent a couple of months straying around to shape up these elements, observing and photographing. I used the documents provided by the municipality, the GIS map layers of the culture and leisure, and the history. During the interviews, I occasionally mentioned some of these elements in an attempt not to predispose their views. It is vital that interviewee could freely weigh their attachment to different elements of the landscape. This could not be held in the questionnaire where the elements needed to be mentioned in advance in one way or another.

After the interviews got collected and transcribed, a few notable elemental characteristics of Luthagen have mentioned by all the interviewees: the Stabby Backe, the benches along the riverside, the fireplaces in the forest, the apple garden in Stabby, the hermitage summer café feasts, the pink house and generally the beautiful old architecture and negatively the new building complex namely Cementgjuterie housing plan. Among the cultural-special elements, everyone mentioned the population demography, the level of education, and the changes in recent years (both negatively and positively). Interestingly, some elements, such as the 1970s raw houses in Eriksdal, the memories of the concrete factory, the old train station, or the brick buildings in Enhagen were not included. These were supposedly the main elements mentioned in historical documents and travel brochures that did not catch the interviewee's eyes. It seems that we need to define a new set of elements for the landscape identity of Luthagen. The elements of spatial, cultural, and to some extent, existential characters that may create an attachment with people are different from conventional ones in municipality and institutions' views.

People are searching for their identity in the context of the landscape their share. All of them show that they intend to identify themselves by some aspects of their interaction with the landscape in Luthagen. The special architecture that attributes a street subdivision in Luthagen, such as the brick houses or the raw houses, does not likely play an important role in how they perceive and attach to the landscape. On the contrary, what makes them interested in seeing their surrounding landscape is the charm of the old architecture, the inner gardens of the houses, the outdoor green areas and their maintenance, the apple garden, and the boulevard in Ringgatan, which was mentioned as a sign of "respect" by individuals and that it transfers a "feeling of safety."

Socializing, clubs, friends, and the values related to human geography and history and spatial planning are other important meanings that concern participants. The values related to Cultural-Existential are likely the rarest and therefore assumed to be the hardest to be perceived. Only the participants who spent a relatively long time in the area created such a personal and existential bond to the area, as well as those with a strong "locus memoriae" from their previous habitat who fortunately could see a kind of resemblance now in Luthagen. In the following, I bold the main conclusions from the survey.

### ***Public image of the landscape in Luthagen is incomparable to the documented identity elements***

In order to achieve inclusiveness in decision making and landscape planning a tangible afford is to capture the identity elements of a landscape in the view of the people who experience the same landscape. Among the elements with which the participants feel strong attachment to and could essentially identify their landscape in Luthagen are those which were not documented neither in the research phases of detailed plans nor in the informing affiches and tourists' tabloids. Most of the memorial and sensorial related identities such as the memory of the train station, the cafeteria, summer coffees in vicarage as well as the clubs and group activities such as bird watchers club are among the elements that are top graded. Among visual and spatial aspects the shapes and architecture gained massive attraction and characterization such as the Rosahuset and the trees along Vindhemsgratan, and Seminarieparket from a personal perspective and among cultural persona Hilder Ottelin.

### ***Background does not affect the perception of landscape***

The results from Table 10 show that the importance of each category is the same between the two groups. In addition, almost the same pattern between different identities is seen in each background group (Figure 12 and Figure 16). It means that Iranians are likewise sensitive to understanding and making an attachment to their landscape, but they could not do it as much as Swedes. The reason my study's immigrants observed and picked fewer elements is the lack of information, and that they are not aware of most of the elements that are already mentioned by Swedes.

Regardless of their background, people are keener to intensify spatial elements rather than existential ones. The Personal-Spatial and Cultural-Spatial aspects gain more points than Personal-Existential and Cultural-Existential.

### ***People feel attachments of different kinds based on the time they spend living***

No clear difference between Iranians and Swedes is observed when it comes to finding which kind of attachment people feel with the place; however, the time that people have lived here seems to play an important role, also the level of education, but the latter was not that evident. I found that the longer the time people dwelt in Luthagen, the more attachment of Personal-Existential, Cultural-Existential, and Personal-Spatial kinds is generated.

The only exception was the Iranians for 10-19 years length-of-Stay, likely due to lack of information about some elements of identity that were very well known and mentioned intensely by Swedes.

The Cultural-Spatial identity in the landscape is the one that gains the most attention, but this one decreases with the dwelling time. People may be inclined to more personal values among the more realistic (physical, visual, spatial) identities by the time they spent living in Luthagen. Another reason for the decrease is likely that the cultural-special aspects are very well presented in guiding press or monuments.

### ***The attachment based on heritage is absent significantly in natives***

One interesting result that can be drawn from the interviews is that the number of natives who stated any heritage attachment to Luthagen, based on their background or roots, or mentioned storytelling from an elderly was not a significant number (2/6). This type of attachment among Iranians was null, which is not surprising because only 3 Iranians lived in Luthagen for more than a decade. On the other hand, the small number of Swedes who indicated any attachment to the area based on a heritage factor was interestingly high. Five out of six mentioned that they heard stories from their elderlies or friends before they moved here, yet they did not show any attachment that should be placed in the first quarter of the LIC.

### ***Existential identities are harder to develop compared to spatial ones; among them, the cultural-existential attachment is the hardest to achieve***

It is a strong pattern almost everywhere across the classes that the two existential identities are meaningfully gaining lower attention. The Personal-Existential aspect is the third mentioned identity regardless of the background. Amongst the identities, Cultural-Existential is the most complicated to be perceived in the landscape.

Another trend is that the Cultural-Existential type of connection between people and their landscape gradually increases by the time one lives in the area.

### ***The role of media, literature, drama, and art***

Media and art are important to tell people about the cultural aspects, histories, legacy, and heritages. People can perceive some of these by, for example, a monument and the writing on it. For example, at Mimi monument, one knows about the history and culture, so the cultural-spatial aspect. A report on Hildur Ottelin in Luthagen Nyhet makes individuals know about a cultural figure.

If we can assume that a connection develops based on knowledge and improving perception, the more you live and be in action with a landscape, the more you know about it, then the role of media that can signify the existential aspects of the landscape seems to be vital. These media can be challenged to present the existential aspects of the landscape by using the information that this work delivers. The identity weighting method (IWM) described in Section 4.2 gives the elements and type of activities that can be related to existential identities (like any other aspects). The next step is scheduling the activity or designing a monument that can improve the desired kind of attachment.





Entrance of Fyrishov Hall

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# Appendices

## A.1 The plot of the interview

I ask a sample of 35 to 38 people who currently live in the area, in an active interview. These people are divided into four age groups: teenagers, 20-40, 40-60 and over 60s. Equally divided into males and females, and 10 of them are newcomers prone to be isolated/segregated.

Begreppet: Med området syftar jag Luthagen, Stabby, och Hällby

### Frågor:

1. Vad heter du och Hur gammal är du?
2. Hur länge har du bott här?
3. Vilken gatan?
4. Var brukade du bo innan och för hur länge sedan?
5. Brukar du besöka här även innan du bor här?
6. Hur känns området för dig?
7. Har du ett starkt band till området? Kan du berätta lite mer?
8. Finns det särskilda elementer i området. vad är betydelse av dem för dig?
9. Kan du orientera dig (hitta) i områdets olika delområden? Hur?
10. Var är din favoritplats i Luthagen, Stabby, och Hällby? Och varför?
11. Kan du nämna några platser som du brukar besöka eller vistas mest? Varför då?
12. Har du några personliga känslor med någonstans i området? Vart? Och hur den här platsen bidrar till en stark relation om dig?
13. Kan du nämna några platser i området som kan väcka någonting av personlig känsla? Varför?
14. Vilka aktiviteter gör du i området?
15. Vad vill du göra här förutom vardagsliv? Vilka aktiviteter som kan avses göras med i någon plats?
16. Under vilka årstider gör du bäst dina aktiviteter?
17. Hur ofta du gör det?

18. Ändrade du någon av dina aktiviteter på grund av förändringar i området? vilken aktivitet? vilka förändringar?
19. Ändrade du någon av dina aktiviteter på grund av Covid i området? vilken aktivitet?
20. Har du egna historiska relationer till platsen?
21. Har du varit involverad i en social-/gruppaktivitet som pågått i platsen?
22. Hur kan du bedöma den här gruppaktiviteten för dig eller för platsen? Är det viktigt i din åsikt? Till vilken aspekt?
23. Hur känner dig när du tänker på det här området?

Här visar jag en karta av området till åhörare och nämna några platser som tänkts glömdes i omgivningen och frågar honom/henne om dom.

24. Vilka platser är viktiga för dig?
25. Vilka platser undviker du aktivt idag? Varför?

Målet är att påminna de platser åhörare kanske glömde att nämna förr.

Nu börjar jag fråga om nybyggda områden. Jag ska peka fyra bebyggda områden som nyligen har byggts och frågar om identitet. Möjligtvis har de redan nämnt i föregående frågor men jag vill specificera dom för att se hur folk upplev sån förändring i loppet av ett decennium.

26. Hur känner du när du tänker på dom?
27. Hur tänker du att de har påverkat området?

### **Lista över aktiviteter:**

Bada i badplatser och bryggor runt Fyrisån

Ateljéer

Bowling

Butik

Båt och segla

Cykelleder



Linne' stige  
Vandring och löpning i Stabby backe  
grill  
Kanut och Kajak  
Historiska sevärdheter som fornlämningar  
Museer  
Lekhus  
Mountainbike  
Restauranger  
Cafe'  
Teater  
Dansa  
Skid Vandring  
Fågelvakt  
Fiske  
Parker  
Barn lekplatser  
trädgårdsskötsel  
trädgård butiker  
Gallerier och konst

Eriksleden : Eriksleden är en sex kilometer lång promenadväg mellan Uppsala domkyrka och Gamla Uppsala kyrka.  
Den är lätt framkomlig för cykel, barnvagn och rullstol.

Ändes Ån : Ändes Ån är en fem kilometer lång promenadväg längs (ändes) Fyrisån mellan Haglunds bro och Tunabergsbron. Den är lätt framkomlig för cykel, barnvagn och rullstol.

## **Questions:**

1. What is your name and how old are you?
2. How long have you lived here?
3. Which street?

4. Where did you live before and how long ago?
5. Do you usually visit here even before you live here?
6. How does the area feel to you?
7. Do you have a strong bond to the area? Can you tell us a little more?
8. Can you orientate yourself in the different sub-areas? How?
9. Where is your favourite place in Luthagen, Stabby, and Hällby?
10. Can you name a few places you usually visit or stay the most? Why?
11. Do you have any personal feelings about any places in the area? Where? And how does this place contribute to a strong relationship with you?
12. Can you name some places in Luthagen that can await something of personal feeling?
13. What activities do you do in this area?
14. What do you want to do here based on living in everyday life? What activities can be intended to be done in some places?
15. In which seasons do you do your activities best?
16. How often do you do that?
17. Did you change any of your activities due to changes in the area? what activity? what changes?
18. Do you have your own historical relations to the place?
19. Have you been involved in a social / group activity that took place in the area?
20. How can you assess this group activity for you or the place? Is that important in your opinion? To what aspect?
21. How do you feel when you think about this area?

Here I show a map of the area to the audience and mention some places that were thought to be forgotten in the surroundings and ask him/her about them.

22. Which places are important to you?
23. Which places do you actively avoid today? Why?

The goal is to remind the places listeners may have forgotten to mention before.

Now I start asking about newly built areas. I will point to four built-up areas that have recently been built and ask about identity. Possibly they have already mentioned in previous questions, but I want to specify them to see how people experience such change over the course of a decade.

24. How do you feel when you think of them?
25. How do you think they have affected the area?
26. Can you poke something/ area / district/ park or some place around here that do not like?
27. Now I wish to drive your attention to the forms, and shapes that you can see in the area, figures, monuments, and statues, but also streets. Trees.
28. Can you mention a shape or figure that you like? Or you think that must be there (for example if municipality wants to remove it, in that case you would like to protect).
29. Have you seen any remarkable change in this area? Removal of forests, farms, parks, buildings, streets, paths?
30. I show you a few lists of places around here. One place: have you ever been here recently? do often you go there? What you usually do there?

Now connections:

31. Do you have been told any stories about these places?
32. Do you feel any connection to these places? Nature mforest, school
33. Do you feel home here? Or like home here?
34. Is there any places that you feel home there? / Everywhere in the world? why?
35. Is there any place that can be a part of your own story / biography?
36. Is there any activity that you do somewhere around the place which is very important to you?
37. Do you feel belong to something around here? What is it?

## A.2 The interviews data pre-processed

Interviews\_raw data.pdf

## A.3 The questionnaire

Questionnaire\_first\_report.pdf

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