



TALLINN UNIVERSITY OF TECHNOLOGY
DEPARTMENT OF CIVIL ENGINEERING AND ARCHITECTURE
ACADEMY OF ARCHITECTURE AND URBAN STUDIES

(A PLACE FOR) INTEGRATION, EXPLORATION AND SERENDIPITY: THE NEW TARTU LIBRARY

KOOS TOIMIMINE, UURIMINE JA OLULISED AVASTUSED – TARTU UUS RAAMATUKOGU

MASTER'S THESIS

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TALLINN 2020

Hereby I declare, that I have written this thesis independently.
No academic degree has been applied for based on this material.

All works, major viewpoints and data of the other authors
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FOREWORD

This thesis marks the final chapter of the Master program studies at the Academy of Architecture and Urban Planning at Tallinn University of Technology.

What led me to this topic was the personal concern of how few, or almost none, there are good public spaces in Tallinn and in Tartu where one can spend time without paying something – places where students, creatives, and everybody else could meet, create connections, co-operate, etc. Today, in many cities, the public library is the institution that, as I found out with the help of my supervisor, provides the venue for these kind of interactions and is really the centre of social intercourse. The topic of how the public library's role has changed proved to be very interesting to investigate.

I would like to thank my supervisor Kimmo Lylykangas for encouraging me to explore the New Library and for his guidance during the course of this work.

I would also like to thank my co-supervisor Maija Berndtson for her interesting and useful insights into the library world.

Thank you, Asko Tamme, Tõnis Arjus and Inga Ronk for sharing your experiences and opinions.

Finally, I am grateful to my fellow students, friends and family members for the support they have showed me during my studies and this work.

ABSTRACT

This thesis explores the changing role of the public library and what it means to citizens, library users and communities. Affects on public library architecture are discussed as well. Two important milestones in the development of the new library have been the central libraries of Seattle (opened in 2004) and Helsinki (opened in 2018) which are also presented in this thesis.

The research conducted for this work shows that the public library is an important part of social infrastructure and a venue for integration between different groups and individuals. Public libraries deal with a surprisingly large scope of social issues, having quite a significant role to play in terms of mental health. In today's society where people are living and working alone more and more often, public spaces that encourage interaction have an important role in tackling loneliness. In terms of developing strong social connections, libraries are especially important to the elderly who are at risk of isolation, but also new parents and entrepreneurs.

Librarians help people manage different life challenges like finding a job or applying to school. Because the new type of a library is a democratic institution that values equality and open access to information, librarians now also deal with such social issues as homelessness and drug abuse. They are trained to manage easier and sometimes life-threatening situations.

Library as a physical space, and books as physical media, are still relevant in today's mass media and digital information society. Public libraries should actively promote the key social value of the public space itself in public libraries. The libraries should be independent meeting places and also function as arenas for public discourse. It has been found that iconic architecture increases the value of a city through prestige but researchers have raised the question as to why there are so many iconic operas, art museums and music venues and so few iconic public libraries.

There are new types of services provided by public libraries that are an inseparable part of the concept. The new public library is not only about books and quiet reading but more about people, creation and cooperation. Citizens take part of workshops, community events and lifelong learning programmes. The library is also used to produce content in television, radio and music studios. Different equipment can be borrowed to work and librarians are there to guide users in the process. The new functions of public libraries also need new types of spaces. Flexible open plan spaces are preferred to traditional highly compartmentalised layouts. Interior spaces and activities inside should be in connection to the surrounding environment to attract many customers.

A new concept introduced into the library environment in the thesis is serendipity. It is a topic researched even in connection to science, but has not found a lot of coverage in the library context. Maija Berndtson, former Helsinki Central library director, has introduced this theme in her lectures and in addition to exploration and integration, finds it an important component of the new type of a library. Serendipity is the unexpected discovery of something interesting by chance. The professor and researcher Lennart Björneborn has investigated serendipity in the library context and found that there are ways to induce it into physical (and digital) environments.

The proposal for Tartu is a 5-story building in the city centre, between old town and the new commercial centre. The building has a stepping roof reaching the rooftop with a view over old town and to the river Emajõgi. The steps can be used to spend time, irrespective of the time of the day or if the person is also interested in visiting the library or not. It is a non-commercial public space on its own that can also be used as a venue for holding outdoor concerts or other events.

Inside, the concept of the ground floor has been to create an environment where serendipity can be experienced often and that supports the flaneur mindset of openness towards receiving new information – carrying a curious intelligence. It is an open plan space where librarians arrange corners with different topics and books are circulated regularly. The other floors hold permanent collections, all in a continuous space under the angled roof. New functions such as fab labs and makerspaces are located in a higher block on first, second and third floor. The top floor is reserved for a restaurant and gallery space.

Key words: public library, social infrastructure, community living room, serendipity

ABSTRAKT

Magistritöö uurimisteemaks on rahvaraamatukogu muutuv roll ja selle tähendus linnaelanikele, raamatukogu kasutajatele ja kogukondadele. Samuti arutatakse muutuste mõju rahvaraamatukogu arhitektuurile. Kaks olulist saavutust uue raamatukogu arengus on olnud Seattle'i keskraamatukogu (avatud 2004. aastal) ja Helsingi keskraamatukogu (avatud 2018. aastal), mis on esitletud ka selles töös.

Magistritöökst tehtud uurimustöö kohaselt on rahvaraamatukogu sotsiaalse infrastruktuuri oluline osa ning platvorm erinevate gruppide ja isikute integratsiooniks. Rahvusraamatukogud tegelevad üllatavalt laiahaardeliselt erinevate sotsiaalprobleemidega, kandes märkimisväärset rolli ka seoses mentaalse tervise küsimustega. Tänapäeva ühiskonnas, kus järjest tavalisem on üksi elamine ning üksi töötamine, on avalike ruumide, mis julgustavad inimestevahelist interaktsiooni, olulisus veelgi kasvanud. Tugevate sotsiaalsete sidemete loomine on eriti tähtis vanuritele, kes tihti võivad sattuda ühiskonnast isoleeritusse ning näiteks ka uutele vanematele ning ettevõtjatele.

Raamatukoguhoidjad aitavad inimestel toime tulla erinevate elu väljakutsetega nagu töö leidmine või kooli kandideerimine. Kuna uus raamatukogu on demokraatlik institutsioon, mis hindab võrdsust ning vaba ligipääsu informatsioonile, on raamatukogu töötajate ülesandeks saanud tegeleda ka selliste sotsiaalprobleemidega nagu kodutus ning narkomaania. Nad on väljaõpetatud lihtsamate ning mõnikord eluohtlike olukordadega toimetulekuks.

Raamatukogu kui füüsiline koht, ning raamatud kui füüsiline media, on ka tänapäeva massimeedia ja digitaalse informatsiooni ühiskonnas asjakohased. Raamatukogud peaksid aktiivselt tegelema neis asuva füüsilise avaliku ruumi reklaamimise ja edendamise. Raamatukogud peaksid olema iseseisvad kohtumispaigad ning samaaegselt toimima ka avaliku arutelu platvormidena. On leitud, et ikooniline arhitektuur tõstab linna väärtust läbi prestiiži, kuid teadlased on tõstatanud küsimuse – miks on nii palju näiteid ikoonilistest ooperimajadest, kunstmuuseumitest ning kontserdimajadest, kuid nii vähe ikoonilistest rahvaraamatukogudest?

Lahutamatuks osaks uue raamatukogu kontseptsioonist on uued pakutavad teenused. Peamiseks ei ole enam raamatud ning lugemine vaikuses, vaid inimesed, loome ja koos töötamine ning toimimine. Linnaelanikud osalevad töötubades, kogukonna üritustel ning elukestva õppe programmides. Raamatukogus saab sisu loomiseks kasutada tele-, raadio- ja

muusikastuudioid. Võimalik on laenutada erinevaid töövahendeid ning raamatukogu töötajad on abilised töö hõlbustamisel. Raamatukogu uued funktsioonid vajavad ka uut tüüpi ruume. Traditsioonilistele osadeks lahterdatud plaanilahendustele eelistatakse paindlike kasutusvõimalustega avaraid ruume. Siseruimid ning tegevused honed võiksid olla ühenduses ümbritseva keskkonnaga, seejuures kutsudes ligi võimalikult palju kasutajaid.

Magistritöö raames raamatukogu konteksti tooduna üsnagi uus kontseptsioon on inglisekeelne sõna *serendipity*, mis tähendab ootamatult millegi olulise, huvitava leidmist. Teemat on uuritud ka teaduse kontekstis, kuid ei ole laialt kajastatud seoses raamatukoguga. Endine Helsingi keskraamatukogu director Maija Berndtson on *serendipity* teemat tutvustanud enda loengutes ning peab seda lõimumise ning uurimise kõrval kolmandaks oluliseks komponendiks uues raamatukogus. Professor ja teadlane Lennart Björneborn on teemat uurinud ka raamatukogu kontekstis ja uurinud, kuidas ootamatute avastuste tegemist ärgitada füüsilistes (ja digitaalsetes) keskkondades.

Tartu uue raamatukogu ettepanek on 5-korruselise hoone kesklinnas, vanalinna ning uue kaubandus- ja ärikeskuse vahelisel alal. Hoone põhielement on suur astmestik, mis viib külastaja vanalinna ja Emajõe vaadetega katusele. Astmestikku on võimalik kasutada igal ajal ning olenemata sellest kas soov on külastada ka raamatukogu. See on iseseisev avalik ruum, mis pole suunatud ärile ning mida on võimalik kasutada ka vabaõhu kontsertide või muude ürituste pidamiseks.

Hoone sees on esimese korruse kontseptsioon luua keskkond, kus tihti ootavad külastajaid ootamatud avastused ning mis toetab *flaneur* mentaliteeti, mis väljendab avatust uue informatsiooni vastuvõtmisele. See on avatud plaanilahendusega ruum, kus raamatukogu töötajad organiseerivad erinevaid teemanurgakesi ja raamatud vahetuvad regulaarselt. Kõrgematel korrustel paiknevad püsikollektsioonid. Kõik riiulid on paigutatud ühisesse katuse alla tekkivasse jätkuvasse ruumi, erinevatele korrustele. Uued funktsioonid nagu erinevad laborid ja töötoad on paigutatud kõrgemasse blokki teisel, kolmandal ja neljandal korrusel. Kõige kõrgemal korrusel paiknevad restoran ja galeriiruum.

Märksõnad: rahvaraamatukogu, sotsiaalne infrastruktuur, kogukonna elutuba, *serendipity*

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INTRODUCTION

Problem statement

Amongst Europeans, Estonians have the highest average length of time for book reading at 13 minutes a day (McCarthy, 2018). While that kind of statistics show that the library is definitely an important institution in our society, in the current digital era, the public library's role has started to change. Because this change has been gradual, it is not so evident yet, but looking at examples from Europe and North America, the shift towards new functions and services is clear. Estonian libraries have been facing a challenge to reach the new standards of public libraries set by, for example, countries like Denmark and Finland.

Objectives

The aim of this thesis is to investigate the development of the public library and what it means to citizens today. How can public libraries become popular meeting places for more communities and enhance the quality of public life? How does the new library concept affect library architecture? The findings are implemented in the proposal for Tartu, the intellectual centre of Estonia and UNESCO City of Literature. The ambition is to also propose something original that could match with the library's objectives.

Structure

The thesis begins with an insight into the history and development of the public library as it is today, also introducing the current situation in Estonia.

The second part is about the public library's new role in today's information society, considering various aspects such as mental and physical health, mass media and economy. Questions such as "how does the public library's existence and quality affect citizens' everyday life and behaviour in crisis situations?" and "what are some exciting ways to give impulses in the library to stimulate the users?" are explored. Some existing design guidelines for new public library architecture are presented. In the last chapter of part 2, a library evaluation pilot project that ranks European public libraries is introduced, including the results for Estonian public libraries.

The third part of the thesis consists of case studies of two important milestones in the development of the new library.

The last part of the thesis is the project proposal for Tartu, including a site analysis, room program, the architectural concept and drawings.

Methodology

Qualitative research is the primary methodological approach used for composing this thesis. In methods of data collection, mainly secondary sources, such as earlier research articles and government publications have been used. Additionally, primary sources in the form of unstructured interviews and discussion have been used, most importantly conversations with the thesis' co-supervisor and former Helsinki city library director Maija Berndtson.

Quantitative research data (official statistics and survey results) has been used and analysed to draw conclusions and illustrate the trends and tendencies of societies, including ones related to library use.

The project part is based on an analysis of the findings of the theoretical part, existing materials of the site and the Tartu city library, case studies, unstructured interviews with professionals including the city architect of Tartu, Tõnis Arjus, and the then-director of the Tartu city library, Asko Tamme, and analysis through discussion.

1. LIBRARY AS AN INSTITUTION

1.1 DEVELOPMENT OF THE PUBLIC LIBRARY

As in the ancient world there was no distinction made between an archive and a library, libraries have essentially existed for as long as records have been kept (Haider & Foskett, 2017). Accordingly, the development of the library as a public building, one of the oldest and most distinctive architectural types in history, is almost as old as writing (Worpole, 2013, p. 32). In the West, the idea of collecting books originated from the classical world where most of bigger Greek temples seem to have possessed libraries (Haider & Foskett, 2017).

The first important institutional libraries arose during the 4th century BC in Athens (Haider & Foskett, 2017). The greatest library in antiquity (Haider & Foskett, 2017), the famous library in Alexandria – which has continued to influence the way we think about libraries today (Worpole, 2013, p. 32) – was not only a storehouse of books but connected to a museums and meeting places, acting as a cultural center in a city (Worpole, 2013, p. 32). That is how libraries worked already then, they were centers of intellectual life. In Medieval times where literacy was not common, monasteries were the centers of learning, as books were found to be essential in the spiritual life (Haider & Foskett, 2017). To some extent, monasteries carried the function of public libraries, together with universities that were founded in the beginning of the 11th century (Haider & Foskett, 2017). Book collecting became more widespread in the 17th and 18th centuries (Haider & Foskett, 2017). With enlightenment and the desire to spread knowledge to all sections of society became the rise of large civic libraries in Europe, in shape of neo-classical buildings, full of historical references (Worpole, 2013, p. 32). The emergence of social democracy and the welfare state in the 19th century required, yet again, new architecture to express these and other new ideas about belief, power, social relations, etc., resulting in the rise of architectural modernism (Worpole, 2013, p. 33).

The public library, today, carries once again some new ideologies. As Ken Worpole points out, “the irony is that in the late nineteenth and twentieth centuries public libraries became, in effect, the new cathedrals or ‘sacred spaces’ of the modern world, as gathering places for the culture of enlightenment and popular democracy” (Worpole, 2013, p. 34). Architecturally, there were many similarities between old cathedrals and the new monumental civic halls, for example domed halls with clerestory lighting or different niches with busts and sculptures (Worpole, 2013, p. 34).

Today, the public library needs to uphold the traditions while embracing the new media and digital technology (Worpole, 2013, p. 38). Moreover, the public library has acquired an elevated meaning to the idea of it being a cultural meeting place – functioning more like a living room in the city and a forum for exchange of ideas (Hille, 2019, p. 10) and social interaction (Hille, 2019, p. 10), simultaneously accommodating a variety of activities and programs for an increasingly diverse user base (Hille, 2019, p. 10). In a planning and design guide for contemporary library architecture, Ken Worpole explains that the idea of the modern library as a “living room in the city” is becoming a vital feature of modern urban culture, and that it is important that architects respond to this change of role (Worpole, 2013, p. 4).

Despite the rise of digital media production and distribution, sided with the new activities in the library, the book as a symbol of educated and free society is not disappearing (Worpole, 2013, p. 32), nor is the library, the center of information and culture (Worpole, 2013, p. 32). According to Worpole, “No modern town or city is truly complete without a confident central library functioning as a meeting place and intellectual heart of civic life, echoing the sentiment of the inscription above the door of the grand reading room of the modern Nashville library which opened in the summer of 2001: “A city with a great library is a great city.” (Worpole, 2013). Libraries and librarians remain the cultural mediators between collective memories, communities, and their cultural artefacts (Welburn & Pitchford, 2009). Due to its many tasks, and traditions and trajectories to embody, Worpole regards to the library as a building type as increasingly complex (Worpole, 2013, p. 38).

The public library is going through another shift and many have noticed that there is a need for libraries to realize it and act now that the society is changing. Even though, in time, the openness to the public has been enforced and free and easy accessibility has become the central idea of public libraries, there is still room to grow. With regret, Eric Klinenberg explains the libraries’ situation in New York, and it goes for Europe as well: “A century ago, most branch libraries were open seven days a week; today, most are closed on Sundays, which have always been popular days for immigrants, blue-collar workers, and families to visit. No other institution can fill the void.” (Klinenberg, 2018, p. 221). Just like in the 18th century, the private

library was a symbol of privilege and personal health, today, the public library is a symbol of civil society and democracy, and the need to strengthen that symbol is evident.

1.2 PUBLIC LIBRARIES IN ESTONIA

There is a total of 528 public libraries in Estonia (IFLA Library Map of the World, n.d.). The mission of Estonian libraries is to shape people's reading habits, support lifelong learning and provide free access to information and knowledge to everyone (Kultuuriministeerium, 2020), resulting in cultured and intelligent citizens who cope with life successfully (Kultuuriministeerium, 2020). According to the Ministry of Culture, Estonian libraries cooperate with each other, following international standards and directives assembled in Estonia (Kultuuriministeerium, 2020). At the same time, it has been stated that the libraries are internally fragmented and that the field thus lacks a unifying, general vision (The 21st Century Library, 2016, p. 6). It has also been expressed that the policy and legislation affecting libraries on a state level is outdated (The 21st Century Library, 2016, p. 6)

On the report of a survey by Kantar Emor, every second inhabitant in Estonia uses the services provided by libraries (Kantar Emor, 2018, p. 6). The main reasons for visiting libraries today have to do with reading (Kantar Emor, 2018, p. 6). Additionally, 25% of patrons mentioned reasons related to different workshops, hobbies or work (Kantar Emor, 2018, p. 6). 19.7% of Estonian adults participate in life-long learning activities (Public Libraries 2030, 2019). The main reasons for not visiting libraries are lack of time and the purchasing of books and other publications (Kantar Emor, 2018, p. 6). After researching this topic for several months, I am confident in saying that the actual reasons go beyond that, and some of the things that really need to be done, is the development of services, as well as distribution of information, but without a doubt, also an update of many of public libraries' premises.

Because there are not many libraries in Estonia that are more advanced, and none really reach the levels of the more recently opened public libraries like The Helsinki Central Library Oodi, opened in 2018, or The Aarhus Public Library Dokk1, opened in 2015, not all Estonian people are really familiar with the standard of public libraries today. Perhaps one of the main problems is the state of many public library facilities. They are often quite outdated and need an extensive renovation, or even a new building. In case of Tartu City Library, the discussions of a new building have been going on for nearly 100 years.

It has been stated repeatedly that the marketing and public relations for the services offered by libraries isn't extensive or systematic enough (The 21st Century Library, 2016, p. 6) (Kantar Emor, 2018, p. 7). Only 35% of the respondents of the Kantar Emor survey on library and museum visiting found the libraries' spreading of information to be sufficient and 49% did not give their opinion (Kantar Emor, 2018, p. 7). The main platform for marketing library's events

and services seems to be the library's webpage. To create a stronger image in the society and expose the library's opportunities to more people, the institution needs to be more evident in everyday life and more widely promote the opportunities available in the library. With that being said, Tartu City library has been taking part of different events in Tartu, promoting their services and creating a stronger image. The bigger problem here remains to be the outdated building that cannot really accommodate much of these new activities. So the library is in a way tied to other institutions, events and programs that they can be a part of, but it is harder for the library to independently host events or hobby classes, etc, at least in their own buildings.

One way of measuring the popularity of libraries, is to compare it to other cultural institutions. For example, in comparison to museums, the potential of visiting libraries is lower. According to the survey by Kantar Emor (2018, p. 11), 35% of Estonians are planning to increase the number of times they visit museums in the course of next year, and 15% of residents do not plan to go to museums during next year. As for libraries, 22% of Estonians plan to increase the number of visits to the library and 32% of residents don't plan to go to the library at all during the next year (Kantar Emor, 2018, p. 12).

As a personal observation, Estonians in bigger cities don't really see the library as a cultural center or meeting place, rather than merely a place for borrowing books. In rural areas, though, libraries are often the only place for the local community to meet and spend quality leisure time. In some libraries, there are new services that have been made available in the recent years but they are often times both, not very exposed in the library and not marketed widespreadly. In Tartu City Central Library, it is possible to use a 3D-printer, and sewing machines, but it is unlikely that you have ever heard of it unless you have been to the library or visited the library's homepage. Nevertheless, art, yoga, sewing, handicrafts, cyber and 3D modelling classes were offered in different City Library branch libraries in 2019 (Tamme & Põldaas, 2020, lk 4).

Another issue is that the library staff is allegedly not ready for all the new functions due to lack of knowledge of new technology and preparedness to use it (The 21st Century Library, 2016, p. 6). Together with other problems concerning the employees and management in libraries, in a nutshell, librarianship in Estonia has been characterized by a lack of innovation, as well as conservatism of the system (The 21st Century Library, 2016, p. 6). While many libraries in Europe, North America and elsewhere have started to adjust their spaces and services to new

trends, users of Estonian libraries are yet to see that much of a change, especially regarding the facilities.

2. THE NEW LIBRARY

2.1 CHANGING ROLE OF THE LIBRARY

The public library is no longer just about books, quiet reading and study, like it has traditionally been in the past. Public libraries are civic institutions that perform other critical functions extending far 'beyond books' (Philbin, Parker, Hirsch, & Flaherty, 2019). They function more and more as new kind of social centers (Hille, 2019, p. 10) that encourage public interaction (Saur Verlag, 2007) and support lifelong learning (The 21st Century Library, 2016). In all, the main shift has been to become from a 'place for books' to a 'place for people'. In his book "Palaces for the People", Eric Klinenberg (2018) refers to public libraries as one of those most important places, or palaces, that the societies can lean on and where people can create meaningful connections.

As researches Skot-Hansen, Rasmussen and Jochumsen (2013) have put it, "public libraries have been changing from collections to connection". But additionally, the most recent change has been towards creativity and collaboration (Skot-Hansen, Rasmussen, & Jochumsen, 2013). Libraries have become about doing and making. Moreover, libraries like Library 10 in Helsinki are constantly changing its activities and facilities in cooperation with its users, making it possible to always be up-to-date in the constantly changing media world (Skot-Hansen, Rasmussen, & Jochumsen, 2013). One of the public library's new challenges is to cater to an increasingly diverse user base (Hille, 2019, p. 10). Many libraries have a focus on providing possibilities for working to creatives and startups that cannot afford an office (Skot-Hansen, Rasmussen, & Jochumsen, 2013) to boost local economy. For example, at the Meetingpoint in Helsinki, one can book a workspace or a meeting room, and in that communal space, entrepreneurs of the city can meet and connect (Skot-Hansen, Rasmussen, & Jochumsen, 2013).

At the International Federation of Library Association's Conference in 2019, the candidates of 'the public library of the year' had predominantly around 10 years ago re-evaluated their function and become, from libraries focused on lending, to libraries of educational programs (Riisalu, 2019). Different countries and regions are focusing on different programs, but some of the main focuses are on the improvement of digital skills as well as literacy and ability to read. Among other services that public libraries today offer are lectures, performances,

exhibits, different community activities, workshops, children's programs, etc (Hille, 2019, p. 12). And with the functions, the library space has also changed, differing from a variety of active and inclusive spaces that accommodate a diverse range of formal or informal, active or passive, public or private and collective or individual activities (Hille, 2019, p. 12).

As the library is still the most reliable source of information, it's relevance in today's era of fake news remains strong. People tend to have high levels of trust into the library as an institution and into librarians as information mediators. Therefore, while functions of it are changing, the importance of the library is as high as ever. The experienced former library director Maija Berndtson has pointed out that on the condition that libraries rethink, remodel and renew their work in practice, they can head for the Golden Age in their history (Berndtson, "What and why libraries?", 2012).

2.2 LIBRARY AS A PART OF SOCIAL INFRASTRUCTURE

There is an increasing tendency for more and more people to live alone in many countries across the World (Klinenberg, 2018, p. 31) (Silva, Princh Library Blog, 2020). While the rising inclination to more one-person households is prominent almost everywhere, it is the wealthier, mainly Nordic countries where people are very likely to live alone. In 2012, 60% of households in Stockholm consisted of one person (Ortiz-Ospina, 2019).

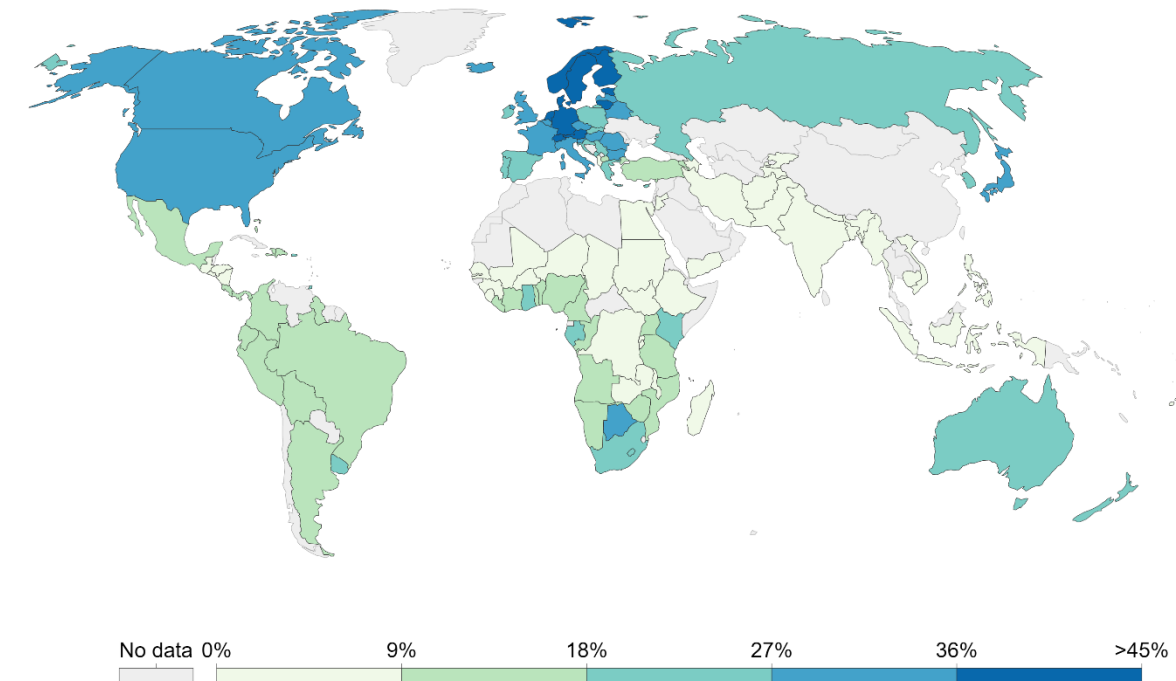
Statistikaamet (2018) reports a similar trend in Estonia. While the number of households has been increasing over the years, the number of people in one household is decreasing. In Estonia, there were 346 000 households in 1934. 22% of them were one-person households. By 2011, the number of households had rose to 600 000 but respectively, the number of people living alone had also increased, to 40% of all the households. The average size of a household in 2011 was just over 2 people. In 1934 the average was 4 (Statistikaamet, 2018).

Though some research suggests that living alone doesn't necessarily mean loneliness, there's a large body of research proving that people do often feel lonely in today's society. Cigna, the global health service company, reported epidemic levels of loneliness in 2019 that continue to intensify (Library Research Service, 2020). After surveying 10 500 adults, based on a questionnaire to assess self-reported, subjective feelings of loneliness or social isolation, they were able to conclude that 61% classify as lonely – 7% more than in 2018 (Library Research Service, 2020).

While there are several different reasons for people to be living alone more than in the past, this tendency calls for ways for people to be able to connect and interact with others outside of home. Even though libraries are not traditionally thought of as social spaces, studies show that public libraries foster social support and decrease isolation (Library Research Service, 2020). So that no-one needs to feel cut off from the world, libraries provide comfortable and welcoming public spaces for all-comers (Khan, 2018).

Percentage of one-person households, 2015

Number of one-person households as a share of the total number of households. Estimates combine multiple sources, including cross-country surveys and census data.



Source: OWID based on UN and other sources

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Figure 1. Percentage of one-person households in 2015 (Our World In Data: <https://bit.ly/2CU7amP>)

Leibkonnad liikmete arvu järgi, 1934 ja 2011

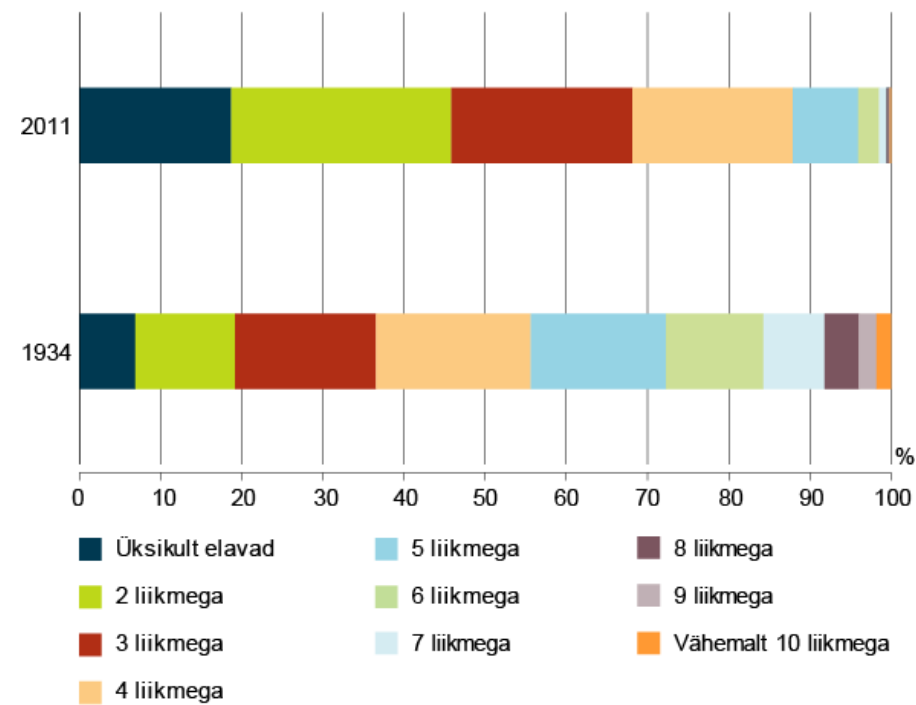


Figure 2. Households in Estonia by the number of members, 1934 and 2011
(Statistikablogi <https://bit.ly/2WZstdA>)

In addition to living alone, people nowadays also often work alone. Set work schedules have changed, and in some cases even disappeared, and home offices are becoming more and more popular. The concept of “high tech, high touch” was developed by John Naisbitt in his 1982 bestseller *Megatrends*, where he theorized that in a world of technology, people long for personal, human contact. His claim that the more technology distances us, the more important and valuable social contacts become has also found support in research. Findings suggest that despite increases in technology and globalization that would, as some have suggested, presumably foster social connections, people are becoming increasingly more socially isolated (Holt-Lunstad, Smith, & Layton, 2010). In 2018, 7.6% of Estonians worked from home daily (McCarthy, *Here's how age and region affects working from home in Europe*, 2020) and with the Covid-19 pandemic in 2020, the trend has been boosted. According to McCarthy, it tends to be the older people who choose to work from home instead of going to the workplace, rather than younger workers (McCarthy, *Here's how age and region affects working from home in Europe*, 2020).

While libraries offer something for everyone, in terms of strengthening the social connections, they are especially important to the elderly who are often aging alone and in risk of isolation

(Klinenberg, 2018, p. 28). In the library, there are different classes designed for the elderly people that not only help them develop skills but also provide a place to go regularly.

Another highly important target group seems to be the young parents, especially mothers. According to Coram Family and Childcare research done in five English towns, over half of the interviewed parents with young children, feel lonely (Silva, *Princh Library Blog*, 2020). Libraries offer a place for parents to bring their babies to a source of local culture, where they can, in addition to gaining information about childcare and children’s psychology, connect with other parents and create networks (IFLA, 2003). Many parents use the children’s library already before the birth of their child (IFLA, 2003).

In the book *Palaces for People*, Eric Klinenberg (2018, pp. 34-36) describes one mother’s experience raising her child in New York and what the local branch library meant to her during that time. Before discovering everything that the library offers to parents and children, the mother was struggling to find a place to spend time with her baby. As coffee shops are not really child-friendly and special classes usually cost a lot, she was thrilled to find out that there’s that and much more offered by libraries, and for free too. She discovered that there was a whole social scene going on between everyone who went there. She found herself surrounded by other first-time mothers who were going through the same struggles and who were easy to start a conversation with. While public parks and playgrounds can provide something similar, the indoor room in the library is warm and open and the children are protected. There is always something going on in the library and patrons don’t necessarily need to plan their schedules ahead (Klinenberg, 2018, pp. 34-36).

Besides seniors connecting with other seniors, mothers with other mothers, children with their agemates, etc, library also offers the perfect setting to interact with people from other generations (Klinenberg, 2018, p. 38). For the elderly, participating in similar activities in senior centres instead of libraries can often make them feel stigmatized, as if old is all they are, because there they can only take part of the programs together with other old people (Klinenberg, 2018). The public libraries provide an arena where people from different age groups can meet and integrate.

Some studies prove good social ties to be extremely important not just in terms of mental health but even mortality, especially during crises. Klinenberg also discusses how important social infrastructure is in terms of health in time of crises, and also in everyday life, in his books *Palaces for People*. In his research he has studied neighbourhoods with similar demographics and found that the level of development of the neighbourhoods’ social infrastructure is what can cause drastic differences in the death rates during a crises (Klinenberg, 2018, pp. 1-7). The

reason for that being, in a neighbourhood that facilitates physical infrastructure – theatres, museums, churches, libraries, parks, etc – of good quality, habitants are encouraged to build relationships in the process of forming regular habits like once-a-week theatre visits. In these kind of situations they are exposed to the possibility of getting to know the members of their communities and in a crisis situation, the people who are used to socializing with each other, are likely to check upon their neighbours. On the other hand, in a similar neighbourhood where people do not have a habit of regular communication, habitants are not also very likely to check up on their neighbours in a crisis, which leads to more people at the risk of death (Klinenberg, 2018, pp. 1-7).

According to an extensive study by American psychologists and researchers Julianne Holt-Lunstad, Timothy B. Smith and J. Bradley Layton (2010) on the link between social relationships and mortality risk, people with stronger social relationships have a 50% increased likelihood of survival than those with weaker social relationships. The researchers have found the social relationships' influence on the risk of death to be comparable to risk factors such as smoking and alcohol consumption (Holt-Lunstad, Smith, & Layton, 2010). When compared to some other risk factors like physical inactivity and obesity, the researchers have found social relationships' to actually be more influential from these on mortality (Holt-Lunstad, Smith, & Layton, 2010).

Providing a place to build social ties is just one way in which libraries help people be more connected. Another task of librarians has long been to help people manage different challenges in life: finding a job, applying to a school, or even studying for an exam (Howard, 2019). Librarians are also often the people that help their users find suitable social or mental health service providers (Howard, 2019). Klinenberg (2018) refers to libraries as one of the most critical forms of social infrastructure that we have.

2.3 LIBRARY AS A VENUE

Public libraries are valuable for providing information and knowledge but even though much of the media is becoming digital, the library is still also an important physical space. Library is the place in the city that every person can use freely – which makes it one of the most important venues for integrating people. While schools and workplaces mostly tend to open opportunities for interaction with same-aged persons, libraries are one of the few places that get visitors of every age on a daily basis. For casual interaction between different people to take place, the physical space is needed.

Despite some sources suggesting that physical libraries are becoming obsolete, according to statistics, people haven't really slowed down on using the library's physical space. In the U.S., the number of visits raised by 16.7% during the course of 20 years, from 1993 to 2013 (Barclay, 2017).

As millennials have grown up loving libraries, they continue to support and make use of them, often visiting with families, as having a child under the age of six is the biggest predictor of library use (Howard, 2019).

Barclay (2017) proposes that in addition to promoting their important role in providing access to information, technology and other services, „public libraries and their supporters should also actively promote the idea that public library space—in and of itself—is a key social value of public libraries“. Public library space is unique because no space quite like that has survived the changes that the increasingly privatized and security-obsessed world has brought upon (Barclay, 2017). The institution has timeless value that transcends changes in technology (Barclay, 2017).

The Norwegian public library act states that libraries should be independent meeting places and also function as arenas for public discourse (Berndtson & Öström, Library Ranking Europe: A New Tool, 2019).

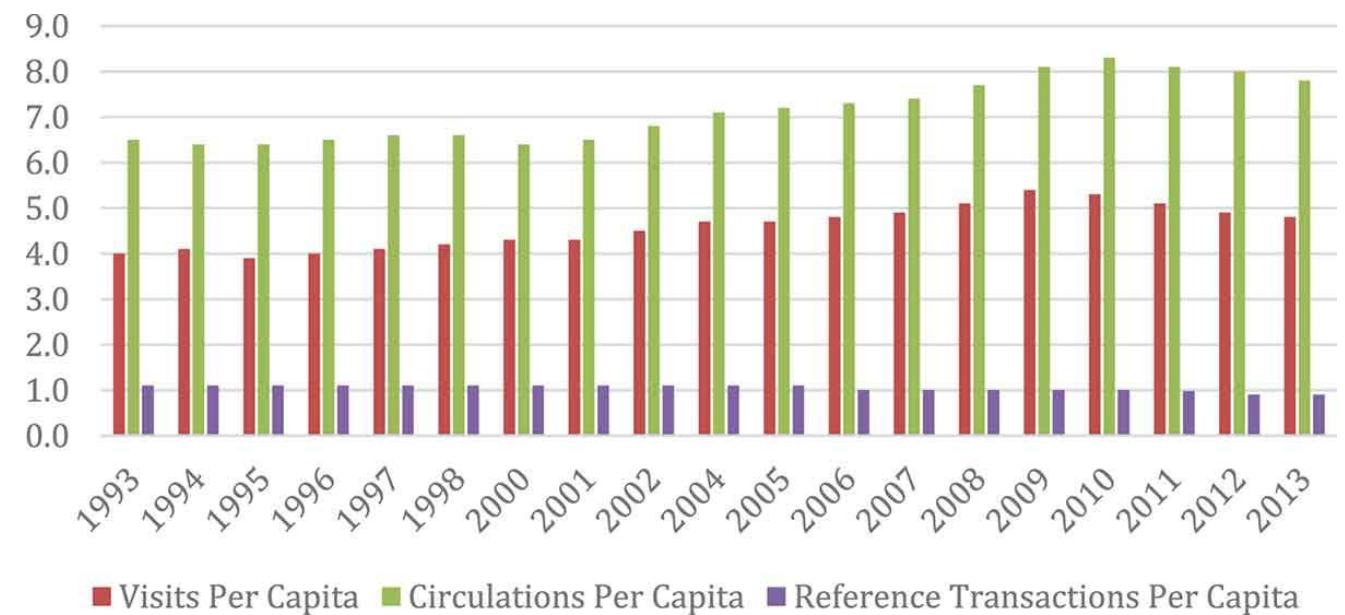


Figure 3. U.S. public library usage statistics: 1993-2013 (Barclay, 2017. <https://bit.ly/305rdrx>)

2.4 LIBRARY AS A SANCTUARY

Libraries offer a safe space for citizens both in daily life and in crisis.

Pew's library research has found that families often see libraries as sanctuaries and zones of peace (Howard, 2019). It is especially important for patrons who lack comfort and safety in their lives, sometimes including people experiencing mental health issues (Howard, 2019).

Libraries are also one of the few places of safety for homeless people.

Because chronically homeless people are the most visible, people tend to assume that most homeless people are chronically homeless, which is not the case (Art from the Streets, 2019).

According to Art from the Streets website, there are four types of homelessness:

Chronic homelessness

Chronic homelessness is defined by being homeless for longer than a year. It often occurs due to the person not being able to fight with problems such as mental illness, physical disability or addiction. Typically, chronically homeless people are older persons.

Episodic homelessness

Episodic homelessness is defined by experiencing three episodes of homelessness within a given year. Episodic homelessness usually afflicts younger people that are fighting health issues or addiction and can sometimes turn into chronic homelessness.

Transitional homelessness

Transitional homelessness is defined by affecting a person that is going through major life changes or a catastrophic event. For example, people can unexpectedly face transitional homelessness when suddenly losing a job. This is one of the more common types of homelessness.

Hidden Homelessness

Hidden homeless are people that are couch-surfing without immediate prospects for permanent housing. They often rely on relatives or friends for a place to live and that type of homelessness often goes unreported.

(Art from the Streets, 2019)

Because librarians are professionals who serve their communities regardless of their background, they help homeless people find an alternative solution to spend the night or look for a job (Silva, Homelessness and Public Libraries, 2020). Homeless people's lack of resources to access digital information also enforces the importance of the public library as a physical place.

For the homeless people, it can sometimes be crucial to just be heard out and directed on the right path and in order to be proficient in assisting them, many libraries also have a social worker who provides constant support and training to the staff (Silva, Homelessness and Public Libraries, 2020). The education and training that librarians receive, help them develop a sense of compassion and deal with difficult situations (Silva, Homelessness and Public Libraries, 2020).

It is not known how many homeless people there are in Tartu area, but during wintertime there are 30 to 35 people a day that come looking for a place to stay in the homeless shelter (Erickson, 2020).

Sometimes librarians need to handle worse situations, such as overdose on-site. That is why librarians need to be educated for those kinds of situations and why many libraries supply their premises with drugs like Narcan that can save lives.

In Estonia, the trend of using different drugs is rising in each age group (Narko.ee, n.d.). Moreover, during the years 1999 to 2016, 1209 people in Estonia died from a drug overdose and the total deaths of drug overdose in Estonia has for many years been the highest in European Union (Narko.ee, n.d.).

Libraries are not only helping fight drug abuse directly but are also the promoters of information and a place of sanctuary for those who are put into a dangerous situation at home. It is about creating a safe environment where people can talk about their problems without creating repercussions but still getting the help they need (Jacobson & Cottrell, 2017). Fifth grade teacher Melissa Guerrette says it is also important to provide books related to addiction as much as the other big topics like foster care, adoption, divorce and terminal illness (Jacobson & Cottrell, 2017).

As claimed by the acting assistant library director Anna Souannavong (Gates Public Library in Rochester, NY), librarians are not the first responders but information professionals (Jacobson & Cottrell, 2017). Souannavong has organized a series of panel discussions on the opioid

epidemic in the U.S. and has concluded that the need for information is clear (Jacobson & Cottrell, 2017). Medical experts, addiction advocates, and law enforcement officials were brought together to share their experiences and answer questions. Such kind of events are becoming a normal part of library functioning.

Libraries also do prevention work in the form of offering the safe physical space for young people to stay at instead of getting involved in dangerous activities. In order to attract young people to a healthy way of spending time, the library's physical space needs to be inviting and warm, not merely pragmatic and function-focused. Libraries have been discussed as a healthy way of escapism from everyday problems.

In times of crises, library can provide a place of both physical and mental sanctuary. As a dramatic example, after the terrorist attacks of September 11, New Yorkers gathered into public libraries in search of information as well as community (Barclay, 2017).

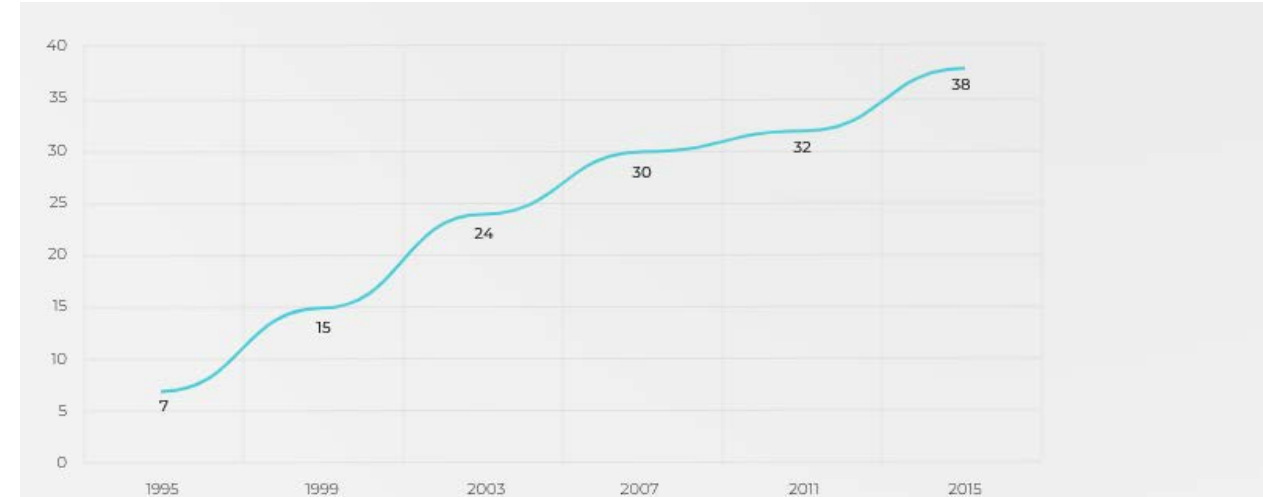


Figure 4. Use of illegal drugs during life among 15 to 16 year old students (%) 1995-2015.

(Narko.ee <https://bit.ly/3jOEzjo>)

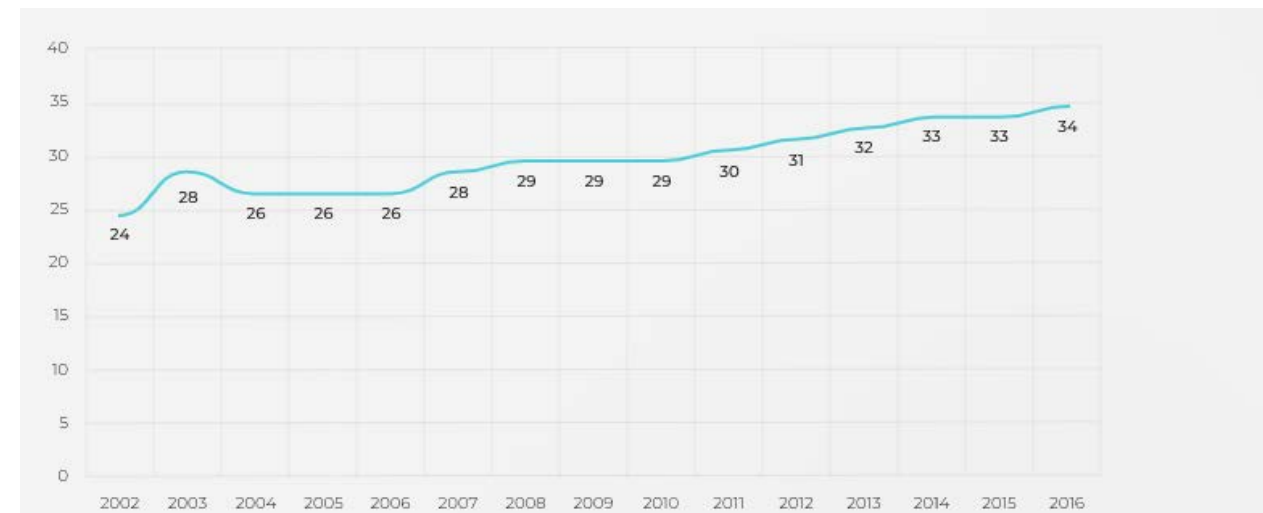


Figure 5. Average age of persons who died due to drug abuse 2002-2016.

(Narko.ee <https://bit.ly/3jOEzjo>)

2.5 LIBRARY AS AN ICON

With new library buildings, there's often good prospects for becoming symbols of the cities. There's many opinions on which specific characteristics can make a building an iconic piece of architecture. In his study "A Toolbox for Iconic Architecture", Justas Pipinis defines iconicity as a "status a building may gain through international process of iconification with participation of the client providing prerequisites, the architect shaping iconic features, the users assigning symbolic values and driving recognition and finally the public acknowledging and celebrating the icon" (Pipinis, 2014, p. 434). The sociologist Leslie Sklair describes iconic as "a building or a space (and perhaps even an architect) that is different and unique, intended to be famous and to have special symbolic/aesthetic qualities (Skot-Hansen, Rasmussen, & Jochumsen, 2013).

Researchers Skot-Hansen, Rasmussen and Jochumsen have found that it seems to be the trend that the library buildings in themselves should be iconic (2013, p. 11). In many cases, libraries are seen as parts of urban branding (Skot-Hansen, Rasmussen, & Jochumsen, 2013) and building iconic buildings can also contribute to boosting economy. While the efforts of making public libraries outstanding facilities are evident, future will show whether they actually will become famous icons of symbolic and aesthetic qualities (Skot-Hansen, Rasmussen, & Jochumsen, 2013).

Iconic architecture increases the value of the city through prestige (Visser, 2013). As high educated people typically prefer to live in attractive cities, or in cities with a high level of amenities, one of which being prestige through architecture, and high educated people are also one of the most important factors in urban development, cities can really benefit from iconic architecture (Visser, 2013). Cities are in an abiding competition and are more and more often designed to attract tourists, inhabitants and businesses to boost economy (Skot-Hansen, Rasmussen, & Jochumsen, 2013). Iconic architecture is one factor that often leads to gaining competitive advantage over other cities (Visser, 2013).

In attempt to construct "a common way to measure the social, economic and environmental impact of (urban cultural) transformational projects", three strategies of culture-led regeneration are outlined in the policy statement Culture at the Heart of Regeneration by the British Department of Culture, Media and Sport published in 2005. Among with "placemaking and urban identity" and "community consolidation", one of the strategies is "cultural icons and landmarks" (Skot-Hansen, Rasmussen, & Jochumsen, 2013).

The researchers Skot-Hansen, Rasmussen and Jochumsen (2013) raise the question: Why can we find so many examples of iconic operas, art museums and music venues and so few iconic public libraries?

At least for librarians all over the world, The Seattle Public Library designed by the Dutch architect Rem Koolhaas and opened in 2004, is one of the libraries that has become a symbol of iconic architecture (Skot-Hansen, Rasmussen, & Jochumsen, 2013). The building is a complex and intriguing construction made of glass and steel that contributes to Seattle's image as a progressive and future-oriented city (Skot-Hansen, Rasmussen, & Jochumsen, 2013). While it is difficult to pinpoint and categorize, then except for some libraries, like examples from Europe including Dokk1 in Aarhus, Oodi in Helsinki and the Library of Birmingham, it might be true that not so many library facilities have become famously iconic as there are museums or concert halls.

2.6 NEW FUNCTIONS AND SERVICES IN A PUBLIC LIBRARY

Engaging the citizens

Designing a new library building ideally starts, from the very beginning, in cooperation with the citizens. In the case of Helsinki's new Central Library which was opened in December 2018, the planning process started in 2007 with a central library review process which already included ordinary library users (Haavisto, 2017, p. 3). Different kinds of users participated in discussions and were interviewed during the early stages (Haavisto, 2017, p. 3). For the following steps, user consultation was highlighted as one of the key elements for a successful planning course (Haavisto, 2017, p. 4). The inclusive city planning project did not only mean asking for people's opinion – users were actually included into the planning (Haavisto, 2017, p. 4).

One of the early participatory methods was the creation of the Tree of Dreams forum in 2010 (Haavisto, 2017, p. 4). Tree of Dreams was a campaign that invited all city residents to take part in creating a vision for the library of the future (Miettinen, 2011). Besides the digital platform where people could write down their wishes for a future library, there was also a real tree that toured the city, collecting ideas from people as leaves (Haavisto, 2017, p. 4). After having collected around 2300 ideas (Haavisto, 2017, p. 4) from hundreds of people (Miettinen, 2011), all the information was analysed and developed into pilot projects (Haavisto, 2017, p. 4).

Tree of Dreams outlined some of the most important characteristics of a new library from the customer's perspective, including:

Open, lively, colourful spaces paired with spaces to wind down peacefully, possibly with a connection to nature, and including next-like corners and chairs (Miettinen, 2011). There should be natural meeting places, modifiable spaces for different uses and quiet spaces that encourage concentration (Miettinen, 2011).

Room for doing things together and opportunities to get involved and have an influence (Miettinen, 2011). There should be many services available, including tools to process audio and video, produce and edit, convert recordings to digital format, etc (Miettinen, 2011). Borrowing different equipment like laptops or camcorders should be possible, as well as receiving guidance and advice (Miettinen, 2011).

Opportunities to organize your own event or exhibition, and other dynamic activities (Miettinen, 2011). Theatres, galleries and crafts facilities were called for as well (Miettinen, 2011).

Promoting digital skills and lifelong learning

Many sources name the development of people's digital skills as one of the most important goals for public libraries, as according to the Public Libraries 2030 Website, 9 out of 10 jobs will require digital skills in the future (Public Libraries 2030, n.d.). Today, 44% of Europeans aged 16 to 74 lack even the most basic digital skills (Public Libraries 2030, n.d.). In Estonia, even though considered one of the most digitally advanced countries, with digital solutions and a digital society, approximately one third of the working age population actually lacks even the minimal information and communications technology skills and the existing skillset is not sufficient for working (Estonian Ministry of Education and Research, 2014, p. 6).

Although participation in lifelong learning has increased in Estonia (Estonian Ministry of Education and Research, 2014, p. 5), there is still the prevailing attitude in the society that considers learning to be only for young people (Estonian Ministry of Education and Research, 2014, p. 6). Albeit, 50% of the Kantar Emor survey respondents said they attend lifelong learning events and workshops (Kantar Emor, 2018, p. 80). Also highlighted by Berndtson and Öström (2019, p. 7), libraries are widely considered one of the most important promoters of lifelong learning.

A digital focus has been highlighted in the case of lifelong learning in the Estonian Lifelong Learning Strategy 2020 (Estonian Ministry of Education and Research, 2014, p. 5). The goal is to use modern digital technology efficiently in learning and teaching and improve the digital skills of the total population to ensure an access to the new generation of digital infrastructure (Estonian Ministry of Education and Research, 2014, p. 5). Amongst other strategic measures, the cooperation with libraries in order to achieve the ambitions has also been mentioned (Estonian Ministry of Education and Research, 2014, pp. 9, 18).

Public libraries also function as access points to the Internet, particularly important for people from underprivileged backgrounds that might not have computer access at home (Howard, 2019).

Klinenberg mentions extra services and programming for older people particularly important, as the number of people aging alone is growing in many parts of the world (Klinenberg, 2018, p. 28).

A “living room” in the city

In his book “Contemporary library architecture. A planning and design guide”, Ken Worpole (2013, p. 4) regards to the concept of the public library as a “living room in the city” as an increasingly vital feature of modern urban culture. To be a public living room, means being an intersection, a meeting place, even a market (A Library for All Times, 1997) where casual interaction is easy and relationships between community members can be created. It is an inspirational community centre (The 21st Century Library, 2016) that facilitates the access to shared resources (Hille, 2019, p. 11). Public libraries today organize public events – like presentations and workshops – that represent different society members, topics and values, raising awareness, increasing integration and bringing people together. In the Kantar Amor survey, 50% of the respondents said they would take part in the discussions of community or neighbourhood problems (Kantar Emor, 2018, p. 80). Moreover, the public library is an important place for immigrants that might not have many other possibilities to integrate into the society and who also might need support with improving their language skills or filling in bureaucratic forms (Howard, 2019). There is the help from librarians but also programs designed to help conform to the new life in a new country.

Borrow instead of own

Public libraries also support the idea of circular economy. Since we are living in an over-consuming world, in the future it might be better to borrow instead of owning everything. In many new, and old libraries, it is possible to borrow equipment like laptops, cameras and recording devices and use 3D-printers or sewing machines in ever-so-popular makerspaces. Another rising trend is the inclusion of community kitchens that can be booked in advanced and used for community get-togethers or workshops. Some libraries also offer very specific

programs like home-brewing tutorials. Additionally, software programs are made available to support self-development and equal access.

Era of “alternative facts” and “fake news”

Although infinite amounts of information have been made available to the public and the flow does not stop for a second, the library has not lost its relevance in providing information. On the contrary, because not everything that has been written online or even made the news is valid pieces of information, the library’s role in segregating everything that is being said and written, is essential (Howard, 2019). The library is the one place where resources can always be trusted. Even more importantly, libraries make efforts to equip people to distinguish what is real and what is fake, by analyzing how information is presented and teaching what kind of clues to look for on websites – including questions like how old is the content and who is the provider of it (Howard, 2019).

Aid in health related questions

Public libraries can be beneficial for people in many different health-related factors, some already discussed previously. Different ways of how public libraries can help mitigate place-based disparities in population’s health are demonstrated on Figure 6.

Determinant of health	Description	Example
Healthcare access	Implement and host targeted interventions in partnership with universities, community organizations and government departments	Weight loss programs ¹⁴
	Provision of health information about specific conditions or how to access care	Services that offer assistance with applying for health insurance ¹⁵
	Direct provision of health care services	Providing influenza vaccines ¹⁶
Addiction	Emergency response to opioid overdose	Staff trained to administer medications such as naloxone following opioid overdose ¹⁷
	Harm reduction response to substance use	Provision of needle collection containers and bandages to drug users ¹⁸
Stress	Services designed to reduce stress	Classes that teach coping strategies for dealing with stress ¹⁹
		Stress reduction therapies such as yoga and Tai Chi ²⁰
Food	Educational services to promote healthy eating and food literacy	Nutrition workshops that teach the preparation of healthy food ²¹
	Direct provision of food	Provision of free school meals for children during the summer holidays ²²
Early life	Services designed to promote wellbeing and learning among young children	Play-groups for children under 1 year of age and their caregivers ²³
		Reading programs for parents and young children ²⁴
The social gradient	Services that promote the acquisition of human capital, such as literacy, education and specific qualifications and credentials	Holiday reading programs to promote children's literacy ²⁵
		Programs that offer academic-related qualifications such as General Educational Development and English as a Second Language ²⁶
		Language and citizenship classes for immigrants ²⁷
Social exclusion	Services to reduce social isolation among vulnerable groups	Services that facilitate access to homeless shelters and other services among the homeless ²⁸
		Outreach efforts to bring library services to homeless populations through collaborations with homeless shelters ²⁹
		Provision of safe spaces for minorities and vulnerable groups such as LGBT youth ³⁰
		Play-groups that reduce social isolation by fostering relationships among new parents ²³
Work and unemployment	Services that provide training for specific occupations	Job-training programs including health aides and security guard training ³¹
	Services to assist with job seeking	Resume preparation classes ³²
Disaster relief	Provide disaster relief services following tornadoes, floods and hurricanes	Following hurricanes, libraries have served as evacuation centers offering electricity and internet and providing a space for various disaster relief organizations to deliver their services ³³
	Provide space to meet and recover during periods of civil unrest	Following the civil unrest in Ferguson Missouri in 2015, the local Ferguson Municipal Public Library provided a space in which local residents could meet, respond and recover ³⁴
Social support	Services that facilitate access to existing social welfare and legal services	'Know your rights' that connect immigrants with legal specialists ³⁵
	Services that foster social support through cultural and civic events such as concerts, art shows and other projects	X-Bowling league for older adults to reduce social isolation ³⁶
	Services that promote civic participation	Voter registration centers ³⁷

Figure 6. How public libraries can mitigate place-based disparities in population health (Philbin, Parker, Flaherty, & Hirsch, 2019 <https://bit.ly/32ZcVdH>)

2.7 SERENDIPITY IN THE LIBRARY

In his Master thesis, *Design for serendipity: a Research through Design approach*, Bente Halvorsen analyses design for serendipity in the digital environment context. He mentions definitions by many researchers, for example, serendipity can be described as a valuable unexpected experience that occurs when a person interacts with ideas, information, objects or phenomena, or sometimes simply as “happy accidents”, but as he clarifies, “not in the same sense that finding money on the street is a happy accident or luck” (Halvorsen, 2016, p. 8). Some see serendipity as luck while others argue it is a mechanism through which we discover unknown (Halvorsen, 2016, p. 8). Cambridge Dictionary defines serendipity as the fact of finding interesting or valuable things by chance. Some researchers argue that serendipity is underestimated in a number of fields including science, technology, and art (Halvorsen, 2016, p. 8). Lennart Björneborn has found in his research that “serendipity plays an integral role in how we discover, explore, and learn in all fields of life”, which, thus is a “fundamental – but perhaps underestimated – phenomenon in our life and culture” (Björneborn, 2017, p. 2). Nevertheless, he finds it to be an interesting phenomenon to study in information science (Björneborn, 2017, p. 1).

Serendipity is something that can occur in everyday life activities as well as groundbreaking discoveries (Björneborn, 2017). In his research paper “Three key affordances for serendipity: Toward a framework connecting environmental and personal factors in serendipitous encounters”, Björneborn lists a series of situations and environments where serendipity might occur, including examples like the digital news, urban exploration, reading, entrepreneurship, coworking spaces and research (Björneborn, 2017).

While users’ information behaviour in public libraries has been extensively investigated over the past decades, there is a lack of studies related to serendipity in libraries (Björneborn, 2008). I have discovered serendipity in the library context through conversations with the former director of Helsinki City Library, Maija Berndtson, who has also introduced this concept in her public lectures. In further research, I have discovered the work of Lennart Björneborn, a professor in University of Copenhagen, who’s research interests evolve around serendipity and who investigates environmental factors that may facilitate serendipity. Besides looking into serendipity in digital spaces like complex web link structures, he has also explored serendipity in physical spaces, often exemplifying public libraries.

Björneborn’s exploratory study “Serendipity dimensions and users’ information behaviour in the physical library interface” showed that about 50% of the interviewees were goal-directed only and the other 50% were open to unplanned discoveries (Björneborn, 2008) which indicates the need to further investigate, develop and apply the idea of unplanned and unexpected encounters. That should also not only be limited to encounters with books but with other sources of information, and people.

As formulated in different ways, but essentially agreed in many papers, to happen, serendipity requires two factors: a person with a “prepared mind” and the environment or “prepared system” (Halvorsen, 2016, p. 3). In his work, Halvorsen introduces the flaneur mindset which describes the engaging in a form of exploration, originally described in the context of a city setting, with openness towards receiving new information – carrying a curious intelligence (Halvorsen, 2016, p. 3). That is the “prepared mind” – as Halvorsen (2016) puts it, “a state of mind open to serendipity, a willingness to be lost”. As he points out, “personality traits and whether a mind is “prepared” or not, is not something a designer / creator can have much influence over, so the focus then becomes to create environments where coincidence is possible: what is called the prepared system” (Halvorsen, 2016).

Engineering serendipity

One way of inducing serendipity in a physical environment, is to follow the findings of Lennart Björneborn that can offer guidance in “designing physical spaces in public libraries that may attract users and prevent library bypass” (Björneborn, 2008). In this chapter, I summarize his research findings, with a focus on what he has concluded specifically about libraries.

Björneborn distinguishes ten dimensions which in the physical library may support users’ divergent information behaviour as catalogues and classification systems support readers’ convergent information behaviour (Björneborn, 2008). These are the factors that can possibly facilitate or hinder serendipity.

The ten “serendipity dimensions” are unhampered access, diversity, display, contrasts, pointers, imperfection, cross contacts, multi-reachability, explorability and stopability (Björneborn, 2008), which he, in later research, groups into three key affordances diversifiability, traversability, and sensoriability (Björneborn, 2017).

In Björneborn’s framework, diversifiability, which contains diversity, cross-contacts and incompleteness, indicates how an environment allows a diversity of contents. “Different environments can have different degrees of diversifiability, having contents more or less easily exchangeable and combinable”, he explains (Björneborn, 2017, p. 8).

Diversity is important in the context of serendipity because “the more diverse, heterogeneous, and varied contents and resources in an environment, the more potentials for people to encounter something interesting not planned for or not known in advance” (Björneborn, 2017, p. 8). That can be argued to be a given in the typical public library.

In discussing cross-contacts, he explains that serendipity may happen when dissimilar resources (information, things, people, etc.) meet or collide, for example when dissimilar topics and genres would be found next to each other in the library (Björneborn, 2017, p. 9).

Lastly, incompleteness, a sub-affordance under the diversifiability category, describes “environments with incomplete, inconsistent, and “unfinalizable” features that leave potentials open to us” (Björneborn, 2017, p. 10). He argues that serendipity may thrive in incomplete arenas that are characterized by “imprecision and ambiguity”, for example, broader categories and classifications with less specificity in libraries (Björneborn, 2017, p. 10).

The second one of the three key affordances for serendipity, traversability, which covers accessibility, multi-reachability, explorability and slowability, deals with “the quality or capacity of a physical (or digital) environment being traversable”.

In library context, he explains accessibility with unhampered direct access to resources, multi-reachability with the amount of routes that users can choose to move in the space, explorability with how well the typology of a given environment invites us to explore, and slowability with how much the environment’s typology invites us to slow down, stop and examine (Björneborn, 2017, pp. 12-13).

One way of providing direct access in a public building could be increasing the number of access points from the street, as well as decreasing the amount of physical walls and incorporating more open space into the design. Furthermore, a minimised level of control points, is beneficial in terms of providing instant access. As also mentioned by Björneborn (Björneborn, 2017, p. 13), organic non-grid layouts are favourable in order to enforce the probability of exploration.

Björneborn’s third group, sensoriability deals with factors that are perceivable by the senses. The first component, exposure is described by how much an environment can mediate and display contents in ways that trigger people’s senses, for example the exposure of book covers can trigger serendipity (Björneborn, 2017, p. 15). The second sub-affordance, contrasts, for example between quiet zones and more focused display zones, deals with the capacity of an environment to let some things stand out from the rest, triggering our senses (Björneborn, 2017, p. 16). The last sub-affordance of pointers deals with how an environment highlights contents in a narrower way, using signage, markers, cues, etc (Björneborn, 2017, p. 16).

The correspondence of these affordances of diversifiability, traversability and sensoriability with personal factors of curiosity, mobility and sensitivity, can result in serendipity (Björneborn, 2017, p. 5). While these can all be useful in serendipity-inducing, there should also be a balance between different dimensions to avoid overkill (Björneborn, 2008). In either way, Björneborn encourages libraries to develop a role as intentional providers of serendipity, in both, physical and digital environments (Björneborn, 2017, p. 24).

2.8 AT THE INTERSECTION OF TRADITION AND INNOVATION

The main shift in the public library development has been to become, instead of a “place for books”, a “place for people”. Many professionals in the library field agree. Skye Patrick, the director of the LA County Library system, and the librarian of the year for 2019, has stated that “libraries are not about the books, they’re about people” (Howard, 2019).

However, that doesn’t mean that the books have become irrelevant. The architect and researcher R. Thomas Hille (2019, p. 10) argues that even though social media and the Internet have dramatically affected how libraries are being used, and will be used in the future, books are still important and circulated vigorously. Some new libraries, such as the famous Musashino Art University library in Tokyo (by Sou Fujimoto 2010) have been credited for merely dedicating to books and reading. “Anyone can read in McDonald's” says the architect of the Musashino library, Sou Fujimoto, “But enjoying, concentrating, and relaxing in a library surrounded by books is a special experience” (Pollock, 2011).

Dutch librarians and experts in the field, Rob Bruijnzeels and Joyce Sternheim are in the process of writing a book titled “Imagination and Friction: A Dutch Vision on Public Library Architecture” where they investigate the public library in transition and where they also plan to also suggest ways to cope with the changes efficiently in the future. In the book proposal, the authors describe the ‘classic’ library as a disappearing phenomenon that is superseded by new media, the internet, new user concepts and different (marketing) strategies (Sternheim & Bruijnzeels, 2020, p. 2). They have noted that modernising or improving libraries’ existing products and services is not sufficient and new forms of library work, like co-creation and participation, are in the focus (Sternheim & Bruijnzeels, 2020, p. 2). What they are seeking for, are solutions to keep collections of libraries in the key roles in those processes of creating and sharing knowledge, as well as reflect the library’s unique features in architecture and interior design so that it doesn’t become an interchangeable public space (Sternheim & Bruijnzeels, 2020, p. 2).

Many experts agree with these ideas. Maija Berndtson has noted that the paradigm shift that we are facing confuses both the staff and users of the library (Berndtson, “What and why libraries?”, 2012). Since there are reformers and conservatives in both of these groups, the

visions of how the library should be developed, can also vary (Berndtson, “What and why libraries?”, 2012). Therefore, Berndtson agrees that it is important to respect those who are used to and maybe prefer the traditional library while also creating new services and opportunities to the young generations (Berndtson, “What and why libraries?”, 2012). While in big libraries it is possible for the two to co-exist (Berndtson, “What and why libraries?”, 2012), the fact that irreplaceable tradition, new media and digital technology, together with other established values, need to be embodied in a single building, does makes the library as a building type increasingly complex (Worpole, 2013, p. 38).

2.9 DESIGN GUIDELINES

According to Sternheim and Bruijnzeels (2020, p. 3), there is no book yet that deals specifically with the architecture of public libraries. Existing books seem to make no difference between public, special, scientific or university libraries, ignoring the role and specific importance of public libraries (Sternheim & Bruijnzeels, 2020, p. 3). For their upcoming book they are planning to interview architects and planners, prominent figures in the library world – but also recently graduated architects – in order to find out the ideas of the future generation (Sternheim & Bruijnzeels, 2020, p. 3).

However, some guidance for public library design can still be pieced together from various available sources. For example, The Helsinki new Central Library competition program composed in 2012 can be used as a starting point. Following are some of the more recent ideas in the library architecture, that could probably still be viable after the publishing of “Imagination and Friction”.

Connection to the surrounding environment is a key characteristic when it comes to the exterior, and the relationship between what is happening inside and how it can be interacted with from the outside. As described in the Helsinki competition: “considering the cityscape, the ground floor spaces should open out into the adjacent public external spaces” (The Heart of the Metropolis, 2013). Worpole (2013, p. 14) likewise mentions “bringing the inside out” and “bringing the outside in”.

An open-plan with an exploratory set of zones or hubs is preferred to traditional highly compartmentalised layout (Worpole, 2013, p. 14). To ensure the opportunities for continuous renewal of operations and technology, the spaces should be multi-purpose and flexible (The Heart of the Metropolis, 2013, p. 18) (Hille, 2019, p. 13). It is important not to over-refine the spaces and leave room for versatility (City of Helsinki, 2012, p. 51). Some of the spaces should be easily adaptable as workshop-type „raw space” (City of Helsinki, 2012, p. 51).

The movement in the library should be routed through the collections, not around them. That typically encourages browsing and lingering (Hille, 2019, p. 13). Giving impulses is important to stimulate the visitors and create an inspiring atmosphere.

2.10 LIBRARY RANKING EUROPE

Within the European Union, there are no common policies that concern public libraries (Berndtson & Öström, *Library Ranking Europe: A New Tool*, 2019, p. 316). Different organizations work to support libraries, but the cooperation between European libraries is lacking (Berndtson & Öström, 2019, p. 316). Accordingly, there is not any official evaluation system that rates the public libraries to help them develop and achieve an equitable level.

Library Ranking Europe (LRE) is a pilot project that was created in 2014 by two Nordic librarians, Maija Berndtson and Mats Öström who are seniors after having worked in the library field for four decades (Berndtson & Öström, *Library Ranking Europe*, n.d.). LRE reviews European public libraries from the customer's perspective and gives them rankings in order to stimulate benchmarking and enhance quality development (Berndtson & Öström, *Library Ranking Europe: A New Tool*, 2019, pp. 310, 312). Berndtson and Öström started the project with a goal of benefiting the customers and visitors at public libraries in Europe (Berndtson & Öström, 2019, p. 316).

The core values of the assessment are based on the Nordic public library ideology and tradition which is based on the Anglo-American library tradition (Berndtson & Öström, 2019, p. 312). Berndtson and Öström (2019, p. 312) note that "in the Nordic countries, public libraries are important for democracy and freedom of expression, information supply, culture, education, research, and social development. Equality is highly desirable and services free of charge are essential.". Keeping these essential values in mind, as Berndtson and Öström also agree that the library has changed, from a place for reading and private study, to community and cultural centers, digital hubs, mediatheques and maker spaces (Berndtson & Öström, 2019, pp. 312-313), they make evaluations based on these new directions that the public libraries have taken.

The establishers of the project have developed a qualitative ranking system (Berndtson & Öström, 2019, p. 312) where different aspects of the six main categories, Information about the library (6%), Site visibility and access (25%), Service and supply (44%), Premises (13%), Choice of collection (6%) and Freedom of expression and of choice (6%) are graded on a scale of one to six stars (Berndtson & Öström, 2019, p. 313). Evaluations are made from the perspective of the library user – the citizen – and carried out anonymously (Berndtson & Öström, 2019, pp. 313-314).

The evaluation carried out in each visited library follows the assessment criteria cited as such on Library Ranking Europe's website:

Information about the library (6%)

In guidebooks for tourists

In city maps

On the internet, including the library's own website and any social media representation

Location, visibility and Access (25%)

Architecturally interesting building

Location in the city/town

Public transport

Facilities for pedestrians and bikers

Car parking

Entrance – accessibility

Signposts to the library in the city

Signs on the building

Opening hours

Accessibility for the disabled

Signs in the building

Service and supply (44%)

Access for all – locals and guests

Charge/no charge for services

Scope of collection including different forms of media

Exposure of collection

Collection of newspapers and periodicals

Exhibitions, stage

Café / restaurant

Lavatories

Dedicated spaces: meeting, learning, lab, etc.

Identifiable staff

Service from the staff

Information and communication technology

Children

Youth

Immigrants

Special services: SMEs, consumers, tourists, etc.

Programs, events, lectures

Facilities (13%)

Aesthetics

Lighting

Seating

Quiet areas

Social areas

Area for children and youth

Collection content (6%)

Versatility/variety according to the content

Freedom of expression and of choice (6%)

Controversial titles and authors

(Berndtson & Öström, Library Ranking Europe, n.d.)

There are 528 public libraries in Estonia (IFLA Library Map of the World, n.d.). Library Ranking Europe has assessed five of them, including the main libraries in the biggest cities in Estonia. Unfortunately, none of these libraries scored more than 3 stars out of 6 which indicates that there is much room for further development for public libraries in Estonia. A ranking of 3 stars were given to The City Libraries of Tartu and Viljandi and Central Libraries of Tallinn and Pärnu. The library in Haapsalu acquired the lowest rating of 1 star.

3. CASE STUDIES

To showcase how the library has evolved and how it has been reflected in the new library architecture, two of the key buildings in this development are analysed.

3.1 SEATTLE CENTRAL LIBRARY

Location: **Seattle, United States**

Architects: **OMA + LMN**

Year: **2004**

Area: **38 300 m²**



Figure 7 Seattle Central Library (ArchDaily <https://bit.ly/3jTvbeL>)

The Seattle Public Library, designed by Rem Koolhaas and his Dutch firm OMA, an LMN, in 1999 and opened in 2004, has been considered a stepping stone to innovation and rebranding of libraries (Berndtson, 2020). Though, it must be clarified that Koolhaas mostly dealt with reorganizing and amping up spaces and renaming functions, but in essence, still stuck to the traditional functions and purposes of the public library then.

Architecturally, the building challenges the accepted clichés of what a library should look like (Worpole, 2013, p. 6) and has become an icon for the city, as well as for other libraries (Berndtson, Public libraries and placemaking, 2013). It consists of large box-shaped structures on top of each other, forming something like an unrefined diamond. The building is covered with a steel structure in a fishnet pattern that supports the building against lateral forces (Buchanan, 2004).

Inside, the programme is divided between eleven floors, four of which are occupied by the famous Book Spiral – a reclamation of the Dewey Decimal system. The Book Spiral runs, or spirals, from 000 to 999 – covering subjects respectively to the Dewey Decimal system, evolving relative to the others (ArchDaily, 2009).

In the building, flexibility as the creation of generic floors is avoided, by organizing the spaces into compartments, each

of which dedicated to, and equipped for, special tasks (ArchDaily, 2009). Each floor therefore also varies in size, flexibility, structure, circulation, etc (ArchDaily, 2009). On the other hand, when it comes to the books, the approach is different. The Book Spiral has been created to give a single, continuous experience, by even making the individual floors mute, as stated by Koolhaas (Buchanan, 2004).

Koolhaas has given some of the functions of the library new names. The reference desk is now called the mixing chamber, because, as the architect has reasoned his ideas, "If you mention in one sentence 'reference desk' and 'mixing chamber,' the one sounds uninspiring, and the other one sounds as if something is about to happen." (Buchanan, 2004). The mixing chamber has also relocated from the traditional position on the ground floor, to the centre of the building. The unusual placement actually ensures an efficient use of the staff's time (Muschamp, 2004).



Figure 11. Seattle Central Library (ArchDaily <https://bit.ly/3jTvbeL>)

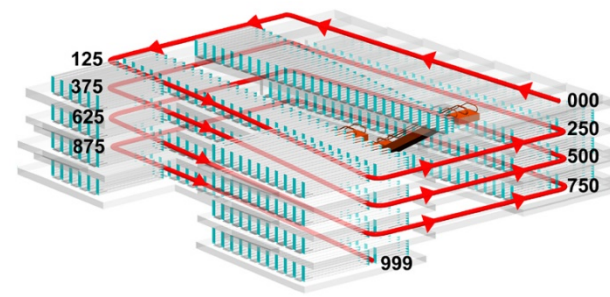


Figure 12 Book Spiral (ArchDaily <https://bit.ly/3jTvbeL>)

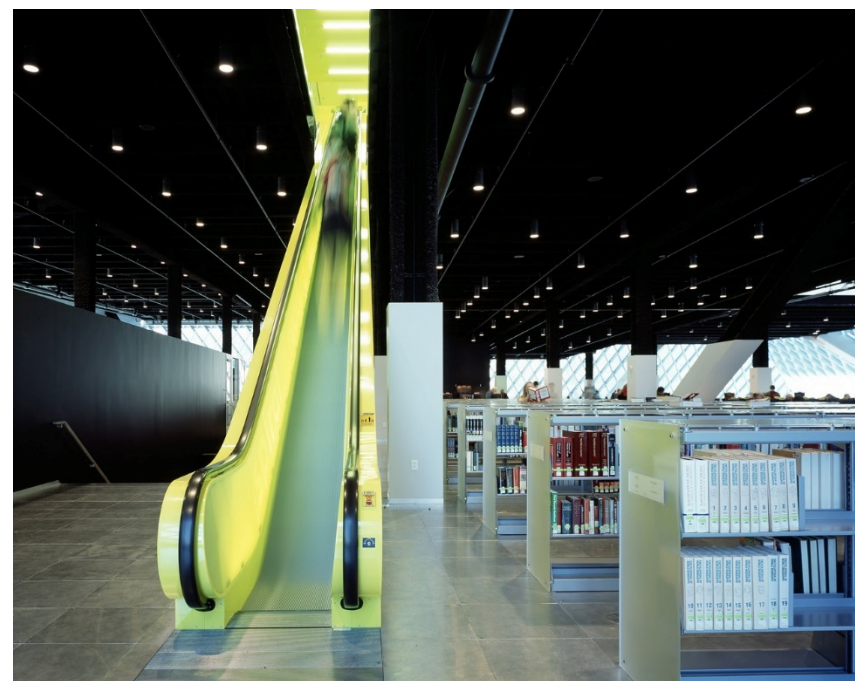


Figure 8. Seattle Central Library (ArchDaily <https://bit.ly/3jTvbeL>)

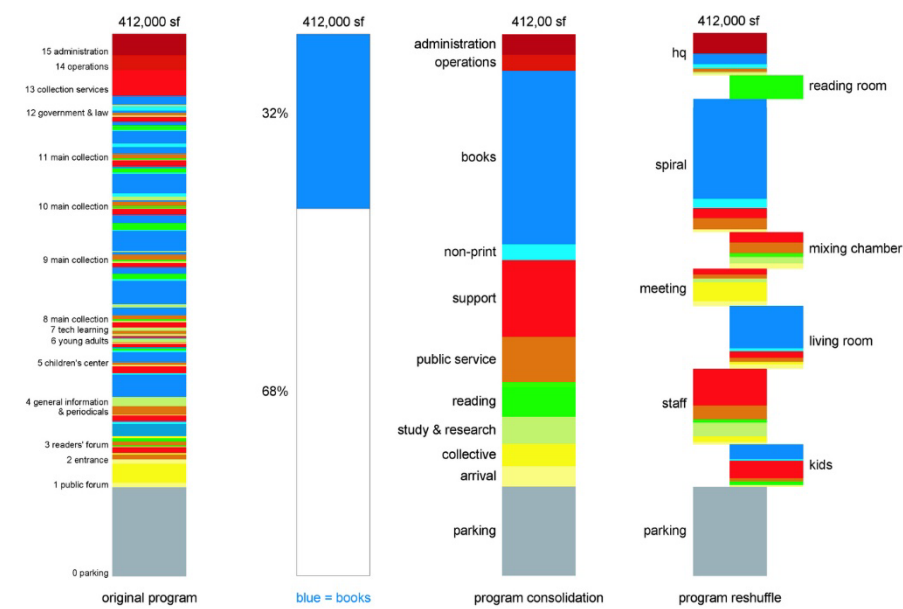


Figure 9. Room program (ArchDaily <https://bit.ly/3jTvbeL>)

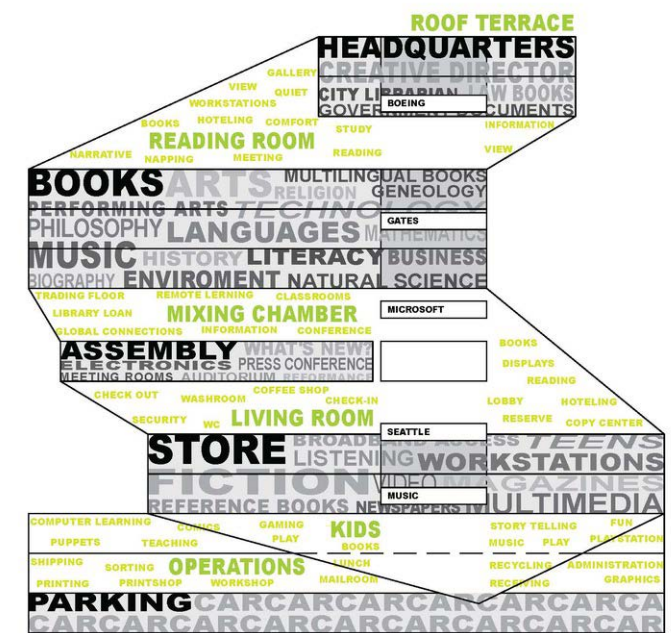


Figure 10. Functions scheme (ArchDaily <https://bit.ly/3jTvbeL>)

3.2 HELSINKI CENTRAL LIBRARY

Location: **Helsinki, Finland**

Architects: **ALA Architects**

Year: **2018**

Area: **17 250 m²**

The new Central Library “Oodi”, designed by ALA Architects in 2013 and opened in 2018, is one of the latest developments in public library architecture. The re-invention of a public library, and its functions, is evident in the new Helsinki city library.

A community participatory project from the start, the whole competition program was designed after a series of workshops and discussions on what the citizens wish to see in the ‘library of the future’.

The main purposes of the building, as stated by the library’s director, Anna-Maria Soininvaara, are to offer an open, non-commercial, public space with a new program every day (a library for all senses) where information is shared and skills acquired, for a more functional society and where rich experiences are created by the residents themselves (Soininvaara, 2018).

Oodi is divided into three distinct environments (Soininvaara, 2018) – each of the three floors carries a separate function. The ground floor is more for library’s parters, and primary functions like book returns. The ground floor facilitates a restaurant, a film theatre, Europa Experience and the city’s information desk and planning showroom (Soininvaara, 2018).

The second floor, known as the “Attic” is a more active area dedicated to makerspace with sewing machines, 3D-printers, computers and other equipment, group work rooms, a fab lab, and a new kind of an event room with intelligent digital walls. There is also gaming rooms, recording studios, a customer kitchen and a big reading room. Offices for staff and partners are also located there.

The third floor, a “book heaven” with a fantastic view to Helsinki, is dedicated to the 100 000 item collection, where also children’s areas and a café are located.

Each floor has been designed to serve the different functions, with the top floor having a totally open plan with a lot of natural light and the middle floor consisting of smaller rooms and virtually no windows. Use of materials and colours is also different on each floor, making each level unique and interesting.

Antti Nousjoki from ALA Architects has said: “Oodi is one of the freest buildings in Helsinki, or even the Nordic Countries, where the visitor can do many things and take initiative in what they want to do. It is a constantly learning and developing tool for those living in or visiting Helsinki.” (Oodi. Helsinki City Library, n.d.)



Figure 13. Oodi. Helsinki Central Library (ArchDaily <https://bit.ly/2DbWlqG>)



Figure 15. "Book Heaven" in Oodi (ArchDaily <https://bit.ly/2DbWlqG>)



Figure 16. Ground floor in Oodi (ArchDaily <https://bit.ly/2DbWlqG>)

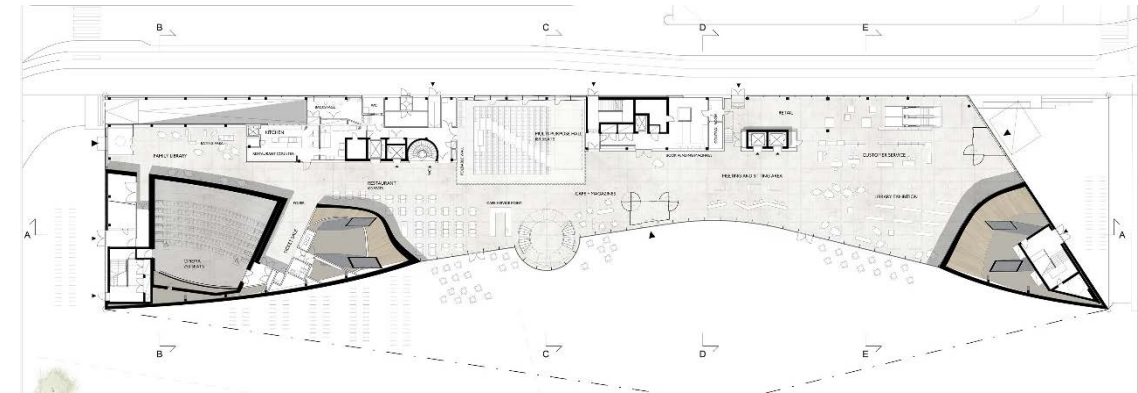


Figure 14. Ground floor (ArchDaily <https://bit.ly/2DbWlqG>)

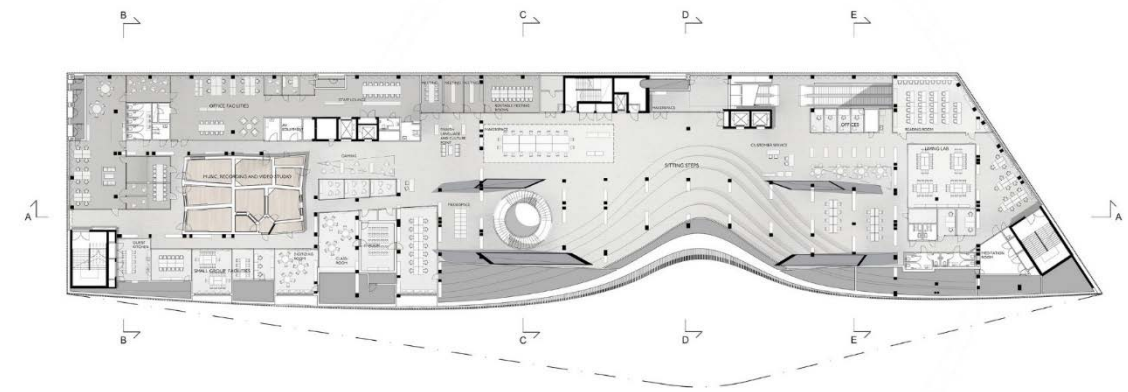


Figure 18. First floor (ArchDaily <https://bit.ly/2DbWlqG>)

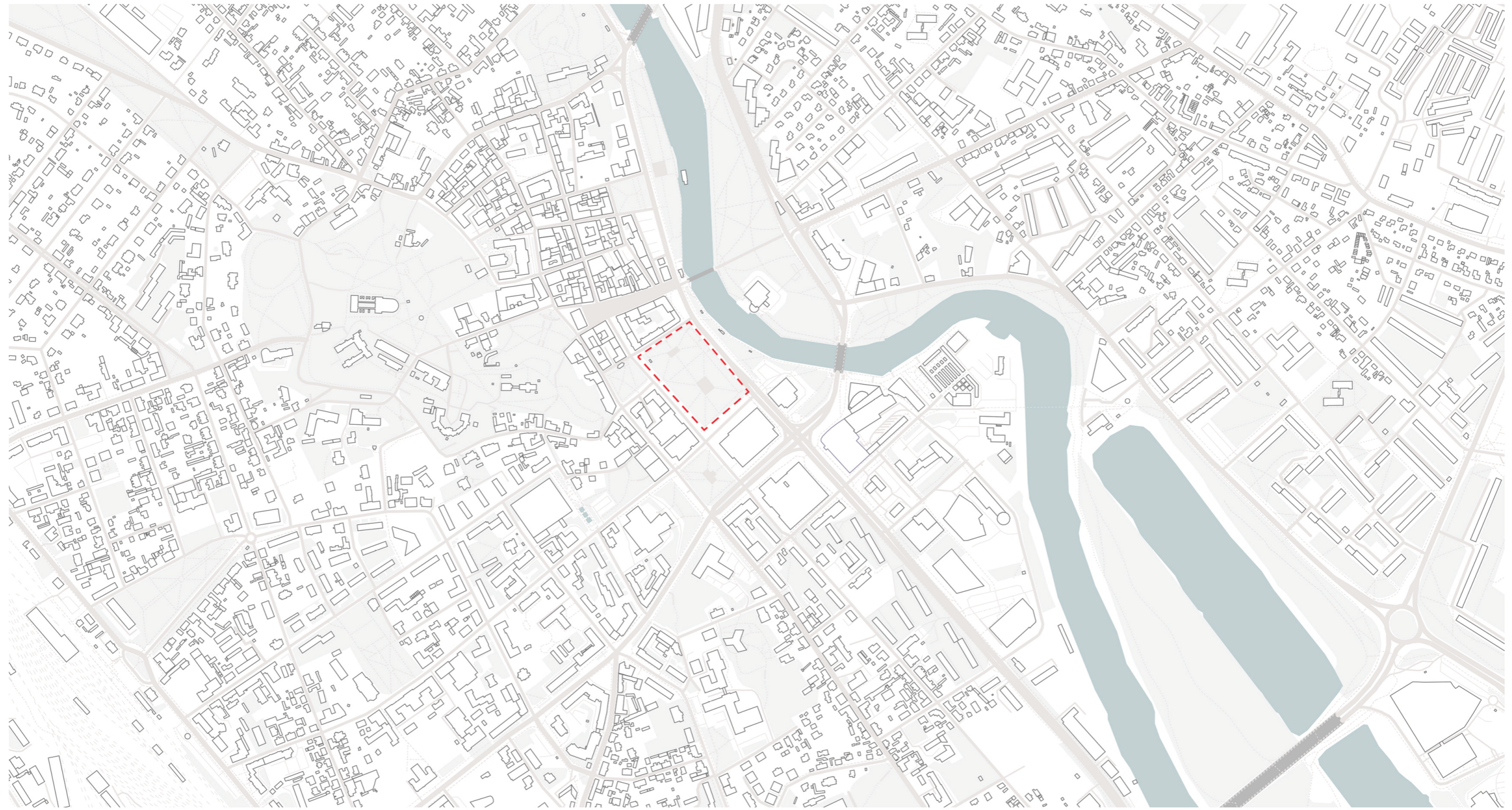


Figure 17. Top floor (ArchDaily <https://bit.ly/2DbWlqG>)

4. PROPOSAL

4.1 LOCATION

The location for the proposal for Tartu was chosen after analysing different sites in the city as well as discussing it with the city architect of Tartu. The chosen site is land between K  ni street, Vabaduse boulevard, Uueturu street and Poe street, owned by the city, and the one that Tartu Masterplan 2030 also indicates for the library building. It is a plot that historically contained city blocks like the surrounding areas, but was destroyed during a bombarding and has since then remained a park. The existing situation is described by a lack of spatial cohesion between the old town and the new commercial city centre. Developing the park area into a powerful culture centre would help create a more coherent urban space between the two areas and a more diverse functional whole.



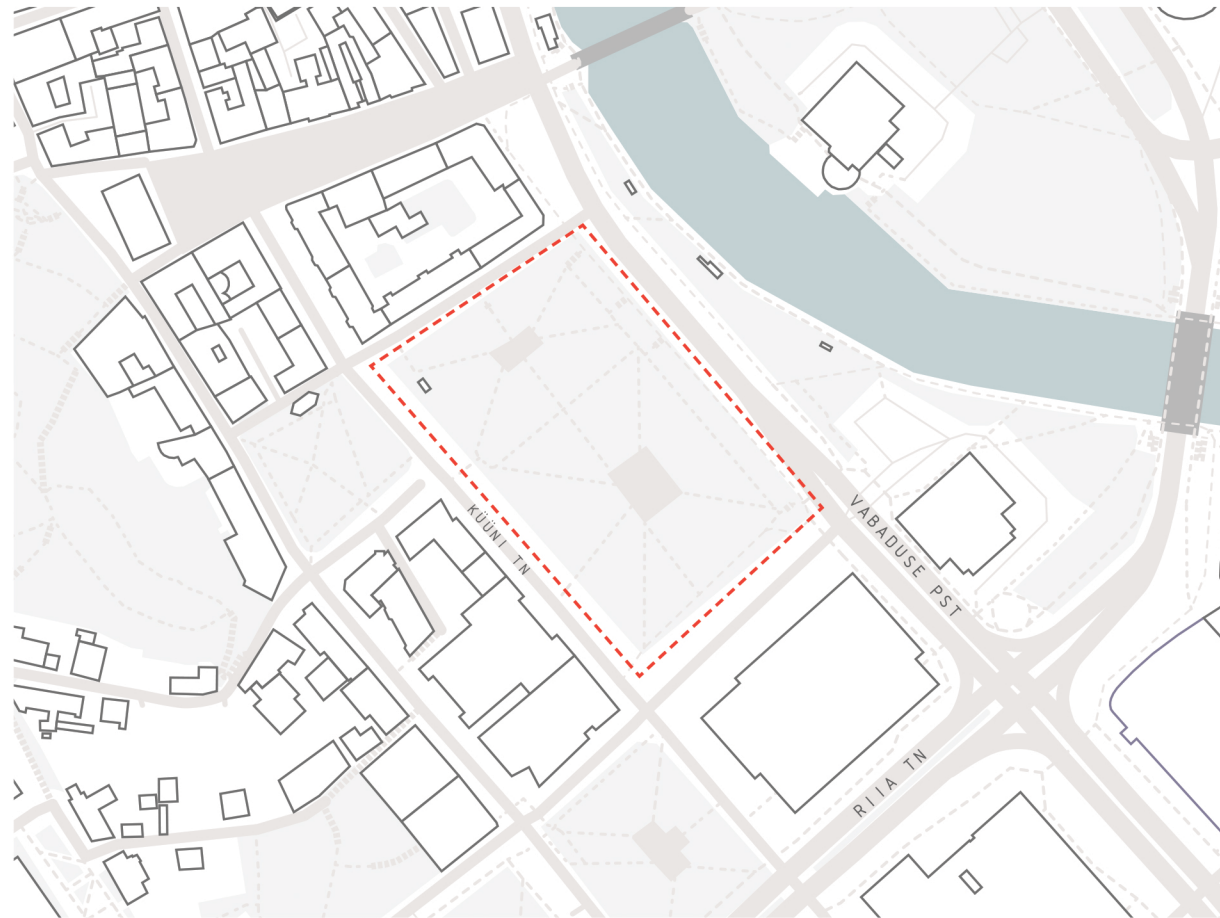
SITUATION SCHEME

4.2 SITE ANALYSIS

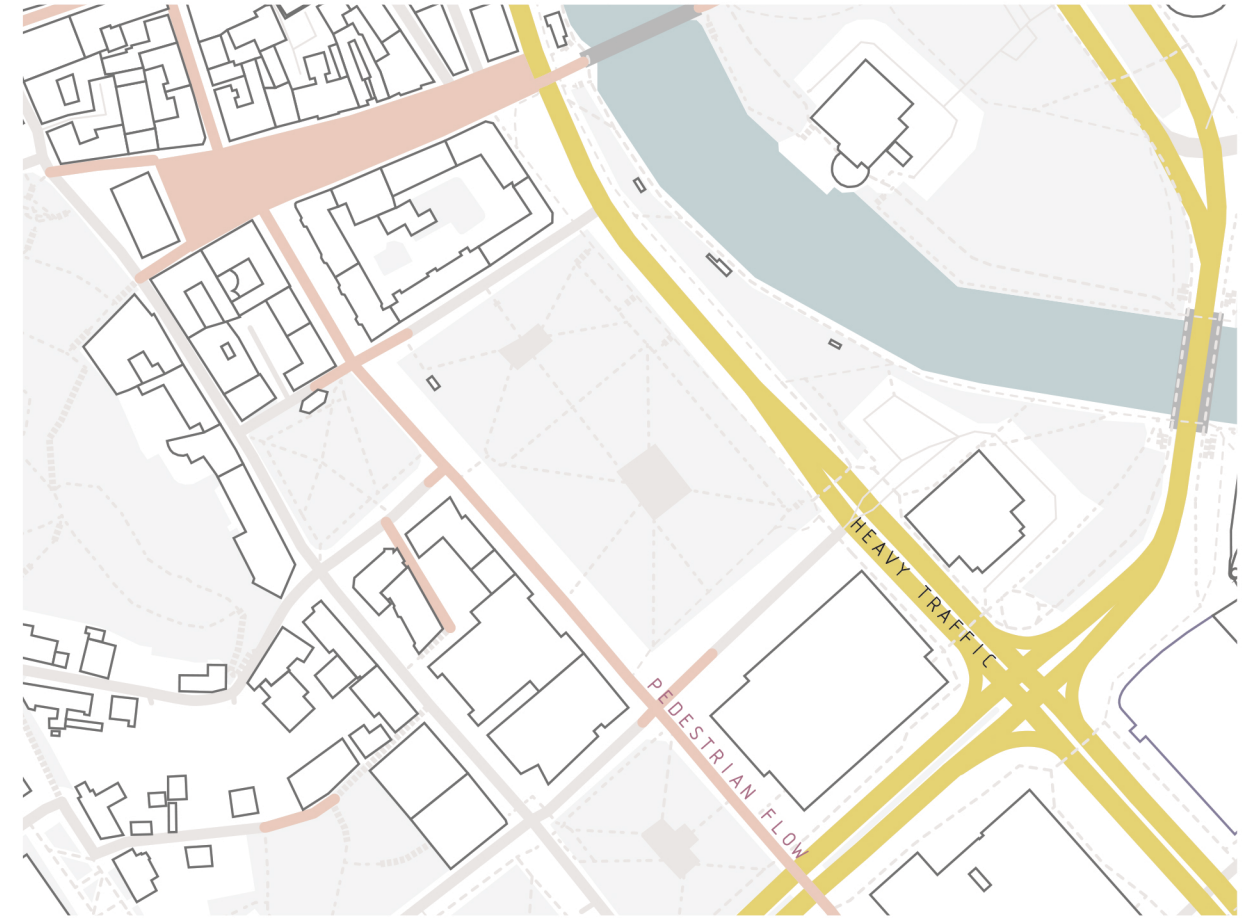
The site is located between the main pedestrian street, K  ni, and a quite busy car road, Vabaduse puiestee. There is very good public transportation connection as it is situated in the very center of the city. There is quite a big lack of parking places in the centre but there are some near the plot. Additionally to the parking spots on ground there are also big parking facilities under or next to the three shopping centres in close vicinity to the plot.

One of the main directions to preserve would be the historical Poe street. The masterplan for Tartu 2030 also indicates the street to be restored, to continue the path from Vallikraavi street to the riverside. Additionally, a diagonal through the site, connecting the pedestrian bridge to the main pedestrian crossing and commercial centre, and theatre Vanemuine, could be preserved as another important direction.

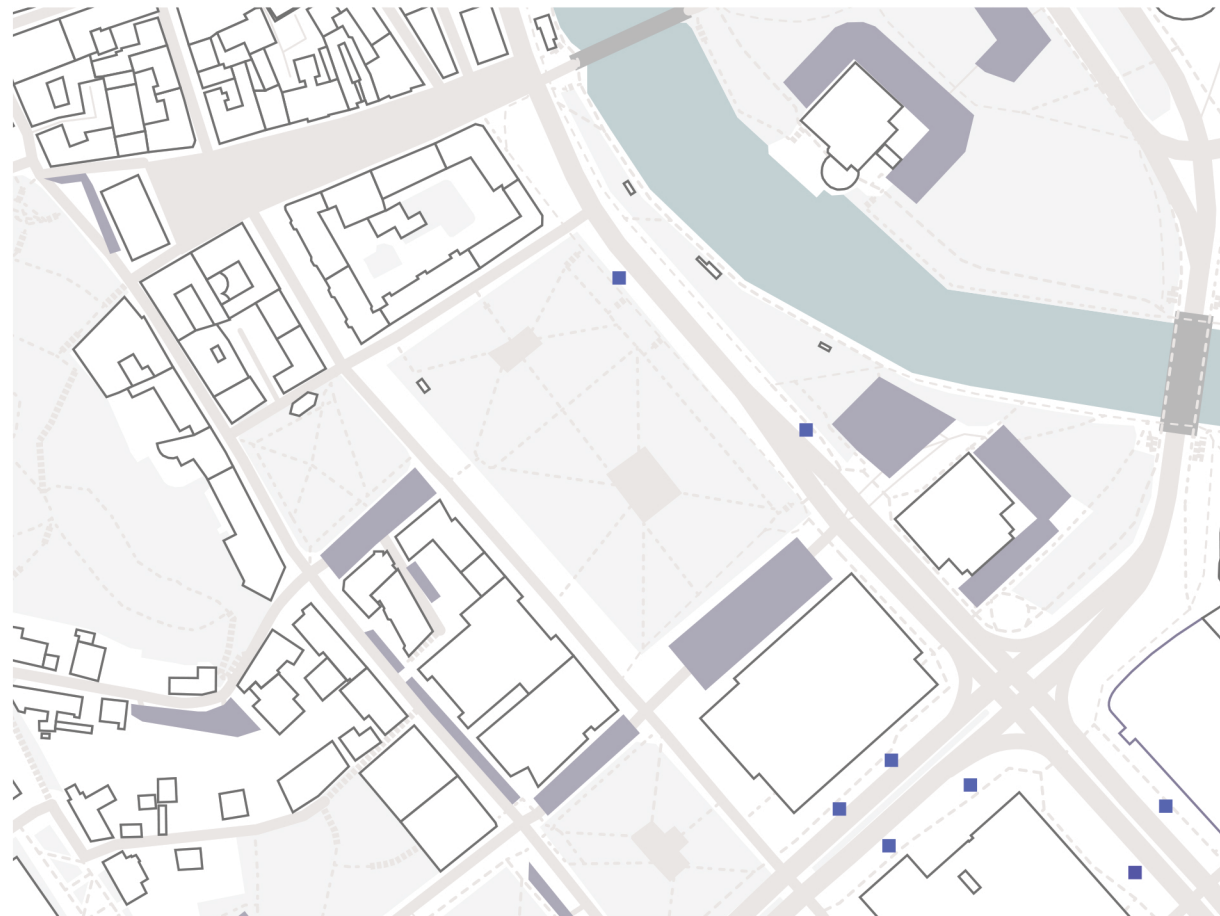
The landscape of the plot is inclined towards the river. The main prevailing winds are from the east, west and south west directions. The best views of the plot (from higher floors) could be towards the Old Town and the riverside area, as well as in the direction of Toomem gi. The sunpath is shown on the scheme



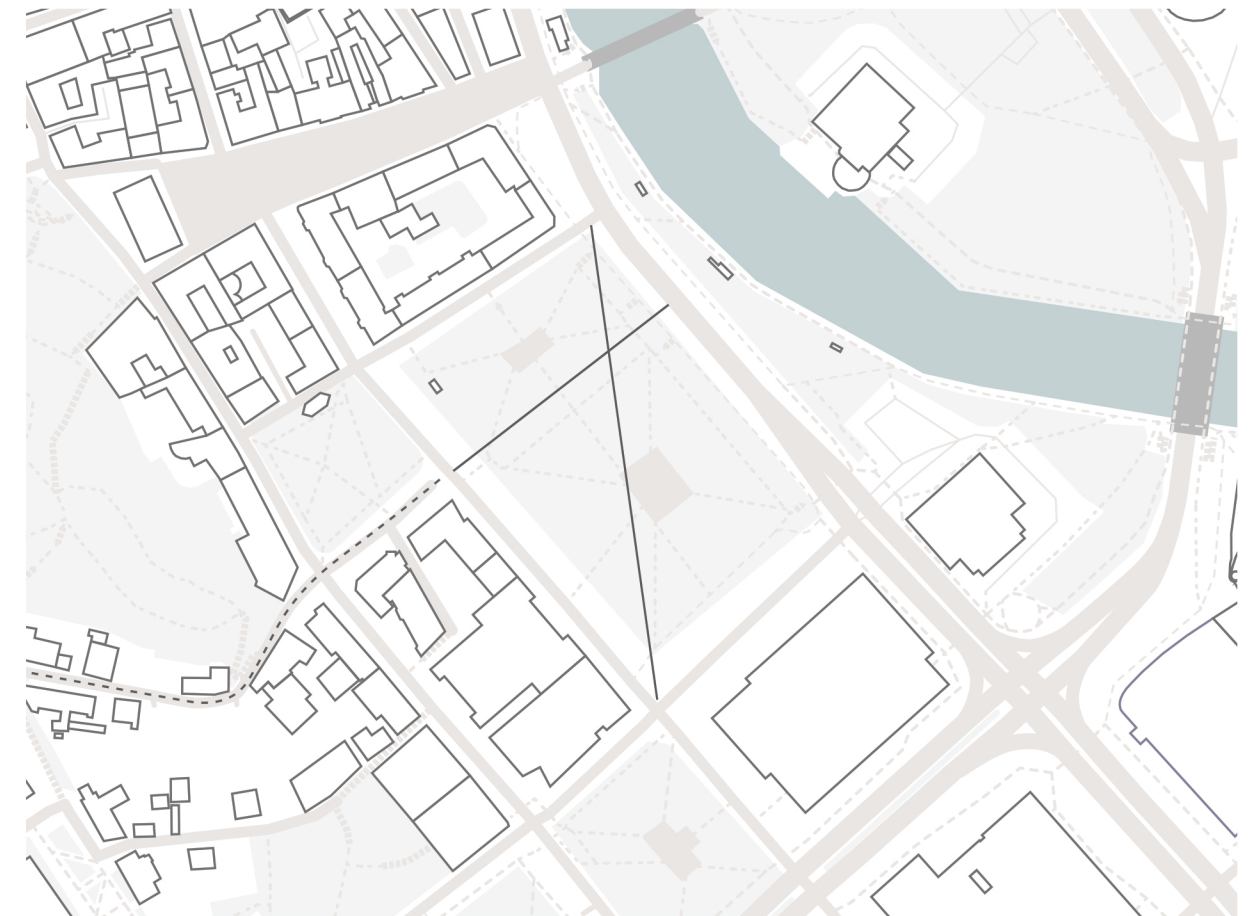
plot



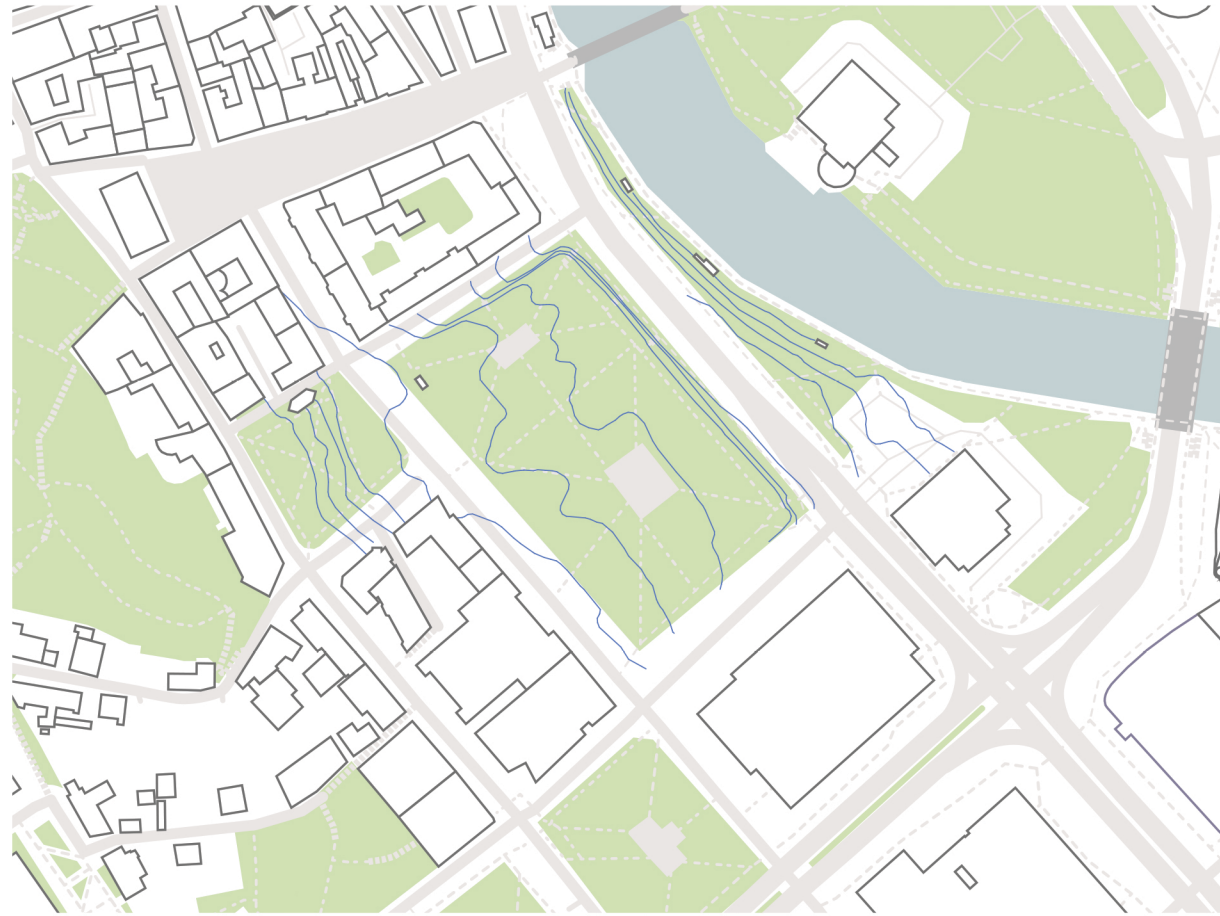
main pedestrian and car roads



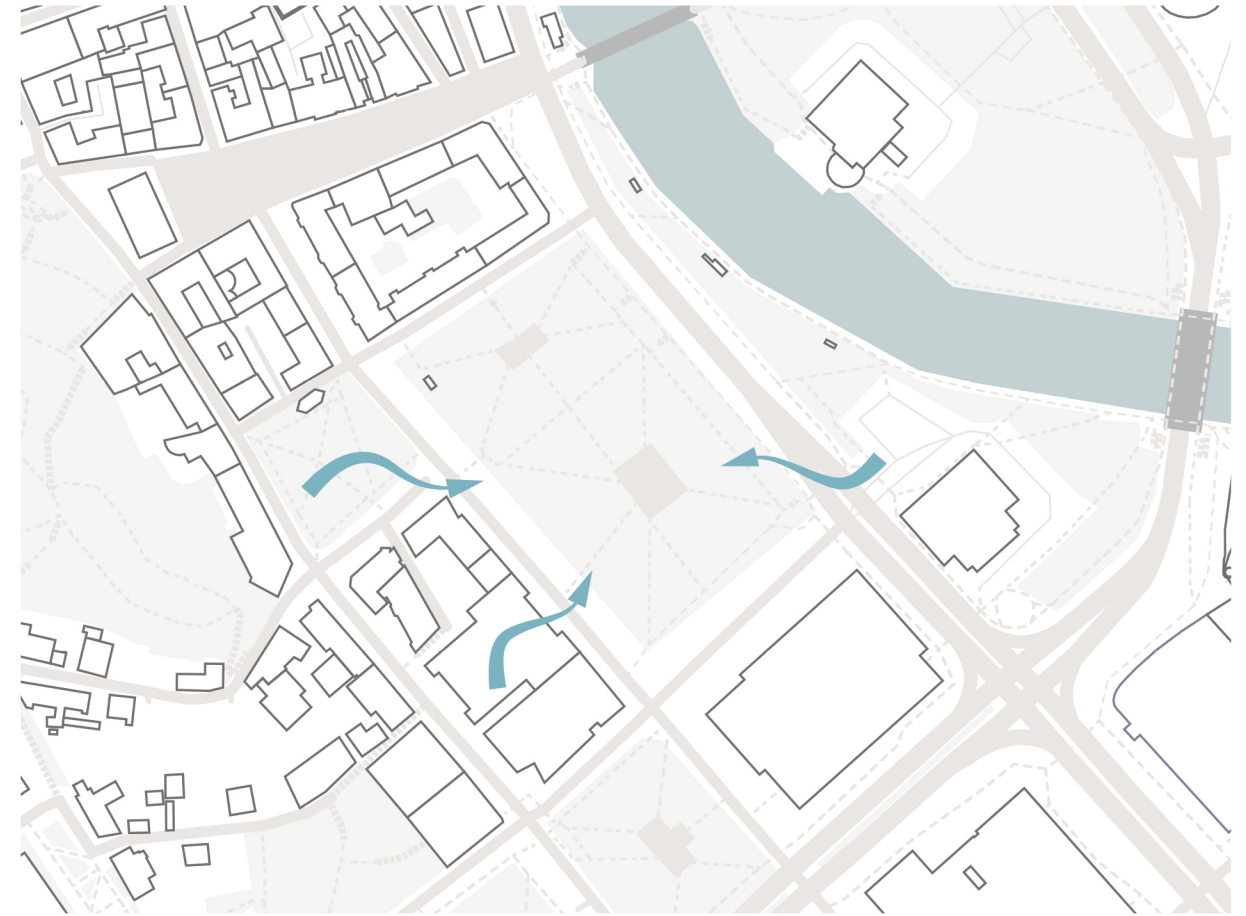
public transportation and car parking



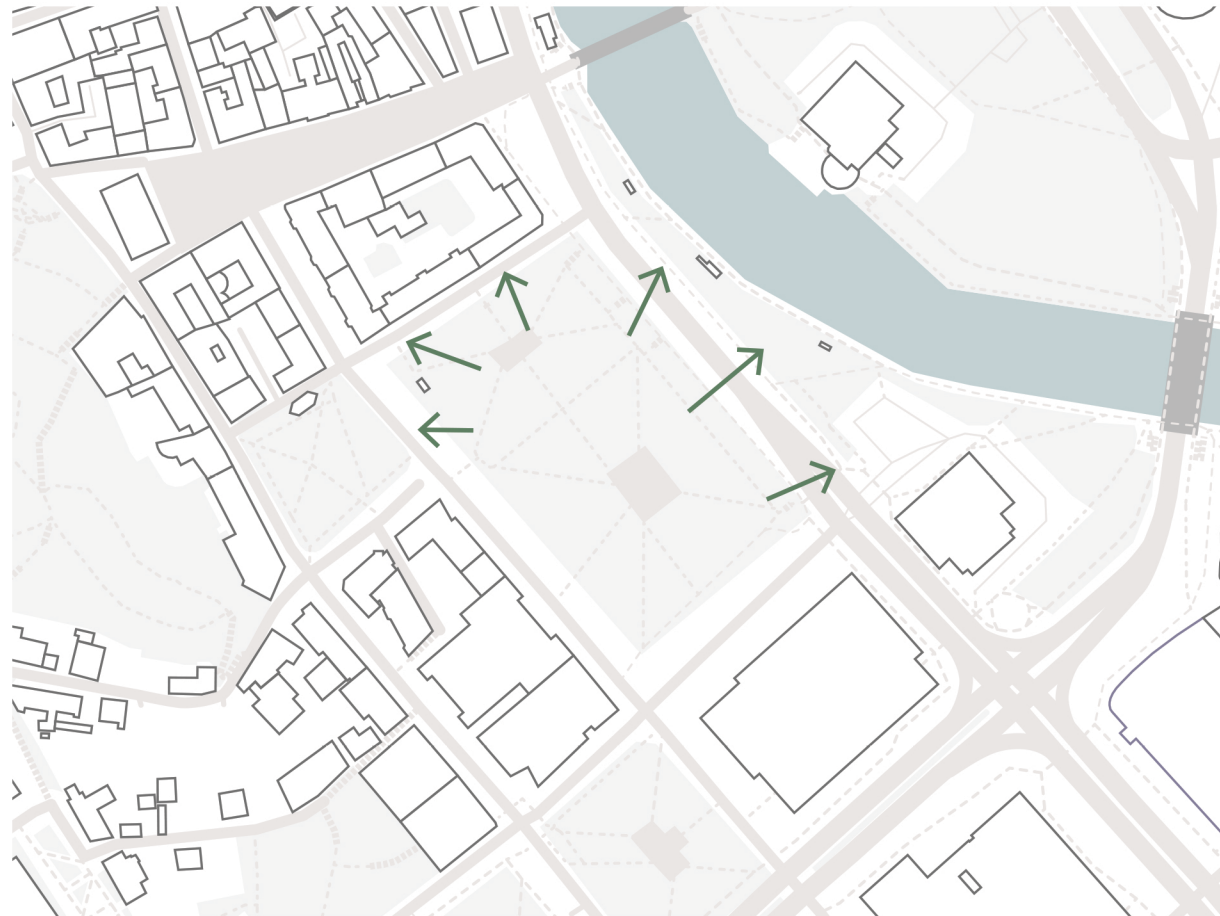
main directions to preserve



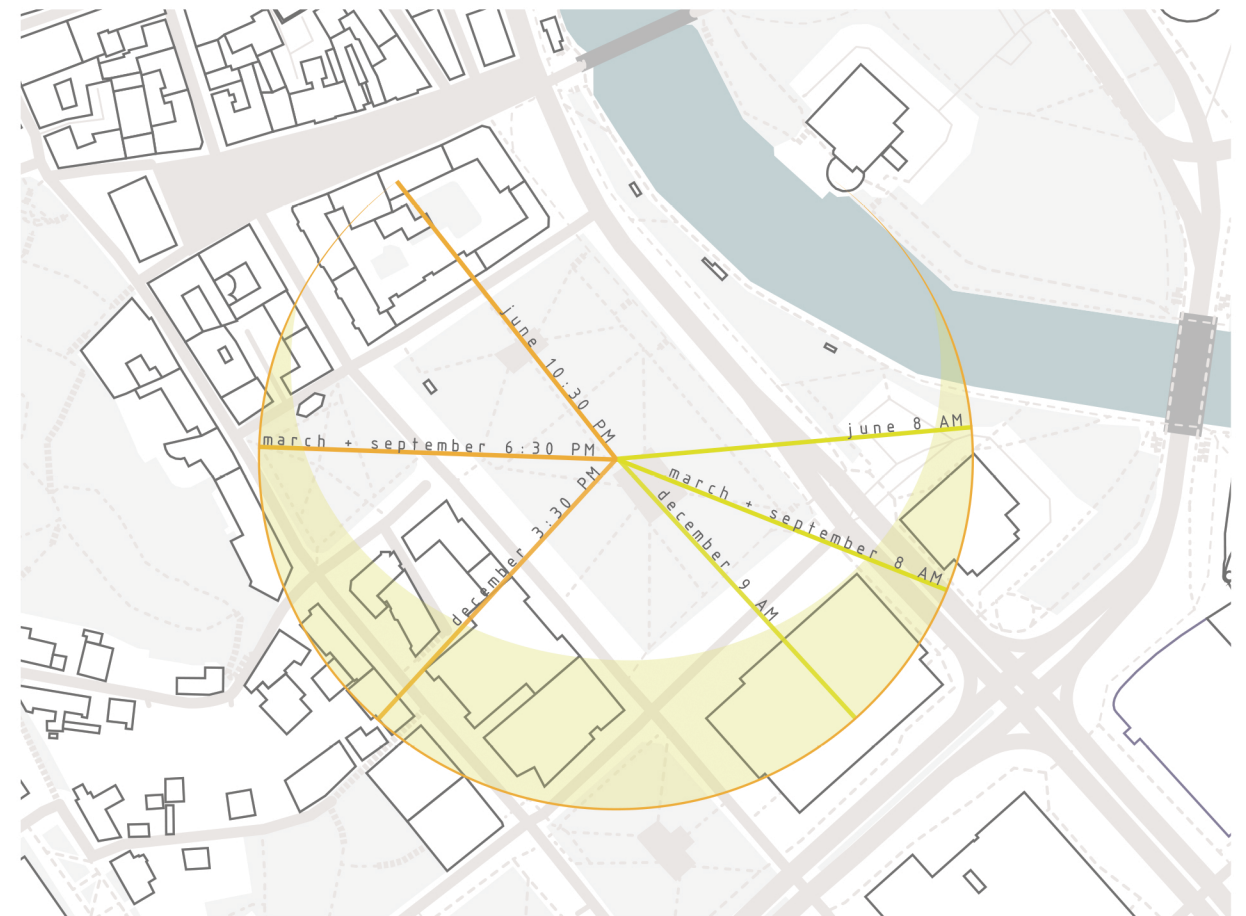
landscape and greenery



prevailing winds



best views on roof level



sun analysis

4.3 SITE PLAN

The plot is divided into 3 blocks and the project is planned to be conducted in 3 stages.

The dividers of the block are two new streets. A diagonal path is created to give an instant access from the other side of the river – connecting the plot with bridge Kaarsild. The street reaches the central spot where Kaubamaja and other shopping centers, and the most important crossing for pedestrians, are located. The new diagonal street becomes a plaza between two culture buildings.

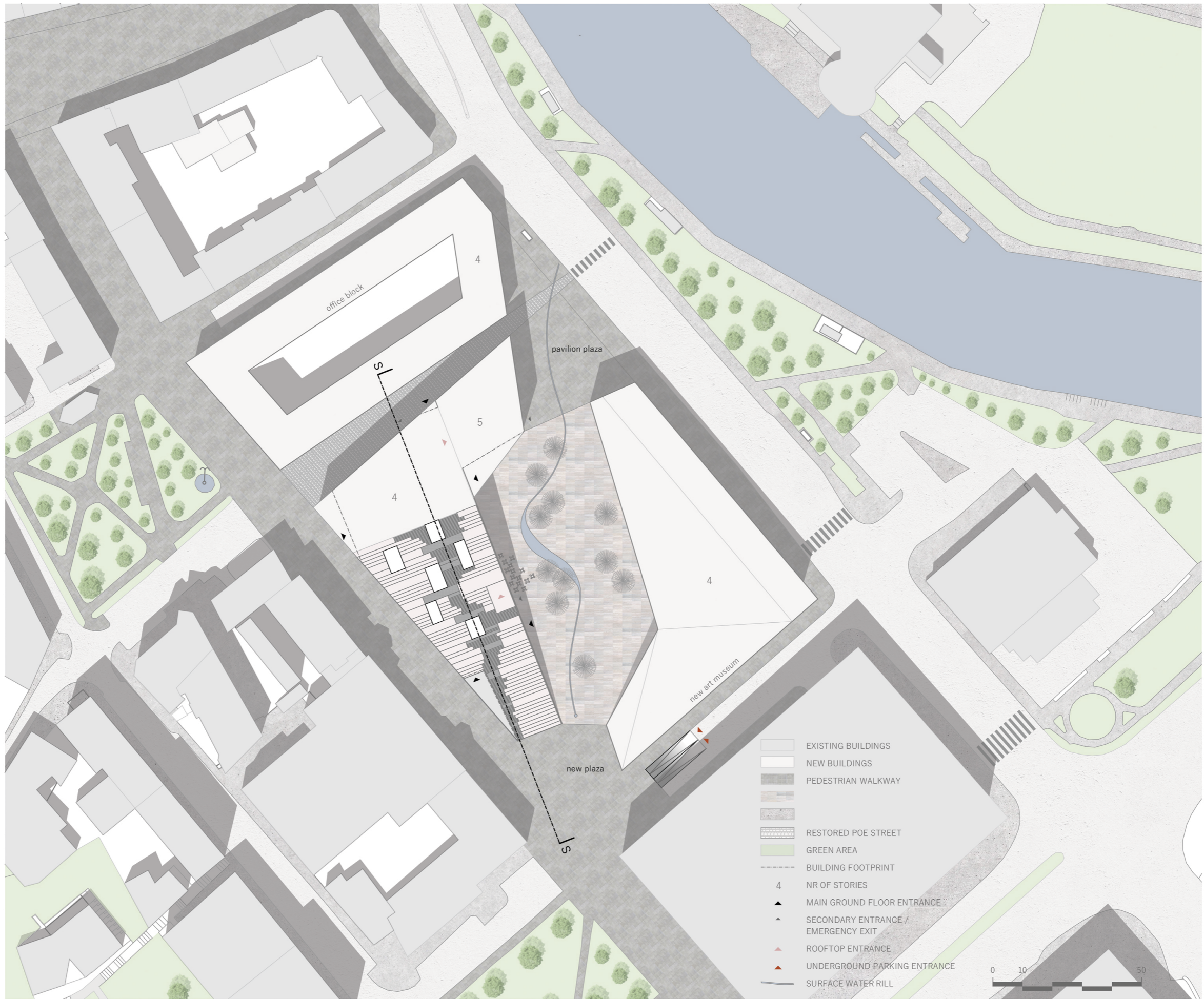
Stages:

1. New library, in first stage surrounded by the park
2. Contemporary art museum
3. Business block

On the two ends of the new street, new plazas are formed.

Both of them are in direct connection to the library building. The new plaza can be used for different events like music concerts. The pavilion plaza is a zone for experiments and architecture. Organized periodically by the library, citizens come together to create something communal – a new public pavilion for example every summer. It is one of the key ideas of the new public libraries to bring together the community and strengthen the connections between different groups of people.

Through the plaza meanders a low rill carrying surface water, first to a purification system underground and then to the river. The water feature also divides the plaza into smaller spaces and is a playful interactive component in the urban space.



SITE PLAN
1:1300

4.4 ROOM PROGRAM

The room program for the building was mainly built up by comparing two existing documents: the competition program made for Tartu city library and art museum building in 2003 and the competition program made for Helsinki city library in 2013.

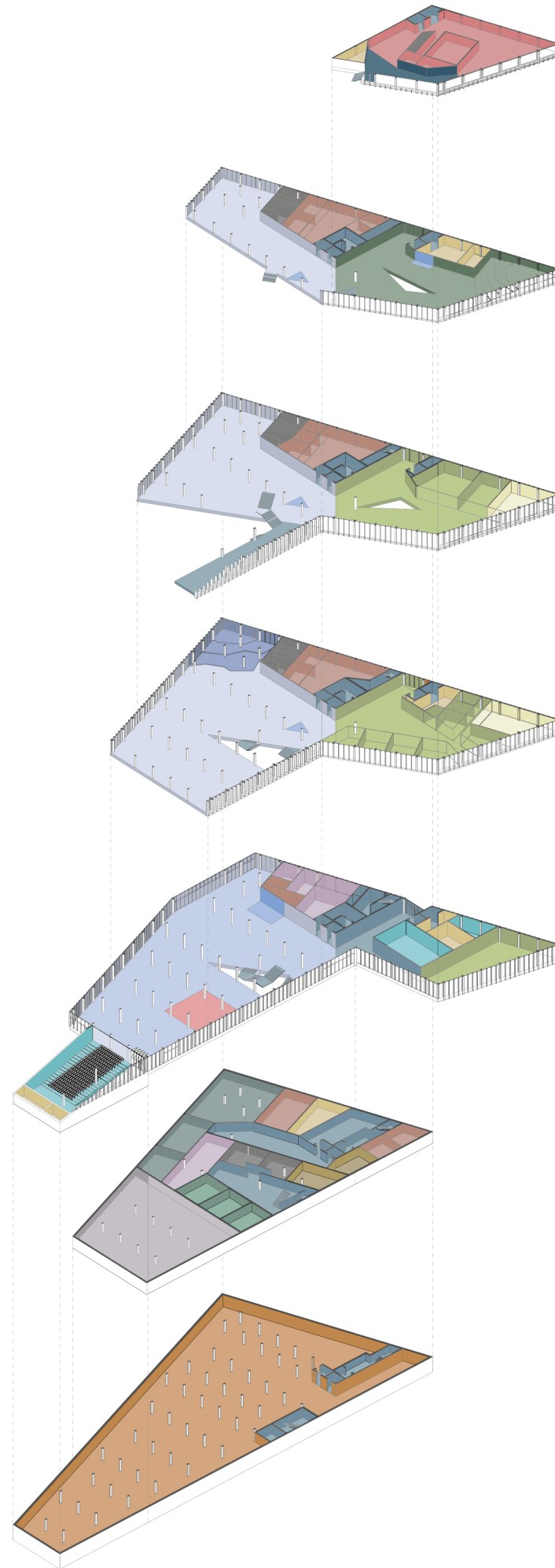
Since the program for Tartu was made almost 20 years ago, it was naturally already outdated and did not exactly fit the purpose of the new type of a library. Helsinki library program was chosen as a base to build up the Tartu program, as the outcome is one of the very successful examples of new libraries in the context of Europe, and the world.

Additionally, to fit the program to Tartu, Tartu city library director from 2001 to 2020, Asko Tamme, was consulted with specific questions concerning the collections size, tasks of the staff as it is now, etc.

The composed room program, including comparison between the two competition programs, is added in the appendix.

Altogether, the design of the building ended up needing more space than primarily planned in the room program. A parking floor was also added due to the lack of parking spaces in the city centre, which added 3770 extra square metres to the final program.

A functional scheme (exploded axonometric scheme) indicates the circulation and division of functions in the building.



- client service gallery
- studios
- event spaces
- cafe / restaurant
- workshops, makerspaces, group work, labs

- | | |
|--|---|
| <ul style="list-style-type: none"> reading rooms childrens library material handling collections storage collections + foyer permanent collections | <ul style="list-style-type: none"> cleaning facilities storage WC technical spaces staff + control rooms circulation parking + service |
|--|---|

4.5 ARCHITECTURAL CONCEPT

Exterior design

The essence of the exterior design is the sloping roof covered with steps and seatings which becomes an inhabitable public space. The roofscape alternates between steps that can be climbed and sat on, and openings covered with glass that are pierced inbetween to provide lightwells of natural light in the interior spaces. On top of each opening in the roof, there is a platform that has an inclined wall to reflect light inside, and that also distributes the big rooftop into smaller areas. The stepping roof leads visitors up to the rooftop where it is possible to enjoy the view to the river and the Old town, sunset, coffee or a meal in the restaurant, or stay there with a book and enjoy an outside read, or just spend the lunch break from workplace. The rooftop enables free access to anyone and is not restricted to library visitors only. That creates a new kind of an urban space that is currently not so common in Tartu. There are other public spaces, but almost none that provide a great view to the city, especially from the very center where many people like to spend time anyway. An extra value is added to the steps by keeping an empty piece of land in front of it and designing it to suit as a stage for different events. The steps form a venue from which it is possible to enjoy concerts, shows or film screenings.



Connection to the surrounding urban context

One of the less successful design solutions in Oodi library example is the placement of entrances. The main entrance is used less than the "side entrance" because the main flow of people comes from the side direction of the building, not from the front. To challenge the "main entrance" idea and propose that perhaps it can even be outdated I have decided to propose multiple access points that don't necessarily carry different ranks of importance.

The design of the building questions if a public building that intends to be as visible, transparent and easily accessible and permeable as possible, needs to necessarily have a main entrance. There are five different entrances that provide access to the building from each direction and make it easily accessible from every surrounding street. The entrances are designed so that it is also convenient to use the building just to pass through it, which enforces the flaneur concept where a person that is susceptible to new information or findings, can always stumble upon something interesting. One of the entrances on the main pedestrian street (Küüni street) is highlighted by digital screens offering information and inviting people in from the street. That entrance is also closest to the steps leading to the roof and also to the plaza in front of the steps.

The building design has hints that respond to the heritage of classical architecture in Tartu but doesn't try to imitate or compete with them. There is the vertical partition that is visually distinctive, in form of slender columns that also function as structural lamellas that help regulate the sunlight.

As one of the subordinate aims is to create a landmark building for Tartu that can possibly help boost the city's

economy, the design needs to be somewhat special and stand out. At the same time, the design aims for the building to be easily readable and provide comfortable use.



Interiors

The interior consists of a continuous open air space under the sloping roof. There is the closed service block mainly reserved for the staff and circulation of books. Some closed spaces are also located in the diamond shaped 5-story block closest to the river. The space under the rooftop consists of 4 floors and two underground floors, the lowest one reserved for parking.

The concept of the ground floor started with an idea of a “book bar” introduced in the Helsinki library competition. The idea of the book bar is to create a system where returned books in the self-return automat are not always taken through the process of taking them to the material handling facilities, sorting them and then taking them to the bookshelves but are put straight back into circulation. In this way, the users have a more immediate access to the books irrespective of their “owner”, the library. Unnecessary transportation is avoided simultaneously. In the Helsinki program, 20 square metres are reserved for the book bar.

The idea for the Tartu building is to extend this concept and treat the whole floor as a huge book bar. The reason for that is to create a serendipity-inducing environment that supports the flaneur mindset. The returned books are not necessarily categorized in a specific order on the first floor. They are placed on the expo table type of stands scattered around the whole floor and can be borrowed, or read inside the library, from there. That creates an environment where material is changing all the time and something new can always be found, even if you only ever visit the ground floor. The book loaning is not that controlled and in my opinion, these kinds of systems also create more trust and responsibility in the society. Additionally, librarians arrange corners with different topics every month, introducing a

specific theme and organizing readings, conferences and other programs periodically. In between these areas are comfortable seatings of different kind that can be used to enjoy the library environment.

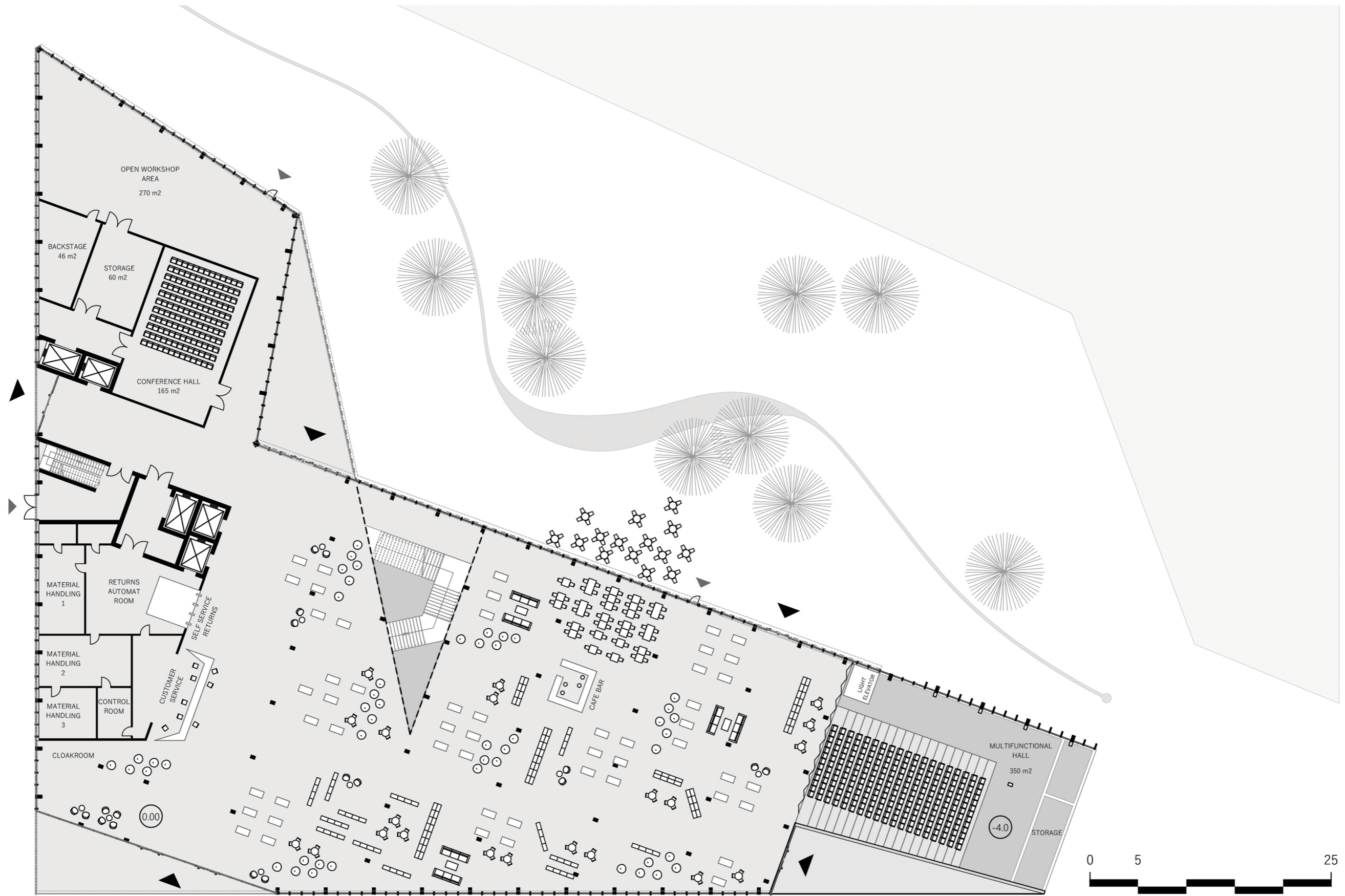
In the middle of the ground floor is the café that also extends to the exterior – the new plaza between the library and museum building. On the basement level, but accessed from the ground floor, is the multifunctional hall that can be used as an extension of the main space or separately, closing it with a folding door. On the other end of the floor, there is the smaller conference hall that is in close vicinity to the back stage area and the storage for the halls. On the very end of the “diamond” is a big workshop area that is in connection to the pavilion plaza and can be used for planning and building. The activities going on inside create interest in people and invite more users in the library.

Permanent collections are kept on the first, second and third floor. On these floors, in the higher block, are also the library’s new functions – the makerspaces, different labs and classrooms, as well as a communal kitchen and the personal workspace area on the third floor.

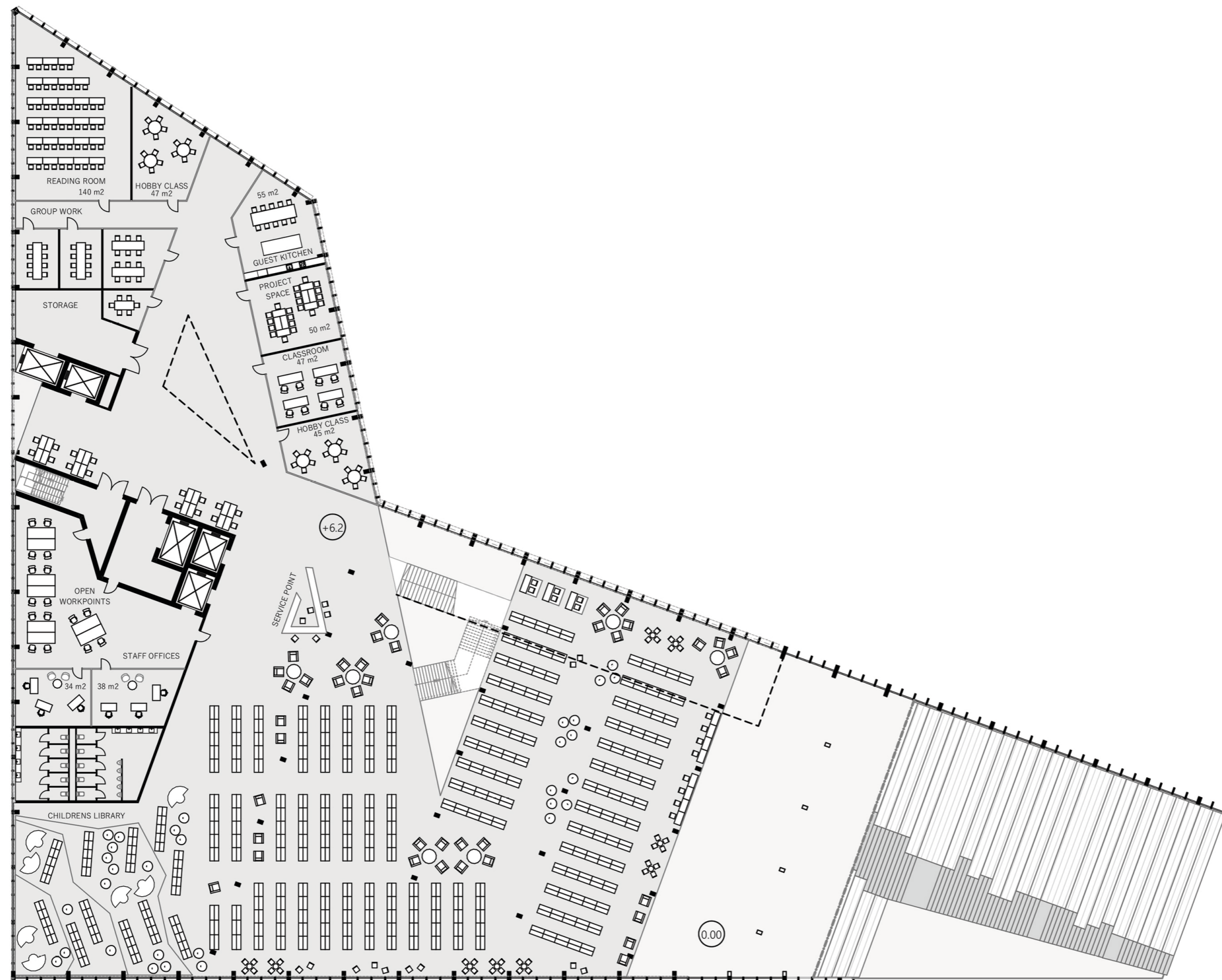
The children’s library is located on the first floor.

On the highest floor, there is the restaurant with a view to the river and Old town. Partly, the area is reserved for gallery space. The new functions that don’t need daylight are located on the basement floor. There are the TV, radio and music studios that can all be used free of charge. The area is accessed through the main staircase and is also in visual connection with the ground floor. The library collection storage is also on the basement level, as well as the technical spaces and cleaning facilities.

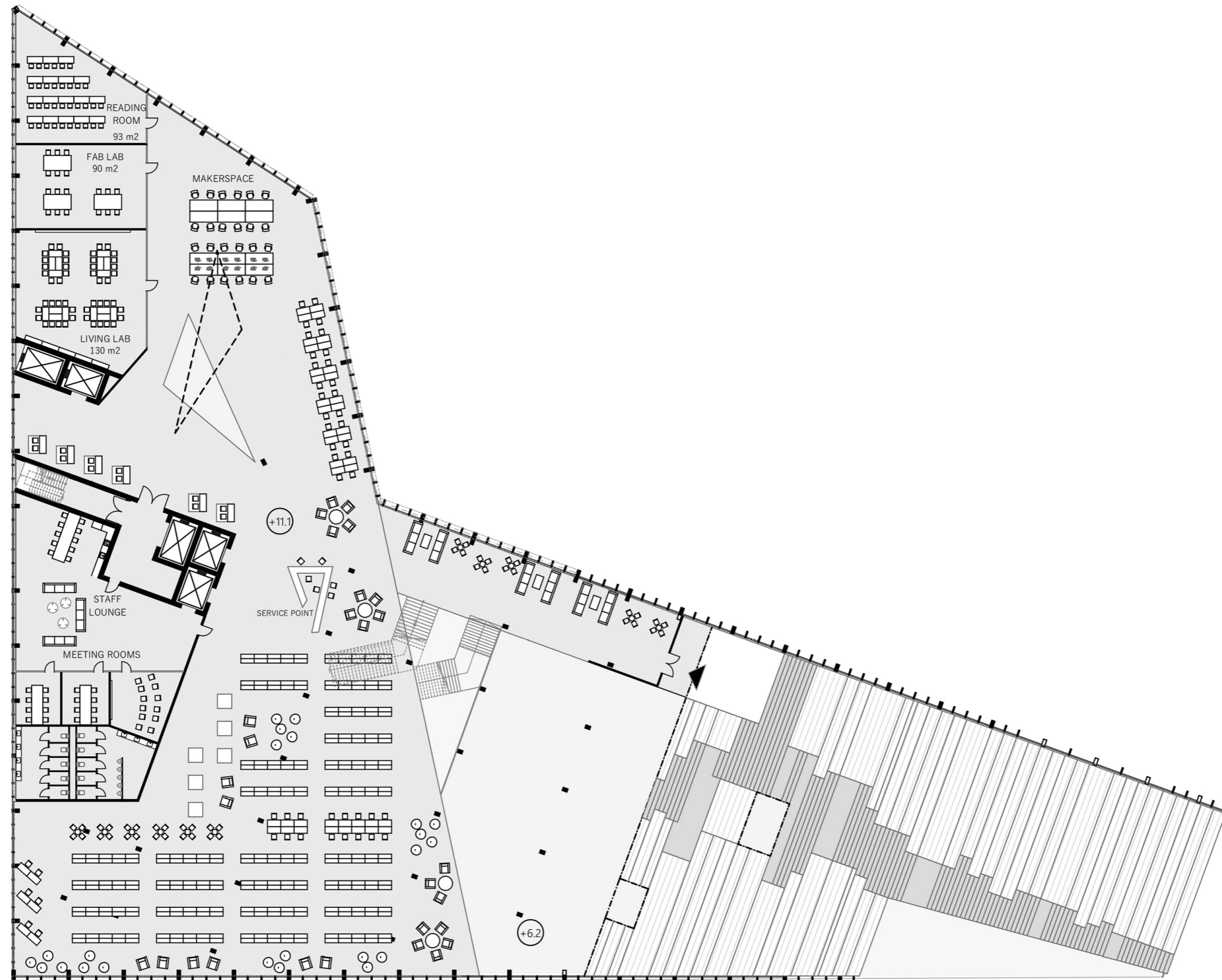




GROUND FLOOR PLAN
1:400



FIRST FLOOR PLAN
1:400



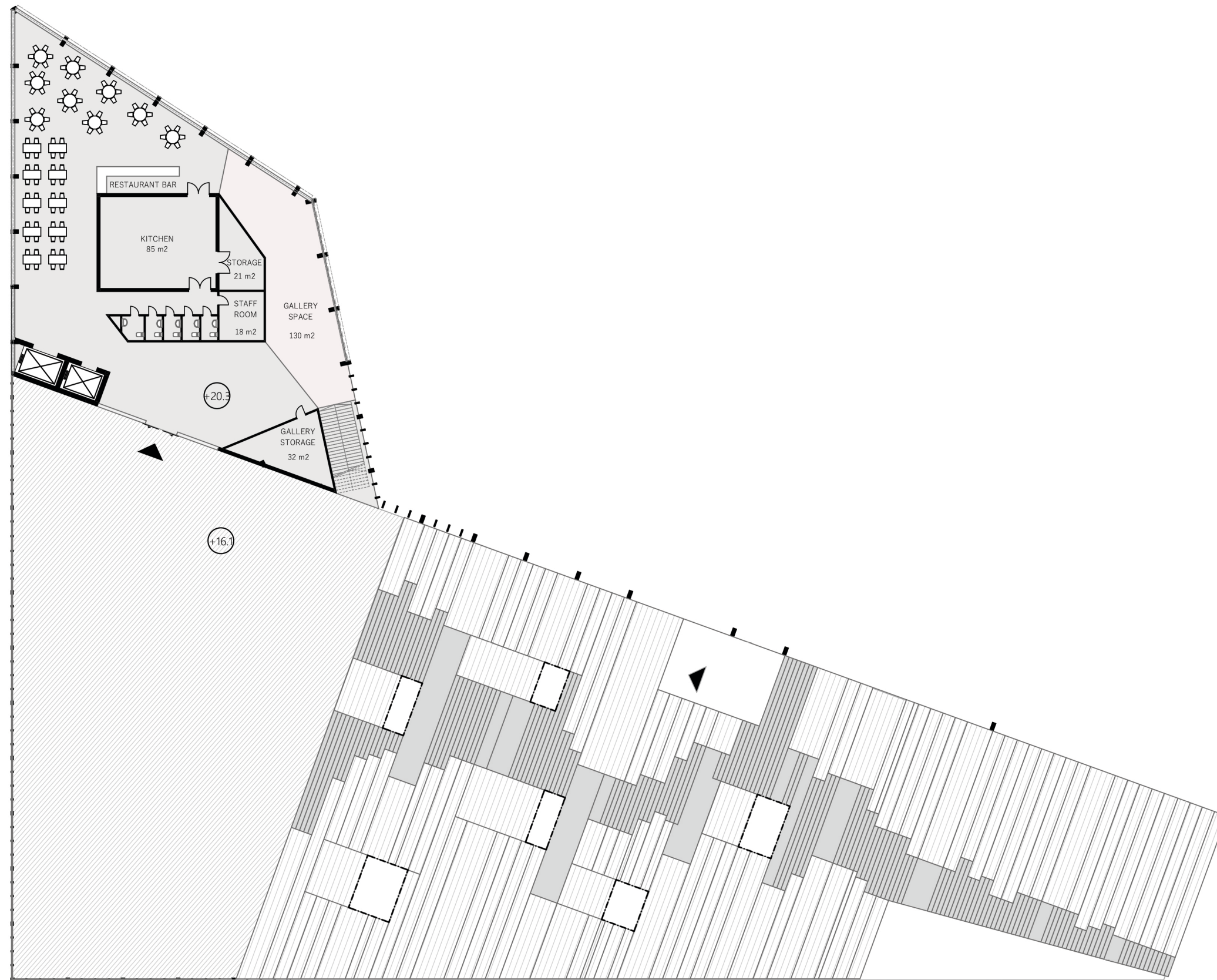
SECOND FLOOR PLAN

1:400



THIRD FLOOR PLAN

1:400



FOURTH FLOOR PLAN

1:400



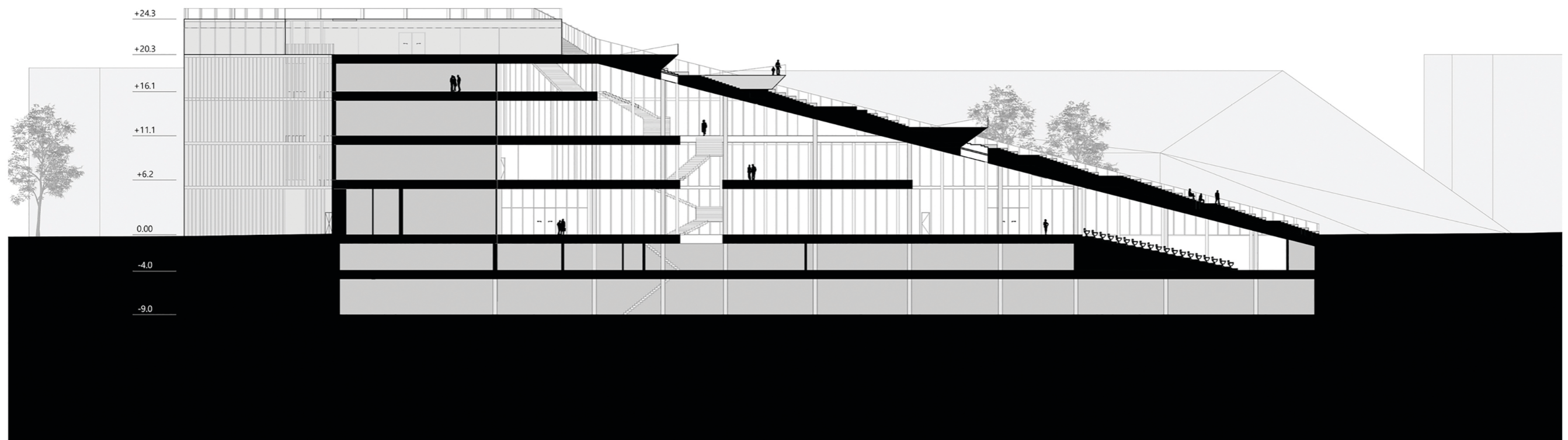
LEVEL - 1 FLOORPLAN
1:400

4.6 ARCHITECTURE

The building is a composition of the wedge-shaped volume with the inclined roof that reaches a rooftop 20.3 metres from the ground and a one-storey taller volume that reaches over the roofscape. The total height of the building is 24.3 metres above ground, and 9 metres underground. The south-west face on K  uni street measures 104 metres, and the face perpendicular to it, on Poe street, measures 87 metres.

The main building material used for the constructions is reinforced concrete. The concrete columns and slabs are complemented by warm wooden parquet flooring on first to fifth floor and acoustic ceilings made out of wooden slats. On the ground level, the floors are covered with large ceramic or porcelain tiles, which could possibly be a continuation of the surface materials used outside. Inside the building, various comfortable and vibrant textiles are used for the furniture to complement the neutral colours of the building materials. Technical systems are placed in the suspended ceilings under the slabs.

The facades are shaped by frames that connect to the column system inside. Additionally, lamellas are used to help control solar heating. On the ground level, wooden frames and lamellas are used. On the higher levels, frames and slightly deeper lamellas are made up of a material with a different texture, which could be glassfibre reinforced concrete or ceramic cladding. Solar control glass is used for a better interior climate. For the steps on the roof, stone effect non slip ceramic tiles are used. The seating on the roof is covered with wood fiber polymer composite to offer a comfortable solution which is also weatherproof.







EXTERIOR SURFACES



timber facade frame and fins
for sunshade on ground floor



glassfibre reinforced concrete
or ceramic cladding facade fins



solar control coated glass
for facades



wood fiber polymer composite
material for seating
on the inclined roof

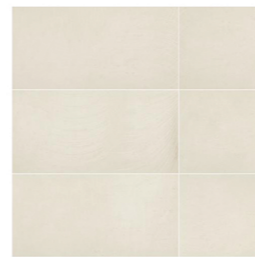


stone effect non slip ceramic
tiles for the stairs on roof

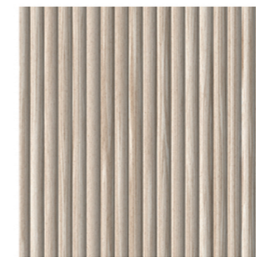
INTERIOR SURFACES



wooden parquet flooring



large ceramic / porcelain tiles
on ground floor



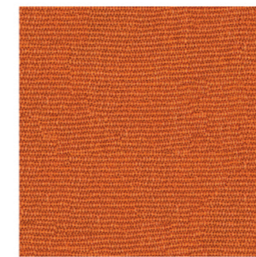
acoustic timber ceiling slats



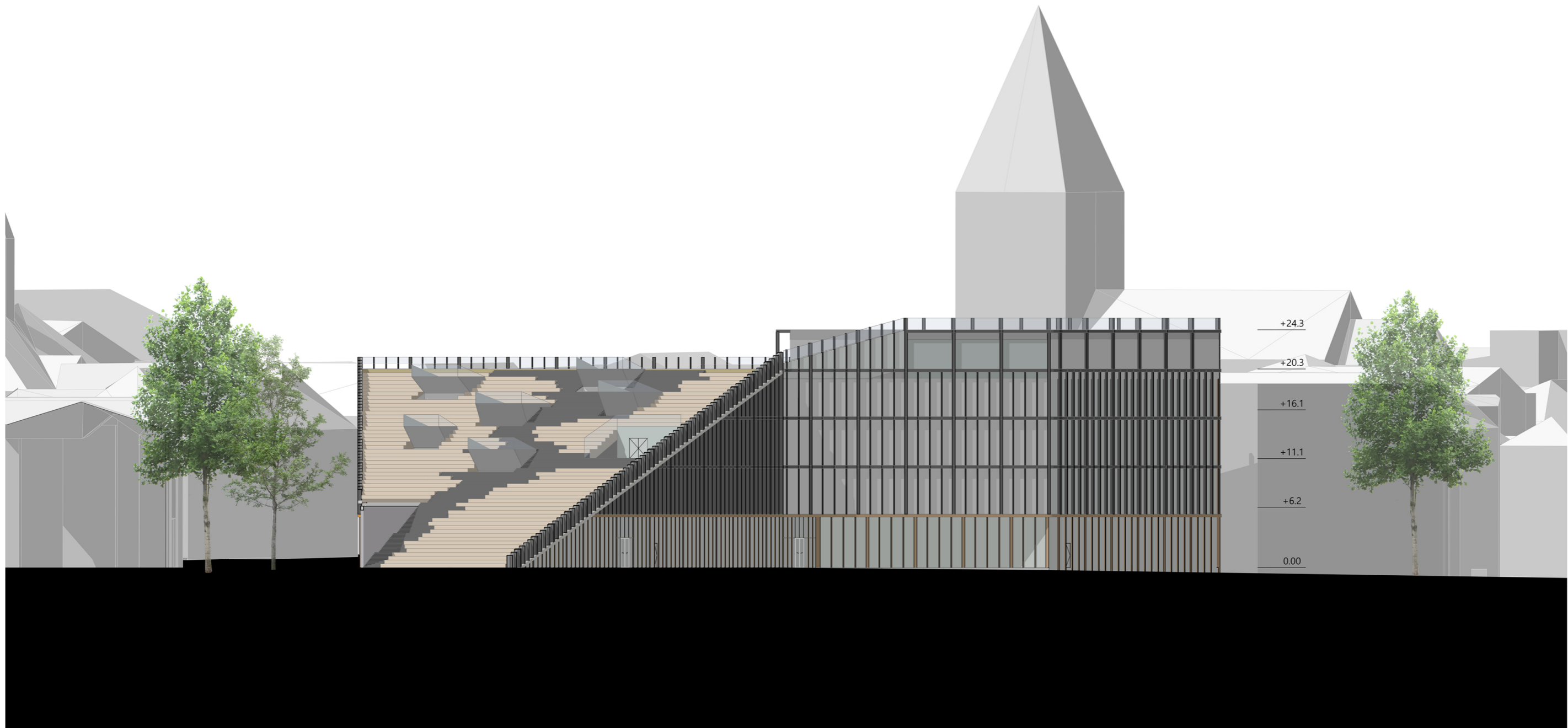
concrete columns

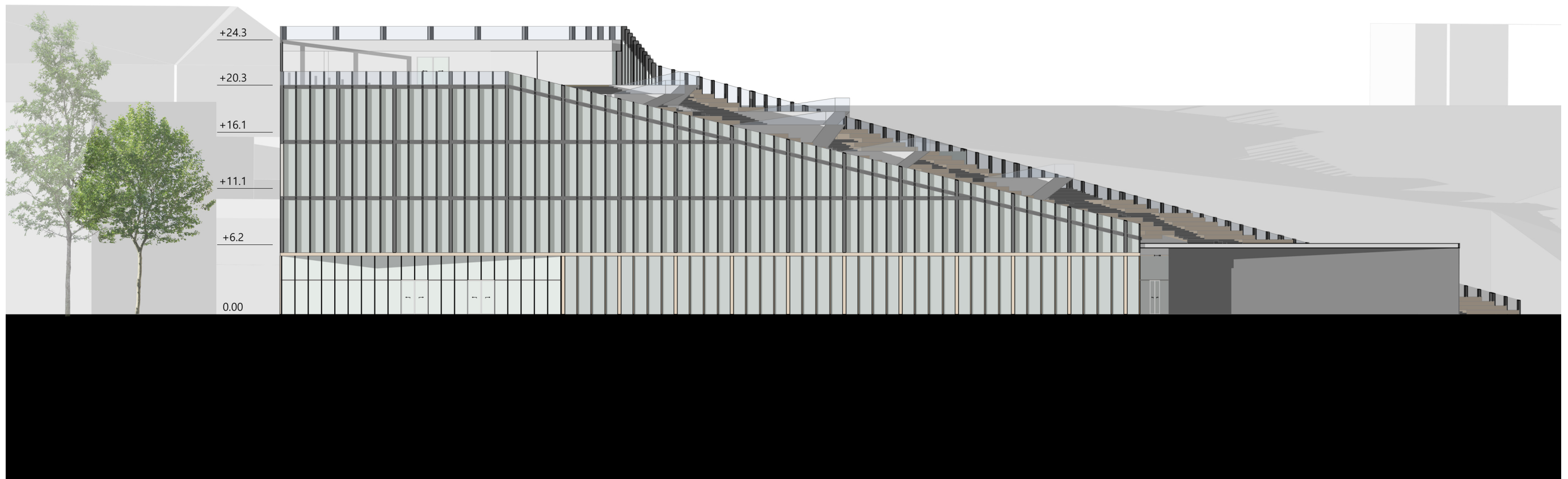


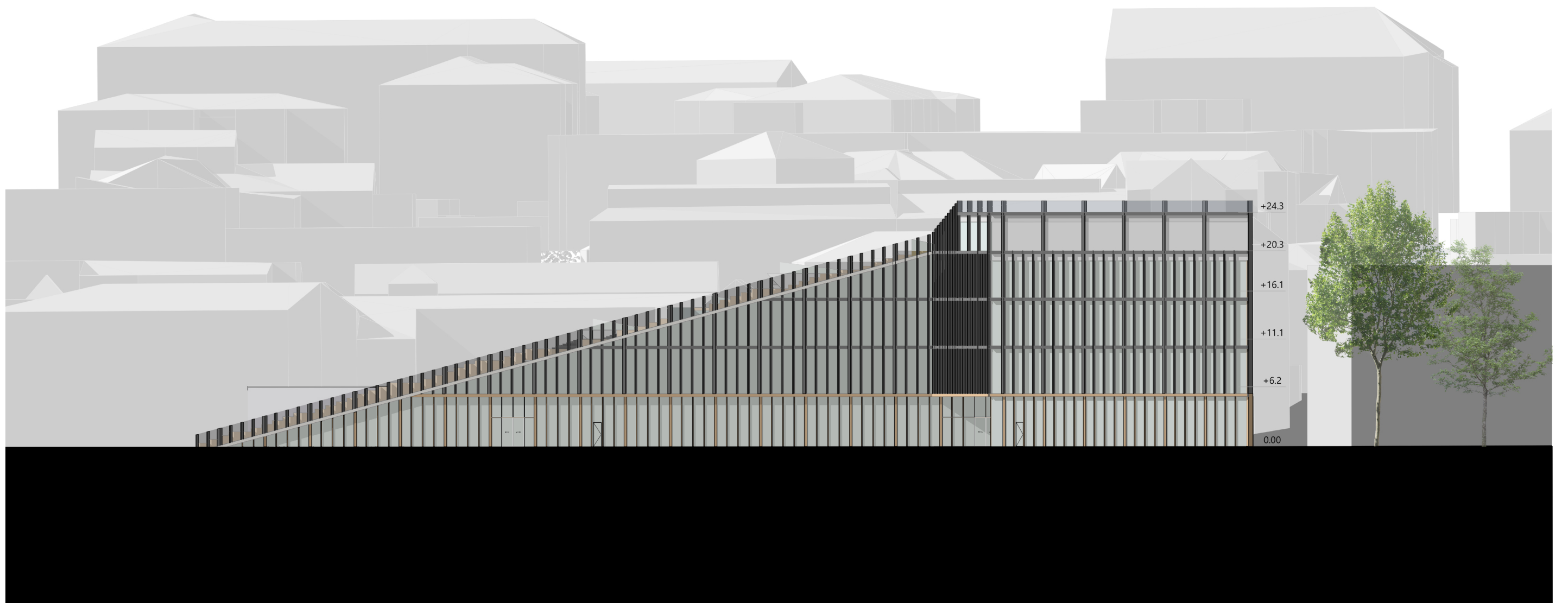
comfortable textile furniture

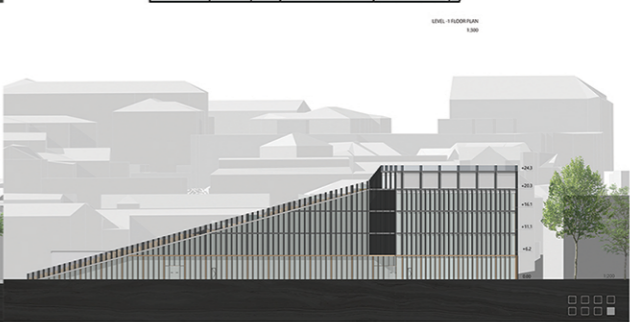
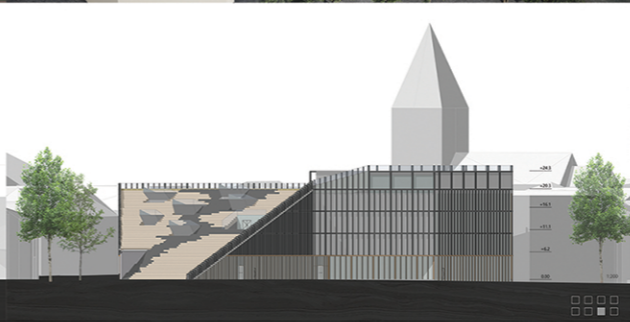
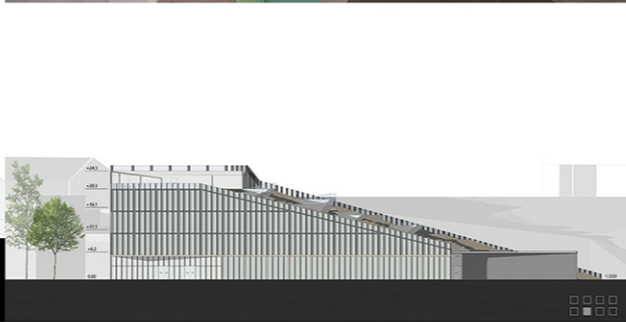
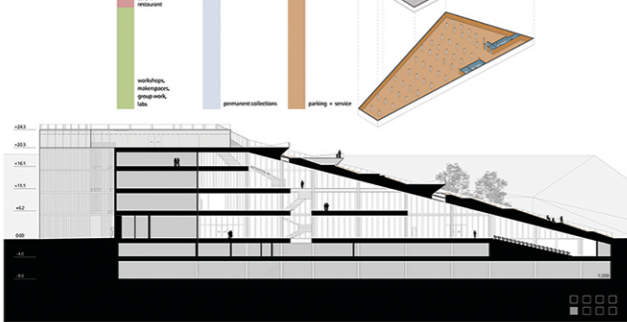
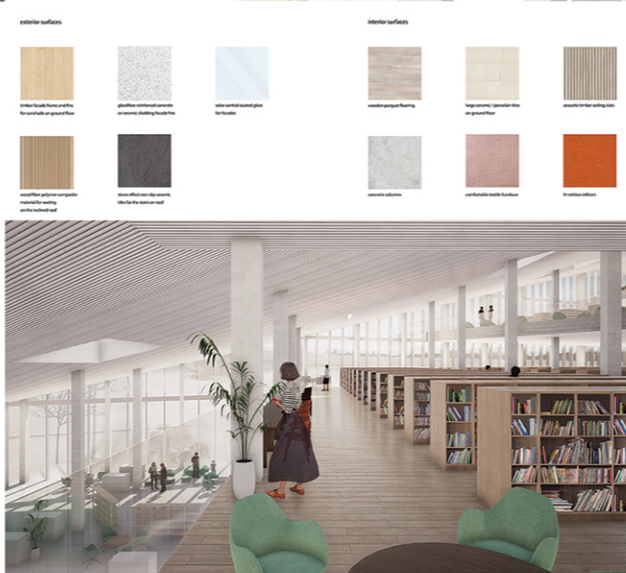
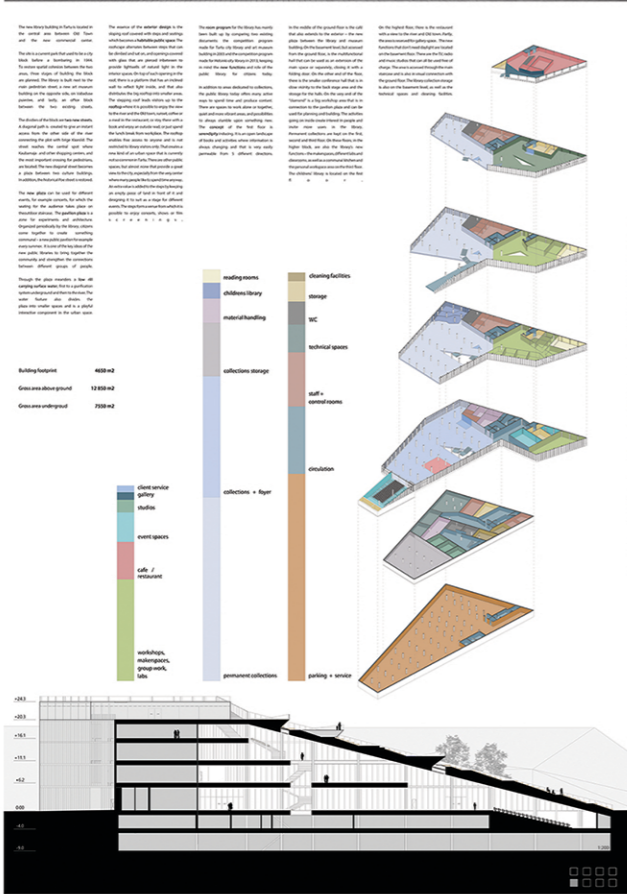
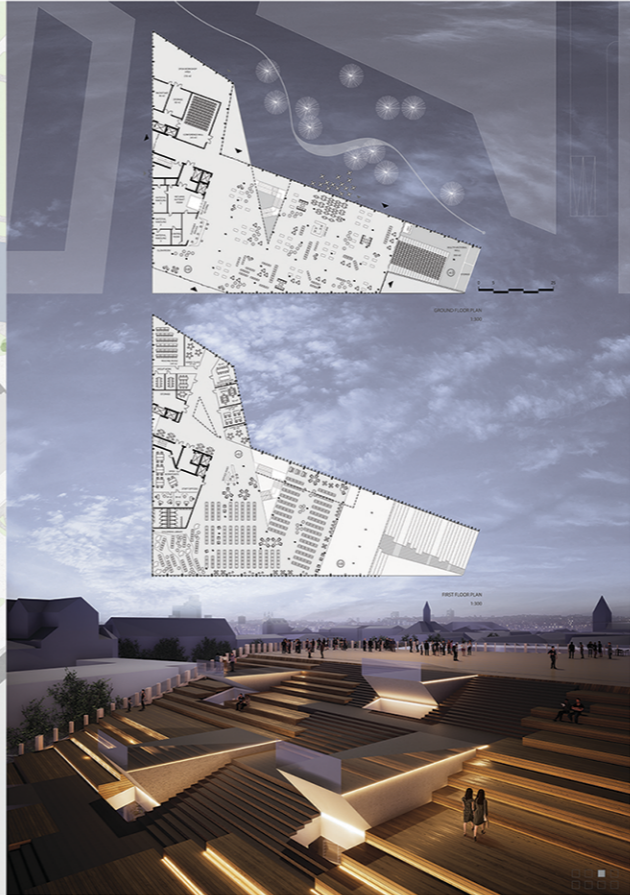


in various colours









APPENDIX

ROOM PROGRAM

	Helsinki competition		Tartu competition		Tartu new building	
	m2	pc (rooms)	m2	pc (rooms)	m2	pc (rooms)
Main lobby & public service spaces	980		200		650	
foyer/lobby + cloakroom	160		100 + 100		150	
public toilets (through the building)	250		not specified		250	
meeting & lounge area	440		not specified		200	
stage	30		x		x	
pop-up info spots (space reservation)	100		not specified		50	
Public services	170		285		225	
reception, info + control room	40		10		20	
client service point + separate work space	40		10		20	
self-service returns automat	not specified		30		30	
reservations pick-up area	50				x	
client photocopying & print out area	20		5	1	15	
book bar	20		x		20	
fresh newspapers and magazines	x		150	25	40	1
Tartu information	x		10	1	10	
loaning automats			20		20	
loaning and returning desk			50	4	50	
External service providers	600		500		600	
cafeteria (incl. kitchen)	200	2	200	1	200	
restaurant (incl. kitchen)	300				300	
shop / commercial services	100		300 *		100	

* together with the museum shop

	Helsinki competition		Tartu competition		Tartu new building	
	m2	pc (rooms)	m2	pc (rooms)	m2	pc (rooms)
Collections area & spaces linked to it	2960		4 660		5190	
collections, pc = volumes	1600	100 000	4 000	492 000	3600	300 000
lounges, "oases"	500	9 to 12			500	
interactive spaces	240	4			100	3
lounges for listening music etc	x				50	
fixed client-service point	140				200	
library collections storage	200		500	100 000	500	100 000
bindery	x		20		20	
library material handling	200		130	20	130	
storage for handling materials	x		10		10	
returns automat room	80				80	
Childrens' world	600		200		250	
	600		200 *	4 separ. areas	200 to 300	
Working spaces	1150		490		850	
separated work spaces for 1 or 2 persons	150	15 to 19	150	32	150	20 to 25
quiet areas	300	3 to 6	190	not specified	200	2 to 4
digital-physical workshop, "fab lab"	100		x		100	
living lab	200		x		100	
group work, meetings, teaching, kitchen	400	10 to 14	150	4	300	
Personal office area (for clients)	400		620		400	
client service point + laptop lending point	30				30	
photocopying, print-out, scanning point	20				20	
personal office area with computers	350	50	330	89	350	120 total
regular works points		70	290	96		

	Helsinki competition		Tartu competition		Tartu new building	
	m2	pc (rooms)	m2	pc (rooms)	m2	pc (rooms)
Studios	390		0		160	
music, recording, video studio	100		x		60	
TV and radio studio	60		x		50	
Listening, viewing and games room	230		x		50	
Events spaces	1370	in Oodi	550		860	
cinema	490	250			x	
multipurpose hall (conferences etc)	350	240	400		300	
back stage	40	40			40	
small hall (meetings, lectures)			100		200	
furniture storage	150				100	
exhibition spaces	180	2	in the cafe	2 ?	130	
library's exhibitions area	120		50		50	
storage space for galleries	40				40	
Staff	430		1025		715	
pigeon holes + staff storage cart	35					
meeting rooms (3 x 12-20 m2 ja 1 x 45 m2)	90	4			60	3
offices (1, 4, 6 people)	40	4			285	6
open workpoints for 15 (25) persons	120				120	1
quiet space	15	2				
staff lounge	50		100		100	
changing and washrooms	50		200		150	
WCs	30					
administration			200		x	
main specialists			200		x	
librarians			200		x	
public services staff			125		x	

	Helsinki competition		Tartu competition		Tartu new building	
	m2	pc	m2	pc	m2	pc
Service spaces	710		270		660	
IT and other equipment areas	60				60	
building mgmt monitoring and server room	50				50	
cleaning facilities	80				80	
refuse store	60				60	
building maintenance store	40				40	
service and loading area	400		250		350	
distribution substation	20				20	
civil defence shelter			x		x	
elevator 2,5 x 4 m			20	1	20	
TOTAL						
Net floor area	10 000		8 800		10 360	m2
Additional space needs (approximate):						
technical spaces - 7 to 10%	1000		300		1036	
connections (stairs, paths, lifts) - 12%	1200				1243	
walls - 10%	1000				1036	
Gross floor area	13 200				13 675	m2

REFERENCES

- A Library for All Times: Malmö's new public library as vision and reality.* (1997). Stockholm: Swedish National Council for Cultural Affairs.
- ArchDaily. (2009, February 10). *Seattle Central Library / OMA + LMN*. Retrieved July 10, 2020, from ArchDaily: <https://www.archdaily.com/11651/seattle-central-library-oma-lmn>
- Art from the Streets.* (2019, November 28). *The Types of Homelessness*. Retrieved June 17, 2020, from *Art from the Streets*: <https://artfromthestreets.org/blogs/news/the-types-of-homelessness>
- Barclay, D. A. (2017, June 16). *Space and the Social Worth of Public Libraries*. *Public Library Quarterly*, 36(4), 267-273. doi:<https://doi.org/10.1080/01616846.2017.1327767>
- Berndtson, M. (2012, June 1). "What and why libraries?": looking at what libraries might look like and why we still need them now and into the future. *Library Hi Tech News*. Retrieved June 10, 2020, from <https://www.emerald.com/insight/content/doi/10.1108/07419051211249464/full/html>
- Berndtson, M. (2013, May 30). *Public libraries and placemaking*. Retrieved July 20, 2020
- Berndtson, M. (2020). (M.-L. Kaul, Interviewer)
- Berndtson, M., & Öström, M. (2019, July 15). *Library Ranking Europe: A New Tool*. *Public Library Quarterly*, 39(4), 310-319. doi:10.1080/01616846.2019.1641353
- Berndtson, M., & Öström, M. (2019, July 15). *Library Ranking Europe: A New Tool*. *Public Library Quarterly*. Retrieved March 24, 2020, from <https://www.tandfonline.com/doi/full/10.1080/01616846.2019.1641353?scroll=top&needAccess=true>
- Berndtson, M., & Öström, M. (n.d.). *Library Ranking Europe*. Retrieved March 24, 2020, from <http://libraryranking.com/>
- Björneborn, L. (2008). *Serendipity dimensions and users' information behaviour in the physical library interface*. *Information Research*, 13(1). Retrieved May 10, 2020, from Available at <http://InformationR.net/ir/13-4/paper370.html>
- Björneborn, L. (2017, October). *Three key affordances for serendipity: Toward a framework connecting environmental and personal factors in serendipitous encounters*. *Journal of Documentation*, 73(3). doi:10.1108/JD-07-2016-0097
- Buchanan, R. (2004, May 17). *Avant-garde architect reinvents Seattle's new library*. *The Seattle Times*. Retrieved July 10, 2020, from <https://archive.seattletimes.com/archive/?date=20040517&slug=rem17>
- Erickson, E. (2020, June 26). *Personal letter*.
- Estonian Ministry of Education and Research. (2014). *The Estonian Lifelong Learning Strategy 2020*. Tallinn. Retrieved July 10, 2020
- Haavisto, T. (2017). *A Dream Come True of Citizens – the New Helsinki Central Library*. Helsinki: IFLA WLIC 2017 Wrocław. Retrieved July 1, 2020
- Haider, S., & Foskett, J. (2017, May 12). *Library*. (i. Encyclopædia Britannica, Producer) Retrieved May 20, 2020, from *Encyclopædia Britannica*: <https://www.britannica.com/topic/library>
- Halvorsen, B. (2016). *Design for serendipity: a Research through Design approach*. Oslo: University of Oslo.
- Hille, R. T. (2019). *The New Public Library. Design Innovation for the Twenty-First Century*. New York: Routledge.
- Holt-Lunstad, J., Smith, T. B., & Layton, J. B. (2010, July 27). *Social Relationships and Mortality Risk: A Meta-analytic Review*. *PLOS Medicine*, 7(7). doi:<https://doi.org/10.1371/journal.pmed.1000316>
- Howard, J. (2019). *The Complicated Role of the Modern Public Library*. *Humanities*. Retrieved June 20, 2020, from <https://www.neh.gov/article/complicated-role-modern-public-library>
- IFLA. (2003). *The background text to the Guidelines for Children's Libraries Services*. Retrieved June 28, 2020, from https://www.ifla.org/files/assets/libraries-for-children-and-ya/publications/guidelines-for-childrens-libraries-services_background-en.pdf
- International Federation of Library Associations (IFLA) *Library Map of the World*. (n.d.). Retrieved March 24, 2020, from <https://librarymap.ifla.org/map/Metric/Number-of-libraries/LibraryType/National-Libraries,Academic-Libraries,Public-Libraries,Community-Libraries,School-Libraries,Other-Libraries/Country/Estonia/Weight/Totals-by-Country>
- Jacobson, L., & Cottrell, M. (2017, November 1). *Everyone's Problem: Libraries Confront the Opioid Crisis*. *School Library Journal*. Retrieved June 10, 2020, from <https://www.slj.com/?detailStory=everyones-problem-libraries-confront-opioid-crisis>

- Kantar Emor. (2018). *Muuseumide ja raamatukogude külastajate ja mittekülastajate uuring*. Retrieved July 20, 2020
- Khan, A. (2018, March 21). *DCMS Libraries Blog*. Retrieved June 26, 2020, from GOV.UK: <https://dcmslibraries.blog.gov.uk/2018/03/21/libraries-tackle-loneliness/>
- Klinenberg, E. (2018). *Palaces for the People: How social infrastructure can help fight inequality, polarization, and the decline of civic life*. New York: Crown.
- Kultuuriministeerium. (2020, July 9). *Raamatukogud*. (Ü. Talihärm, Editor) Retrieved July 20, 2020, from Kultuuriministeerium: <https://www.kul.ee/et/eesmargid-tegevused/raamatukogud>
- Library Research Service. (2020, February 5). *Loneliness Reaches Epidemic Levels. Are Libraries the Cure?* Retrieved June 26, 2020, from Library Research Service: <https://www.lrs.org/2020/02/05/loneliness-reaches-epidemic-levels-are-public-libraries-the-cure/#:~:text=Research%20published%20in%20the%20Journal,homeless%20individuals%20to%20new%20parents.&text=Additionally%2C%20libraries%20decrease%20social%20isolatio>
- McCarthy, N. (2018, April 23). *Where Europeans Read The Most And Least*. Retrieved June 29, 2020, from Statista: <https://www.statista.com/chart/13608/where-europeans-read-the-most-and-least/>
- McCarthy, N. (2020, February 14). *Here's how age and region affects working from home in Europe*. Retrieved June 29, 2020, from World Economic Forum: <https://www.weforum.org/agenda/2020/02/europeans-work-home-careers/>
- Miettinen, V. (2011, September 22). *Fresh ideas from the Library of my dreams campaign*. Retrieved January 20, 2020, from Oodi. Helsinki City Library: <https://www.oodihelsinki.fi/en/fresh-ideas-from-the-library-of-my-dreams-campaign/>
- Muschamp, H. (2004, May 16). *The Library That Puts on Fishnets and Hits the Disco*. *The New York Times*. Retrieved June 3, 2020, from <https://www.nytimes.com/2004/05/16/arts/architecture-the-library-that-puts-on-fishnets-and-hits-the-disco.html>
- Narko.ee. (n.d.). *Olukord Eestis*. Retrieved July 10, 2020, from Narko.ee: <https://www.narko.ee/olukord-eestis/>
- Oodi. Helsinki City Library. (n.d.). *Oodi's architecture*. Retrieved April 20, 2020, from Oodi. Helsinki City Library: <https://www.oodihelsinki.fi/en/what-is-oodi/architecture/>
- Ortiz-Ospina, E. (2019, December 10). *The rise of living alone: how one-person households are becoming increasingly common around the world*. *Our World In Data*. Retrieved June 28, 2020, from <https://ourworldindata.org/living-alone>
- Philbin, M. M., Parker, C. M., Hirsch, J. S., & Flaherty, M. (2019, February). *Public Libraries: A Community-Level Resource to Advance Population Health*. *Journal of community health*, 192-199. doi:10.1007/s10900-018-0547-4
- Pipinis, J. (2014). *A Toolbox for Iconic Architecture*. *5th International Conference on Competitions 2014 Delft*. Retrieved July 17, 2020
- Pollock, N. R. (2011, March 16). *Musashino Art University Museum & Library*. *Architectural Record*. Retrieved June 22, 2020, from <https://www.architecturalrecord.com/articles/7488-musashino-art-university-museum-library>
- Public Libraries 2030. (n.d.). *Public Libraries 2030*. Retrieved March 24, 2020, from <https://publiclibraries2030.eu/resources/libraries-lead-with-digital1/>
- Riisalu, K. (2019).
- Saur Verlag, K. G. (2007). *IFLA Library Building Guidelines: Developments & Reflections*. (K. Latimer, & H. Niegaard, Eds.) München: Walter de Gruyter. Retrieved March 24, 2020, from https://www.academia.edu/28622012/IFLA_Library_Building_Guidelines_Developments_and_Reflections
- Silva, M. (2020, June 25). *Homelessness and Public Libraries*. *Princh*. Retrieved July 10, 2020, from https://princh.com/homelessness-and-public-libraries/?utm_campaign=Blog&utm_medium=email&_hsmi=90212376&_hsenc=p2ANqtz-88IHrcWEFja_vC5-q9xQNb12HuAVhnx1Z0Sv-Ojx4MWIMheOnNFtQVSvBbzikzbl1MPGnO8guyapQq5RMIA2DyY-1M0g&utm_content=90212376&utm_source=hs_email#.X
- Silva, M. (2020, February 27). *Princh Library Blog*. Retrieved June 26, 2020, from Princh: <https://princh.com/loneliness-social-isolation-and-libraries/#.XvXnjgzYuU>
- Skot-Hansen, D., Rasmussen, C. H., & Jochumsen, R. (2013, January 4). *The role of public libraries in culture-led urban regeneration*. *New Library World(0307-4803)*. Retrieved June 22, 2020, from https://www.emerald.com/insight/content/doi/10.1108/03074801311291929/full/html?casa_token=nLJSMN29AvAAAAAA:aZznUC1Dxt9vrMOjD-

U3pYc9HH2QPh_9H0bUc12CAIUQRaKbGYYYN1TgY93vAos02t6M0TNUjjkhUcR_sgSillZ
COSH2EeydJTLIDSv6oOrTQnAqTsm3

- Soininvaraa, A.-M. (2018, August 2). *How to design the library of the future? – Insights from Helsinki Central Library Oodi*. (P. Paraschiv, Interviewer) Princh. Retrieved March 23, 2020, from <https://princh.com/design-the-library-of-the-future-insights-from-helsinki-central-library-oodi/#.Xnjk-ogzYuU>
- Statistikaamet. (2018, March 13). *EV100: Eestimaalased elavad ühe sagedamini üksikult*. Retrieved June 20, 2020, from *Eesti Statistika*: <https://blog.stat.ee/tag/pere-suurus/>
- Sternheim, J., & Bruijnzeels, R. (2020). *Imagination and Friction: A Dutch Vision on Public Library Architecture*. Retrieved June 8, 2020
- Tamme, A., & Põldaas, M. (2020). *Tartu Oskar Lutsu nimeline linnaraamatukogu: Aastaruanne 2019. Tartu*. Retrieved July 21, 2020
- (2016). *The 21st Century Library. The future of Estonian librarianship in the face of social and technological changes: the mission, position and paths of development for libraries*.
- (2013). *The Heart of the Metropolis: Helsinki Central library open international architecture competition*. Helsinki: City of Helsinki.
- Welburn, W., & Pitchford, V. (2009). *Memory, Authenticity and Cultural Identity: The Role of Library Programs, Services and Collections in Creating Community*. IFLA 75th general conference and assembly. Retrieved April 3, 2020, from <http://www.ifla.org/annual-conference/ifla75/index.htm>
- Visser, E. (2013). *Economics of iconic architecture. A literature study on spillover effects of iconic architecture on real estate prices in urban areas*. Retrieved July 10, 2020
- Worpole, K. (2013). *Contemporary library architecture: A planning and design guide*. London: Routledge.

