LIBRARY AS A THIRD SPACE

A THESIS

SUBMITTED TO THE DEPARTMENT OF ARCHITECTURE

AND THE GRADUATE SCHOOL OF ENGINEERING AND SCIENCE

OF ABDULLAH GUL UNIVERSITY

IN PARTIAL FULFILLMENT OF THE REQUIREMENTS

FOR THE DEGREE OF

MASTER

By

Adem DOĞARAY

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SCIENTIFIC ETHICS COMPLIANCE

I hereby declare that all information in this document has been obtained in accordance with academic rules and ethical conduct. I also declare that, as required by these rules and conduct, I have fully cited and referenced all materials and results that are not original to this work.

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M.Sc. thesis titled ''Library As A Third Space'' has been prepared in accordance with the Thesis Writing Guidelines of the Abdullah Gül University, Graduate School of Engineering & Science.

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ABSTRACT

LIBRARY AS A THIRD SPACE

Adem DOĞARAY
MSc. in Architecture
Advisor: Prof. Burak ASİLİSKENDER

Jennuary 2023

This study deals with the transformation of library spaces with the development of technology and the digitalization of information in the 20th century and aims to interpret and define the conceptual idea, architectural form, and design approach of the 21st century library spaces in transition.

Libraries have been playing a vital role in the development of human civilization. For this scope, this thesis studies understanding libraries with their historical background and their new spatial forms and understandings. The evolution of libraries has been searched and key developments that led to extensive change have been examined. According to the developments in information and technology, there have been significant impacts on library spaces. Information has passed from the physical environment to the digital environment, and access to information and knowledge has become much easier with the integration of technological tools. This thesis surveys the effects and transformations of libraries on function and architectural form, as well as their spatial usage through morphological analysis, criticizes emerging views such as Third Space and design practices in library spaces and explains contemporary libraries by examining the effects of the concept of Third Space. Today, libraries aren't only institutions that store information anymore; They have also become social and public hubs where information is produced and shared. The study intends to discover this emerging transition in the architectural form of library space through syntactic and morphological analyzes of selected contemporary libraries, Lochal library, Birmingham library, Calgary Central Library, and Helsinki Central Oodi library. According to developments, the Thesis proposes to interpret and define library spaces over time have been discussed and made predictions about design practices, space understandings of the library, and library concept related to the future library spaces.

Keywords: Digitalization, Library Space, Library Concept, Third Space

ÖZET

BİR ÜÇÜNCÜ MEKAN OLARAK KÜTÜPHANE

Adem DOĞARAY
Mimarlık Anabilim Dalı Yüksek Lisans
Tez Yöneticisi: Prof. Dr. Burak ASİLİSKENDER
Ocak 2023

Bu çalışma, 20. yüzyılda teknolojinin gelişmesi ve bilginin dijitalleşmesi ile kütüphane mekanlarının dönüşümünü ele almakta ve dönüşüm halindeki 21. yüzyıl kütüphane mekanlarının kavramsal fikrini, mekanların mimari formunu, tasarım anlayışını yorumlamayı ve tanımlamayı amaçlamaktadır.

Kütüphaneler, insan uygarlığının gelişmesinde hayati bir rol oynamaktadır. Bu kapsamda bu tez, kütüphaneleri tarihsel geçmişiyle anlamak ve onların yeni mekansal form ve anlayışları üzerine çalışmaktadır. Kütüphanelerin evrimi araştırılmış ve kapsamlı değişime yol açan temel gelişmeler incelenmiştir. Bilgi ve teknolojideki gelişmelere göre, kütüphane mekânları üzerinde önemli etkiler olmuştur. Bilgi fiziksel ortamdan dijital ortama geçmiş, teknolojik araçların entegrasyonu ile bilgiye ve bilgi birikimine erişim çok daha kolay hale gelmiştir. Bu tez çalışması, kütüphanelerin işlev ve mimari biçim üzerindeki etki ve dönüşümlerinin yanı sıra, onların mekânsal kullanımlarını da morfolojik analizlerle değerlendirmekte, Third Space gibi ortaya çıkan görüşleri ve kütüphane mekanlarındaki tasarım pratiklerinin kritiğini yapmakta ve Üçüncü Mekan kavramının etkilerini inceleyerek çağdaş kütüphaneleri açıklamaktadır. Günümüzde kütüphaneler artık sadece bilgi depolayan kurumlar değil; aynı zamanada bilginin üretildiği ve paylaşıldığı sosyal ve halka açık merkezler olmuşlardır. Çalışma seçilen çağdaş kütüphanelerden, Lochal kütüphanesi, Birmingham kütüphanesi, Calgary Merkez kütüphanesi, Helsinki Merkez Oodi kütüphanesi sentaktik ve morfolojik analizlerle kütüphane mekanının mimari formundaki dönüşümü anlama çabasındadır. Bu bağlamda zaman içerisindeki gelişmelere göre şekillenen kütüphane mekanları tartışılmış ve gelecek kütüphane mekanlarına ilişkin tasarım pratiklerine, mekan anlayışlarına ve kütüphane konseptine yönelik öngörülerde bulunulmuştur.

Anahtar kelimeler: Dijitalleşme, Kütüphane mekanı, Kütüphane konsepti, Üçüncü mekan

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Chapter 1

Introduction

Libraries have been playing a vital role in the advancement of science and technology by storing information and transferring information from generation to generation throughout history. This has increased social development and has survived to this day. Today, although access to information has become much easier thanks to many technological tools, the role of libraries has also changed with technological developments. Libraries have been no longer places that store passive information, they have transformed spaces where information and shared information produced actively. In addition to this, the public identity of libraries has come to the fore even more today. Libraries have been re-formed as not only a space for books and knowledge to share but also meeting points to gather.

Since the function of the first libraries was to store information, the first libraries were formed in warehouses as reading areas. Later, these buildings developed and changed and new spaces were added to the library. Libraries have changed spatially and functionally with the increase and change of information and the development of technology.

Over history, the most important function of libraries has been to store knowledge. However today, since storing information has become much easier with technological tools, libraries have had to change functionally and spatially and respond

to new demands. As libraries evolve from traditional to informatics, the public identities of libraries have come to the fore. In addition to being a gathering place for people, libraries have also made it possible for people to access information socially through collaborative learning and information-sharing spaces.

1.1. Purpose of the Thesis

The evolution of the library has taken place under the influence of various factors at different times. Knowledge has changed over time and knowledge has also increased. At the same time, as knowledge increases and technology develop synchronously; The methods of storing, sharing, and transmitting information have also changed. One of the institutions most affected by this change has been libraries. For this reason; Libraries, which have an important role in the transfer of knowledge from generation to generation over time, have evolved following this change. As the library evolved, complex buildings have been transformed, discussions on its spaces, and new ideas have been put forward and implemented. These discussions have developed the library and strengthened its existence. The concept of Third Space, which has emerged as one of these discussions recently, has had a great impact on the library. Since Third Space is one of the concepts that still affect libraries the most today, the concept of Third Space has great potential for the development of the library. Therefore, in this thesis, the concept of Third Space will be examined as an important part. In this sense, the aim of the thesis; The aim is to discuss the transformation of library spaces, the factors affecting this and today's library concept and its spaces in the light of the Third Space effect, and the ongoing transformation. It is thought that the discussions of this thesis will prepare the ground for new perspectives on library spaces and contribute to its design process.

1.2. Method of the Thesis

To realize the effect of the Third Space concept on libraries; morphological and space-syntax analyses made through four case contemporary libraries. The examinations and analyzes will be evaluated together with the information obtained from the Third Space concept and the evolution of libraries, and re-analyses and inferences will be made. With this approach, libraries will be examined holistically with various concepts and new

field understandings from the past to the present, and today's library will be discussed. Moreover, comparisons and inferences will be made by making morphological analyzes of selected case contemporary libraries. It is thought to make inferences on 21st century libraries from all these examinations, analyzes, and researches.

1.3. Scope of the Thesis

This thesis will first discuss the evolution of library spaces from various perspectives and discuss today's library spaces. Because the evolution of the library has taken place with the facts that develop on top of each other. Today's concepts of space and new understandings that may arise in the future can be understood more easily by discussing these phenomena in the context of cause and effect relationships. From another point of view, the historical background of libraries plays an important role in terms of showing the concept of the library and its importance. At this point, the perspectives obtained about the library spaces are explained below.

Considering the history of libraries, one of the major factors causing spatial transformation and change has been that the library has followed a path that has evolved from being private spaces to public spaces. In the past, knowledge was not a phenomenon that everyone could obtain and considering the present day that human beings came with knowledge and experience, information was relatively little and scarce. Since only certain people or institutions could access this limited information stored in libraries in the past, the areas were limited and relatively simple only for these individuals and institutions. Afterward, with the increase in knowledge and the enlightenment of human beings, first, the information became public, and then the libraries that host the information began to become public. In the process, it has increasingly served different segments of society. From this point of view, it can be deduced from this historical analysis that libraries will continue the process of publicization, that libraries cannot be considered separately from the public in the future, and that their understanding of space can be handled from this public perspective.

Social facts have been also discussed for the publicization of the library and the library became buildings that serve the public with social facilities. In this way, libraries have gained a social identity as well as a public identity. New understandings of space

emerged in the context of social space and the socialization of the people. In the last hundred years, social spaces have increased in number and area in new library designs and practices by quickly integrating into the library. Another perspective acquired through the evolutionary process of libraries is that libraries may become more social institutions in the future.

Another factor that is effective in spatial transformation and change is the progress in technology. In this process, information has passed from the physical environment to the digital environment. Storing information in physical and digital environments requires different understandings of space. Furthermore, turning points in the evolution of the library have been the result of human progress in technology. In this sense, technological facilities and areas have been integrated into libraries to transfer information to people easily and quickly. After the year 2000, with the introduction of technology into our lives, information has been transferred to more and more digital media. Not long after the important technological innovations affecting the library such as the internet, computer, and network, technologies such as artificial intelligence and the internet of things entered our lives today and continue to do so. This evolutionary process gives the perspective that the effect of technology on libraries will continue to increase in the future and that the understanding of space will follow the developments in the direction that allows technology.

Although libraries have undergone great changes by being affected by technology, it can be seen that they still host basic spaces such as books and reading spaces with different styles and space organizations today. According to Bennet's research, these spaces still exist because people also demand information in the physical environment (Bennett, 2003). Besides, the fact that they are the most basic spaces that define libraries and that people still demand the mystical environment of libraries are also effective factors. Looking at libraries between the past and present, these spaces have always been seen to have a central role in library planning. With this perspective based on the past, it can be deduced that these spaces will continue to exist in the library.

After addressing the evolutionary process of the library, the concept that contributed the most to the development and spatial change of the library in the last century is the concept of Third Space. Therefore, this thesis discusses the concept of Third

Space in detail. Third Space has accelerated the library's becoming a public and social space. With this understanding, libraries have diversified spatially and developed functionally. In this process, public and social identity has been positioned at the center of planning as an integral part of the library. Libraries are not just knowledge stores or a stack of books, but factors such as art, technology, activity, and sociability have taken their place in the design practices of the library spatially. Third Space has also shown that knowledge can be obtained not only from the book, but also from people, social groups, and collaborative groups in the axis of joint knowledge production and sharing, and in many different deliberate or unintentional ways. Libraries have also developed new spaces following this development.

The thesis examines the evolutionary process of libraries, the concept of Third Space, and contemporary libraries in a spatial context, discussing present day of libraries and presenting a new understanding of space. In addition, he examined the changing identity of the library through the library space and program and defined the new library identity. The informations obtained from these examinations analyses and discussions have allowed us to understand and define contemporary library spaces. The first libraries consisted of very basic and simple spaces. With the change of information with the emergence of concepts such as Third Space and the factors that guide the change in the evolutionary process over time, libraries today are not only stores of information; but social and public interface spaces where knowledge is produced and shared.

Although libraries emerged as a single type in the past, with effects such as the diversity of information, the change in the social structure, and the different needs of different segments of society, today libraries have varied as public libraries, university libraries, private libraries, and children's library. This study focuses on public libraries with priority for public use rather than thematic or research libraries. The main subject of this study is Third Space in particular for libraries. Since Third Space is an important concept that transforms the library into more public and social institutions, the subject is mostly studied in the context of publicity, and therefore the study focuses on public libraries.

Chapter 2

Third Space Concept

Access, sharing, and production possibilities of the information offered by technology; This has led to the questioning of the function of libraries, which store information with a deep-rooted past and provide knowledge from generation to generation. Equipping libraries with technological infrastructure and the emergence of new spaces hasn't been enough either. Technologies that provide remote access can be used instead of this function of the library. New possibilities and new demands have revealed the necessity of new functions and spaces. 'Third Space', which emerged as a new concept in the 20th century, had a significant impact on new library designs. By bringing many new spaces and understandings to the library, it contributed to the continuity of the library for centuries at a time when the function of the library has been questioned and made the library open to new perspectives. For this reason, the concept of Third Space has been discussed in this chapter by prioritizing the analyzes and researches on libraries. To understand the emergence of the Third Space, the study has discussed the concept of space through the paradigms of 20th century. The study has criticized the form and function paradigms on architecture to comprehend the recent approaches to design and constituting space. Because this concept is open to different interpretations, it has had different reflections on libraries. Afterward, spatial analyzes will be made on selected contemporary libraries. These analyzes will be handled through the concept of Third Space and the effect of Third Space on library spaces will be discussed.

Although the concept of Third Space is not directly a library-specific concept, it has had significant effects on libraries. In this thesis, it is aimed to reveal how this concept has changed the curriculum of libraries, what it has contributed to the concept of learning, how it has created new learning, knowledge sharing, and production models, how it has transformed library spaces and how it has brought new spaces to the library.

2.1. Theoretical Discussions on Third Space

The concept of space in architecture has changed in various periods with different effects. The most well-known of these is the motto "Form Follows Function". This view was first put forward by the sculptor Horatio Greenough. And Louis H. Sullivan used this view in architecture in the 19th century. This point of view has been accepted as a thought belonging to Sullivan.

Thoughts and advocates prioritizing art in the 19th century could not make clear breakthroughs. Although there were opposing views on the current situation, they remained contradictory. For this reason, art hasn't been an effective thought on architecture in this period (Arendt, 1996). In this period, education was given in architecture schools with an old-historical approach based on imitation. During this period, various architectural views were put forward, in which the design was in the background. One of them is the view of Louis H. Sullivan. Sullivan defended the "Form Follows Function" view in his article "Artistically designed tall office building". For example; With the emergence of the elevator, office buildings have become tall buildings with 10 floors and above repeating each other.

Sullivan's view gave rise to the view of "Functionalism". In the same period Doesburg; defined the architecture of the period with elementalism. He argued that the building is a certain framework that emerges from the coming together of the elements (Doesburg, 1924). The emergence of this concept is due to the inadequacy or lack of design practices suitable for the needs of the industrial society with industrialization. With this approach, many spaces in the building have been defined by a single or only a few limited functions, so building designs dating back to ancient historical periods have been copied and used. The same buildings have been adapted with the same design and

planning in various parts of the world. Each space had a single function, and the functional space formed certain forms. The fact that this period was an industrial period was also effective in putting the design into the background and highlighting the function in this period. For certain functions without different searches; mostly industrial buildings with certain spaces and certain forms have been built.

In 2nd millennium, the rapid development of industrialization and industrial societies emerged. The change has happened very quickly. But uncontrolled development has also led to the destruction of nature. Some species have become extinct. Fossil fuels have revealed the greenhouse effect for the first time in nature and ecological design has begun to be seen as a design element. In this approach, measured and planned use of resources is important. Contrary to industrial society, it has become a necessity to create an ecological society. In this approach, it is necessary to plan the city separately from the countryside. Humans and nature should not be objectified (Bookchin, 2013). In an ecological design, the building cannot be separated from nature. It needs to be in harmony with and integrate with nature which is connected with its environment.

Ecomorphism, on the other hand, refers to architectural forms that are much more deeply adapted to nature, rather than the buildings' resemblance to animate and inanimate beings in nature (Ryn, 2014). "Buildings are stratified according to different lines of change that take place in the lives of key components; settlement, structure, systems, leather-skin and installations, and furniture. By creating different use cases, we can design buildings that encourage adaptation rather than resisting it over time" (Cited by Ryn, 2005). These views on the space that continue over time have led to the emergence of different building designs. In design, the environmental factor, adaptation to the environment, and functional expectations have been a part of the design process. With the emergence of the concept of "sustainability", design processes have been reshaped. The continuity of change and ecological concerns have also necessitated the effective use of limited resources. Although functionality still maintains its importance today, a building design is a multidimensional process that includes different disciplines and approaches beyond just functionality concerns. Today, ecological and sustainable approaches are still considered in the design. Change has taken place very quickly in the 20th century and many things have been changing rapidly in the 21st century. Architecture and the subject of the field have been also changing concepts. Needs change, and new needs and demands

constantly emerge. The concept of 'Multi-funtionality' has emerged to use resources efficiently and to meet changing needs and new demands. This concept, which allows different uses of a certain space, meets the different needs of society in the same space, especially in public buildings. On the other hand, in the 20th century, as seen in some old public buildings, it was necessary to re-plan or produce a new space to reuse the spaces.

In terms of bringing together cultural, social, artistic, and library services in a single building; Libraries can be seen as one of the leading examples of the concept of Multifunctionality. With the multifunctionality approach, libraries especially gathered cultural and social new venues together and prevented the construction of new buildings. In this context, modern libraries are multifunctional public buildings as a result of ecological and sustainable approaches.

Although there were not so many varied opportunities in the past, getting together and socializing were much easier actions. But today people do not have enough interaction with each other. In the 20th century, change has taken place very quickly. With the rapid increase in urbanization in recent years, social areas have been mostly ignored and insufficient. On the other hand; Many groundbreaking technologies and changes have entered our lives. Especially with digitalization, people have been able to exist in virtual environments. Collaborations in physical environments have been rapidly moved to virtual environments over time. Therefore, social interactions have decreased. People live a life between home and the workplace. These 2 venues have been the main 2 spaces in people's lives. Because people have established strong ties with these 2 venues and spent most of their time in them. But people have adapted to the need for socialization, communication, and spaces allowing this. These factors have been taken into consideration in urban planning, public spaces, and public buildings, and such spaces have been designed. Therefore, such venues are the Third Space outside the home and workplace. The Third Space is not a specific space such as home or workplace. Third Space can be any informal venue such as cafes, festival areas, cinemas, or bistros. Despite our interconnected global society in a globalizing world, social ties are gradually weakening (Putnam, 2000).

Especially in the 20th century, cities shaped by cars and urban planning should be rearranged by considering how people communicate with the urban area to touch human life more and strengthen social ties. Social space planning should be rethought after the planning of the 20th century (Dolley and Bosman, 2019). It is accepted that the concept of Third Space, which emerged due to the problems in 20th century planning, first entered the literature after sociologist Ray Oldenburg's book "The Great Good Place" in 1989. Oldenburg generally defined Third Space as the spaces where people go outside the home and workplace, gather people on a natural ground, unite them and allow them to socialize. In addition, he also talked about the features of Third Space: First one is **On Natural Ground,** which are regular places where people are not limited by rules, act naturally, and are comfortable. The second one is **Conversation,** where people can easily communicate with each other without hesitation. Face-to-face conversations and meetings are important. The third one is **Accessibility and Accommodation,** which is ease the openness and proximity to the center are important criteria for users. They are important places to spend time, especially for people in the low-income group. The fourth one is **The Regulars,** where are spaces that create their regulars with the environment they create.

The fifth one is **Low profile,** which emerges the areas that only elite people or certain groups go to create a high profile. Third Spaces are more intimate, relaxed spaces that are not ostentatious, offering a low-profile look. And the last one is **a Home Away from Home,** which mentions the places where users make such emotional bonds that make them feel at home (Oldenburg, 1989). Third Space does not only refer to a specific place but many areas could be defined as Third space. However, it can easily be misinterpreted. Therefore, the features that Oldenburh mentioned are important.

Rosenbaum (2006) describedthe Third Space as 3 separate services. These are **place-as-practical**, **place-as-gathering**, and **place-as-home**. **Place-as-practical** serves the basic needs of people. **Place-as-gathering** is a compherensive ervice. It serves as a meeting place for many different purposes and supports people^s social interaction. **Place-as-home** serves people's personal and emotional needs as well as their need for spae and interaction.He claimedthat friendship,socialization, and personal and emotional support of people will increase people's loyalty to the field (Rosenbaum, 2006). The more emotional bonds people have with a space, the more they tend to use and like that space

(Campbell, 2014). Among the internal features that are effective in the preference of spaces; It has been determined that terms such as "warm," "relaxing," and "comfortable seating" are the terms that users prefer to use (Scott, 1993). Examining the space views, the evolution of the concept of space and understanding of change over time can be seen. The views started with the space as a basic component that directs the form through a single function have turned into more conceptual, multifunctional, and complex ideas today. In the past, the concept of space was defined for a single action. However, in addition to the action that defines the space of different views in the 20th century, other factors have also been taken into account. As the demands and spatial functionalities increased, the spaces also diversified and the number of spaces increased. However, most of the old buildings could not meet these new spatial variations and needs. Therefore, new building design practices based on the new spatial understanding have emerged.

In particular, ecological approaches required the effective usage of limited resources, and hybrid, flexible, multi-functional uses of the space came to the fore. Hybrid and multi-functional space approaches have resulted in space savings in buildings. The concept of flexibility also has made the building open to new space concepts in the ongoing transformation process.

2.2. Third Space Concept in Libraries

Today, libraries are in a transition period. The role of libraries in this transition period has been questioned by many disciplines. However, the library was still able to preserve its physical existence in this process (Howard, 2009). It is clear that libraries will not be able to continue their physical existence unless they undertake other duties other than obtaining information during this period and other conditions that require their usage do not occur. Therefore, the main function of libraries will not be the repository of collections or the central point of information services in the coming years. In the new normal, the main role of libraries is as a place for collaborative learning and social interaction of the community (Montgomery, Miller, 2011). The new normal social interaction and collaborative role of the library are not only educational but also economic. It dates back to the role of the library in ancient times. With the use of libraries online from outside the library, libraries have entered a quest to attract users. Recently,

there has been a trend of multi-functional space in library buildings, which is one of the public buildings, offering different services to users beyond certain services. In the development of modern library buildings, integrated spaces are becoming widespread in cooperation with cultural institutions such as art galleries and entertainment (Harrington, 2001; Boone, 2002). Libraries today have become cultural and social gathering centers in addition to their services. Library facilities have shared spaces with other venues. This is made to increase the attractiveness, function, and accessibility of libraries (Seet, 2005). This approach makes libraries more attractive public spaces. It is supported by library management and funding organisations. (Robinson and Chien, 2006).

One of the biggest achievements of libraries in the transition period has been the concept of Third Space. Considering Oldenburg's (1989) arguments and the role of the library, the library is a place where people meet and create a community. In this respect, the library may be the Third Space that Oldenburgh mentioned. According to Oldenburg (1989), the Third Space allows people to talk to each other, meet and create a sense of community. Because it offers people comfortable spaces, places, and environments where people come together informally and spend their free time and where no one is a guest. Comfortable seating and relaxation areas make people feel at home and allow them to be with and spend time with other people around. In this way, the Third Space allows people to interact with other people, and explore different social segments, philosophies, and interests.

In the Third Space concept, one of the tasks of the libraries in the new normal is to provide flexible spaces that allow collaborative work environments that users create and are a part of. Famous librarian Scott Bennett divided the library into a service space and a learning space in his 2003 survey. Here, the service place is the place where information is kept, organized, managed, and presented to users with traditional methods through resources such as books. He defined the learning space as places where knowledge is transferred not only from the book to the person but also from person to person or groups of people through social relations. Bennett (2003) did a survey that investigated motivating factors in library users. 57% of the participants found the shelves where the printed collections stored motivating. He described this result as extrapolative. 45% is the changing character of the student study space needed. Bennet (2003) suggested that this result indicates the need for extrapolative versus interpolative space. This survey

shows us how libraries can plan for future needs. With this tendency, it can be understood that libraries will not be able to break away from the traditional understanding of specific space and planning, but that new plans may emerge that respond to new needs. Bennett's survey also showed that libraries should now focus more on users, group workspaces, and social spaces, not collection spaces. The demand for social space has shown us the need for new spaces that accommodate users in the library and provide them with suitable environments for learning. Considering this idea of change, new library designs with an innovative multi-space concept have emerged. This is a requirement for libraries to survive in the future.

It can be seen that the concept of Third Space has been adopted as an innovative approach in new library designs and the spatial and administrative organization has been shaped accordingly. The different social interaction spaces offered to people, common collaborative learning, and information sharing spaces are reflections of the Third Space concept in the library. Mecanoo Architects, the designer of Lochal library, emphasized in a promotional video of the library that social interaction and a collaborative working approach with institutions and individuals are part of this building. They designed the Lochal Library on this approach (Figure 1) (Mecanoo Architects, 2013)[1].

The value of library resources during these times; Thus, not only the difficulty of finding materials such as papyrus or the workload required to produce written sources, but also the importance and extremely difficult and scarce availability of recorded information. It is understood that these first library resources were very valuable due to their important duties such as recorded information, state secrets, important historical events of the state or society, social information, and the healthy transfer of this knowledge to future generations. That's why the first libraries; were buildings that could not be used by anyone who did not have a public identity, but could only be used by certain people, they were not public spaces as they are today.

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[1] Mecanoo Architects, 2013: Francine Houben interviewed about Birmingham Library including Third Space Concept.

Figure 2.2.1. Cafe or Socialising space of Lochal library
Photographed by Author, 05/09/2022

Libraries should encourage learning and discovery. Libraries may build stronger on these two concepts in the future. Demas and Scherer (2002) also describe the new library concept; collaborative learning, generating new ideas, and various activities as places more integrated into society. Because they emphasized that the interaction between people can be a tool for knowledge sharing and production (Figure 2.2.1.).

Figure 2.2.2. Inside view of Lochal Library
Photographed by Author, 05/09/2022

Third Space, which offers comfort and inviting environments, offers people a free chat environment with other people. In the Third Space, the conversation is valuable (Oldenburg,1999). Because people can communicate with each other scientifically using their experiences learned from other people and even using library resources. Bechtel (1986) also argued that the new paradigm for librarianship is conversation. The concept of Third Space in libraries is aimed to provide comfortable spaces and environments where people feel comfortable and want to spend time. Comfortable sitting, resting, and working spaces are spaces designed for people to have a good time in the library and even to communicate with other people. Because people do not have difficulty communicating in comfortable environments (Figure 2.2.2.).
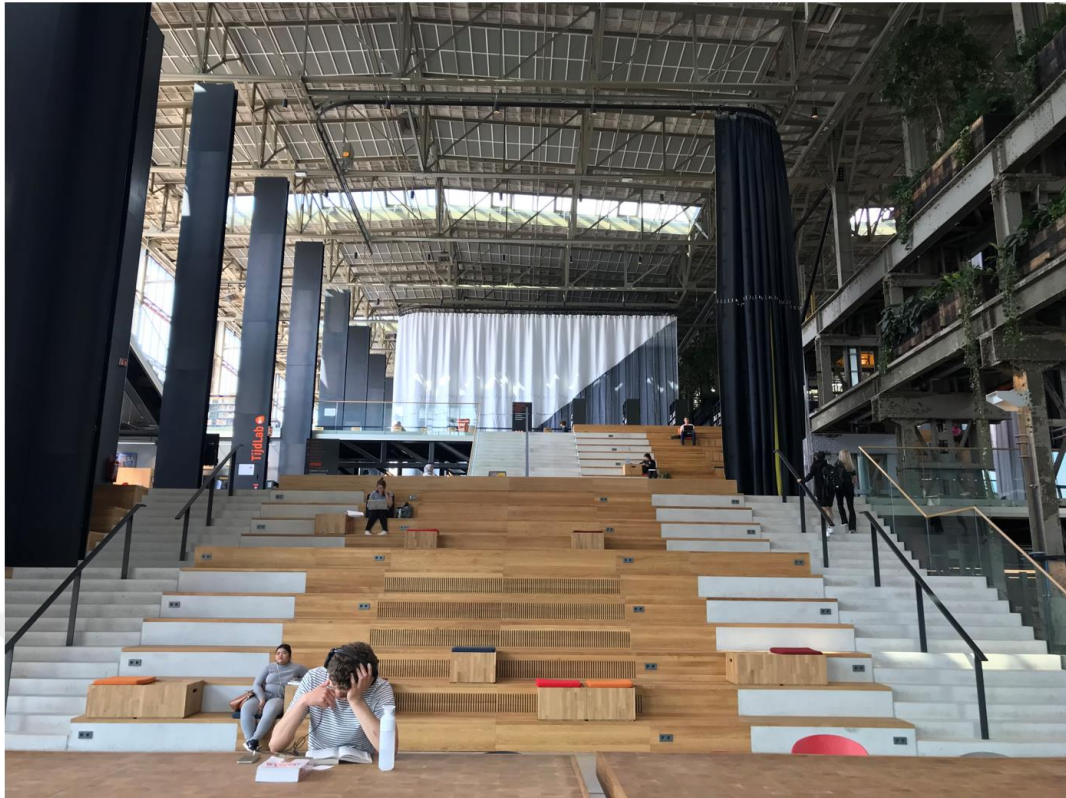
Figure 2.2.3. Inside view of Lochal Library
Photographed by Author, 05/09/2022

Libraries should be more integrated into people's lives creating social spaces for people in libraries. Libraries can play an accelerating role in the sharing, research, and production of information among people who come together in social areas. (Dillon, 2008) With traditional approaches, we can no longer attract users to the library, it should enter their lives (Mathews, 2009). Learning and conversation should be supported in educational institutions and they should have a Third Space for students (Oldenburg, 1997). Libraries provide the opportunity to transfer information not only from printed sources to people but also from people to people, from people to groups of people, with the possibilities provided by the concept of Third Space. When libraries become a place of wide-ranging social interaction, we also ensure the formation of an information society. This paves the way for social progress providing us with many social, economic, and educational opportunities. Demas (2005) claimed that a calm atmosphere and chat environment support human communication. Socializing and chatting bring people together who faces each other in the same place. It makes many users part of a group without being in any group. Libraries are not only meeting places, but also provide opportunities for solitude. People may want to be alone for free reading, or it may also offer a uniquely quiet environment for scientific research (Figure 2.2.3.).

Figure 2.2.4. *Calgary Central Library*
(https://www.archdaily.com/905263/calgary-central-library-snohetta)

According to Demas (2005), the library offers individual and social spaces together as the Third Space. The constant interaction of people in the Third Space creates a community. The chat environment and the calm atmosphere that makes them feel at home give the feeling of a place created for them. This strengthens personal relationships and fosters a sense of community (Demas, 2002). Social spaces in libraries are an important requirement for communication between people and to create a sense of community specific to the library. In contemporary library designs, it is seen that the social spaces are located in very comfortable and private spaces within the library (Figure 2.2.4.).

2.3. Chapter Review

According to the loss of social interaction in recent years, discussions focusing on it have been emerging in architecture, and there have been attempts at new space designs. Spaces have been designed with a responsibility to provide social interaction between people. Towards the end of the 20th century, the concept of Third Space, one of the new approaches to space, came to the fore. This concept has emerged in line with the social and public needs of people. Third Space is a public interface space with many definitions, unlike many single-defined spaces such as home, and workplace. Libraries have been also influenced by the concept of Third Space in this period, and their social and public

responsibility has increased. Since the concept of Third Space is one of the views that have influenced and transformed libraries the most in the last decades, in this study, the concept of Third Space has been examined specifically for the libraries that are the subject of the thesis, and its effect on the library has been examined and analyzed together with the transformation of libraries. In this period when social interaction has decreased, many conceptual space discussions have been made over socialization. And looking at the new space designs, many spaces have a responsibility to provide social interaction between people. Libraries have been redefined in this study with the concept of Third Space.

As can be seen from the theoretical studies; The library has tried to keep up with the changes in the digital age with the concept of Third Space. Considering the functions and possibilities of the library, it is not difficult to include the concept of Third Space in the library's program. The library is a natural Third Space with its facilities and functions. At a time when the library has been discussed, the library continued its existence as a function and program with the concept of Third Space and increased its value. Contrary to the past, libraries have many definitions today. Many space concepts, which are explained by the concept of Third Space to libraries whose functions are questioned by digitalization, have been integrated into the library program by the designers after the 20th century, the library has been transformed and new library design practices have emerged.

This concept has made the library a natural place of social interaction and enabled the collaborative learning model, a new learning society, and digital transformation to occur faster. And this concept has paved the way for many innovative library design practices preserving the two main spaces of the library as reading and written resources. It is possible to see this in the examples of many contemporary libraries built recently. As we can understand from the opinions of many experts; Third Space is an integral part and an important value for the library in our age.

Chapter 3

Evolution of Libraries

Some important developments and innovations in history have been important breaking points for humanity. Libraries have also evolved according to the developments at these breaking points, as they are affected by the society they are in and reflect the identity of the society. At these breaking points, libraries have changed spatially and conceptually. In this process of change, in addition to spatial transformations; new places have emerged. Examining this development will contribute to our understanding of the library and our interpretation of today's library understanding. Therefore, in this section, the important breaking points in history and the evolution of libraries from a historical perspective will be examined.

In the past, library and warehouse meant the same thing. At that time, written texts were recorded with tools such as tablets and papyrus. Written texts were precious and scarce, as materials such as tablets and papyrus were expensive to find, and writing texts on these materials was a laborious task. It had to be stored in private, secure areas. The basement floors of buildings such as monasteries and churches were used. Libraries were able to survive thanks to these stories and formed the memory and knowledge of society. Therefore, it is possible that the word 'library', which means bookstore in Latin, came from the storage of books from these monasteries and church (Estabrook, 2022).

Figure 3.1. The 7th century BC Library of Ashurbanipal
(https://www.dreamstime.com/royal-library-ashurbanipal-named-last-great-king-assyrian-empire-collection-more-than-clay-tablets-fragments-image219559717)

Libraries were very valuable for a state as they were buildings where very valuable written works, unscientific irregular, and very scarce information were located, and in a sense, the cultural, material, and spiritual existence of the society was recorded. In history, dictatorial leaders have used libraries to impose their hegemony in line with their personal interests, to destroy the works as they wished or as a result of wars, to loot the libraries, and to destroy the works of the states to wipe out the other state. It is the biggest damage that can be done to a state in history and reveals how important libraries are. Throughout 4000 years of known history, books and written sources were very limited (Figure 3.1.). With the mobile type, this situation started to change for the first time in the west. Books remained a luxury item until the 19th century due to high paper prices. After the 19th century, this situation disappeared with the mass production of paper. The number of books increased, and the cost of the book fell sharply because it was relatively inexpensive (Shattock and Wolff, 1982). (Figure 3.2.).
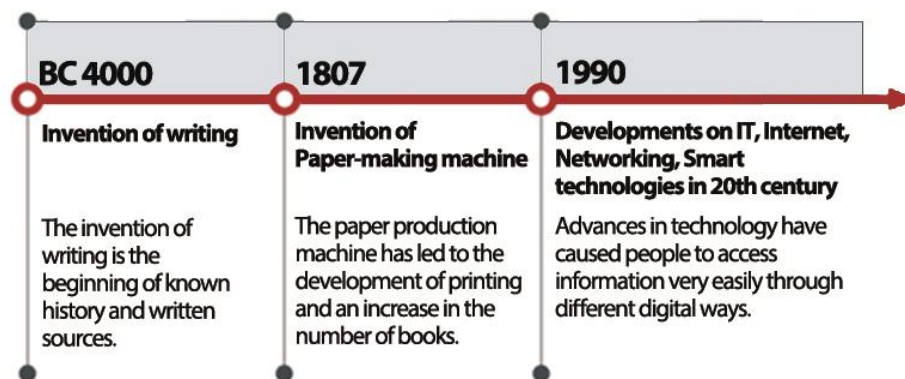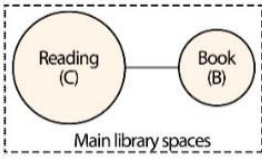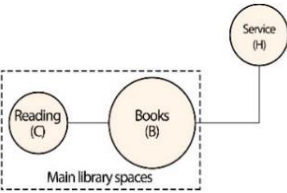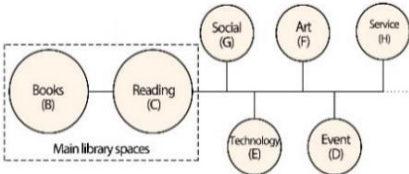

***Figure 3.2. Evolution of libraries***

In the 19th and 20th centuries, books, magazines, and newspapers became very cheap and common. In the 20th century, information has become a much more abundant, cheap, and easily accessible commodity, with technological developments, personal computers, the internet, and worldwide telecommunication systems meeting people. Mobile type, paper-making machine, and computer chips have enabled the democratization of information and the accessibility of information to all. In this process where information turns from scarce commodity to abundant commodity; library space designs have changed and caused 3 paradigm shifts in library spaces (Bennett,2009) The study analyzed libraries in 3 different paradigm periods. It is seen that the most important criteria in the evolution of libraries are innovations in technology and informatics. These innovations were seen as breaking points and revealed different paradigms in the evolution of libraries. The developments at the breaking points also affected other Design criteria, Spatial program of libraries and users, and different designs, spaces, and users were seen in different periods (Table 3.1.).

Table 3.1. Evolution of libraries

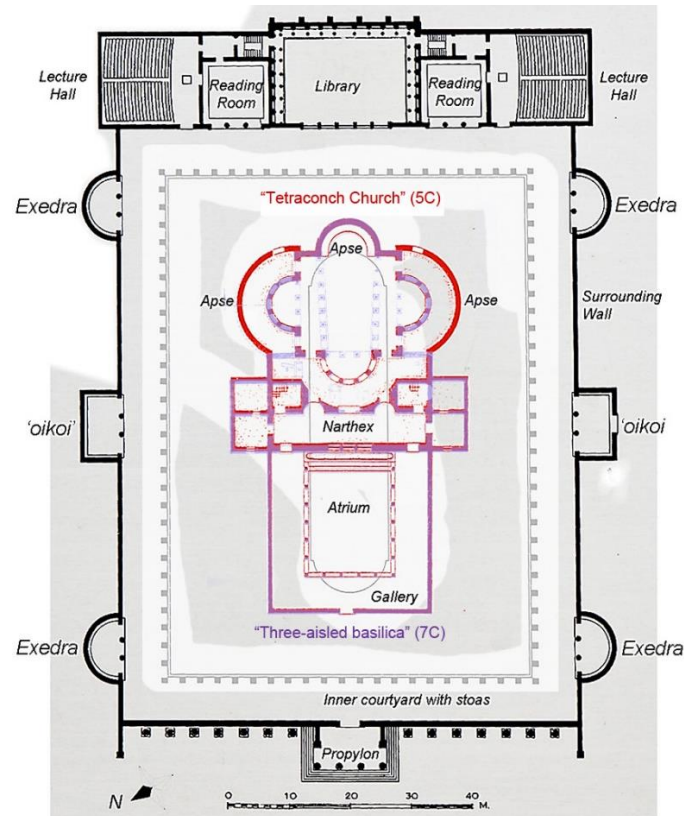|	Reader-Centered Paradigm	Book-Centered Paradigm	Learning-Centered Paradigm
Period	-1807	1807-1990	1990-
Affected factor & Breking point	Scarce and storage of invaluable information need	Paper-making machine	Innovation in information and connection technology
Design criteria	To storage scarce written sources and reading space	To storage abundant book on shelves and reading spaces	To design active learning spaces for different aim
Spatial program of libraries	Reading and Book spaces	Reading and book spaces	Reading, Book, Organisation, Art, Technology, Social, etc.
Users	Some person and institution	Some person, institution and partly people	All people from all part of community
Morphology			

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3.1. Reader-Centered Paradigm

The first paradigm to emerge for libraries is the reader-centered paradigm. It has a history in the western world from its convent and office. The monastic buildings consisted of a prayer section and a writing section. Some written sources are kept here. In this paradigm, libraries have been also affected by these buildings; It basically consists of 2 main sections, the written sources section, and the reading section. Reading was the dominant area in libraries, as written resources were expensive, invaluable, and scarce (Bennett,2009) (Figure 3.1.1.) (Figure 3.1.2.).
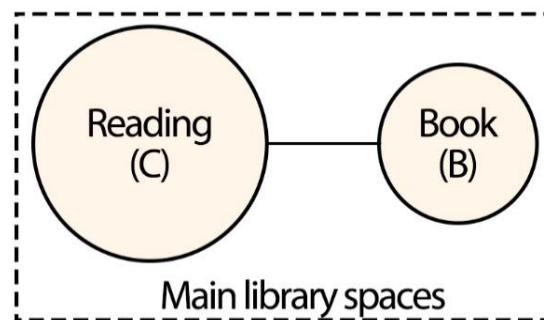
Figure 3.1.1. Reader-Centered Library Space Morphology

The value of library resources during these times; Thus, not only the difficulty of finding materials such as papyrus or the workload required to produce written sources, but also the importance and extremely difficult and scarce availability of recorded information. It is understood that these first library resources are very valuable due to their important duties such as the information recorded here, state secrets, important historical events of the state or society, social information, and the healthy transfer of this information to future generations. That's why the first libraries were buildings that could not be used by anyone who did not have a public identity, but could only be used by certain people, they were not public spaces as they are today.

Figure 3.1.2. Hadrian Library AD 132
(https://www.worldhistory.org/article/839/the-library-of-hadrian-athens/)

3.2. Book-Centered Paradigm

With the invention of the Fourdrinier Paper-making machine in 1807, paper production became easier and cheaper. Thus, written sources increased at a geometric rate (Figure 3.2.1.). The invention of the paper-making machine led to the development of the printing press. In this way, paper production has become very easy and fast. With the increase in knowledge, there was a book boom in the 19th century. While books filled one or more rooms until the 19th century, after the 19th century, the book areas in the libraries began to dominate the reader areas. The book areas in the existing libraries were insufficient and some libraries were expanded with new additions (Figure 3.2.2.). In the newly built libraries, a very large area began to be allocated to libraries. This marked the emergence of a new spatial understanding and a new paradigm (Bennett,2003).
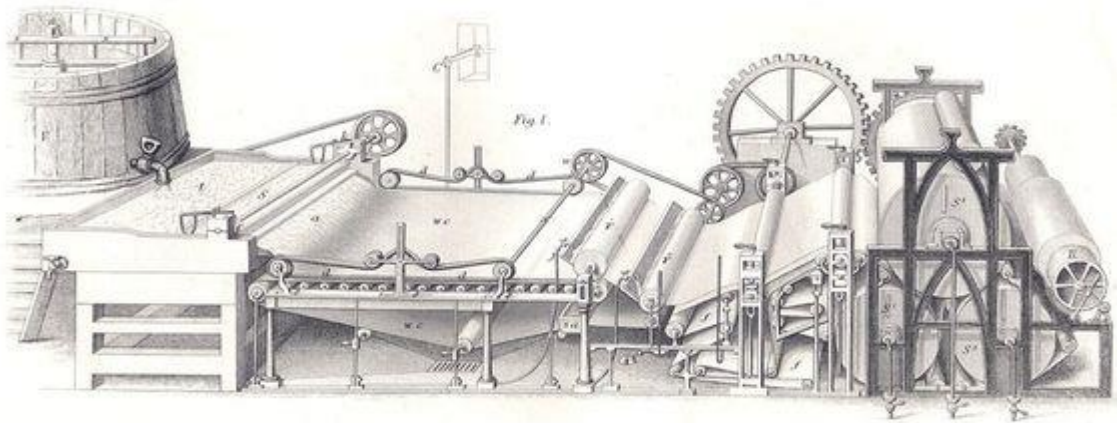
Figure 3.2.1. Fourdrinier Paper-making machine
(https://multimediaman.blog/tag/louis-nicholas-robert/)

With the development of modernity, it led to the development of the library, especially in western societies. The social and educational development of society, the importance of knowledge, and the increase in knowledge have been possible with the development of modernity. The increase in the number of libraries and the opening of libraries to the public over time have been in this process (Nan Dahlkild, 2013).
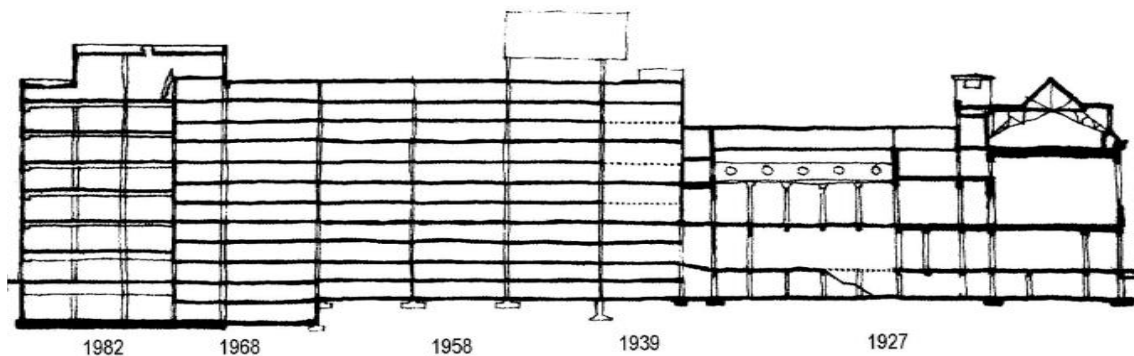
Figure 3.2.2. Main Library Section, University of Illinois
(Bennett, S. 2003; "Conceptual Framework Report, Main Library, Executive Summary," Shepley, Bulfinch, Richardson, & Abbott (2006), 9.)

In this new paradigm, the main spaces of the library have not changed, but with the rapid growth of the book area, the library spaces have also grown. Libraries, known as buildings bringing books and readers together, had become great book repositories (Bennett,2009) (Figure 3.2.2.).
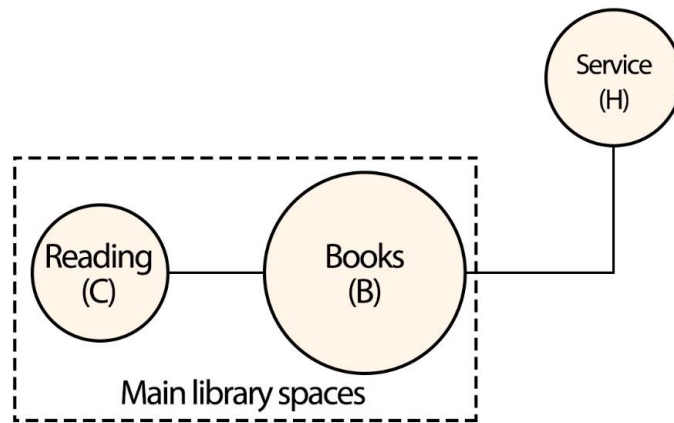
Figure 3.2.3.. Reader-Centered Library Space Morphology

In this paradigm, the transformation of libraries into large bookstores was also in the process. When the books were first published, they were collected by collectors or certain institutions. At the end of these collection activities, libraries emerged for the first time to collect books. Access to these books was not available to everyone. No one could access these resources without the permission of certain individuals or institutions. This situation has revealed a social inequality in access to information in society (Miksa, 2007). The encyclopedia movement, which is an attempt to summarize libraries in one source to eliminate this social inequality, has emerged to convey information to people (Wiegand and Davis, 1982).

Another attempt was the publishing industry's attempts to reach larger groups of people (Steinberg, 1974). However, the real solution to this is that there have been modern libraries funded by governments or local governments. This has been a point of change in librarianship. Because while libraries were a place reserved for certain individuals, institutions, or states until now, their sphere of influence has expanded over time and has evolved into a public identity for the first time after this date. Considering the transformation of the library over time, it expanded its sphere of influence and followed a change from private and secret spaces to public spaces (Miksa, 2007) (Figure 3.2.4.).

Offices & seminar rooms
Library reading room
Book stacks
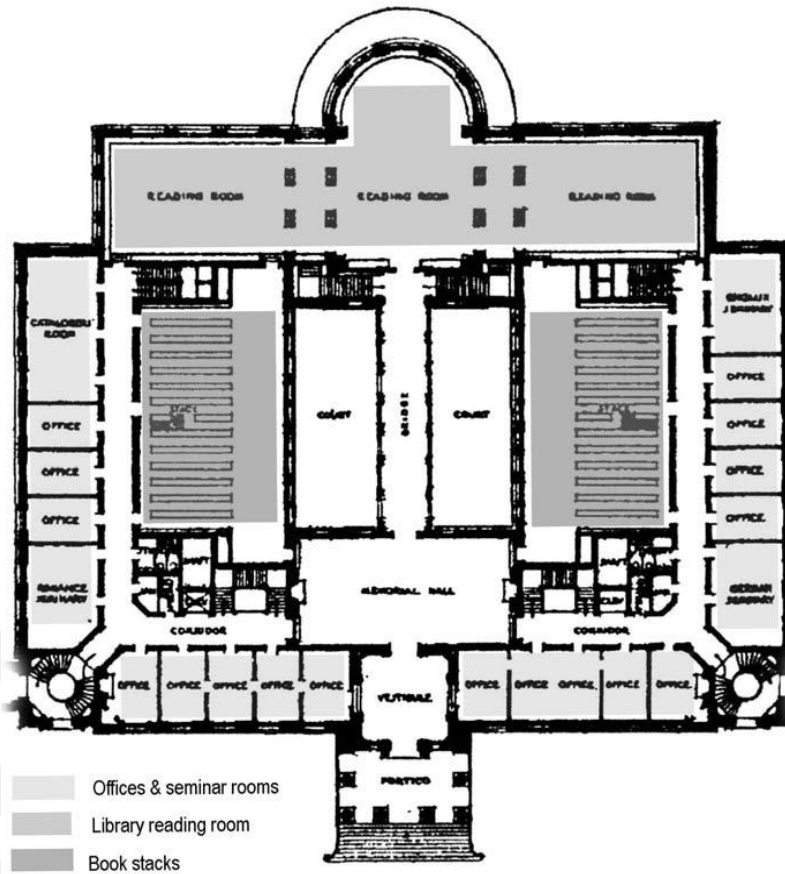
Figure 3.2.4. Entry Floor of Gilman Hall, The Johns Hopkins University
(Bennett, 2003)

3.3. Learning-Centered Paradigm

In the book-centered paradigm; information was stored in physical places, as the information has increased, the area it covered has also increased. Libraries became bookstores and although some of them were enlarged with additions, they were no longer sufficient. Since the libraries were insufficient in terms of physical space, they could not develop in terms of function. This showed the necessity of a new paradigm. With the developments in information technologies, information has been moved from physical environment to virtual environments. This made libraries more spatially functional and led them to a new learning-centered paradigm (Bennett,2009).
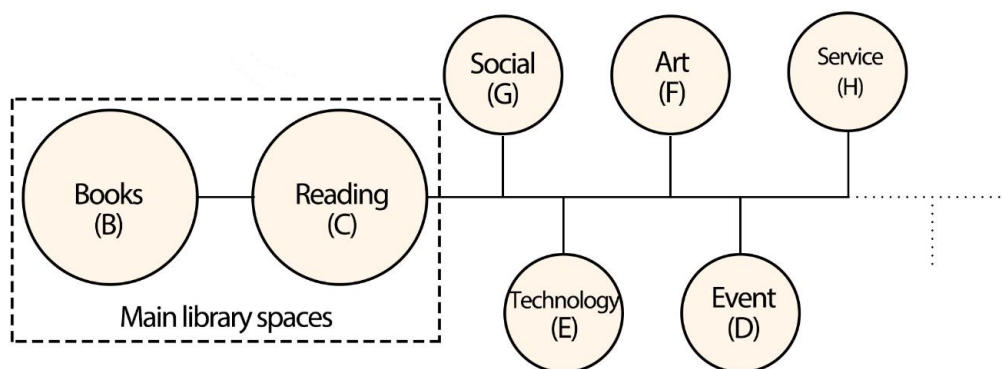
Figure 3.3.1. Learning-Centered Library Space Morphology

In this transition period, in which information is moved from the physical to the digital space, the library has continued its physical existence, although the existence of the library has been discussed by many disciplines with the possibility of remote access to the library through digital ways. Traditional library designs in the printing age; can give us a sense of holiness. They have a mystical atmosphere that symbolizes knowledge, wisdom, and learning. This sense of sanctity and mystical atmosphere has added stability and solemnity to traditional libraries influencing the architectural design and spatial organization of these libraries, which are defined as the memory of the society. (Coravu, 2010) Therefore, some users have continued to adopt the traditional library concept. Although most of the resources have moved to digital media, printed resources have not completely disappeared. In the new normal, libraries have adapted to the digital age with a hybrid solution by continuing the legacy of printed collections (Campell, 2006). With this paradigm, the reader is again placed at the core of the library space planning. In this respect, it is similar to the reader-centered paradigm. The difference is that information is abundant rather than scarce, and information is available in virtual rather than the physical environment. In addition to this, new spatial groups have been involved in library space morphology such as Social, Technological, Event, and Art space groups (Figure 3.3.1.). The reader-centered paradigm brought the reader and written materials together in a specific physical space. But in this paradigm, since every space is a potential library space, the design challenge is that there is less interaction between reader and book and more interaction between learning and space (Oblinger, 2006) (Bennett, 2009).

16. The Learning Commons
17. Group study area
18. Archives
19. Student services Pathways Center
20. Quiet study area
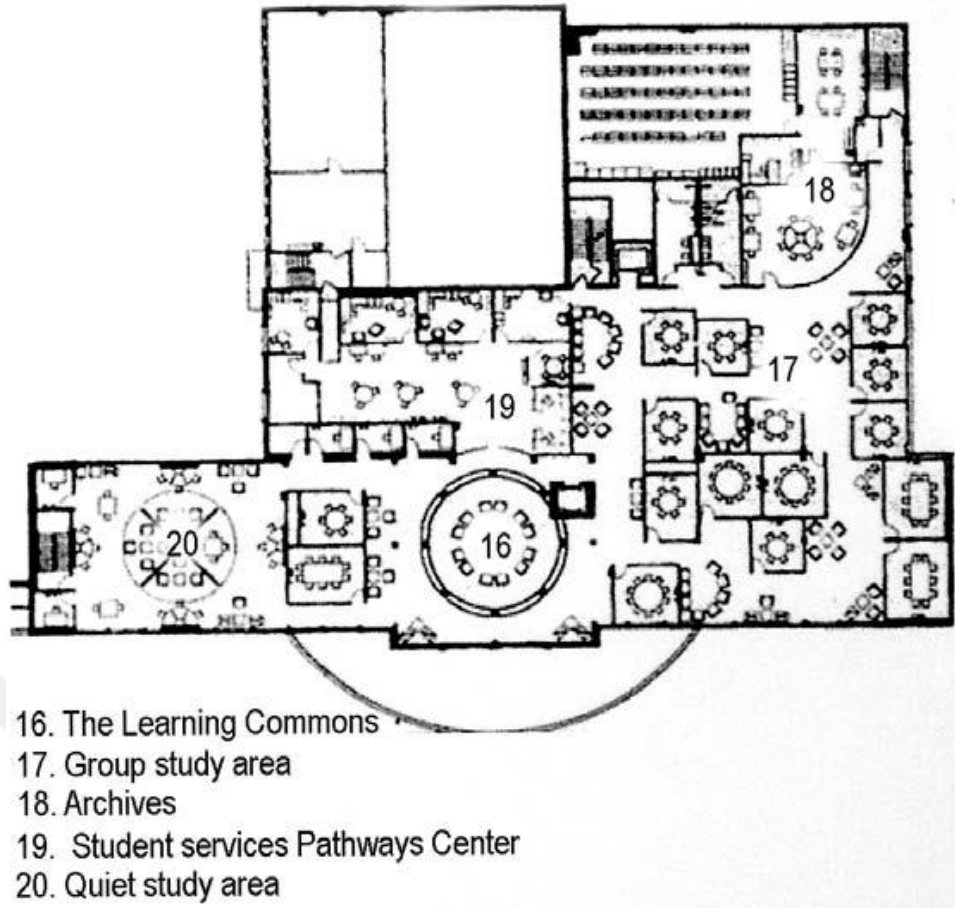
Figure 3.3.2. Third Floor, Vogel Library, Wartburg College (Bennett, 2003).

In the book-centered paradigm; The library has been seen as a repository of information, and users as consumers of information. In the learning-centered paradigm; Users have been seen as conscious learners, while the library is a gap between both the knowledge repository and the learning space. Thus, learning has been placed at the core of library planning and learning-oriented design practices have emerged (Bennett,2009) (Figure 3.3.2.).

In a learning-centered approach, the learning process is important. Therefore, new spatial approaches to the learning process are necessary (Barr and Tagg, 1995). With the change of information technologies, learning modes and knowledge, some spaces of the library have been transformed and some new library space understandings have emerged (Bennett, 2003). Considering evolutionary process, it has been understood that the most important breaking points are the technological innovations and the libraries have changed by being affected by these innovations. Book and reading sections, which are the main library spaces; Although its spatial dimensions and organization have changed, they

has always existed and still continues today. Although these spaces undergo spatial transformation, they have always been at the center of the library concept. The evolution of the library continued with the differentiation of the integration of the newly added spaces with the book and reading spaces during the paradigm changes. In different paradigm periods, it can be seen that the book and reading spaces have been especially emphasized and they are the most important places in the center of the library planning.

3.4. Chapter Review

On the other hand, the evolutionary process of libraries is a process of transformation into a public identity. While libraries were highly secret and private spaces controlled by a person or institution when they first emerged. With the paradigm changes, its publicity has gradually increased and it has been integrated into the society. In the process of publicization, libraries have undertaken and continue to undertake new spaces and functions to integrate into the society.

With the new functions have added to the library after the learning-centered paradigm; It has become difficult to define a certain space and function of the library, except for the main spaces of the library such as book and reading spaces. Therefore, new library design practices have emerged with different function combinations of the main library spaces and libraries have continued their evolutionary process.

Chapter 4

Contemporary Libraries

Libraries have changed significantly, especially with the impact of technological developments in the 20th century. With some new concepts and new spatial understandings, the concept of the library has been redefined and the publicization process has continued. In this period, in the libraries; information sharing, socialization, artistic, cultural and technological organizations have also come to the fore. Although information mostly moved from books to digital media, bookshelves continued to exist in libraries.
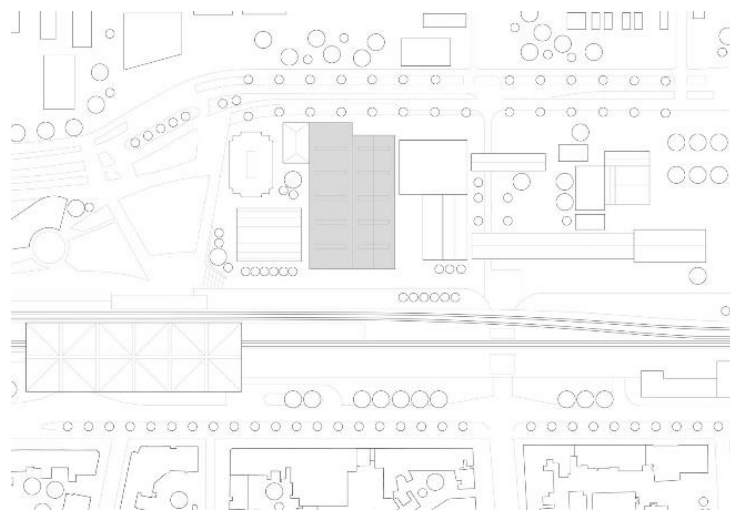
With technological developments, especially as a result of innovations in informatics and digitalization of information, the concept of the library has changed. In this chapter; It is aimed to examine the new space concept and library concept through spatial analysis and to reinterpret the spatial changes of the libraries as a result of these examinations, through 4 different contemporary library examples built in the 21st century, Lochal Library in Tilburg, Netherlands, Library of Birmingham in United Kingdom, Calgary Central Library in Alberta, Canada and Helsinki Central Oodi Library in Finland, as the unique libraries designed in Third Space approach in recent years. In this section, 4 contemporary libraries have been analyzed with spatial and syntactic analysis. In spatial analysis, different spaces have been shown on the plans of the libraries. In the syntactic analysis, different space groups have been coded with letters and the connection between these spaces has been shown. In the spatial analysis made on the plans of the libraries, the

relationship between different space groups has been examined, and in the syntactic analysis, the connection between these spaces has been formulated. Results of these analyzes have been evaluated and the importance of the concept of Third Space and its spaces in 21st century library planning has been emphasized.

4.1. Lochal Library

Table 4.1.1. Lochal Library Architectural Record
(https://www.archdaily.com/909540/lochal-library-mecanoo-plus-civic-architects-plus-braaksma-and-roos-architectenbureau)

Project design: 2016-2018	**Client:** Midden-Brabant Library and Kunstloc Brabant
Opening: 2018	**Design Team:** CIVIC Architects, Braaksma & Roos Architectenbureau, Mecanoo Architects
Location: Tilburg. Netherland	
Size: 7 000 m2	

The Lochal library is a adaptive reused library building in the city of Tilburg, Netherlands, by reusing an old locomotive factory. It is located in the center of the city of Tilburg, next to the railway station and railway tracks. Its construction started in 2016 and was completed in 2018. It has a usage area of 7000 square meters and has 3 floors. The architectural design is by CIVIC Architects, the restoration is by Braaksma & Roos Architectenbureau, and the interior is by Mecanoo. The Lochal library is also home to the Midden-Brabant Library, the Kunstloc and Brabant C cultural institutions, and other co-workings. In this way, it provides opportunities for meetings, collaboration and various working environments. In their interviews with the designers of Mecanoo which is one of the designers of the Lochal library; They define library users as the 'inhabitant of this library' and define the library as an urban living room where people of all age groups can read, learn, work, meet and come together. They also have stated that this library is a good example for the libraries of the future (Mecanoo Architects, 2013)[2].
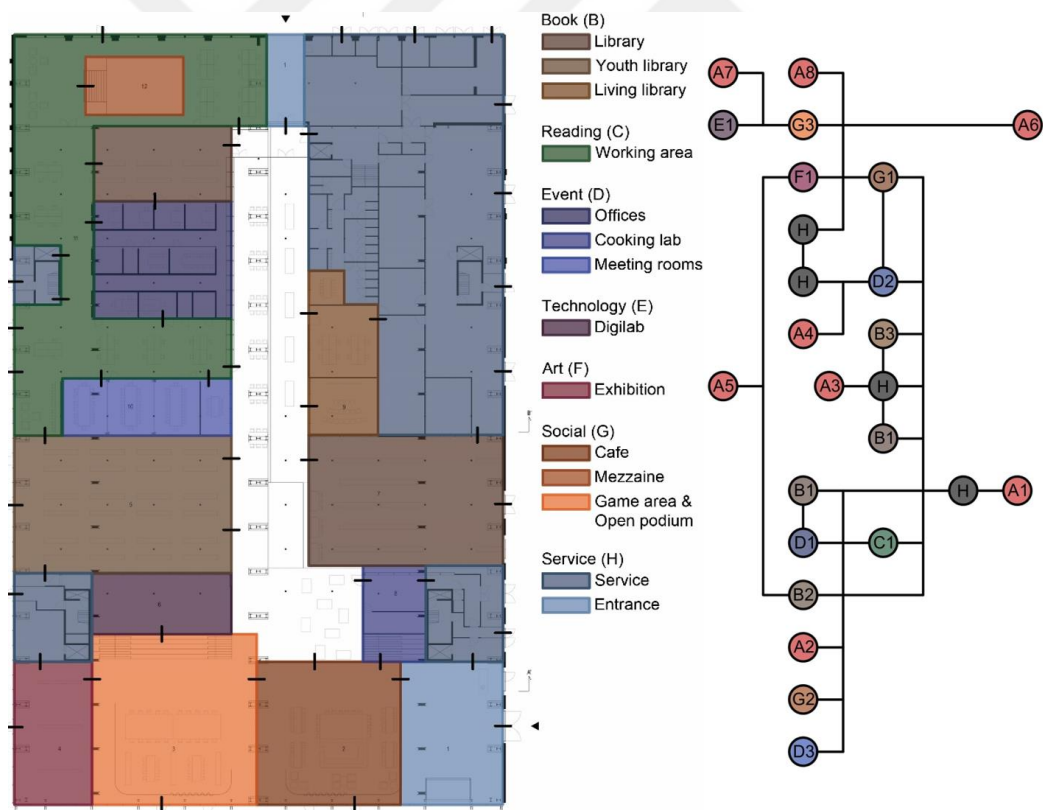
Figure 4.1.1 Lochal Library Ground Floor and Its Syntactic Analysis
(Plan scheme is re-prodused from the drawings on https://www.archdaily.com/909540/lochal-library-mecanoo-plus-civic-architects-plus-braaksma-and-roos-architectenbureau)[3]

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[2] Mecanoo Architects, 2013: Francine Houben interviewed about Birmingham Library including Third Space Concept.

[3] Figure 4.1.1. The library plan has been taken by website, but spatial analysis on the library plan and space-sytax analysis have been done by author.

Plan decisions; At the ground floor plan of the Lochal library, it is seen that many different kind of spaces as Book, Reading, Event, Technology, Art, Social and Service fictioned together. As a settlement, book and reading spaces have been located on the side, service spaces have been located on the other side, and public activity spaces such as Event, Technology, Art and Social have been planned on the back. In the distribution of these spaces, it is understood that the spaces have been positioned by considering the crowded spaces and more individual space, the difference between sound and silent spaces. For this reason, considering the user comfort, direct access to the book and reading sections has not given from public activity spaces such as Social, Offices and other Events. The service spaces, on the other hand, cover a large area on the facade close to the entrance, apart from other spaces. **Circulation;** Vertical circulation elements have been distributed approximately equally on the plan and positioned at 4 different points. Access to other spaces from the entrance has been provided by a wide common corridor. **Access between spaces;** Since many spaces are not clearly separated from each other with clear boundaries, access between spaces can be made without the need for any corridor. **Size of spaces;** Book and reading spaces occupy a significant part of the ground floor. Afterwards, Service, Social, Event, Technology and Art spaces come in size. **Form of spaces;** Since the Lochal library has been designed by re-functioning an old locomotive factory building, the spaces have been planned in rectangular and square form in accordance with the locomotive factory building (Figure 4.1.1).

Plan decisions; When the first floor of Lochal is compared to the ground floor, it is seen that the number and area of book and reading spaces have decreased considerably and this floor consists of many Event spaces designed for various activities. In addition to the Event venues, there are also Book, Reading, Art and Service venues. Activity spaces that are similar to each other according to their functions have been planned together. **Access between spaces;** Unlike the ground floor, many spaces have been completely separated from each other with clear boundaries on this floor. There is no direct transition between the venues. Therefore, the number of corridors has increased and access between spaces is provided through these corridors (Figure 4.1.2).

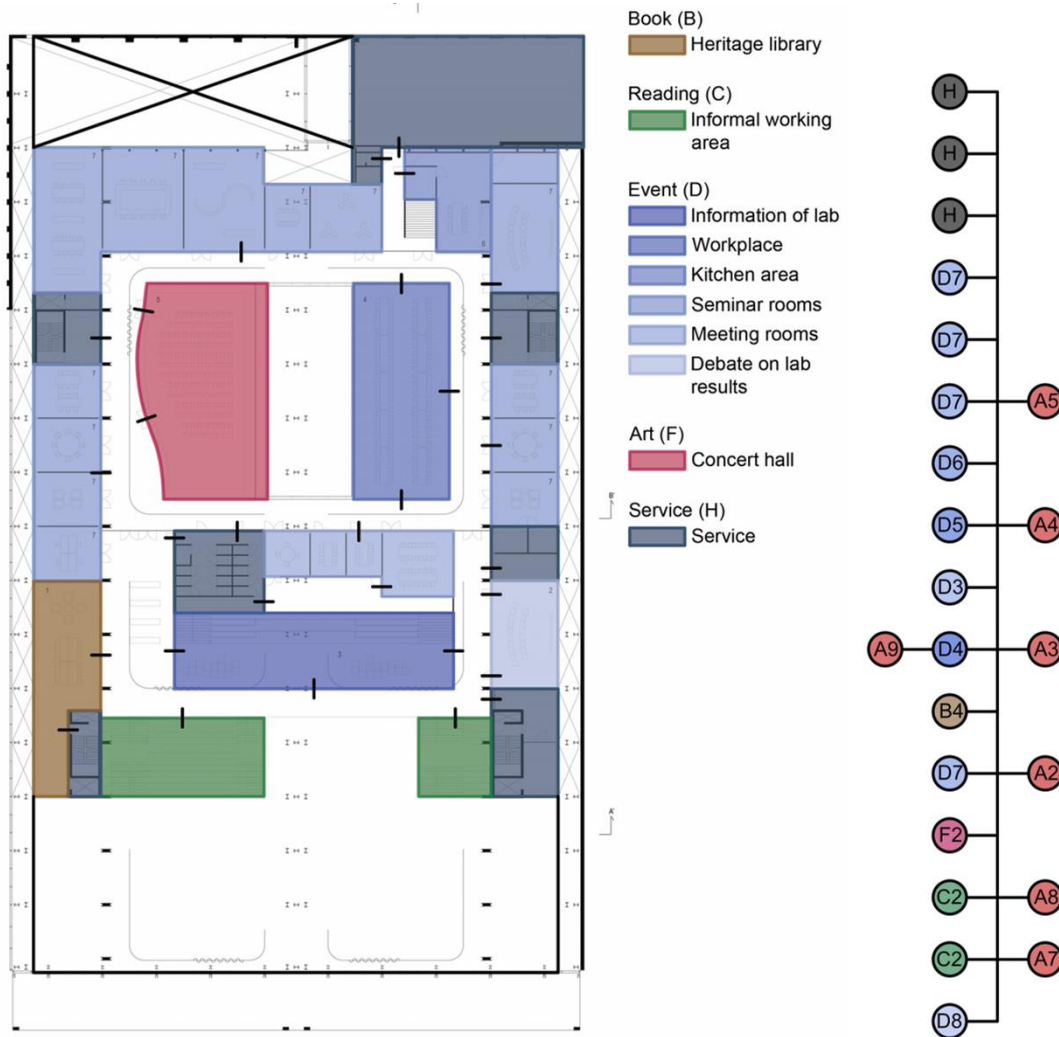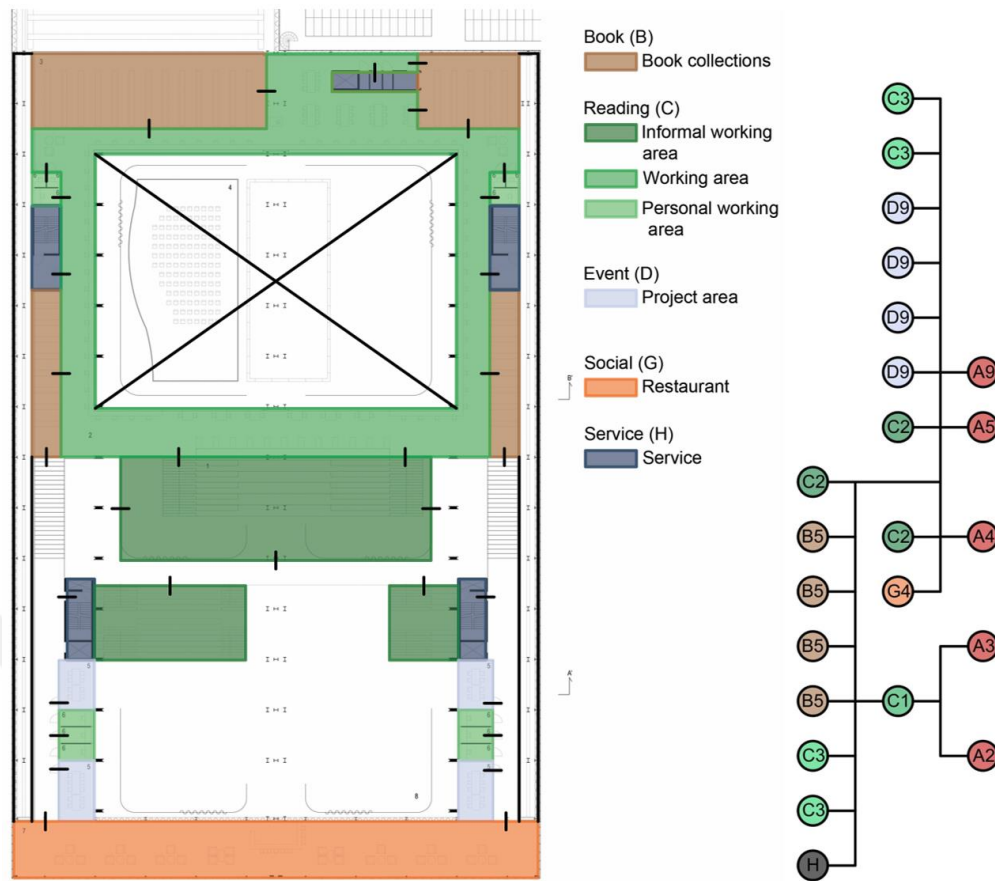*Figure 4.1.2. Lochal Library First Floor and Its Syntactic Analysis*
(Plan scheme is re-prodused from the drawings (https://www.archdaily.com/909540/lochal-library-
mecanoo-plus-civic-architects-plus-braaksma-and-roos-architectenbureau)[4]

More crowded Event spaces have been surrounded by corridors. In this way, many people can easily access these spaces from other spaces and from other floors. **Size of spaces;** On this floor, larger and more crowded Event spaces have been located in the center, and smaller spaces have been located on the front sides**. Form of space;:** On this floor, except for the concert space, it is in square and rectangular form. According to the first floor planning in the plan, event spaces are quite dominant compared to other spaces. Apart from crowded spaces such as the Concert Hall and Heritage Library, other spaces have been designed as closed spaces. Lochal's designers used curtains while forming the boundaries of the ;Concert Hall, referring to the textile past of Tilburg. Thus, the Concert Hall can be used both indoor and outdoor (Figure 4.1.2).

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[4] Figure 4.1.2. The library plan has been taken by website, but spatial analysis on the library plan and space-sytax analysis have been done by author.
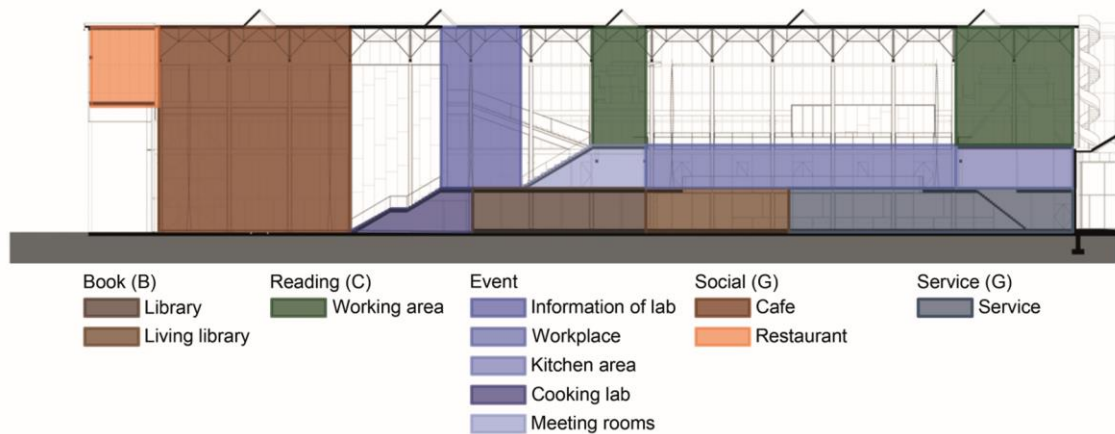
Figure 4.1.3. Lochal Library Second Floor and Its Syntactic Analysis
(Plan scheme is re-prodused from the drawings on https://www.archdaily.com/909540/lochal-library-
mecanoo-plus-civic-architects-plus-braaksma-and-roos-architectenbureau)[5]

Plan decisions; The 2nd floor is the last floor of the Lochal library. Event spaces on this floor have decreased considerably and have mostly been replaced by Book and Reading spaces. There are also Art, Social and Service spaces. With floor planning, quiet and more individual work spaces have been gathered together. In the center of the floor plan, a large gallery space is connected to the other floors. **Access between spaces;** The area around the gallery space has been planned without separating the Book and Reading sections. Therefore, there is no need for a separate corridor. For access to the individual Study spaces and the Restaurant, access is provided through single symmetrical corridors adjacent to the side facade. **Size of spaces;** Since quiet spaces have been mostly gathered on this floor, the Book and Reading sections are dominant. Apart from the individual study spaces, other spaces have been considered as open spaces. In this way, direct access between the spaces is mostly possible. **Form of spaces;** The spaces have continued their angular form on this floor as well (Figure 4.1.3).

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[5] Figure 4.1.3. The library plan has been taken by website, but spatial analysis on the library plan and space-sytax analysis have been done by author.

Figure 4.1.4. Lochal Library Section and Its Syntactic Analysis
(Section scheme is re-prodused from the drawings on https://www.archdaily.com/909540/lochal-library-mecanoo-plus-civic-architects-plus-braaksma-and-roos-architectenbureau)[6]

Design decisions; The Lochal library has been designed to be permeable both between floors and spaces. Large gallery spaces have increased the transparency between floors. The spaces have been positioned on the floors with sound and silence and considering the number of people using the space. **Space distributions;** As seen in the section, there are all types of spaces on the ground floor. The variety of spaces decreases towards the upper floors. There are Book and Reading spaces,which are the main library spaces, on all floors. **Space features;** The spaces where the ;Book collections have been located and the reading spaces have been designed as more closed, while the other Event and Social spaces have been designed as more open spaces. **Circulation;** stairs have been located on the floors together with the service spaces. There are also stairs in the center of the building, which are used for both the sitting area and access to other floors (Figure 4.1.4.).

In evaluation of the Lochal library according to the floor plans; There are many different spaces on the ground floor. But the dominant area is Book and Reading places. There is a large service area and all floors are served from here. The first floor is mostly reserved for Event spaces. On the second floor, Reading and Book spaces have became dominant again. Social spaces have also increased in area. The library planning has been reserved for crowded and loud spaces on the lower floors, while quiet and more individual spaces have been reserved for the upper levels.

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[6] Figure 4.1.4. The library section has been taken by website, but spatial analysis on the library section has been done by author.

4.2. Library of Birmingham
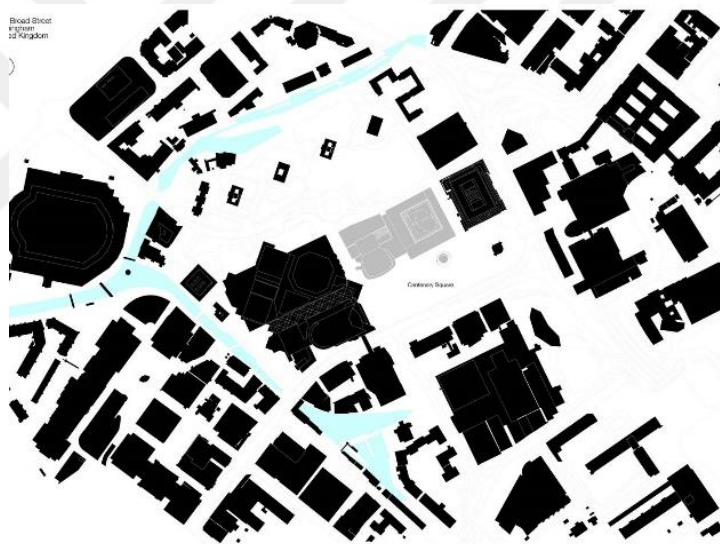
Location: Birmingham. United Kingdom **Size:** 35 000 m2 **Project design:** 2008-2009 **Opening:** 2013	**Client:** Birmingham City Council **Design Team:** Mecanoo Architects

The Library of Birmingham was designed by Mecanoo. It is located in Birmingham, England, located between the concrete Repertory Theater (REP) and Baskerville House from 1962, the Library of Birmingham location is in one of the largest squares in the city and this library has transformed this square into 3 different areas; history, culture and entertainment. It was put at the disposal of the people of Birmingham in 2013, appealing to all people of all ages, from children to the elderly.

Francine Houben, one of the designers of Mecanoo, in an her interview; She has defined this library as the people's palace, which is a center of learning, knowledge and culture that unites people from all walks of life, not just reading books. As an example, she has showed the sitting spaces in front of the library and the garden designs on the upper floors of the library, and has compared the library to the living place of the city, as in the Lochal library. In this way, this library; It is both a social space and a center of knowledge, learning and culture for the people of Birmingham. Within the concept of a meeting of people and collaborative learning, the library has many Event spaces (Mecanoo Architects, 2019)[7] (Table 4.2.1.).

The use of permeable surfaces such as glass on the main facade of the library on the square side also supports this idea. It is understood that the designers of the Library of Birmingham designed this library as a whole with the square. Ground floor plan decisions were also made with this holistic design approach. Since there is a large library, an important area is reserved for service spaces on the ground floor (Table 4.2.1.).

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[7] Mecanoo Architects, 2019: Francine Houben who leader of design team of Mecanoo Architects, some mecanoo architects and several users of the Lochal Library interviewed about the library including Third Space concept.
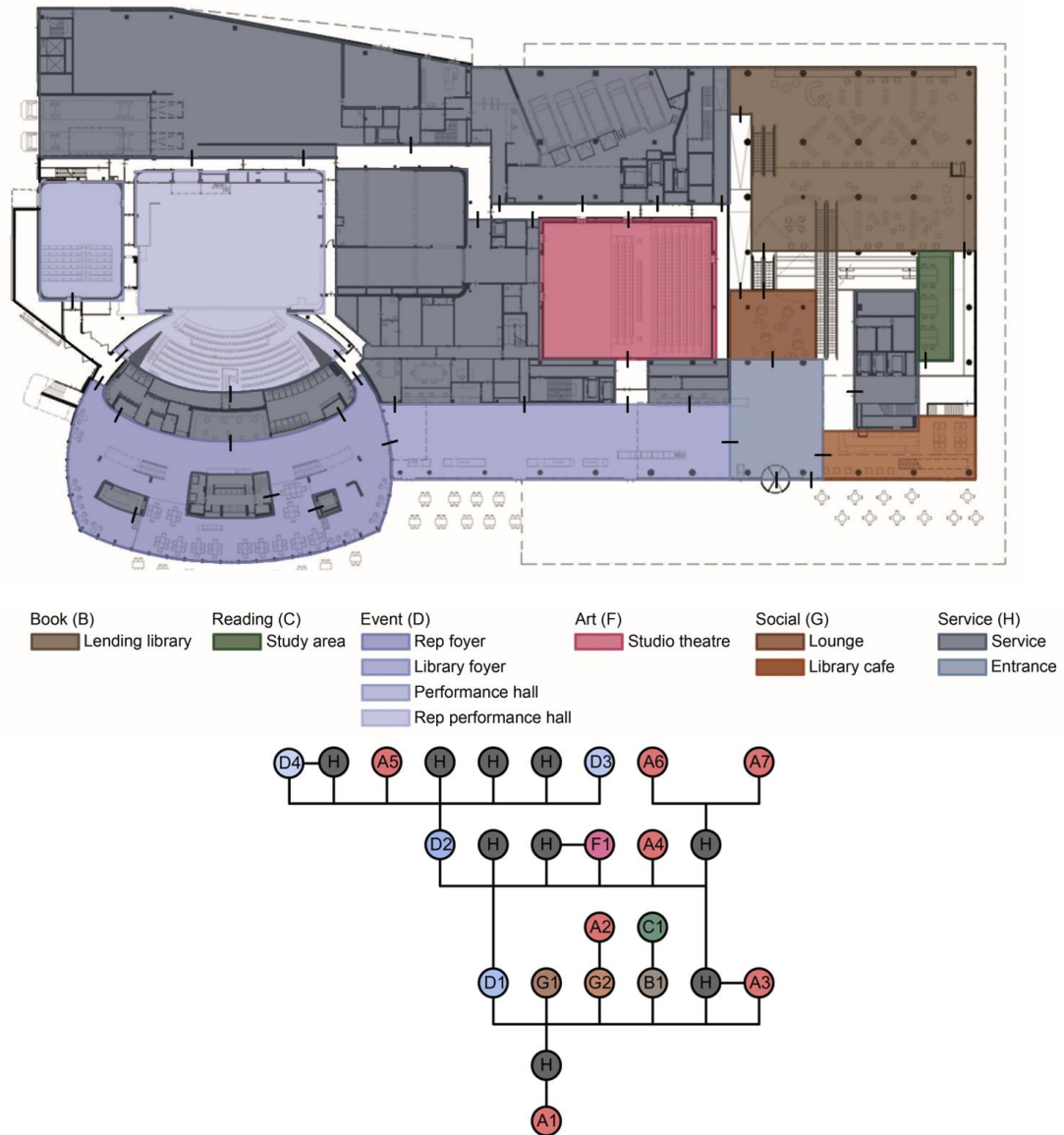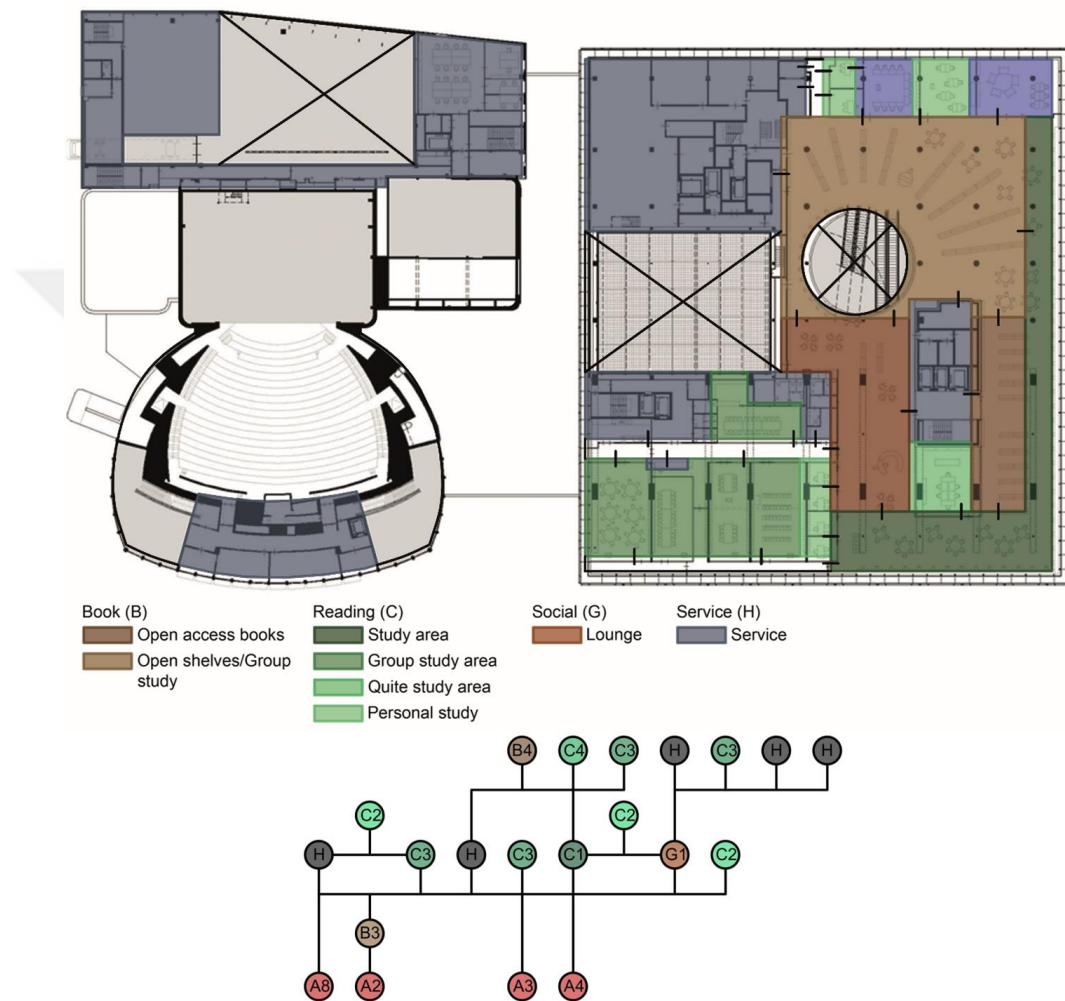
Figure 4.2.1. Library of Birmingham Ground Floor and Its Syntactic Analysis
(Plan scheme is re-prodused from the drawings on https://www.mecanoo.nl/Projects/project/57/Library-of-Birmingham)[8]

Plan decisions; The ground floor of the Birmingham library consists of Book, Beading, Event, Art, Social and Service spaces. It is seen that the public activity spaces mostly bring people together in the floor plan. It play an important role in the ground floor design. It can be thought that establishing a strong connection with the large public square in front of the library and attracting people to the library from this square can be considered effective in allocating large space to public activity spaces. **Circulation;** There are 7 vertical circulation elements. **Access between spaces;** Horizontal circulations have been provided mostly with spaces without corridor. Only Book, Reading and Foyer

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[8] Figure 4.2.1. The library plan has been taken by website, but spatial analysis on the library plan and space-sytax analysis have been done by author.

spaces are open spaces. Other spaces separated with walls because of their functions. **Size of spaces;** Because it is ground floor, Designer of the library have asked to entegrate people to this library providing different kind of Event spaces in ground floor. Event spaces have a domnation on other spaces. **Form of spaces;** Almost all spaces are angular form in the floor (Figure 4.2.1.).

Figure 4.2.2. Library of Birmingham First Floor and Its Syntactic Analysis
(Plan scheme is re-prodused from the drawings on https://www.mecanoo.nl/Projects/project/57/Library-of-Birmingham)[9]

Plan decisions; The library is divided into 2 blocks on the 1st floor. One of the mass consists of the gallery and service spaces of the large Performance hall on the ground floor. The other mass consists of Books, Reading, Social and Service spaces. From the floor plan, it can be seen that this floor is reserved for quieter Book and Reading sections. Group and individual study spaces are separated from other spaces by considering user

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[9] Figure 4.2.2. The library plan has been taken by website, but spatial analysis on the library plan and space-sytax analysis have been done by author.

comfort. **Circulation;** Vertical circulation is mainly provided by the stairs in the gallery space. In addition to this, other circulation elements that are almost equally distributed throughout the mass provide the connection between horizontal and vertical. **Access between spaces;** Book and Social spaces are open spaces that have been designed almost intertwined. Since the Group and Individual study spaces, which are designed as closed, are separated from these spaces, they are connected with a single corridor. **Size of spaces;** In terms of spatial size, Book and Reading spaces have a large space as they are at the center of the planning at this level. **Form of spaces;** Considering at the space forms, the book spaces are spread over the floor plan without a definite form. Other spaces are in angular forms (Figure 4.2.2.).
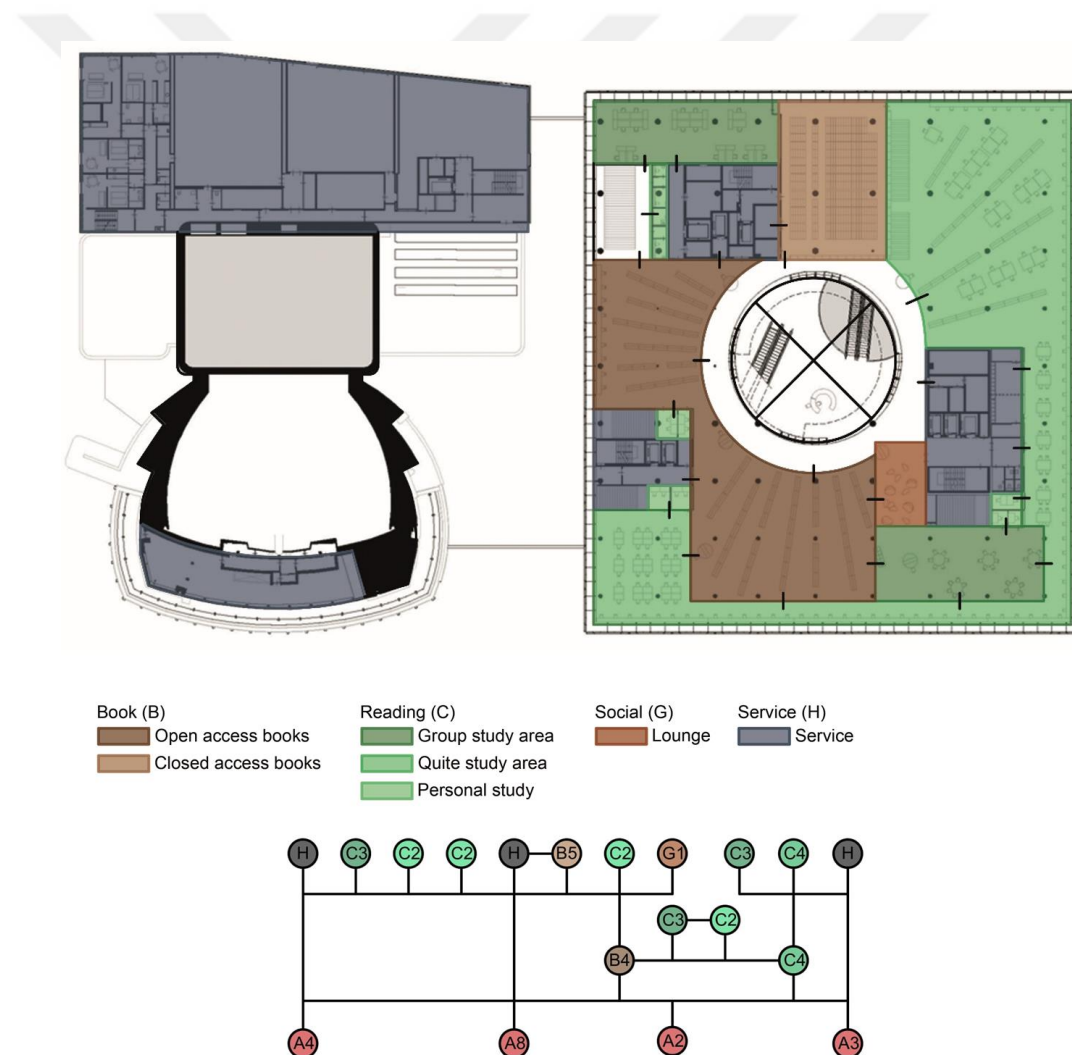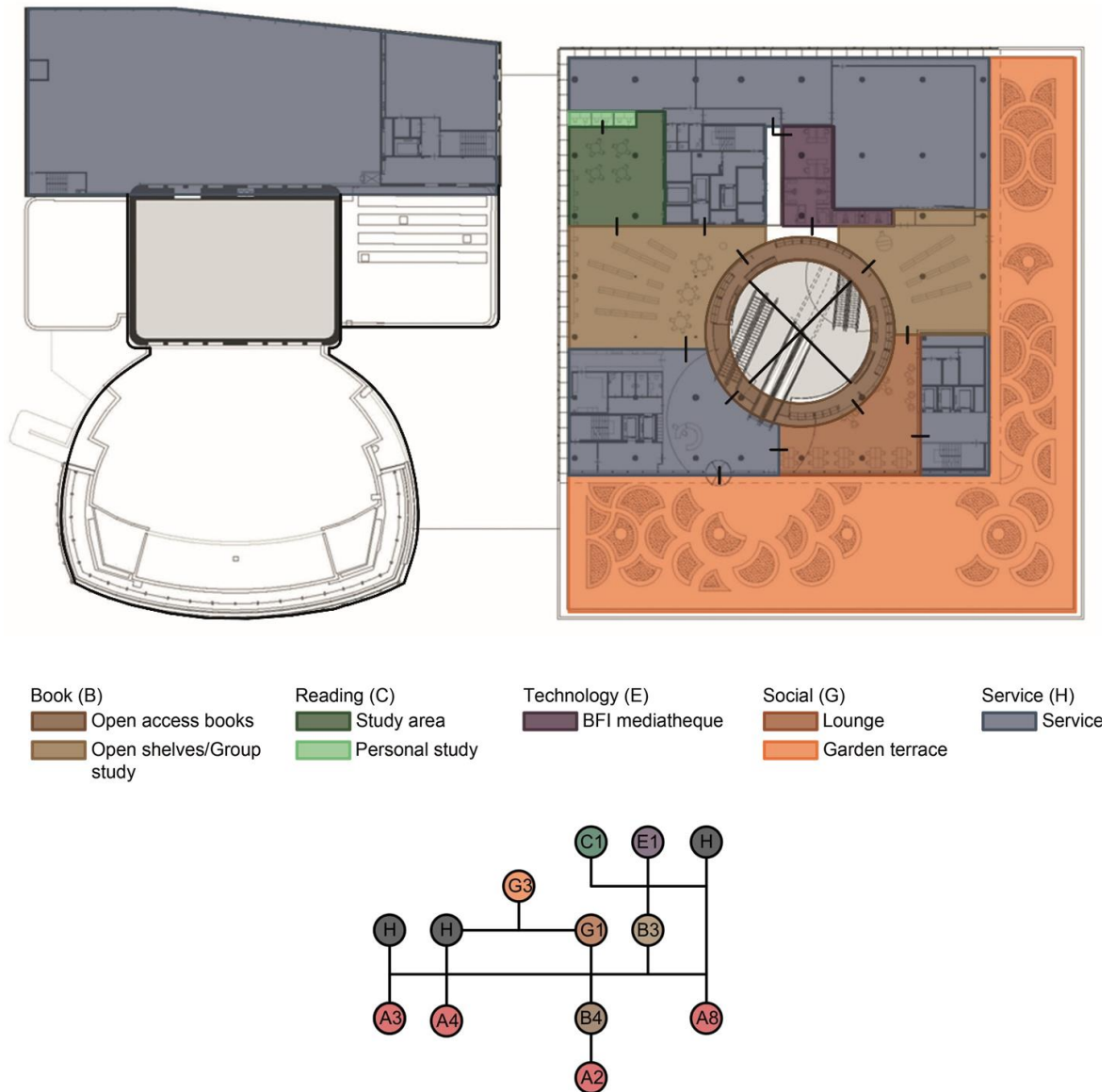

Figure 4.2.3. Library of Birmingham Second Floor and Its Syntactic Analysis
(Plan scheme is re-prodused from the drawings on https://www.mecanoo.nl/Projects/project/57/Library-of-Birmingham)[10]

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[10] Figure 4.2.3. The library plan has been taken by website, but spatial analysis on the library plan and space-sytax analysis have been done by author.

Plan decisions; In the second floor, 2 mass forms continue. The small mass is again formed in the service spaces. The 2nd floor has designed similar to the 1st floor plan. Gallery is the center location in the floor. Book and Reading spaces have located around it. Since the Library of Birmingham is a multi-storey library, the outdoor needs of upper-level users have been also taken into consideration. Therefore, on this floor, a large space has been reserved for Social spaces, including a large Garden Terrace to re-establish the connection of the users with the outside the ground floor. **Access between spaces;** Thanks to the open space design, it is possible to pass directly from almost any space to another. Some individual spaces have been considered indoor. Access can be made directly from the spaces on this floor, without any corridor. Apart from the closed access Book, Group and Individual study spaces, other spaces have been designed as open spaces. **Size of spaces;** The dominant spaces on this floor are Book and Reading spaces. **Form of spaces;** Book and Reading spaces are mostly spread from the gallery space towards the facades, without a definite form (Figure 4.2.3.).
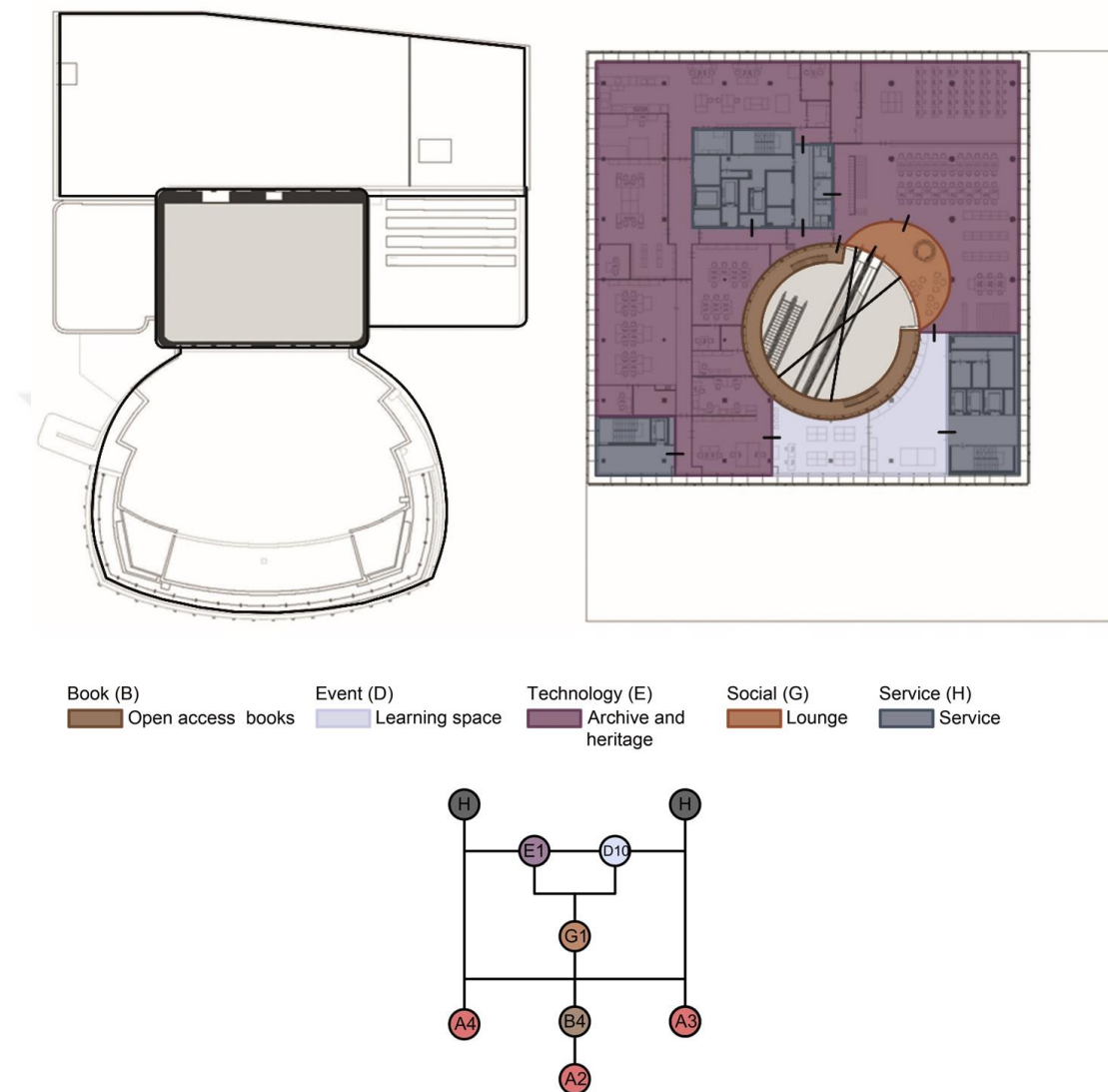
Figure 4.2.4. Library of Birmingham Third Floor and Its Syntactic Analysis
(Plan scheme is re-prodused from the drawings on https://www.mecanoo.nl/Projects/project/57/Library-of-Birmingham)[11]

Plan decision; In the floor, Social spaces come to fore. Social spaces enable to people to rest in open spaces such as Garden Terrace. Although Book and Reading areas are smaller than 2nd floor, They have been located almost in same place with 2nd floor. **Access between spaces;** Spatial access has been first provided from Open Access Book space which is in Book spaces group and located around the gallery space, to other spaces. Since other spaces have been designed as closed spaces, access between other spaces is provided by some small corridors or directly through passages between spaces. **Size of spaces;** The area of Social spaces is dominant comparing to other spaces. 2nd The

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[11] Figure 4.2.4. The library plan has been taken by website, but spatial analysis on the library plan and space-sytax analysis have been done by author.

dominant space is technological spaces. **Form of spaces;** Space forms are mostly angular as in other floors. However, the gallery space and the spaces around it are shaped at some points by following the form of the gallery space (Figure 4.2.4.).

Figure 4.2.5. Library of Birmingham Fourth Floor and Its Syntactic Analysis
(Plan scheme is re-prodused from the drawings on https://www.mecanoo.nl/Projects/project/57/Library-of-Birmingham)[12]

Plan decisions; Evaluating at the 3rd floor plan, it is seen that there is a different concept in this floor planning. The spaces and functions are quite different comparing to the other floors. Spatially, many Technological spaces have been brought together on this floor. Books and Social spaces have been also partly located around the gallery space. **Access between spaces;** Since most of the Technological spaces have been designed as

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[12] Figure 4.2.5. The library plan has been taken by website, but spatial analysis on the library plan and space-sytax analysis have been done by author.

closed spaces, their access has been provided through corridors. The concept of open space is generally abandoned at this level. **Size of spaces;** Unlike the 1st and 2nd floors, an important part of the 3rd floor has been reserved for Social spaces. Other spaces have been covered by Books and Reading spaces. Technological spaces occupy a large part of the 4th floor area. Apart from a few spaces, the spaces have been designed as closed spaces**. Form of spaces;** The spatial form is angular except for open spaces (Figure 4.2.5.).

Reading (C) — Personal study
Technology (E) — Archive and heritage
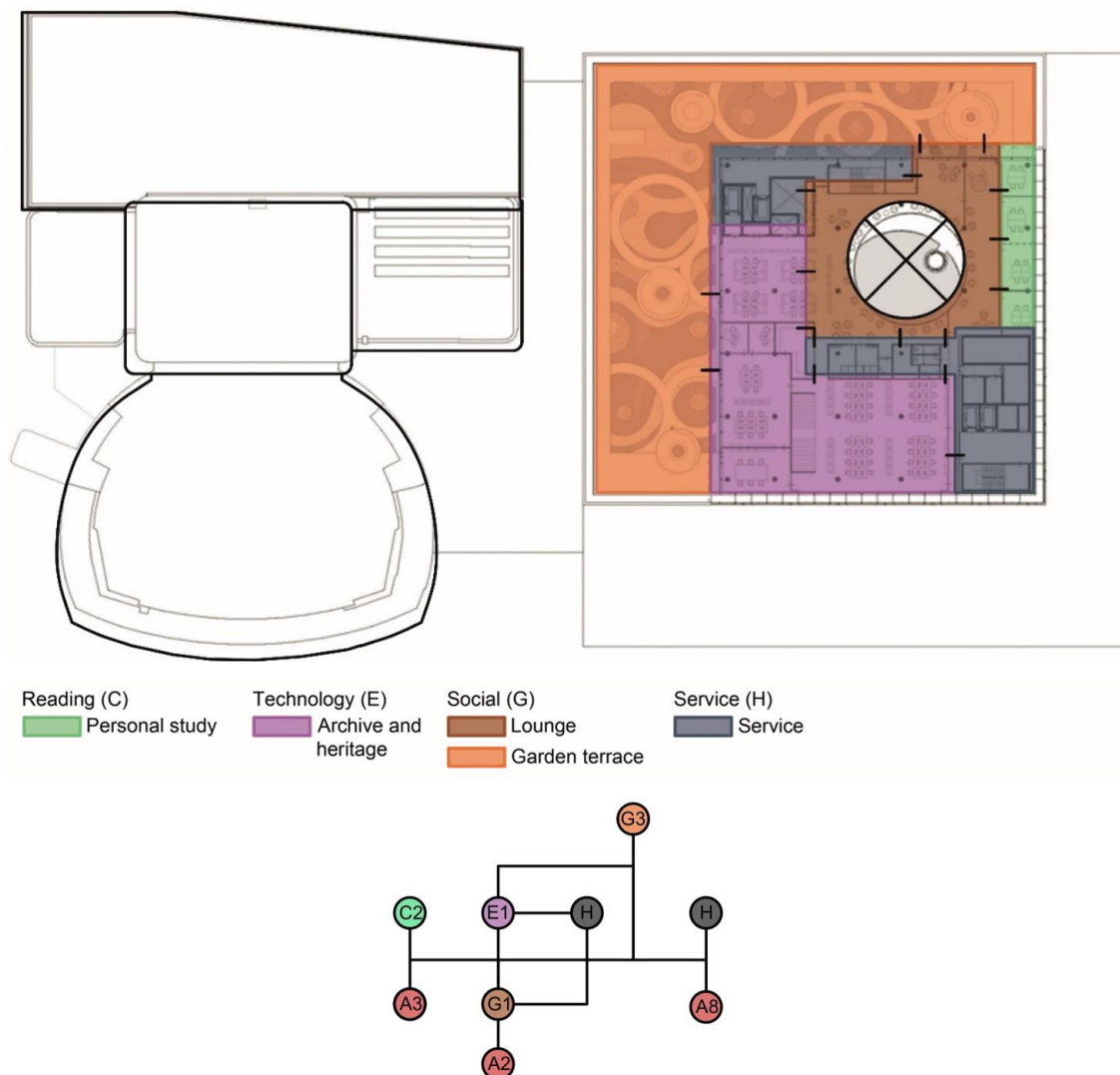Social (G) — Lounge / Garden terrace
Service (H) — Service

Figure 4.2.6. Library of Birmingham Seventh Floor and Its Syntactic Analysis
(Plan scheme is re-prodused from the drawings on https://www.mecanoo.nl/Projects/project/57/Library-of-Birmingham)[13]

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[13] Figure 4.2.6. The library plan has been taken by website, but spatial analysis on the library plan and space-sytax analysis have been done by author.

Plan decisions; there are two domains in the floor. They are Technology and Social spaces. Design concept is almost similar with 4th floor plan. **Access between space;** Since Technological and Lounge spaces have been designed as open spaces, their access is directly between them. Other spaces are closed spaces except for Garden Terrace. **Size of spaces;** Social spaces have a domiance like 3rd floor plan. Technological spaces is smaller than 4th floor as area. **Form of spaces;** Spaces form is angular because of mass form of the floor (Figure 4.2.6.).
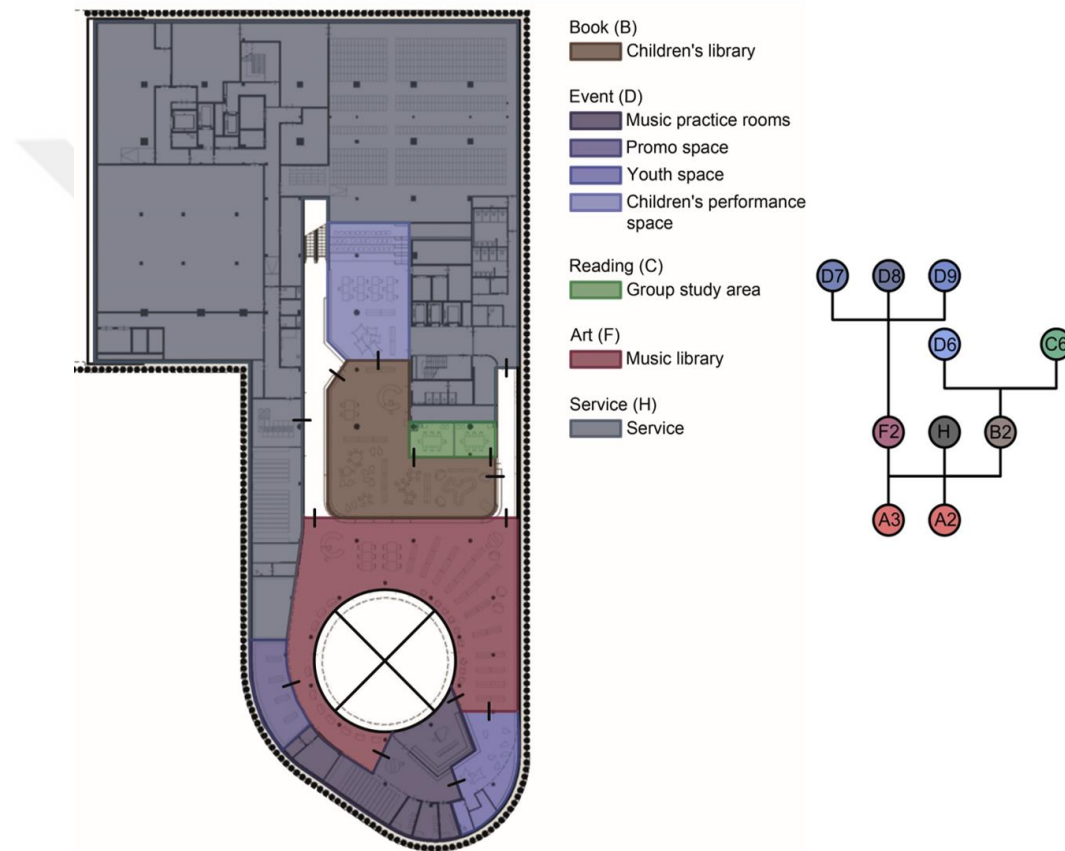
Figure 4.2.7. Library of Birmingham Basement Floor and Its Syntactic Analysis
(Plan scheme is re-prodused from the drawings on https://www.mecanoo.nl/Projects/project/57/Library-of-Birmingham)[14]

Plan decisions; As seen in the floor plan; It is not similar in shape to other floors. The reason for this is that the mass is extended towards the square in front of the library on the basement floor allowing the basement floor to receive natural light through the gallery. The basement floor is quite different from the other floors in concept, it consists of Book, Event and Art spaces designed for young people and children. Children's and

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[14] Figure 4.2.7. The library plan has been taken by website, but spatial analysis on the library plan and space-sytax analysis have been done by author.

youth spaces have been separated from each other. **Circulation;** Vertical circulation elements have been positioned at 3 different points, one of which is to serve the service spaces. **Access between spaces;** Access can be made without corridors, through passages or directly between spaces. **Size of spaces;** Apart from the service spaces, the music library, which is an art space, covers an important area. The remaining area is covered by the Book and Event spaces. In terms of the transparency of the spaces, indoor and outdoor spaces have been designed together. **Form of spaces;** As a spatial form, angular and organic form spaces have been designed in harmony (Figure 4.2.7.).

Figure 4.2.8. Library of Birmingham Section and Its Syntactic Analysis
(Section scheme is re-prodused from the drawings on
https://www.mecanoo.nl/Projects/project/57/Library-of-Birmingham)[15]

Design decisions; Analyzing in cross-section, different types of spaces coexist on the ground floor, while spatial diversity is reduced on the upper floors. Since the library is multi-storey, open spaces have been also designed on the upper floors. Interaction between floors has been increased with gallery spaces. **Space distributions;** The lower

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[15] Figure 4.2.8. The library section has been taken by website, but spatial analysis on the library section has been done by author.

floors have public Event spaces, while the upper floors have Book and Reading spaces. There are also more private spaces on the upper floors. The Shakespeare library has been located on the site of the Birmingham library. Therefore, it has decided to protect and Open access to some of the books seen as cultural heritage, and it has been implemented in the design. A memorial library named Shakespeare Memorial Room has been designed on the top floor of the building. **Space features;** Open and closed spaces have been designed together. **Circulation;** There are circulation areas have been located in various areas of the building. The general staircase positioned in the gallery space has been used as an important part of the design in the library (Figure 4.2.8.).

Looking at the Birmingham library floor plans. It is seen that plan decisions have been taken according to users from different age groups and spatial functions. The basement floor consists of spaces reserved for children and young people, the ground floor Event spaces, the first and second floor traditional library spaces, the third floor traditional library spaces and the Garden terrace, the fourth floor consists of Technological spaces, the seventh floor consists of Technological spaces and a large Garden terrace. Like the local library in the Library of Birmingham planning, more individual and quiet spaces have been set up towards the upper levels. Since this library is multi-storey, open social spaces have been designed on the 4th and 7th floors for users to reconnect with the outside. The Library of Birmingham has been previously located in this library area; It also hosts areas of cultural heritage value such as the Rep Performance Hall and the Shakespeare Memorial Room. In this sense, it is understood that protectionist approaches have been adopted in design.

4.3. Calgary Central Library
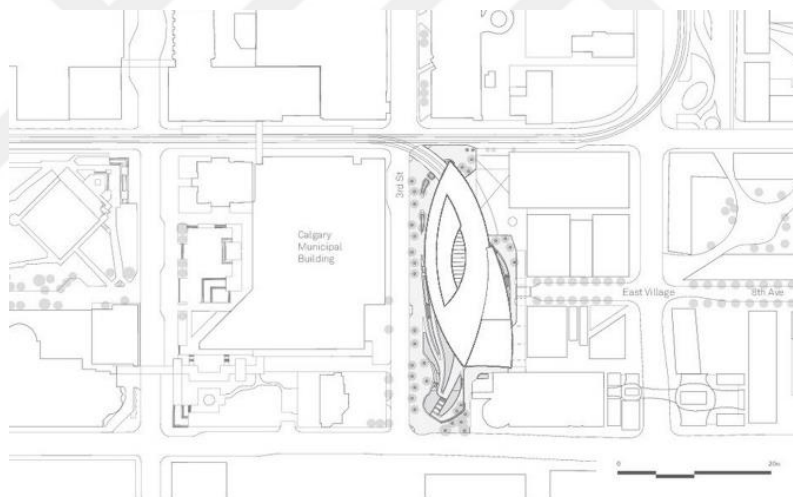
Location: Calgary, Alberta, Canada	**Client:** Calgary Municipal Land Corporation
Size: 22 300 m2	
Project design: 2013	**Design Team:** Snøhetta
Opening: 2018	

Calgary Central library is a library located in Calgary, Alberta, Canada. The library has been located in an urban area with a light rail system dividing Downtown and the East Village. The library has been built on top of the rail system. It has been designed in a spiral form parallel to the rails. At the same time, it is possible to enter the library from 2 different facades at different levels. Thus, it attracts visitors from all directions to

the library. This library has been designed for the entire public, offering a variety of functions, from social public events to important research work. It is actively used by approximately 670 000 Calgarians. This number is equal to about half the city's population (Figure 4.3.1.).
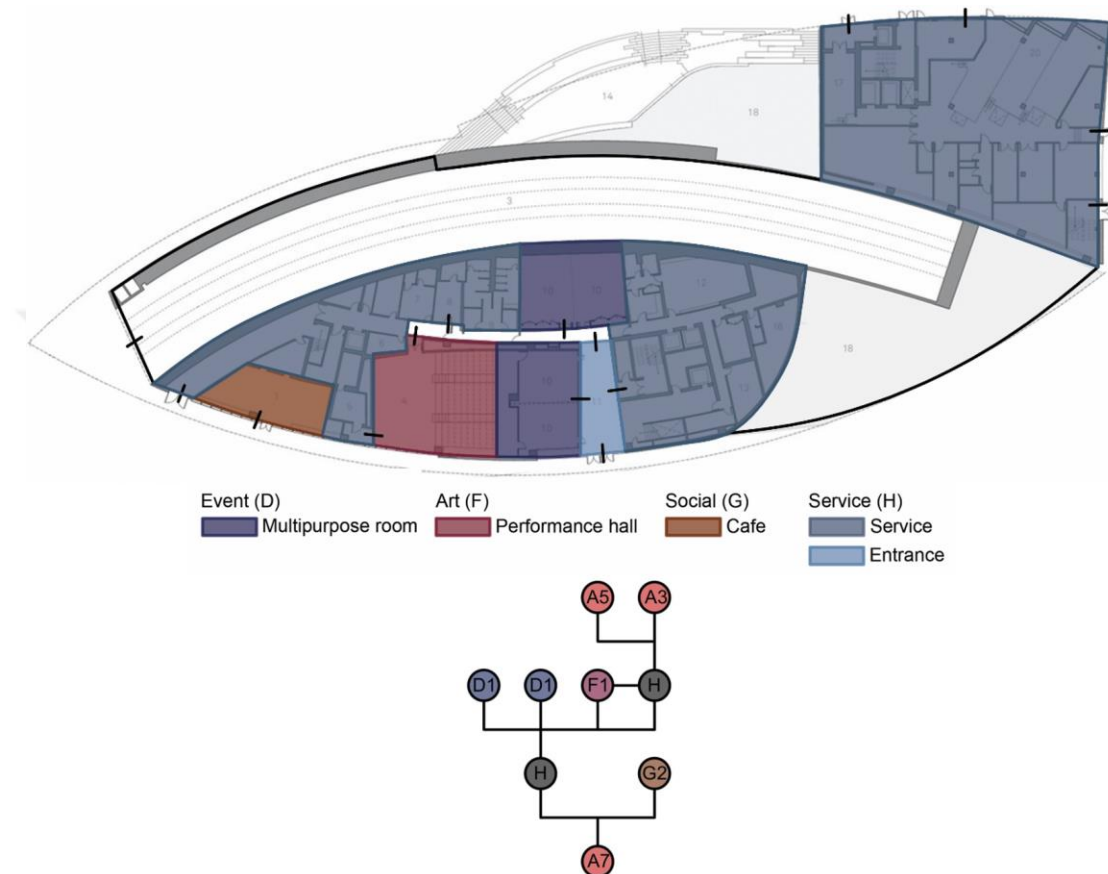
Figure 4.3.1. Calgary Central Library Ground Floor and Its Syntactic Analysis
(Plan scheme is re-prodused from the drawings on https://www.archdaily.com/905263/calgary-central-library-snohetta)[16]

Plan decisions; The Calgary Central Library is located adjacent to the ground floor rail system. The spatial setup has been also made according to this rail system. The library can easily attract its visitors through this transportation system. This is another entrance to the library from the front road. Therefore, the first spaces welcoming the visitors have been located here, and public Event spaces such as the Multi-purpose room, the Performance hall, and the Cafe have been located on this floor. **Circulation;** The upper floors have been accessed by 4 vertical circulation elements. 3 of them serve service

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[16] Figure 4.3.1. The library plan has been taken by website, but spatial analysis on the library plan and space-sytax analysis have been done by author.

spaces. **Access between spaces;** Since the ground floor mostly consists of service spaces, the spaces have been arranged as closed spaces. Therefore, the spaces have been connected through a single corridor. **Size of spaces;** It is seen in the ground floor plan that the largest area is reserved for Service spaces. Event, Art, and Social spaces share the remaining area. **Form of spaces;** Since the library has been located adjacent to the curved rail system, the space forms have been designed parallel to the rail system. Therefore, the spaces have been constructed with curved borders similar to the ellipse form (Figure 4.3.1.).
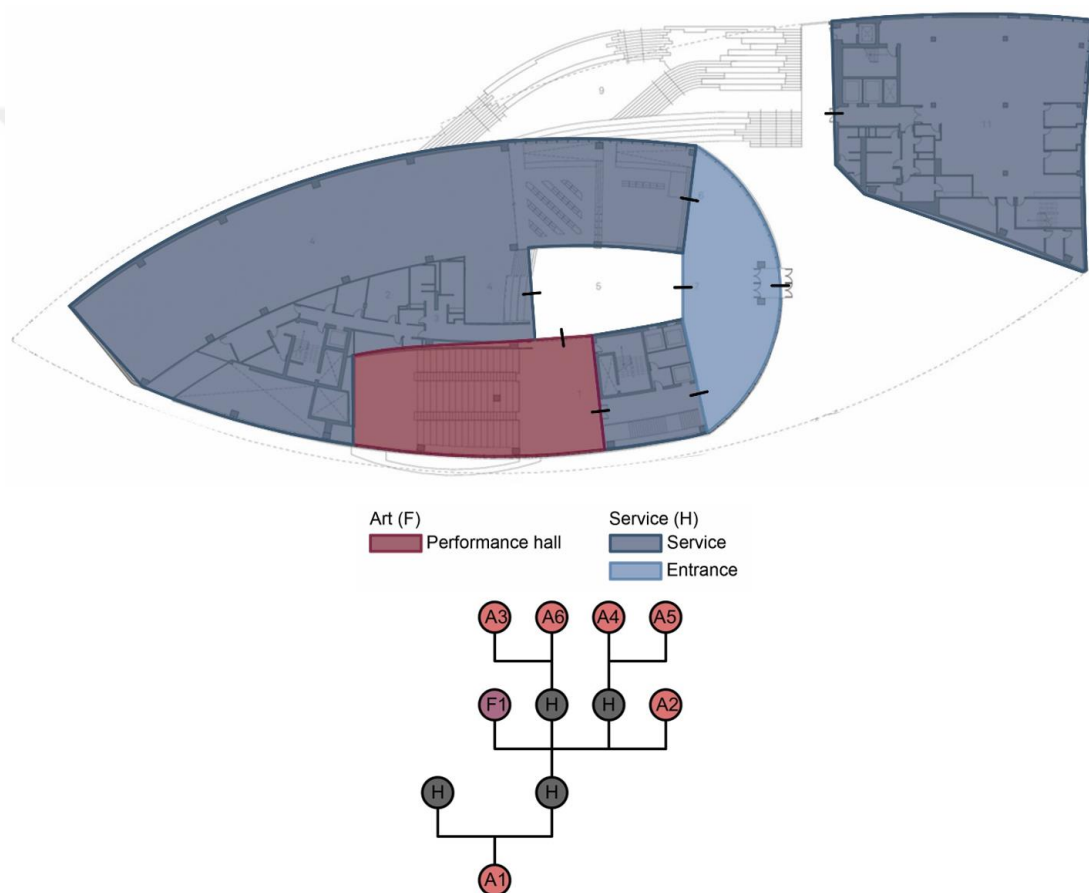

Figure 4.3.2. Calgary Central Library First Floor and Its Syntactic Analysis
(Plan scheme is re-prodused from the drawings on https://www.archdaily.com/905263/calgary-central-library-snohetta)[17]

Plan decisions; Since the library has been located on the slope, it is possible to enter the library from this floor. The entrance on this floor has a larger reception area than the entrance on the ground floor. Calgary Central Library has been located in the center of the city, on major road axes. Therefore, it draws visitors to the library from 3 sides with

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[17] Figure 4.3.2. The library plan has been taken by website, but spatial analysis on the library plan and space-sytax analysis have been done by author.

stairs to attract users coming from all directions to the library. The library has been divided into 2 masses on this floor. The smaller mass consists entirely of service spaces where library operations have been carried out and collections have been preserved and repaired. As seen in the 1st floor plan, the plan decisions have been gathered together as on the ground floor, as well as the welcoming areas for the visitors coming from the street and the public activity spaces to address them. **Circulation;** Vertical circulation has been positioned at 3 points in the large mass where the library spaces have been located. **Access between spaces;** The spaces have been arranged around an atrium and access to the spaces has been provided through this atrium. Access between service spaces has been provided through a single corridor. **Size of spaces;** Service areas occupy a large area on the 1st floor. The remaining area is covered by Art and Social spaces. **Form of spaces;** The library is elliptical as it follows the lines of the rail system in mass. Therefore, the space forms have been shaped following this form, not angular (Figure 4.3.2.).
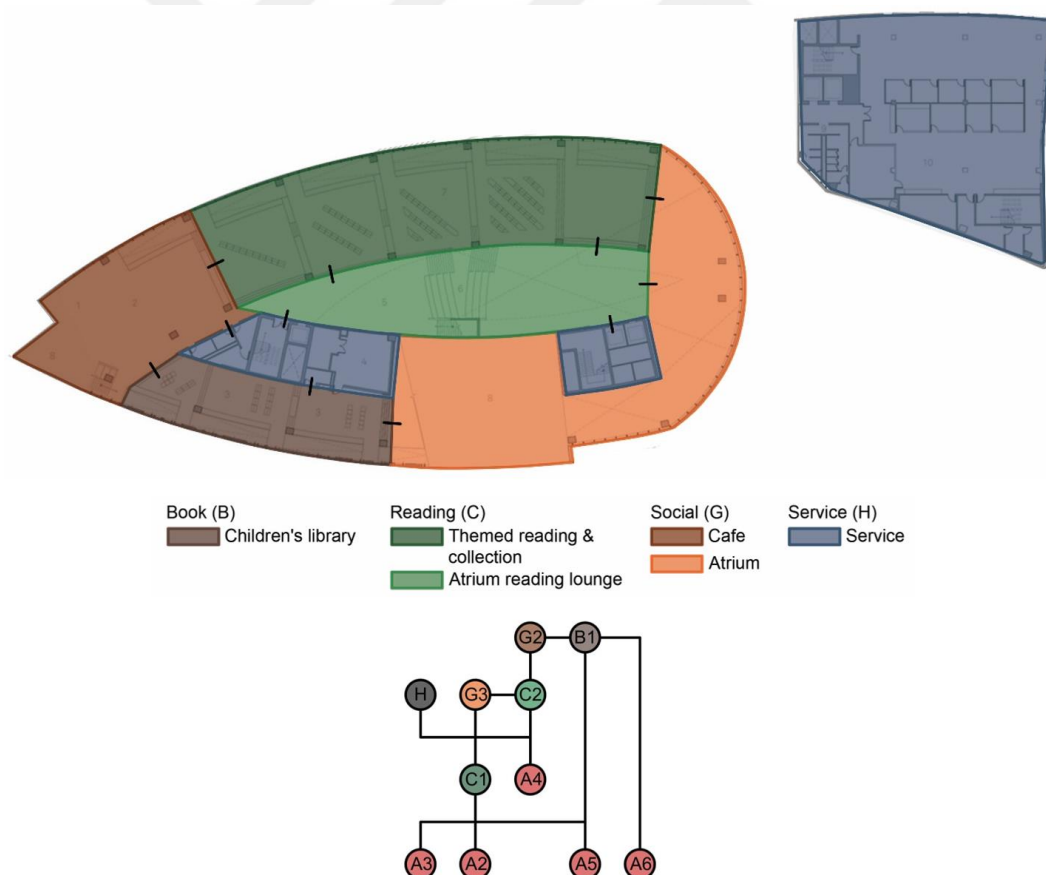

Figure 4.3.3. Calgary Central Library Mezzaine Floor and Its Syntactic Analysis
(Plan scheme is re-prodused from the drawings on https://www.archdaily.com/905263/calgary-central-library-snohetta)[18]

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[18] Figure 4.3.3. The library plan has been taken by website, but spatial analysis on the library plan and space-sytax analysis have been done by author.

Plan decisions; This floor is the mezzaine floor between the 1st floor and the 2nd floor, which is accessed by stairs from the atrium. The library consists of 2 blocks at this level. The small mass consists of the service spaces of the library collections and the library operations. In design; The spaces on this floor have been separated from each other by level difference. The upper levels have been accessed via stairs from the atrium lounge in the center, via stairs and ramps within the spaces. There is a cafe section on the top level Since the cafe has been located in a part seeing both sides of the library and is higher in level, its connection with the outside is stronger. It is possible to quickly access the Cafe from all library spaces. The Atrium has been located in the center of the library, with the name 'Atrium lounge', as a space for both Reading and gathering of people. The other space called the 'Atrium' refers to empty spaces as it remains on the ground floor due to the level difference. **Circulation;** Vertical circulation elements have been positioned in the Atrium in the center, inside the spaces, and at 2 different points. The spaces consist of main library spaces such as Book and Reading spaces, and these spaces have not been separated from each other by clear boundaries. **Access between spaces;** Provided directly without a corridor. **Size of spaces;** This floor has been designed for Book and Reading spaces, so these spaces occupy almost the entire area. **Form of spaces;** Since the spaces have been designed as open spaces, there are no specific space forms, but when the spaces have been viewed as a whole in the floor plan of the library, it resembles an ellipse form (Figure 4.3.3.).
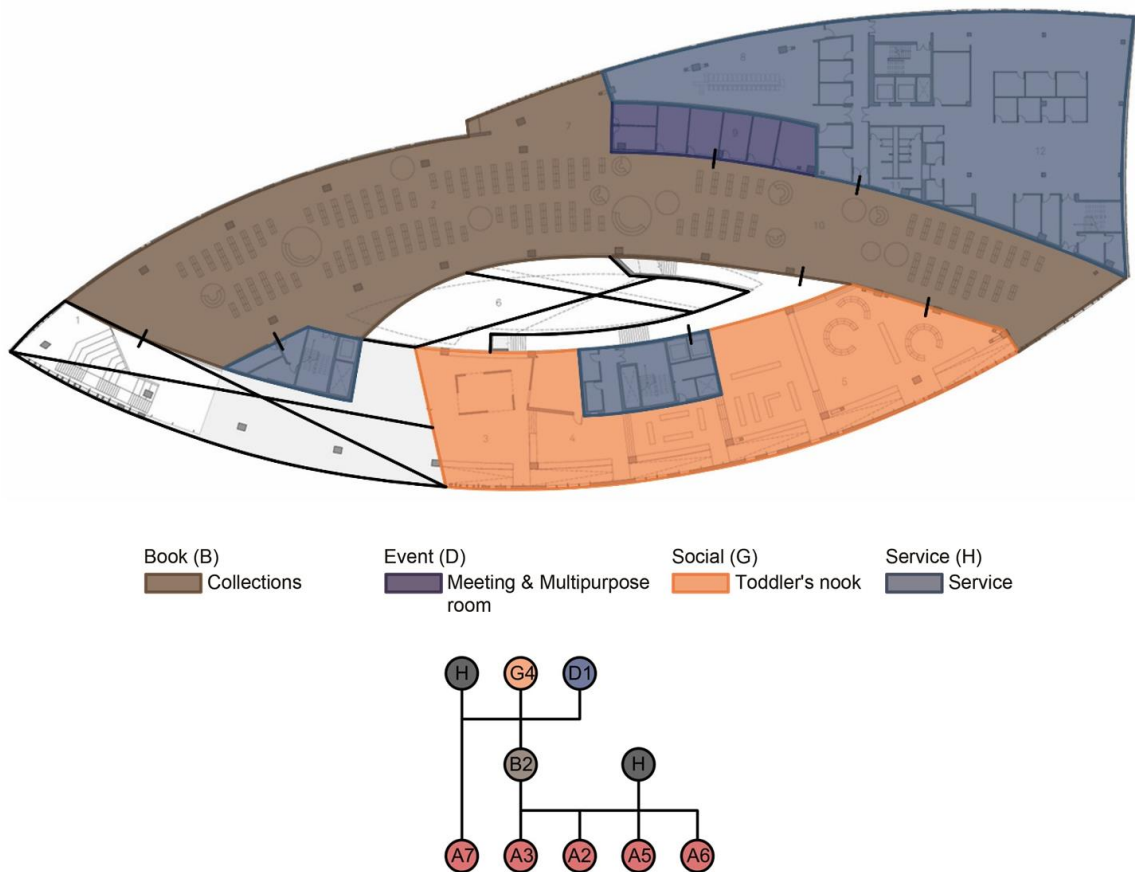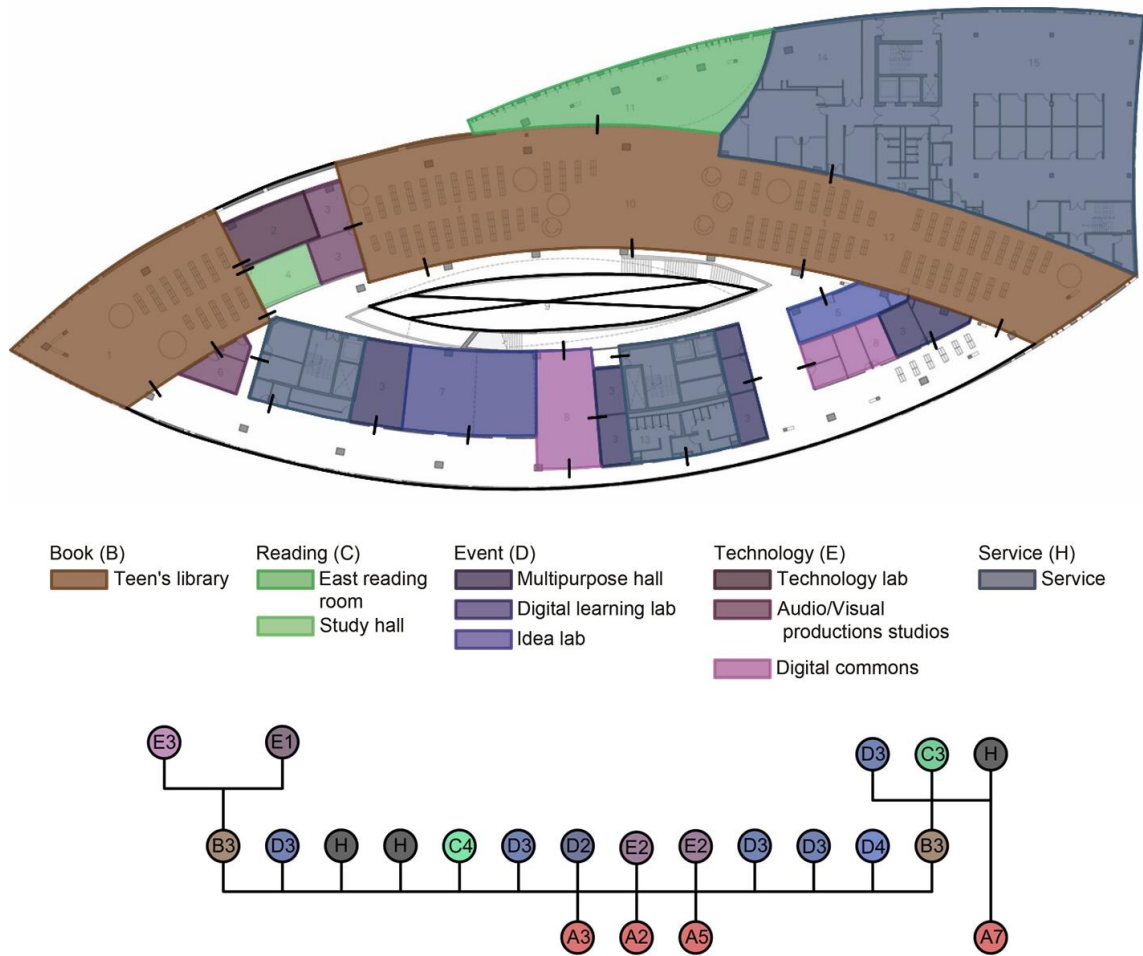
Figure 4.3.4. Calgary Central Library Second Floor and Its Syntactic Analysis
(Plan scheme is re-prodused from the drawings on https://www.archdaily.com/905263/calgary-central-library-snohetta)[19]

Plan decisions; On the 2nd floor, the masses have combined and become a single mass. The location of the service spaces remained the same. The Atrium space in the center has been transformed into a gallery on this floor and provides permeability between floors. The 2nd floor consists of Book, Event, Social and Service spaces. Since the library appeals to many different users; A space has been planned for the children on this floor as well. **Circulation;** Vertical circulation has been provided from the central gallery and 4 other circulation elements. access between spaces; Since the spaces are open spaces, the spaces are transparent and direct access to each other is possible. **Size of spaces;** In terms of spatial size, Book spaces have a large proportion. A large Social space has been designed for children, but the Event spaces have been limited. **Form of spaces;** Spatial form has followed ellipse form (Figure 4.3.4.).

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[19] Figure 4.3.4. The library plan has been taken by website, but spatial analysis on the library plan and space-sytax analysis have been done by author.

Figure 4.3.5. Calgary Central Library Third Floor and Its Syntactic Analysis
(Plan scheme is re-prodused from the drawings on https://www.archdaily.com/905263/calgary-central-library-snohetta)[20]

Plan decisions; Looking at the 3rd floor plan; In the spatial setup, indoor and outdoor spaces have been located in different places in the library. When these spaces have been examined according to their functions, it is understood that there is a distinction between loud and silent, individual and crowded spaces. It is seen that many different spaces like Book, Reading, Event, Technology, and Service have been gathered together. **Circulation;** Vertical circulation elements have been placed in the same area as the 2nd Floor. **Access between spaces;** the access between the spaces have been provided through a long single wide corridor to the indoor spaces. There is direct access to the open spaces between each other. **Size of spaces;** Their spatial sizes are respectively Book and Reading, Event, and Technology spaces. Service areas have been gathered together and

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[20] Figure 4.3.5. The library plan has been taken by website, but spatial analysis on the library plan and space-sytax analysis have been done by author.

an important area has been reserved. **Form of spaces;** Since the spaces are similar to the ellipse form as a whole, the spaces that make up the floor plan consist of the lines of the ellipse form. Therefore, the spatial form mostly consists of curved lines (Figure 4.3.5.).

       Plan decisions; The design decisions are similar to the 3rd floor. The atrium continues on this floor as a gallery space. Book, Reading, Event, Technology, Social, Art, and Service spaces have been reserved on this floor. However, the number of Event and Technology spaces has decreased. The remarkable thing on this floor; As can be seen in the floor plan, the Reading section called the Great reading room has been separated from the Collection space and a large area has been reserved. This space has been designed as a large silent reading section. There are entrances to this area from 4 sides. There is a small transition area in front of each entrance to ensure acoustics. This is the quietest place in the library. Indoor spaces such as Reading, Event, Technology, and Art have been spatially separated from other library spaces and each other, as on the 3rd floor. **Access between spaces;** They have been arranged along a corridor and access from this corridor is provided. **Size of spaces;** mostly book and reading areas dominate this floor. **Form of spaces;** The spatial form is almost the same as the 3rd floor design. Many spaces have curvilinear borders, and the Great reading room has been designed in an elliptical form. It can be thought that acoustic factors have been taken into account in this spatial form design. Both indoor and outdoor spaces have been included as needed (Figure 4.3.6.).

Book (B)
  ▮ Collections (brown)

Reading (C)
  ▮ Great reading room (green)

Event (D)
  ▮ Multipurpose hall (dark purple)

Technology (E)
  ▮ Story studio & Media lab (light purple/magenta)

Social (G)
  ▮ Community living room (orange)

Art (F)
  ▮ Craft artist studio (red)

Service (H)
  ▮ Service (blue-gray)
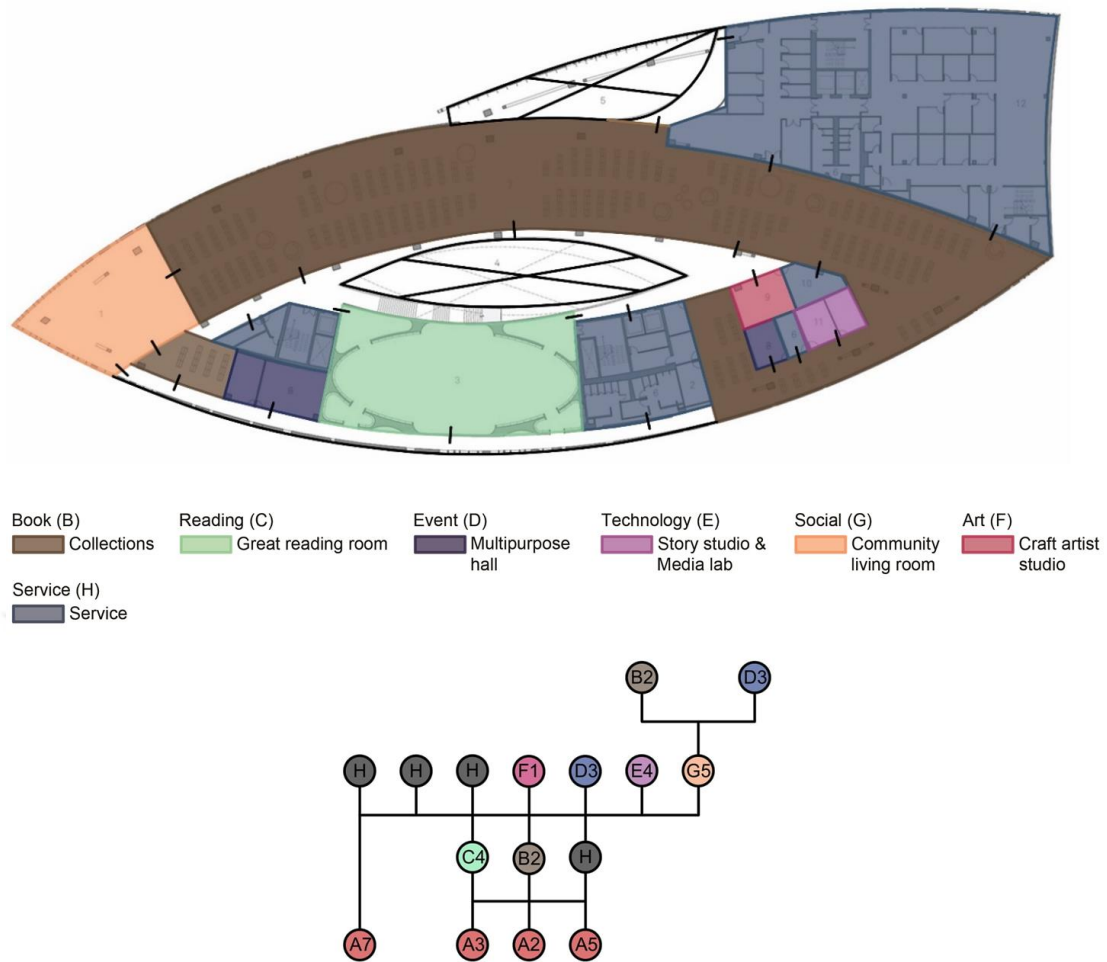
Figure 4.3.6. Calgary Central Library Fourth Floor and Its Syntactic Analysis
(Plan scheme is re-prodused from the drawings on https://www.archdaily.com/905263/calgary-central-library-snohetta)[21]

Considerin at the spatial setup of the Calgary library, a setup that is arranged from fun to serious can be seen. While there are more lively public activity spaces on the lower floors, quieter working, reading and individual spaces have been planned towards the upper floors. Many Event spaces at street level such as Performance hall, Cafe, Community lobby, Multipurpose hall strengthen the connection between the library and the outdoors. Numerous spaces have been planned for digital, analogue, group, or individual interactions throughout all floors to enable multiple functions. In the planning and planning of the Calgary library; Attention has been paid to positioning the audible and silent, indoor and outdoor spaces on different floor (Figure 4.3.6.).

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[21] Figure 4.3.6. The library plan has been taken by website, but spatial analysis on the library plan and space-sytax analysis have been done by author.

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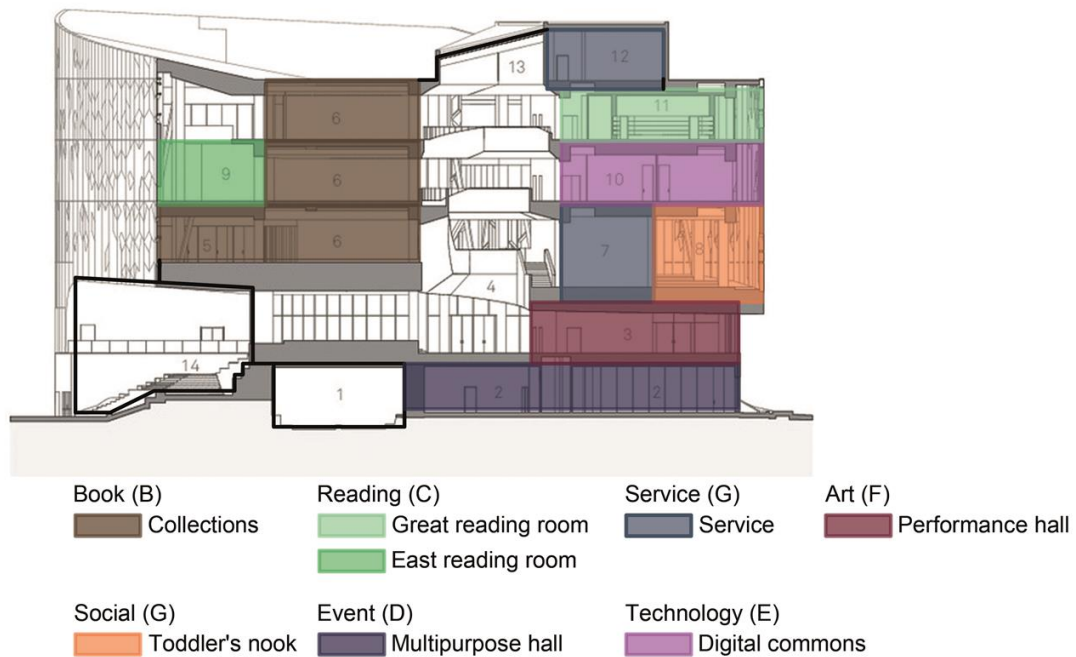
*Figure 4.3.7. Calgary Central Library Section and Its Syntactic Analysis*
(Section scheme is re-prodused from the drawings on https://www.archdaily.com/905263/calgary-central-library-snohetta)[22]

Design decisions; Calgary Central Library consists of spaces have been located around a central gallery space. As it is located close to various main roads, the entrance to the library has been designed from different levels, as seen in the section. **Space distributions;** The ground floor consists of public spaces. On the other floors, various spaces have been positioned together. In the section, the sound and quiet spaces have been designed in different places on the upper floors. In the section, on one side there are quieter spaces such as Book and Reading spaces, while on the other side, there are various activity spaces that can be louder. **Space features;** Mostly, the event spaces have been closed, and other social spaces and the main library spaces have been arranged as open spaces. **Circulation;** vertical circulations on the floors have been positioned more centrally. The general stairs have been positioned in the gallery space and used as a design factor (Figure 4.3.7.).

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[22] Figure 4.3.7. The library section has been taken by website, but spatial analysis on the library section and has been done by author.

4.4. Helsinki Central Library Oodi

Table 4.4.1. Helsinki Central Library Oodi Architectural Record
(https://www.arkitera.com/proje/oodi-helsinki-merkez-kutuphanesi/)
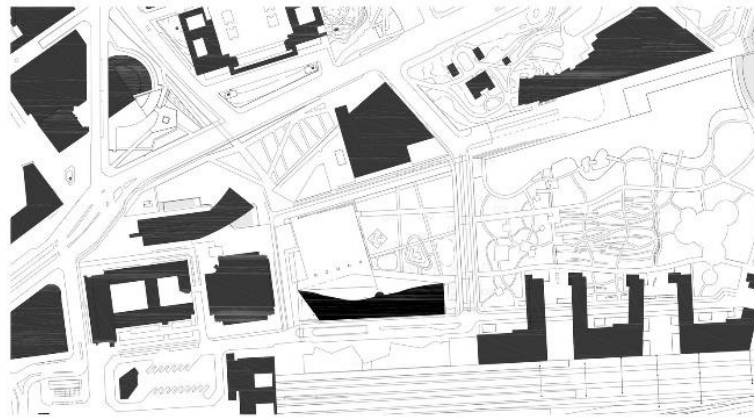
Location: Helsinki, Finland	**Client:** Helsinki Metropolitan Area Libraries
Size: 17 250 m2	
Project design: 2012	**Design Team:** ALA Architects
Opening: 2019	

Helsinki Central Library Oodi has been designed by ALA architects for Helsinki Metropolitan Area Libraries in Helsinki, the capital city of Finland. It is located opposite the Finnish parliament building, which is one of the important points of the city. It has been built opposite the Finnish parliament building as a symbol of the relationship between the government and the people. Also, this library has been located in an important cultural district in Helsinki close to many major institutions (Table 4.4.1.).
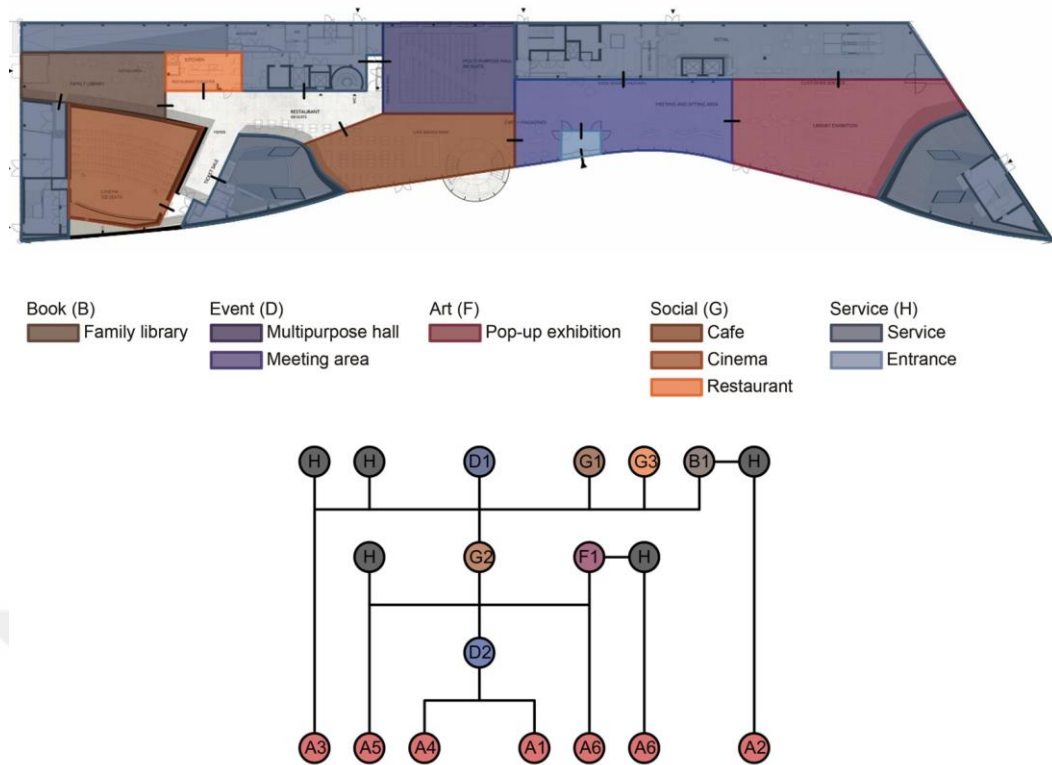
Figure 4.4.1. Helsinki Central Library Oodi Ground Floor and Its Syntactic Analysis
(Plan scheme is re-prodused from the drawings on https://www.arkitera.com/proje/oodi-helsinki-merkez-kutuphanesi/)[23]

**Plan decisions;** As seen in the entrance floor plan of the library; The library is entered from the public open area in front of it. This has increased the permeability between the square in front of the library and the library and has attracted people to the library. It is seen that many public spaces such as Event, Art, and Social have been gathered on the ground floor of the library to attract the circulation of people in this open public space. In addition to these spaces, there is a small Family library and service spaces. **Circulation;** Vertical circulation has been positioned at 7 different points. **Access between spaces;** Since most areas have been designed as open spaces, direct access between spaces is possible. **Size of spaces;** different types of areas have been positioned together on this floor. Service spaces are dominant as an area. **Form of spaces;** Since many spaces have been designed as open spaces, there is no space form. However, the Cinema space is in the form of a trapezoid, unlike other spaces. Since the front of the library is in a curved form, the service spaces that come to the front are in curved forms. The library areas outside, the Cinema, and service spaces on the ground floor of the library have been designed as open spaces (Figure 4.4.1.).

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[23] Figure 4.4.1. The library plan has been taken by website, but spatial analysis on the library plan and space-sytax analysis have been done by author.
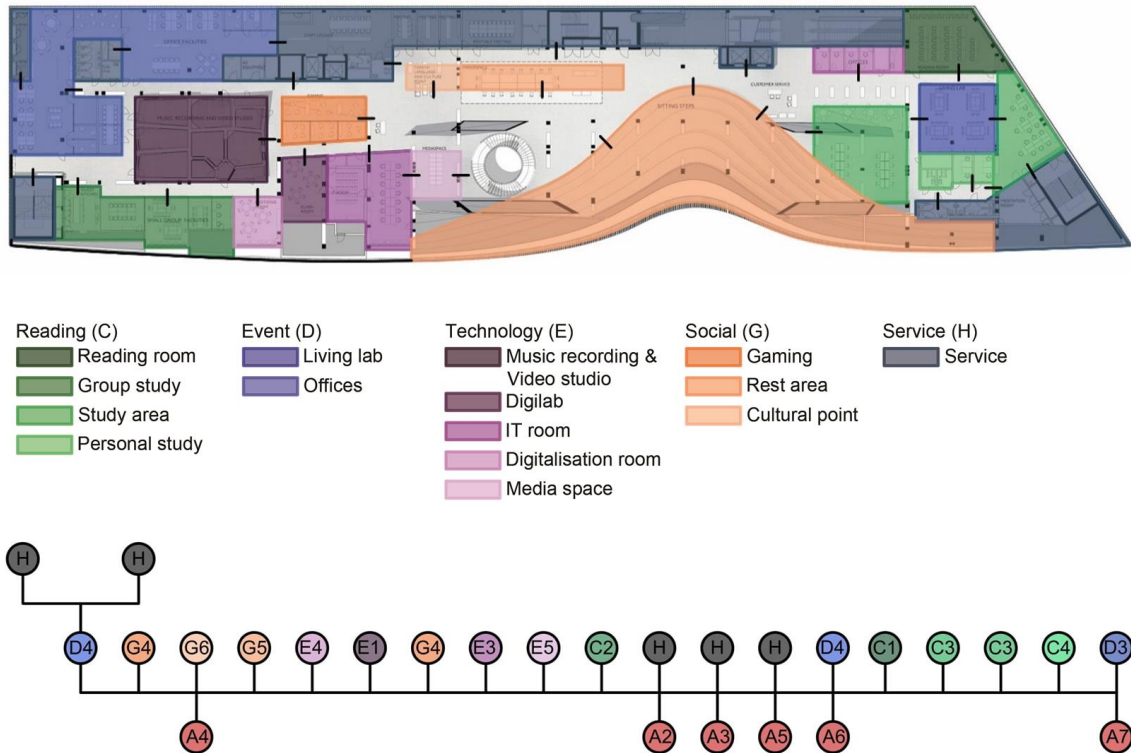
Figure 4.4.2. Helsinki Central Library Oodi First Floor and Its Syntactic Analysis
(Plan scheme is re-prodused from the drawings on https://www.arkitera.com/proje/oodi-helsinki-merkez-
kutuphanesi/)[24]

Plan decisions; The 1st floor plan consists of the harmony of many different spaces. In addition to various Reading, Group study, and Individual study spaces, there are many technological-based spaces and social spaces for events, and technological support. Service spaces have been located in the same location to provide easy access to all parts of the library. In the center of the floor plan, there is a large resting area at a point adjacent to the facade, which establishes a relationship with the outside. **Circulation;** Vertical circulation elements have been positioned at the same 7 points as the ground floor. **Access between spaces;** Since open and closed areas coexist; Access between spaces has been provided with both corridors and open spaces. **Size of spaces;** In terms of space sizes, Reading, Event, Technology and Social spaces are balanced. **Form of spaces;** The spaces consist of angular geometric forms (Figure 4.4.2.).

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[24] Figure 4.4.2. The library plan has been taken by website, but spatial analysis on the library plan and space-sytax analysis have been done by author.
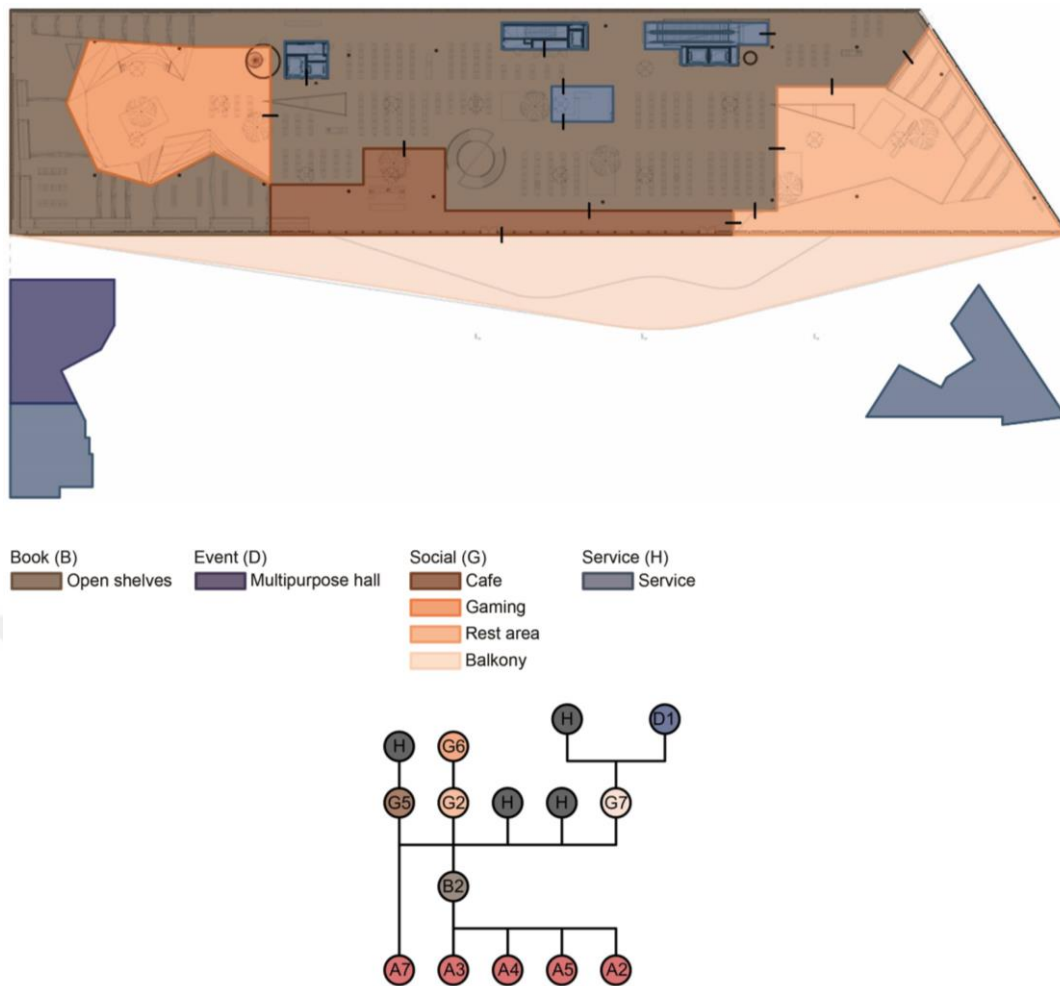
Plan decisions; The 2nd floor is the final floor plan of the Helsinki Central Library Oodi. This floor has been built on book spaces. A large balcony has been designed considering user comfort. Besides the balcony design, it has been considered in various Social spaces without spatial separation. Different from the other floors, some spaces have been designed at different levels on this floor, and thus some intermediate spaces have emerged. **Circulation;** The vertical circulations are in the same positions. **Access between spaces;** Since the spaces have been designed as open spaces without being surrounded by certain borders, the spaces can be easily accessed from within each other. **Size of spaces;** Considering the size of the space in the plan, it is seen that Books and Social spaces cover almost the entire area. **Form of spaces;** Since almost all spaces have been designed as open spaces, there is no spatial form (Figure 4.4.3.).

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[25] Figure 4.4.3. The library plan has been taken by website, but spatial analysis on the library plan and space-sytax analysis have been done by author.
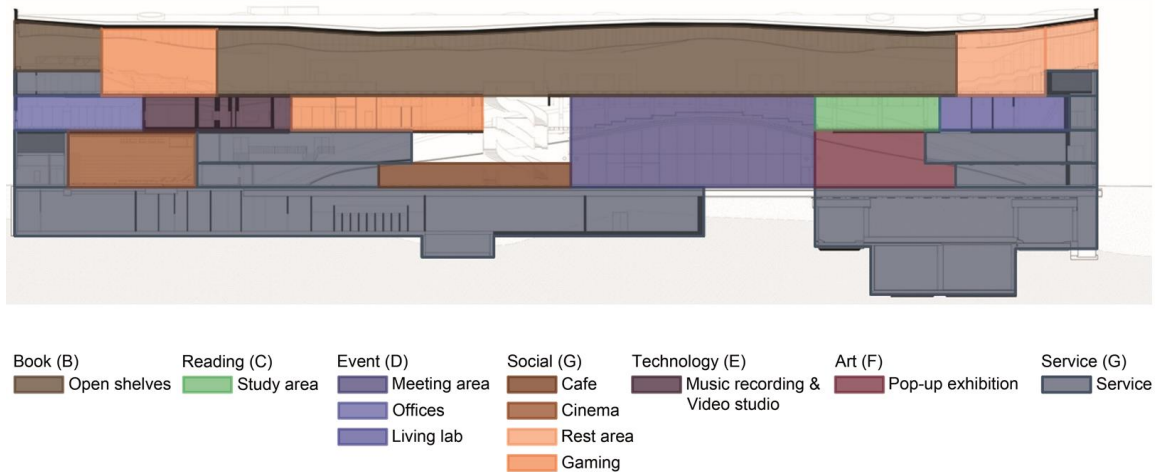
Figure 4.4.4. Helsinki Central Oodi Library Section and Its Syntactic Analysis
(Section scheme is re-prodused from the drawings on https://www.archdaily.com/907675/oodi-
helsinki-central-library-ala-architects)[26]

Design decisions; Looking at the cross-section, the floors are not connected by gallery spaces. There are different space groups from the ground floor to the upper floors. **Space distributions;** The ground floor and the 1st floor combine various spaces, while the upper floor is reserved for the main library spaces. **Space features;** spaces are mostly designed as intertwined with each other. **Circulation;** Instead of a central vertical circulation, stairs, and elevators located in different spaces have been designed (Figure 4.4.4.).

Helsinki Central Library Oodi generally consists of public activity and meeting areas on the ground floor, social, event, and technological activity areas as well as various reading spaces on the 1st floor, and reading and social spaces on the 2nd floor. The inter-floor planning is remarkable. From the ground floor to the upper floor, there is a hierarchy from crowded events to individual spaces, from sound spaces to quiet spaces. This is the key concept of the Helsinki library.

In terms of spatial design setups of Lochal library, Library of Birmingham, Calgary Central Library, and Helsinki Central Library Oodi libraries; it is seen that they follow a fiction according to sound spaces and silent spaces, public spaces, and individual spaces. However, traditional library spaces have been described as rather quiet spaces. The new spatial understandings emerging with the evolution of libraries and the

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[26] Figure 4.4.4. The library plan has been taken by website, but spatial analysis on the library plan and space-sytax analysis have been done by author.

transformation of existing spaces have made the library more complex buildings. That's why these libraries are in order and setup; While there are public, social, more crowded, and vocal activity spaces at the street level. Towards the upper levels, quieter individual spaces, and book and reading spaces have been positioned. Today, libraries are still in a change and transformation to adapt to today's conditions in the digital age we live in. One of the gains in this process of change has been the concept of 'Third Space'. The concept of Third Space has brought a new understanding to the library program and spaces. Because a new era has been entered in libraries, with digital resources rapidly dominating the place of printed resources. However, analog sources have not completely disappeared as seen in the 4 libraries examined. In this new era, libraries have adapted to the digital age with a hybrid solution of printed and digital resources (Montgomery and Miller, 2011).

As a result of spatial analysis and analysis of libraries; It is understood from the inclusion of many new spaces in the library program and the transformation of some existing spaces that the functions of libraries have increased with the effect of developments in the 20th century. In the past, libraries have been used by certain individuals and institutions. But now, with the effect of the Third Space concept in libraries, for children; playgrounds, children's libraries, for young people; library spaces like youth libraries, various activity spaces, technological and artistic interaction spaces, social spaces that all people can benefit from; Lochal library, Library of Birmingham, Calgary Central Library and Helsinki Central Library show that Oodi libraries appeal to people from all walks of life, that public identity is a priority in the design and an important conceptual change in the library. Therefore, the designers of the Library of Birmingham and the Lochal Library, which are among the examined libraries, defined these libraries as the 'Palace of the people' and 'Urban living room' (Architects, 2013 and 2019). Thus; They also thought of the library as a socializing space, as Oldenburg expressed, as a third place where people go outside of their homes and workplaces.

Libraries no longer consist of spaces dominated by bookshelves as they used to be. Especially after the learning-centered paradigm, the concept of learning has become more important and the library has started to host different learning activities as a group or individually. The change in the concepts of learning and teaching has affected spatial transformations. In the future, changes in research and science are expected to play a more

important role in the transformation of libraries (Lyon, 2012). It has emerged as a result of the introduction of new learning concepts such as learning together, collaborative work, and cooperation into the library program. Because in this way; information can now be transferred not only from books to people but also from person to person, intentionally or unintentionally. Although book collections have lost their former importance with the development of digital technologies, online information retrieval services, and networking, for some people, library and book collections are inseparable (OCLC, 2010). Many libraries still hold some of their printed collections. The complete digitization of all sources of information still requires an evolutionary process (Campell, 2006). Digital information access opportunities are mostly used for academic studies. (Schonfeld and Housewright,2010) However, although academic researchers use the library mostly digitally, most of them have been affected by the creative and intellectual atmosphere of the library with the effect of book collections. (Gannon-Leary, Bent, and Web, 2008).

Considering the 4 contemporary library plans that have been examined, an important space has been reserved for book collections in each library due to the old tendencies of people to book collections and still demand them. In addition, in these libraries; It is seen that people have been tried to be brought together in different activities and technological-based spaces with new space understandings for the production of information.

Complex science has caused the library to have new functions. As science has become more complex, statistical and analytical knowledge has become increasingly important. It is a necessity to have a wide command of the information and to reinterpret the information with visual data such as statistics. To produce such analytical and statistical information, environments equipped with visual tools are needed. This is a new way of producing knowledge in libraries (Michener, 2012). E-research is an important function in library activities. Because a lot of information can be accessed by digital means and new information can be produced by interpreting various information. This information can be obtained from digital systems through observation, simulation, and experiment, in forms such as texts, numbers, audio, and images, and this information can be related to any science or art (Uribe, 2007; Williford and Henry, 2012). Some libraries in America have been renovated or designed on the 'research common'. The aim is to support people's interdisciplinary knowledge production and to bring researchers together

(Whatson, 2013). A similar study was conducted in South Africa. (Daniels, Darch and Jager, 2010). Again to create a 'research common', the University of Warwick Library was opened in England (Carroll, 2011). Libraries can also share the knowledge produced by conferences, cafe Scientifique meetings, and public events with wider audiences (Lyon, 2012; Williford and Henry, 2012). As can be seen from these initiatives, it is aimed to create knowledge production and research common by creating silent, collaborative, and social spaces and technology-rich environments in libraries.

4.5. Chapter Review

In the examples of this study shows that the spaces designed for different activities as a group and the quiet individual spaces have been considered as information production spaces. Spaces bringing together larger audiences, such as conferences, also serve to share information through various events. One of the important concepts for libraries in the information age is information production and sharing, so one of the new space understandings is information production and sharing spaces.

It could be obvious that information has been ensured through social spaces from the analyzed libraries. Another point of view that it has been aimed to produce and share information through chat while people are having fun. This is a spatial result of the Third Space concept emerging in new generation libraries. In the study, the spatial morphologies of the libraries have been examined to understand the new space understanding and relations that come with the Third Space concept. Spatial morphology, analyses indicates that there are public buildings that serve almost every segment of society, including different ages, interests and groups by constructing different space types of all libraries together with complex relations.

Although selected libraries have different design decision like space form, massform, their common point is Third Space including meeting Spaces, Performance Spaces, Recreation Spaces, Artistic Spaces as in the table. These space groups are different in the case libraries in terms of entegreting to main library spaces and another spaces groups in different ways. According to table infrences, Although some of the case libraries haven't all Third Space groups, their design approach is similar in context of Third space (Table 4.5.1.).
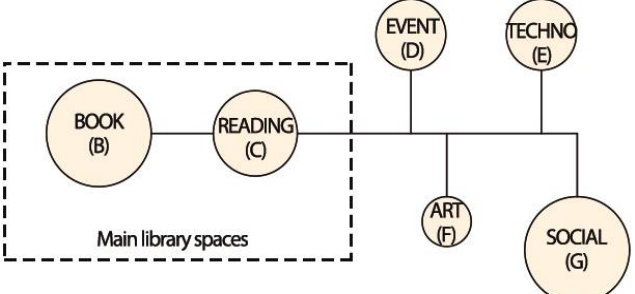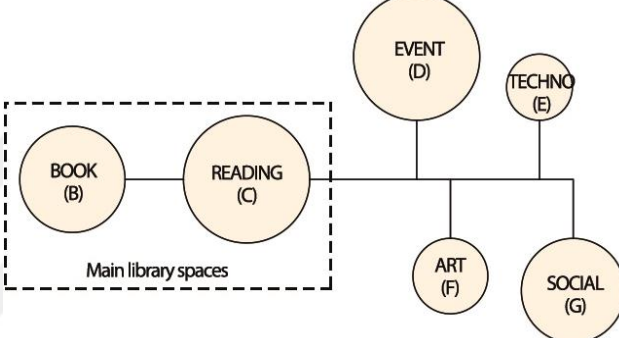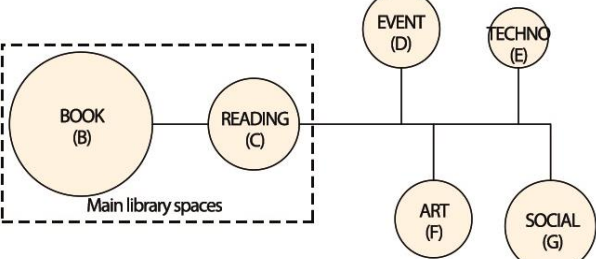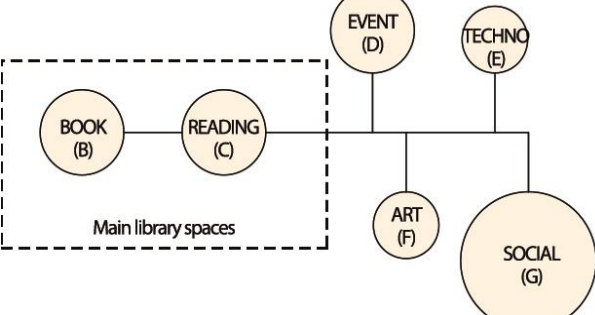
Table 4.5.1. Third Spaces of Case Libraries

Third Space	Lochal Library	Library of Birmingham	Calgary Central Library	Helsinki Central Library Oodi
Meeting Space	+	+	+	+
Performance Space	+	+	+	-
Recreation Space	+	+	+	+
Artistic Space	-	+	+	-

As seen in the morphological analysis, Third Spaces have become an integral part of 21st century libraries. Although different space groups are dominant according to cultural, social, and physical effects, Third Spaces have an important space in general libraries. This is another point that shows us the importance of Third Space in library planning. Third Spaces in the 4 case library are linked to the main library spaces in different ways. In the 21st century, there are no important distinctions between the space groups, the libraries have been designed with a holistic approach, together with the Third Spaces, which include different space groups, and the main library spaces. (Table 4.5.2.).

In all examined libraries, different space groups are connected to the main library and its spaces by various relations. These spaces have existed since the first library examples and they are indispensable spaces of 21st century libraries. The fact that libraries are inseparable parts of their deep-rooted history and they are still a useful part of library services, although many technological tools enable access to information through digital means, it is effective that people prefer access to information through physical means and that they are integrated with the concept of the library in people's minds. Although spatial activity groupings such as Event, Techno, Art, and Social are found in different proportions in both 4 libraries, each of them is the space included in the library program with the concept of Third Space. In this sense, the concept of Third Space has brought a social and cultural identity to the library. In fact, in some Case libraries, these space groups dominate the main library spaces. Some space groups, such as Event, Book, etc, have come to the fore in some case libraries (Table 4.5.2.).

Table 4.5.2. Morphology of Case Libraries

Libraries	Morphology
Library of Birmingham	
Lochal Library	
Calgary Central Library	
Helsinki Central Library Oodi	

The main library spaces of the Library of Birmingham and Helsinki Central Library Oodi are in similar sizes. However, Reading Space in Lochal Library and Book Space in Calgary Central Library dominate the others. Considering all field groups in general; some Case libraries have come to the fore with certain field groups. Compared

to other spaces, the Library of Birmingham and Helsinki Central Library Oodi stood out with Social, Lochal Library Event, and Calgary with Book. The location of these libraries is a situation shaped by factors such as the society they are in, environmental factors, access, and design decisions. But in all these case libraries and their field groups; Social and cultural identity has been shaped by the reflections of the concept of Third Space, such as publicity, social learning, social interaction, collaborative learning, and space of meeting for people. The library has undergone major changes over the last century and is still in the process of change. This change happened very quickly. Because old libraries could not keep up with this change, they remained functionally inadequate. Looking at the 4 case libraries examined; to respond to new changes over time, it is seen that many spaces are not separated by clear boundaries such as walls, and the flexible space concept has been considered in the design, for the spaces to be reconfigured if necessary with this change. On the other hand, libraries have many organizational spaces as they now host many events. However, the inclusion of spaces called 'multi-purpose halls' in the library program for other activities that users may request outside the program is another spatial reflection of the flexibility concept (Table 4.5.2.).

Chapter 5

Conclusion

This thesis aims to examine and discuss libraries from a historical perspective and today's library spaces in light of concepts of Third Space affected their architectural design. For this scope, the evolution of libraries has been examined. To understand this process, the thesis examines the development of the library and develops its point-of-view in three thresholds in its history. It examines and investigates their reflections on the library spaces. In addition to these, the concept of Third Space has been examined due to understand the significant change and transformations possibilities of today. The thesis examines the Third Space concept from a different point of view and tries to develop a perspective on contemporary architectural design outlook. After the conceptual discussions, this concept has been investigated in library space, in particular. To comprehend the actual effect of this concept on libraries, spatial analyzes have been made on four selected contemporary library examples. The spaces have been examined in detail by morphological and space syntax analyses. Libraries have been also discussed by interpreting these analyzes with the concept of Third Space. In addition, these libraries studied and compared by their morphological design approaches. With the inferences obtained from the table and from other parts of the thesis, the spaces of the 21st century libraries have been discussed and the new library concept has been tried to redefine by its functions and spaces.

By this research and analysis, it has been stated that libraries with very simple functions and basic spaces in the past have become much more complex buildings. Library space has been transforming in time and its spatial evolution has been continuing for generations. Considering the sources and possibilities of information in the past, most

of today's resources and knowledge were not available. However, it should be known that libraries have played a vital role in the transfer of knowledge from generation to generation in bringing science and knowledge to their current level and in the development of human beings. The importance of libraries has been understood and emphasized in the analyses and examinations carried out in this thesis. Since knowledge was scarce in the past and it was a difficult thing to obtain, libraries emerged with a simple function and space planning as a result of the need to store that knowledge. Because information was so valuable, libraries were extremely private spaces that only certain individuals and institutions could access. However, with the studies carried out in this thesis until today, it has been understood that libraries have become more and more public spaces. With this review, libraries in the 21st century are inseparable from their public identity.

The concept of social space, which came with the concept of Third Space, has been added to the journey of publicization of libraries, which started with the construction of public libraries by the state. Libraries have gained a more public identity by attracting people from different segments of society with social spaces. In another sense, knowledge has been democratized and made public in the historical process. The concept of Third Space was introduced in the 20th century with the definition of Oldenburg as where people go outside of home and work. It is defined by concepts such as Natural Ground, Conversation, Accessibility and Accommodation, The Regulars, Low profile, and Home Away from Home. Considering these concepts examined, many researchers claimed that libraries could be Third Space. Libraries designed with the concept of Third Space have become contemporary designs as new generation libraries. In addition to these concepts, the concept of Third Space has shown that knowledge can be obtained not only from a physical environment such as a book but also from person to person in a social environment, collaborative learning environments, or the actions of people coming together in different activities, in different ways. Phenomena like social learning, collaborative learning, knowledge sharing, collaborative knowledge production, and experience have been included in the library program. These phenomena have developed new understandings of space in libraries. As this diversity has increased over time, it has become impossible to limit library spaces to certain spaces as in the past. In addition, Art, Technology, Social and Event spaces have been included in the library program to make libraries more public.

Libraries have provided people with the opportunity to produce and share information through common working environments, as well as offer a social togetherness environment by coming to the fore with their public identity. With the change of information, the effects of the concept of Third Space, developments in technology, new information tools, and changing user needs, libraries today are not only storing information but also producing and sharing information, users are not passive information consumers but active information producers or co-producers. It should consist of the interface areas where the information is shared at the same time and the facilities that provide it.

Considering the history of libraries in this thesis, three thresholds caused a significant change in libraries were formed as a result of humankind's breakthroughs in science and technology. Finally, with the introduction of technologies such as computers and the internet into our lives, libraries have changed. But not long after these developments, groundbreaking technologies such as artificial intelligence and the internet of things are being discussed today. These developments will undoubtedly lead to a change and transformation of the library and the development of new spatial understandings. It is clear that information has constantly moved from the physical environment to the digital environment today, and in the future, digital spaces based on the technology will be more integrated into the library program, as human beings design a more digital world. Therefore, libraries should have flexible spaces in this period when change is accelerating, they should also follow the developments in technology and have spaces with digital opportunities, knowing that the future will be shaped in the digital environment, and have an understanding of architecture that is open to new technological demands. By adapting rapidly to new developments, libraries will strengthen their existence in the future as in the past and will continue to be an inseparable part of society with their historical responsibility.

5.1. Sustainable Global Development

As mentioned in the evolutionary history of libraries, the first library practices emerged as a need for storage and preservation, where information was scarce and difficult to obtain in the past. That's why states and societies have given great importance to libraries. They have become very important institutions and information repositories,

since the digital facility where information can be easily stored as today did not exist in the past. In cases such as war, the scarce knowledge that was hard to obtain due to the damage to the libraries has also disappeared and even brought societies back as cultural and knowledge accumulation. Because libraries have become a representative of the knowledge of the society. The destruction of the library of Alexandria and the Library of Baghdad is an example of this. The harm coming it, has also come to the society. With the preservation and development of libraries, the knowledge of human beings has increased, they have made important contributions to the training of scientists, especially the production and sharing of qualified information, individual and social education, and eventually societies have developed. Libraries have developed changing due to various factors until today. This development has been a driving force for social development. Our level of civilization today has been due to the existence of libraries.

Today, there are also questions about the existence and future of libraries emerging with easy access to information, but libraries have changed a lot in terms of identity, function, concept and spatial and have been reprogrammed according to the needs of the age. Libraries are an important public and social asset for societies today. Their development is still parallel to the development of societies. Therefore, contributing to the development of libraries means enabling a more sustainable future and more civilized societies in the future. It is thought that this thesis will contribute to social development and sustainable development goals with its contribution to the development of libraries.

5.2. Future Prospect

As mentioned in the other parts of the thesis, libraries have undergone a great change with the emergence of new space concepts such as Third Space, with the ease of access to information thanks to the technologies that entered our lives in the 2000s. Looking at the history of libraries, it will be seen that; Major developments in technology have caused breaking points in the history of libraries and have prepared them for radical changes. The newly built libraries has been designed with a very different understanding under the influence of these changes. Existing libraries have been transformed to adapt to developments. In the early 2nd millennium, with the introduction of technology into our lives like never before, the change has accelerated. Libraries, which have undergone

significant changes in this date, are still in a process of change today to respond to new demands and developments despite the time that has passed. Many libraries still need to be transformed and replanned to keep up with these changes. The studies and inferences obtained from this thesis contain important findings for library planning in this change process. In addition, suggestions have been developed on the library, open to new discussions for development of libraries.

BIBLIOGRAPHY

Altick, R. D. (1957). *The English Common Reader.* Chicago: University of Chicago Press.

Arendt, H. (1996). *Geçmişle Gelecek Arasında, (1.Baskı).* İletişim Yayınları, İstanbul.

Barr R. B. and Tagg J. (2010). *From Teaching to Learning—A New Paradigm for Undergraduate Education,* Change, 27(6). 12–25.

Bechtel, J. M. (1986). *Conversation, a New Paradigm for Librarianship?, Association of College and Research Libraries.* American Library Association, 47(3).

Bennett, S. (2003). *Libraries Designed for Learning,* Council on Library and Information Resources, Washington.

Bennett, S. (2009). *Libraries and Learning: A History of Paradigm Change,* John Hopkins University Press.

Bookchin, M. (2013). *Ekolojik Bir Topluma Doğru.* Sümer Yayıncılık, İstanbul.

Boone, M. D. (2002). *Library design – the architect's view. A discussion with Tom Findley.* Library Hi Tech, 20(3), 388-392.

Campbell, N. M. (2014). *Designing Retirement Community Third Places: Attributes Impacting How Well Social Spaces Are Liked and Used,* Journal of Interior Design, 39.

Campbell, D. J. (2006). *Changing a cultural icon: the academic library as a virtual destination,* In: Educause Review, 41(1). 16-31.

Caroll, D. (2011). *Fostering a Community of Scholars at the University of Warwick: the Wolfson Research Exchange,* New Review of Academic Librarianship, 17. 78-95.

Daniels, W. (2010). *Darch, C. and de Jager, K., The Research Commons: a new creature in the library,* Emerald in Performance Measurement and Metrics, 11. 116-30,

Coravu, R., *Library spaces: New Values, New Funtions.* Conference: Biblio (2010).

Demas, S. (2005). *From the ashes of Alexandria: what's happening in the college library in Library as Place: Rethinking Roles, Rethinking Space.* Council on Library and Information Resources. No:129.

Demas, S. and Scherer, J. A. (2002). *Esprit de Place: Maintaining and Designing Library Buildings To Provide Transcendent Spaces,* Carleton College Archives, American Libraries, 33(4). 65-68.

Dillon, A. (2008). *Accelerating Learning & Discovery: Refining the role of academic librarians* (White paper). Council on Library and Information Resources. (https://www.researchgate.net/profile/Andrew-Dillon-5/publication/267721526_Accelerating_Learning_Discovery_Refining_the_role_of_academic_librarians/links/54e63d670cf277664ff4c60a/Accelerating-Learning-Discovery-Refining-the-role-of-academic-librarians.pdf)

Aymelek Y. (2015). *Ekolojik Tasarımda ''Form Akışı İzler'' Metaforu Üzerine Bir Araştırma*; Doesburg, T. (1924). *Plastik Bir Mimarlığa Doğru Manifestosu.*

Conrads, U. (1991). *20.yy Mimarisinde Program ve Manifestolar (1.Baskı).* Şevki Vanlı Mimarlık Vakfı.

Dolley, J. and Bosman C., Cheltenham (UK). (2019). *Rethinking third places. Informal public spaces and community building.* Edward Elgar Publishing.

Donald, D. G. and Wayne, A. W. (1986). *Social Libraries Encyclopedia of Library History.* Garland Publishing.

Estabrook, L: S. (2022). *Library.* Britannica.
(https://www.britannica.com/topic/library#ref62005)

Gannon-Leary, P, Bent, M, Webb, J. (2008). *A Destination or a Place of Last Resort? The research library of the future, its users and its librarians,* Library and Information Research, 32. 3-14.

Harrington, D. (2001). *Six Trends in Library Design, Library Journal,* 126(20). 12-14.

Montgomery, S., Miller, J. (2011). *The Third Place: the library as collaborative and community space in a time of fiscal restraint,* Rollins Collage, Rollins Scholarship Online, Faculty Publications, 18; Howard, J. (2009). In face of professors' 'fury,' Syracuse U. library will keep books on   shelves. The Chronicle of Higher Education. (https://www.chronicle.com/article/in-face-of-professors-fury-syracuse-u-library-will-keep-books-on-shelves/?bc_nonce=3kevfk2d48x3vdf0hwfbn&cid=reg_wall_signup)

Leland, R. M. (2002). *Mimarlığın öyküsü, (2. Baskı).* Kabalcı Yayınevi.

Seet, K. K. (2005*). Knowledge, imagination, possibility: Singapore's transformative library.* SNP Publications, Singapore. 95-121.

Lyon L. (2012). *The Informatics Transform: re-engineering libraries for the data decade, International Journel of Digital Curation,* 7. 126-38.

Martine-Uribe, L. (2007). *Digital Repository Services for Managing Research Data: What do Oxford researchers need?*. IASSIST Quarterly, 31. 28-33.

Matthews, B. (2009). *Marketing today's academic library: a bold new approach to communicating with students.* Chicago: American Library Association.

Miksa, F. (1996). *The Cultural Legacy Of The 'Modern Library' For The Future,* Journal of Education for Library and Information Science, 7.

Michener, W. (2012) Five New Paradigms for Science and an Introduction to DataONE (Video). (https://www.youtube.com/watch?v=ebLNHWAQ2qs)

Montgomery, S., Miller, J. (2011). *The Third Place: the library as collaborative and community space in a time of fiscal restraint,* Rollins Collage, Rollins Scholarship Online, Faculty Publications, 18.

Oblinger, D. G. (2006). *Learning Spaces.* Educause.

Oldenburg, R. (1999). *The great good place.* New York: Marlowe & Company.

Oldenburg, R. (1997). *Making college a great place to talk.* The Best of Planning for Higher Education, 90-94.

OCLC. (2010). Perception of libraries, contex and community. OCLC Online Computer Library Center Inc, Retreved September 23, 2022, from

(https://www.oclc.org/content/dam/oclc/reports/2010perceptions/2010perceptions_all_si nglepage.pdf).

Putnam, R. D. (2000). Bowling Alone. New York: Simon & Schuster.

RIN. (2007). *Researchers' Use of Academic Libraries and Their Services.* Research Information Network and the Consortium of Research Libraries.

Ryn, S, V, D. (2005). *Design For Life.* Gibbs Smith Publisher, Utah.

Ryn, S, V, D. (2013). *Ecological Design, Culture, Architecture and Nature an Ecological Design Retrospective*. Routledge.

Robinson, M. and Chien, H. D., (2006). *Multi-functional library design and sustainability: Designing multi-functional Learning Resource Centres in Vietnam.* World Library and Information Congress: 72nd Ifla General Conference and Council, Seoul, Korea. (https://archive.ifla.org/IV/ifla72/papers/124-Robinson_Chien-en.pdf).

Rosenbaum, M. (2006). Exploring the social supportive role of third places in consumers lives, *Journal of Service Research*, 9(1), 59–72.

Scott, S. (1993). Visual attributes related to preference in interior environments, Journal of Interior Design, 18(1 & 2), 7–16.

Shattock, J. And Wolff, M. (1982). The Victorian Periodical Press: Samplings and Soundings. Leicester: Leicester University Press. 225–57.

Steinberg, S. H. (1974). *Five Hundred Years of Printing.* Penguin Books.

Whatson, L. (2013). *Better library and learning spaces: Projects, trends and ideas.* Facet Publishing.

Wiegand, W. A. (1986). *The Politics of an Emerging Profession.* Praeger.

Wiegand, W. A. (1986). United States, ALA World Encyclopedia of Library and Information Services, Chicago: American Library Association.

Williford, C. and Henry, C. (2012). *One Culture: Computationally Intensive Research in The Humanities and Social Sciences, a Report on The Experience of First Respondents to The Digging Into Data Challenge.* Council on Library and Information Resources.

Web Sources

Snøhetta. Calgary Central Library. Retrieved September 18, 2022, from (https://www.archdaily.com/905263/calgary-central-library-snohetta)

Dreamstime. The Royal Library of Ashurbanipal. Retrieved Spetember 18, 2022, from (https://www.dreamstime.com/royal-library-ashurbanipal-named-last-great-king-assyrian-empire-collection-more-than-clay-tablets-fragments-image219559717)

Mutimediaman. Mid-19th century drawing of a Fourdrinier papermaking machine. Retrieved September 18, 2022, from (https://multimediaman.blog/tag/louis-nicholas-robert/)

Civic Architects. Lochal Library. Retrieved September 18, 2022, from (https://www.archdaily.com/909540/lochal-library-mecanoo-plus-civic-architects-plus-braaksma-and-roos-architectenbureau)

Mecanoo Architects. Library of Birmingham. Retrieved September 18, 2022, from (https://www.mecanoo.nl/Projects/project/57/Library-of-Birmingham)

Arkitera. Oodi Helsinki Merkez Kütüphanesi. ALA Architects. Retrieved September 18, 2022, from (https://www.arkitera.com/proje/oodi-helsinki-merkez-kutuphanesi/)

Mecanoo Architects, Francine Houben. (2013). Francine Houben talks about the design concept behind the Library of Birmingham (Video). Interview, Published by Mecanoo, (https://www.youtube.com/watch?v=z2TTGjjnzUQ&t=126s).

Mecanoo Architects, Francine Houben (2019). Mecanoo, Interview. LocHal Library, a world-class library for Tilburg (Video). Published by Mecanoo (https://www.youtube.com/watch?v=1j4X3nix8d0&list=PLc0TvuNKrusSfzBi1_5UleK xYPbyV2LnF&index=56).

Hadrian Library AD 132.

(https://www.worldhistory.org/article/839/the-library-of-hadrian-athens/)

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