How to design a library in Brussels in 2023 by understanding the conceptualisation of the contexts of two emblematic libraries by Alvar Aalto and Marcel Breuer

Acknowledgements

I would like to thank Professor Elvio Manganaro, who inspired me to a profound interest in the architectural approach and gave me the opportunity to explore this question in this thesis. His constant and patient provision of solid and appropriate answers enabled me to bring this long-term project to a successful conclusion.

I would also like to thank my family and my loved ones, who have never stopped believing in me over the years.

Abstract

In brief:

This thesis examines how to design a library in Brussels in 2023 by understanding the influence of context on the concept of an architectural object. To do this, I decided to study two projects designed by two great 20th century architects, Alvar Aalto in Viipuri and Marcel Breuer in Atlanta, and to see how the context influenced the design concept.

The aim of this thesis is to address the possible links between concept and context in an architectural project. A dialogue between concept and context requires not only listening to the concept *and* the context, revealing their complementarities and intrinsic balances in order to achieve a harmonious purpose between the two approaches. **But more than that, it must be a *dialogue* between the *concept* of an architecture and the *context* of a place, beyond its physical context alone because it appropriates its cultural, poetic, historical, psychological and sociological *concepts*.** This dialogue should ideally create a project whose design generators unite contextual and conceptual properties in an integrated, but not fused, whole, like notes in a symphony.

The decision was made to focus on the context of Brussels, on a project developing an educational programme. Brussels is both the capital of the European Union and a city of 1,200,000 inhabitants where no less than 150 nationalities live together. A contextual study of the city of Brussels was undertaken in order to define which type of educational programme was best suited to the needs of the city. This study allowed me to define that a library would be the best project to be establish in Brussels, and therefore, to choose to study libraries designed by 20th century architects. After some research on the great architects of this period and the libraries they designed, the choice fell on two projects to see how they used or did not use the context as a conceptual tool: the Viipuri library built between 1933 and 1935 and designed by Alvar Aalto and the Atlanta library designed by Marcel Breuer and built between 1977 and 1980. Both libraries will be studied closely in terms of context and concept in order to draw conclusions about the relationship between the two notions.

Any professional practice raises questions about the successive or parallel phases that are relevant to achieving the assigned objective. It soon became clear that we needed to address the fundamental issues surrounding the notions of context and concept. A plethora of studies, books and even symposiums have attempted to define the two notions without ever really managing to define them perfectly. In the process, it became clear that beyond the purely theoretical questions, an interesting approach to the study of the two architects' work was emerging: phenomenology, which allowed us to delve deeply into the worlds of Aalto and Breuer. It was thus possible to hypothesise that the multiplicity of possible approaches in the different phases of the creative process leads to a genuine dialogue between concept and context.

This detailed approach to the various design phases accompanied the development of the library project. In this way, the part relating to architecture formed the basis of the thinking behind the project, and the part dealing with architecture was applied to the Brussels library project. These encounters with Aalto and Breuer revealed how influences and experiences enrich the possible interpretations of a project and multiply the possibilities offered, because as Enno Fritsch points out in his thesis on the notion of context: "Ideally, the programmatic and contextual components of design overlap to create a building whose spatial and conceptual properties become continuous with an idea

for its context". "Ideally, the programmatic and the contextual design components overlay to create a building whose spatial and conceptual properties become continuous with an idea for its context."[1]

[1] [1] FRITSCH E., “Context: Physical and Psycho-cultural: A design for the concert hall in Sarajevo, Bosnia” thesis written for his Master’s degree in Architecture at MIT, 2001. p. 10

Contents

Introduction

To introduce the subject, I have chosen first to look at the context of Brussels as a geographical, sociological, historical and urban entity. This is the subject of the first chapter, which looks at the city in time and space, with a particular focus on the question of education. What kind of educational project is needed in the city? Where might it be located? What are the intrinsic characteristics of this ancient regional city, where 150 nationalities live side by side, that will enable us to determine the needs of its inhabitants? As the analysis of the contexts progressed, a discursive line emerged that pinpointed a *need* and a *location* for a library project.

The following chapters extend the field of application to a more detailed study of the two architects' conceptual and contextual plans, and more specifically to their two projects.

The second chapter, after a brief biography of the Finnish architect, firstly looks at Aalto's conceptual approach, his contacts with the modernists but a modernity calmed by a still humanist vision, the symbolic expression of nature as a model and as a tool, his desire to preserve individuals from dehumanised standardisation, a tactile approach that is both holistic and intimate, his desire to broaden his conceptual vision to include all the necessary *qualities*, including psychology, smells, noises and, of course, light. In this context, the phenomenological approach, which combines objectivity with subjective phenomena such as experience, perceptions and emotions, sheds light on Aalto's work.

The second part of the chapter deals with the contextual approach that Aalto was able to cultivate, his dialogue between building and surrounding nature, the studied modelling of Finnish light, the approach that is always part of man, all of which allow a true concretisation of existential space. Far from wanting to *adjust* the concept to the context, Aalto develops Aalto develops a language from the context by giving meaning to the place. The genius loci is at work.

The third chapter looks more specifically at the Viipurii library, the emerging and perceptible forms of nature as symbolic in both form and material. After an analysis of the town of Viipuri up to the years when Aalto built his library, the project itself is brought to light by studying how the project was carried out. The need for a library in the city and certain specific aspects of the building, such as the programme, circulation, lighting and acoustics, emerged as important points in the development of the project.

The fourth chapter takes an identical approach to Breuer's conceptual vision. His biography reveals his involvement in the Bauhaus, from which he will always retain obvious traces in his approach to space, in the highly developed technique of the materials used, but also in his desire to go beyond the strict conformity of a dogmatic modernism to focus on experiences for the senses, on the tactile and visual aspects, developing a vision that is at once tectonic, holistic and enveloping.

The following part of the chapter looks at the importance and influence of context in Breuer's work, his creation of sincere spaces that, far from merging with their environment, are convincingly integrated into it. A social reflection in which audacity seems to be the dominant force, Breuer's projects are like texts confronted with contexts that reveal experiential processes each time. Every constraint, whether of the site or of social conditions, becomes a challenge; here too, genius loci is at work.

The Atlanta library is developed in the fifth chapter. Following a structural, spatial, historical and social tour of the American city, Breuer's library is analysed. Literally set out as a sign in the environment, in

sharp contrast to the conspicuous economic transparency, in a monumental and rhythmic imposition that encourages you to push open the door, Breuer relied on an exterior force in continuity with the street. In a deliberately holistic approach, solids and voids take on a particular meaning in the tensions that emerge and, at the same time, the calm that reigns there.

The penultimate chapter develops the path from work on Architecture to a project in Architecture. It shows how the theoretical work has accompanied and helped the project presented for a Brussels library in 2023 to evolve.

Contextual Analysis of Brussels

Localisation

As stated in the introduction, designing an architectural project based on an educational programme to be adapted to the specific context of a city, in this case Brussels, requires first of all a general contextual analysis to define what type of programme would be most suitable for this city. So, who is Brussels?

The reputation of Brussels, while longstanding, has been, in recent decades, transformed from a provincial capital to an international capital. It was in 1954 that the city's Tourist Office defended Brussels' candidacy as the capital of the European Community. It was barely nine years after the end of the Second World War and Jean Monnet, one of the founders of the European Union, (1888-1979) defended the idea of choosing the Belgium's capital as the capital of the Union. Maurice Hirsch, president of the Brussels Tourist Office, said: "*Belgium is not worrying anyone, it is not a great power with imperialist ambitions, and it is not thinking of giving European policy a specifically Belgian direction. We are a bilingual city, and this bilingualism has an undeniable advantage. We must realise that Western Europe is made up of two civilisations: one Latin and one Germanic, and Brussels is precisely the point where these two civilisations merge*."[2] In 1958, Brussels was chosen as the provisional seat of the EEC. A provisional seat that would become (almost)[3] definitive a year later.

Today, 65 years later, the common language has assimilated this statement: 'Brussels has decided this or that', and everyone understands that it is a decision taken by the European Union (EU). But behind these words, which city is hidden? Between its geography, its history as a provincial capital rather than a grandiose one, and its transformation in half a century into a leading international city like Washington, London or Paris, perpetuating a centuries-old tradition of hospitality, Brussels has become a cosmopolitan metropolis where more than 150 different nationalities live side by side - although they don't always really meet - but where only 1.2 million people live, which is far fewer than in Paris, London or Milan. It also has an average surface area of 162km², more than half of which is green space[4], but its status as a city-region means that it is impossible for it to expand outside the confines of the 19 municipalities, since beyond this 'border' it is Flanders, and bilingualism disappears. Enclosed and international, very green[5], home to tens of thousands of people speaking dozens of different languages (50,000 of whom work for the European institutions) [6], thirty per cent foreign residents, several thousand companies based there, thirty international schools, this is Brussels, as complex as it is astonishing.

Brussels is therefore first and foremost the capital of Belgium, a small country located in the west of Europe, bordered by the Netherlands to the north, France to the south and Germany and Luxembourg to the east. It also has access to the North Sea. It is divided into three regions, Wallonia, Flanders and Brussels-Capital. The city as such is administratively considered a region with political and structural impact, and is the only officially bilingual region, the other two being French and Dutch speaking respectively. This city-region space is therefore home to 19 landlocked municipalities.

[2] HIRSCH M., « Introduction ", *Bruxelles en Europe, l'Europe à Bruxelles*, Castor Astral, 2007, p.12

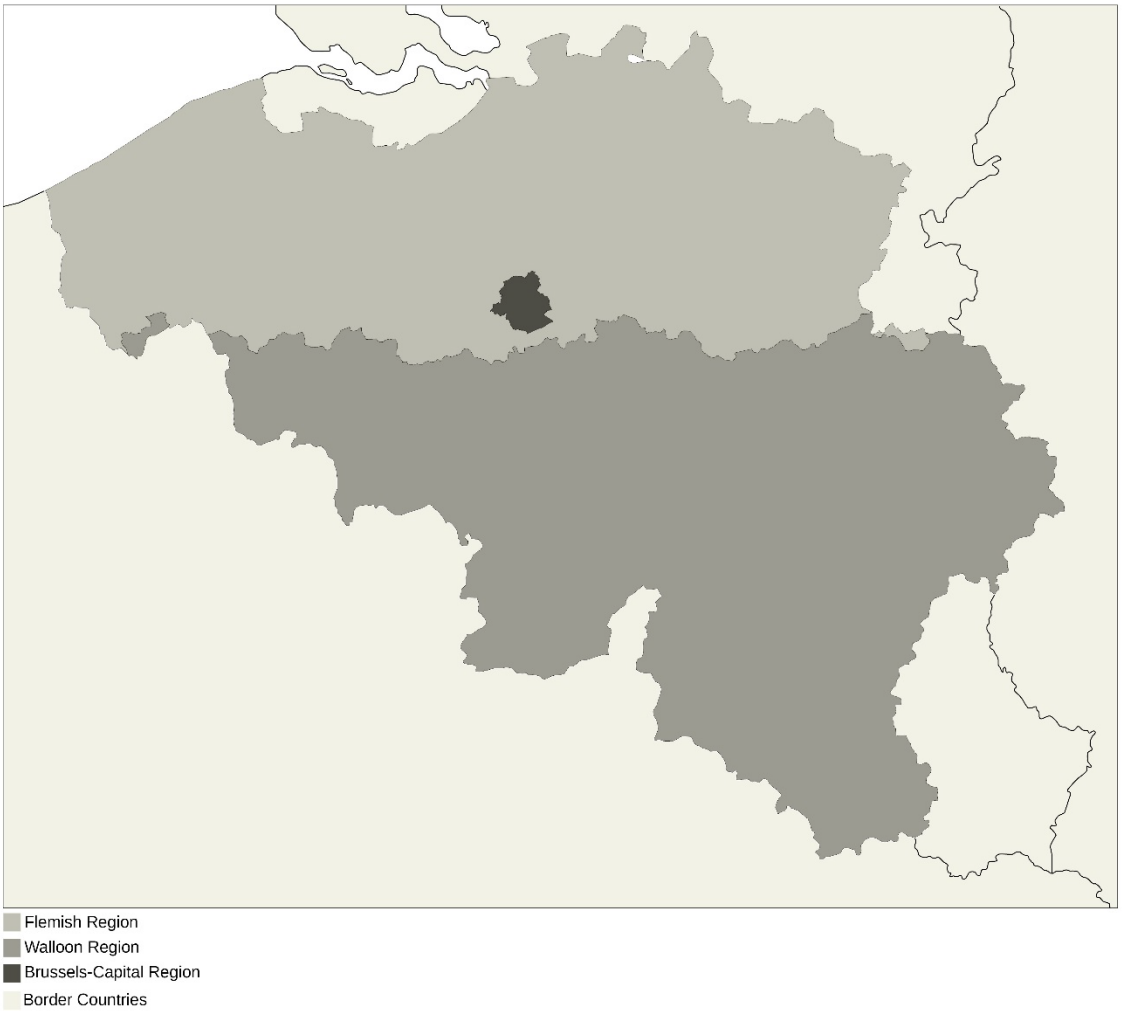
[3] In reality, the European institutions have three seats: the Commission and the Council of Ministers, as well as the Economic and Social Committee and the Committee of the Regions are in Brussels. Luxembourg retains control of the Court of Justice, the Court of Auditors and the European Investment Bank, while the plenary session of the European Parliament is in Strasbourg. DEMEY T., Brussels, capital of Europe, Badeaux, 2007, pp.207 to 2013

[4] Espaces vert, [online :] https://www.classesdupatrimoine.brussels/wp-content/uploads/2020/04/Espace-vert-synthèse.pdf

[5] Les jardins privés bruxellois, in Focus de l'IBSA n° 42, 2021, [online :] https://ibsa.brussels/publications/focus-de-l-ibsa

[6] It should be noted that of the 50,000 people, half represent civil servants, experts, professional and trade union federations, multinationals, lobbies, the international press, ... in DEMEY T., *op.cit.,* p.7

Regions of Belgium

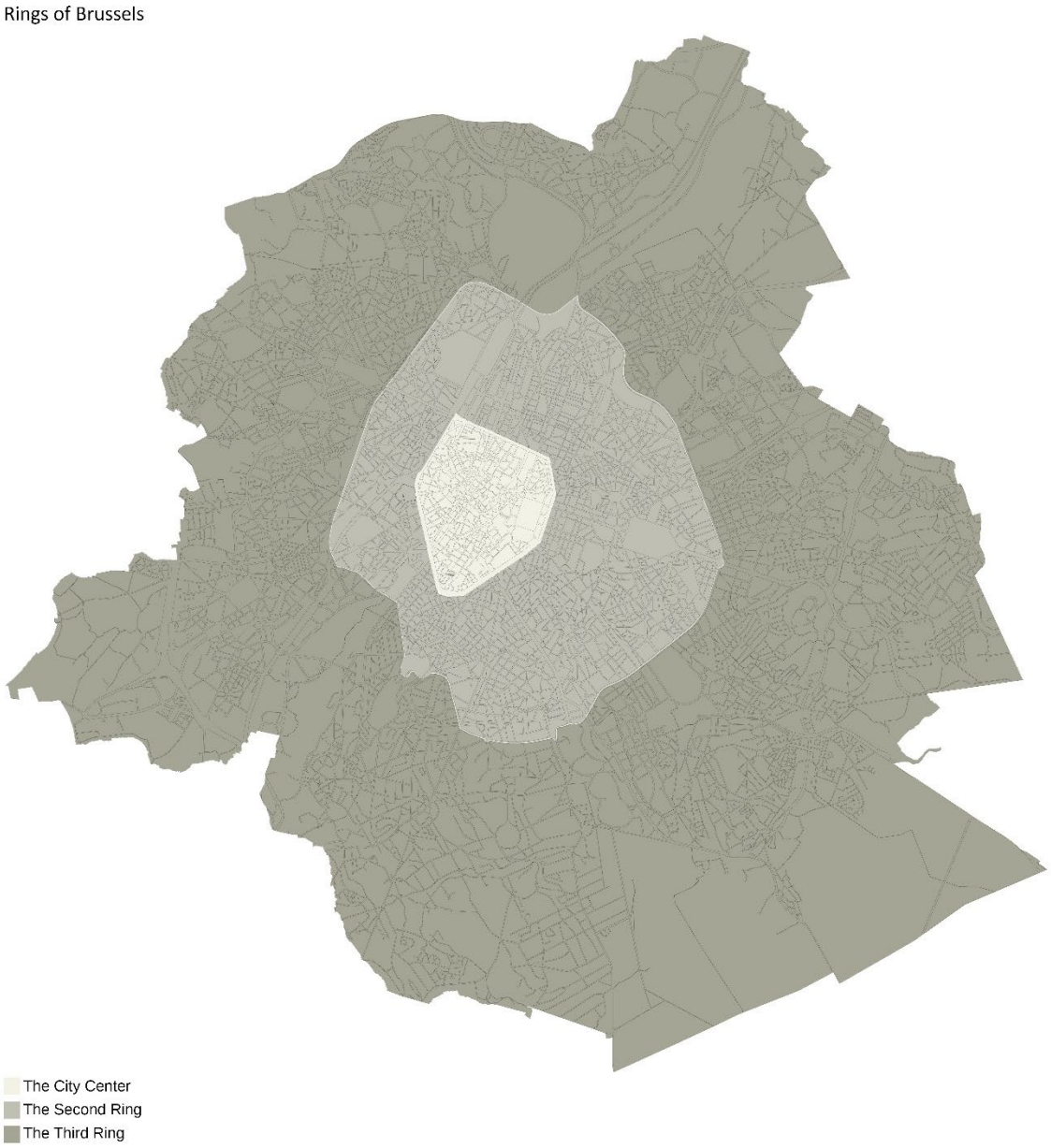


Brussels Structure

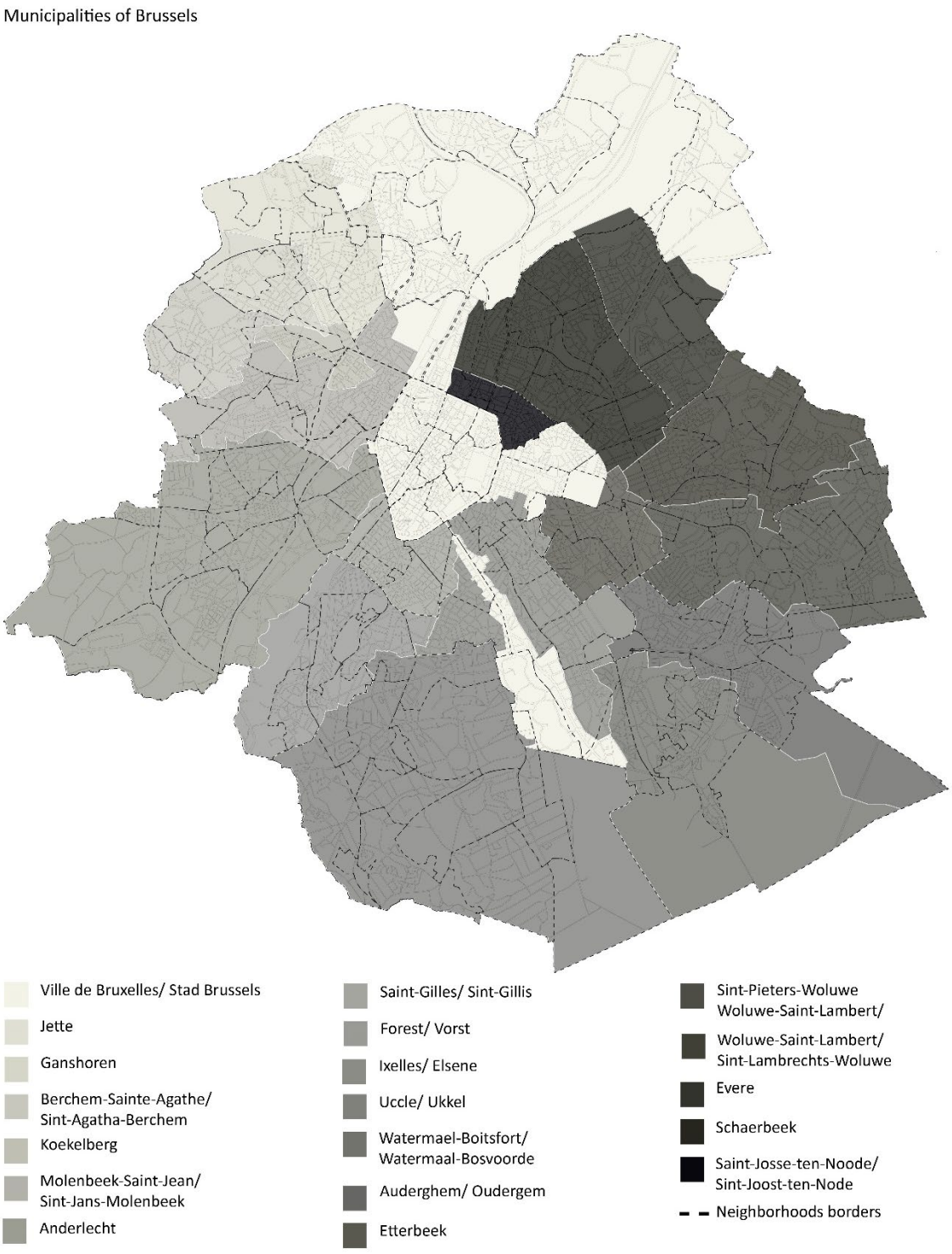
Brussels is a Western European city that appears to have traces of human habitation since the Stone Age and has continue to develop during the Middle Ages. As an ancient medieval city, it spread out in a circular maniere and was crossed by a river, the Senne. Although the history of the origin of Brussels is still open to question, there are several indications that the river played an essential role in the birth of Brussels. One university thesis[7] defends the idea that the Broekbeek stream in Anderlecht[8] was diverted in the 12th century to feed water mills and, by blocking the Senne with these mills, it also block the commercial ambitions of the town of Hal. At the mouth of the Broekbeek, a small port was built in a marshy area, the 'zeel': Broekzeel, the ancestor of the name Brussels. During the following century, a commercial centre developed and gates were erected on the access roads, linked by walls, the first city wall. As we will see later, the river was covered during the second half of the 19th century (1869/1871) for sanitary reasons.

[7] DELIGNE C., « Bruxelles et sa rivière. Genèse d'un territoire urbain ". ULB Thesis, 2001
[8] Anderlecht is one of the 19 municipalities in the Brussels region

To this day, the city is still structured in rings. The first is defined by the "petite ceinture", i.e. the boulevards surrounding the centre, which are roughly reminiscent of the fortifications that formed the first medieval city wall. A second ring is formed by a series of dense neighbourhoods and delimited by the main roads of the city. The last one is filled with more residential areas and ends with the "ring" which is a motorway surrounding the city.



Administratively and politically the city is divided in 19 municipalities which have an equal status under the authority of the government and the parliament of the Brussels Region. The municipalities function as a basic political community for the citizen and are the smallest political entities of the country.



Spatial Typologies of Brussels

In terms of spatial typologies, the main factors influencing the city are firstly the canal and the railway, which act as a barrier in terms of urban planning. Until the 16th century, the Senne was the communication route which enabled the economic development of Brussels. However, its silting up and winding course, which was sometimes shallow and muddy, caused problems. Yet, Brussels had become an important centre. In the 15th century, Brussels was the political centre of the Burgundians, and in the 16th century, Charles V spent a large part of his life in the city. Brussels was no longer a small provincial town: it was a commercial and power centre. In this context, a canal was built between

1551 and 1561. Apart from the fact that it was one of the oldest navigable canals in Europe, linking Antwerp to the city centre, it also divided Brussels into the bourgeois and commercial city (to the east) and the industrial and manufacturing suburbs (to the west). Around 1870, the Senne was arched and many working-class districts disappeared. At the end of the 19th century, this canal was joined to the one linking Brussels to Charleroi. Finally, 80 years later, in view of the success of the train, the northern and southern stations were linked by the North-South junction which followed the eastern slope of the Senne valley and crossed Brussels.

This trainline and the three rings divide Brussels into different crescents. The most striking examples can be seen in the first and second crescents in the west of the city, where a low-income population resides, while the eastern periphery of the third ring is home to an upper-class population. But we can also see some rather poorer areas that are starting to gentrify, on the other hand the prohibitive

south-south-eastern districts of Uccle and Boistfort which are isolated in terms of urban typology and access to public transport, and finally, the majority of new buildings which are located in the third ring build in the second half of the twentieth century, because the city has grown in a circular manière.

Transport Network of Brussels

The main roads of the city are composed of concentric rings that reflect the way the city has developed over time and others that connect these rings. The centre is called the pentagon because of the shape of the boulevards that border it and are called the "petite ceinture".

Road Network of Brussels

Mobility Corridor

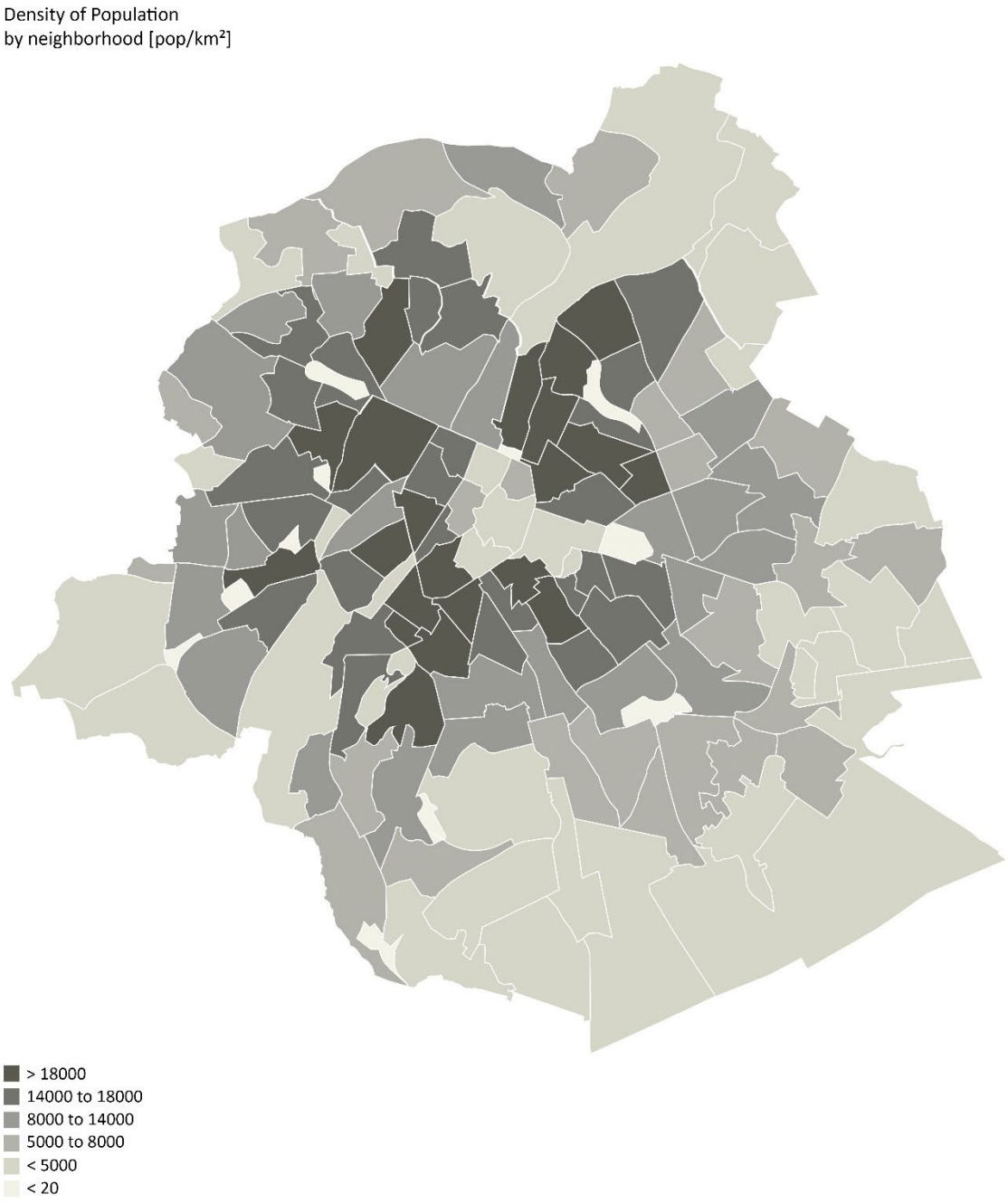
Brussels has a large number of train stations, apart from the main axis of the North-South junction, there are also a significant number of smaller stations around the city. This can be explained by the fact that Belgium was the first country in continental Europe to have a passenger railway and the first to have a national railway system. It played an important role in the economy and development of the country in its early days (Belgium's independence dates from 1830). In 1835, three trains left the green alley to make a round trip between Brussels and Malines. This was a first on the continent. But the main reason why Brussels became a real driving force in terms of mobility was that it was a hub for the transport of goods from the heavy industry of the Sambre-Meuse basin and the port of Antwerp.

The first railway station was set up at the green alley in the canal zone, because the railway was designed to transport goods. Gradually, every southern point of the city was given a station, not including the central station.

The first trams in Brussels were installed in 1894 from the centre to the south of the city and buses were first used on the network in 1906. In the 1960s the first underground transport operations were launched, and trams were partly assigned to the underground network while continuing to be used on the surface. The first metro line was officially opened in 1976 and to this day the underground network is still used by metros and trams.

Density of Population of Brussels by neighbourhood

The Brussels-Capital Region has an average density for the city as a whole of 7,511 inhabitants/km², but if we consider the density per neighbourhood, it exceeds 18,000 inhabitants/km² for some localities and is less than 5,000 inhabitants/km² for others. The city centre appears to be denser, with the exception of the office area east of the Pentagon. The density decreases as one moves away from the city centre, but the north-west is more densely populated than the south-east, largely because of

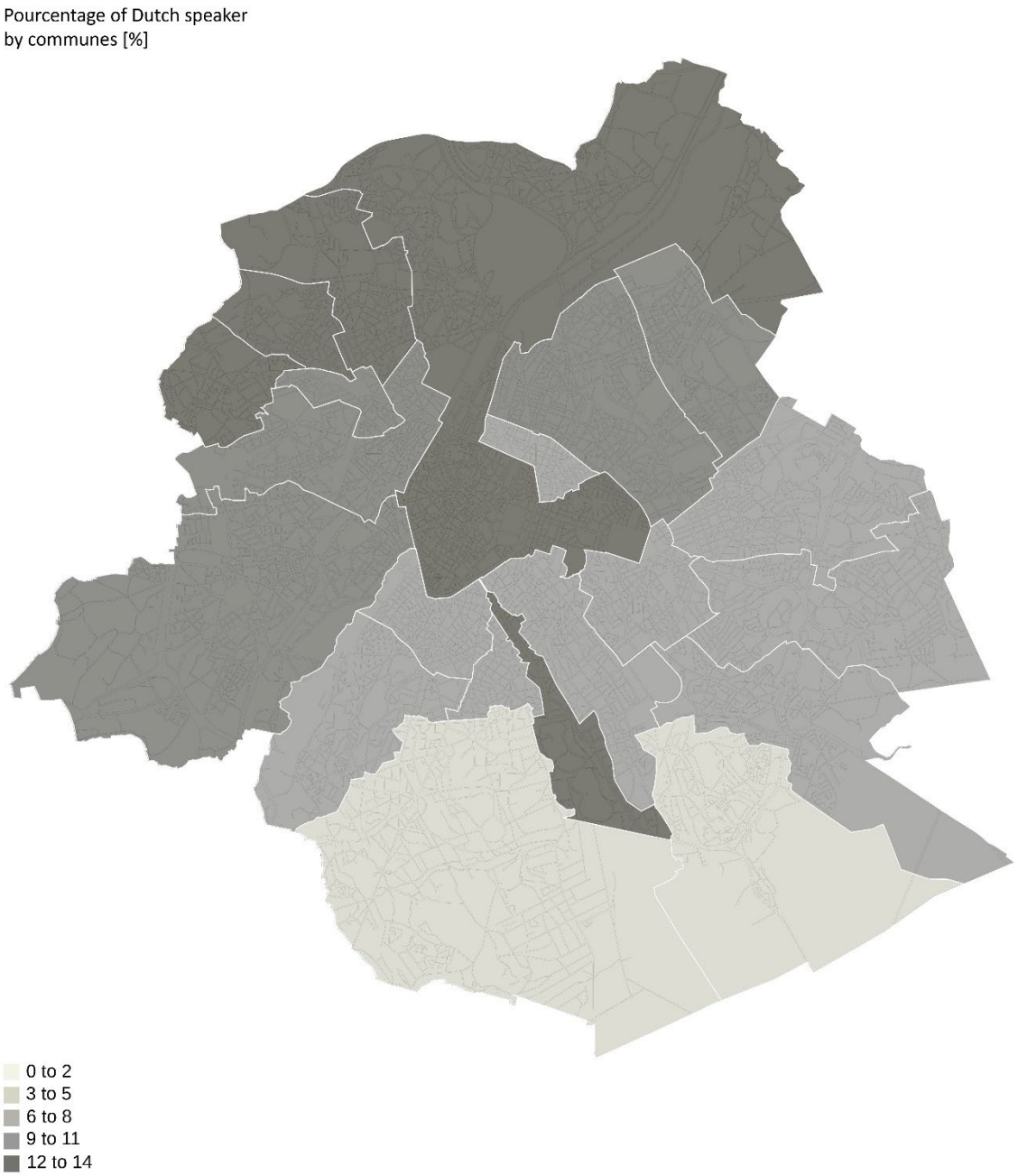


the "Forêt de Soignes", which lies partly within the borders of Brussels. An element that will be important in the context of our research concerns the temporal as well as the geographical variations in the density of the young population (15-29 years) in Brussels. In fifteen years, the population of Brussels, all ages combined, has risen from one million to one million two hundred thousand people, i.e., one fifth more people. Births have fallen very slightly over the last eight years, but the 18/25 age group has increased due to the rise in births that took place during the 2005-2015 decade. The

population projections made by the statistical centre predict fairly stable figures for the next 50 years for the 15-29 age groups. Geographical forecasts are more difficult to define, although the second ring of the city has a younger population than ten years ago.

Density of Dutch speakers in Brussels

As mentioned above, Brussels-Capital is a bilingual region. Despite this, there is a majority of French speakers in the majority of the city with differences between the communes, reaching a maximum of 14% of the Dutch-speaking population in some areas. There is a clear north-south spread in terms of percentage which could be due to the proximity and easier access to Wallonia, the French-speaking region of Belgium.



Density of Schools by Neighbourhood

Fundamental Schools

The fundamental schools (écoles fondamentales) are the educational programme from kindergarten to the end of primary school. Kindergarten is not mandatory and is for children from 2.5 to 6 years old. From the age of six, school becomes compulsory, and the child will attend primary school until the age of twelve.

In Dutch-speaking education there are 113 schools and 290 in French-speaking education. As already mentioned, the population is mainly French-speaking, which is why there are more French-speaking schools, and the neighbourhoods with a large Dutch-speaking population have more French-speaking schools. But more and more children raised in French at home are going to school in Dutch, as bilingualism is an undeniable asset for getting a job in Belgium. Currently, one in five children attend a Dutch-speaking school, while only one in ten is raised exclusively in Dutch at home. [9]

[9] STEFFENS E., « Il n'y a jamais eu autant d'élèves dans l'enseignement néerlandophone à Bruxelles " (There have never been so many pupils in Dutch-language education in Brussels)[Online:], https://www.vrt.be/vrtnws/fr/2020/02/26/il-n_y-a-jamais-eu-autant-deleves-dans-lenseignement-neerlandoph/, accessed on 10 October 2022

Secondary Schools

Secondary schools are the compulsory course of study for children aged twelve to eighteen.

In Dutch-speaking education there are 43 secondary schools and 127 in French-speaking education. There are fewer secondary schools because they are generally larger schools and they become less necessary for a locality because children can move around more easily as they get older.

Universities, Colleges, and Libraries in Brussels

In Belgium there is two kind of higher education that is withing the reach for future students, the colleges (Hautes écoles) and the universities (Universités). Colleges propose long and short cycle, like vocational bachelor's degree where universities only propose long cycle, the bachelor's, and the master's degree. Also, only universities organise PhD and research works. I would add that the pedagogical structure differs between the two in that colleges are more practical and concrete, and universities are more theoretical and abstract.

About libraries, according to a study by Perspectives Brussels[10], in 2021 there are 0.6 libraries per 10,000 inhabitants and 4 libraries per 10,000 children of school age (6-17 years). In principle, this is a good coverage, but it should be borne in mind that this figure concerns both French and Dutch speaking libraries, which may pose a problem for the French speakers, who are in the majority.

In conclusion, the educational aspect of the city is both diversified in terms of study choices, relatively accessible financially, and geographically fairly easy to access. But the question now is where progress should be made.

[10] Perspective Brussels, Rapport annuel 2022, [online :] https://perspective.brussels/sites/default/files/documents/ab_bibliotheques_fr_final.pdf,

Unviversities and colleges

An Educational Program for Brussels

"Any library must be sufficiently flexible. It must organise itself around disciplines as if they were basins of attraction, the boundaries of which fluctuate according to points of view and uses. In short, librarianship, which was traditionally an art of classification, must become an art of passage."[11]

Patrick Bazin

Introduction

A general analysis such as the one just made cannot by itself claim to cover all the contexts present in this city. Of course, we are able to draw some conclusions that will help us to decide on the most appropriate educational programme that should be implemented in the Brussels context. If we zoom in, as shown in the image below, we can see the old city grids, which were closed in on themselves and then replaced by the major boulevards, the regular grids of the upper middle-class neighbourhoods, which were created in a grid pattern on the model of London and which have become office districts, the more outlying neighbourhoods, whose industrial or wooded grid has determined their current function, which is either more impoverished or more residential, the parkland areas, and the particularity of Brussels with its back gardens. The relief of the city indicates, for example, that in the higher areas, the buildings have a more sought-after heritage value than in the lower areas, where the Senne and its tributaries flowed, where the pollution of the railway reigned and where the working-class populations was housed more than they actually lived. These lines, crowns, zones, green spaces and water that organise the city in its space and time are precious because they help us to understand how the inhabitants lived in Brussels until a short time ago and to better understand how our contemporaries live there today. In particular if the residents are within an acceptable distance of educational programmes so that they and their children can have access to them? As we have seen, nursery schools, colleges and universities are fairly widespread. However, some weaknesses have been highlighted: the lack of space in the auditoriums of these universities and colleges, and the lack of space in French-language libraries. This latter aspect is particularly worrying because the increase in the price of student accommodation in particular has forced young people to live in much smaller spaces, and teleworking has increased the need to find spaces where they can work close to home. These two factors combined have significantly increased demand for libraries. In this spirit, where were the libraries set up? How are they distributed? What are their roles for the Brussels population of all ages?

A Library nowadays

But what's a Library? How these edifices have evolved through the years, and how they evolved with the rise of new technologies? A library was seen as a classic cultural facility in a city. It was once a place of silence and reading, an access to knowledge and culture. Today it is a place of discovery and socialisation. Libraries have had to adapt and diversify in order to respond to digitalisation and the demands of a cosmopolitan and multilingual public.

The questions that need to be answered in this thesis focus not only on the density of libraries in Brussels, but also on their location and their adaptation to the public. An initial geographical analysis (see above) provided an overview of the region and any shortcomings. However, it was also noted that the access time to a library could be more than 20 minutes and that the obstacles represented by the railways, the canal or the large green spaces do not always facilitate access.

[11] BAZIN P., Vers une métalecture, Bulletin des bibliothèques de France n°1, 1996, p. 10

But the key issue here is a much more refined approach to accessibility. It is not just a question of distance to access, but of effective access in terms of available space, opening hours, access to documents, and the size of the workspace. These issues are doubly important since in the last two years, telework has invaded private spaces, making it sometimes necessary to find a place of concentration other than the home for the 15/25-year-olds. In addition to this thirst for independence or need for calm, the library is becoming a place to facilitate tutoring, discussion groups, joint projects,... Thus, the library is becoming an essential societal place, as described very well in a European report[12] which refers to the library as "*a third place to signify the multitude of services, activities and spaces that make it one of the most inclusive and democratic public structures*".

Today's library has moved away from its former focused role and in some places goes even further. One example is De Krook, which is the public library of the city of Ghent[13] that opened in 2017 and hosts a digital innovation centre, a workplace for innovative start-ups that can benefit from personal coaching. And the interest of this place is all the more interesting from an urban planning point of view, as it is located in a site that was previously difficult to access, and its creation has facilitated the creation of surrounding public spaces. Moreover, a real life has developed around this library with bars and cafés. Thus, the library is becoming like other multimodal cultural places.

A library in Brussels

Due to different decreases and increases in birth rates, the number of pupils and thus the need for new schools varies. As explained above since 2015, a decrease in the birth rate can therefore be observed, which leads to a decrease in the number of pupils in basic schools. On the other hand, in the coming years there will be a need for secondary schools to meet the number of pupils. As far as universities are concerned, there are too few auditoriums for the most sought-after courses, and in general a lack of space for students to study and work on their own. Most libraries are part of the various colleges and universities and are therefore only accessible to members of these institutions.

The realisation of a secondary school or a library in Brussels could have therefore been an educational programme that made sense in this context. As a library offers more freedom and opportunities in terms of concept than a secondary school, it was decided to focus our study on libraries and to conceptualise a library that would be integrated into the context of Brussels where its absence is felt, particularly in terms of its effective accessibility and the various other social activities that could take place there.

To refine this research, it was decided to study two different libraries built during the 20th century. The first was designed between 1927 and 1933 by the young Alvar Aalto in Viipuri, a town in Finland at the time. The second project is located in Atlanta, USA, and was designed almost 40 years later, in 1969, and built in 1980. This project was conceptualised by Marcel Breuer and was his last and only project in the city of Atlanta.

It seems important to have two projects that are very different at first glance, with a different conceptual construction, at different times in the 20th century. Moreover, approaching architectural facts through both theory and completed projects combined, allows for a balance between on the one hand the theory that expands the fields and on the other the conceptual process that must exclude or simply signify them to achieve the assigned goal. This is the interest of an approach that combines

[12] LISON B, REIP N, HUYSMANS F. & MOUNT D and al., *Research for Cult Committee : Public Libraries – their new role,* Policy Department for Structural and Cohesion Policies, 2016

[13] Ghent (or Gent in Dutch) is a city located 50 km from Brussels in the Dutch-speaking region.

updated conceptual theories with existing architectural facts, which will be the case with the analysis of Alvar Aalto's Viipuri Library and Marcel Breuer's Atlanta Library.

Therefore, the component of my research lies in the balance that two great architects of the twentieth century, Alvar Aalto and Marcel Breuer, were able to find in the necessary dialogue between concept and context. How did their conceptual vision develop? What influences did their respective life contexts have on them to create a personal world translated into an architectural concept? How did their respective concepts harmonise and adjust to the contexts and their signifiers that they faced? How did they adjust their concepts to the active role of the contexts? How did they ultimately overlay and balance the programmatic and contextual components to achieve buildings whose spatial and conceptual properties balanced each other in these contexts?

In an attempt to answer these questions, I will examine the conceptual and contextual processes at work for both architects on a classical formal level, first by looking at their design in the context of their time and then by exploring and refining their personal and salient visions through phenomenology. I then translated this approach into an analysis of the two libraries that Aalto and Breuer built 50 years apart.

Contextualisation of Aalto's conceptual vision

Alvar Aalto's approaches to architectural design

"After all, nature is a symbol of freedom. Sometimes nature actually gives rise to and maintains the idea of freedom. If we base our technical plans primarily on nature, we have a chance to ensure that de course of development is one again in a direction in which our everyday work and all its forms will increase freedom rather than decrease it."[14]

Alvar Aalto

Before getting to the heart of the matter of Alvar Aalto's concept, I would like to start with this text he wrote in 1935 in The Trout and the Stream, From Work to Writing:

> *"The immense number of different demands and component problems constitute e barrier from behind witch it is difficult for the architectural basic idea it emerge. I then proceed as follows-though not intentionally. I forget the entire mass of problems for a while, after the atmosphere of the job and the innumerable different requirements have sunk into my subconscious. I then move on a method of working witch is very much like abstract art. I just draw by instinct , not architectural syntheses, but what are sometimes childlike compositions, and in this way , on this abstract basis, the main idea gradually takes shape, a kind of universal substance which helps me to bring the innumerable contradictory component problems into harmony ."*[15]

It is said that "the achievements (of architects) are often put into stories, suggesting that "*to make architecture is also to know how to tell stories*"[16]. So, to enter the world of this extraordinary architect, Alvar Aalto, there are several paths, but it is difficult to find one that fully fulfils its function, so much so that his inner wealth, revealed by the 200 or so buildings that he has built, unfolds in an endless screw. However, the conceptual approach is particularly interesting[17] because it allows us to approach the many facets of this creator of places. Indeed, as Gaston Bachelard, French philosopher of Science, said: "*It is in the very act of knowing intimately that slowness and disturbances appear, by a sort of functional necessity*".[18]

But what is a concept? An architectural concept can be defined as "a general representation formed by abstraction, the concept is intelligible and can be the object of discourse." It is always important to analyse the meanings that determine the richness of a concept and its "power of instruction". We can consider the concept as a driving force, a vector, which is driven by formal logic to create an

[14] WESTERN R., *Alvar Aalto*, Phaidon Press, 1995, p 98

[15] AALTO A., in PASSINMÄKI P., The Trout, the Stream, and the Letting-Be., Alvar Aalto's Contribution to the Poetic Tradition of Architecture, Working papers - Alvar Aalto Researchers' Network March 12th – 14th 2012, Seinäjoki and Jyväskylä, Finland, [online :] https://www.alvaraalto.fi/wp-content/uploads/2017/12/AAM_RN_Passinmaki.pdf

[16] PIANO R. et CASSIGOLI R, La désobéissance de l'architecte. Conversation avec Robert Cassigoli, 2004

[17] It should be noted that the questions that have also haunted decades of theoretical research in architecture are the convergence of two often opposing perceptions of architectural knowledge: that which sees architecture as an object of knowledge and that which sees it as an art. When Philippe Boudon, in his book A propos de l'Espace Architectural (About Architectural Space), developed a conceptual system that he called architecturology in parallel (by derivation) to common objective and doctrinal knowledge (see some examples at the bottom of the page), architecturology formalised concepts in a system that must be taken in its entirety if it is not to be reductive and detached from objective questioning. This approach, as Christian Girard defends, has the advantage of being more dialogue-oriented, envisaging: "the concept/conceptualisation relationship in the form of reciprocity rather than derivation (which) allows us to keep intact the possibility of analysing the modes of interdependence between the field of architectural knowledge and other fields of knowledge". The question also arises in the same way in relation to context/contextualisation.

[18] BACHELARD G., La formation de l'esprit scientifique, Paris, Librairie philosophique Vrin, 1999 (1ère édition : 1938), chapitre 1er.

architectural system. In architecture, a concept is an idea, thought or notion that forms the backbone and foundation of a design project and drives it forward.

> "An architectural concept is the meaning and reason to the end product (the completed building or structure), and is the very first part of the design process to be developed and realized much like a seed is to plant. And just like a plant seed it can come from a vast array of sources, and produce a huge amount of variations and outcomes." [19]

If an architectural concept can be described as an: idea, notion, opinion, abstraction, philosophy, belief, inspiration, thought, intention, theory, image, plan or hypothesis, how to make " Ideally, the programmatic and the contextual design components overlay to create a building whose spatial and conceptual properties become continuous with an idea for its context."[20]. With these words in his thesis about context, Enno Fritsch asks what role the context of an architect can play in his design of a programme and how his very concept of the programme is influenced by the context(s).

But is this approach sufficient?

Indeed, these few definitions do not reflect the extensive scientific literature that has taken up the question of the architectural concept, particularly after the Second World War, when architectural theorists began to focus on the processes that allow the making of a finished architectural object. To enter into an analysis of Alvar Aalto's concept during the 1930s, one has to ask how the notion of the architectural concept has been approached, stripped, criticized and examined in general over the last decades... The question of which of rationality and poetry can be interpreted as conceptual opposition or complementarity is already being debated[21]. And the last few decades have seen the emergence of a number of theories, sometimes even doctrines, mostly concerned with the opposition between art and knowledge as regards the architectural fact.

Already in the 1960s, the architect, town planner, eco-responsibility pioneer and writer Philippe Madec expressed himself in these words: "*Is it not futile to try to master the projectual development whose essence escapes of course the projector itself, a mixture of personal, simultaneous and contradictory emotions, surprises, chances and encounters. In the end, doesn't the result of the project come from interactions so numerous and so complex that it is impossible to apprehend them?"*[22]. This approach could be similar to what Aalto said:

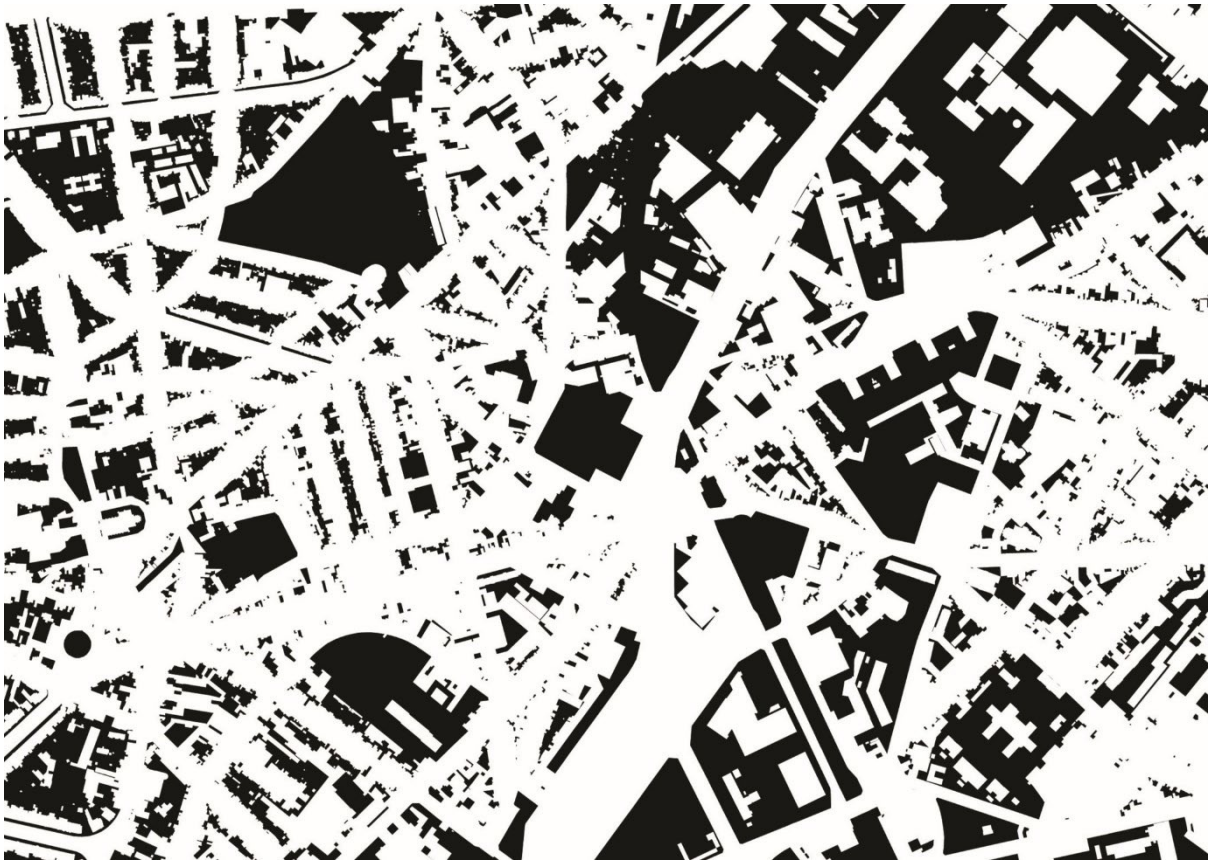
> *« Almost all design tasks include dozens, often hundreds, sometimes thousands of different and contradictory factors, responding as much to functional harmony as to human will*

[19] *What is an Architecture Concept?* , Archisoup [online:] https://www.archisoup.com/what-is-an-architectural-concept#:~:text=Definition,every%20stage%20of%20its%20development

[20] FRITSCH E., , "Context: Physical and Psycho-cultural: A design for the concert hall in Sarajevo, Bosnia" thesis written for his Master degree in Architecture at MIT, 2001, [online :] https://dspace.mit.edu/handle/1721.1/66396

[21] The tension between these two poles of the field can be examined from various angles. This polarity, composed of the timeless themes of poetry and rationality, unquestionably refers to the eternal leitmotif of commoditas, firmitas and voluptas, principles that Alberti deduced from the writings of Vitruvius, better known today by the name used by par NERVI: *fonction, forme* et *structure,* Boudon, 1971, p.9.

[22] CORAJOUD M. & MADEC Ph. "Le temps vu de l'horizon : Dialogue sur la participation de l'architecte et du paysage au mouvement du monde". Prost R. (dir.). Concevoir, inventer, créer. Réflexions sur les pratiques. Paris : L'Harmattan, coll. Villes & entreprises, 1995, pp.95-116



.[23]

As the visual artist and literary critic Pierre-Marc de Biasi rightly points out, "*there is no lack of work on the side of exploring the paths of architectural design. Nor is there a lack of methods and models. Rather, it is the one-way methodological transfer that architects fear most; weary as they sometimes are of waiting for that moment when their specific approaches will be the object of an attentive reception by researchers in the human sciences. In fact the project of methodical exploration of design approaches is not new."*[24]

As for the architectural theorist, Jean-Pierre Chupin, he argues that *"design would be inconceivable*".[25]

So, what theory should be used to examine the concept in Aalto both finely and deeply? The answer is less simple than it seems, as there are so many ways to get there, and it is not certain that they all lead to the Rome of a perfect and definitive definition of the Altian architectural concept. However, an approach via phenomenology could develop a fairly complete vision of the man whom the architecture critic Siegfried Giedion called the "Magus of the North".[26]

Phenomenology is of particular interest in the sense that, as the architect Norberg-Schulz writes: "*The genius loci (...) is seen as that concrete reality which man confronts in everyday life. To do architecture means to visualise the genius loci: the work of architecture lies in the creation of meaningful places that help man to inhabit.*"[27] The essence of the architectural mission, Norberg-Schulz tells us, is the

[23] AALTO A., quoted by VIDAL VR, 2006, Creative and participative Problem solving. The Art and the Science, 2006, IMM DTU
[24] DE BIASI P.M., L'horizon génétique, in Les Manuscrits des écrivains. Ed. CNRS, Paris, p. 238-259. See in particular "Architecture: processus de conception et technique de projet", p. 249-252.
[25] CHUPIN J.P. , L'analogie ou les écarts de genèse du projet d'architecture , in *Genesis*, 2000, pp.67-90, [online :] https://www.persee.fr/doc/item_1167-5101_2000_num_14_1_1136,
[26] VIGNERES J., Alvar Aalto de retour à Paris, [online :] https://www.darchitectures.com/alvar-aalto-de-retour-paris-a3925.html
[27] NORBERG-SCHULZ C., *La signification dans l'architecture occidentale* de 1977, 1979, p. 5

transformation of the site into a place, discovering the meanings present in the environment and revealing through human action "*what was present at the beginning as a possibility*".[28] If we want to give a slightly clearer definition of the phenomenology of architecture, we can say that it "highlights subjective resources that provoke strong sensory impressions - such as light, shadow, water and textures that impact and excite the senses. It is a set of ideas, arguments, resources, wills and powers that act in both space and time, changing the physical limits that structure reality. It is important to bear in mind that the use of phenomenology in the architectural field bases its approach on the objective study of phenomena generally considered to be subjective: consciousness and experiences such as judgements, perceptions and emotions."[29]

It is clear, however, that answering the question of the concept according to Aalto can only be done through a definitive approach to phenomenology, but also through by accepting the idea of a principle of refutability as Karel Popper does, a device that defends the notion of approaching scientific facts in a continuous work of verification by saying that: *"the fundamental problem of the theory of knowledge is to clarify and examine this process which allows our theories, this is our thesis, to develop and progress ".*[30]

But before going through the concept in Aalto via phenomenology, let us try to understand why such an approach was necessary for him, and let us dive into the years 1920/1935.

The early days of Alvar Aalto

Hugo Alvar Henrik Aalto was born in 1898 in Kuortane, Finland. He entered the Helsinki University of Technology in 1916 and graduated in 1921. The son of a forest surveyor, Alvar Aalto always had a deep love for the Finnish forests and his first steps in the large hall where the survey team worked with his father did not leave him indifferent. He said:

> *«The white table is big. Possibly the biggest table in the world, at least the world and among the table that I know (…) What is white table? A neutral plan in combination with man, so neutral a plane that it can receive anything, depending on man's imagination and skill. A white table is as white as white can be, it has no recipe, nothing that obliges man to do this or that. In other words, it is a strange and unique relationship (…) It's on this table that I accomplished my work"*[31]

In 1920, even before graduation, he moved to Gothenburg in Sweden where he worked for the architect Arvid Bjerke. In 1921, after graduation, he moved to Tallinn in Estonia as a reporter for the Finnish magazine Arkkitehti, the same year he graduated in architecture from the Helsinki University Institute of Technology. According to the Finnish art historian and writer Göran Schildt[32], his academic training was mainly influenced by two teachers: Usko Nystrom, who made him aware of the works of Greek antiquity and the architecture of the Middle Ages, while Armas Lindgren aroused his interest in modern construction. Alvar Aalto was interested in *«The power of the integration of the architettura minoire of small Italian towns – and the naturalness with which this form of architecture fits into the lndscape-, but also for the architecure of the Nordic Renaissance "*[33]*.* These early inspirations were to form the basis of many of the major themes that Alvar Aalto explored during his career (including his aspiration for a society of free individuals). Göran Schildt quotes Alvar Aalto:

[28] NORBERG-SCHULZ C , Ibid, p.15
[29] AMOROS C., La phénoménologie en architecture, [online :] https://www.r3dstudio.com/la-phenomenologie-en-architecture/
[30] POPPER, K R., Objective Knowledge, New-York, p.45
[31] MATTILA S. and LUKKARINEN P., Alvar Aalto ja Keski-Suomi, Alvar Aalto Society, 1985, p.12
[32] SHILDT G., Alvar Aalto: The Early Years , Rizzoli, 1987
[33] Ibid

"I am looking for the necessary instruments that would give quality to large social masses - which today should be the real goal." [34]

He opened his own architectural practice in Jyvaskyla in 1923 and together with his young wife, Aino Marsio, he built the Jyvaskyla Workers' House in 1924/1925. They designed it in a style that was a cross between the architectural tradition of Mediterranean countries - particularly Italy - and the spirit of classicism that prevailed in Finland at the time[35]. This Nordic classicism originated in the work of Gunnar Asplund, JS Siren and Erik Brygmann.[36] They also designed a building that now houses the Alvar Aalto Academy. In the following years, Aalto designed furniture which, from 1933, was distributed by the Stylclair[37] company and collaborated with several specialized magazines, publishing essays such as "Urban Culture" in 1924 and "From the Entrance to the Living Room" in 1926. He won the competition for the construction of the Viipuri library in 1927, and in the same year he began to travel extensively throughout Europe, meeting the Danish designer Poul Henningsen, the architects Duiker and Oud in the Netherlands, and in Paris he met André Lurçat and the Swiss Alfred Roth, who had supervised the construction of Le Corbusier's houses at the Weissenhof in Stuttgart in 1927.

The design of the Viipuri Municipal Library in Finland, which will be analysed in detail later in this work, took eight years. Alvar Aalto won the competition with a design that was mainly of classical aesthetic. But almost a decade later, with trips to Sweden and Denmark, with ongoing projects such as the headquarters building of the daily newspaper Turun Sanomat (1928) in Turku and the pavilion for the Turku 70th Anniversary Exhibition with Erik Brygmann, the Muuramäki Church (1929), And last but not least, thanks to his meetings in 1929 at the ClAM - International Congress of Modern Architecture - with the critic Siegfried Giedion, Laszlo Moholy-Nagy, then a professor at the Bauhaus and a multidisciplinary artist, with the architects Walter Gropius, Le Corbusier, Johannes Duiker, and the artists Fernand Léger and Karl Moser, Alvar Aalto was to completely change his vision for the library. Modernism entered the scene and the Viipuri library became a reference model for the rest of his career.

Diving into Bauhaus, Modernism and ClAM

« La modernité c'est le transitoire, le fugitif, le contingent, la moitié de l'art, dont l'autre moitié est l'éternel et l'immuable. " [38]

Charles Baudelaire

The Modern Movement in architecture was, above all, a response to the upheavals of the changing society of the early 20th century. With the contribution of a new environment, Modernism brought about a new way of seeing, thinking, representing and building, an upheaval in the way of approaching architectural production, even if we shall see that it nonetheless carries the seeds of the past.

At the end of the First World War, a double concern emerged: poverty and destruction. Reconstruction was necessary both to house and to occupy the survivors. It was in this context, in a decimated Germany, that German Professor Oskar Schlemmer declared: "*Perhaps in the face of misery, our task is to become pioneers of simplicity, that is to say, to find for every product of vital*

[34] Ibid
[35] LAHTI L., Alvar Aalto, Taschen, 2004
[36] The most remarkable large-scale building from this period was the Finnish Parliament building (1931) by Sirén.
[37] In 1937, the Finnish pavilion at the Exposition Internationale des Arts et Techniques in Paris, built according to Aalto's plans and featuring his glass and the furniture produced by his company Artek, revealed to the public a modern image of Finnish architecture and design. In 1950, the first Parisian exhibition of Aino and Alvar Aalto's work was held at the École des Beaux-Arts, accompanied by a special issue of L'Architecture d'Aujourd'hui.[online:] http://imageurspublic.fr/assets/alvar-aalto.pdf
[38] Translation: "Modernity is the transient, the fleeting, the contingent, half of art, the other half of which is the eternal and unchanging"

necessity the simple form adapted to its use and solid"[39]. From the beginning of the 1920s, architects wanted to adapt these political, economic and above all social changes to architecture. They included Le Corbusier in France, Ludwig Mies Van Der Rohe and Walter Gropius in Germany[40]. The latter two were the directors of the Bauhaus, the Institute of Arts and Crafts founded in 1919 in Weimar, Germany. The concept of the Bauhaus was born out of the merger of the School of Decorative Arts (Kunstgewerbeschule) with the College of Art (Kunsthochschule) into a single school and was linked to the idea that all craftsmen were artists, and that all artists should be good craftsmen.[41]

The objective was clear: "*to build the city for a society at the service of industry*".[42] The aim was to change man through art, or to create art for a "new" man, as Jean Clair put it. [43] Aalto began his career at this pivotal stage of modernist thinking in architecture. Although from the beginning of the 1920s, the architects of the Bauhaus declared their desire for change, they were far from being the only ones to want to rethink a different kind of architecture. Whether it was Le Corbusier who, with his cousin, designed the Citrohan house between 1920 and 1922, conceived as a "living machine", or Pierre Chareau, influenced in architecture by a transcription of Cubist research from 1923, Johannes Duiker and his sanatorium in Hilversum (1926-1928), which inspired Aalto, and many others, a general European movement was underway after the disasters of the war, the forced industrialisation, the discovery of new materials, towards an ideal of promotion which introduced the social posture of the architect.

In 1927, a competition organised by the League of Nations in Geneva ended in failure for the modern and functionalist architects, including Le Corbusier. Faced with this failure, they decided to bring together international architects and town planners, with the aim of laying the theoretical foundations of the modern and functionalist architectural and town planning movement.

Indeed, many architects worked together but did not know each other. A year later, a congress of "modern" architects was held at the Château de la Serraz: the International Congress of Modern Architects, the CIAM.[44] A Declaration was made at the end of the Congress by the signatories who affirmed "*their unity of view on the fundamental conceptions of architecture and on their professional obligations towards Society*"; they said they wanted to place "*architecture on its true plane, which is the economic and sociological plane*"[45]

Although Aalto already knew several members present at the Congress, he went to the second CIAM in Frankfurt in 1929 as a guest with the Sweden architect Sven Markelius. He was already working on the Paimio Sanatorium, for which he brought photographs of the construction site, which earned him acceptance into the group without officially representing a Finnish group. The theme of the congress was minimum housing under the title "Die Wohnung für das Existenzminimum"[46], a pressing problem due to the lack of housing for the working class. The Congress also addressed broader issues such as

[39] SIMENC C., Le Bauhaus, laboratoire de la modernité, Les Echos, 2019, [online :] https://www.lesechos.fr/weekend/high-tech-auto/le-bauhaus-laboratoire-de-la-modernite-1211735

[40] "The functioning of the Bauhaus was closely linked to socio-political events. The date of the school's foundation, 1 April 1919, coincided with the discussions in the assembly, which led to the creation of the Weimar Constitution a few months later. It was in this very particular atmosphere of the Weimar Republic that the new institution - the state school financially dependent on the regional government of Thuringia - was to try to respond to the needs of German society in the face of the catastrophic state of its economy in the wake of the Great War. What exactly is the Bauhaus? in Artefields [online:] https://www.artefields.net/art-history-modern-art-bauhaus/

[41] Ibid

[42] TIELEMAN D., la pensée de Jane Jacobs et Oscar Newman dans le développement des villes contemporaines. Faculté d'architecture de l'ULiège, 2014 : [online :] http://hdl.handle.net/2268/184229

[43] CLAIR J., Courte *histoire de l'art moderne : un entretien*, Paris, 2004. p.23

[44] Six points are presented for discussion: modern technology and its consequences, the economy, urban planning, standardisation, education and youth, and the relationship between the state and architecture

[45] TSIOMIS Y., ET HASKARIS Y., Les CIAM 1928-1940, Les documents de la Fondation Le Corbusier, P.11. Procès-verbal du Congrès du 24 au 29 juin 1928. Référence 21/309-325, [online :] https://hal.archives-ouvertes.fr/hal

[46] LEISTIKOV H., *Die Wohnung für das Existenzminimum,* CIAM, Francfurt, 1929, [online :] https://www.moma.org/collection/works/6107

hygiene, seen as an applied social science, and particularly biology, which led Le Corbusier to say: "*Housing is a biological phenomenon*"[47]. The essential point is that the approach is humanistic: "*While studying the sociological bases of architecture (evolution of civilisation, individual and collective needs, etc.), we think it is appropriate to examine the facts relating to the physical rules of air, light, heat and sound*".[48]

Back in Finland, Alvar Aalto published a text entitled "The Housing Problem" in which he expressed his doubts about the need for a large housing space, which he saw as a disadvantage rather than an advantage. He tries to prove in this text that "*in itself, a large space is not an advantage, it is a disadvantage*"[49]. Small areas are formulated as a matter of course, as is "*morning gymnastics*", which is less necessary in 200 square metres of bourgeois space and becomes elementary in 60 square metres of well-arranged space. Aalto also organises an exhibition that includes a model dwelling for a family of four or five people and technical plans for "standard housing prototypes"[50] where biodynamic conditions (air, light, temperature) should specify the distribution of the dwelling, and not models predetermined by axes of symmetry (a departure from Le Corbusier's machine à habiter). In connection with his exhibition in London in 1933, Aalto came into contact with the Enso gutzeit Wood-Processing Compagny which hoped to boost its exports to Britain with the help of the experimental house designed for the Ideal Home exhibition in London.[51] "*This text remains fundamental because it addresses the major questions to which he would return again and again: universality (standardisation), civilisation (he liked to define it), the organic (which can provide hospitality)" [52].*

However, Aalto returned from the first CIAM congress both enthusiastic and concerned. While he was enthusiastic about the new constructive, material and industrial applications, he soon realised that the technique raised new problems such as systematic consumption and over-expansion. The following year, he did not take part in the conference but travelled again, notably to Germany. Without denying all the positive aspects of Modernism, Aalto says he is ready:

> *« to accept the benefits of technology, but]that Finland] was too anchored in its traditional conceptions to be impressed by modernism "[53]*

But what are the concepts that will little or no influence Alvar Aalto in Modernism? This question can be approached through several prisms, but an approach through the modernist ambitions can be interesting to bring the Aaltian concept into it. This can be done through two main axes that are at work in the modernist movement: cultural and social. Cultural through a denunciation of tradition. Social through systematisation and rationalisation. Where does Aalto fit into these ambitions? What are the modernist approaches that made him accepted in the circle of CIAM architects?

Modernism versus culture: the tabula rasa of the past and the vision of Aalto

"What is has always been. What was has always been. What will be has always been."
Louis Khan

[47] LE CORBUSIER, CIAM 2, 1929, p. 24
[48] BOURGEOIS CIAM 2, 1929, p. 34
[49] AALTO A., *Le problème du logement,* Milan, Domus n° 8-10, 1930, [online :] https://www.articule.net/2021/01/10/alvar-aalto-le-probleme-du-logement-domus-milan-n8-10-1930
[50] Alvar (1898-1976) & Aino (1894-1949) Aalto #2 Le début des années 30 : connus et *re*connus, [online :] https://www.articule.net/2021/04/12/alvar-1898-1976-aino-1894-1949-aalto-2-le-debut-des-annees-30/
[51] SMART G., Hugh Alvar Henrik Aalto, [online :] https://usmodernist.org/aalto.htm
[52] Alvar (1898-1976) & Aino (1894-1949) Aalto #2 Le début des années 30 : connus et *re*connus, [online :] https://www.articule.net/2021/04/12/alvar-1898-1976-aino-1894-1949-aalto-2-le-debut-des-annees-30/
[53] FLEIG K., Alvar Aalto, vol.1, 1995, p.14

Rejecting the past

Already at the very end of the 19th century, the Austrian writer and literary critic Herman Bahr decreed that "*all that was old must be purged in order to harmonise with external circumstances*"[54]. Thirty years later, the rejection of the past in favour of a spirit of modernity was to become the catalyst of the Modern Movement. To want to wipe out the past was a way of not seeming to have to carry on with it in any way. For some, a revolution was essential, while others saw a much more productive evolution. The end of the 19th century and its exacerbated romanticism, the First World War and the necessary reconstruction that followed, new materials and the explosion of industrialisation could only provoke a rupture. What the war had buried under the rubble of the trenches and a misunderstood defeat was also a rejection of a past that was considered outdated. As Hannah Arendt , a political scientist and philosopher, explains so well: "*The glorification of the past only served to mark the moment when the modern age was about to transform our world as a whole to such an extent that a confidence in reintegrating tradition was no longer possible*".[55]

For the Modern Movement, the answer to the challenge of the age was the abandonment of tradition, the rejection of the past. The modernists conveyed the idea of a rational, machine-like architecture, galvanised by recent technical discoveries in construction and wishing, more than anything, to wipe out the past. The architectural language had become exhausted through formal copies and pale reinterpretations. So, as the architect and architectural theorist Bruno Zevi explains, on the basis of a pre-existing semantics, the modernists "*plunged into a work of re-semantisation*"[56], of enumeration. Taking the classical elements one after the other, they actually identified them and then desacralized them in order to resurrect them in another language. But the words used by the modernists were those of a total rejection of the past, of academism and of ornament. "*The modern ornament has no parents and no descendants, has no past and no future. People without culture, for whom the greatness of our time is a book sealed with seven seals, greet it with joy, and after a short time reject it*,"[57] said the Austrian architect Adolf Loos. As for Le Corbusier, he sometimes expressed himself in a brutal manner, more out of provocation and a desire to systematically do the opposite of what had been achieved before in the sole alternation, according to him, of affirmation or renewal. Too little for him. "Should the Louvre be burnt down?" he asked in 1920 in the second issue of his review "L'Esprit nouveau"[58].

Aalto and the interpretation of the past in the light of modernism

To standardize the Modernist movement through its main representatives, Gropius, Le Corbusier and Mies van den Rohe, does not do justice to the diverse approaches that have gone through the movement. The social and political situations of each country produced differentiated transcriptions of the movement far from a monolithic block. And even within national groups, the diversity of approaches between Lissitsky and Ginsburg in the USSR or between Papadakis and Despotopoulos in Greece, are strong. But wasn't the will to create an *"intellectual-moral bloc which would make politically possible a mass intellectual progress and not only of a few restricted groups of intellectuals*"?[59] All of these aspects are an expression of an upturned early twentieth century that drew on earlier currents despite its denials. And as the Belgian architect Célia Orgilles writes, "*this undoubtedly does not detract from the power of the decisions and founding acts of the movement,*

[54] HEYNEN, Hilde. *Architecture and modernity: A critique.* Cambridge, Mass: MIT Press, 1999. p.73
[55] ARENDT H., La crise de la culture, Gallimard, Paris, 1932, p. 38
[56] DICTIONNAIRE CORDIAL. Resémentisation [online] https://www.cordial.fr/dictionnaire/ definition/res%C3%A9mantisation, p.32
[57] LOOS A., *Ornament und verbrechen, Article de Das Andere,* 1908, p.3, [online] https://www.designtagebuch.de/wp-content/uploads/2011/11/adolf-loos-ornament-und-verbrechen.pdf
[58] Le Corbusier's first writings began with the journal L'Esprit nouveau, which he founded with Amédée Ozenfant and Paul Dermée when he arrived in Paris in 1916. There he developed an important movement dedicated "to the aesthetics of the machine, which is purism. Quoted in ORGILLES C., Le modernisme en architecture, [online] https://matheo.uliege.be/bitstream/2268.2/9826/4/TFE_ORGILLES
[59] TSIOMIS Y., ET HASKARIS Y., Op. Cit, introduction, VI.

which, in order to ensure its own truth, experimented with various configurations of thought and action aimed at establishing modernism in its century".

In this configuration, Aalto's position, which is different from the vision of the clean slate as developed within the modernist current, was not unique. He expressed himself clearly with these words:

> *« Seeing how people in the past were able to be international and unprejudiced and yet remain true to themselves, we may accept impulses from old Italy, from Spain, and from the new America with open eyes. Our Finnish forefathers are still our masters"*[60]

For Aalto, the desire to free oneself from the past at all costs proved to be a false problem, and he rejected a revolution that sought the disappearance of history, reduced to zero, and the continual search for novelty as a unique value system.[61] Aalto maintained, as did the architect and urbanist Bernard Huet, that one must: "have an overview of the historical possibilities in order to propose something new, and therefore an evolution of things"[62]. The professor of architecture and theorist Paolo Portoghesi does not say otherwise : "*Instead of granting a space to tradition, which is an impulse to innovation in continuity, modern architecture, by its refusal to integrate itself into temporal continuity, has rapidly become self-referential*." [63]

Thus, when Le Corbusier rejected vernacular architecture as a whole, in which he saw only an imitation of forms and decorations from various styles"[64], Aalto took the opposite position because for him, as Pierre Debeaux says: "*the appropriation of old things constituted a vade mecum, for a "coherent, vigorous approach", in which the very question of revitalising utopia could be reconsidered as the only strategy for stimulating the imagination*"[65]. Aalto saw modernism as a possibility of reinterpreting natural and cultural languages through, as the French architect and urbanist Roland Schweitzer explains, a path from "*modern architecture to vernacular architecture*"[66] (and not the other way around). So it is not a pale copy of the architecture in Karelia. In 1941, in his book Architecture in Karelia (complete), Aalto presents the importance he attaches to vernacular buildings. As Kenneth Frampton explains, for Aalto:

> *« A dilapidated Karelian village is in some ways similar in appearance to a Greek ruin, where, also, uniformity of material is a dominant feature, although marble replace wood".*[67]

This vernacular tradition is most clearly seen in the Villa Mairea, built in 1939, with its blurred interior/exterior boundaries and wooden materials. According to Scott Poole, we can see that:

> *« the particular aspects of Finnish farms and lakeside retreats are combined with features from Swiss Alpinevillages and traditional Japanese gardens to evoke an informal, even rustic*

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[60] AALTO A., *Motifs from past ages* (1922). Reproduced in SCHILDT G. in *Alvar Aalto in His Own Words*, Otawa, Helsinki, 1997, p.35

[61] It is sometimes forgotten, but Malevich, who first wanted to be an architect, argued that "truth lies in nothingness" and it was in 1918 that he painted the white square on a white background. He also carried out volumetric research in 1920, which he called Architectones.

[62] HUET B., *Sur un état de la théorie de l'architecture au XXe siècle : Conférence* p. 42

[63] PORTOGUESI P., LA SALLE V., Alvar Aalto et l'expression de l'humanisme dans l'espace habité , mémoire présenté à la faculté de l'aménagement de Montreal , [online] https://papyrus.bib.umontreal.ca/xmlui/bitstream/handle/1866/7989/LaSalle_Virginie_2008_memoire.pdf?sequence=1&isAllowed=y
Portoghesi (1981) identifies this first phase with the years 1880 to 1910; he links the trends of Art Nouveau, Expressionism and Art Deco to this period.

[64] RAVEREAU, A., « Pour une architecture située ". op.cit. p. 213

[65] DEBEAUX P. quoted in MILHAU, D. "L'art, subversion l'histoire". Art, subversion of history". Poïésis. Tradition et Modernité 1996, p. 84

[66] SCHWEITZER, R., In the footsteps of AA. Part ½. 2015. Extract from a regional interview CAUE Occitanie.

[67] FRAMPTON K., "Towards a Critical Regionalism: Six points for an architecture of resistance", in *"Anti-Aesthetic. Essays on Postmodern Culture."* Seattle: Bay Press, 1983, p.168

atmosphere. This curious amalgam hangs together through a common thread of association ; The straight forward simplicity and down-to- earth utility of vernacular forms"[68].

The curved lines already present in the Viipuri library, lines that give a subtle impression of imprecision that nature would not deny.[69] A line of which Aalto speaks:

« the curving, living, unpredictable line which runs in dimensions unknown to mathematics, is for me the incarnation of everything that forms a contrast in the modern world between brutal mechanicalness and religious beauty life"[70]

To conclude on this issue, it is perhaps useful to say that the attachment to or rejection of the past, while rarely entirely Manichean, was the subject of bitter polemics among architects throughout the twentieth century. The sometimes rigid, even if visionary, posture of the modernists, as well as the reductive typological codes of their protagonists in the face of what they considered indispensable: "building new cities", gradually gave way to increasingly virulent criticism of their tabula rasa in favour of a contextualist, even anti-utopian vision.

In his book "*Complexity and contradiction in Architecture*" (1966)[71], Robert Venturi, for example, expresses his point of view as a practising architect by asserting that he is part of a continuous tradition. The text goes like this :

"appeared as a challenge to the position held by many modern architects in which form-and hence meaning- theoretically derived from function, not from other sources such as history, tradition or culture. In contrast, Venturi advocated an inclusive approach toward design that embraced multiplicity of meaning and form (…) This view of architectural continuity placed the architecture of the past on a par with that of the present".

Venturi mentions the writer Thomas Stearns Eliot when he talks about a poet:

« No poet, no artist of any art, has is complete meaning alone. His significance, his appreciation is the appreciation to the death poets and artists.You cannot value him alone ; you must set him, for contrats and comparison, among the dead(…) The poet's mind is in fact the receptacle for seizing and storing up numberless feelings, phrases, images, which remain there until all the particles which can unite to form a new compound are presnt together"[72]. Venturi est convaincu de la permanence de certains traits marquants de l'architecture de tous temps *:«Architect scan no longer afford to be intimidated by the puritanically language of orthodox Modern architecture"*[73]

In this sense, Aalto proves to be very "modern" or rather topical. He has always wanted to place himself in a perspective of "living" which, over the course of previous centuries, the accumulation of experiences had allowed users to position themselves in a reassuring spatial and temporal perspective because it is eminently human. This will be demonstrated in the following section.

[68] POOLE S., Villa Mairea. Alvar Aalto, The Companions to the History of Architecture, Volume IV, Twentieth Century Architecture, 2017, [online] https://www.academia.edu/35388821/Villa_Mairea_Book_Chapter_John_Wiley_Sons_Inc
[69] BUREAU S., LAPOINTE A. et MAILLOT P., Etude d'une pensée constructive d'architecte. La Villa Maiera. Université de Laval, [online] https://www.arc.ulaval.ca/files/arc/Alvar-Aalto_Villa-Mairea.pdf
[70] AALTO A. Vila Mairea, [online] https://architectuul.com/architecture/vila-mairea
[71] VENTURI R., *Selected Essays,* 1917-1932, Harcourt, Brace and Co., New York, 1932;
[72] MITCHELL P. Selected T. S. Eliot Tradition, [online] https://www.dbu.edu/mitchell/modern-poetry-resources/tradition-poetry-faith-culture.
[73] VENTURI R., *Complexity and Contradiction in Architecture,* 1966, New-York, p.190

Rationalist, functionalist social modernism and the humanist vision of Aalto

"The architect first creates a dream form and then forcibly introduces what is biodynamic, i.e. human life. This is a mistake. Form should be a logical, centripetal force. Construction must be at the service of everyday life and celebration; if form has no logical link with these, it suffers and loses its meaning."[74]

Aalto

A rationalism that takes the human into account

In the first quarter of the 20th century, a concern for the different components of society and the need for real social emancipation did not suddenly appear. The legacy of the Enlightenment and the social struggles of the 19th century were the first seeds of this. They are combined with the Industrial Revolutions, demographic growth, particularly in urban centres, new materials, mobility, but also the new relationship between architecture and industry. Faced with these upheavals, modernist architects, first and foremost Le Corbusier and Gropius wanted to participate in the construction of a better world in a quasi-messianic sense that was not free of utopia. New spaces, pre-established construction methods, via the principles of rationalisation and standardisation, serial production (linear assembly lines and flexible construction kits), simplified efficient models and industrial mechanisation are the key words of the modernist architect and transposes industrial processes to the urban environment.

It is a utopia that aims to make a new world possible. Because that is what it is all about: inventing and creating a new world. Modernist architects propose an "*innovative, sometimes redemptive process for 20th century man. They develop a planning of tasks in order to create an adapted, saving environment*"[75]. A discourse that resolutely wants to break with the academicians of the past in order to situate itself in the new social and economic context, even if it bears the seed of a new radicality. But it is a discourse that has as its objective progress based on "*the liberation of man with reference to his physical, economic and social environment*"[76].

Aalto defends the idea of "the simple man" and of an architecture with a human vocation in a modern world where men, as he says in his speech entitled Between Humanism and Technology, must live in: *"an age of continuous struggle against mechanisation and machines"*[77]

He could have been entirely in line with this bold and humanistic perspective. But for him, it is a question of reintroducing the social into individual practices and not of imposing a predetermined social on individual practices. The difference is significant because it does not subject the 'little man' to a vision that does not take him into account. He says about it:

> *"As I am speaking today in Central Europe, where the shaped brick was invented, I should perhaps say in conclusion that we are still far from having the building materials for the architectural forms we need. It is not only the brick that should have a universal form suitable for all purposes, but also everything else that is standardised. When we have reached a level where we can achieve different goals with a single, sufficiently elastic standard element, we can find the right path between Charybdis and Scylla, between individualism and collectivism."*[78]

[74] SCHILDT G., Op.cit., 1988, p.22
[75] ORGILLES C., Op.cit ; p. 73
[76] FOURA, M. « Le mouvement moderne en architecture. Naissance et déclin du concept de l'architecture autonome ". Université Mentouri Constantine. p. 103, [online] http://revue.umc.edu.dz/index.php/a/article/view/1643/1763
[77] SCHILDT G., Alvar Aalto. SKETCHES, Architect Essaps + Artwork MIT press, 1978, p.130
[78] AALTO A., *La table blanche et autres textes,* [online] https://www.editionsparentheses.com/IMG/pdf/P268

Thus, even if he found in modernism concepts to be applied in standardisation, for example (but without uniformisation), or the use of concrete and innovative techniques, he would push much further this monological vision which takes buildings out of their context to confine them to a pre-established, rigid space thought of "by" and not "for". In 1953, he stressed the importance of bringing life into architecture:

> *« In the midst of our laboring, calculating, utilitarian age, we must continue to believe in the crucial significance of play when building a society for human beings, those grown-up children (…) Thus we combine serious laboratory work with the mentality of play, or vice-versa. Only when the constructive parts of a building, the forms derived from then logically, and our empirical knowledge is colored with what we might seriously call the art of play; only then are we on the right path. Technology and economics must always be combined with a life-enhancing charm."*[79]

A few years later, faced with hard-line modernists who were convinced that they were in the vanguard of an emancipatory historical process, and who were increasingly locked into a theoretical straitjacket, Aalto raged against the dehumanised drift:

> *"The horoscope of architecture today is such that my words could only be negative. The parallelepipeds made of glass squares and artificial metals, and the inhuman snobbery of the big cities have produced an architectural form from which there will be no return."* [80]

These harsh words were toned down at the Helsinki University of Technology's jubilee in 1972, when he concluded his speech with:

> *"We may not be able to eliminate error, but what we can try to achieve is that weshould all commit as few errors possible, or better still, benign errors."*[81]

In his lectures, Aalto often addressed the theme of the "enemies of humanistic architecture" and the factors that prevent its realisation.[82] According to the writer Goran Schildt, the first enemy of architecture is real estate speculation, producing cheaper houses, *slums*, whose social consequences are socially costly.[83] The second enemy is linked to the aestheticism of the formal, which he considers superficial.

Aalto has always defied dogma and insisted on the notion of doubt. In Rationalism and Man, he writes:

> *"The term 'rationalism' appears in connection with Modern architecture about as often as does 'functionalism'. Modern architecture has been rationalized mainly from the technical point of view. [...] It is not the rationalization itself which was wrong in the first and now past period of Modern architecture. The fault lies in the fact that the rationalization has not gone deep enough. The present phase of modern architecture is doubtless a new one, with the special aim of solving problems in the humanitarian and psychological fields. [...] Technical*

[79] AALTO A., *Experimental House at Muuratsalo,* Arkkitehti, 1953, no. 9-10. Republished in: SCHILDT, G. *Alvar Aalto in His Own Words*, Otava, Helsinki, 1997, pp.234-235, [online] https://www.tandfonline.com/doi/pdf/10.3130/jaabe.8.9

[80] AALTO A.. *En guise d'article.p.183 ,in* FRANCOIS N., Alvar Aalto, l'architecture des sens, Mémoire, Université de Toulouse, 2021, [online] https://issuu.com/nathan.francois/docs/francois_nathan_-_memoire_alvar_aal_421fe9fd693749

[81] PALLASMAA J., *Alvar Aaalto through the eyes of Shigeru Ban*, Blackdog Publishing in association with Barbican Art, Gallery: London, 2007, p.56

[82] SCHILDT G., op.cit., p.22 A recurring theme in Aalto's lectures

[83] SCHIDT G. , ibid, p.23

functionalism is correct only if enlarged to cover even the psychophysical field. That is the only way to humanize architecture."[84]

His credo is to avoid the brutality and frugality of the place. It is not a question of opposing technology but of combining it intimately with the human. The latter must be part of the project from the first sketch. He often masks the structural framework in order to move towards places that makes say to the art historian Siegfried Giedion that "*one always feels good at Aalto*".[85]

In the end, his recommendation of a mode of architecture refocused on the human and not on a fixed and systematic international rationalism, frees him from the sterile inventories of a stereotyped standardisation to transcend the constructive principles, the relationships of materials and their implementation. In other words, Aalto frees rationalism from its potential totalitarianism. Unlike Le Corbusier, the Aalto couple "*do not have the vulgarity of believing in a new man, machine-like and off the ground. They believe much more in the conspiracy - in the common breath - of various worlds capable of cohabiting and interacting on the basis of what they share*".[86]

Functionalism with a human face

As we have seen, the influence of modern thinking will change Aalto's work as a designer, but not in the direction of systematised use, but in the direction of a particular attention to the needs, both physical and psychological, of the user. This constant adaptation of the building envelope and the utilitarian qualities of the interiors, from the design of the furniture to the general spatial organisation, was called humanistic functionalism. It became the architect's trademark, and the result gave Alvar Aalto fame as a leading modern architect beyond his own country.

The architect and Cambridge University professor St. John Wilson saw in Aalto an offbeat representative of modernism and what he called "that other modern tradition" for the architect. According to Wilson. « *Aalto gold metal speech in 1957, in which he spoke out against the dictatorship emerging in Modern architecture, was a revelation to Wilson, and combined with the personality and writing of Christian Norber-Schultz to create a new perception of the Modernist field as being polarized between head and heart."*[87]

Freed from commoditas? Really? Let's dig deeper. In more recent times, commoditas has taken on different meanings, to the point where it has come close to structure in Nevi's work and more recently to construction techniques in Portzamparc's. Although Aalto was close to the modernist functionalists from the beginning of the 1930s, he freed himself from them without denying them. How did he take this step (or parade)?

In the 19th century, the architect Louis Sullivan declared that "*form follows function*", the latter encompassing everything else from the design to the use of a building. From 1918 onwards, the Russian Constructivists subjected a new language of abstraction to the needs of the new communist state. The Russian artist Rodchenko, for example, states that the use of industrial materials emerges from communism. In the 1920s, Gropius called for the "construction" of a work that closely united "formal work" and "practical work". Using new materials, it was necessary to think about

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[84] AALTO A., *The Humanizing of Architecture, 1945*, The Technology Review, November 1940. Republished in: Schildt, G. (ed.) (1997) *Alvar Aalto in His Own Words*, Otava, Helsinki, pp.102-107

[85] GAUVILLE H. *Critique, Hommage mérité et exposition à New-york pour celui qui mit l'habitant au cœur de sa réflexion. Simplement beau comme de l'Alvar Aalto,*Libération, 1998, [online] https://www.liberation.fr/culture/1998/05/04/architecture-hommage-merite-et-exposition-a-new-york-pour-celui-qui-mit-l-habitant-au-coeur-de-sa-re_237704/

[86] *Aalto où qu'il aille porte la Finlande avec lui,* Focus Galerie Stimmung, [online] https://galeriestimmung.com/blogs/journal/aalto-ou-quil-aille-porte-la-finlande-avec-lui

[87] *SINT-JOHN WILSON (1922-2007),* Architect's journal, 2007, [online] https://www.architectsjournal.co.uk/archive/colin-st-john-wilson-1922-2007

industrialisation in production, a question that had also become eminently political. While some communists, such as the Swiss architect and town planner Hanes Meyer, defended the idea that "building is only about organising social, technical and economic life", others, such as Johannes Itten (check), defended intuitive and artistic approaches. But this is to forget that the second half of the 1920s saw the arrival of the right wing in power and that to free themselves from state control, they had to turn to industry, and that functionalism would develop.

This functionalism, although indispensable in principle according to Aalto, did not essentially correspond to his image of architecture. The turning point of the 1930s (1929-1933) marked Aalto's adherence to the functionalist movement. But nothing in his work was ever gratuitous, rigid or assimilated. Defined as "an optimal adaptation of form to use", functionalism was often initially limited to a purely technical dimension. It did not go against the grain, but adapted the vision of Gropius, Le Corbusier and Breuer of the European architectural avant-garde in a humanistic sense, in contrast to a functionalism with rational or even almost totalitarian tones. While Le Corbusier's and Gropius' right-angled design was totally imposed, Aalto arranged his buildings without linear preconceptions, without a rigid pre-established system. At the Paimio sanatorium, everything is a break, an off-axis, an exception to the rule. In the Viipuri library, the curve is intensified. This version of listening to the world around him finds an original expression that will be affirmed in Aalto's later projects.

Aalto wants man to be at the centre of the creative process and therefore calls for an expanded functionalism, a hyperfunctionalism aimed at the satisfaction of physical and psychological needs. In this way, while being close to the modernists, he initiates a critique by not taking into account man's primary needs, largely defined by Le Corbusier or Gropius, but rather the senses, the physiological and psychological needs. Here is what he thinks about it:

> *"In order to achieve practical goals and valid aesthetic forms in relation to architecture, one cannot always start from a rational and technical point of view, perhaps never. The human imagination must have a free field to develop. This was generally the case in my experiments with wood. Cheerful forms with no practical function have in some cases led me to a practical form after ten years... The first attempt to build an organic form from wooden volumes without the use of cutting techniques led me later, after almost ten years, to triangular solutions, taking into account the orientation of the wood fibres. The vertical load-bearing part in furniture forms is really the little sister of the column in architecture."*[88]

As can be read, functionalism as an optimal fit to the detriment of the rest, and thus giving an exclusively technical dimension, is far from sufficient for Aalto. We can see the evolution between his first library in Viipuri, which is the subject of our research, a fine expression of a functionalism that is still essentially present, and whose volumes correspond to specific programmes, and those of Seinäjoki (1963-1965) or Rovaniemi (1963-1968), which proclaim an even more sensitive approach to the parameters linked to use and perception.

Architecture must therefore, above all other considerations, ensure the quality of life. Goran Schildt, expresses that "*the foundation of Aalto's architectural doctrine lies in his conviction that people can organise their environment and surroundings in such a way as to ensure their well-being, their physical and moral health, to live in harmony, to enjoy all the benefits of a genuine human culture.*" [89]

[88] AALTO A., cité dans FRAMPTON K., *L'Architecture moderne. Une histoire critique* (1980), Philippe Sers, Paris, 1985, p. 172-173, [online] https://quadraturarchitecture.files.wordpress.com/2013/03/polycopie_th_4.pdf

[89] SCHILDT G., *Alvar Aalto de l'œuvre aux écrits, 1988,* Centre Pompidou, Collection Monographie, Paris, p.19

From simple ideals, Aalto creates living spatial forms and places the enjoyment of the inhabitant at the heart of his creation by focusing on commensality, the sharing of space and integration with the surrounding environment. For Aalto, to inhabit is to make use of life. To inhabit a place is to establish relationships, complicities and to surround oneself in order to make use of the daily terrain.

Humanism and phenomenology

Introduction

The Finnish architect and theoretician Juhani Pallasmaa in a long article[90] on the phenomenological approach to architecture defends a vision that, according to the museologist and doctoral student at the Ecole Normale Supérieure, Marcus Weisen who introduces Pallasmaa's article "*probes infradiscursive dimensions of sensible experience*". The preconscious dimension of architectural experience, the inextricably multisensory nature of perception, architecture as a space of memory and imagination, and the body lived in movement in space. He[91] also states that: *"the meaning of architecture cannot be understood solely on the basis of its forms and functions*" only the mental images, associations, memories and bodily sensations aroused by a work of art can communicate its artistic message. An authentic work of art takes our consciousness off its ordinary rails and opens it up to the deeper structure of reality. This is clearly in line with Aalto's vision that architecture must be, in its very essence, human:

> *"We can therefore say that one of the ways to achieve the construction of an increasingly human-friendly environment is to expand the concept of rationalism. We must rationally analyse an increasing number of qualities that may be required of the object (...) A whole series of qualities that may be required of all objects and that have been very little taken into account up to now certainly fall within the scope of another science, I mean psychology. As soon as we take psychological requirements into account, or, let us say, can do so, we have sufficiently extended the mode of rational work to make it easier to exclude inhuman results."*[92]

Inhabit in and Be Inhabited by

What does it mean deeply for Alvar Aalto to care about people? We have seen that functionalism does not completely fulfil this role. Far from it. For him, inhabited or used places must go much further than that. The phenomenological approach that articulates between the complex human beings that we are and their living places as a metaphor for Man reveals the essentiality of its conceptual approach. For it is in some way the relationship between the complexity of man and the ambiguity of constructed space that is the essence of his work. This approach lies at the heart of his conceptual journey. But in what way does phenomenology characterise the Aalst concept? In order to answer this question, we need to look back at what phenomenology is.

To grasp the human phenomenon consists in leaving pure objectivity and dealing with the irrationality that is subjectivity. If one resorts to the hermeneutic returns in the German Philosopher, Heidegger works when he searches for the authentic essence of human habitation through the phenomenology of place, the bodily habitation of man and the socio-historical aspects of human habitation, one can grasp the essential question: "how to search for the essence of habitation according to a humanistic approach"? Heidegger states that:

[90] PALLASMAA J., Percevoir et ressentir les atmosphères L'expérience des espaces et des lieux, [online] https://popups.uliege.be/0774-7136/

[91] PALLASMAA J., « The geometry of feeling : the phenomenology of architecture "(1985),in *Encounters*, p.89

[92] AALTO A., « Le rationalisme et l'homme " in *Alvar Aalto, De l'Œuvre aux écrits*, op. cit., p. 131.

"[...] the way in which we men are on earth is habitation. To be human means: to be on earth as a mortal, i.e. to dwell"[93] *(...) "Today dwellings may be well understood, facilitate practical life, be affordable, open to air, light and sun: but do they in themselves guarantee that dwelling takes place?" (...) "The upward gaze measures the whole in-between of heaven and earth. This in-between is the measure assigned to man's habitation. This diametrical measure assigned to us, by which the in-between of heaven and earth remains open, we call Dimension."*[94]*. "The organizing measure of the human being in relation to the Dimension that is measured to him leads the dwelling to its fundamental structure. The organizing measure of the Dimension is the element in which the human dwelling finds its guarantee (Gewahr), i.e. that by which it endures (wahrt). This measure is the poetry of habitation."* [95]

Aalto is in this same neuralgic approach of combining, along with the materials and the environment, the lived experience and the human awareness of the lived experience of a place.

Concretisation of existential space

The approach to the architectural concept via phenomenology is also revealed through the work of the French philosopher Merleau-Ponty. For him, it is through our perception that we inhabit the world.[96] And what man perceives is constantly placed in an inner and personal "*field*", which is that of the subject's experience of the world as it is lived.

For the architect Norberg-Schulz, « *Presents genius loci as having as having a fundamental function in place-making, working with the philosophical idea of phenomenology. In fact, this scholar started to postulate experiential and psychic notions of "being" to "foothold" and pace in 1971 and continued in 1980 to use the notion of genius loci in reference to a phenomenology of architecture . Place is a psychic" function. It depends on identification, and implies a sense of belonging. It therefore constitutes the basis of dwelling (…) according to Heidegger's essay Building Dwelling Thinking : "Man dwells when he can orientate himself and identify himself with an environment, or when he experiences the environment as meaningful"*[97]*.*

Aalto did not set up the Viipuri library without a great deal of thought. As the French writer Hervé Gauville puts it: "*Aalto does not make anything ex nihilo (...) A site, whether it is in a forest or along a road, has a history. Aalto applies the term 'urban fabric' to the term 'seamstress'. His architecture weaves through the terrain like a hare uses loose earth to dig its burrow. But with him there is neither colonialist ostentation nor plant camouflage. It's a way of being there without showing off his know-how or copying the inventions generated by this genius loci.".*[98]

Alvar Aalto could not imagine building without conceiving the full density and complexity of the human person. Quoting Goethe, Pallasmaa emphasises:

> *"Opposing the orthodoxy of modernist doctrines, he (editor's note: Aalto) conceives of "an expanded rationalism" and develops ideas of rational design, which go beyond functional and technical problems and integrate psychological and biological data. His approach includes aspects of tradition and time; his projects become a haptic experience, the source of intimacy*

[93] HEIDEGGER H., *Essais et conférences. 1954 a*, Paris, Gallimard, coll. «Tel" n° 52, 1958, trad. Préau, 349 p. 173, [online] https://journals.openedition.org/cybergeo
[94] HEIDEGGER H, ibid, p.171
[95] HEIDEGGER H, ibid, p.234-235
[96] MERLEAU-PONTY M., *Le Cinéma et la Nouvelle Psychologie* (1945), in *Idem*, *Sens et Non-sens,* Paris, Gallimard, 1996, p. 63.
[97] VECCO M., Genius loci as a meta-concept, Montreal, 2019, [online] https://pdf.sciencedirectassets.com/272126/1
[98] GAUVILLE H., Critique. *Hommage mérité et exposition à New-york pour celui qui mit l'habitant au cœur de sa réflexion. Simplement beau comme de l'Alvar Aalto,* Libération, 1998, *[*online] https://www.liberation.fr/culture/1998/05/04/architecture-hommage-merite-et-exposition-a-new-york-pour-celui-qui-mit-l-habitant-au-coeur-de-sa-re_237704/

and atmosphere. With a critical eye on the technological orientation of architecture, he emphasises a humanistic, intuitive and sensitive thinking at the heart of all arts. Instead of a reductive modernist formalism, he moves towards a total, multi-thematic architecture, of the episode, the fragment and the collage, rich in associations and feelings."[99]

A multi-sensory space that completes the context

What principles guided Alvar Aalto to create a "*meaningful architecture*"? Approached via phenomenology, it can be seen as an overcoming of the notion of time in a relationship between space, body, mind and time, and then a synergy of the senses, a multi-sensory experience of spatial perception that moves beyond the eyes alone to shape a perceptual scheme of space augmented by all our senses in complementarity. In his 1995 essay "*The Eyes of the Skin: Architecture and the Senses"*, the architect and theorist Pallasmaa express his concern about the hegemony of vision alone in Western architecture, to the detriment of sensory qualities in art and architecture. According to him, this attitude reduces the perceptual experience,[100] leading to people becoming isolated and disenfranchised spectators.[101] Pallasmaa strongly criticises the architects of Modernism who, by propelling vision to the top of the architectural virtues, abandoned the body and the senses, as well as memories, imagination and dreams.[102]

As Clémence Thimonier and François-Xavier del Valle explain in their thesis: "*Conceiving Architecture. Phenomenology of spatial perception"*[103]*.*

"If we pay attention to our lived experience, the one we live daily in the places we frequent, we observe that architecture engages a wide range of sensory perceptions. Materiality and textures, proportion and scale relationships, geometry of the structure, association of colours, depth, smells, balance, temperature, path, culture, climate, transparency, contrasts, furnishings, luminosity, humidity, resonance, are all elements that contribute to our appreciation of a space. These dimensions to which we are sensitive influence each other to form a whole that affects our perception."[104]

For Pallasmaa, touch is linked to proximity, intimacy, veracity and identification with the person[105]. He believes that natural materials - stone, brick and wood - reveal themselves through the expression of their age and history, as well as through the passage of time that leaves its mark on them[106]. Pallasmaa advocates an approach to the built environment that aspires to 're-sensualise' architecture through a heightened sense of its materiality and 'hapticity', its texture and weight, the density of its space and the materialisation of light.

For Shigeru Ban, the Japanese architect, « *in Aalto's architecture I found a space created to complement its context(…) It was the kind of space that one wouldn't be able to comprehend through photographs and text in a book; one would need to experience it on the spot in order to understand the quality for it"*[107]

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[99] PALASMAA J., La rationalité synthétique d'Alvar Aalto, Résumé d'une conférence donnée en 2018 à la cité de l'architecture, Paris, [online] https://www.citedelarchitecture.fr/fr/evenement/la-rationalite-synthetique-dalvar-aalto

[100] PALLASMAA J., *The Eyes of the Skin: Architecture and the Senses* 1995 p.39

[101] PALLASMAA J, ibid, p19

[102] PALLASMAA J, ibid, p19 to 27

[103] THIMONIER C. et DEL VALLLE F-X., « Concevoir une architecture. Phénoménologie de la perception spatiale. Thèse EPFL. 2018/2019, p. 12-13

[104] THIMONIER C. et DEL VALLE, F-X. ibid, pp. 47

[105] PALLASMAA J., ibid. p. 22

[106] PALLASMAA J., ibid. p. 31

[107] SWENGLEY N., *An eye on" the little man ", Financial Times, 2007,* [online] https://www.ft.com/content/52573560-b6d2-11db-8bc2-0000779e2340

Thus, Aalto's design method reveals both ancient emotions and a search for the most appropriate techniques for each of the spaces (and we will see later that he works on a global vision of the project), as well as a long reflection on the site, but also an approach in which none of the five senses is forgotten Aalto pointed out:

> *"Modern architecture does not mean the use of immature new materials; the main thing is to refine materials in a more human direction"*[108]

Conclusion

Far from standardisation, inflexibility, superficiality, and an economy of thought, Aalto constantly reworks to achieve the ultimate simplicity, but unlike the US architect Frank Lloyd Wright, for example, he is always composed of fragments of humanities. Aalto founds built spaces made of memory, contexts, multiple sensibilities, transformation of the site into a place, and inscribes his conception of architecture in the measure of the man who lives in the places in temporal evolution as he himself works in the development of his project. A conceptual approach that originates in his intuitions, conscious or unconscious, in his conviction that man is much more than a summary addition of physical needs, and he transcends this conviction in the combination of materials and spaces that make sense.

[108] AALTO A., *Alvar Aalto sketches. 1978,* [online] https://issuu.com/joll12321/docs/alvar_aalto

Aalto's View on the Context

Introduction

"The mutually constructive dialectical relationship between a place and a building is the foundation of any authentic architectural act. It is therefore not a passive set of data but integrates the notion of the link."
Eric Lapierre

Like the numerous theories that have marked out the last few decades in an attempt, as we have seen above, to define and even frame the concept in architecture, the notion of context has also been the subject of numerous approaches. These approaches present the notion of context in its spatial and temporal fluctuations, either outside of the design to the point of disappearing, or omnipresent, or in a weaving of mutual relations between concept and context.

There is no question here of delving into the many theses that have been put forward on architectural context for decades[109]. In a few words, however, the Latin term *contextus* meant assembly, meeting, as in the organised relations between the significant elements of a discourse. In the 1950s/1960s, Roberto Venturi asserted that: "*« Gestalt[110] psychology maintains that context contributes meaning to a part and change in context causes a change in meaning. The architect thereby, through the organization of parts, creates meaningful contexts for them within the whole"[111]* . A definition of architectural context thus brings together a multiplicity of approaches. And according to some, this definition is not without approaching an undefinition, a negative content, "*a lacunar whole that awaits from the moment it is defined as such, a building that has been missing until now[112]*". Does it represent this context, a specific topography? urban conditions? a social or even political approach? a present or absent architectural style? a sensory experience? It seems, nevertheless, that to consider the context only in its impossibility of pronouncing itself, because of an overflow, misses what makes it its essence, coming dangerously close to the temptation of *eradicating* the context. And we shall see that Alvar Aalto was not mistaken.

It could be argued that the complexity of what an architectural work is as much about its concept as its context. As Enno Fritsch suggests it in his thesis when he proposes: *« A mode of designing that emphasizes the active role that the physical context, including it embedded cultural implications and poetic ideas, might play in the process of architectural design"[113],* we believe that it is not just a matter of linking an architectural project to its context but that its design would be intrinsically part of an idea of the site and its relationship to the wider context. Within this framework, we will see that Aalto delved into the different contexts he was confronted with, to discover the resources with which the project would weave mutually constitutive and dialectical relationships with the future project. A polysemic relationship, which accepts a variety of interpretations and brings our inner state and our surroundings into unison. An approach that also resonates with the words of Luis Angel Dominguez, architect and professor at the Escuela Técnica Superior de Barcelona, who theorised the value that is currently placed on the notion of context: "*the importance of the architect as a mediator in the*

[109] A thesis written by Sylvain Marbehant traces the chronology of contextualism at length. MARBEHANT S., Concevoir le contexte de l'architecture : réalité habitée et réalité projetée dans trois doctrines du 20e siècle,Thèse de doctorat en Art de bâtir et en Urbanisme, [online] ULiège, 2014, https://orbi.uliege.be/handle
[110] Rudolph Arnheim's theory on the psychology of form and the relationship between perception and the self.
[111] VENTURI R., *Context in Architectural Composition,* M.F.A. Thesis, Princeton University, 1950 " in Complexity: Design Strategy and World View, dir. Andrea Gleiniger et Georg Vrachliotis, Birkhäuser, Bâle, 2008, p.15
[112] SCHEINMAN A., Le complexe du contexte contextualise un mot important, 2020, [online] https://www.cca.qc.ca/fr/articles/issues/28/avec-et-au-sein-de/74490/le-complexe-du-contexte
[113] FRITSCH E., Op cit., p.5

relationship between space and society, and the impossibility of dissociating architecture from the interpretation of the context"[114].

The architect and theorist Bernard Tschumi saw context as a variable-geometry notion in which the elements of which it is composed fluctuate not only according to time but also to individuals.[115] The intertwining of context and concept was highlighted by him in these words: "*Even if architects generally distinguish clearly between what is given - the context - and what is conceived - the concept - the relationship is not so simple. Instead of being something given, the concept is something defined by the observer. The context is not a fact It is always the result of an interpretation*". But for Tschumi, "*there is no architecture without context. An architectural work is always located in a site. The context can be historical, geographical, cultural, political or economic. It is never just a question of its visual dimension"*.[116]

The context is plural by nature. On the contrary, the concept is singular. But the architect conceptualises the context, in a way conveying the multiplicity of contextual possibilities offered by a site, into a range of choices that will make sense to him. Indeed, context is a vital constant. Every living being must take it into account as soon as it moves and even when it does not move. But we don't look at everything. We don't see everything. We don't perceive everything. And above all, we do not look, see and perceive the same thing in the same way at every moment. The "*multiplicity of interpretations*" that Tschumi evokes, the result of a selection of reality, is obvious and as Chloé Blache says in her thesis on the architectural concept development process: "*Taking a position in relation to it (editor's note: the context) consists of reducing its real complexity to a series of characteristics that make up an image within which a new architectural object will take its place*" [117]. For the architect and theorist Eric Lapierre, "*the context is not a fact but an image that it is up to the architect to construct"*. A mental image, so to speak, which brings together "*place*" and "*term*". The knowledge of places and their recognition must integrate the past and invite towards the future.

The theories of contextualism and phenomenology seek to anchor contextual design strategies. In his thesis, Fritsch defends the idea that « *one method of applying this way of thinking to architectural design consists of interpreting the physical context as an accumulated cultural history "*[118]*.* This allows for both an in-depth analysis of architectural facts, as we will do with the Viipuri library, and a conceptualisation that can be tested and modified. The question raised is to try to see how Aalto had to make eliminations in order to generate a specific solution. This interrelation between concept and context is presented at the end of Tschumi's book. One of the possible solutions, when one discovers an unfamiliar terrain in a project, is to conceptualise the context. In other words, it is a matter of studying the project site, finding its particularity, and unfolding the thread of the project from this characteristic element. "*Does the context become the concept or the opposite? Concept and context are then interchangeable"*[119].

As with the analysis of the contextualisation of the concept, it seems that the conceptualisation of the context would benefit from a convergence of architecture as an art and as an object of knowledge. The thesis of Sylvain Marbehant, entitled "Conceiving the context of architecture", argues that the notion of *reality* is the one that best allows us to approach the different layers that constitute the concepts at use in a given context. The author has "*articulated (our) his reflection on two distinct*

[114] ANGEL DOMINGUEZ L., On the necessity of context in the architectural project, in Muntanola Thurnberg J., Architectonics Mind, land, Scale and Society-Arquitectura y contexto, UPC edition, 2004, p. 29

[115] TSCHUMI B. Event cities concept vs. Context vs. content, the MIT Press 2005, p1 "the diversity and infinity of interpretations of a context

[116] TSCHUMI B., *Event Cities 3, Concept vs. Contexte vs. Content,* The MIT Press, 2005, p.1

[117] BLACHE C., *Images et mémoire dans le processus de conception architecturale,* mémoire de fin d'études 2017, ENSA Nancy, p.83, [online] http://fondationremybutler.fr/media/M--moire-Chlo---Blache-Image-et-m--moire.pdf

[118] FRITSCH E., Op.cit., p.10

[119] TSCHUMI B., *Event Cities 3, Concept vs. Contexte vs. Content,* The MIT Press, 2005, p.1

realities: inhabited reality and projected reality. The first refers to the meaning given to the architectural work by the inhabitants, the second to the meaning given by the architect to what he designs"[120]*.* The inhabited reality covers the notions of social structure, historical or pre-existing continuity and the visual environment. As for the projected reality, depending on the author, it can lead to the mimicry of a given situation ("capturing"), or to its appropriation (via representation), or to the transposition of interpretation (via formalisation)[121]. This approach is interesting because these different notions and strategies can dialogue in reciprocity without merging into each other or creating an authoritative relationship with each other.

In short, the conceptualisation of a context must not only emphasise its active role in relation to the programme, but must also allow the architectural project to "speak" about this site, to signify it. And we will see that Aalto approached the context without losing sight of the "life" of his context. The location of the library has changed in the years leading up to its construction: the project has also changed. In this, Aalto did not depart from what, as we have seen above, characterised the contextualisation of his concept, which is an architecture influenced by the *contexts* of the architect and the programme.

We will also see that a structural framework identical to that of the contextualisation of the concept allows us to approach Aalto's conceptualisation of the context. Whether through the Tabula rasa, the importance of the "Little Man", the functionalism with a human face or the realisation of the existential space, Aalto's reflections and his work intertwine concept and context in a constantly renewed relationship.

Tabula Rasa

"Architecture should be placed in the landscape in a natural way, in harmony with its general contours, without following aesthetic norms"
Alvar Aalto[122]

As we have seen above, in the modernist tabula rasa that dominated architecture in Aalto's time, it was no longer a question of relying on ancestral local truths, but on universal truths applicable *everywhere* and *in all places*. The modernist period, seeking to exclude traditional imagery and urbanism, often confined itself to such a refusal of context that it completely denied not only the socio-historical context, but also the rhythms, masses, densities, proportions, spaces, ... anchored in the places[123]. But Aalto is not in this fundamentalist approach. According to Goran Schildt, "*Aalto's work is imbued with a conscious revolt against the constructivist and functional motifs that early rationalism cultivates in its purest form*" [124].

At the 1932 exhibition in New York, which celebrated the International Style, the buildings were to be completely detached from the site[125]. However, Aalto had already understood in the 1930s that the negation of the context, this "*imagined locality*", even in the name of universal values that were supposed to liberate people, could not provide a satisfactory response in the creation of an

[120] MARBEHANT S., *Concevoir le contexte de l'architecture : réalité habitée et réalité projetée dans trois doctrines du 20e siècle*. Unpublished doctoral thesis, ULB - Université Libre de Bruxelles. 2014, p.169
[121] MARBEHANT S, ibid, p170
[122] AALTO A., Architecture in the Lanscape of Central Finland. In: SCHILDT G., ed. 1997. Alvar Aalto in his own words. New York, pp. 21-22.
[123] In his article Physical Context/Cultural Context: Including it all, Stuart Cohen compares this understanding of contextualism with the work of Robert Venturi. For Cohen, Venturi represents an architectural trend, Inclusivism, which is concerned with the meaning of traditional and conventional architectural images.
[124] AALTO A and SCHILDT G., Alvar Aalto, de l'oeuvre aux écrits, Edition du Centre Georges Pompidou, Paris 1988, p. 15
[125] BARR Alfred H., HITCHCOCK Henry-Russell, JOHNSON Philip, and MUMFORD Lewis, Modern Architecture: International Exhibition, New York, Feb. 10 to March 23, 1932, Museum of Modern Art, Museum of Modern Art, New York, 1932

architectural work. Aalto overcame this imposition by introducing the idea of a contextualism of architectural images through the multiple meanings and facets that invariably followed.

> *"For Aalto created a new abundant human environment by integrating architecture dramatically with the earth. In the integration of man and nature, contour lines played a pivotal role as a key image for Aalto's architectural creation, Aalto's intimacy with the contour lines could be traced back to his childhood 'white table', where his father and assistant surveyors investigated or made large forest maps. Pointing out this memory, Schildt described as follows: 'The surveyor's attitude to nature is flexible and a dialogue of necessity; all that he does has to be adapted to the terrain, the landscape and previous building*."[126]

Aalto approaches the context with the memory of the links with the places (the city, the landscape, etc.), with the surrounding urban environment, both in its presence and absence, in silence and noise, in light, in typology, etc. Far from a vision imposed in the name of universal principles, he therefore subscribes to the idea that we can "*create a disciplinary memory used in the service of society, which would be made up of all of the ways of defining space, of controlling light, of linking materials, of structure*…"[127]. We are getting closer to the notion of concept (which is designed and not given), but in the way of defining space, there is the awareness of the context. In the control of light, there is its perception in the surrounding context and in particular the park in which the library is located. In the links with materials, there are those found in the surrounding space, and we will see that for example Karelian wood and Aalto's memory of it will play an important role. The exploration of these constituents of architecture is thus revealed as much in what is given (the context) and what in this gift is perceived as essential for the architect, and what is then designed (from the concept).

A context that takes the human into account in a multi-sensory space

"…Finland has tremendous juxtaposition of horizontality and verticality and natural organic form. The lake give a constant reference to the horizontal line and the dark pines and light birch trees are pure verticality. The contours of Aalto recalled theses in his savoy vase, not to mention his buildings"
Gunnard Birkerts[128]

An identical context approached by two people at the same time will not retain the same aspects, neither in the same order of priority, nor in the senses to be emphasised, nor in the conclusions to be drawn. Sight, of course, but also sounds, the meaning given to colours, the perception of the slope, the feeling of humidity or dryness, the noise of cars, the force of the wind, the smell of a factory, etc. The mental associations forged by our education directly or imperceptibly influence what the French Philosopher of science Gaston Bachelard calls "*the poetics of space*". The phenomenological approach which has enabled us to broaden our field in the concept reminds us here. Consideration of a programme requires knowledge of the place and the ability to recognise oneself in it on as many levels as possible, but it is also inextricably linked to the expectations and demands of those for whom the construction is intended. The conceptualisation of the context illustrates this thinking. As Aalto says:

> *"Form must have a content must be linked with nature"*[129]

[126] SCHILDT G., *Alva Aalto: The Early Years,* Rizzoli, New York, 1984, pp. 200-201, [online] https://etheses.whiterose.ac.uk/14681/1/421130_vol1.pdf
[127] BLACHE C., *Images et mémoire dans le processus de conception architecturale,* Mémoire de fin d'études, ENSA Nancy, 2017, p.56, [online] http://fondationremybutler.fr/media/M--moire-Chlo---Blache-Image-et-m--moire.pdf
[128] BIRKETS G., *Aalto's Design Methodology,* in Alvar Aalto (1898-1976), Tokyo, 1983, p.9
[129] Catalogue de l'exposition « Alvar Aalto, une seconde nature ", Musée Vitra Design, 2014, p.22

This multisensory space, together with the culture of the place, its global environment and the programme, make it possible to determine a statement. The conceptualisation of this context at a given moment by an architect is one answer, among many others. The first design of the Viipuri library was changed by Aalto along the way, both because the location had changed, but also because almost ten years had passed. Time and space play decisive roles. And it is likely that ten years later, the project proposed by Aalto would still have been different. One place. One moment. One architect.

And even more than this place and this moment, Aalto wants to project this moment into the future by using the programme and what he senses will be done with it by those who will use it. Just as he will do with the Palmio sanatorium, he wants to link and interweave, even, people and places. As a precursor of what is now called environmental psychology[130], he wanted to draw out the logic of the interrelations between individuals and their environment. Just as in the contextualisation of the concept, Aalto's conceptualisation of context has a primarily human dimension. For him, it is not a matter of occupying places but of living them in the full sense of the word. Putting people back at the centre means being concerned with the context in which they evolve daily. It is not a question of imposing a construction that denies the context, but of slipping into it gently and modernly. It is interesting to know, for example, that Aalto often refused to allow developers to level a piece of land on which he had to work. He preferred to complicate a construction rather than disrespect the existing landscape. But the landscape, unlike nature, already has a natural side and a human side. He is "*the one who brings nature (...) inside human and social worlds*". The thesis put forward by Manuel Servières in his dissertation on Aalto's windows is that *"the window is an architectural element that allows Aalto to internalise a landscape*"[131].

To sum up, Aalto reveals himself in both a spatial and a temporal perspective, which still makes him eminently relevant today.

Functionalism with a human face

For Alvar Aalto, architecture must, above all else, ensure the quality of life. Goran Schildt, expresses that "*the basis of Aalto's architectural doctrine lies in his conviction that people can organise their environment and surroundings in such a way as to ensure their well-being, their physical and moral health, to live in harmony, to enjoy all the benefits of a genuine human culture*."[132]

As we have already explained in Aalto's concept, although he did not deny functionalism, he quickly grasped its limits and the totalitarianism that ensued. Man is not only the one who eats, sleeps, rests and whose category allows a generalized unification. He wants his psychological and physiological needs to be taken into account. He does not want to be bound by a unitary framework of flat surfaces, roof terraces and long windows. For him, no preconceived ideas can fully meet the objective of well-being in a building. The temporal and spatial contexts are much more important to him, and will make him broaden his purpose through what can be called functionalism with a human face. "*Everything is a rupture, a disorientation, an exception to the apparent rule. This humanist and organic version of the notion of the free plan, dear to Le Corbusier, finds here an original expression which will assert itself*

[130] Environmental psychology is a discipline that appeared in the Anglo-Saxon countries in the 1970s. It studies the link between man and landscape, and architecture has of course an important role to play. On this subject, read Pauline POSIGA's thesis, Le soin par le paysage. Architecture et paysage au service du bien-être. UCL LOCI.2020/2021, [online] https://hera.futuregenerations.be/sites/www.futuregenerations.be/files/2022_herahealth_tfe_paulinepostiga_light.pdf

[131] SERVIERES M., Paysages intériorisés en Finlande, mémoire de Master 2, ENSA de Paris val-de-Seine, 2021, p.48

[132] SCHILDT G., Alvar Alvar, 'An interview with Goran Schildt, 1972, included in E. Aalto and K. FLEIG, *Alvar Aalto Volume III: Projects and Final Buildings* (Zurich, Verlag fuer Architektur, Artemis Zurich, 1978), p.232.

after the second world conflict, to become the major contribution of Aalto to contemporary architecture"[133].

An example of this approach can be seen in the following. The Mairea villa built in 1939 is fenced in the Finnish way by stacking and nailing, but Aalto assembles the fences with thin metal rods. He did not abandon functionalism but adapted it with new techniques. In the Viipuri Library, the wooden ceiling, which has already been mentioned, is as reminiscent of the surrounding forests as it is of the waves of the lakes that surround the city. But at the same time, techniques are being modernised[134]. It can be moved from the seats to the ceiling. The seats in the library were designed by him[135], and the curving of the ceiling reflects a desire to blend in with the surrounding wood. Far from Le Corbusier's dictatorship of concrete, it embraces the waves of the Baltic Sea that rocked his childhood and criss-cross Finland. And technically, the thin pine strips are joined together by metal wires. Again, he uses landscapes: from the sea to fences, from forests to the movements of nature. Considered to be the father of organic functionalism, Aalto nevertheless largely departed from the functionalist dictates of his time.

Humanism and phenomenology

The genius loci as discussed in the contextualisation of the concept is also understood in the conceptualisation of the context. For Aalto, as we have seen, to erect a building without taking into account the whole life of that context, both spatially and temporally, would be *"an act of barbarism*"[136].

Norberg-Schulz, in his book on genius loci, considers that architecture must : "*transform a site into a place by discovering the meanings present in the environment and by revealing through human action what was present at the beginning as a possibility*". But more than that, Aalto does not only want to create a symbiosis, but also a space-time dialogue between the place and its environment (both near and far), and the time that transfigures the past and projects itself into the future, because he works for the users in all their components. He thinks of the user throughout the process. From the light to the acoustics, from the sensations of the materials to the internalized landscape, nothing is left to chance. As Oswald Matthias Ungers puts it: "*Architecture only remains alive when it is in constant dialogue with the genius loci for which it is created. It draws its theme from the environment in which it is embedded and develops the form, language, formal repertoire, or vocabulary from this context. When it has no relation to the spatial and conceptual conditions, architecture becomes an empty gesture, devoid of meaning*"[137].

We recall here that, as developed above, for the architect Norberg-Schulz, existential space is achieved when man succeeds in orienting himself and identifying with his environment, or "*when he experiences the meaning of an environment*"[138]. An environment that is not inert or passive. A site that has lived, lives and will live: a vision that is the opposite, as has been said, of the modernist vision where "*architects were supposed to flatten landscape, culture and social life under a blanket of*

[133] Encyclopédie Universalis, [online] https://www.universalis.fr/encyclopedie/alvar-aalto/2-en-marge-du-fonctionnalisme/

[134] Starting in 1929, he began to study veneer techniques and explored the limits of moulded plywood with Otto Korhonen, technical director of a furniture factory in the Turku region.

[135] Together with Otto Korhonen, they registered various patents on wood bending. These discoveries led to the series of chairs with L-, Y- and fan-shaped legs. A proponent of the "gesamtkunstwerk", in 1929 he began a total project with the Paimio sanatorium, where all the furniture came out of his workshop, in an approach similar to that of Frank Lloyd Wright. The Viipuri library was equipped with stacking stools n°60. His creations, presented in London, were a great success and led Aalto to found the company Artek.

[136] GAUVILLE H., Architecture. Exposition Aalto à New-York. Critique. Libération, 1998, [online] https://www.liberation.fr/culture/1998/05/04/architecture-hommage-merite-et-exposition-a-new-york-pour-celui-qui-mit-l-habitant-au-coeur-de-sa-re_237704/

[137] UNGERS O., Architettura come tema, Electa, 1982, p.75

[138] NORBERG-SCHULZ C., *La signification dans l'architecture occidentale* de 1977, 1979, p. 5

universalising function and form, ushering in a utopian era by force of will, benevolence and expertise. Design, in turn, was to strip itself of all ornamentation, relying only on the representation of 'eternal truths' supposedly common to all humanity, despite site specificity"[139]. For Venturi, on the contrary, it was necessary to be modest in relation to the site, not to want to impose a dehumanised and alienating totalitarian view as opposed to a democratic vision. Even if the context is banal, it is full of memories. For Rowe, it was necessary to accept the heterogeneity of the urban fabric and to reinterpret it in living ensembles[140].

The editor of the magazine Casabella, Ernesto Rogers, considered the context to be phenomenological at its core. It was neither a folkloric reproduction of what the war in Europe had destroyed, nor a modernist tabula rasa. It was a matter of allowing oneself to be guided, influenced, even sucked in by nature, landscapes and sites that had followed one another and manifested themselves over decades[141]. As his pupil Aldo Rossi went on to write: "*It is a relationship between a certain specific place and the buildings in it*"[142]. And Aalto slipped into the skin of this relationship so that the visitor to the Viipuri library would be assisted, led, welcomed, into the different layers of the library's uses. Each person experiences the place in a personal way, and the diversification of approaches in the many books, articles and studies on architecture by Aalto over the last century or so demonstrate that he has succeeded in multiplying the many possible approaches over time and in his spaces, guaranteeing multiple and eminently lively reciprocal meanings. Each architect has a vision, of course, but the richness of a relevant design is no less the result of a combination of contextual dimensions, weighted by this vision of the world.

Conclusion

Aalto conceptualised the contexts with which he was confronted without ever abandoning a resolutely modern vision, but neither dogmatic nor uniform. Like people, all different, he wanted to create worlds different from those that existed before, without mimicry or indifference, to use Tschumi's notions, but in a reciprocity between concept and context. Each action is thought out in an interior/exterior, singular/plural, past/future dialogue, and assumes the fact that it is always a transformation, an alteration of places with an awareness of the metamorphoses at work in the territories. As Shigeru Ban, the Japanese architect, expressed it, « *In Aalto's architecture found a space created to complement its context* [143].

A context that is not a blank page, but a multiple world, and behind this diversity of devices, scales of perception or relationships with environments, Aalto unfolds a matrix that combines visual links between architecture and its environment. He wants to address physical, psychological, social and cultural needs in an architectural whole and tell a story that will be experienced afterwards like a book read over and over again. As the architect Frédéric Bonnet explains when he talks about Architecture des Milieux, it is a "*multiform and open proposal, patient weaving of links, of shared meanings, which also have as their motive the hope of a re-enchantment of the world*"[144].

And so, starting from known technical bases, once a programme had been integrated, Aalto let his senses come into contact and dialogue with his prior knowledge and the context, and imagined pictorial collages adapted to the architecture. As Pallasmaa puts it, *« Even in the technological culture of today, the most important existential knowledge in our everyday life does not reside in detached*

[139] SCHEINMAN A., *Le complexe du contexte,* [online] https://www.cca.qc.ca/fr/articles/issues/28/avec-et-au-sein-de/74490/le-complexe-du-contexte
[140] ROWE C. et KOETTER F., *Collage City,* MIT Press, Cambridge, MA & London, 1978, p. 49
[141] ROGERS E., *Continuità,* Casabella Continuità 199 (1953–1954)
[142] ROSSI A., *The Architecture of the City*, Oppositions Books, MIT Press, Cambridge, MA & London, 1982, p.103.
[143] SWENGLEY N., *An eye on" the little man ", Financial Times, 2007,* [online] https://www.ft.com/content/52573560
[144] BONNET F., *Architecture des milieux,* in Le Portique, 2010, note 19, [online] https://journals.openedition.org/leportique/2493

theories and explanations, but it is a silent knowledge, beyond the threshold of consciousness, fused with daily environments and behavioural situations". "[145]. Aalto brings together old and new modes and perceptions, goes beyond without imposing, creates by letting go, unifies without merging, listens and looks at the world and transposes it into an assumed but smiling modernity. This is what the analysis of the Viipuri library will now illustrate.

[145] PALLASMAA J., The Thinking Hand, John Wiley and Sons Ltd, UK, 2009, p.20

Conceptualisation of the context of the Viipuri library

Contextual Analysis of the Viipuri Library

History

History of Finland

Finland is a country of contrasts, a labyrinth of forests and lakes and archipelagos. Its history has, like many European countries, been made up of a thousand years of wars, peace, famines and changes of power. Finland has not always been an autonomous country. For most of its history, it has been part of its neighbours, Sweden or Russia. The first mention of Finland dates to the 11th century with the first northern crusade led by the Swedes because the occupation of Finland was a strategic issue. The Catholic Church spread through Sweden to the region, and a fortress was built at Viipuri in an attempt to conquer all of Karelia. The Orthodox did the same from Novgorod, now Russia, which created tensions until the Treaty of Nöteborg in 1323, which settled the issue by imposing the Catholic faith on the whole region.

For more than 500 years, Finland was thus part of Sweden and served as a buffer space against the East, but the borders were changed several times during many wars. The people suffered for centuries from conscription, starvation, high taxes and abuse by the military. In the 17th century, after the Peace of Westphalia in 1648, Sweden became one of the most powerful countries in Europe. It was also at this time that the beliefs of the Catholics gave way to the extremely strict Lutheran orthodoxy that remains the main religion in Finland till today. This period is considered to have been favourable for the development of Finland. However, at the very end of the 17th century, a famine decimated half of the country's population and less than a decade later, during the Great Northern War of 1700-1721, Finland became a battleground again and Russia eventually annexed the south-eastern part, including Viipuri.

In the Napoleonic era, the struggle for political power in Europe between France and Great Britain had important consequences for Finland. Because of the North Sea blockade, the British could only bring their goods into Europe through Swedish ports. Napoleon convinced Tsar Alexander I to force Sweden to close its port. When Sweden refused, the war started and Russia invaded Finland. The Treaty of Hamina, signed in 1809, recorded Sweden's abandonment of Finland in favour of Russia.

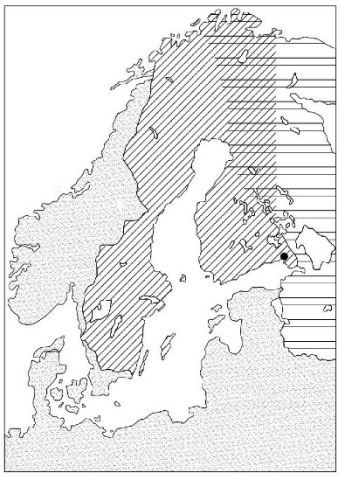
The Russian emperor, Tsar Alexander I, gives Finland the status of a grand duchy, the old Swedish law remains in force, it is a nation among nations; they are also relieved of military obligations. In 1812, the part of Karelia comprising Viipuri, "Old Finland", was annexed to the Grand Duchy. This was the first time that Finland tasted more independence and was able to develop its own government. As time went on, they became prouder of their Finnish culture and language, although Swedish remained the only official language. Swedish was mainly spoken by the upper class, the administration and education, Finnish was spoken by the peasants, the clergy and the local courts. In 1892, the Russians, wanting to decrease the Swedish influence, pushed the use of Finnish.

During the February and October revolutions in Russia, and the change in political power, Finland declared its independence on the 6th of December 1917, a declaration recognised by Lenin the 31st of December 1917. After independence, Finland's political position remained fragile and turbulent, leading to a civil war between the Reds, the Social Democrats, and the Whites, the non-socialist, conservative-led Senate.

The Whites gained the upper hand and in May 1918 the internal affair was stabilised at the cost of almost 30,000 deaths. The Whites wanted to establish a constitutional monarchy with a German

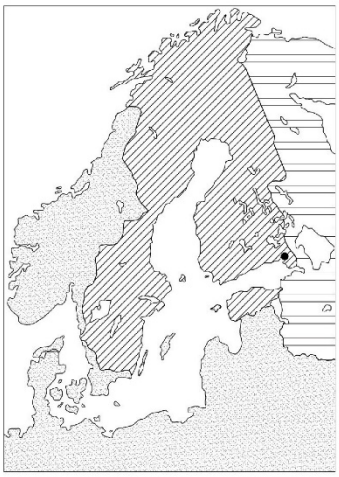
prince as king, which was made impossible after the Germans lost the First World War. They settled for a democracy and a capitalist economic system, which they have maintained to this day.

1323



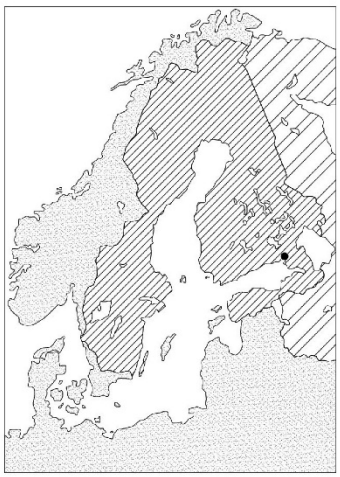
Other Land
Sweden (including Finland)
Republic of Novgorod

1617



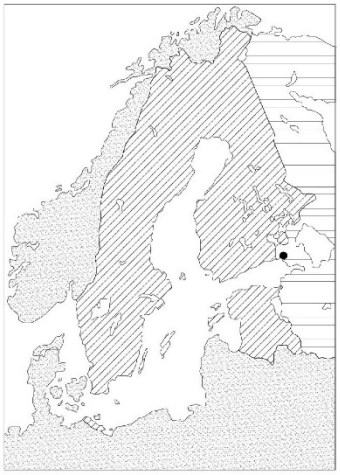
Other Land
Sweden (including Finland)
Tsardom of Russia

1721



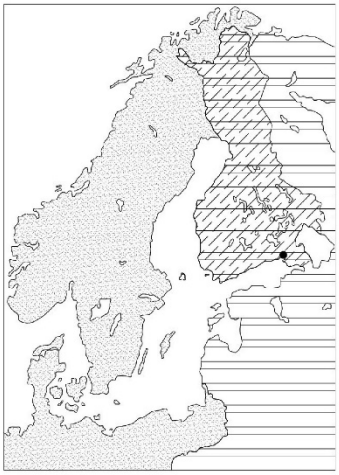
Other Land
Sweden (including Finland)
Russian Empire

1743



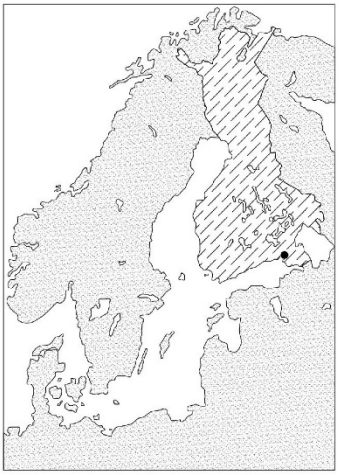
Other Land
Sweden (including Finland)
Russia Empire

1812



Other Land
Grand Duchy of Finland
Russian Empire

1920



Other Land
Finland

History of Viipuri

As iterated above Finland were in between the Eastern and Western cultural realms, and the region that was the most influence by those changes were Karelia, its border province of which Viipuri is a part of and counted as its regional centre.

During the Third Swedish Crusade in 1293 Sweden gained control of Western Karelia over its neighbour, Novgorod. To guard the eastern border a strong fortress was built in Viipuri, the city grew around it. Despite the Treaty of Nöteborg in 1323, Novgorod considered these lands has hunting and

fishing grounds for its Karelian subjects. During the 14th and 15th century, they had been some attacks but for most of the time a fragile peace remained.

During the 17th Century the whole region was under Swedish rules, which had, with the Peace of Westphalia, become one of the most powerful countries of Europe. This period also marked an era of strict Lutheran orthodoxy that stayed the main religion in the Viipuri area.

After the Siege of Viipuri in 1710 during the Great Northern war led to the city to end up in the hands of the Russians and at the end of the war in 1721, the Karelian Isthmus belonged entirely to the Russian Empire.

After the personal union of Finland as an autonomous Grand Duchy and the Tsar Alexander I in 1809, in 1812 the Karelian region was transferred to the Finland territory.

The 19th century was for the Karelian Isthmus a moment of economic growth for the reason of its size, its climate, the rich fishing water, and the proximity of the new capital of the Russian Empire, Saint Petersburg. It turned into the wealthiest part of Finland with the industrial revolution and had multiple important railroads such as Saint Petersburg–Viipuri–Riihimäki (1870), Viipuri–Hiitola–Sortavala (1893), Saint Petersburg–Kexholm–Hiitola (1917). Viipuri specifically grew as a commercial centre with an important seaport. It develops as the centre of administration and trade for the eastern part of Finland, it never been a major industrial city, but it served as a focal point of transport for many industries into the Karelian region.

With the Finland independence in 1917, Karelia stayed Finish with Viipuri as the fourth largest city of the country. After the independence a Civil War broke out in the country. Three major urban battles took place, of which the Battle of Viipuri fought to the 24th to the 29th of April 1918. Viipuri was firstly in the hands of the Red until it was captured by the White. The battle has gone down in history because of its bloody aftermath, the White executed up to 400 civilians and military personnel.

The period from 1920 to 1939 is a “Golden Era” for the country, Viipuri in short time during this time grow exponentially in the matter of area and population. It was during this period that the Aalto Library was established.

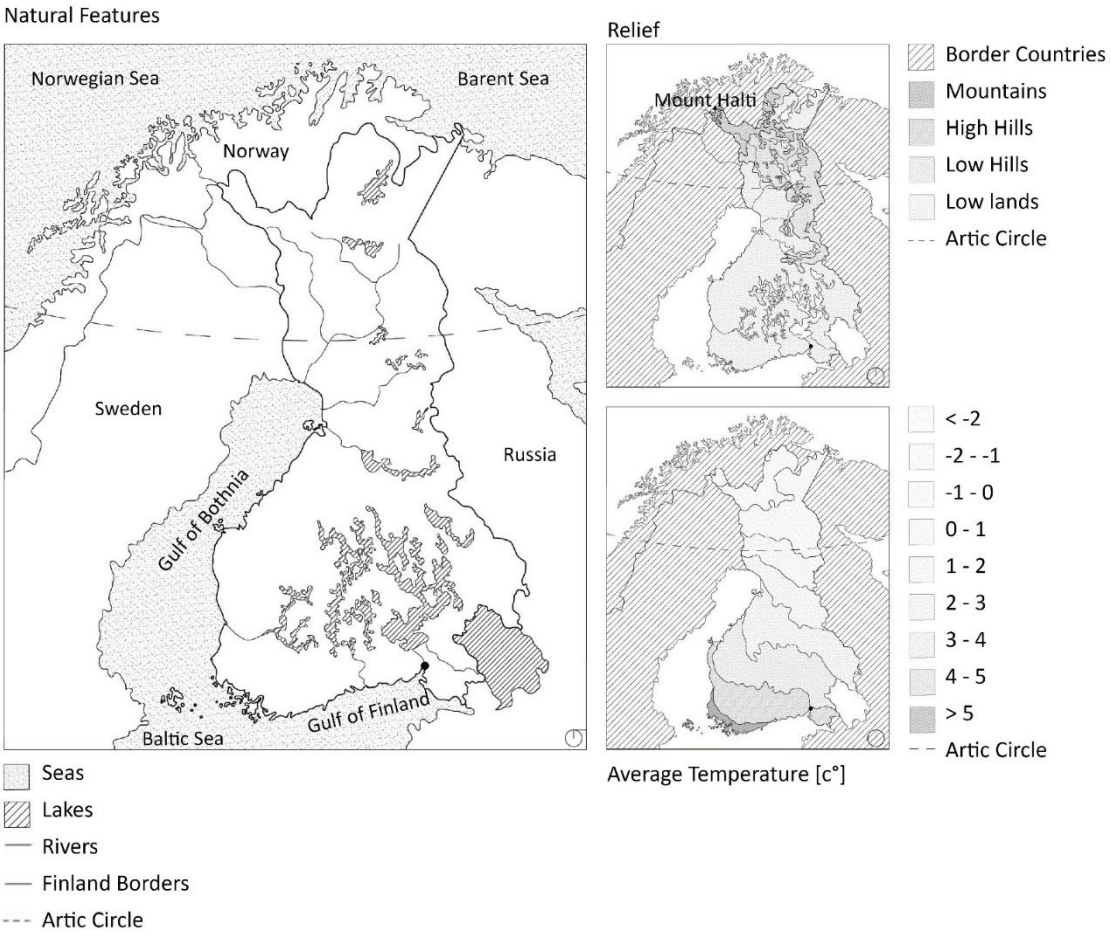
Natural Features

Natural features of Finland

Finland is a Northern European country and is one of the most northern countries of the world, geographically remote with a sever climate. In the North it shares a border with Norway, at the East with Russia and to the West with Finland. It is bordered by the Gulf of Bothnia to the Southwest and the Gulf of Finland to the South.

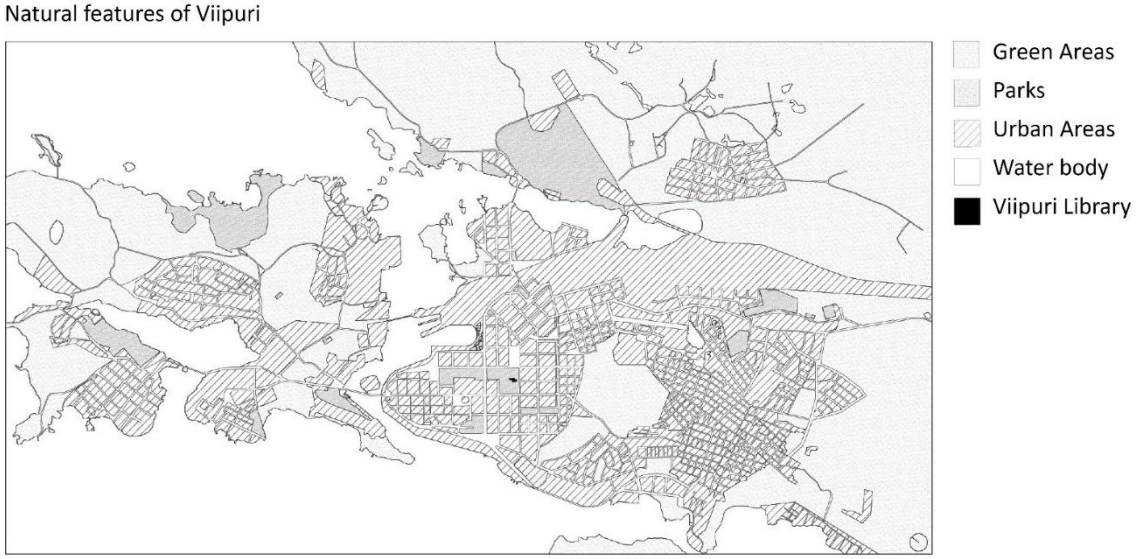
The landscape is largely composed of woodlands, yet inland waters hold one-tenth of the total area, it contains to 56.000 lakes, numerous rivers, and considerable areas of marshland. The relief of the land does not vary significantly except in the area adjacent to Norway and Sweden which include several high peaks, such has Mount Halti (1328 meters) that is the highest Finland’s mountain. The coastline has a length of 4.600 km and is extremely jagged, with thousands of islands on its border.

The part north of the Arctic Circle has long winters with temperatures down to -30°C and summer, from May to July, with temperatures up to 27°C. Further south, the temperature differences are less extreme, but winter is still the longest season in Finland. In this climate, the various lakes freeze over in winter. In summary, the climate in the south is temperate and in the north it is subarctic. However, Finland's climate remains warm in spite of its proximity to the Arctic Circle, which is explained by the proximity of the Gulf Stream from the Atlantic Ocean.



Natural Features of Viipuri

The town of Viipuri is located in the Karelian region, near the Russian border, more precisely in the Karelian Isthmus. The climate corresponds to southern Finland, with cool summers and mild winters.



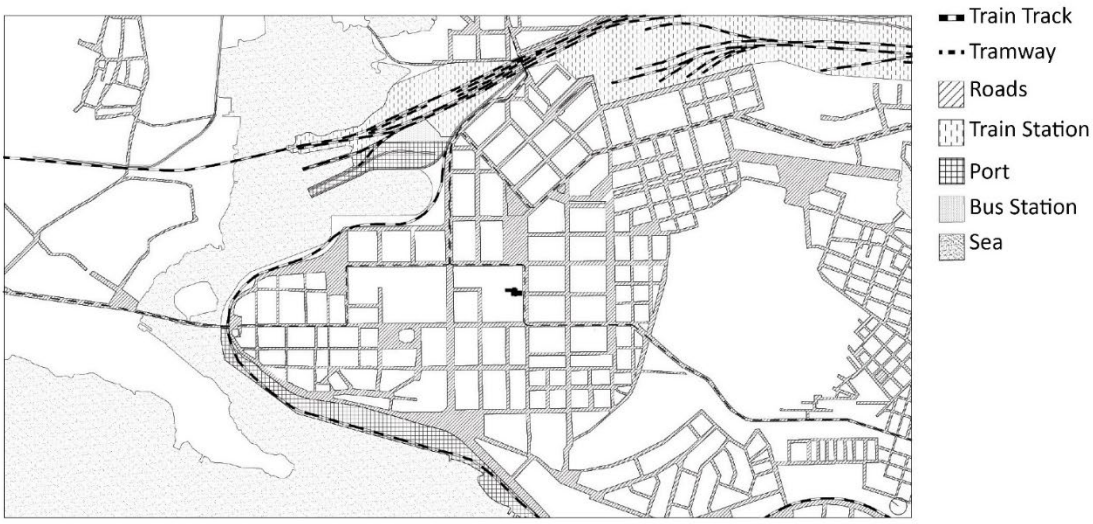
The city is bounded by water, being located at the head of the Viipuri Bay in the Gulf of Finland, where the Saimaa Channel enters. Part of the city is located on an island in the bay.

Structure of the city of Viipuri

Public transport

Viipuri has a harbour, a railway station and a tramway that runs around the town.

The port was built at the same time as the town itself, during the Middle Ages, and soon became a commercial centre for the surrounding lands stretching across north-western Europe. This central location allowed the economy to develop rapidly. The port was connected to Finnish inland waters in 1856 with the construction of the Saimaa Canal.
Viipuri also has an important railway station which is, as mentioned above, connected to the rest of the country by the lines between St. Petersburg and Riihimäki built in 1870, and between Viipuri itself and Sortavala built in 1893. In 1926, the southern and northern ports were connected by the construction of a railway between them.



Built Form Figure-Ground of Viipuri

During the first third of the 20th century Otto-Iivari Meurman was designated to undertake the plans of extensions of the city, he says this about Viipuri:

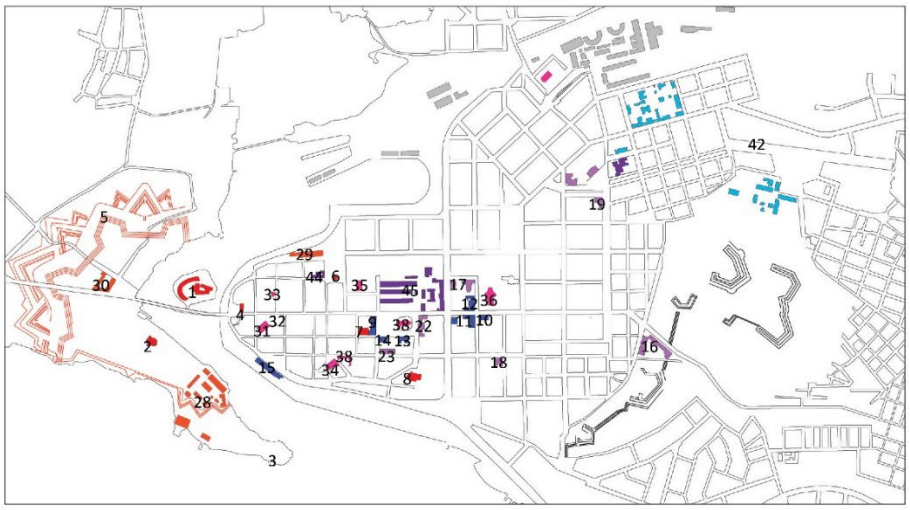
> *"Viipuri offers a town planning architect a more interesting field of work than perhaps any other town in our country. This is especially due to the fact that right in the central parts of the town there are large areas, which can be used to supplement the town plan and to create artistic highlights. But Viipuri's beautiful terrain cleft by bays and hills, historic architectural monuments, problems associated with ports and the railway and, finally, - however paradoxical it may sound - the difficulties and multiple possibilities of organising the vast suburban shanty towns also stimulate the town planner. Viipuri is at the same time also a fast-growing town, whose area has more than doubled since the 1880s and which, as the port for the whole of Karelia and as a busy mediator of trade between East and West, has given our general circumstances excellent development prospects."*[146]

[146] A.BERGER, *The building that disappeared: The Viipuri Library by Alvar Aalto*, p.99

In fact, during the 11th century a Fortress was built in Viipuri, the city was completely enclosed with fortifications additionally to this construction a buffer space surrounded the city with interdiction to build on the site. It has had an extensive impact on any urban plan of development for the city. It is only during the Grand Duchy period that permissions were given to demolish the eastern part of the fortification. Following the plan of Otto-Iivari Meurman the city grew with new neighbourhoods. Only a year has permitted the city to expand by seven time from its original size.

The city that we know is also marked by its central park built during the last half of the 19th century. It was built to prevent fire to spread through the city, indeed many Finishes cities have been devastated by fire which led Russians authorities in 1856 to obligate the Grand Duchy to divide the cities with long trip of green areas. The park despises its primary protective function became a landmark for the city loved by the citizens.

Important Buildings of Viipuri



Culture

1. Viipuri Castle
2. Provincial Archives
3. Tervaniemi bathing beach
4. Viipuri Museum
5. St. Anne Fortification
6. Round Tower
7. Theatre
8. Art Museum

Adminstration

9. Pesent Town Hall
10. Governor's Residence
11. County Administration
12. Post Office
13. Court of Appeal
14. Residence of President of Court of Appeal
15. Customs House

Education

16. Traders School
17. National School
18. Mixte School (68)
19. Public School
20. Girl's School
21. Public School
22. Finish High School
23. Swedish co-ed high school

Transport

24. Railway Station
25. Motorbus Station
26. Maritime Warehouses
27. Railway

Commercial

28. Tar Mine

Religion

31. Old Cathedral (Agricola Church)
32. Belfry of Above
33. Belfry of Above (once a tower in the town wall)
34. St. Hyacinth's Church (Rom. Cath)
35. German-Swedish Church
36. New Cathedral
37. St. Elijah's Church (Orthod.)
38. Greek Orthodox Cathedral
39. Bishop's Council Residence

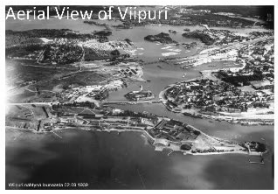
Health

40. Country Hospital
41. Children's Clinic
42. Municipal hospital

Safety

43. Fire Brigade Headquarters
44. Police Station
45. Military Baracks

Photos of Viipuri



Population of the city of Viipuri

As already know Viipuri was an administrative centre for the region of Karelia, and even more was a commercial and trading centre for the region and the country with its position if the Gulf of Finland and its access to the Baltic Sea and many European countries. The port had a strong influence on the city and was principally involved in international commerce with the Germans. This relationship induced the German language to be the one used by the city's administrative court and even by the public schools.

The notoriety of the city as well as its flourishing economy produced a social life and events that was as extravagant as what could be observe in major cities like St Petersburg. Nowhere else in Finland such grandiose society were found. The population at the end the 19th century had massively augmented, the change of urban fabric the city had the chance to expend and the population between 1858 and 1930 went from 5.575 inhabitants to 72.239.

Due to its history and proximity to Russia the Karelian region always had a cultural and religious diversity. Yet, during the period under Russians sovereignty as a Grand Duchy a "national awakening" of the Finland culture, which led to a greater use of the Finnish language. The region of Karelia was even perceived as the root of the Finish culture and identity yet a considerable part of the population of the region, and of Viipuri, had different language, religion, culture, food, and customs.

Those specificities created a setting for a city with various languages spoken, religions practiced and generally a fairly diverse population. As a translation the city is field with religious buildings belonging to different faiths and school taught in different languages.

YEAR	FINISH	RUSSIAN	SWEDISH	GERMAN	OTHER
1812	1,279 44.10 %	846 29.20 %	412 14.20 %	363 12.50 %	/
1870	6,845 51.20 %	3,257 24.00 %	2,261 16.90 %	610 4.50 %	440 3.30%
1900	27,084 73.60 %	5,378 14.60 %	3,198 8.70 %	419 1.10 %	729 2.00 %
1930	67,609 93.60 %	1,807 2.50 %	2,103 2.90 %	439 0.60 %	278 0.40 %

Conclusion

"*What concerns architecture goes far beyond the work of the architect*"
Alvaro Sizza[147]

The question that arises from this contextual analysis of Aalto's library is how he used the context as a conceptual tool to create this architectural object.

Aalto was able to grasp the morphological and material issues of the site while at the same time tackling the programmatic issues head-on. He succeeded in creating a permanent architecture for the library by immersing himself literally, almost "literarily", in a process of representation that enabled "*the transformation of the architectural work with regard to the material and historical conditions specific to each given situation*".[148]

[147] SIZA A., *Lieux contemporains,* sous la direction de Christian Mangematin et Chris Younes, Paris, 1997, p. 57, [online] https://publication-theses.unistra.fr/public/theses_doctorat/2009/GUENE_Franck_Gerard_2009_1.pdf
[148] MARBEHANT S., Op.cit., p.75

Sylvain Marbehant, in his thesis on the conception of the context of architecture, explains that "*for those who associated the meaning of a given situation with historical continuity, the context was understood as a set of pre-existing conditions, i.e. material manifestations testifying to the history of the built environment and to which the architectural work, in its qualities as a type, had to echo. For those who associated the meaning of a given situation with the definition of a visual environment, the context was assimilated to a poché, i.e. its physical presence within which the architectural work could find its form by adaptation or juxtaposition*". Aalto does both by signifying the library (in the phenomenological sense) both in its historical continuity and in its visual environment, which he wants to remain unchanged. But doesn't "*the architect position himself in relation to his awareness of the world*"?[149]

Aalto touches the context in its density, in its universality, in its nature, in its voids, in its locality. He rejects a complete tabula rasa, the driving force behind rigid and dogmatic modernism. The Little Man must be able to exist individually in a space that he recognises as his own, while acknowledging its universality. As Pallasmaa says: *"Aalto's preoccupation with the "little man" was entwined with his consistently democratic and humanist motivations within design, a philosophy, which centered on accommodating the needs of the ordinary man."*[150]

The library can be understood by the way it is traversed, as well as by its silences in the immediate environment: users are not projected elsewhere, but feel at home in the library's various spaces.

The context of Viipuri's library is that of the forest wood on the ceiling of the great hall, that of a light not denied by the seasons but exalted by them through the conic skylights. Nothing is unjustified. Everything is designed for and by the awareness that he has of the humanity necessary for man: a meaningful place in the sense of the "genius loci" explained above, if possible far from chaos and complexity, thus giving concrete expression to existential space. A space whose concept will now be developed.

[149] GUÊNE F., *De l'idée architecturale aux lieux de l'architecture. L'approche du lieu comme révélateur de la posture et du regard de l'architecte sur le monde,* Thèse de doctorat en architecture de l'Université de Strasbourg, 2009, [online] https://publication-theses.unistra.fr/public/theses_doctorat/2009/GUENE_Franck_Gerard_2009_1.pdf

[150] QUAH G., *Exploring the work of Alvar Aalto through Juhani Pallasmaa,* university college of London, 2012, p13, [online] https://www.academia.edu/4153595/_PERCEIVING_TOUCH_exploring_the_work_of_Alvar_Aalto_through_Juhani_Pallasmaa

Concept of the Viipuri Library

The need for a Library

During the first half of the 19th century many places that could have been consider as a library have been established in the city of Viipuri, they were made of independent book collections held by individual person that consequently focus on one or two languages. In 1861, a public announcement was made to realise a library for the city that ended been held in the old secondary school with book in Finish but also in Swedish, German, Russian, French, and English. This was not the only library in the city, there was also what was called the 'public library' with Swedish and Finish literature, an active Finnish literary society with a large collection of books, and a place that was initially aimed for the working class as a 'reading room' for newspapers. Those different places functioned alongside for different social groups of the city.

In 1907 the City Council issue the question of a Library in Viipuri and conclude that this one should have the basis of the three already existent libraries, which means a collection with books in many languages, the possibility to lend books, a reading room and a space to exchange ideas. It took years before any decision was made to conduct an architectural competition. Indeed, the fragmented book collection, the post of the librarian that was not fixed and the difficulty to decide where to house this new building were all questions that took time to be answered.

In addition of the library project, the City Council, starting the end of the 19th century, also discussed the possible need for a main square and new public buildings, including a theatre, an art museum, and a library, to name a few, as a new urban plan for the city. In 1911 a competition was even held to design at least an art museum and a library, yet none of the entries were used to develop any project. After that, history came in the way; the First World War first, followed by an economic inflation.

After the war, and in parallel with the planning work carried out by Ott-Livari Meurman, the main square was still in discussion but in terms of building it was settled to start with a project for a Library to continue after with other buildings that would structure the urban plan of the city and act as its heart. Many considerations were put on where to host this construction. Almost every plot where a public building could have been built in the city had been considered relevant at some point in the process.

After many events mainly concerning the place of the project, in June 1927 the competition was sent out. The programme was consisting of a lending hall with an open-shelf-system, a children and youth section, a reading rooms, a researchers' rooms, a newspaper reading room, a lecture hall, and a few club rooms, additionally a book storage, rooms for the personnel, a caretaker's apartment, and other maintenances spaces. It was chosen that the project would be realised in the Torkkeli Park at the corner of Aleksanterinkatu Street. It was stipulated that the competitors were free to position the project as they will but that the park should be maintained as intact as possible, and that the modification of the latter caused by the building should be redesigned. Even if it was not asked to design anything else than the library, the building was conduct as a first step in the urban plan, an additional building would have been construct opposing the library as well as a square.

The design development

The Jury for the competition were most impress and view Aalto's proposal as the most appropriate for the spaces, saying:

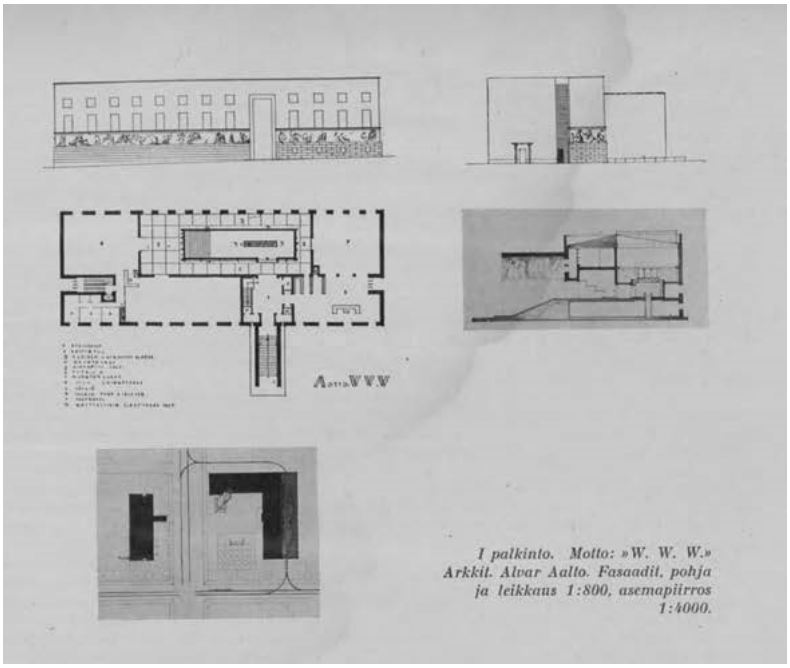


Figure 1: Alvar Aalto: Competition entry for the library, 1927 (first prize). Finnish Architectural Review 3/1928 (KK)

> *"One of the most successful solutions in regard to the city plan. It is good that the library is situated freely within the park. The elongated form of the building is structurally appropriate, and enhances the chosen location. The calm façade surfaces with free composition are fitting, modest and dignified. The layout and interior design are architecturally interesting while the desks for librarians to keep the space under surveillance have been kept at a minimum. Regardless of the architectural merits of the entrance stairs pulled out of the main structure, they will present difficulties with lighting and thus should be redesigned. The shelving of the children's section requires changes, as does the circulation between the lending section and the staff rooms, although this can be improved with small changes. Access between the caretaker's apartment and the boiler room impractical. Considering the local climate, the glass ceiling should be replaced with a solution providing light from the sides, and the outside roof structure should be improved."*[151]

The young architect was commission the design of the library as well as a square in front of it that would be carry out at a later stage. A year later, in February 1928, Aalto assign the more precise design to the Building Committee.

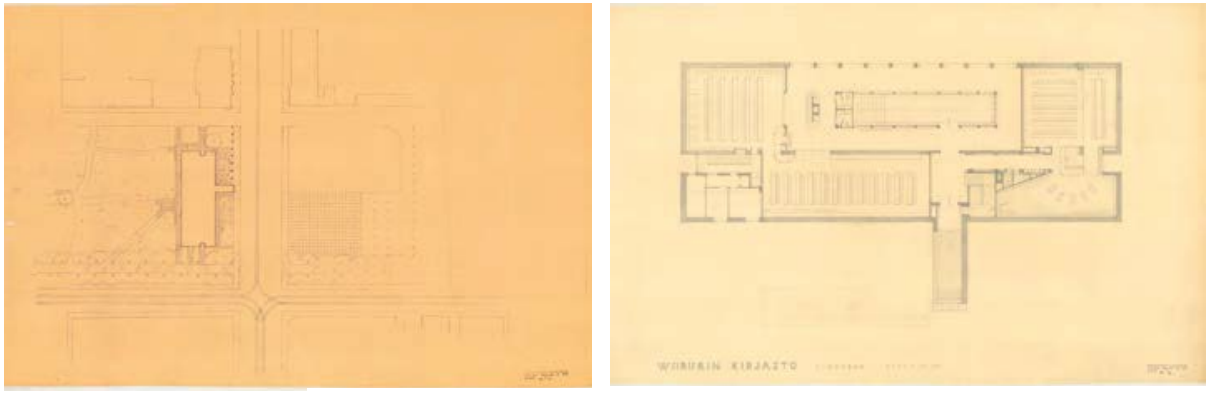


Figure 2: In 1928 Aalto revised his competition entry (Plans)

[151] Minutes from the competition jury´s meeting include this statement. Full description of the meeting where the competition winners were decided: 1.11.1927 n:o 23 Viipuri City Council's meeting Signed by Hannes Saarinen, Hannes Koivu, Otto-I.Meurman, Kaarle Borg, Jussi Paatela, Johan Vasenius. Yleisliite poytakirjaan 1/11 -27 Viipurin kaup.valt. arkisto/Kaup.valt. poytakirjat (1927-1927) MMA.

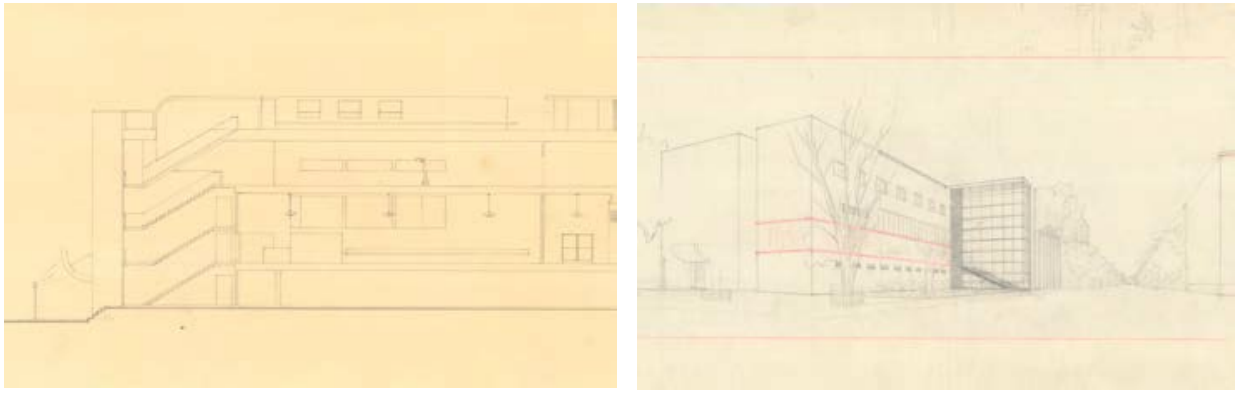


Figure 3: In 1928 Aalto revised his competition entry (views)

The general shape of the building remains the same compared to the first version; the main part rests a simple rectangle with the particularity of having the stairwell that is outside of this rectangular shape, as circulation appendage. There is modification in term of lights and the heights of space, the majority of the layout prevail as the entry version of the competition. It could be noted that the previous glass-ceiling in the main hall was replaced by a flat roof and lights invade the space by strip-windows located on the wall at the edge with the ceiling.

Moreover, the striking difference between the two version is that the design goes from neo-classical characteristics to functionalist ones. The frames around doorways, the tall narrow windows and the frieze running around the building have disappeared in favour of strip windows, a curving concrete canopy and the roof became an outside space, a terrace for reading outside.

In 1929, a second set of drawings were design by Aalto in conformity with the Building Committee's propositions.

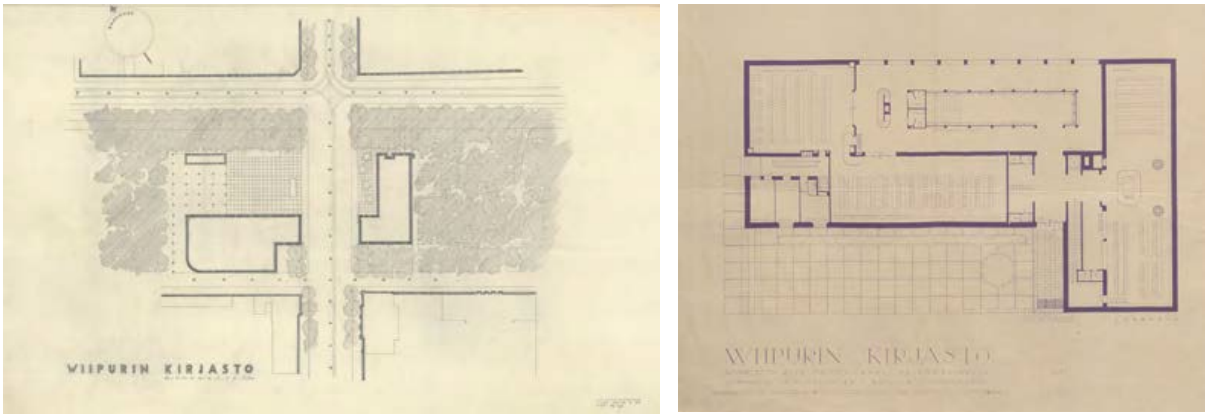


Figure 4: 1929 version of Viipuri Library

The circulation appendage was dissolved, and the entry was, therefore include in the main structure which had an influence on the shape of the library from a rectangle to an L-shape. The roof-garden, the strip-windows on the back of the building, the curving canopy where all kept in place from the previous version.

While the project was supposed to be built in autumn 1929, the economic depression decided otherwise, so the project had to be postponed again. The site of the library was, as always, still debated till the end of 1933, in September of that year it was decided that the project would be built at the east end of the Torkkeli Park along Vaasankatu Street, which is different that during the competition. In October the Committee had asked new drawings from Aalto in consideration of this

new location which he provide in December and was approved the same month. The work began mid-April, and the library was inaugurated the 13th of October 1935.

In between the version of 1929 and the last one that will be built in 1933, Alvar Aalto had the opportunity to work on other projects, write different articles, travel and meet many people that will influence and inspire him. Five years that are not banal years of continuity, but years of encounters and discoveries, years also of affirmation of his style and creation of a personal approach to modernism, inspired as much by CIAM as by his land of Finland and his innate sense of understanding a place in its context as in its concept.

The phenomenological approach further refines Aalto's concept of the library, that of the genius loci which allows one to experience the meaning of a place. The essence of the architectural mission, according to Norberg-Schulz, is the transformation of the site into a place, discovering the meanings present in the environment and revealing through human action "*that which was present at the beginning as a possibility*"[152]. However, if we analyse the concept implemented by Alvar Aalto, the mise en abyme and in perspective of his design makes sense. As we shall see, Aalto did not implement the Viipuri library without much thought. As the journalist Hervé Gauville puts it:

> *"Aalto does not make anything ex nihilo (...) A site, whether it is in a forest or along a road, has a history. Aalto applies the term urban fabric to his sewing denotation. His architecture overlies the terrain like a hare uses loose soil to dig its burrow. But there is no colonialist ostentation or vegetal camouflage. It is a way of being there without showing off his know-how or copying the inventions generated by this genius loci."*[153]

In short, for Aalto there is no question of feeling good in a place only on the condition of conforming to a pre-thought universalism. Due to all the time between the architectural competition in 1927 and the final drawings in 1933, and all the things Aalto had the time to learn through other projects and interactions with other architects, this project had the opportunity to be perfected by Aalto, to be the Viipuri Library that, almost a century we are still talking about and are in awe of its design.

From an idea to a library

Among the many questions that can be asked about the concept of this library in Viipurii, what architectural devices does Aalto put in place in his architecture to stimulate the architectural sensibility of the users?

In 1947, Aalto explain a part of its design process in comparison of abstract art in the Italian journal *Domus*, in an article called "*The Trout and the Stream".* He explains how he detached himself from

Figure 5: Drawings of fantastic mountain landscapes from Aalto about the Viipuri Library

[152] NORBERG-SCHULTZ C., Op.cit. 1979, p.15

[153] GAUVILLE H., Critique. Hommage mérité et exposition à New-york pour celui qui mit l'habitant au cœur de sa réflexion. Simplement beau comme de l'Alvar Aalto, Libération, 1998, [on line] https://www.liberation.fr/culture/1998/05/04/architecture-hommage-merite-et-exposition-a-new-york-pour-celui-qui-mit-l-habitant-au-coeur-de-sa-re_237704/

the practical need for the building to create fantastic images that will help him achieved a concrete design for the project.

> *"When I personally have to solve some architectural problem, I am constantly – indeed, almost without exception – faced with an obstacle difficult to surmount, a kind of 'three in the morning feeling'. The reason seems to be the complicated, heavy burden resulting from the way that architectural design operates with countless, often mutually discordant elements. Social, humanitarian, economic, and technological requirements combined with psychological problems affecting both the individual and the group, the movements and internal friction of both crowds of people and individuals – all this builds up into a tangled web that cannot be straightened out rationally or mechanically. The sheer number of various demands and problems forms a barrier that makes it hard for the basic architectural idea to emerge. This is what I do – sometimes quite instinctively – in such cases. I forget the whole maze of problems for a while, as soon as the feel of the assignment and the innumerable demands it involves have sunk into my subconscious. I then move on to a method of working that is very much like abstract art. I simply draw by instinct, not architectural syntheses, but what are sometimes quite childlike compositions, and in this way, on an abstract basis, the main idea gradually takes shape, a kind of universal substance that helps me to bring the numerous contradictory components into harmony.When I designed the Viipuri City Library (and I had plenty of time, a whole five years), I spent long periods getting my range, as it were, with naive drawings. I drew all kinds of fantastic mountain landscapes, with slopes lit by many suns in different positions, which gradually gave rise to the main idea of the building. The architectural framework of the library comprises several reading and lending areas stepped at different levels, with the administrative and supervisory center at the peak. My childlike drawings were only indirectly linked with architectural thinking, but they eventually led to an interweaving of the section and ground plan, and to a kind of unity of horizontal and vertical construction"* [154]

The change of site had a major impact on the final shape and design of the library. Furthermore, the project has taken so many years to materialise that Aalto had had the time to better understand his own view on architecture and had a "functionalist awakening" compared to the neo-classic characteristics of its first design for the competition. For the time being, he had the opportunity to travel through Europe and meet great figures of architecture as Gropius and Le Corbusier, to design other projects, write articles and conduct exhibition of his work. So many things than forge the approach he had to design the library.

Aalto always refused the rigidity of diagrams and the narrow notion of the tabula rasa. He was careful not to have the systematic vision of Le Corbusier, of whom M. Perelman said: "The architecture and urbanism of Le Corbusier are like the ideal projection of the body (...), but of a body that is worked by the machine". In contrast to Le Corbusier, Aalto said:

> *"One might even go so far as to say that it is precisely the authority of the ancients that constitutes the main touchstone of our work today. Thus, the education of taste - the work of popular education, which falls directly within the architect's tasks - strives to draw the attention of the general public to our old architectural culture and, by emphasising its ideals and canons, to prepare the ground for the reception of modern architecture"*[155]

[154] AALTO A., (1991b) 'The trout and the stream' [1948], in G. Schildt (ed.) Alvar Aalto in His Own Words, Helsinki: Otava, [online] https://www.alvaraalto.fi/wp-content/uploads/2017/12/AAM_RN_Passinmaki.pdf

[155] PERELMAN M., Le fantasme osseux du standard in Les passions de Le Corbusier, éditions de la Villette, Paris,1969

But more than functionalism, this project is human functionalism, which is Aalto's own view on architecture. Functionalist is, according to him, more than to fill every function in the most optimal way possible but also the resolved the main human-related problem of the program, as for the Viipuri library, for anyone to read a book in the most comfortable way possible.

Aalto in 1935 describe the project with three major aspects for the design of the library. It begins by focusing on the importance of the lecture hall as a social active site where the human-ear is being the central need to lead the design. A need of an acoustically pleasant atmosphere. This part of the building was focused on 'literary propaganda' and 'social education'. It was imperative that everyone could listen and be heard no matter where they were in the room, that was the premise for the celling's design.

The second aspect correspond to the library hall, that enclosed the books and is model as a reading room. The principal requirement for this part of the design is the human-eye, and the 'preservation' form the nature. A capsule outside of the world where a diffuse light prevails. The solution brings by the conical skylights appeared only at a late stage.

The third element is the placement of the different functions inside the building itself but also in comparison with the physical context of the city and the park. As Aalto himself said:

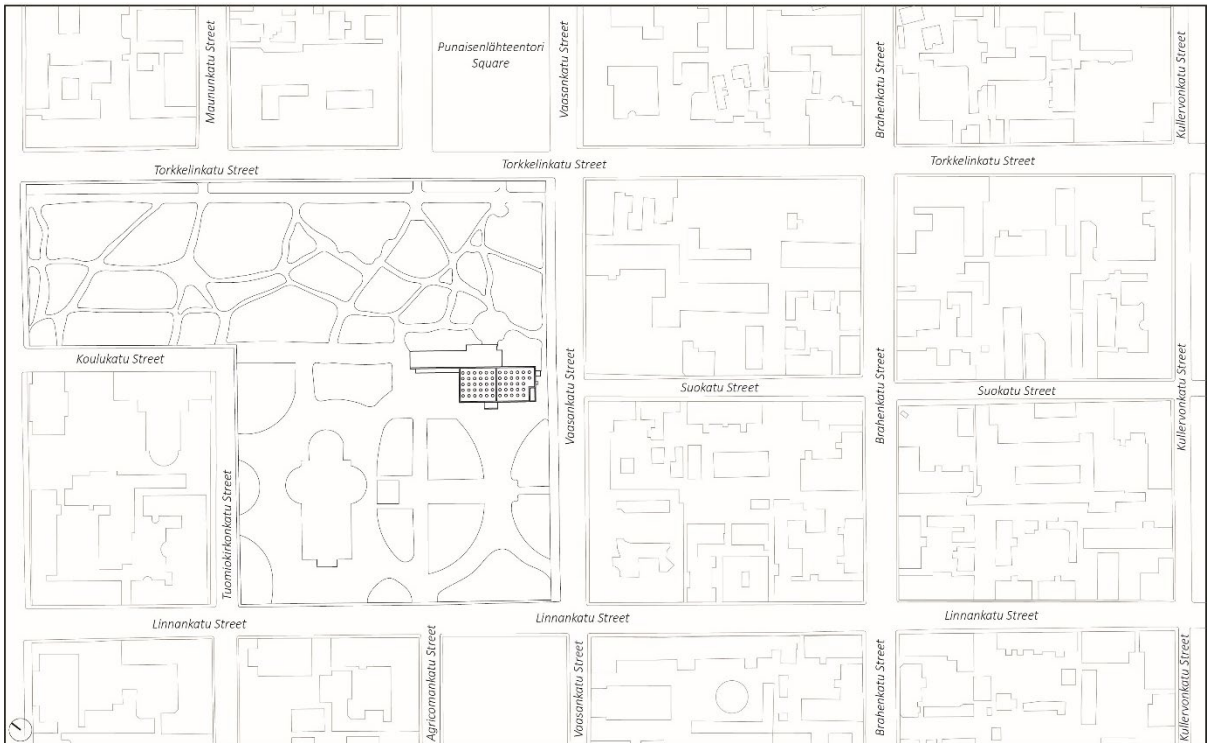
> *"The (…) psychological division is united by the web of routes inside, architecturally the third main factor. The main entrance is at the crossing point of several paths in the park, access to the newspaper hall is directly from the street, the entrance and the entire children's section is to the west, from the playground area one floor level lower than the main hall. The main entrance is dual, leading both to the library and the lecture hall."*[156]

The project being design in a park it could have been positioned freely and is not conducted by other strict geometry or existing structure. Aalto enhance that the design is therefore based on a "free environment" and a recreation area, which its influence is appropriate for the population use the place and altogether fitting the park. For him, form must be the result of a combination of experiences that range from its durability to humanistic, symbolic and technical responses, all in a thoughtful integration. If we refer to Bourdieu and his concept of habitus, we realise that Aalto, because he lived in the Finnish environment, with its grandiose and generous nature, developed a vision as an antidote to a fixed modernity, an understanding of places made for man (the little man) and not Man in his unalterable universal principle.

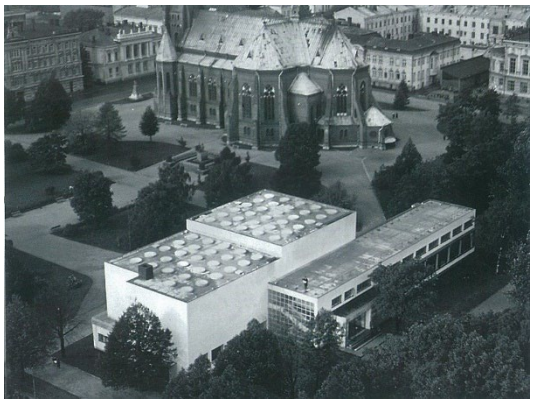
As we shall see, the library can be seen as an overcoming of the notion of time in a relationship between space, body, mind and time, and then a synergy of the senses, a multisensory experience of spatial perception that goes beyond the sole approach of the eyes to shape a perceptual scheme of space augmented by all our senses in complementarity. The features highlighted - those of the architectural concept and programme as such, those of access and circulation, and those relating to acoustics and luminosity - will be described in more detail below. But first, a description of the site is essential.

[156] ERVI, A. *Viipurin kaupunginkirjasto*. Helsinki : p.28.

Description of the Viipuri Library



The library was finally inaugurated on the 13th of October 1935, eight years after the launch of the architectural competition. The project was built inside the Torkkeli Park, with its principal entry facing the park, orientated North-East, alongside Vaasankatu Street. Yet the building is not adjoining the street, and only the short façade of the construction is facing this street with the entrance for the newspaper room. The central entrance can be access within the park at an intersection of the different paths. Another entrance as be design specifically for the children library and is reachable by, what is name, the Church Park, which is the part of the park where the Cathedral is located.



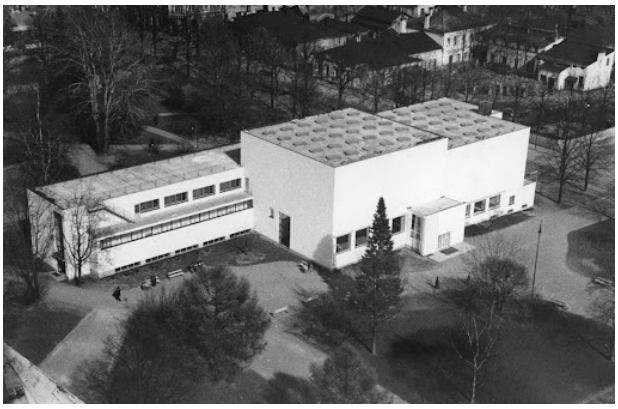


Figure 6: Aerial photos of the library in 1936

The last-minute change of the site has influence in many ways this last design. For the first time they were two clear volumes with different heights. But also, different entrances according to the programme. It coexists also inside the building with the continuity of both horizontally and vertically spaces with different facilities under one ceiling.

The lower volume with the main entryway houses the vestibule followed by the central hall. Once in this hall on the right there is wide sliding doors which lead to the lecture hall. The space is rectangular with windows on the right side looking out onto the park, and with the famous undulating ceiling design to achieve an acoustic that corresponds at best to the space. On the left a stairway is framed by two glass walls overlooking the main hall and the outside, this is used by the staff and conduct up to the office spaces positioned above the entrance and the lecture hall and down to the basement used as a storeroom. The glass walls contribute for the light of the staircase but also of the entire entrance hall.

Figure 7:View in the main hall toward the lecture hall entrance

Figure 8: View on the "Staff Only" staircase

From the main hall there is stair that give access to the rest of the library that is situated in the higher volume of the composition. Under only one ceiling but with different floor this part of the building houses the reading hall, the librarian supervision desk place at the highest point with a view on the whole place, the lending area and the “book-pit”, An open, hollow volume housing a reading area and shelving.

From the basement to the librarian desk passing by the lending desk there is a spiral staircase hidden from the visitors. There is two way from the entrance to access this space through a door to the left that will lead to the reading hall and to the right to the “book-pit” with a stair way that continue to the lending area with the librarian post that is at highest in the room. This staircase, comfortable and powerful, sets the scene for the spaces.

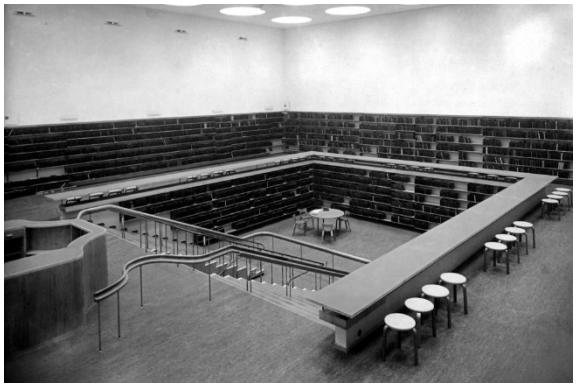


Figure 9: View of the "Book-Pit"

Figure 10:View on the Children Library

A connection can be seen inside the space between the reading hall and the book lending area. There are no windows on the exterior walls, the natural light source is actually provided by a grid of 57 circular skylights. The ventilation system is taking care inside the walls of this main space. The children library and the newspaper room are also part of this larger volume, it's accessible for the visitors through different external entrances, and is place in the lower floor. We can realise that all the different spaces and form are carefully choose by Aalto. As he said:

> *"Form is a mystery that escapes us, but it somehow gives the human being a sense of well-being"*[157]

The Architectural Concept

In 1935 Aalto wrote in the Finish Architectural Review a description of the library where he says that there is two parts to acknowledge in this project, "the library in its different sections" and the part "active in society". The first part is in reference to the functions that are house by the larger volume of the building. The space is divided into three different floors levels distinct by a specific function, the reading room, the lending area and the "book-pit", where foreign literature is schelved. This is according to Aalto the core of the library:

> *"The core of the library, with its lending hall and reading areas, is united so that the entire main part is one grand hall, where the appropriation of varying floor levels has made it possible to divide the interior. Similarly, the use of different heights makes supervision more effective, aided by the solution that the supervision point is partly higher than the spaces used by the public."*[158]

The second part referred as "active" is to mention the lecture hall that which aims to be a place for debate and listening. These two different parts can be seen physically on the design if the project. The "active" part of the project is open to the outside and can been seen from the outside with windows reaching the ceiling facing the park. In this sense, for Aalto, the best picture that could be put inside was that of the frame on the outside. In comparison with the part of the library that is of need of calm and quiet, is completely enclose from the outside word with no windows leading to a view of the park.

Figure 12: The Lecture Hall

Figure 11: The Lending Room with the Reading Hall in the background

In term of spatial concept, the first one hint at the view of how space can be lived and experince by any user of the space, the second one speak about the typycally functionalist idea of the countinous space, and the third about Aalto conceptual drawings that forms concrete impact on the design. It provides the visitor with the tools to maximise human use. As Nathan François, author of a thesis on

[157] AALTO A., Between humanism and materialism, p74
[158] AALTO A., *Finnish Architectural Review* 1935, p.152.

Aalto, puts it: "This is where architecture meets the spirit of the person who walks through it. It arouses his curiosity, surprises him, accompanies him, perfumes him, protects him, makes him silent, makes him travel or simply makes him happy to be there at this moment T, at this moment X ".[159]

The attention to detail to materials and in general to the well-being of the user is translate in the design thought features as the undulating ceiling for a good acoustic or the 57 skylights for a diffuse source of light which is better to read to. The materials are left in a more natural state this way, it is more pleasing to the eye and to the touch.

The main hall is defined as a continuous space, the only partition that is made is in terms of hights of the level of the floors that dived the spaces and the functions, but the access is completely free through the different staircases. The librarian desk at the top floor act as a surveillance spot but further as a focal point around which the rest of the programme is defined. As the space only windows are the skylights the space is completely enclose to itself and create the perfect atmosphere for a Library with a diffuse light considered perfect for the human-eye to read.

As said earlier, Aalto to gather his ideas for the design concept, sketch naïve drawings without any constrain, which end up with drawings of “fantastic landscape”:

> *“When I designed the Viipuri City Library (and I had plenty of time, a whole five years), I spent long periods getting my range, as it were, with naive drawings. I drew all kinds of fantastic mountain landscapes, with slopes lit by many suns in different positions, which gradually gave rise to the main idea of the building. The architectural framework of the library comprises several reading and lending areas stepped at different levels, with the administrative and supervisory center at the peak. My childlike drawings were only indirectly linked with architectural thinking, but they eventually led to an interweaving of the section and ground plan, and to a kind of unity of horizontal and vertical construction ."*[160]*.*

These drawings shaped the concrete reality of the project and depict the interior of the library whose multiplicity of scales form a gradient, similar to that of a fantastic landscape. Nature is invited inside, both in its relational relationship between the library and the park through an interior open to the outside, but also through the design of the building itself. If from the outside the library is only a white walls, inside it’s a little world, a landscape. Standardisation, which was imposed by the architects of modernism in those years, was given a flexibility by Aalto, inspired by the model of nature. Just as every human being is different because the combinations are infinite, every building can also, within universal standards, be imagined and adapted to the place and the programme. As he puts it:

> *“The human imagination must have a free field to develop. This was generally the case in my experiments with wood”*[161]

The main space could be described as a scenery with different heights, different floors, at the top of the hill the librarian desk that see this whole world lighted by 57 sources that create a diffuse light. To resume the project is defined between lighter and darker, taller and lower spaces, all this within a enclose space creating a atmosphere perfectly thought for its purpose, reading.

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[159] FRANCOIS, N., Alvar Aalto, architecture of the senses. Master's report. Ecole Nationale Supérieure d'architecture de Toulouse. 2020/2021. https://issuu.com/nathan.francois/docs/francois_nathan_-_memoire_alvar_aal_421fe9fd693749

[160] AALTO A., (1991b) ‘The trout and the stream’ [1948], in SCHIILDT G. (ed.) Alvar Aalto in His Own Words, Helsinki: Otava, p.108, [online] https://www.alvaraalto.fi/wp-content/uploads/2017/12/AAM_RN_Passinmaki.pdf

[161] AALTO.A., cited by K. Frampton, Modern Architecture. A Critical History (1980), Philippe Sers, Paris, 1985, pp. 172-173.

Programmatic

The project is consisting of two rectangular volumes with at their intersection an area dedicated to circulation. The different volume have a purpose and each houses a specific programme. The larger block is designed as a reading area and contain the also a lending area. Aalto has put particular attention for the lighting of this space to ensure a diffuse light that would be good for the human-eye. The lower block includes the administrative services, the staff offices as well as the storing area, and a lecture hall for which special attention was put on the acoustic of the room. Aspects that will be discuss below.

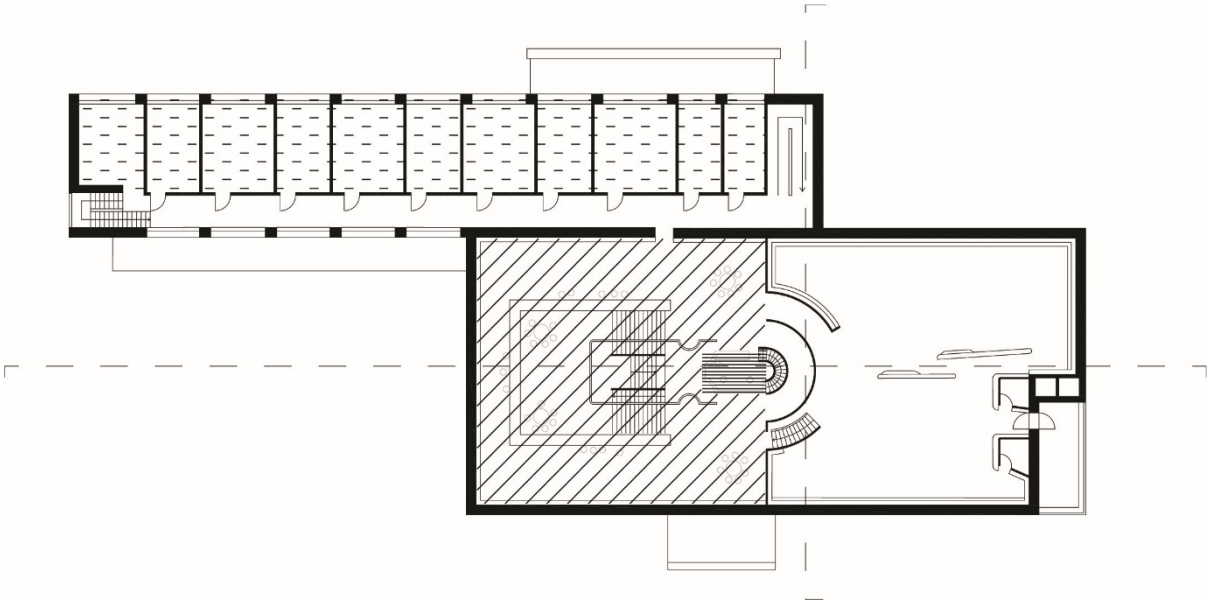


Figure 13:First floor, programmatic diagram

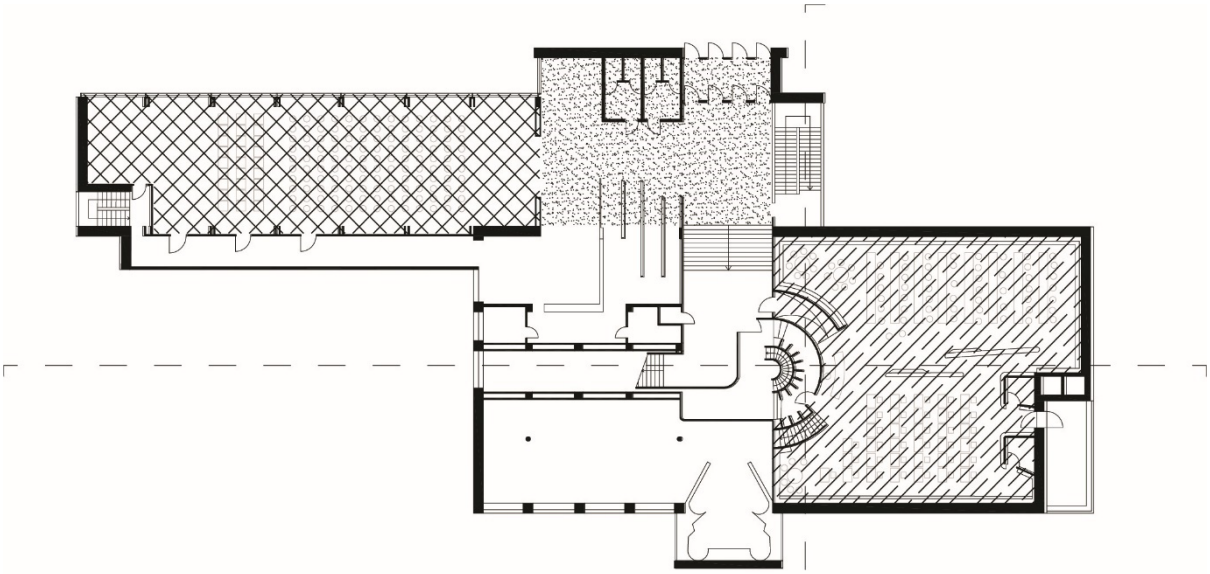


Figure 16: Ground Floor, Programmatic Diagram

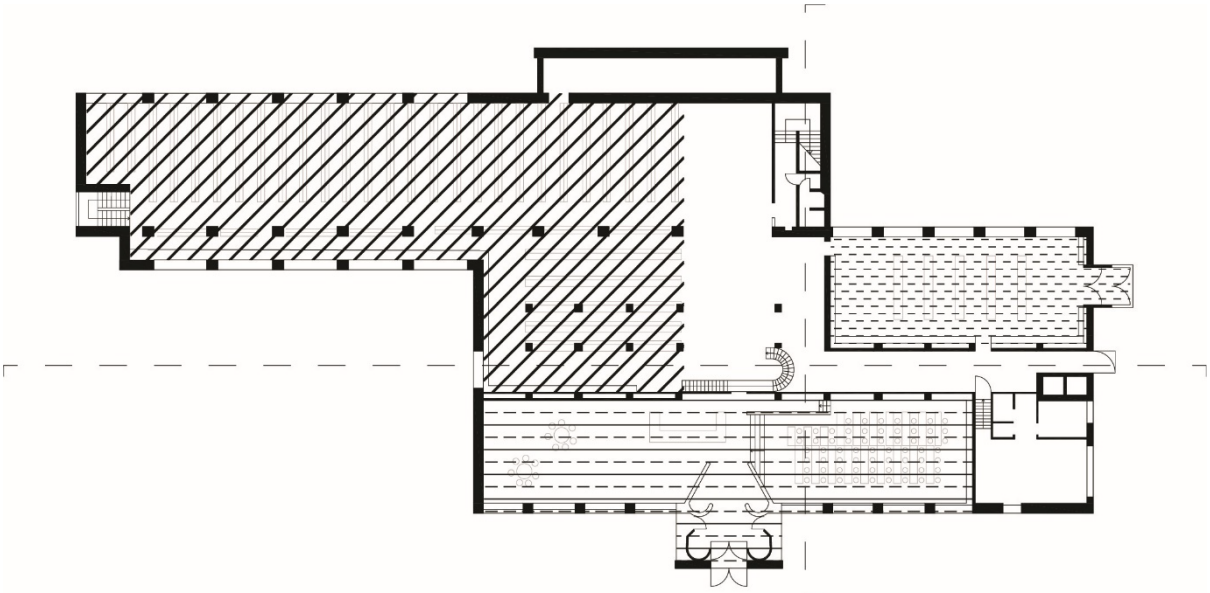


Figure 15: Below Floor, Programmatic Diagram

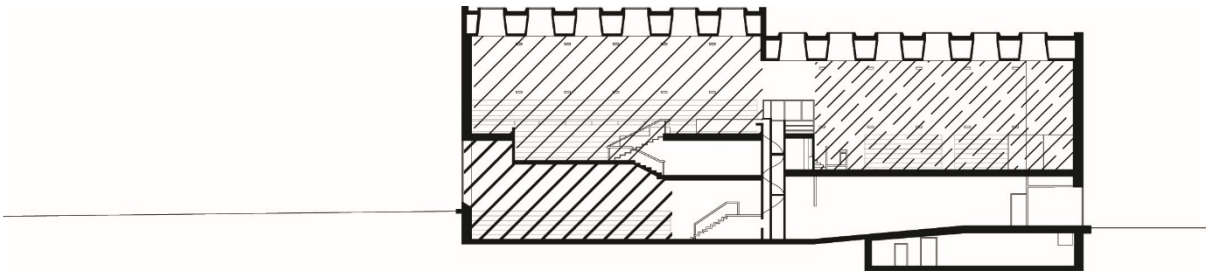
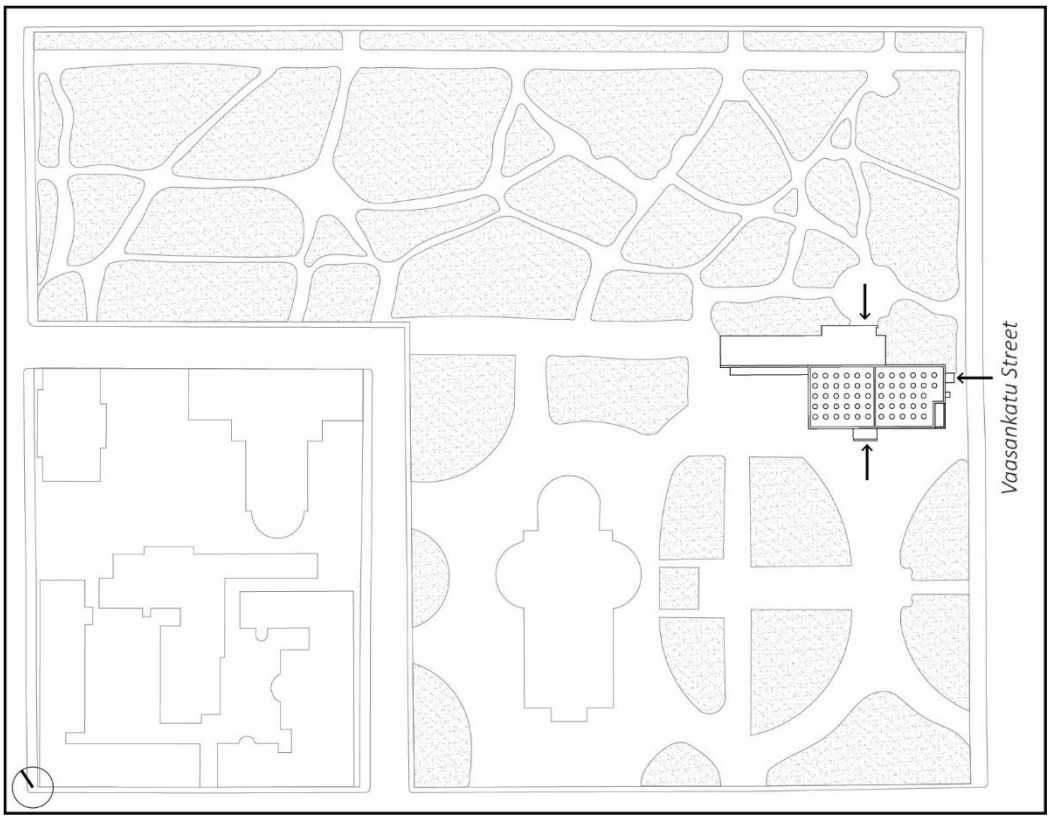


Figure 14: Longitudinal Section, Programmatic Diagram

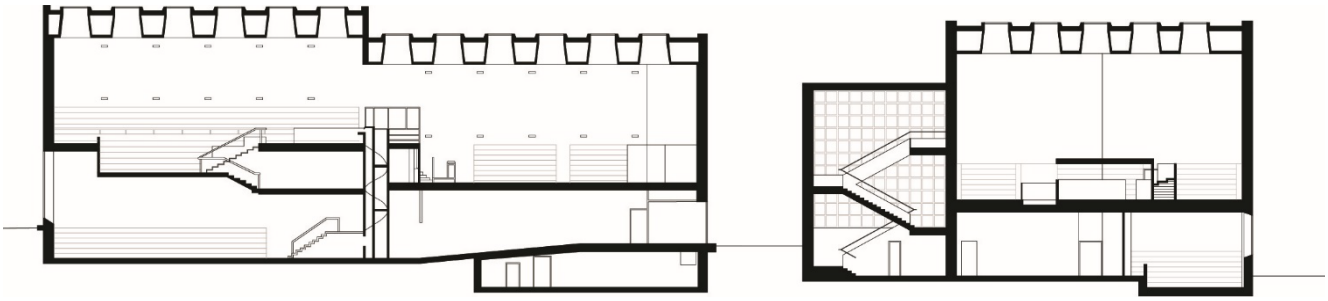
Access and circulation

The project is finally located inside the Torkkeli Park placed in a central position inside the city of Viipuri, close to the library is standing what is called de New Cathedral built in 1893 in opposition with the Old Cathedral which was finished in 1445. The closest street from the construction is the Vaasankatu Street, but it is still needed to enter the park to access the library. There is multiple entry that led to different functions, the main entrance up North, the entrance to the newspaper room closest to the street, East to the building and to the south, a connection to the children library.

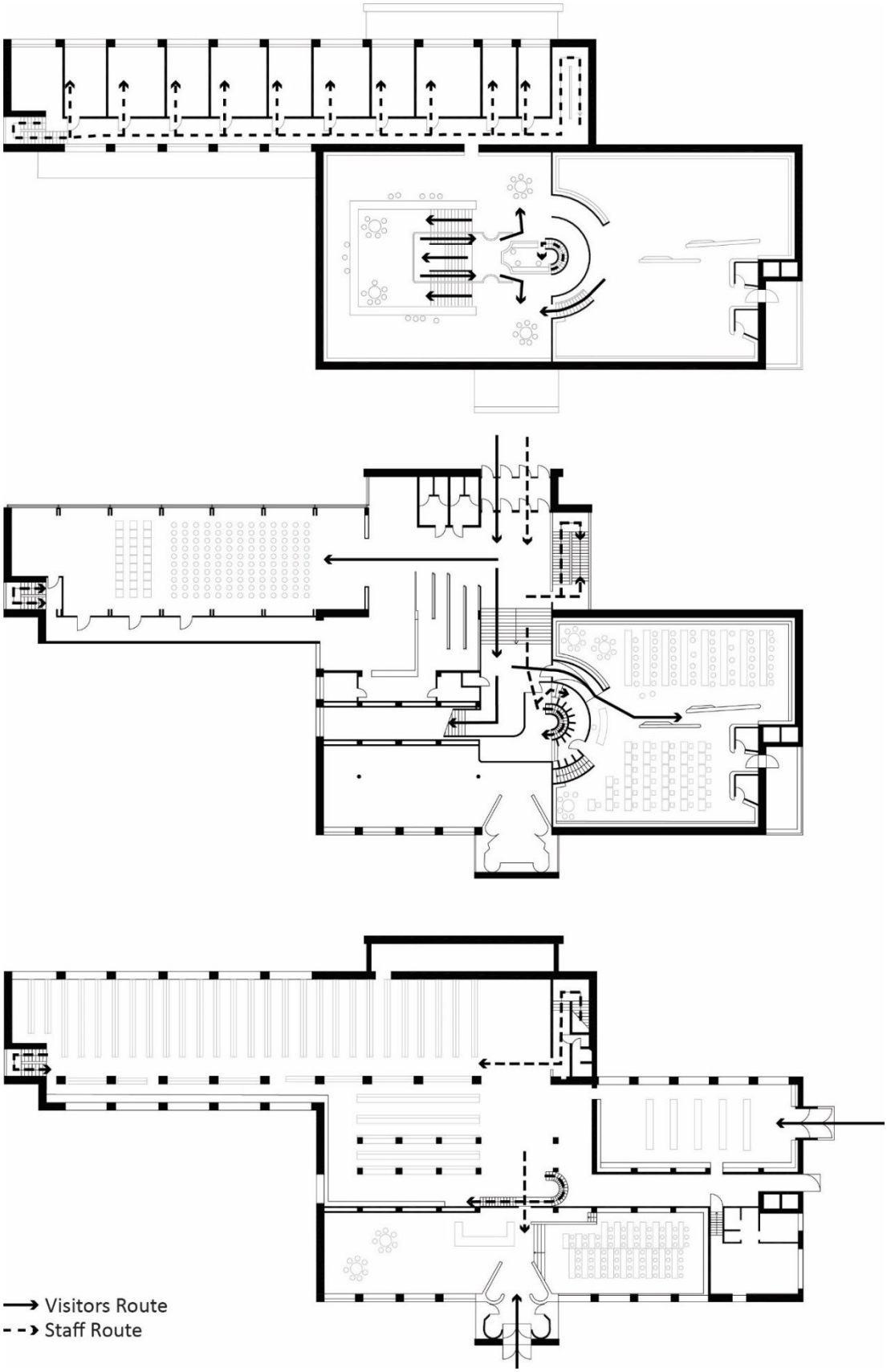


The first noticing characteristic is the freedom of the user to choose the path that seems the most convenient. As much as the main entrance is a node inside the building, the library itself is a node inside the park, there is many paths the access it, and according to desire and needs there is different entrance.

The interior circulation if the library has some complexity due to the difference in height through the floors and demi-floors. The circuit of a visitor is a sort of journey through the landscape of the library, on the top of the hill the librarian desk and on the bottom the so-called “book-pit”, added to that space there is also the lecture hall, the newspaper room, and the children library all those parts become a whole in an organic way which constitutes the beauty and the strength of this construction, the fluidity of the connections. Practically, the Staircase between the glass walls is used by the staff to access the offices upstairs and the storage room in the basement, there is a stairway at the opposite



side of this lower volume which gives access to the same spaces. Inside the larger volume an helicoidal stairway is hidden in the middle of the space, where the librarian desks are placed, which allows an access from the storage room to the librarian desk in the reading room. The visitors use the stair leading from the main entrance to the first floor and the staircase leading then to the reading room.



Light

Aalto's treatment of light is essential. It is not given brutally, nor is it extracted and replaced by artificial light. It is a sensitive material that seeps into the heart of spaces, materials, layouts and utilities. All light is also thought out in terms of dosage and transition.

First of all, let's talk about the entrance staircase placed between two square-pane glass walls, and about the ceiling pierced with conical skylights inside the main library.

The staff staircase is a monumental feature of the design of the library, and because it is enclosed between glass-walls the entrance space is therefore bathed in sunlight through this direct source. Its main function is to light the main hall, specially considering that with the glass door of the entryway it is its only source. Here the arrangement is clear and forms a passage from the outside to the main library where the main library walls are not pierced by any windows, but the ceiling is perforated by a multitude of conical holes. Those skylights are a number of 57 with a diameter of 1.80 metre, and so deep that the sunlight cannot directly enter the space, it creates throughout the all year a diffuse light and a perfect atmosphere for the human-eye. This measure permitted to embrace two architectural functions that are essential for a library which are on the one hand, the protection of the books of excessive and direct sunlight, and on the other to create lighting condition perfect for the act of reading and banishes any shadows and reflection. Placed in between the conical shafts there is discreet installation for the electric lights directed to the white walls and keep a diffuse and indirect source of light when the natural source doesn't provide enough of it.

The light and the ability for anyone to read at ease inside the space is made the light falling diagonally and in all directions onto the book therefore avoiding the possibility of annoying shadows. These light projections are a material of its own and differ according to the seasons and the time of day, making the perception of light alive, unlike artificial light, which is monolithic. Users participate in the rhythms of outdoor life without suffering the inconveniences: indoor and outdoor spaces do not negate each other. As Aalto himself put it:

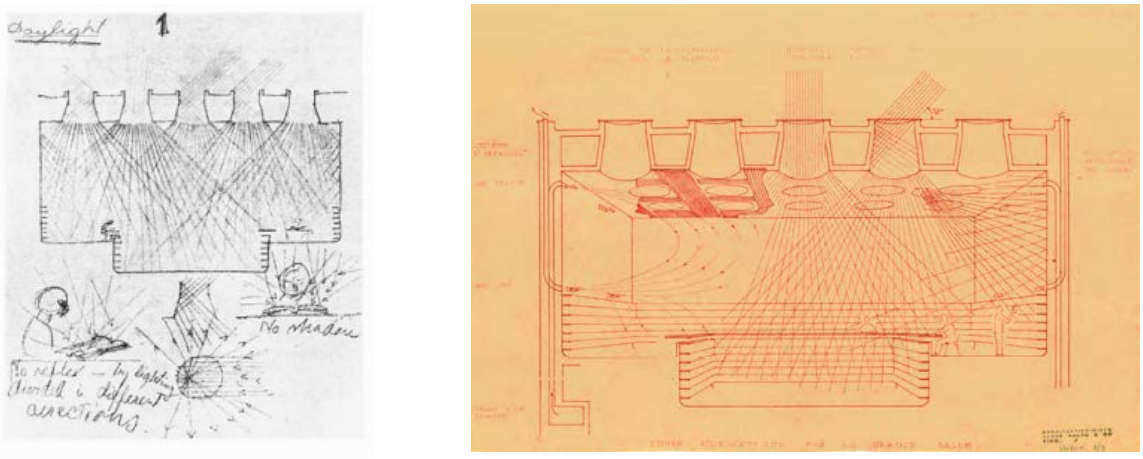


Figure 17: Drawings about lighting of Alvar Aalto

> *"In the Viipuri library, the problem was solved by the use of numerous circular skylights, constructed in such a way as to provide what can be described as indirect daylight. These skylights are rational because only one glass element was used (each one consists of a concrete-walled cone covered only by a kind of frameless glass). This system is also humanly rational, as it gives light suitable for reading, mixed, reflected and softened by the skylights. In Finland, the angle of elevation of the sun is just under 52 degrees. The cones have been designed so that the sunlight always remains indirect. Their surface diffracts the light in*

millions of directions. Theoretically, an open book is therefore illuminated from all sides and the eye-damaging reflection of white pages is avoided (the glare from the pages of a book is one of the most tiring phenomena for readers). This lighting system also eliminates shadows, regardless of the reader's position. The problem of reading is not just an ocular one - the right light allows readers to adopt different positions and allows all desirable relationships between the eye and the book. Both culturally and physically, reading requires a special kind of concentration: architecture has a duty to eliminate all disturbing elements."[162]

Light was for Aalto a continuous reflexion throughout the design process, and even is a central question in the design of a library. The project would in any way be complete without considering this main question of "eye-hygienic" space, that is purely a human-related problem.

The use of these skylights is not only reserved for the main library but also at some spot in the project. Where in the lending and reading room, they are used to create a diffuse light, in the entrance hall in this used to highlight a space. In between the washrooms and he lecture hall is placed an alcove an above it one single skylight from a ceiling lower than the rest of the main entrance. The entry space is field with light from the staircase and the door of the lobby in opposition with this alcove that looks darker, it creates a real contrast and a better comprehension of the scale of the space. This one shaft ray of light coming from the ceiling in this darker space after the luminous space is an experience in itself and a demonstration of the attention the architect has put in his work.

Acoustics

The topic of acoustic was especially thought through for the Lecture hall, the "active" part of the project that was focus on "literary propaganda" and "societal education". A space that have to be open to the outside, in opposition with the main library enclose in itself, and as for the human eye was a key point for the design of the light, an acoustically pleasant atmosphere is essential for Aalto. As he said:

"The wing with the club rooms and offices is of reinforced concrete. Here the acoustic structure is most of all of wood. The ceiling of the festivities hall is covered with wave-shaped (approximately 58 m2) lamellas, the purpose of which is to spread sound, most of all of spoken voices, in such way that the area of the hall would be acoustically equal. In accordance with the nature of the events in the hall I have had as the premise, that for example general discussions would be just as important as individual speeches. Due to this, and unlike for instance in concert halls, the acoustic construction was resolved so that the point of origin point of sound is arbitrary, i.e. that any point in the space (of a certain average level) should be ideal as both the sending and reception point. I understand acoustic questions as most of all physiological and psychological questions, where purely mechanical solutions do not fulfil the requirements." [163]

[162] AALTO A., Humanising Architecture, The Technology Review (Cambridge), November 1940, in The White Table and Other Texts, pp. 105-108 cited inon line https://www.articule.net/2021/04/19/alvar-1898-1976-aino-1894-1949-aalto-5-la-lumiere

[163] AALTO A., Aalto's original description in the *Finnish Architectural Review* 1935, p.152.

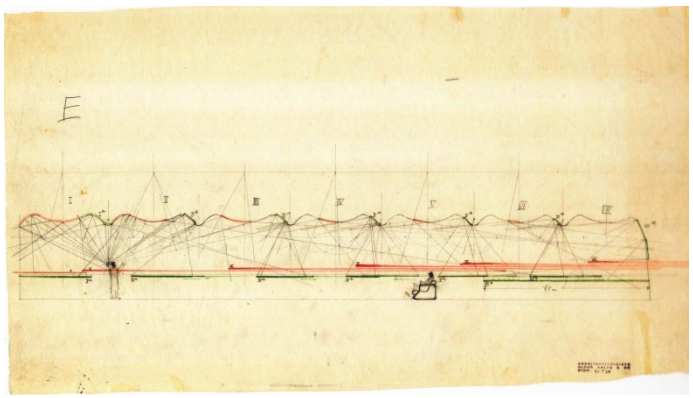


Figure 18: Drawings about lighting of Alvar Aalto

The design solution that was choose to the question of the acoustic is an undulating ceiling made of 30.000 knotless strip of red Karelian pinewood. This distinct form of a ceiling was draw for that during debates, which the space was designed for, any person could rise up and speak, while being heard from any point of the room and be interrupt by the opposite site here and there. In 1941, Aalto emphasised Karelian architecture, the wood of which it was made, but also its evolutionary concept, which left an important mark on the architect.

This ceiling is a facade that could be thought of as sculpted, but which rather undulates, a vision that opposes the rigidity of the space and the use of the room: the ceiling does not close, it opens towards the sea and its waves, and the sky, because this ceiling is not insignificant and invites reverie. This approach recalls Heidegger's image of the architect who should not develop the landscape but rather take care of it, just like the user of the space who must be taken care of. We know that Aalto had Heidegger's book "Building, Living, Thinking" on his bedside table. He always worked with the idea of bringing to life a project that the site already had within it. As Giedion says about the ceiling:

> *"It glides through the space as irrationally as a sinuous line in a Miro painting. Made of thin reddish pine rods, it starts at ground level behind the speaker's platform, arches upwards and cuts through the glass façade in an irrational movement reminiscent of turbulent water."*[164]

These joined wooden slats and the "wavy" treatment on the ceiling have several functions combined into one, once again multiplying the possible and complementary perceptions. The acoustics calculated from a diagram, the imagination brought to the landscapes, the use of wood from the surroundings, sent back to the interior, the waves of this country, which has so many islands, nothing is here anodyne, everything is a metaphor, with even a touch of humour since Aalto means wave in Finnish.

Conclusion

The analysis of Aalto's library allowed us to identify the spatial design keys he used to better look, better listen, better feel and better project himself into the space he designed in order to make a "meaningful architecture"[165]. Far from a fixed functional standardisation, Aalto brings the little man into his library. As he states:

> *"I once claimed that the best standardisation committee is nature itself, but in reality, standardisation in nature occurs almost only in the smallest units, the cells. The result is millions of flexible combinations, without any formalism. Hence the unlimited richness and transformability of organically growing forms. Standardisation in architecture must follow the same path"*[166]

[164] GIEDION S., Espace, temps, architecture, Editions Denoël, Paris, 1990 (1941), p. 357
[165] CRUNELLE M. The study of the psychology of perception is only useful for us architects if it allows us to look better, listen better, feel better. L'architecture et nos sens (Presses Universitaires de Bruxelles). p.1
[166] LAHTI, Op.cit.,2004, pp.11-12 prononcé lors d'une réunion de la construction nordique à Oslo ,1938

The notion of a place, if we refer to Heidegger's notion of habitus, consists in apprehending architecture neither as an inaccessible backdrop, nor as a standardised project, but as a singular place through its spatiality, the choice of materials, the subtle and thoughtful attention to acoustics, light, fluidity, everything that makes the user vibrate in unison with what surrounds him. Whether it is the respect of the speech of each person in the conference room, the living light in the reading room, the multiplicity of scales like so many landscapes, the Viipuri library presents all the qualities of an architecture in phase with the user and nature. A place that favours exchanges, and whose spaces, like the pause that creates the rhythm in music, like the space in the poem, the interior-exterior spaces are constantly linked in the library by its local materials, by its living cones of light, by its fluid passages, whose internal dynamics the users can construct by using the architecture.

The exhibition dedicated to Aalto at the "Cité de l'Architecture" in Paris in 2018 sums up his approach quite well: "*Man and all his perceptions are central to Aalto's planning and design process. Sight and hearing play a role in the choreography of space and light, and touch determines the haptic quality of the materials used and the 'interfaces'. For its users, its buildings become 'second nature."*[167]

The Viipuri library goes beyond the usual purely visual architecture to enter fully into human multisensoriality and the phenomenological approach takes on its full meaning here. As Pallasmaa points out:

> "*One of the reasons why contemporary spaces - compared to historical and natural settings that elicit a powerful emotional investment - often alienate us has to do with the poverty of our peripheral vision and the low quality of the resulting atmosphere. Centred vision makes us mere external observers, whereas peripheral perception transforms retinal images into spatial and bodily participation, and creates a sense of welcoming atmosphere and personal involvement. Peripheral perception is the mode of perception through which we capture atmospheres. The importance of hearing, smell and touch in atmospheric perception (of temperature, humidity, air circulation) results from their essence as non-directional and global sense organs."*[168]

Aalto is not just about the eye, far from it. He designed architecture that improves life by appealing to all our senses and by making us not just passive users but actors of a place. And to do this, as we have seen, he allows each person not to suffer the library but, on the contrary, to live it completely, *"in his conviction that men can organise their environment and their surroundings in such a way as to ensure their well-being, their physical and moral health, to live in harmony, to enjoy all the benefits of an authentic human culture"*[169]

There is no single architectural truth but thousands of possible combinations. And as Wagner wrote about Mies van der Rohe: *"Architecture is a language that has the discipline of a grammar. Language can be used for everyday purposes, like prose. But if you are good at it, you can be a poet*". [170]

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[167] *Alvar Aalto. Architecte et designer,* Cité de l'architecture, 2018, [online :] http://imageurspublic.fr/assets/alvar-aalto.pdf
[168] PALLASMAA J., Percevoir et ressentir les atmosphères. L'expérience des espaces et des lieux, vol.5 , 2017, [online] https://popups.uliege.be/0774
[169] SCHILDT G., *Alvar Aalto de l'œuvre aux écrits.* Centre Pompidou, Collection Monographie, Paris, 1988, p.19
[170] WAGNER WF Jr., *Ludwig Mies van der Rohe: 1886-1969,* Architectural Record, n°146, 1969, [online] https://docplayer.fr/amp/39944099-Theorie-de-l-architecture-iii-professeur-bruno-marchand.html

Dialogue between concept and context according to Aalto

At the end of these chapters, how can we advance the argument that Aalto used context as a conceptual tool to create an architectural object? How did he bring together the conceptualisation of the context and the contextualisation of the concept?

Aalto knows that design tasks "*result from a complex multi-sensory fusion of innumerable factors that are immediately and synthetically grasped as an overall atmosphere, mood, feeling or affective tone*"[171], and in the same vein he knows that context is distributed across multiple scales of perception and environmental systems. His way of combining the two in a combinatory and complementary narrative lies in his formidable conviction, established throughout the design process, that a site can only become a place through man. The genius loci, derived from the phenomenological approach, has shown that Aalto went beyond the concept of rationalist modernism, without denying it, to make use of Life in multisensory spaces that complement contexts. His modernity is still felt today, because users can make use of the spaces in a spatio-temporal perspective that always relates back to man. As Professor Emine Gorgul puts it: "*Apart from the universally, pre-defined conditions of Modernist apprehension, each case in Aalto's design emerges as a unique implication, a singular case, associating with the design story, program and the surrounding conditions. They further interacts (...),nurturing from the possibility of singular realization process of multifarious potentials of the parallel existentialities, where as each case becomes the unique actualization process of that moment and milieu"*[172]. Ultimately, it is a dialogue between place and time, to ensure that architecture is not an *"empty gesture devoid of meaning*"[173].

[171] PALLASMAA J., Percevoir et ressentir les atmosphères ; L'expérience des espaces et des lieux, in Phantasia, volume 5, 2017, https://popups.uliege.be/0774-7136/

[172] GORGUL E., A Critical Reading of the Modernism and Aalto as a Baroque Machine, Academia, Academic Research International Vol.7(1), January 2016, www.journals.savap.org.pk

[173] UNGERS O., Architettura come tema, Electa, 1982

Contextualisation of Breuer's vison of concept

Marcel Breuer's approaches to architectural design

"Architecture is an alarming many-side complex, and as soon as one leaves the technical sphere, all conceptions tend to become vague and overlapping."

Marcel Breuer[174]

For Marcel Breuer, architecture is of an "*alarming many-sided complex*". This will always be the case in his work, which is made up of the voluntary simplification of lines, materials, structures and compositions based on complex problems that are never avoided, but always carefully considered. The obvious simplicity of his lines cannot be solved without a little dip into the polemics that agitated the post-war years on the notion of the architectural concept, even if this one has spilled a lot of ink without reaching a definitive solution. To the question of "what is the architectural concept" asked when we addressed the question for Aalto's work, we were mainly interested in the impossibility of providing a definitive answer and in preferring a more multimodal approach via phenomenology (which will also be of great use in our analysis of Breuer's Atlanta library). Indeed, as we shall see, Breuer will integrate all his experiences by constructing a complete method in which all the senses intervene, which, via phenomenology, will allow a refined analysis of his work. However, a brief theoretical approach is not useless in the sense that Breuer himself contributed to it by reflecting on his own work and that of his contemporaries.

Conceptualised a project for Marcel Breuer

The 1950s and 1960s

The question was raised with Aalto, but here we are 40 years later, and the 1950s and 1960s contain all the elements for the development of research into architectural design processes: the use of innovative building materials such as reinforced concrete shells, the desire for systematisation through standardisation, cybernetics, increasingly advanced techniques, ... Although all of these pre-war influences, relationships and contacts are obviously materialised in specific ways in Marcel Breuer's work after the war, in the formal and compositional research of his projects and in their structural aspects, the fact remains that Breuer's work of the 1960s is developed through a particularly advanced process of abstraction.

The obvious simplicity of the lines and compositions of the final work are, as Breuer expresses it, the result of a long search to reach it from the obvious complexity of the beginning. For Peter Blake, American architect, editor of the Architectural Forum and former director of MOMA, Mies van der Rohe's use of the structural steel frame presents a system of simplicity that is "one of the most important resources that architecture can claim. But this simplicity is the result of a long-considered architectural process. If we read Breuer's "*Where are we now?*" we see that he articulates the theories of the "new architecture" which must be of maximum simplicity; but at the same time, he acknowledges that he seeks clarity by emphasising "*structural laws and practical functions*", an "*aesthetic simplicity and the renunciation of all irrational forms*". As he puts it so well:

> *"What, then, are the basic impulses and methods of the new architecture, leading to that overall and balanced improvement in the first place, and absence of preconception of any kind, especially the traditional preconception. Secondly, an ability to place oneself in immediate*

[174] BREUER M., Where do we stand, 1935, translated from the Dutch by Benton C., in Modernist Architecture, [online] https://modernistarchitecture.wordpress.com/2011/06/28/marcel-breuers-where-do-we-stand-1934/

objective contact with a given task, problem, or form in a clear, transparent way.Thirdly, to create aesthetic satisfaction by contrast and use of elemental forms ".[175]

More recently, the Italian architect Vittorio Gregotti states in his book "On Simplicity" that *« The architectural project is not simple, it can only become (…) simple, remaining complex in intentionality ".*[176] "A *building is simple not because its forms conform to elementary geometry, not because everything is immediately visible, or because logic is evident in its connections, but because all its parts express their necessity reciprocally"*[177].

And although Roberto Venturi, with his slogan "*Less is bore*" in particular, defended the idea that complexity and contradiction were essential in architecture[178], which is at first sight the opposite of Breuer's work, the contribution of the very discussion of simplicity and complexity remains a fundamental debate in twentieth-century architecture and an issue that Breuer developed through what he considered to be the basic principles of architecture: the direct approach, clarity and sincerity.

Of course, the risk is then that of an architecture that expresses only itself and where the user is lost. But for Breuer, the architectural object must be conceived on the basis of a language between rigidity and flexibility, between expansion and contraction, oppositions that we will explore in greater detail later on, but which presuppose an active spectator who, once inside the building, feels the forces that have brought the forms into being. It is not a question of dismissing life, but of making it participate through discovery and wandering through the spaces.

The 1970s

"While interiors must remain backgrounds, the exterior of the building should radiate to the public a sense of purpose, distinction and of invitation. This quality is sought first by means of space defined by projecting forms of the building itself. Along Madison Avenue the upper floors cantilever outward in bold steps high above sidewalk level, over the main entrance. The visitor is received by the building before reaching the doors. This space also extends below sidewalk level as a sunken courtyard, a place for people to gather and for display of sculpture. The second means is the selection of a dark warm toned grey granite as the facing material of the museum. This facing will not be used typically, as an embellishment only at the entrance level, but rather as a faceted sheathing covering both street walls from top to bottom. The granite will be polished to give an ancient and noble material a contemporary dimension."

Marcel Breuer[179]

In the 1970s, researchers wanted to move beyond designer-centred models to explore the wider societal context. It was no longer a question of knowing what something was but of what it could be. Models abound and, as the French architectural theorist Jean-Pierre Chupin very well determines, it is the question of the complexity of time that is at work here: "*whether the future is partly inscribed in the past, whether the resolution is ultimately the discovery of something we already knew, whether the problem of the solution is solved in reverse: so many new ways of questioning design. A temporal paradox that becomes all the more meaningful in the context of the design of the architectural project*"[180].

[175] BREUER M., Where do we stand, 1935, Op.cit.
[176] GREGOTTI V., the Theoretical Thought in the Architectural Project Centro Cultural de Belém as a case study , p.5
[177] GREGOTTI V., On Simplicity, 1991
[178] VENTURI R., Complexity and Contradiction in Architecture
[179] BREUER M., Marcel Breuer's, Op.cit., Architect's Report, Box 21-Reel 5729-Frame 418-435, [online] https://edan.si.edu/slideshow/viewer/?damspath=/CollectionsOnline/breumarc/Reel_5729/Frames_0418_0435
[180] CHUPIN J.P., L'analogie ou les écarts de genèse du projet d'architecture, Genesis, 2000, pp. 67-90

Breuer's background, his training, his influences, his encounters and the poetry of memory were all reflected in the formal and technical research of his projects. From dives into the past that generate diverse contexts in which architects evolve and that broaden the spectrum of languages, we move towards a metalanguage that explores the spatio-temporal facets at work in an architectural concept that is never completed and always put back on the drawing board[181]. As Breuer says:

> *"We create forms with the mentality of our time, and as we express this mentality with materials, we study the technical possibilities and materials of our time"*[182]

If the time was therefore entirely turned towards this period of eager experimentation, it was nonetheless dependent on what had been the years of apprenticeship. But Breuer was to distance himself from the modern movement and especially from what some of its protagonists would do. Breuer expressed this perfectly in 1935 in a text entitled: *Where do we stand?*

> *"The protagonists of the Modern Movement have been occupied with the classification and development of their intellectual principles and the carrying out of their individual designs. This meant that further propaganda was left to chance, industrial advertisements and the technical press. Much has been distorted, much overlooked, as a result. Modern terminology has been put under tribute for snappy slogans and each serves only some isolated detail."*[183]

Far from a reductive approach that did not take into account the diversity of concepts that developed within the modern movement, Breuer gradually distanced himself from it because he judged that the young representatives were entering into a rigid formalism. So, in order to try to identify what built the concepts at work in his case, let's delve into his life path.

Marcel Breuer or half a century of designs

Marcel Breuer's beginnings

Marcel Lajko Breuer was born in 1902 in Pécs, Hungary. In 1920, after graduating from the Magyar Királyi Föreáliskola in Pécs, he received a scholarship to study at the Fine Arts School in Vienna, but disappointed by the academic nature of the teaching, he experimented with cabinet making for a few months and then, on the advice of a friend, joined the new Weimar School of Arts, the Bauhaus School, in 1920, where he studied under Johannes Itten[184].

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[181] American architects began to study phenomenology in earnest at Princeton University in the 1950s under Professor Jean Labatut, whose student Charles W. Moore was the first to write a doctoral thesis entitled Water and Architecture (1958). Bachelard. In Europe, the Milanese architect Ernesto Nathan Rogers, through his influential editorial direction of the journal Casabella Continuità, helped to advance architectural phenomenology in Europe. He collaborated with the philosopher Enzo Paci, and influenced a generation of young architects, including Vittorio Gregotti and Aldo Rossi. In the 1970s, Norwegian architect, theorist and historian Christian Norberg-Schulz gained international recognition with his book "Genius Loci: Towards a Phenomenology of Architecture" (1979), which was strongly influenced by Martin Heidegger's hermeneutic ontology. For many students of architecture in the 1980s, Christian Norberg-Schulz was an important reference in architectural phenomenology, not least because the combination of text and images provided easily accessible explanations of how a phenomenological approach to architecture could be translated. Norberg-Schulz spawned a large following, including his successor at the Oslo School of Architecture, Thomas Thiis-Evensen. In the 1970s, the School of Comparative Studies at the University of Essex, under the influence of Dalibor Vesely and Joseph Rykwert, was the breeding ground for a generation of architectural phenomenologists, including David Leatherbarrow, Professor of Architecture at the University of Pennsylvania, Alberto Pérez-Gómez, Professor of Architectural History at McGill University, and the 'architect' Daniel Libeskind. In the 1980s, the phenomenological approach to architecture was pursued and developed by Vesely and his colleague Peter Carl in their research and teaching in the Department of Architecture at Cambridge University. As architectural phenomenology took root in the academic world, the professors developed theoretical seminars that attempted to broaden the range of ideas in the movement beyond Gaston Bachelard and Martin Heidegger, via Edmund Husserl, Maurice Merleau-Ponty, Hans-Georg Gadamer and Hannah Arendt. theorists whose modes of thought were close to phenomenology, such as Gilles Deleuze, Henri Bergson and Paul Virilio (urban planner).

[182] BREUER, M., *Defending Modern Architecture*. Conference non datée. Archives de Marcel Breuer, 1920-1986. AAA.

[183] BREUER M., Where do we stand, 1935, Op.cit.

[184] Itten also encouraged students to disconnect from the subject and make collages (fig. 24), to generate synthetic images. In the theory and practice of form, he proposed exercises with abstract forms and with the sense of basic forms, but also exploring the experience of movement from the position of figures and straight and curved lines (fig. 25). The rhythmic work was based on two types of exercises, one

The mixture of pure art and functional teachings appealed to him immediately. He wanted to become a painter or sculptor and was not immediately interested in architecture. He studied painting with Klee and Kandinsky, and after two years became interested in furniture and then architecture, encouraged by his mentor and head of the Bauhaus: Walter Gropius. *"Together with Walter Gropius, Breuer embodies the epic of the Bauhaus, the foundation of modernity characterised by pure forms, light materials and the ability of architecture to bring all the other artistic disciplines into resonance with its own issues."*[185]. In a speech given on the occasion of the 75th birthday of his friend Gropius, he had this to say about the Bauhaus:

> *« My own contribution, the Bauhaus-idea, has been used, abused and distorted in this manner, and there is now a popular version of a fixed Bauhaus-style that is tossed around in debate as if had really existed as a rigidly defined formula. On the contrary. Our strength was that there was no dogma, no prescription-things that invariably go stale after a while-but only a guiding hand and an immensely stimulating setting for those who were willing to work concertedly, but without losing their identities. What made our group function was a common method of approach, a kindred way of responding to the challenges of our day, a similar "Weltanschauung", if you will. We knew that only a personal interpretation of a common phenomenon can become art, that only searching mind can find a conceptual attitude and pose questions of principle. Instinctive response to direct experience was what we cultivated or, as Oriental philosophy puts it :" develop an infallible technique and then place yourself at the mercy of inspiration"*[186]

In 1923, he ran the carpentry workshop, obtained his diploma in 1924, and in 1925, he created the famous Wassily chair (named after Kandinsky) which, according to legend, was created in bent tubular steel from the handlebars of his bicycle[187]. Whether this legend is true or not, it perfectly reflects the spirit that reigned in the school, as Breuer himself in 1923 explains:

> *"The primary content of this : objects have their different appearances as a result of their different functions; In that, they should individually satisfy our needs, and not conflict with each other, they together give rise to our style. They have unity as a whole through the best possible fulfillment, by each, of its own special function. So, our concern with style is not a concern with direction but with quality. A chair for exemple, should not be horizontal-vertical, not expressionistic, nor constructivist, nor purely utilitarian, nor made "go with" the table ; but it should be a good chair and then it will "go with" a good table".*[188]

According to some, "*Breuer was less of a theorist than Gropius or Le Corbusier*[189]*, "Breuer was an intuitive designer who trusted his instincts more than precise calculations"* [190]. We will see that the

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of repetition of elements, harmony of points, lines, surfaces, shapes, textures and colours in a musical character, the other was a series of automatic two-handed exercises in imitation of writing. Salvé. p.43

[185] AMOUROUX D., *Marcel Breuer, les réalisations françaises,* in Carnets du Patrimoine, Editions du Patrimoine, p.18

[186] BREUER M., Marcel Breuer Papers, Archives of American Art, Smithsonian Institution, Washington, AAA, Marcel Breuer and the American Tradition in Architecture. Harvard University. Cambridge. Massachussets, 1938, Box 34, Reel 5737- frame 1053-1078

[187] "It signals the birth of industrial, reproducible furniture, at the same time as Le Corbusier and Perriand were working on the "LC" series of chairs with a chromed steel structure, and Eileen Gray was exploring these same metal tubes. "Dissociated, airy, as if sketched in space", according to Breuer, the series was decried at the time for being "too clinical", yet it was comfortable, rigid and flexible. This piece, a symbol of modern furniture, is being reissued by Knoll", in FEVRE A ;M ;, Marcel Breuer, le plieur de béton, 2013, [online]Libération, [online] https://www.liberation.fr/design/2013/03/06/marcel-breuer-le-plieur-de-beton_886774/

[188] BREUER M., Marcel Breuer Papers, Archives of American Art, Smithsonian Institution, Washington, AAA, On Form and Function at the Bauhaus in 1923. Published in 1925 in the "Offzett" magazine, Box 7-Reel 5718-Frame 930

[189] Walter Gropius would say later that "The preliminary course of the Bauhaus curriculum and the subsequent experiences in the workshop had more to do with Breuer's finding himself as a creative artist than any other influence," (Walter Gropius to Peter Blake, January 10, 1949, Breuer file, MoMA).

[190] TAS T., Marcel Breuer's America, in Offbeat Budapest and Vienna, [online] https://www.offbeatbudapest.com/features/marcel-breuers-world/

empty space on which this now iconic chair rests would be reused by Breuer much later in architecture, notably for the Atlanta library. As Gropius explained: "*the process of designing a large building or a simple chair differs only in degree, not in principle*".[191] In 1928, he left the Bauhaus and went to Paris where he met Le Corbusier, but he was bored.

He returned to Hungary, but the Budapest Chamber of Engineers rejected his application for a licence, deeming his Bauhaus degree and work experience insufficient, effectively forcing him to leave the country. He opened an architectural practice in Berlin in 1928, but the years were difficult.[192] He worked on concrete and prefabricated houses, including plans for Potsdamer Platz, Spandau-Haselhorst Housing and a hospital in Elberfeld; he travelled in the following years and began designing aluminium furniture. He established his reputation as an architect with the construction of the Harnischmacher House in Wiesbaden. From 1935 to 1937, he pursued a theoretical project on the Civic Centre of the Future. At the time he said that he no longer wanted to work with interior furniture and that he wanted to concentrate on architecture.

The maturity of Marcel Breuer

For Breuer, the lecture begins as follows: "*There are three epochs of the architecture we call modern. First, the revolutionary, after the first world war, ending about 1925-1930. The second, somewhat interrupted by the war, but going on now, is a period of "interlocking philosophy and realization". Third will be the period of broad utilization, -probably identical with the" Post war" period"*[193]

Concerned about the rise of Nazism , he went to the United States before the war, founded an agency with Walter Gropius, (from 1937 to 1941) taught at Harvard, and built many houses. During the war he remained in the United States. The "House in the Garden" exhibited at the Museum of Modern Art of New-York (MOMA) marked the beginning of his American career. But after the war, from 1950 onwards, he worked on large buildings between the United States and Europe: industrial, university, religious and cultural buildings. And it was to an encounter with Pier Luigi Nervi that he owed the great changes he made with concrete. According to Miguel Salvé: "*the subsequent influence on Marcel Breuer is so notable that we can speak of a before and after in his work of his contact with Nervi*"[194]. We will return to this engineer, with whom he worked on the UNESCO building in Paris. As for the United States, as the architecture critic Dominique Amouroux explains: "*For some professionals, his houses constitute a veritable data bank: their H-shaped plans are easy to interpret, even to copy, hence their numerous descendants on American soil. On the other hand, some supporters of academicism are reassured by the classical bias of some of his plans or by the power of his masses, forms and materials which impose themselves on the landscape like a Roman building before them. For his American clients, he is also an interlocutor who knows Europe well, a professional who embodies the now borderless design of transcontinental societies, an architect capable of mastering the most sophisticated technical constraints of the moment*."[195]

Between 1963 and 1964, Breuer began work on what is perhaps his best-known project, the Whitney Museum of American Art in New York. Between 1965 and 1973, Marcel Breuer and Associates

[191] GROPIUS, W., *Alcances de la arquitectura integral.* Colección Perspecti vas del mundo, 7a edición agosto de 1977. Ediciones la Isla, Buenos Aires .
[192] Breuer was not initially admitted to the German Order of Architects. He was admitted in 1931 thanks to the intervention of Gropius.
[193] BREUER M., Marcel Breuer Papers, Archives of American Art, Smithsonian Institution, Washington, AAA, Series 6.1: "History of Modern Architecture," not dated.D.C., microfilm reel 5729, frame 431e.
[194] SALVE M., La experiencia de la arquitectura de Marcel breuer. Presencias, materia, estrctura y composicion, Thèse de doctorat, Universidade Corona, 2015, p.26
[195] AMOUROUX D., Marcel Breuer, les réalisations françaises, in Carnets du Patrimoine, Editions du Patrimoine, p19

continued to receive many diverse and important commissions in the United States and particularly in France[196].

> *"After World War I, architects seemed to approach the task of rebuilding in Europe with revolutionary idealism and optimistic trust in mechanical technology. International Modernism seemed to represent not only all that was modern but also all that was valuable in a devalued and degraded world. The generation following World War II had less use for idealism, revolutionary of otherwise, and diminished trust in technology. It was context that the Brutalism apothegm "An ethic, not aesthetci" acquired signifiance "[197].*

Referring to himself as the " *long journey architect* ", Breuer carried out numerous projects and his architectural conceptual process never ceased to evolve. From his years at the Bauhaus and the community spirit that reigned there, the exchange of ideas, the discussion and participation in the projects that emerged, Breuer accumulated experiences without locking himself into a theory. This approach perfectly reflects what the Bauhaus was: a place that did not want to create a style but to teach a method that served as the basis for Breuer's work as an architect until his death.

Diving into Breuer's Bauhaus

Gropius and Mies Van Der Rohe were the directors of the Bauhaus, the Institute of Arts and Crafts founded in 1919 in Weimar, Germany[198]. The concept of the Bauhaus was born out of the combination of the School of Decorative Arts (Kunstgewerbeschule) and the College of Art (Kunsthochschule) into a single school and was linked to the widespread idea at the turn of the 19th and 20th centuries that all craftsmen were artists, and that all artists should be good craftsmen.

With its desire for simplicity, mass production and rationalisation through industrialisation, the Bauhaus advocated an art form with social aims, accessible to all, combining artists and craftsmen. The objective was clear: "*to build a city for a society at the service of the industry*"[199]. Thus, the aim was to change man through art or to create art for a "new" man, as Jean Clair[200] put it. It was not a question of creating a "*Bauhaus style*", but of bringing together under the same banner architects, craftsmen, and artists who in turn taught, created, and dispersed themselves in different approaches in all subjects. As the German constructivist artist Walter Drexel explains, "*the expression Bauhaus style is an inadmissible simplification*"[201]. The place allowed for the development of expertise in very different fields, ranging from photography to ceramics, from furniture to building design. The heterogeneity of the teaching staff, in contrast to the classical academic teaching staff, was presented with a Master of Form and a Master of Craft whose teaching was not specified[202]. Gropius, (who would become Breuer's mentor, collaborator and friend), states it clearly: "*Once this violent eruption was over (ed. note: World War I), every thinking man felt the need for a change of facade and to*

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[196] In 1964, Breuer was admitted to the French Order of Architects. Following the wishes of André Malraux and the director of architecture at the Ministry of Cultural Affairs, Max Querrien, both Breuer and Alvar Aalto carried out projects in France.

[197] BOYLE B.M., Sennott R.S. Encyclopedia of twentieth century architecture, Vol.1 (A-F). Fitzroy Dearborn., 2004, [online] http://architecture-history.org/schools/BRUTALISM.html

[198] *"The functioning of the Bauhaus was closely linked to socio-political events. The date of the school's foundation, 1 April 1919, coincided with the discussions in the assembly, which led to the creation of the Weimar Constitution a few months later. It was in this atmosphere of the Weimar Republic that the new institution - the state school financially dependent on the regional government of Thuringia - was to attempt to respond to the needs of German society in the face of the catastrophic state of its economy in the wake of the Great War."* What exactly is the Bauhaus? in Artefields [online:] https://www.artefields.net/art-history-modern-art-bauhaus/

[199] TIELEMAN D., la pensée de Jane Jacobs et Oscar Newman dans le développement des villes contemporaines. Faculté d'architecture de l'ULiège, 2014, [online] http://hdl.handle.net/2268/184229

[200] CLAIR J., *Courte histoire de l'art moderne : un entretien*. L'Échoppe, Paris, 2004. p.23

[201] DEXEL, W.. *Der Bauhausstil – ein Mythos.* Walter Vitt, Starnberg, 1976, Pédagogíe du Bauhaus, p.15.

[202] WICK,R. Bauhaus Pedagogy,p.35.

prevent the mechanical anarchy that industrial production was leading to, through the development of tools, objects and buildings specifically created to be part of the whole of a civilised society. Our aim was to eliminate the limitations of the machine without sacrificing any of its real advantages.".[203]
The influence of the Bauhaus and modernism is undeniable in Breuer but, as we shall see later, he will not follow a rigid rhetorical formalism. For Breuer, as for Gropius, modernist theory defends visions that are often radical and that need to be reinvented, as he states:

> *"I put the end of this period 1925-1930, as at about this time a new generation of architect sappeared in various contries of the world. They had the sincere desire to add their work and vision to the achievement of a Franck Lord Wright or a Corbusier,-to clarify and complete their stimulating but many times confusing and inconsequential philosophy; - to create an architecture which is not only revolutionary slap in the face of tradition, a literary idea or demonstration, but a fully useful and human instrument of our life."*[204]

As the architectural historian and theorist Alberto Perez-Gomez argues, rationalism did not just think the world, it also wanted to shape it[205]. Yet Breuer did not want to be tied down to any definitive theory. Despite intellectual collusion with Le Corbusier, for example, who wanted to impose his views through manifestos and impose a general standardisation, Breuer, like his mentor and friend Gropius, sought rather to allow individual adaptations. Gropius expresses this clearly in the following words: *I want a young architect to be able to find his way in whatever circumstances; I want him independently to create true, genuine forms out of technical economic and social conditions in which he finds himself instead of imposing a learned formula onto surroundings which may call for an entirely different solution".*[206]

It is clear that this vision clearly influenced Breuer and in several ways that we will now develop.

Breuer under the lens of phenomenology

> *"The genius loci (...) is seen as that concrete realitý that man faces in everyday life. To make architecture means to visualise the genius loci: the work of architecture lies in the creation of meaningful places that help man to inhabit"*[207]

Introduction

There is no question here of resolutely distancing oneself from the Bauhaus, since Breuer will remain in the line of what modernism defended as a vision of the world, but he deepened the modernist vision by a strong and committed personalisation of his work. And to probe the depths of this vision, phenomenology proved to be a precious ally. This is certainly not the only possible approach, for we are aware, as Chupin is, that the architectural concept would be inconceivable[208]. Far be it from us to attempt to establish a theory: Breuer did not wish to be locked into the schematic rigidity of a doctrine, as he explains very well:

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[203] GROPIUS W., *la nouvelle architecture et le Bauhaus, 1935, in MADEC P., Le matin de l'architecte, 1983/1984,* [online] https://hal.science/hal-01909876/document
[204] BREUER, M., *History of Modern Architecture,* conférence non datée, Marcel Breuer Papers, 1 9 20 -19 8 6. Series 6. Wriings, Speeches & Lectures by Breuer 1923-1975. Box 7; Reel 5718; Frames 885-910, AAA.
[205] PEREZ GOMES, Architecture and the Crisis of Modern Science (note 11), 4,
[206] GROPIUS, W., *Architecture at Harvard,* University, Architectural Record , n°81 , 1937, p. 10, [online] https://archive.org/details/sim_architectural-record_1937-05_81_5/page/10/
[207] NORBERG-SCHULTZ C., *La signification dans l'architecture occidentale* de 1977, p. 5
[208] CHUPIN J.P. *L'analogie ou les écarts de genèse du projet d'architecture* , in Genesis, 2000, pp.67-90 [online :] https://www.persee.fr/doc/item_1167-5101_2000_num_14_1_1136, accessed on 7 April 2022

« In the past I have been opposed to over much of this theorizing about the New Architecture, believing that our job was to build, and that our buildings sufficed, since they speak plainly enough for themselves. I was, moreover, not a little alienated to observe that there was often a considerable discrepancy between these theories and the personalities who advanced them. The danger of all theorizing is that, by carrying one's arguments too far, one is apt to leave the world of realities behind one. ”[209]

Standardisation with a holistic dimension

“If the characteristic that these are also educational building projects, of similar complexity and dimensions to the Bauhaus building project, one can in their analysis and comparison glimpse characteristic commonalities, differentiating elements and complementarities of these two architects, Gropius as a man of theory and organisation and a Breuer with artistic intuition without much experience of complex projects to date. Gropius brings and introduces to Breuer his systemic vision and holistic conception and Breuer brings the creative impulse to overcome the mechanical nature of pure rationalism.” [210]

Miguel Salve

From the outset, Gropius worked on architecture in the sense of a fine conception of each of the elements of an architectural object, but without isolating them from each other, the whole and its arts always connected to each other. The construction project for the Bauhaus building in Dessau takes on this holistic vision which, as Giulio Carlo Argan says:

“It would be a serious mistake to interpret these investigations in the sense of a new spirit and a machinist civilisation, since the mechanical fact is not assumed here as a formal example, as in the case of the ship-architecture or siloarchitecture dreamed of by Le Corbusier and by Léger's mechanistic painting, but in its quality as a principle of space and determination of form.”[211]

For Gropius, it is a question of creating civilising works in which: "*the relationship of architecture and art with the work of man will generate an aesthetic plenitude.”*[212]

The dominant idea is that of parts synthesized to create an artistic whole. “*He considers that an economic, efficient and aesthetically satisfying architecture derives from prefabricated elements, which are based on three fundamental conditions: the number of elements must be reduced to the minimum compatible with optimal flexibility; the materials, form and dimensions of the parts must facilitate and provide a rapid system towards a total unity; and the design of each individual component must meet the highest technical and aesthetic standards.*"[213]

In a similar approach, phenomenology wants to embrace the entirety of an architectural work. Pallasmaa develops this vision in his book: "*An architectural work is not appreciated as a series of isolated retinal images, but in its fully integrated material, bodily and spiritual essence.”*[214] In this way, the a posteriori analysis of a building via phenomenology will be all the more meaningful if, from the

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[209] BREUER, *Where do we stand ?,* 1935

[210] SALVE M., Op.cit. p.235, « *Si dans le bâtiment du Bauhaus à Dessau la composition est comprise comme mouvement conjoint et équilibre des masses et des volumes dans une géométrie purement orthogonale, mais avec une vocation circulaire autour de l'espace environnant et une vision même sphérique, dans le projet du Black Mountain College, ce mouvement articulaire devient plus libre et plus souple, éliminant toute rigidité des angles, établissant une frontalité vers le paysage conditionnée par des vues spécifiques, et substituant la vision sphérique à une vision spéculaire en introduisant les bâtiments dans le paysage lui-même. sur l'eau, un effet que Breuer propose également et à son projet d'appartements East River à New York en 1946. ”*

[211] ARGAN, G. C.. Walter Gropius y la Bauhaus. Trad. de Juan BARJA Y Juan Calatrava. ABADA EDITORES, Madrid, 2006.

[212] SALVE M., Ibid, p.235

[213] SALVE M., op.cit. p 245

[214] PALLASMAA J., Le regard des sens, Paris, éditions du Linteau, 2010, p.12

very beginning, the architect has worked on "*the unity that is the sum of its partial events, but it is not their numerical aggregation*".[215]

For Breuer, it is a question of understanding how to create standardisation in the basic unit and then creativity in the combinations. He expressed himself in these words:

> *"Standardisation is the outlet for economy, workability and reliability. Experiment is the outlet for progress, interest and fertility. I simply can not imagine one without other…The two polarities must be fused in the same work in order to satisfy basic human needs, physical and psychological."*[216]

Figure 19: Aluminium City Terrace

We can think for example of the Aluminium City Terrace, where each unit enters blocks organised non-geometrically to keep the sunshine in the dwellings, these presenting a fragility that makes them live in the landscape, in all its senses, a multiple approach that joins the phenomenological vision as expressed by Céline Thimonier and François del Valle: "*It is a question of identifying which keys to spatial design are available to the architect in order to look better, feel better and project better into the space he is designing in order to make a meaningful architecture. Pallasmaa, echoing Johann Wolfgang von Goethe, insists on the importance of thinking about architecture in terms of a holistic sensibility, saying that "an architecture that enhances life must address all the senses at once and merge the image of our self into our experience of the world*."[217]

The sculptural façades are cut in a dialogue from the outside in, from sight to touch, from perception to memory, all in the balance of an organised system. Strips joined together in series, layers, combinations or honeycombs, smooth or rough, textured or grooved, playing with sun and shade, are clearly not ornamental but motifs.

Between freedom and tradition: Breuer's intuition and experience

> "*We work very seriously, with great intensity and interest. But we also live with great intensity: discussions, friends, groups with their differences, even philosophical arguments. Holidays, love. He had little money. It had been more than two years at that time that I, for example, I don't know how I continued to survive. Our future and our career were not in our thoughts. Our thoughts were occupied with the work of the moment and the philosophy of the moment. In general, you could say that it was a happy and joyful community. But in addition, the members of the Bauhaus went from being bohemians to men belonging to a strong community*"[218]

Breuer attached great importance to experience. From his years at the Bauhaus, where Klee was one of his teachers, he retained the importance of constantly reworking his language, both in terms of the

[215] WHITEHEAD A, COMMINS S. & LINSCOTT, *The philosophers of science,* New York, 1954, p. 341

[216] BREUER, M., *Marcel Breuer Papers,* Archives of American Art, Smithsonian Institution, Washington, AAA, Must Architecture be Sterile ? conference to the Architectural League 18/10/1950, D.C., Collections Online/breumarc/Reel_5718/Frames_0975_0984

[217] THIMONIER C. et DEL VALLE, F-X. op.cit, pp 12-13

[218] BREUER, M., *interview Les Archives du XXsieme siecle, 30/03/1974. Marcel Breuer Papers, 1920-1986, AAA,* Archives of American Art, Smithsonian Institution, Washington, D.C., Collections Online/breumarc/Box 6-Reel-5718- frame 548

tensions involved, the balance to be found in the geometries and the dynamic components. In a lecture given in 1950[219], he expressed himself in these terms:

> *« But, not the applications of the "motives" are the real effect of Klee. You know by knowing his work that be never trusted his easy talents , that in search and with purpose he went down and back to zero point, that he succeeded in arranging the various facets of his life and work into one thoroughly genuine integral composition. Again and again he went back to this zero point (…)The courage to experiment at this own risk was a major force of his influence, especially of course in the Bauhaus, where he lived and worked from 1920 to 1932"*

The concept of process will prevail over the repetition of acquired systems and a fixed style. Breuer evolved in his projects, which, according to him, could not be analysed beforehand but required a method of exploration that was close to intuition, but which delved deeply into the problems encountered. Between his buildings of the 1930s, as the Fischer House and Studio, the UNESCO building in Paris and the library in Atlanta, architectural techniques and spatial and artistic research were constantly accompanied by the essential factor of inspiration. In this he distanced himself from some of his contemporaries in the Bauhaus, where the tendency to systematise became too doctrinaire, whereas Breuer, like Klee, was convinced by "*the light of the intellect that fades mercilessly*".[220]

Breuer had an interpretation of the past that was free of certain modernist assertions, particularly when he expressed himself fervently in relation to vernacular architecture in these terms:

> *"It may perhaps, seem paradoxital to establish a parallel between certain aspects of vernacular architecture or national art, and the Modern Movement. All the same, it is interesting to see that these two diametrically opposed tendencies have two characteristics in common: the impersonal character of their forms; and a tendency to develop along typical, rational lines that are unaffected by passing fashions (…) It is their uninterrupted transmission through local and family associations which conditions their development and ultimately standardizes them as type-forms. "*[221]

It is also through a diversion into the notion of experience that we can approach his vision of vernacular architecture.[222] For him it meant constant experimentation and learning from one's mistakes, as Breuer did when he designed furniture. He said so himself:

> *"I Believe that critical re-examination and expiriment is just as important. We stand on two legs, one for proved and experienced standards (this leg being the sterile one), and on the other for experimentation, it being the dynamic and adventurous one. It is obviously not simple to balance ourselves on these two legs, but this is what I feel we have to do "*[223]

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[219] BREUER M., Lecture for symposium on Paul Klee. Museum of Modern Art, 1950. *Marcel Breuer Papers* 1920-1986. AAA, Archives of American Art, Smithsonian Institution, Washington, D.C., Collections Online/breumarc/Box 6-Reel 5718-Frame 0962

[220] KLEE, Paul. Schöpferische Konfession. Citado en WICK Rainer, Pedagogía de la Bauhaus. p. 211.

[221] BREUER M., *Where do we stand, 1935*

[222] Breuer's work in the United States continued to explore the important relationship between the authenticities of regional vernacular design in collaboration with the growing momentum of modernism. This deliberate balance of opposites is linked to his Bauhaus training. Early examples of these houses included the Hagerty House, circa 1938, the Gropius House, circa 1938, and his own Breuer House, circa 1939, all co-written with Gropius. In these houses Breuer adopted the light American balloon frame construction and contrasted it with the elements he had inherited throughout his journey: heavy fieldstone walls and the modernist features of floating and cantilevered forms. This synthesis of varied influences created houses that continue to have enduring appeal. To be rewritten if interesting to keep.

[223] BREUER M., *Must Architecture be Sterile?. Marcel Breuer Papers,* Archives of American Art, Smithsonian Institution, Washington, AAA, Must Architecture be Sterile ? conference to the Architectural League 18/10/1950, D.C., Collections Online/breumarc/Reel_5718/Frames_0975_0984

As Miguel Salvé argues in his thesis on Breuer, "*the comparison used is very accurate from the point of view of a Modernity in constant evolution and movement, which Breuer defends and which must look to a tradition understood as the bases and foundation of a human architecture and for the human being on which to lean firmly, while new techniques, new materials and social changes provoke advancement and adventure using the ingredients of space, form, function and technique. Breuer sees the past as a way of learning without reproducing. As he expressed it in his text "Where do we stand*" in 1935:

> *"What we believe is what we have perceived, experienced, thought , proved and calculated for ourselves. At this point I should like to consider traditionalism for a movement. And by tradition, I do not mean the unconscious continuance and growth of a nation's culture generation by generation, but a conscious dependence of the immediate past. That the type of men who are described as modern architect have the sincerest admiration and love for genuine national art, for old peasant houses as for the masterpieces of the great epochs in art. Here is something from wich we can learn, though not with a view to imitation. For us the attempt to building a national tradition for an old world style would be inadequate and insincere."*[224]

His creation of the Chamberlain Cottage has led the architectural theorist and architect Peter Blake to say that:

> *"Even more important than the extraordinary delicacy of this structure is the complete and definitive assimilation in it of the tradition of New England building to the demands of the new architecture. This cottage is an organic concept; its materials are no longer used consciously, in abstract patterns. They are used with the utmost ease and with a sure mastery of technique. Like some of the earlier houses, it is not a fragile product of industrialism. Its 'human contact' surfaces are warm in colour and soft in texture, fully satisfying the demands of 'human nature".* [225]

Not only does Breuer reappropriate ancient processes, but he reuses them by adding a humanistic and textual approach. This conceptualisation of textures, structures and materials will be a constant throughout his career.

Beyond simple artistic intuition, the key word of the Bauhaus in its desire to link Art and Technique, Breuer developed, like other architects but with impressive virtuosity, applied intuition in construction techniques such as reinforced concrete. Breuer had worked on laminated plywood, which proved its strength by placing the sheets in alternating orientations, which would allow him to draw parallels with reinforced concrete. The discovery with Nervi, "*the engineer-artist"* as he called him[226], of all the possibilities offered by reinforced concrete would be for him a means of exercising his inspiration with this material which was just waiting to be experimented with, even if it required a firm discipline in the study of its physical constraints. For the Italian art critic Giulio Carlo Argan, the models proposed by Nervi were based on formal hypotheses emanating from experiments to be surpassed.[227] Again, experience and intuition, intimately linked, combined the whole process in Breuer: from his Wassily chair to the Whitney Museum, from the handlebars of his bicycle to the monumental cantilever, a path of thought was launched, a personal language asserted itself.

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[224] BREUER M., Where do we stand? 1935
[225] BLAKE P., *Marcel Breuer : Architecte et Designer,* 1949, pp.71-72.
[226] BREUER, M., *The artist in the world of Sciences,* conference Symposium of Sciences university Saint Jonh, 1967, in PAPACHRISTOU, T. *Marcel Breuer.* New Buildings and projects. Preager Publishers, New York, 1970, pp. 17-21.
[227] ARGAN, Giulio Carlo. Pier Luigi Nervi. Il Balcone, Milano 1955, p. 13

Nervi saw in the experiments with concrete, forces and thrusts, solidities and weaknesses, interactions and balances to be achieved *"a new synthesis of technology and art in order to continue the unfinished miracle of the Gothic and replace the balance achieved by masses of masonry with the balance of forces created by the interaction of the thrust and counter-thrust of fine ribs built with very good materials*"[228]. Breuer took possession of this technique by giving it a structural and integrated scope.

The phenomenological approach identifies the experimental approach as essential. It is the pencil that starts from the body, from the architect's hand, and where his hand is the bridge between his thought and his drawing. And this work of going back and forth between what has been seen, understood, experienced, lodged in the mind, and which, starting again from the body and the hand, recreates. Thus, Breuer will endeavour to make intuition a complement to his experiences by creating places whose visual, tectonic and material aspects inscribe territories that define architectural experiences.

Art in action: contrasts and collages

> *"I now come to the third dominant impulse of the Modern Movement: the relation of unbroken elements to one another-contrast."*[229]
>
> Marcel Breuer

Breuer arrived at the Bauhaus with the intention of becoming a painter or sculptor. Johannes Itten was his teacher during the first years of his apprenticeship. Itten was a demanding but innovative teacher: collages of various materials, guessing as to the materials just touched, abstract forms to be produced, rhythmic repetition and automatism, emphasis on contrasts. Breuer always kept the contrasts Itten had taught him as essential, and in many ways. As Miguel Salvé develops in his thesis on the architect, these are not only the light-dark contrasts with the three-dimensionality of the prefabricated concrete façades or in the contrasts between textures, but also the transparent-opaque contrasts, the horizontal-vertical or static-dynamic contrasts, but also the body-empty contrast. Itten, as Salvé explains, would have started from a sentence of Lao-tse: "*Vessels are made of clay, but the empty space inside is the essence of the vessel*" to explain the meaning of emptiness which is the very essence of a project and cannot be sacrificed. This phrase was chosen by Breuer in his book Sun and Shadow, published in 1956[230], and throughout his career as an architect he developed this sensitive approach to space, as he explains in the same book: *"The nature of the space within or between our buildings is in fact the reality of architecture."*[231]

At the same time, as we have already seen with the Bauhaus, art and technique are never far apart. From Kandinsky, Breuer retains that art needs a grammar and goes far beyond mere expression, but flourishes in the process both philosophically and humanly. Peter Blake says that Breuer "*argued that philosophy and architecture have much in common, since both disciplines concern the art of living*"[232]. However, the term philosophy refers more to a language of forms that could be described as a metalanguage with its grammar and forms in constant relationship which, far from being scattered details, form a whole endowed with meaning. One can think of UNESCO with the idea of "spatial structure" and its prefabricated and self-supporting elements. But a whole far from a systematic uniformity, a meaningful whole. As said Peter Blake:

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[228] NERVI, *conférences Charles Eliot Norton à Harvard, 1962.* MOHOLY-NAGY L., La nouvelle vision. Principes basiques du Bauhaus, éditions Infinito, Buenos Aires, 5a édition, 2008, p. 78.
[229] BREUER, M. Marcel Breuer: Sun and Shadow. The Philosophy of and Architect, p.60.
[230] BREUER, M. Ibid
[231] BREUER M., Ibid., p.65
[232] BLAKE, P., préface du livre de Marcel Breuer. *Sun and Shadow.* Dodd, Mead & Company, New York 1955, p. 9

"To be entirely satisfactory, there must be a unity between the practical and the aesthetic. The practical, as we have seen, is suggested by the material of the spatial elements: logic determines the succession and size of spaces. The exact rhythm of spatial successions is art in architecture."[233]

Nervi, with whom Breuer worked on the UNESCO project, developed a balance of forms and structures with concrete, just as he did with the handlebars of the bicycle for the Wassily chair. As Giedion points out, everyone knew about this material[234], but only he knew how to use it, develop it and generalise it. And in the later works, we find the same concern for structural space where forms shape space. As Breuer explained:

"Sculpture and architecture should not mean in this talk a three-dimensional decoration of a building but the three-dimensional nature of the whole and of its organic details, -- the sun and shadow of its modulation, the contours of its structure, the surface and texture of its material."[235]

« Technology, rather than endangering the artist, fuses him with the engineer, with the scientist. "[236]*.* At the Saint-John library, concrete sculpture creates space and "[237].With *the rebirth of solids next to glass walls, with supports which are substantial in material but not negligent in structural logic…a three-dimensional modulation of architecture is again in view; the brother or lover of our pure space. Althought not resting on lions or acanthus leaves, space itself is again sculpture into which one enters "*[238]*.* As Jack Taylor explains: « However, at the Jonh's Abbey, Breuer also utilized his Bauhaus educational cues to incorporate a textural richness that Nervi often looked to avoid in favour of structural smoothness. Breuer was able to build upon Nervi's structural logic with a modernist collage of elements, most notably the exterior banner and honeycomb front façade that transformed the project into an ethereal modernist creation".[239] The commissioners felt that the bold engineering was perfectly in keeping with the liturgical understanding.

As Itten explained in the early years of Breuer's training at the Bauhaus: "*The material represents the utilitarian. Non-matter represents the essence of things*[240]*".* Miguel Salvé un his thesis concludes *"His attitude to architecture is one that unifies concepts and is based on the human experience of the senses. Breuer understands architecture as an experience of the senses, received by the totality of the human body, not only via a visual aesthetic, but also a physical and psychological aesthetic"*[241]. At the Whitney Museum, for example, the threshold is a void open to the street but enveloped by the building that invites you in.

"What we demand from art is CLARITY, and this demand could never be met if artists used individual media (materials and forms, which have been reduced to their elementary level). Clarity can only come from the discipline of media, and this discipline leads to the generalisation of media. The generalisation of media leads to the elementary... The new

[233] BLAKE, P, op.cit., p. 60
[234] GIEDION, S.. *Mechanization Takes Command: A Contribution to Anonymous History*. University of Minnesota Press, 2014. Oxford University Press, 1948.
[235] BREUER M, Marcel Breuer Papers, *History of Modern Architecture,* 1920-1986. AAA, Online/breumarc/Box 7-Reel 5718-Frames 0885
[236] Cité dans TAYLOR J., *Marcel Breuer. The functionalist sculptor*, [online] https://www.jaketaylorarchitecture.com/marcel-breuer-the-functionalist-sculptor
[237] BREUER M., Marcel Breuer's comments at the lecture "Matter and Intrisic Form, University of Michigan, Archives of American Art, Smithsonian Institution, Washington, DC.Box 7-Reel 5718-Frame 1092-1183
[238] BREUER M., *Matter and Intrinsic Form: The Second Annual Reed and Barton Design Lecture* (Ann Arbor: University of Michigan, 1963), final page of printed pamphlet
[239] TAYLOR J., Op.cit.
[240] ITTEN, J., *Design and Form.* The Basic Course at the Bauhaus andlater, p.13.
[241] SALVE M., Op.cit. p. 57

creation of forms follows from the elementary means. The various arts are linked in such a way that they are able to develop the maximum expressive power (elementary)"[242]

One of Breuer's other great reflections concerns his contrasts. Again, it does not come from nowhere. Again, teaching and experience form an ideal combination to work on this question. Breuer said:

"His interest in contrast, made evident by his 1955 book Sun and Shadow becomes clear as the scale of his built projects contrasts intimate spatial moments established by built-in or even free-standing fixtures. Contrasts aside, Breuer's utilization of built-in wall fixtures in his private residences and his public work represents an inherent desire to conceive of interiors as an "interconnected whole"[243]

His influences come from the Bauhaus in his ongoing desire to create languages, "apparent conflicts" as he called them, which complement each other without merging in the sense of Gropius's synthetic vision and which advance in a never-fixed but rhythmic process. We also find the preliminary course at the Bauhaus on textures and juxtapositions, but also the one on gestalt to learn about fabrication and not just to fly over these aspects, which allows him to free himself from composition and to discover the physical laws in depth. He will remain a master of contrasts between open and closed, mass and lightness, solidity and transparency. As again, Miguel Salvé puts it so well: "*In this research, Breuer advocates a dialectic of architecture, one that stages the confrontation of opposites to bring them under the control of creative unity*"[244]. One can think, for example, of the La Gaude complex where the concrete panels on the façade far exceed Le Corbusier's brise-soleil but integrate the technical constraints and create space.

Thus, the question of contrasts will always be fundamental for Breuer. It affects many of his conceptual aspects and is one of the three pillars of Modernism, along with the refusal of imitated tradition and sincerity or clarity. For Breuer:

"These elements receive different forms as a natural consequence of their different structure. Their complete individuality is intended to establish a kind of balance which seems to me a far more vital one than the purely superficial "harmony" which can be realized by adopting either a formal or a structural common denominator."

[242] BREUER, Marcel. Marcel Breuer: Sun and Shadow. The Philosophy of and Architect. p. 64.
[243] BACK J., *Modern Furniture and its Capacity for Space-Making,* Graphic Essay for Auburn University's History and Theory of Interior Architecture, Professor Kevin Moore, Summer 2013, p.22, [online] https://issuu.com/jeffreybak/docs/finalgraphicessay
[244] SALVE M., p.403

Here we find the desire to move away from a uniformly accepted vision that would be adaptable everywhere and all the time. But the notion of contrast also covers other aspects of Breuer's architectural design. The title of his book, "Sun and Shadow", not "or" shadow, instils architectural spaces that, from the smallest detail to the monumentality of concrete (or rather their constructive harmony of space through form and structure), unify. He starts from the smallest formal element and makes them interact until the total space to unify and contextualise his places: a metalanguage that says: "*By knowing what is there, we recognise the essence of what is not*"[245]. Everything is there in a dynamic of interdependencies where expression exists only in the sense given to the dialogue between each element.

Figure 20: Marcel Breuer, Central Library of Atlanta,

These interdependencies are a real language that Céline Tournette and François-Xavier Del Vall develop in their aforementioned book entitled "Designing architecture"[246] by asking the following question: "If the architect takes the path of phenomenology, would his task not be, in the first instance, to allow us to associate images, to construct in us a poetics of space such as Bachelard praises? The answer Breuer gives us in his projects is a clear representation of this. For even though he can be harsh and demanding in his architectural objects, as if he felt that the world would not wait and that changes had to be made immediately, he is close to Nervi who states: "*To approach the mysterious laws of nature with modest aspirations and to try to interpret and master them by obeying them, is the only way to put its majestic eternity at the service of our limited and contingent objectives. This, in itself, has a profound poetry that can be translated into forms of artistic and aesthetic expression of the highest quality*."[247]

A multi-sensorial space

The Dadaist artist Raoul Hausmann exclaimed: "*What do we know about our senses, about time and space? Let us conquer, by all means, the sensory techniques and the new articulations!*"[248] Hausmann proposed to engage in new forms of correspondence between sound and light, but also and above all invited to detach oneself from all traditional notions in order to stick to the new technical discoveries and apply them in art.

For Breuer, man and all his perceptions are central to planning. Whether it is the tube for furniture, stone in interpretations of the vernacular or wood as a skin with the balloon frame and last but not least the sculptural richness he will give to concrete, Breuer transmits the emotional feelings of the textures worked on at the Bauhaus in his constructions. But in addition, there is this obsession with the space-structure relationship with the objective of bringing matter and space into existence in a single moment. Everything leads to this: from the tube to the plywood, from the metal structure of the Sun Tower (1929) to the balloon framework at Chamberlain. Every building must have a material

[245] BLAKE, Peter. Marcel Breuer. Sun and Shadow. Dodd, Mead & Company, New York 1955, p. 60.
[246] THIMONIER C. et DEL VALLE, F-X. ibid,
[247] NERVI VI, Pier Luigi. Is architecture moving towards unchangeable forms? En KEPES, Gyorgy (ed.). Structure in Art. Visión + Value Series. George Braziller, New York, 1965, p. 101.
[248] HAUSMANN R., 1922, ed. 2005, p.12, *in* BRANDI E., *Théories et pratiques sensorielles du design, in Design de l'expérience sensible. Une philosophie des sens pour le design et la création,* Thèse de doctorat ENSCi-EHESS, PSL, [online], https://www.researchgate.net/publication/357831938_06_THEORIES_ET_PRATIQUES_SENSORIELLES_DU_DESIGN

that transmits force and unifies the space, as in the UNESCO conference hall, for example, where the construction is as if in one piece, with the folded sheet of the façade smoothing the sloping roof. He explained it in these words that:

> *"There are two different levels: the first is that of the material itself, "its intrinsic characteristics which are used in the search for its own expression", and the second is that of the structure as a whole, an order imposed by the architect-builder, using the technological resources of the time and "the creative roots of the builder".*[249]

The notion of space will always be a foundation for Breuer, but like the vase mentioned above, it must be conceived from several angles, like the Japanese culture and the concept of "Ma", where space is a relationship. If in music the pause creates the rhythm and silence in a score. According to Tadao Ando, "*in architecture there are two kinds of Ma. One concerns individuals, the other spaces. The one where individuals dialogue and the one that develops from these dialogues. For example, the corridor of a kindergarten or the engawa of the usual houses. [...] And therefore also the ma as a room. Two kinds of ma that are very important spaces. It is through the ma that you meet people."* [250]

Figure 21: Estate of László Moholy-Nagy / Artists Rights Society (ARS), New York

The light must also be controlled without flooding the interior through unreflected glass walls. Breuer followed the lectures of Moholy-Nagy, who said:

"Ever since the intention of photography, painting has advanced by logical stages of development "from pigment to light". We have now reached the stage when it should be possible to discard brush and pigment and to "paint" by means of light self ".[251]

Breuer wanted the movements of the sun to be controlled and the architectural surfaces to reflect this change, modelling himself on what he had learnt from Moholy-Nagy about light-space and his sculpture the Modulator-Light-Space.

Breuer's tactile eye, as Salvé[252] says, is obviously essential in his work on concrete. Without going into the details of the whole evolution[253] of the work on reinforced concrete and its multiple expressions in his works, we can say that Breuer made it his favourite material. The Breuer-Nervi collaboration that took place in the UNESCO in Paris launched Breuer's career and also boosted his experiments with reinforced concrete[254]. Thinner panels of varying textures, where Breuer, Nervi and Zehrfuss (the team in charge of UNESCO), under the more than watchful eye of Le Corbusier, "*explored how a concrete exoskeleton could be boldly expressive and functional - an*

[249] BREUER, M., Marcel Breuer's comments at the lecture "Matter and Intrisic Form, University of Michigan, Archives of American Art, Smithsonian Institution, Washington, DC.Box 7-Reel 5718-Frame 1092-1183

[250] NASSERI Y., *Transmettre des modes de pensées pour l'éternité,* Tadao Ando le défi, Centre Pompidou – Paris. 2018, [online] https://www.kimamori.fr/expos-et-musees/tadao-ando-le-defi-centre-pompidou-paris/

[251] KIRKPATRICK D., *Time and Space in the Work of Laszlo Moholy-Nagy*, Hungarian studies review, Vol 15, n° 1, 1988, p. 65

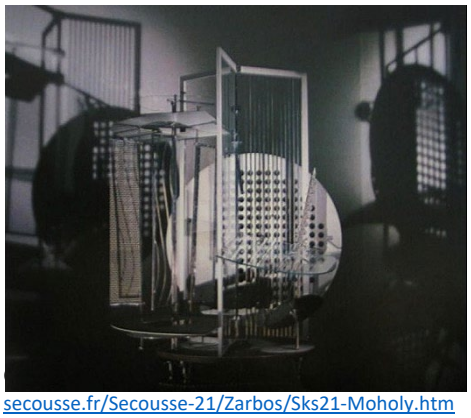
[252] SALVE, op.cit. p.405

[253] For a more complete approach: Lucie Paret's thesis [online:] https://issuu.com/lucieparet/docs/paret_lucie_-_m__moire_-_facade_bre

[254] "As Antonio Juárez explains in his book on Kahn, Robert Le Ricolais' approach to form is a research in which he rejects the image and the usual perception, eliminating the subjective, the circumstantial and the accessory. On the contrary, Nervi's work is based on the visibility of forms and the perception of tensions, with an aesthetic base and an experimental process typical of modernity, developing a constructive geometry capable of uniting harmony and matter in the structure. JUAREZ, Antonio. El universo imaginario de Louis Kahn. Colección Arquitesis no 20. Fundación Caja de Arquitectos, Barcelona2006, pp. 33-36.

intentional contrast to the steel-framed skyscrapers of Chicago or the traditional American balloon frame"[255].

The exterior-interior relationship is also at work, always with a desire for uniqueness, and concrete plays an increasingly prominent role. The sculptural facades are cut out in a dialogue from the outside to the inside, from sight to touch, from perception to memories, all in the balance of an organised system. The strips united in series, in layers, in combinations or in honeycombs, smooth or rough, textured or grooved, playing with sun and shadow, are obviously not ornamental but motifs.


secousse.fr/Secousse-21/Zarbos/Sks21-Moholy.htm

Once again, phenomenology is not far away in Breuer's. Our experience of space is obviously visual, but moisture, sounds, transparencies, contrasts are also released, all of which build up an 'image' of what surrounds us and in which memories, desires, anxiety, or security are mixed.[256]

Sincerity and humanity

"The principle of clarity, as we understand it, expresses itself in the technical and economic fields of architecture, through emphasis on structural laws and practical functions; and in the aesthetic field by simplicity and a renunciation of all irrational forms. The New Architecture might be compared to a crystalline structure in process of formation. Its forms correspond to human laws and functions, which are other than those of nature or organic bodies. In its more immediate conception this New Architecture of ours is the "container" of men's domiciles, the orbit of their lives. To sum up again: clarity to us means the definite expression of the purpose of a building and a sincere expression of its structure." [257]

Marcel Breuer

In the early 1950s, Breuer travelled between Paris and Minnesota. Between the construction of UNESCO and the largest Benedictine abbey in the world in the United States. For this project, it was the use of materials in the sense of clarity, simplicity, durability and honesty that convinced the monks to entrust him with the construction of their monastery.

Breuer knows that if our sight first, our hearing second, but almost at the same time, and our hapticity are witnesses to the discovery of a place, these must be in accordance with their function, clear in their meaning, but also not cheating, not crushing. Yet the walls and ceilings, which are often unmediated, must be felt to the extent that they are understood. And emotional satisfaction requires sincerity, which in Breuer's view has the necessary connotation of clarity. Breuer explained this approach in 1934 by insisting on the principle of this clarity, which for him must be aimed at eliminating the surrounding chaos through simple and pure objects.

To grasp the human phenomenon means to leave pure objectivity and to deal with the irrationality that is subjectivity. If one resorts to the hermeneutic returns in Heidegger when he searches for the authentic essence of human dwelling through the phenomenology of place, the bodily dwelling of

[255] BREUER M., *The functionalist sculptor,* [online] https://www.jaketaylorarchitecture.com/marcel-breuer-the-functionalist-sculptor
[256] CRUNELLE M., L'architecture et nos sens, Brussels University Press, p.1
[257] BREUER M., *Where do we stand ?,* 1935

man and the socio-historical aspects of human dwelling, one can grasp the essential question: "how to search for the essence of dwelling according to a humanistic approach"?

And it is within this framework of diversified languages that Breuer developed a sensitive, material and phenomenological approach which, as we have seen, was to adapt the functionalist logic to projects that privileged the sensitive relationship between man and his environment.

However, it is important here to say a word about brutalism. What are we talking about? With the Second World War over, the idea of reproducing political or ideological architecture was rejected: both the communists and the fascists had used architecture and now the desire was to concentrate on rigour, the visible regularity of the plan and the clear display of materials[258]. At first, mass production and consumption were questioned and then the pragmatism of the American power to show won out. This is why some consider Breuer's Whitney Museum not to be Brutalist, for although it is considered Brutalist, the museum lies, according to the purists, because [259]"*the half-concrete, half-steel structure of the cantilevers is actually concealed behind a granite veneer. A formidable building, but one that illustrates the transition between two eras, that of a philosophical Brutalism (of the Smithsons) and the pragmatic one of Breuer*". In the end, brutalism, as it soon came to be known, took up the rejections embodied in modernism[260] in an even more brutal way, but it was also more quickly overtaken by the real politick.

However, the aesthetic aspect of brutalism stems directly from the material character - itself imposed without further work. Brutalism emphasised that materials should reflect the truth of their materiality, a goal that Breuer wanted to follow. For him that Brutalist construction should have meaning, i.e. a social value, a path that Breuer also tried to follow, particularly in the monastery of Saint John Collegeville Abbey in Minnesota. However, it can also be considered that the notion of time was paramount, in the sense of era, as Brutalist buildings represented a visual image that was tamed by a generation that saw the brutality of the world in them, and that the building then acquired notoriety in terms of its image.

Conclusion

As we have seen, Breuer's conceptual work is based on holistic, intuitive, contrasting, experiential and sincere dimensions. Independently of the modernist paradigm, he developed a sensitive vision of architecture over a period of several decades that did not deny functionalism, standardisation and the rejection of copies of the past, but rather reinvented innovative architectures from these paradigms. His architecture was in no way intended to be stylistic, but he defines modern architecture more as an instinct than as a trend based on three principles: the direct approach (intuition), clarity (to eliminate chaos), and truthful elements by introducing a social aspect into his architectural concept. As Sandé explains, Breuer's architecture is "*an experience for the senses, the visual aspects of the impression of light and shadow and the tactile aspects accompanied by a tectonic vision. Of an architecture on a human scale, where space, material, light and shadow, structure, function and form*

[258] Despite its short life as an identifiable movement, Brutalism has come to occupy a central place in the redefinition of twentieth-century architectural history. The first Brutalist work to be built was Hunstanton High School in Norfolk, England (Peter and Alison Smithson, 1954), which employed what at first appeared to be a Miesian aesthetic of pure structural clarity. In particular, two works by the Franco-Swiss architect Le Corbusier - the Unité d'habitation (Marseille, 1946-1952) and the Maisons Jaoul (Neuilly, 1954) - played a major role in establishing the Brutalist model. http://architecture-history.org/schools/BRUTALISM.html

[259] SAUBOY B., *Le Brutalisme en question, Mémoire, ENSA Bordeaux, 2014,* [online] https://issuu.com/borissauboy/docs/memoire_boris_sauboy_2.0

[260] Despite its radical appearance, Brutalism could claim, if not legitimacy, at least an ancestry in pre-World War II modernism. The early work of Hugo Haering (Farm Building, Garkau, Germany, 1925) and Antonio Sant'Elia (unbuilt Futurist projects, Italy, c. 1911-14) were recognised sources. Before them, the German architects Peter Behrens, Bruno Taut and Hans Poelzig could be counted among the precursors.

merge into an authentic and personal work"[261]. As he said in a lecture Form Funktion given at the Bauhaus as early as 1923:

> *"We have seen that some technological products - exclusively engineering - are more beautiful than some works of art. The artist says "art is wonderful, technology is wonderful, both together must be doubly wonderful". So: "art and technology, a new unity. So far so good. We have to go further, to reach this unity, the artist has to become a technician."*[262]

[261] SALVE M., op.cit., p.21

[262] BREUER, Marcel. Form Funktion. Junge Menschen: Monatshefte für Politic, Kunst, Literatur unde Leben, Noviembre 1924, pg. 191, Reprint On the Reorganization of the Bauhaus in JONES, Cranston. Marcel Breuer: Buildings and Projects, 1921-1961, Preager, New York, 1962, pp. 261-62.

Breuer's View on the Context

"The systemic view accepts the complexity that exceeds us, helps us to "see" the whole, to appreciate its interactions and the energy present and to establish the characteristics that are specific to the whole and distinctive that do not exist in the parts. This type of vision implies considering the environment and the real world as a set of complex and interrelated entities, of a set of organisms and not just as a huge grouping of simple and linear phenomena, and also implies a double perception, that of each phenomenon or each of the parts and that of the whole as an organised complexity in itself, since absolute independence would also imply the absolute absence of exchanges with the environment."

Miguel Salve[263]

Like the architectural concept, the architectural context involves multiple and varied theoretical studies. As we saw when we addressed the question for Aalto, the context represents a sort of indefintion in the multiplicity of spatial and temporal approaches that it traverses. Spatial, obviously, but also temporal because, as Breuer says so well:

> *"We schieve our forms through our present time mentality, and as we express this mentality in materials, we study the technical possibilities and materials of our own age "*[264]

The intertwining of concept and context was, as we have also seen, developed by Bernard Tschumi when he declared that: "*the context is always the result of an interpretation (...), and that it can be historical, geographical, cultural, political or economic*"[265]. The relationship between a building and its context is a necessary issue to understand how architecture can appropriate this multiple contextual singularity. Architecture, as a mesological discipline that deals in an interdisciplinary way with the reactions between man and his environment, is a valuable mediation tool.

The context as envisaged by Marcel Breuer, half a century after Aalto, has moved away from the genius loci of the man who appropriates an existing environment in an attempt to bring together some of the precepts of the Bauhaus in a systemic and systematic vision. Breuer's approach is less about an "*emotional relationship that brings our inner state and our surroundings into unison*"[266]. He does not start from man: he starts from all men together in interrelation, in a great vision with a public dimension capable of transmitting symbolic, cultural and historical values, an approach that Professor Josep Montaner describes when he says: "*Architecture must assume its public dimension and use metaphor, symbol and history to connect with people*"[267].

A systemic vision close to the holistic vision developed in the 1920s, notably with J.-C. Smuts in his book "*Holism and Evolution*", where he stated: "*In all the previous cases of wholes, we have nowhere been able to argue from the parts of the whole. Compared to its parts, the whole constituted by them is something quite different, something creatively new, as we have seen. Creative evolution synthesizes from the parts a new entity not only different from them, but quite transcending them. That is essence of a whole. It is always transcendent its to parts, and its character cannot be inferred from the characters of its parts ".*[268]

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[263] SALVE M., op.cit., p.227
[264] BREUER, M., Defending Modern Architecture. Conference, Marcel Breuer Papers, 1920-1986. AAA, Box 7-Reel 5718-Frame 0879
[265] TSCHUMI B., *Event Cities 3, Concept vs. Contexte vs. Content,* The MIT Press, 2005, p.1
[266] ZUMTHOR P., *Environnements architecturaux. Ce qui m'entoure,* Basel, Boston, Berlin, Birkhaüser, 2008, p.17
[267] MONTANER, J. M., *Après les Mouvement moderne. Architecture de la seconde moitié du XXème siècle, Gustavo* Gili, Barcelone, 2ème Edition 1995, p. 152.
[268] SMUTS J., *Holism and Evolution,* Macmillan And Co Ldt., Londres, 1926, p. 107

The complementarity between this holistic vision which involves the environment as a total whole implies a total vision of the entities which compose it in interdependence, and a vision of each part as well, since they each exist *only* because they are linked together.

We will see that by taking up the titles of the chapters developed in the contextualisation of the concept, the conceptualisation of context takes on a very prominent meaning in Breuer's work. Whether through the importance given to the holistic dimension, intuition and experience, the foundations of art, sincerity or language, Breuer used metaphor, history, sensory experiences, languages, betting on sobriety, simplicity, balance and efficiency of forms.

The Holistic Dimension

If we go back to the first definition of the term 'holistic', we realise that it fits perfectly with Breuer's vision. Jan Christian Smuts, a South African statesman, defined it for the first time in his book *"Holism and Evolution"*, which we mentioned a few lines earlier, in the following terms: *« Holisme is the tendancy in nature to form wholes that are greater than sum of the parts through creative evolutioin "*[269].The influence of Gropius is of significant importance to Breuer here. When Gropius presents the houses of the directors of the Bauhaus in Dessau with their co-ordination and interrelation of the organic elements in issue no. 12 of the Bauhausbücher[270], he sums up his thinking with a vision of interdependent, sequential, and functional parts in search of a single harmonious goal. As Gropius says: "*All my efforts can only be understood when they are seen as a coordinated effort to promote 'unity in diversity' in art, architecture, and urbanism*"[271]. And he adds: "*The architect must be a coordinator, a visionary, and a professional whose task is to unify the social, technical, economic and artistic problems arising in connection with the building*"[272]. A holistic vision became essential: « *Bayer (ndlr directeur au Bauhaus) intergrated economic, technical, psychological and organisational aspects in a holistic approach, thus reacting to contemporary developments in scientific advertising "*[273]

Breuer will always work in this sense, considering the contexts he will be confronted with as complex and interdependent entities to be linked in totality with architectural complexity. The houses designed with Gropius at the beginning of his career are often mentioned, but Breuer never abandoned this research. One example is the Sayer villa, which dates from 1972 and demonstrates the research carried out by Breuer and his partner Mario Jossa on the harmony between the construction and its environment in the transparent walls and its roof made of a double paraboloid in prestressed concrete. An approach that corresponds to the reactions of man and his environment, as Tschumi mentioned when he spokes of contextualising the concept and conceptualising the context. And Breuer joins him all the more in that he accepts that this systemic vision is a complexity that goes beyond us, as when Tschumi speaks of the fact that the context is always the product of an interpretation. Breuer does not claim to have a perfect and definitive answer through a construction, because that would only be a rigid formalism, but it is a question of trying to reach a conceptual and contextual harmony that is definitive. Unlike Gropius, who imagined an evolutionary standardisation, Breuer wanted definitive spaces. As he explains:

> *"Many prefabrication principles for houses are based on standard and interchangeable panels to allow many combinations. The "Yankee Portables" follow another idea, which is to design*

[269] SMUTS J., *Holism and Evolution*, Macmillan & Co Ldt, Londres,1926, 362 p.

[270] The Bauhausbücher were based on Walter Gropius' architectural lectures at the Bauhaus in the early 1920s, and these textbooks offered an international perspective on architecture

[271] HERBERT, G. The synthetic visioon of Walter Gropius. Witwatersrand University Press, Johannes- burg, Sudafrica, 1959., p. vii

[272] GROPIUS W., Architecture at Harvard University. Architectural Record, Mayo 1937 pp.8-11

[273] SIEBENBRODT M.& SCHÖBE L, Bauhaus 1919-1933, Weimar, Dessau, Berlin, [online] https://www.academia.edu/79845887/Bauhaus_1919_1933_Weimar_Dessau_Berlin_Michael_Siebenbrodt_Lutz_Schöbe_z_lib_org_

the types with a specific planimetry and to manufacture their components as economically as possible (without paying attention to the interchangeability of the elements). The economic advantage of this principle is that it is not necessary to set tolerances for a large number of combinations that may never occur. The house will not be too big or too small, it will be as it should be."[274]

Between freedom and convention: intuition and experience in Breuer's work

"The modern world has no tradition for its eight-hour day, its electric light, its central heating, its water supply, its liner, or for any of its technical methods. One can roundly damn the whole of our age; one can commiserate with, or dissociated oneself from, or hope to transform the men and women who have lost their mental equilibrium in the vortex of modern life-but I do not believe that decorate homes with traditional gable and dormers help them in the least. On the contrary, this only widens the gulf between appearance and reality and removes them still further from that ideal equilibrium which is, or should be, the ultimate object of all thought and action."[275]

Marcel Breuer

When Breuer left England in 1937 and followed Gropius to the United States, he taught at Harvard University and devoted himself almost exclusively to residential architecture, in which he integrated his ideas into an American context by working on regional craftsmanship. It is clear that it is not at all a question of copying what exists, but of using materials, culture and past experience as well as the will to look to the future to develop a world view in architecture. Gropius said at the time: "*Whenever man imagined he had found "eternal beauty", he fell back into imitation and stagnation. True tradition is the result of constant growth. Its quality must be dynamic, not static, to serve as an inexhaustible stimulus to man"*[276].

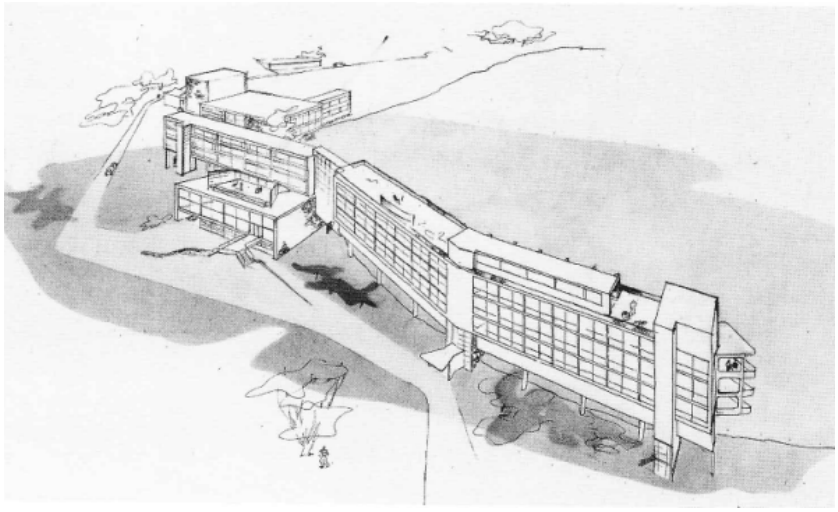
Breuer and Gropius founded a joint agency, and their complementary skills soon made them widely known. In 1941, they were commissioned by the Federal Works Agency (FWA) to build a workers' colony in New Kensington, Pennsylvania. An interesting correspondence between the director of the FWA shows the specific involvement of Breuer, who was no slavish pupil of Gropius, in what was soon to be called Aluminium City Terrace. The sloping typographic configuration reveals a vision that is less territorial than the one Gropius had developed at Desseau a few years earlier, but also essentially based on prefabrication. It is no longer a question of building houses with spaces seen as unique territories, but the framework, doors, windows and profiles are standardised. As Giulio Argan says: "*One of the contributions of Breuer's specificity in the New Kensington project is that the structures are nothing more than fragile and mobile diaphragms woven into the space and dwellings laid down - in the lightness and provisional character of the hut or the house on stilts, architecture is understood here as a way of entering and experiencing reality, of adhering almost physically to the space, and the landscape is constructed in the forms of architecture. This way of understanding construction and habitation is more closely linked to Breuer's idea of dwellings that participate in the landscape, that open up to it, light constructions that Breuer will develop in the Cottages projects, many of which are real houses on stilts and in which solutions deemed relevant in the New Kensington colony are repeated*"[277].

[274] Arriba izquierda. Sistema de consrucción y montaje de las Yankee Portables, 1942. No construido, Marcel Breuer. SUL ID T575_002

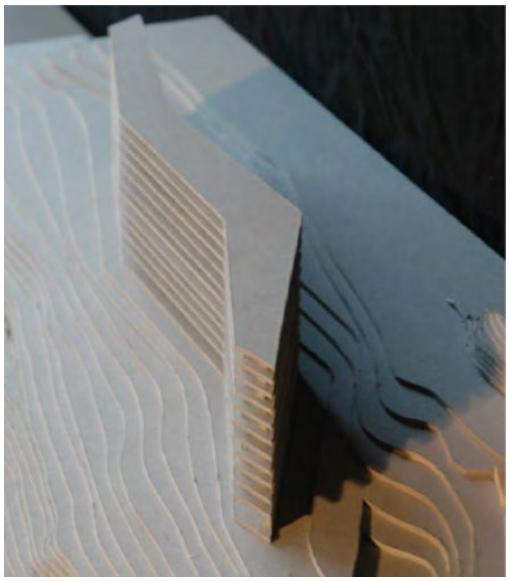
[275] BREUER, M., "Where Do We Stand?," in *Buildings and Projects, 1921–1961,* by Marcel Breuer, with captions and introduction by Cranston Jones (New York: Praeger, 1962), 269

[276] GROPIUS, W., Not gothic but Modern for our colleges, New-York Times magazine, 1949, [online] http://vassarcampushistory.vassarspaces.net/wp-content/uploads/2021/02/Gropius-Not-Gothic-but-Modern-for-our-Colleges.pdf

[277] ARGAN C., Giulio. Walter Gropius. Op. Cit., p. 233



More holistically still, the construction of Black Mountain College would truly concentrate "*a microcosm reflecting the creative and intellectual life of its time*" as the American art historian and landscape designer Mary Emma Harris[278] said, "*with the intention of emerging as a generative force in American life*". With the College located in a mountainous site and developing a flexible student-centred education, Gropius and Breuer's project reflected this approach to strong community life in concentrated buildings. As Carlos Salve, who wrote a thesis on Breuer, puts it: "*In the Black Mountain College project, articulatory movement becomes freer and more flexible, eliminating any rigidity of angles, establishing a frontality to the landscape conditioned by specific views, and substituting the spherical vision for a specular one by introducing the buildings into the landscape itself on the water, an effect that Breuer also proposed in his East River flat project in New York in 1946"*. Breuer starts from his own experience, complements it with the contributions of Gropius and with a brilliant intuition liberates architecture while inscribing it in a place, in this case the mountain with its strongly felt movements and horizon: "*at Black Mountain College,(...) the dining and theatre building and the central hall volume act as two of the authentic connecting rods in a position not aligned with the rest of the volumes which accentuates the idea of a kinematics of form and the objective phenomenon of movement. The glazed planes and bridges that connect the different volumes make the whole vibrate as if it were a sail. The structure, which in the Bauhaus was arranged in a circular pattern, now becomes mainly linear, creating a horizon*"[279].



The ski resort of Flaine in France also presents both the harshness of the place and humility, for nature does not defy or copy itself, and from the constraints offered, he retains the principle of adapting the building to the morphology of the place.

Finally, Breuer avoided adopting a style and linked his architecture to the multiple and complex contexts that surrounded it, from the landscape to the culture, from the masses to the materials, savouring the technical constraints as part of the creative process and not as a brake on the project. All his subsequent work with Nervi reflects this.

[278] HARRIS, M.E.. *The Arts at Black Mountain College,* The MIT Press, Cambridge, Massachusetts, 1987. Introduction
[279] ARGAN, G.C., Walter Gropius and the Bauhaus. Op. Cit., p. 111.

Art in Action: Contrasts and Collages

Much more those of a scientist and an inventive artist. To combine the methods of the scientist with those of the inventive artist may soon be a contradiction. Still I am convinced they form a unity and though their methods differ, they complement rather thanexclude each other".[280]

Marcel Breuer

Although Breuer did not theorise much about his work, his book "*Sun and Shadow, the Philosophy of an Architect",* published in 1955 with Peter Blake, lifts the veil on certain aspects of his work, particularly with regard to the context.

As Carlo Salve wisely stated in his thesis: "*En estos proyectos Breuer entiende la arquitectura como una síntesis imaginativa de una serie de partes dadas para crear una totalidad artística*" (In these projects Breuer conceives of architecture as an imaginative synthesis of a series of given parts to create an artistic whole.)[281] Whether it was in all the work with concrete and Nervi that we have developed above, or the project for the Whitney Museum of American Art in 1963, Breuer always had this approach. And it started with his famous Wassily chair:

> *"A piece of furniture is not an arbitrary composition: it is a necessary part of our environment. In its impersonal being, it takes on meaning from the way it is used, or within a unitary scheme."*

A chair or a building are both to be conceived in a broad, systemic context introduced into nature as a necessity, for if this is not the case, then it is better not to build anything. In the second part of his book, entitled "*Principles"*, Breuer takes up the theme of contrast, between nature and architecture, public and private, traditional and modern materials, the "*apparent conflicts*" as he calls them, necessary to create a *vital* architecture[282]. His second essay is particularly interesting in terms of the conceptualisation of context, as he emphasises the artificial nature of architecture in contrast to organic nature, which should not be adapted to each other:

> *"I find no reason for buildings to imitate the organic forms of nature... Nature and architecture are not enemies - but they are obviously different"; since the relationship of the modern house with the landscape is a primary factor and also accepts the solutions of the house on the ground which allows the tactile relationship or the house on stilts which would welcome the topography and whose relationship with the landscape is more emotional: "There are two totally different ways of approaching it, and both of them solve the problem well: there is the house on the ground which allows you to go out into the landscape at any time, from any room. This is a good solution for children in particular. And there is the house on supports, raised above the landscape, almost like a camera on a tripod. It gives you a better view, almost the feeling of floating in the landscape or standing on the deck of a ship."*[283]

Breuer was always keen to allow his artistic instincts to develop, but also to cultivate a broad and all-embracing cultural relationship, without reductionism. In fact, for Breuer, the built site is not only for the occupant(s) but also for its environment in the broadest sense. The immediate environment in a movement that has to be fluid between inside and outside but which exists, which does not merge into the landscape. "*If the fireplace is the centre of the house, the centre of the family nucleus within*

[280] BREUER, M., Marcel Breuer Papers, *History of Modern Architecture,* 1920-1986. AAA, Online/breumarc/Box 7-Reel 5718-Frames 0885
[281] SALVE C., op.cit, p.245
[282] BLAKE, P., Préface du livre de Breuer Sun and Shadow. Dodd, Mead & Company, New York, 1955, pp. 32-57.
[283] BLAKE P., *Marcel Breuer. Sun and Shadow.* Dodd, Mead & Company, New York 1955, pp. 38-41.

the private space, the house is the centre of its environment, of a wider social group and of a cultural relationship to its time"[284]. We have again an holistic vision.

A Multi-Sensory Space

> *"My personnel recipe for this building is to take 3 quarts of space, 4 pints of functions and practicalities, 5 gallons of structural enginering,6 pounds of economics, 7 yards of social sciences, 8 ounces of psychology, 9 pages of Don Graf's Time Saving Standards re seating arragements for auditoriums and theatres, 10 paragraphers of the Younkers Building code 11 rules of the Fire Underwriters, 18 teaspoonfuls of papers, 13 thousand telephone calls, 14 squares of blueprints, 15 drops of bitter, 16 non-definite maesurements of drama, stir it thoroughly over a slow fire and then serve it cold. I nearly forgot the last…most important….1%, that percent which usually tips scale…which provides that cosmic warp a la Einstein… I nearly forgot to add 1% of ART".*[285]
>
> *Marcel Breuer*

The third part of Breuer's book, entitled "*The Art of Space"*, contains eight essays in which Breuer explains the multiplicity of elements he uses to shape a true metalanguage and contextualise his architectural projects. "*In other words, he establishes a system that starts from the smallest element, whether it is a brick or the chimney itself, a concrete block of a wall, a balloon table, a step or railing, a sunshade, a piece of furniture or a work of art, all have their pure visual, tactile and three-dimensional value and all define and characterise the space by their relationships, contrasts or even absences. This is why the chapter begins with an essay that gives it its title, "The Art of Space" and this in turn begins with the famous quote from Tao Te Ching "Even though clay has been shaped into a jug, the essence of the jug is in the emptiness it leaves inside. Although doors and windows are part of the elements that make up a house, the essence of the house lies in the emptiness it contains. Therefore, by knowing what is there, we recognise the essence of what is not."*[286]

When Breuer first encountered Nervi, he recognised his extraordinary capacity for the tensions that are crystallised in forms, and the dialogue between the two men initiated a new phase in Breuer's vision in which multisensoriality would become part of the concrete. Like Nervi, Breuer considered that scientific hypotheses were not the starting point for any creative act. Both can and must be combined. Concrete is not a preliminary step, but a poetry that creates harmony in its materiality. A poetry that speaks of sight, touch, texture, musicality.

Sincerity and Humanity

Breuer will always be convinced that the space-structures that mark out his form-generating architectural work in a direct manner are born of the visibility given to tensions in space and of both conceptual and contextual sincerity. This approach reflects that of a country (the USA) that is conquering but still feels the need to humanise and highlight the aspirations of the American people through public buildings, as developed in the Federal Architectural Guidelines:

> *"The design of federal office buildings, particularly those located in the nation's capital, must meet a dual requirement. First, they must provide efficient and inexpensive facilities for the*

[284] SALVE C., op.cit. p. 398
[285] BREUER, Marcel. Speech to the Student Body, Sarah Lawrence College, 29/09/1950. Marcel Breuer Papers AAA, Box 7-Reel 5718, Frames 967- 974.
[286] SALVE C., op.cit., p. 394

use of government agencies. Second, they must provide a visual testimony to the dignity, hard work, vigour, and stability of the American government."[287]

And when Breuer was working on the Whitney Museum, this is what Barry Bergdoll, Professor of Art History and Archeology at Columbia University, had to say:

"It is easier to say first what it should not look like. It should not look like a business or office building, nor should it look like a place of light entertainment. Its form and its material should have identity and weight in the neighborhood of fifty-story skyscrapers, of mile-long bridges, in the midst of the dynamic jungle of our colorful city. It should be an independent and self-relying unit, exposed to history, and at the same time it should have visual connection to the street, as it deems to be the housing for twentieth-century art. It should transform the vitality of the street into the sincerity and profundity of art" [288]

The impression given is that the Whitney Museum was made from the idea of the outside space that invites you in and manages to introduce light into the ground floor and with the generation of an outside exhibition space. The window is rare and becomes a work of art from the inside to the outside and vice versa when the architecture invites to cross the threshold of art.

Ezra Stoller (American, 1915–2004). Marcel Breuer at The Whitney Museum of American Art, now The Met Breuer (detail), 1967. Image © Ezra Stoller / Esto

As with works of art Breuer will continually use these contrasts between expansion and contraction, opacity and transparency, betting on the desire to cross the threshold from the noise of the city, to feel the strength of the architecture in continuity with the street, which is also the source of art and literature. According to Breuer, transparency does not encourage the reading of a place in its environment any more than when the project is presented as a closed place; on the contrary, solid and silent, it encourages entry, architectural reading, and literary discovery. The interior and exterior are linked in a tenuous way by few openings, but strongly by the desire to discover. In the heart of urban metropolises, the ephemeral character breaks the rhythm and solidity of the city. "*The metropolis is closer to the artist than to nature, because in the city what is natural is already frozen.* "said Mondrian. This sense of order defines the background of the Atlanta Central Library, allowing for a dematerialised interior behind the mute concrete façade.

[287] Guiding Principles for Federal Architecture. Report to the President by the Ad Hoc Committee on Federal Office Space, 1962.

[288] BERGDOLL B., Marcel Breuer and the Invention of Heavy Lightness, 2018,in Places, [online] https://placesjournal.org/article/marcel-breuer-and-the-invention-of-heavy-lightness/? Quoted from "Notes for M. B.'s Comments at the Presentation of the Project on November 12th," Marcel Breuer Papers, Archives of American Art, Smithsonian Institution, Washington, D.C., microfilm reel 5729, frame 431e. Cleaned up, these notes were later reprinted in many publications. See, e.g., Ezra Stoller, Whitney Museum of American Art, with an introduction by K. Michael Hays (New York: Princeton Architectural Press, 2000), pp. 81 84.

Conclusion

In conclusion, Marcel Breuer's great talent was as much his artistic intuition as his acquired sense of gravity, tension, materiality and plasticity. Sincere contrasts, multi-sensory experiences, holistically expressed in metalanguage, he proposed an architecture that embraced the multiple complexities and diversities of humanity. Immense spans, folded structures, cantilever, pierced veils, Breuer used concrete while seeking the most suitable typology for each programme.

His vision of the context, his conceptualisation of it, is reflected in an architecture that is both physically and philosophically elevated. If Aalto approached the context with caution because life had to take precedence over it, one senses that Breuer wanted to impose an approach that he wanted to complete, where the answers were provided, even if he was perfectly aware that it was a partial answer and that the process was more important than the result.

To return to Norberg-Schulz, in his book on genius loci, who considers that architecture must : "*to transform a site into a place by discovering the meanings present in the environment and by revealing through human action what was present at the beginning as a possibility*"[289], Breuer succeeded in signifying places as emblematic, which in no way merge with the surrounding environment but are integrated into it through all their pores.

[289] NORBERG-SCHULTZ, Op.cit., p.15

Conceptualisation of the context of Atlanta Library

Contextual Analysis of Atlanta Central Public Library

History

History of the state Georgia

Georgia is one of the 50 states of the United State of America, but its human History begin dozens of years before any Europeans step foot on those land. Archeologists found proof of life from about 12.000 years ago in the area. In between 1000 BCE and 900 CE what is called the Woodland culture flourished in the territory with permanent and semi-permanent village settlement that let mark as large mounds[290] built with clay and earth. They were followed by the Mississippian culture who continued the tradition of mounds building and had a strong hierarchical order with centralised government headed by chiefs. They also had developed a stable system of agriculture that even produced surpluses in comparison to the population.

The Spanish, who were the first Europeans in North America, never establish any permanent occupation in the region. The only unsuccessful attempts were made in 1526 by Lúcas Vázquez de Ayllón and by Hernando de Soto around 1540. Soto was a Spanish explorer who arrived in the land of what will be Georgia in pursuit of silver and gold. During their expedition they encounter the society of the Mississippian culture which led to a disastrous end for the indigenous population that have been killed and enslaved but also due to the different diseases the Europeans brought with them. Measles, smallpox, and whooping cough conduct to the death of thousands of people and precipitate the decline of this culture in the Georgian territory. In addition to those violence against the Native American Population, starting from 1568 and during a century the Spanish established on the coast Catholic missionaries and military posts slowly assimilating the Native population into the colonial system.

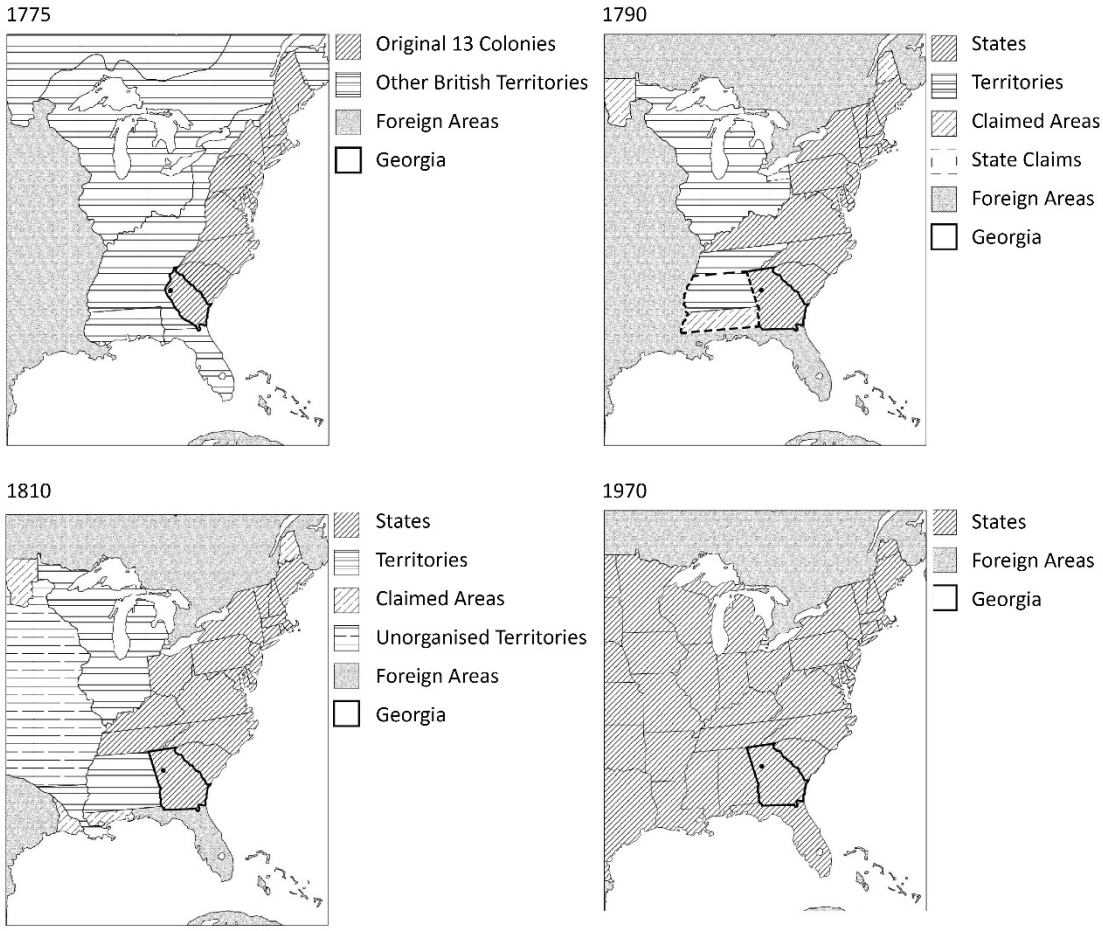
In the second half of the 17th century the Spanish retreat from the Georgian coast by reason of the tension of the British settled in South Carolina. Georgia was consequently the last of the thirteen colonies to enter the British realm in 1732, long after the English immigration into the American land, and was the only colony that was established trough a trust granted by the king George II, hence the name of the region. The new colony would act as producers to aid England to ceased relying on foreign sources and also, to serve as rampart against the Spanish and the French. The English first settled in the new-built city of Savannah in 1733, the colony need for immigrants led to non-English to settle in the area to the point to have the most numerous of them of the 13th Colonies. Furthermore, this need induces a religious freedom that was not preferred in itself but was a consequence of the necessity of the region to attract newcomers. The utopian vision of the trustees was to construct a system with compact villages and towns, with small cultures and farms. Slavery was even banned to avert the possibilities of large plantations. But this system failed and the trusted resign the power in favor of the British government in 1752, the economy switched to production of rice, sugar and indigo largely depending on slavery.

By reason of this unexpected freedom of religion, support the American Revolution against the British had received a mixed reception from the Georgian population. With an Anglican Church preaching for the Crown and other Protestants preaching freedom and equality before God, and the imperative to rebel against oppressor. The ideas of independence of the revolution gave the opportunity to almost one-third of the slaves to escape by joining the British forces which result of them going to Great

[290] "a large pile of earth, stones, etc. like a small hill" Cambridge Dictionary

Britain, the Caribbean or even to Canada. Omitting the Loyalist which was a considerable part of the population, Georgia signed in 1776 the Declaration of Independence.

Since the mid-18th century, the lands of the Cherokee and the Muskogee were slowly appropriated and push west by the colonists which induced systematic conflicts between the different communities, who already disputed about whether and how to resist the white invasion, ended up being forced to sign a series of treaties to concede land to Georgia. The deracination of the Cherokee and the Muskogee endure into the 19th century with its apogee in 1838-39 and the notorious Trail of Tears that conducted the indigenous population around the Union to flee west to federal owned land. But most of the natives by that time had been already forced out of Georgia. The majority of the newly acquired land was then used to expand to a large commercial agriculture dominate since the 1790's by cotton.



In the second half of the 19th century the economic stability of the state was mainly assured by the large cotton plantation, with the greatest number of large plantations of the South, that was heavily relying on slavery. Therefore, in 1861 when the American Civil War breaks out, Georgia more than joined the Confederate States of America, but helped to create it. The Civil war had an extensive impact on the state. It started early on with the Union army settling in parts of the coast and disturbing the plantations and consequently the slave system. It continued with the siege of Atlanta and the

March to Sea launched put in motion by Sherman[291] that consist of to gain territory across Georgia from Atlanta to Savannah.

The period of Reconstruction[292] was complex and hard time for the Georgian farmers. The relationship between land and labour was completely altered, after various attempts of contractual arrangements, the system of sharecropping[293] was predominantly implemented throughout the formerly Federate South. Unfortunately, this system tends to encourage large harvests which would diminish the land fertility and was not sustainable in the long term. Moreover, with the change of system the capital and landowners were not affected and remained in White hands, and the labour stayed largely done by Black population. But the "King Cotton" reign died with the pest of the boll weevil[294]in the late 1910's.

The political scene of the postwar years was suffused with tensions and racial violence, with the Freedman's Bureau, an aid to transition from slavery to freedom in consequence of the civil war, on one side and the Ku Klux Klan, a violent group of White Supremacist, on the other. In 1868 the election brought to power Rufus Bullock as governor, a member of the Republican Party, which induced with rage the Democratic Party that indulged a reign of violence, served by the Klan, that had disastrous consequence with the deaths of hundreds of African Americans. They regain control only three years later and reinstate a system of white supremacist, low-tax, and low-service government. In the late 19th century, there is a movement to promote an industrial economy, principally focus on manufacture if textile, that will make Atlanta grew steadily as a commercial centre. At the same period, the agricultural depression creates a leverage that made possible for a farmer's alliance, that was including African Americans and consequently challenged and defeated conservatists, to help small farmers instead of prioritising planters and railroads.

The end of the 19th century and the early 20th century marked the apogee of the racial conflict that was aways there in the Georgian History. The unsuccessful effort the Populism confronting the fixed racial order has resulted in rigid reaction from the Democrats. They reinforce the status-quo by diminishing the political power of the Black community and instituted a social segregation, and this situation lasted for more than half a century. The suppression of Black citizens proceeds to have even more violent outcome because in Georgia between 1889 and 1918 was the region where more lynchings arise in the entire United States and with the rebirth if the Klan.

Even as Atlanta industrialized Georgia remained predominantly rural, the citizens tried to continue to rely on farms to remain economically stable. The downfall of the agricultural force of the plantation of cotton in the 1920's due to the boll weevil and the Great Depression in the 1930's led to hardship for the Georgian population which caused hundreds of thousands of sharecroppers out of farming, resulting in a lot of poverty. But the time of the World War II created the opportunity for Georgia to

[291] "William Tecumseh Sherman (February 8, 1820 – February 14, 1891) was an American soldier, businessman, educator, and author. He served as a general in the United States Army during the American Civil War" [online:] https://www.newworldencyclopedia.org/entry/William_Tecumseh_Sherman

[292] "Reconstruction, in U.S. history, the period (1865–77) that followed the American Civil War and during which attempts were made to redress the inequities of slavery and its political, social, and economic legacy and to solve the problems arising from the readmission to the Union of the 11 states that had seceded at or before the outbreak of war." [online:] https://www.britannica.com/event/Reconstruction-United-States-history

[293] "sharecropping, form of tenant farming in which the landowner furnished all the capital and most other inputs and the tenants contributed their labour. Depending on the arrangement, the landowner may have provided the food, clothing, and medical expenses of the tenants and may have also supervised the work. The tenants' payment to the owner was in the form of a share in the product, or in cash, or in a combination of both."[online:] https://www.britannica.com/topic/sharecropping

[294] The "boll weevil, (Anthonomus grandis), beetle of the insect family Curculionidae (order Coleoptera), a cotton pest in North America" [online:] https://www.britannica.com/animal/boll-weevil

revive their economy as the with the rise in prices of agricultural goods and the expansion of military bases in the state.

This time is also a moment in History when African Americans started to openly challenge segregation, Black Georgians initiate massive voter-register campaign and even achieved to get a political influence higher than in any Deep South[295] states. The African American population of Georgia become more engage for the fight against segregation with direct-action protest. Martin Luther King Jr. is himself from the city of Atlanta where he initiates the Southern Christian Leadership Conference in 1957 that would lead to many more protest around the entire country recognised as the Civil Rights Movement. Other organisations to challenge the state of the racial discrimination operate activities from Atlanta.

The business community of Atlanta quickly realise that to have a more open approached to Black community would be better as they prevent some massive civil rights protests that happen on other major cities of Deep South states. Nevertheless, racial discriminations were still happening and were still severe. As in the 1970's the African American population began to be in majority in the city of Atlanta, they started to be represented in high offices. In 1970 Jimmy Carter was elected as governor of the state succeeding an opponent of desegregation. He had a more progressive vision and lead the state onward matching the political advancement of the city of Atlanta.

History of the city of Atlanta

Preceding any settlement of European immigrants in the North of Georgia, the Cherokee and the Muskogee were occupying the region and a village called Standing Peachtree crossed by the Chattahoochee River was built closed to where will be the city of Atlanta. But as iterated before during the 19th century many Native American population were forced out of their land till the infamous Trail of Tears.

The first European developments of the city were made around the means of transport, and this has been a constant in the development of the city. The construction of the Western and Atlantic Railroad, aiming to link the port of Savannah and the Midwest, in 1836 started the construction of a city at its end station. This city would be first called Terminus, followed by Marthasville, the name of the daughter of the Governor, to finally be named Atlanta, which would be formalised in 1847. As the town grew, by 1860 several other railway lines began to converge in the new city.

The American Civil War[296] will be a hard time for the city, which firstly develops into a supply depot with many war industries and a key point for the rail transportation for the Confederacy[297]. This situation quickly made it an important city to take for the Union[298] which the General Sherman did in September 1864 followed in November by the "March to the Sea" across the state.

The Reconstruction era of the city after the Civil War took time since a considerable part of it had been burn down and the railway had been destroyed. Yet, Atlanta quickly got back on its feet and became bigger, it reenforces Atlanta as an important centre for the South. The population quickly increased

[295] "The Deep South or the Lower South is a cultural and geographic subregion in the Southern United States. The term was first used to describe the states most dependent on plantations and slavery prior to the American Civil War. Following the war, the region suffered economic hardship and was a major site of racial tension during and after the Reconstruction era. Before 1945, the Deep South was often referred to as the "Cotton States" since cotton was the primary cash crop for economic production" [online:] https://en.wikipedia.org/wiki/Deep_South#/media/File:The_South_and_Deep_South.png

[296] 1861-1865

[297] Confederate States of America, also called Confederacy, in the American Civil War, the government of 11 Southern states that seceded from the Union in 1860–61, carrying on all the affairs of a separate government and conducting a major war until defeated in the spring of 1865. [online:] https://www.britannica.com/topic/Confederate-States-of-America

[298] During the American Civil War, the Union, also known as the North, referred to the United States led by President Abraham Lincoln. It was opposed by the secessionist Confederate States of America (CSA), informally called "the Confederacy" or "the South". [online:] https://en.wikipedia.org/wiki/Union_(American_Civil_War)

with a large number of African Americans, the manufactured were restored and the railway was reconstructed which permitted connection to distant economic markets. By 1868 the city became the state capital and encapsulate the "New South", resurrected after the Civil War, and support the reconciliation with the North for business, diversified its economy and depend less on agriculture. The establishment of schools, universities and black colleges for men and women settled Atlanta as a centre for higher education. Many expositions were held in the city which led to the construction of the famous "Negro Building" managed by African Americans in a period of high segregation in the city and the rest of the South.

The early 20thCentury was a prosperous period for the city, the population in three decades triple as its boundaries have been greatly expanded, the suburban area started to expand more conveniently due to the entrance of the automobile in the landscape. The growth of the city was also an economical one, with more diversified mean of trading, that settled the city as a regional business centre. This period in history is also synonymous with racial and ethnic tensions that end up causing in 1906 a violent race massacre and the lynching of Jewish criminal that was sentence for life. Those events put in motion change in the legal system and the creation of organisations dedicated to alleviating racial tensions and violence but unfortunately also a re-apparition of the Ku Klux Klan and reinforce the barrier between White and Blacks citizen.

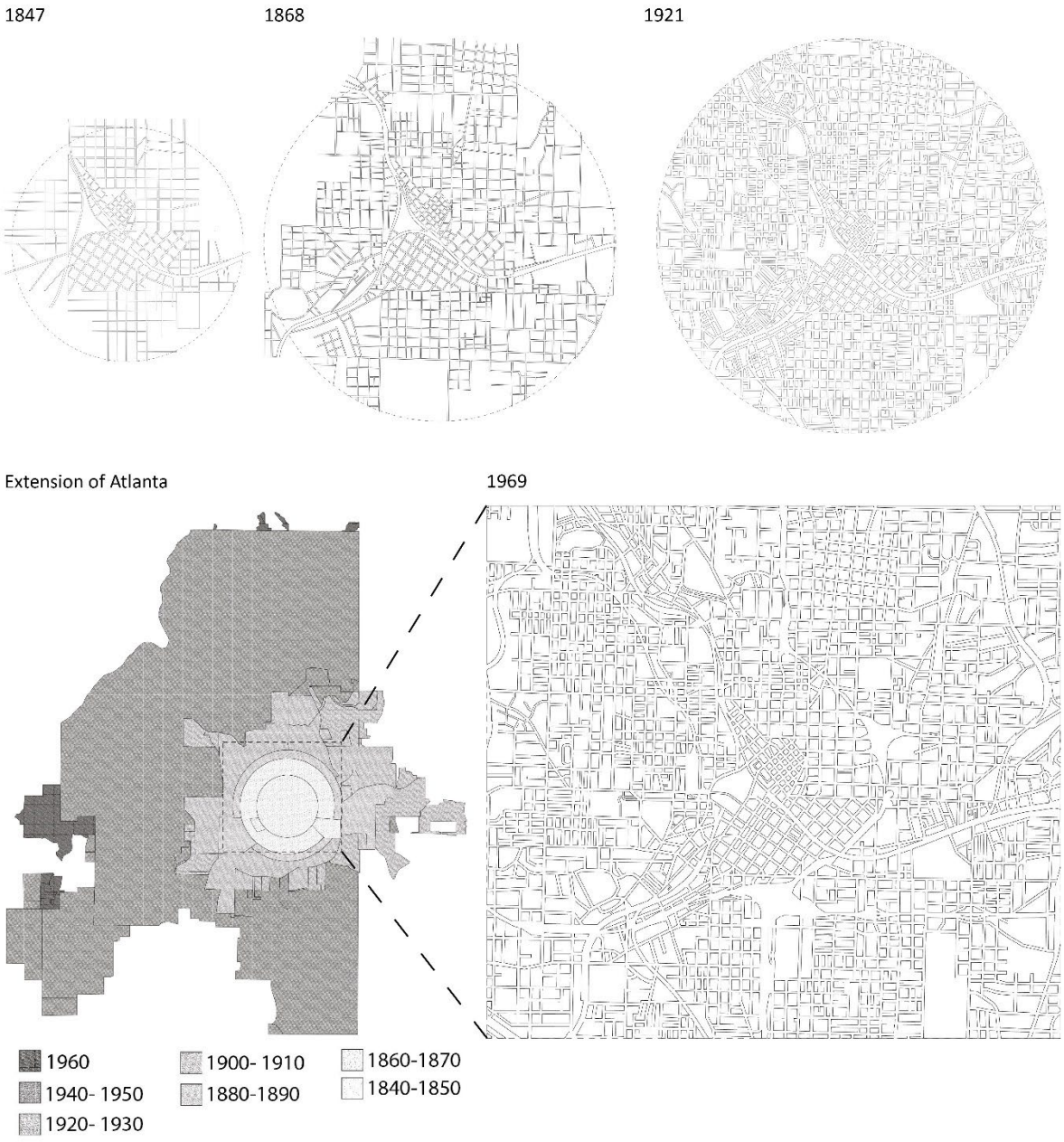
The pole of transport again had a valuable influence on the development of the city. By the end of the 1930's Atlanta was on the path of a highway linking all Georgia and even develop its airfield. It slowly settled as the capital in term of transportation of the Southeast. But, as with many, the economic depression of the 1930's damaged the growth path that Atlanta was on, consequently they tried to take full advantages of the "New Deal"[299] legislations implemented by Franklin Roosevelt and turned out to be among the first cities in the U.S to benefits of a federally operated relief program. By the end of the decade the banks recover and reopen, and the aviation continued to prosper but it took the World War II and the war effort associated with the growing industries of the city to achieve the wealth present before the depression and enter a new era of transformation. The different federal establishments installed during the war was recruiting Blacks and Whites, men and woman which will significantly impact the racial and politics interactions.

The city continued throughout the 20th century to growth in population and expend in space with an African American population of 36 percent for only 16 percent of the residential land used but this population. This situation initiates in the 1960's new movement from the Black community to increase their political influence, the Civil rights Movement, and target the situation of the segregation. Legal decision taken in 1962 permit, specially in the Southwest of the city, for Black citizen to take more residential land, this also precipitate the migration of the White population in the suburbs. By 1970, and for the first time, the majority of the Atlantan population was African American.

Simultaneously, the political scene starts to change with the election of Black candidates. In 1969 as a vice mayor and a mayor in 1973, Maynard Jackson, or a congressman from Georgia, Andrew Young. These changes didn't occur out of the blue and are the result of the impact of new legislature and organisations as the Atlanta Negro Voter League, all of which began after World War II. For decades, the city became intertwined with the Civil Right Movement, they believed in a new South. The Atlantan Spirit, which tends to be more liberal in comparison of conservatist South, of white business leaders had an influence on this transition of the city, they would prefer to avert any racial violence and tremor for the seek of their companies. The Atlantan mayor from 1962 to 1970, Ivan Allen Jr., was

[299] The New Deal was a series of programs and projects instituted during the Great Depression of the 1930's that aimed for short-term governmental aid and to provide temporary jobs, employment on construction projects, and youth work in the national forests.

a defender for the civil rights and support Martin Luther King Jr., who was born and raised in the city. Allen's put in motion projects to design new public spaces and low-income housing, helped the economic growth of the city and developing the public transport of the city, which all led to an urban renewal.



Natural Features

Natural Features of Georgia

The state of Georgia is situated in the South-East of the United States of America neighboured in the North by the states of Tennessee and North Carolina, in the West by Alabama, Florida in the South and it bordered in the West the State of South Carolina and the Atlantic Ocean, which provides a long coastline and barrier islands. In term of climate, Georgia has a humid subtropical climate in the entirety of the state. Essentially, this climate is made of hot and humid summers ad cool mild winters.

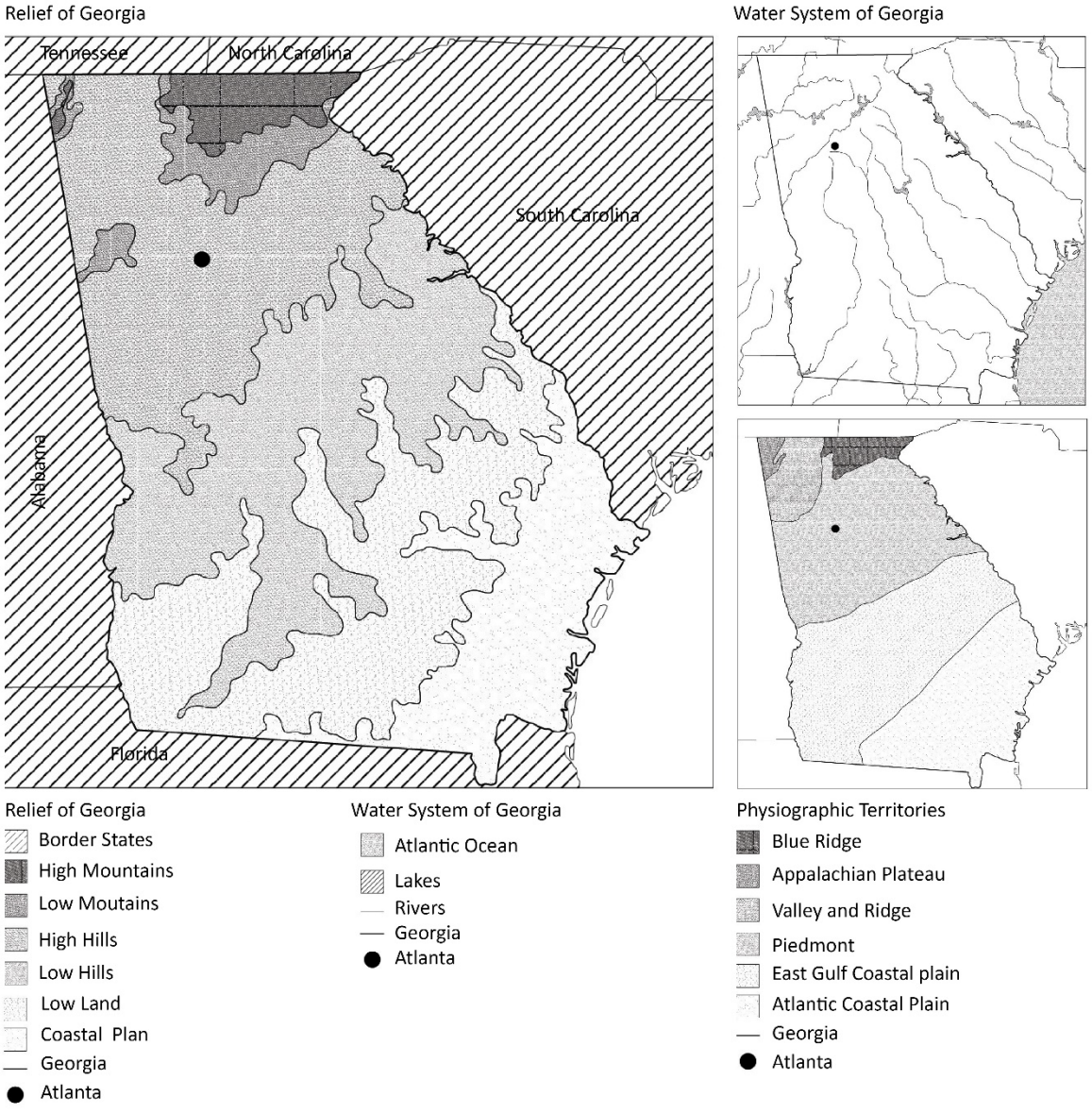
Its landscape comprises five unique physiographic territories, the Appalachian Plateau, the Valley and Ridge, the Blue Ridge and the Coastal Plain.

The Appalachian Plateau is a part of the mountain chain of Appalachians spreading from Canada to Georgia but only a small part is situated in the North-East corner of the state. The plateau is position in between 550 and 610 meters above sea level and is compose of narrow valleys and wooded ridges.

The Valley and Ridge region is below the Plateau province and Northeast to the Piedmont one. The area is marked by the parallel ridges of sandstone divided by fertile valleys.

The Blue Ridge is in the North-west corner of the State at the border of the Piedmont region. Georgia's highest mountain, Brasstown Bald, occurring at 1458 meters above sea level (4784 feet) is situated in this zone with many peaks rising from 610 to 1400 meters above sea level. These mountains are filed by woodland with hardwoods and pine softwoods.

The Piedmont province is characterised by hills in the North and gradually loses elevation to the South-East towards the ocean, and the hills start to be gentler. The limit between the Piedmont and the Coastal Plain is define by the Fall Line created by the rivers that flows towards the Atlantic Ocean and

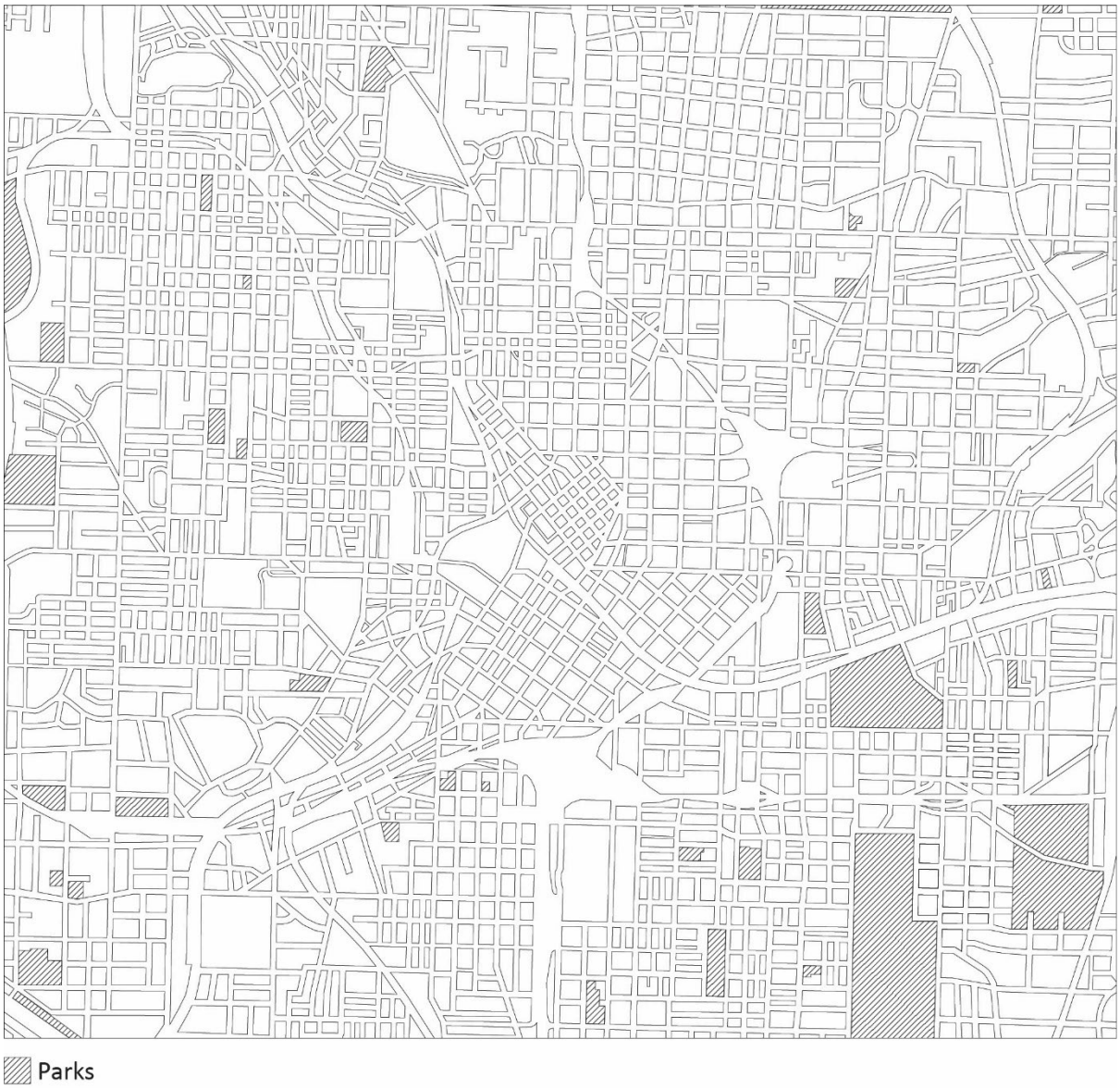


go from the heights of the Piedmont to the low land of the coastal area and forms waterfalls and rapids.

The Coastal Plain is a physiographic territory that stretch from Massachusetts to Florida. Its part in Georgia is divided in two parts, in the northern part the East Gulf Coastal plain with a less sandy soil and comprises the Okefenokee Swamp an important wetland. And the Atlantic Coastal Plain in the South-East of the state to the ocean shoreline. This part is lower with a sandier soil and is where the rivers flow into the Ocean.

Natural Features of Atlanta

The city of Atlanta is situated in the Valley and Ridge region. The city did not develop itself around a natural feature has a river but around the junction of different trainlines. Downtown Atlanta, where the library is situated, and its surrounding counts several parks, but remains deeply an urban area.



Parks

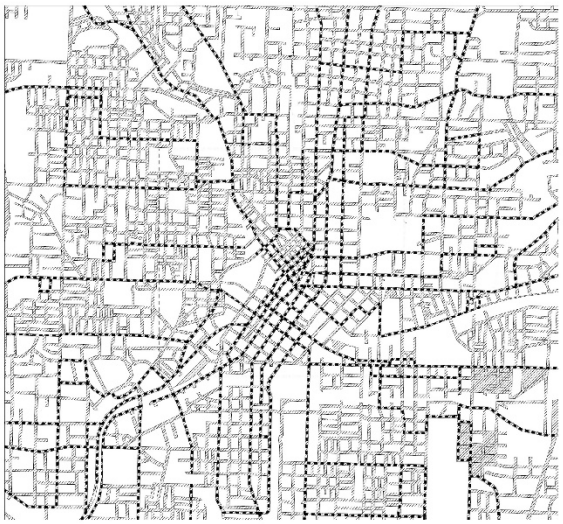
City Structure

Means of Transportation in Atlanta

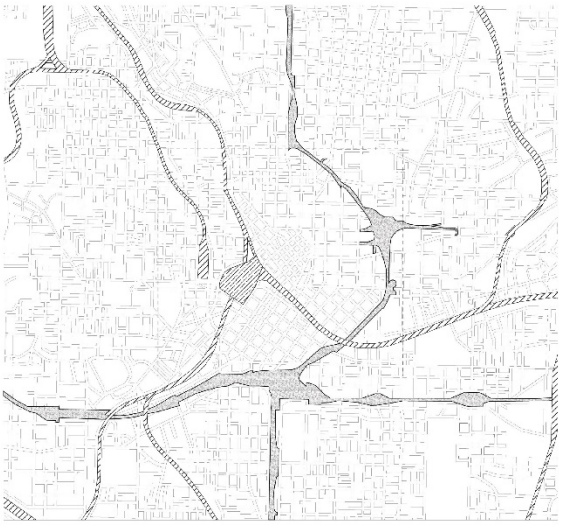
The growth of the city of Atlanta has been marked by the mean of transportation. Its origin in 1837 was at the end of the Western & Atlantic railway line, aiming to link the port of Savannah and the Midwest, it first name was even Terminus. Within the twenty-five years the major city of the state where linked and Atlanta evoloved into the epicentre of the South's railroad network. During the Civil War (1861-65), it was heavily utilised fot transport of goods, especially weapons, by the Confederate troops and consequently it became a main aim for the Union to surrender the city to stop the spread of weapons via the railway. The position of Atlanta during the war made it an evident central node in term of transportation in a nation with an economy in ebullition defined by business made on large scale and allowed it to be built in a larger railway system across the country.

The trains stated for a certain time the favourite mode of transportation and favoured the expansion of the railways but after the 1920's the automobile started to be affordable and therefore more frequent and encourage the development of paved and concrete roads to highways. The main train Station in Downtown Atlanta, Terminal and Union Passenger, where lie the triangle formed by the railways that originated the city where less frequented in favour of the cars. Debut in 1871 the tramway (or streetcar) plan was a big part of the transport system of the city and continue to growth through the century to have more than 90 km of electrifying lines. But with the downfall of the train came the downfall of the tramways, and one by one the lines were dismantled, and the streetcar of Atlanta seize operation with the last line closed in 1949.

During the 1950's conversation about the funding of a mass transit system began in the political sphere. Nevertheless, the beginnings did not lead to the expectation that could have been had for the project that bears the name of MARTA for Metropolitan Atlanta Rapid Transit Authority. The Decision-making authorities rejected the plan to finance MARTA.



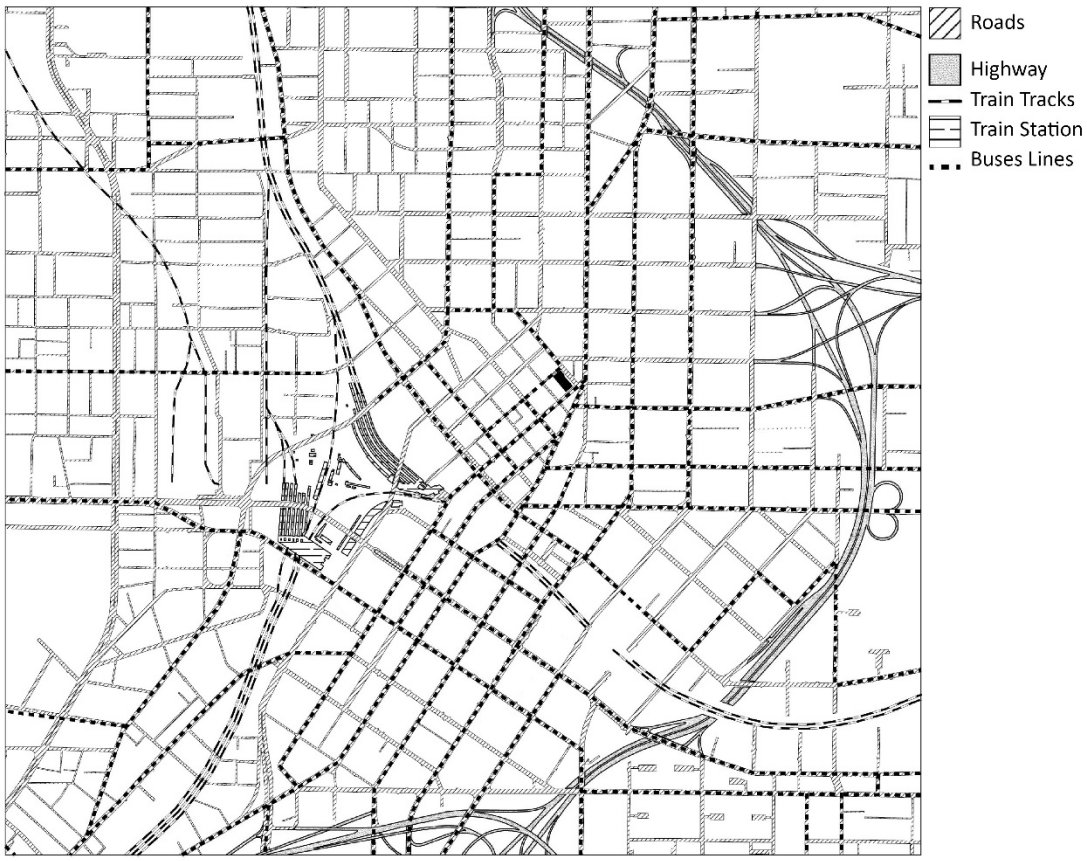
Buses Lines
Roads



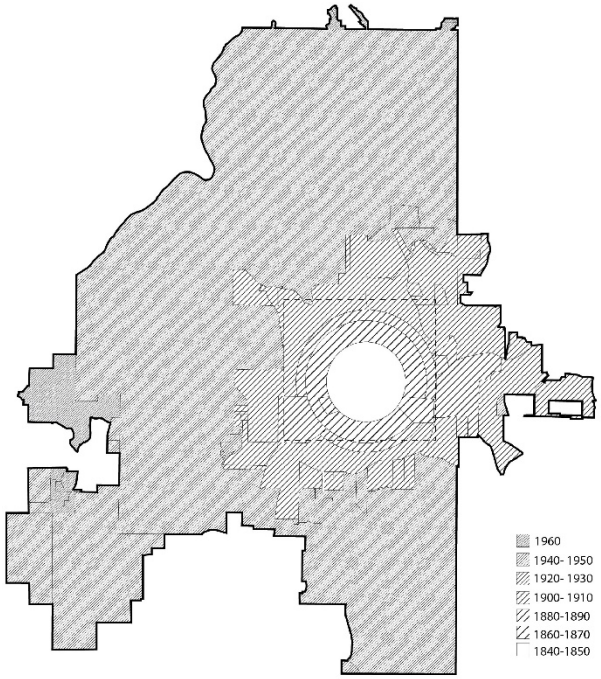
Train Tracks
Train Station
Highway

As often in the city of Atlanta the choice made were tinted of racial tension in disfavour of the black community that was still see by the rich white population as a nuisance and the rejection of MARTA and the construction, instead, of the highways in the early 1960's is no exceptions. Not only the automobile was preferred and with it the population that could afford it, but the interstate highways have been built only on working-class and black neighbourhoods to shatter this part of the city and to

separate them from the white population. This strategy just scared the city with an open wound as a highway and a public transport system with a lack of funding.



Built Form Figure-Ground of Downtown Atlanta



The expansion of the city of Atlanta can be divide into three main periods. The first part is from the origin of the city in 1837 to 1900. Before 1880 the city growth around the tangle railroad tracks, downtown area was specified by a mixed land use of business and residentials. After 1880, the automobile gave an opportunity for the wealthier citizen to move in residential suburbs that was built around the commercial centre in the East and North. During the 1880's working class population move to the city, the Afro-American gathered themselves due to systematic discrimination in the South and West side of the town.

During the second period, that lie between 1912 and 1935, saw an economic boom for the town with a commercial expansion that convert the centre into a white-collar district and with the help of the automobile the suburbs were expanse for housing purposes. Anew the White and Black communities were separate into different areas of the city, black Atlantans continued migrating to the West and the White to the North.

The third period is spread between the 1950's and the 1970's. Certain circumstances of the period open up the decentralisation of housing as well as commercial land use. The main influence would have been the construction of the highway, the rise of suburban houses and the desire of the institutions to "clean" the city of any slum areas. The construction of shopping centre in the periphery facilitated by the Interstate, change the commercial function of downtown that started to be more of a tourist facility.

Population of the Atlanta

As already know the city develop itself around the railway, the first persons to settle, after the Cherokee and Creek Indians, were a number of 30 fixed around the tangle train tracks. The population continued to expand over the next decade to surpass the city of Savannah and becoming the largest city of the state. The interest for the town increased with time and with its transportation and economic advantages the city continued to grow until the 1970's. Atlanta, despite its population had always have a low density probably due to the opportunity to expand without any natural or legislative constraints.

The citizens of the city of Atlanta are biracially characterised with White and Black communities making the majority. Only 1.4 percent of the population were foreign in 1940 and it did not evolve in the years following. These two publics, after the Segregation, continue nevertheless to separate spatially divided. The African Americans compose the main presence inside the city and the Whites are prevailed in the suburbs. This situation has been caused by the fact that in the late 1940's the white population felt under pression from the integrationists and turn to violence as an answer, which was found to be ineffective. They purely decided to abandoned the centre of the city and move to the suburbs and create white ghettos that obviously produced Black ones inside the city.

Conclusion

From the outset, the main question of our thesis was stated as follows: how could context be used as a conceptual tool to create an architectural object? And so how did Breuer, with all that we already know about him, use the context of the city of Atlanta, its history, its fragmentations and its diverse sensibilities?

Far from a contextualism which, according to Kenneth Frampton, would he have *"feared a rush for the ordinary, which would legitimise a mass culture inseparable from the liberal capitalism system"*[300] but also wary of the idea of Peter Eisenman, who advocated a kind of architectural autonomy based on deliberate ignorance of existing conditions[301]. Breuer was aware that, as Bryony Roberts has pointed out, "*bodies carry stories, voluntarily or not. Any supposedly impartial observer is entangled in the cultural prejudices and political struggles of his context*".[302] Breuer did not conform to the surrounding space as such in its constructive financialisation, but rubbed shoulders with the history of the city, the sociology, the debates and the commitments that ran through it, in an engineering opposed to the surrounding standardisations but responding to the programme of the surrounding *social, artistic and political life.*

As Sylvain Marbehant develops in his thesis on the conception of context in architecture: "by associating the meaning of a given situation with its social structure, context can be assimilated to different articulations of a social nature to which the architectural work can respond through its form and spatial configuration"[303]. As in the case of Tadeo Andô, for example, any place can materialise an architectural idea, but it is in the midst of urban chaos that this idea, through the effect of contrast, is most prevalent, and here in Atlanta, Breuer has literally imposed himself.

Breuer has integrated technology and art, with the library's small size *overlooking* the environment, which is transparent only in its facades, and inviting curiosity and discovery of the world of books, music and other activities that take place there. Anyone can enter, almost like a sanctuary, but where knowledge is distributed, where connivance is encouraged, where exchanges are intensified - quite the opposite of the financial environment of the city centre. And this social prowess goes hand in hand with technical integration. It's even more than the microcosm of Black Mountain College, it's a desire to bring to the fore *another of America's generative forces*.

Then there is the intuition and apparent conflicts that have never left him, and the technical constraints that will serve the project. Then there is the intuition and apparent conflicts that have never left him, and the technical constraints that will serve the project, which have made him one of the masters of concrete, in its plasticity, in its shadows and light, in its hollows and protrusions, in its smooth or rough textures, to create a library whose visual, tectonic and material aspects are imprinted as architectural experiences.

There's a sincerity and humanity that runs through all his projects, but which, here, powerfully expresses this contextual approach in the 'monument' he has built. The sculptural physicality of the building, the appealing nature of its abstract volumes, the monumentality of its blocks, all seem to break away from the surrounding heights and transparency.

In conclusion, the context of the Atlanta library, as developed by Breuer, went far beyond the mere physical context by appropriating the cultural, poetic and sociological concepts of the environment,

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[300] URBAIN M., *The Critical Construction of Critical Regionalism* , OASE 103, Critical Regionalism Revisited, 2019,p. 43.
[301] EISENMAN P., *The End of the Classical: The End of the Beginning, the End of the End* , Perspecta 21 (1984): 154–173, [online] https://www.cca.qc.ca/fr/articles/issues/28/avec-et-au-sein-de/74490/le-complexe-du-contexte
[302] ROBERTS B., Expanding Modes of Practice, 2020, p.12
[303] MARBEHANT S., Ibid, p.172

and this, as we shall see in the next chapter devoted to the concept of the library, in a rich dialogue with its architectural concept.

Concept of Atlanta Central Public Library

The need of a library in Atlanta

The Libraries of Atlanta were founded through an organisation, thirsty years antecedent the first physical library the Young Men's Library Association (YMLA) was created. In 1867 Daniel Jones coordinate the founding for a subscription library that will be the YMLA, the membership was only open to white men that also had to be accepted by the Association's board, in 1873 white women could likewise enter the organisation. Only the paying members could check out books, but the rest was open to the public. The need of a library was becoming increasingly apparent and the president at the time convinced Andrew Carnegie to donate to the city of Atlanta to build a Library which led, in 1902, to open the Carnegie Library, the first one of Atlanta, on a land donated by the Association.

This edifice was one of the first Public Library of the country and the first school library that opened in the South of the United States which were established inside the Carnegie Library until it moved in 1930 to Emory University, in the North-East of the city. The Carnegie Library was such a triumph that Carnegie, once more, gave money to open other branch libraries pending that the city would provide a site and arranged funding for the library. With that help in 1909 the second establishment, Anne Wallace Library, opened and other followed such as in 1924 it had eight branches. In 1967 the system was composed of nineteen different branches.

In 1935, the City of Atlanta and the Fulton County have come to an agreement to extend the library services already present in Atlanta to all of Fulton County. The Carnegie building underwent trough renovation and expansion in 1950 and with these developments, it changes name from Carnegie Library of Atlanta to the Atlanta Public Library that was the headquarters of the Atlanta-Fulton Public Library System.

The Carnegie Library, even after the second renovation in 1966, could no longer provide for the needs of the citizens. As many cities in the country, Atlanta have been subject after the WWII to a rapid population growth that incapacitated different municipal services such as libraries. The lack of space, new modern technology and a new vision for libraries push to build anew. It evolves to a point where there was not enough space inside the Carnegie Library, and Atlanta became the last large city of the country that is could not divide books on science and technology because of a lack of space. As said by G.D. Adams, the president of the board of trustees of the library:

> *"A strong Public Library is not just a matter of prestige for Atlanta; a library is a working agency – a service center for people, a source of intelligence for the business educational, social, governmental and purely life of the city."* [304]

According to Carlton Rochell, Atlanta Library Director et the time, the library should be remodelled for the young generation that will double in the 1980's[305] , the young minds need a place to be able to learn about philosophy, to study any particular field and all that in good atmosphere and in a library that simply can provide the necessary amount of information. It appeared imperative to build a new building to meet these new needs. Rochell, and the board wanted for the new library to hire an internationally known architect after interviews with different architects in 1969 they choose to give the commission to Marcel Breuer and an Atlantan firm, Stevens and Wilkinson. This choice made sense

[304] G.D.ADAMS in *Atlanta Public Library Triannual Report* 69-71"
[305] CROWN J., Rochell in "Library is too Small for Effective Use, 1971,

since Rochell was already an admirer of Breuer's work; he had been amazed by the New York's Whitney Museum.

The Construction Development

Following the selection of Marcel Breuer for the commission in 1969, the architect and his associate Hamilton Smith start immediately to design the library. Which led them in March 1971 to flew to Atlanta to present a model of the project and established the principal characteristics of the future library. Nevertheless, a debate centred on the location for the library started on, whether it should be on the site of the current Central Library or a new site. After the first presentation in March of the project, Robert Woodruff, an Atlantan businessman and philanthropist, donated a parcel to the city which led the authorities of the city to request an alternative to the project from Breuer and Smith. An option that, with unknown reasons, had be discarded since the land has been used to compose a Central City Park that opened in 1973.

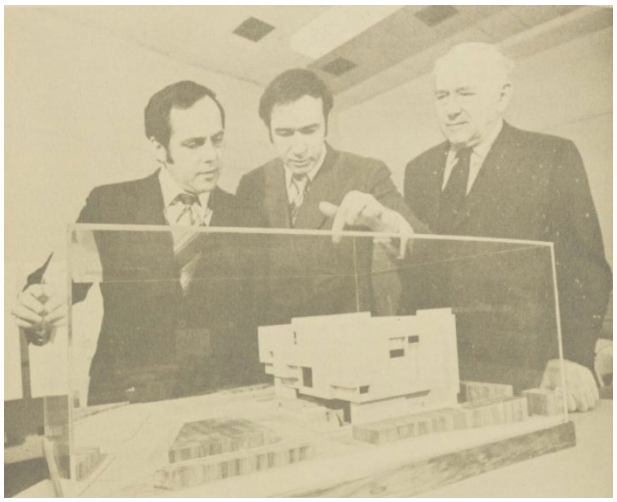

Figure 23 : Looking over a Model of the Planned Atlanta Central Library (Mayor Massel, Rochelle and Breuer)

The library will finally be erected at Carnegie Way in Dowtown Atlanta, as said before the neighbourhood is the first instalment of the city that grew around it. This part of the city gradually became a centre not anymore for the citizens but for tourists and financial tycoons. Therefore, it seems important to have in this centre a building for the habitants for the one living in the area specially for those that don't have access to knowledge as the poorer population, mostly the Black communities.

The development of the project has encountered a number of obstacles and was considerably delayed. The reasons for the prolong are multiple, it needed funding tied to a bond referendum, there have been change for the offers, political change in the city government, indecisions for the site property and the demolition of the old library when it was certain of the construction site. The project drawings were not even contractually confirmed by all parties before 1976. During the discussion the library changed leadership from Carlton Rochell to Ella Gaines, the first African American director of the library System, and she experience most of the construction site progress of the project. The construction finally started in 1977 after the old library was torn down, a part was preserved to create a monument in Atlanta, the Carnegie Education Pavilion.

The development of the building required a total of three years and was finally constructed in 1980 and dedicated on the 25th of May. The project turned out to be the last project designed by the architect who died a year later.

A modern Library

The perception of libraries, and its use, has change thought time, for generations it was recognised to be monuments, temples of knowledge that would keep its secrets within these high walls. The architecture of library reflected this feeling of importance and privilege, and it was truly a privilege to be able to enter these establishments, to be able to learn and do research on any subject.

However, in the second half of the 20th century, this vision gradually changed, first inside the libraries with the possibility of a larger proportion of the population having access to it, and secondly by architects designing new libraries. The post-war period questioned and refused the fixed idea of libraries as merely storage for books, and the users as a static reader. A greater part of the population had access to university which led the younger generation to think that everyone should be able to access information and knowledge, it started to be seen as a right, not a privilege. The vision changed as Rochell said about Atlanta that can be a reflection of its time:

> "*When Atlanta's present library was built in 1900-1902, the library's role was that of protecting books. (…) Its function now is to distribute books.*"[306]

The layout of libraries had to change to fulfil the needs of a changing perception and to be focus not on the grand idea of knowledge but on the user. The exterior becoming welcoming, the interior having to be flexible and efficient, to accommodate to new technologies and in general the library had to be attractive and provide what is needed for its visitors. Researchers wanted to move beyond designer-centred models to explore the wider societal context. It was no longer a question of knowing what something was but of what it could be.

In this new context of ideas, the design of the Atlanta Library had not as only purpose to be a space for bookshelves but to transcend this vision of the library and offers the possibility to share information and creates connections as a cultural and educational centre. In addition to rooms that will gather the wide book collection, the infrastructure has an outdoor dining terrace, an exhibit hall, and large auditorium. There is major improvement in terms of technology, a music rooms, a typing rooms, a popular reading areas and lounges and television rooms are added to the program to adapt to its time and provide the needs of the business community as well as the general public.

At the time, the library's director, Ella Gaines Yates, pointed out that the building's great flexibility had made it possible to attract a public that was not used to coming to a library, because the building offered other perspectives than just reading: listening to music, playing board games, discovering tools for the home or garden or taking a yoga class[307]. But that's not the only interesting aspect of the library, because its director has always been concerned about making reading accessible to all. In fact, she has extended the library's services to disabled people, ethnic groups and prisoners. She created a library extension in Fulton County Jail, making it the first prison to include a public library branch.[308]

Although she has stated that she wanted nothing to do with racial divisions because "*I am not running a black or white library, we are here to serve the people*"[309], and that "*We provide public access to the Knowledge Network to improve, enhance, and empower lives in our community, region and world*", the library today contains one of the largest collections of African-American literature and historical documents in the country[310]. In a city where racial divisions had been entrenched for more than a century, Ella Yates' fight against the lack of access to libraries for the underprivileged and those who were geographically or educationally remote led Sybil Moses, a specialist in African-American history

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[306] CROWN J., Rochell in "*Both Function and Beauty could be ours*", 1971, ""ee""""""$(1+x)^n = 1 + \frac{nx}{1!} + \frac{n(n-1)x^2}{2!} + \cdots$

[307] KESSSLER K., Commentary: Before we knock holes into Central Library, we should be certain that's what Atlantans really want, https://www.atlantamagazine.com/news-culture-articles/commentary-knock-holes-central-library-certain-thats-atlantans-really-want/

[308] Her numerous accolades included the Distinguished Service Award in 1989 from the Black Caucus of the American Library Association for her commitment to minority recruitment and literacy programs and for providing library services to unserved populations. She helped found the association's Coretta Scott King Book Award. That year the Virginia Commonwealth Chapter of the National Coalition of 100 Black Women presented her with a Serwa Award for outstanding contributions in government. https://fr.findagrave.com/memorial/14874665/ella-mae-yates

[309] DERRICK H., Ella Yates, first black Atlanta library Director, [online:] https://web.archive.org/web/20221210013246/https://www.legacy.com/us/obituaries/atlanta/name/ella-yates-obituary?pid=18306307

[310] Atlanta Fulton Library, [online:] https://web.archive.org/web/20221209015426/https://bestpubliclibraries.org/place/atlanta-fulton-public-library-system-central-library-atlanta-ga.html

and culture in the Humanities and Social Sciences Division of the Library of Congress, to say that Yates was: "*one of the most influential leaders among blacks and whites in the library and information science profession*"[311].

The design of the library allows it to evolve in the future by its flexibility, its openness and accessibility. Hamilton Smith, Breuer's associate, who worked on the project with him, said about the concept of the project that it was "*dynamic rather than static, asymmetric rather than formal – a fitting expression for a contemporary library looking to the future – far from being simply a repository for books*." [312] The shape of the building is thought to make it recognisable as a library and not in the sense of old monumental library but to express a specific use that differ from the commercial structure surrounding it. This is the modern library, a library that collect knowledge for everyone, but furthermore is a cultural centre and a place for the community.

Contrast with its Context

Talking about a model of the Atlanta Central Library, John Crown, a journalist for the Atlanta Journal said:

> "*The drawings and the model of the Structure resembles nothing that is in Atlanta at present nor, to my knowledge, anything that is projected. It is unique. It is individual. It is monolithic. And it is magnificent*".

The building is occupying an entire block within the dense and changing central business district of downtown Atlanta, this privileged position constituted an opportunity for the architects to design a building detach from its surroundings and facing the street on all sides. In an atmosphere were slick, glassy envelope with vegetation and falling water are the main architectural language they made an edifice that contrast with it dynamic monolithic forms against this background of quiet clarity and utility.

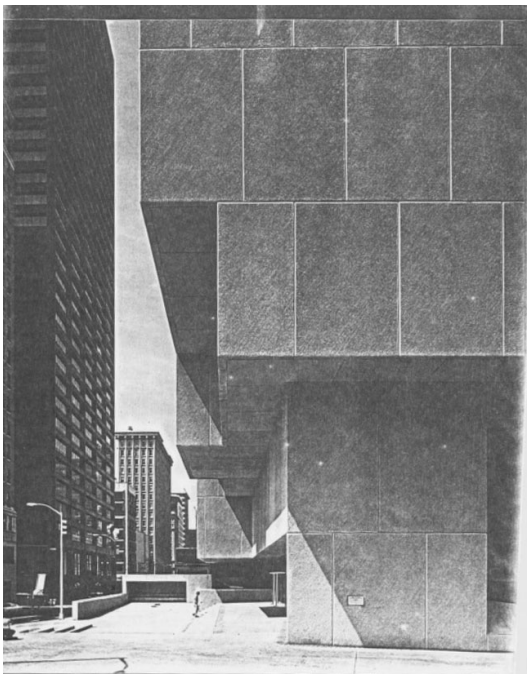


Figure 24: Picture of the Atlanta Central Library

Breuer and Smith said that they envisioned the project being surrounded by tall office buildings filled with windows and in constant state of change. The library would "*always be smaller (…) It must have its own individuality, its own identity*."[313]The context having a heterogeneous texture the building by its monumental figure and use of the concrete differentiates itself. It is even more significant and possible because the edifice is placed on an entire block and could be isolated by the distance create by the public spaces. According to Breuer, transparency does not encourage the reading of a place in its environment any more than when the project is presented as a closed place; on the contrary, solid and silent, it encourages entry, architectural reading, and literary discovery. The interior and exterior are linked in a tenuous way by few openings, but strongly by the desire to discover. In the heart of urban metropolises, the ephemeral character breaks the rhythm and solidity of the city. Pour Breuer, et comme il l'a déclaré lors d'une table ronde en 1961 : " *I'm critical of the unreasonable and unilateral*

[311] Controversial Atlanta librarian Ella Gaines Yates dies, American libraries, [online:] https://web.archive.org/web/20141009141431/http://www.americanlibrariesmagazine.org/archive/2006abc/june2006ab/ellayates
[312] JASON.A, *Atlanta Central Library - Cultural Inspiration in a Commercial Area*; Article draft, no date
[313] BREUER M, cited by CROWN J., in Marcel Breuer's Design First Rate for Atlanta, 1971

use of glass as a universal enclosure of space because there are also many human needs that our glass wall does not fulfil ".[314]

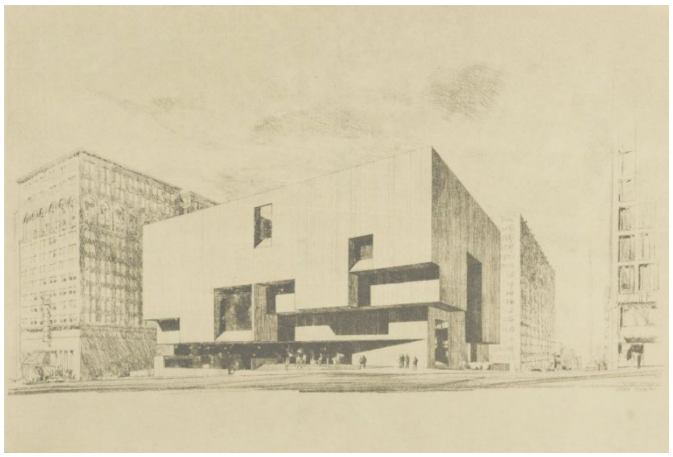


Figure 25: Drawing of the Atlanta Central Library by M.Breuer

The effort to make the building unique in comparison of its context is additionally to make it a recognisable edifice imperative for a cultural centre of a Major city. The edifice takes a notable status into the landscape by its dissonant architecture and the rough material used, Breuer will continually use these contrasts between expansion and contraction, opacity and transparency, betting on the desire to cross the threshold from the noise of the city, to feel the strength of the architecture in continuity with the street.

His vision of the context, his conceptualisation of it, is reflected in an architecture that is both physically and philosophically elevated. If Aalto approached the context with caution because life had to take precedence over it, one senses that Breuer wanted to impose an approach that he wanted to complete, where the answers were provided, even if he was perfectly aware that it was a partial answer and that the process was more important than the result. Breuer succeeded in signifying places as emblematic, which in no way merge with the surrounding environment but are integrated into it through all their pores. In his own words:

> *"As I see it, we are in the flow of transition from modern architecture to good architecture, from transparent architecture to one which sets solid elements next to transparency, which also sets a new plasticity next to lineal purity. The architecture of between vivid contrast"*[315]

Holistic vision

Marcel Breuer attached great importance to experience. From his years at the Bauhaus, he retained the importance of constantly reworking his language, both in terms of the tensions involved, the balance to be found in the geometries and the dynamic components. The simplicity of the lines and compositions of the final work are, as he expresses it, the result of a long search to reach it from the obvious complexity of the beginning. He doesn't lock himself into a theory, he was seen "*…like an intuitive designer who trusted his instincts more than precise calculations*"[316].

[314] BREUER M., Marcel *Breuer: Sun and Shadow,* [online] https://www.tandfonline.com/doi/full

[315] BREUER M., Marcel Breuer's comments at the lecture "Matter and Intrisic Form, University of Michigan, Archives of American Art, Smithsonian Institution, Washington, DC.Box 7-Reel 5718-Frame 1092-1183

[316] TOBIAS T., Op. cit., [online] https://www.offbeatbudapest.com/features/marcel-breuers-world/

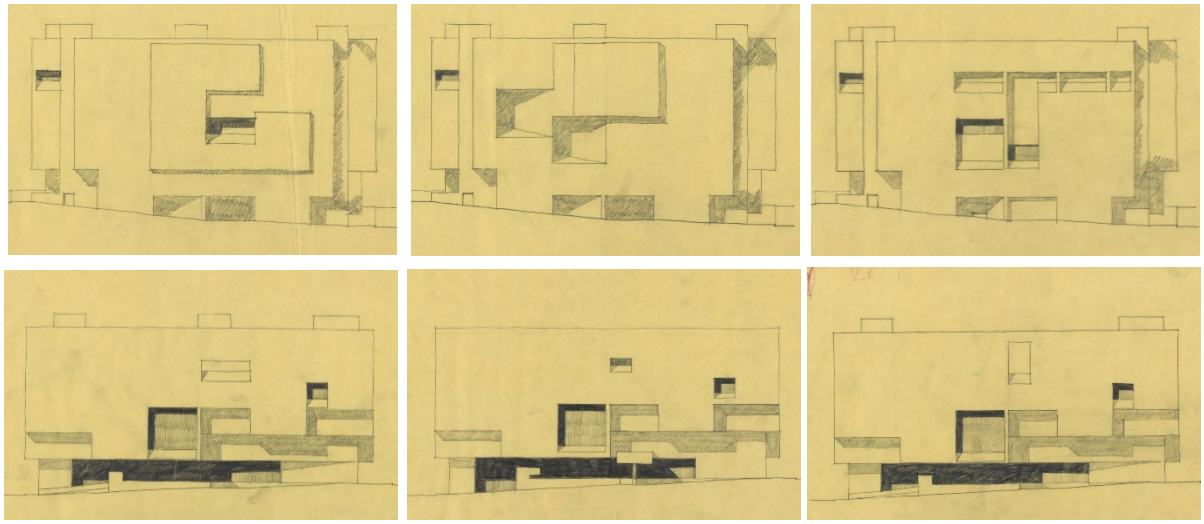


Figure 26: Iterations drawings of two facades by M.Breuer

The conceptual work for the projects is based on holistic, intuitive, contrasting, experiential and sincere dimensions. He developed a sensitive vision of architecture that did not deny functionalism, standardisation and the rejection of copies of the past, but rather reinvented innovative architectures from these paradigms. This architecture was in no way intended to be stylistic, yet Breuer defines modern architecture more as an instinct based on three principles: the direct approach (intuition), clarity (to eliminate chaos), and truthful elements by introducing a social aspect into his architectural concept. As Sandé explains, Breuer's architecture is "*an experience for the senses, the visual aspects of the impression of light and shadow and the tactile aspects accompanied by a tectonic vision. Of an architecture on a human scale, where space, material, light and shadow, structure, function, and form merge into an authentic and personal work*"[317]. His work is developed through a particularly advanced process of abstraction.

The architect's approach is less about an "*emotional relationship that brings our inner state and our surroundings into unison*"[318]. He does not start from man: all these men and women, children and adults who will come to read, make music or do yoga, to meet, debate and exchange in a great vision with a public dimension capable of transmitting symbolic, cultural and historical values, an approach that Professor Josep Montaner describes when he says: "*Architecture must assume its public dimension and use metaphor, symbol and history to connect with people*"[319].

In conclusion, Marcel Breuer's great talent was as much his artistic intuition as his acquired sense of gravity, tension, materiality and plasticity. These aspects take on a unique dimension in this library, its monolithic power inviting discovery in the same way as a cave or a box. As the architect, Austrian historian, professor of architectural history and theory and director of the Carpenter Center of Visual Arts at Harvard University, Eduard Sekler, points out, "*When a structural concept has found its implementation through construction, the visual result will affect us through certain expressive qualities that clearly have something to do with the play of forces and the corresponding position of the parts of the building*".[320]

[317] SALVE M., Ibid., p.21
[318] ZUMTHOR P., *Environnements architecturaux. Ce qui m'entoure,* Bâle, Boston, Berlin, Birkhaüser, 2008, p.17
[319] MONTANER, J. M., Après le mouvement moderne. Architecture de la seconde moitié du XXe siècle, Gustavo Gili, Barcelone, 2e édition, 1995, p. 152. .
[320] SEKLER , E., Structure, construction, Tectonics. KEPES, Gyorgy (ed.). Structure in Art. Visión + Value Series. George Braziller, New York, 1965, p. 89. Cité par Miguel Salvé p.405

Atlanta's Library

The newly built Atlanta Central Library is in its entirety ten stories, eight above ground and two underground, the last two floor are for future growth of the library. The general shape of the building is a cube made of concrete with extrude elements to create dynamism into the façades. There is on the ground floor a glass wall that allows any passers-by to observe the life into the library and is desirous to enter. This is reinforced by the shape of the building in front of the entrance that is cantilevered and invite to shield under it and constitute a transitional space between the exterior and the library.

The area settle from the pavement to the entrance is modelled to be a small 'amphitheatre" with steps as "seats", it is again a sign to welcome people that want to pause in the overwhelming environment and maybe will they be lured inside the beautiful building. Thes steps have also the functionality to establish a buffer space from the verry public space of the street to the calm atmosphere of the library.

The site has something of a steep slope but that was use at the advantage of the building creating two different access at two different floors, the main entrance is at the ground floor and at the basement there is a secondary entry for staff and for the services open after the library hours.

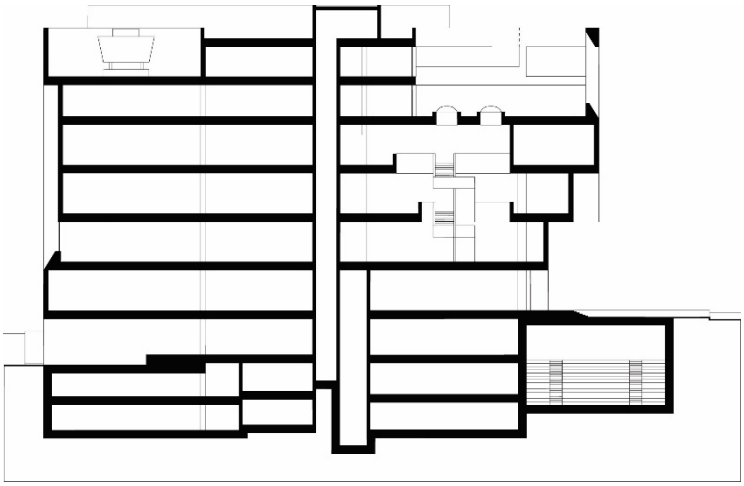


Figure 27: Transversal Section

The main entrance is made from Forsyth Street by revolving doors and penetrating the library directly into the main space, the plan being an open plan, the first element in sight is the general reference and circulation desk, on the left you can observe through a glass wall the Popular Library that can also be seen from the piazza. Alongside the south wall are the smoking room, conference room, microfilm room, television room, periodical office, and quiet room. On the west side is situated the librarian's office, a large learning centre and a workroom. Finally at the centre is placed three elevator, one that is connected exclusively to the below floors, and the others connect the entire building, one is for the staff and the other for the public. Beside the North wall is positioned a grand staircase that formed the link between the basement, the ground floor and the first floor. This staircase is purposely placed at an angle in relation to the Est wall, from that choice result an oddly trapezoidal space brimming with light bring by the large window next to the stairs.

The basement of the building consisting of the Children's Department filled with books and has its own storytelling pit for their greatest joy, an auditorium, a cafeteria alongside with an outdoor dining terrace and an exhibit area. A second entrance exist on this floor for busses of children that would come with the schools and for the cafeteria and the exhibit area that are still open outside of the hour for the rest of the library.

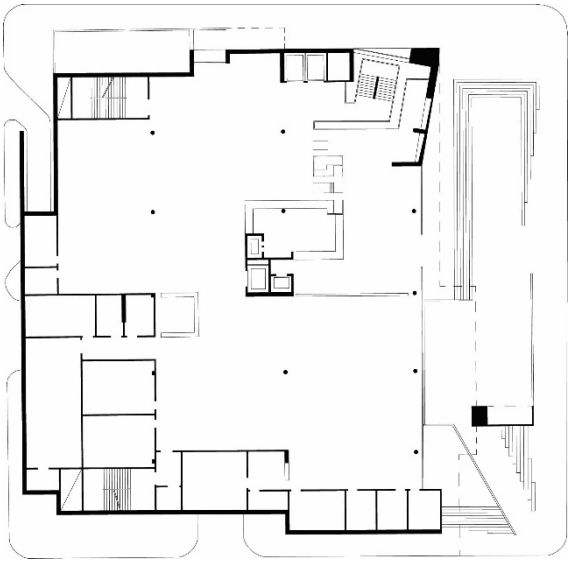


Figure 28: Ground Floor Plan

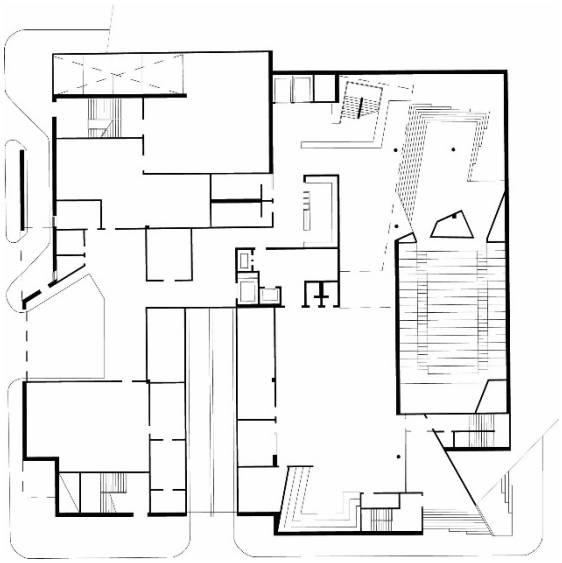


Figure 29: Basement Plan

The three first floors are dedicated to the readers and to the public, you can find here all the book collection divide in between the floors. The connection between the floors is made by grand scissors staircase topped with skylights to bring lights inside of the building. It allows easy movement to wander through all the collection spread around the different floors, furthermore it seems easier to comprehend for the user as the floors have a similar layout. The upper floors are devoted to special collection, technical services and the staff lounge and offices. The administration offices are arranged around a courtyard that give light and gives and exterior spaces for the staff to enjoy.

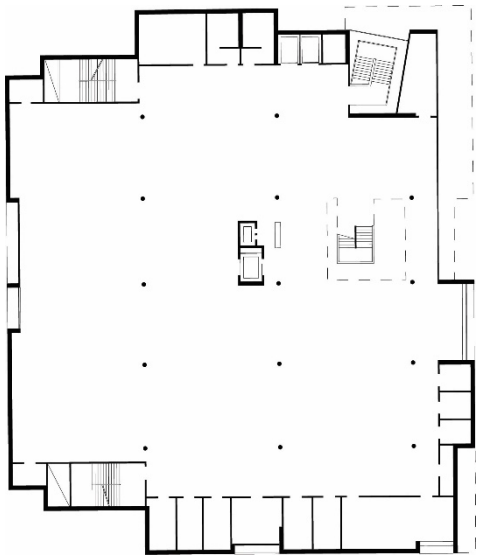


Figure 30: 1st Floor Plan

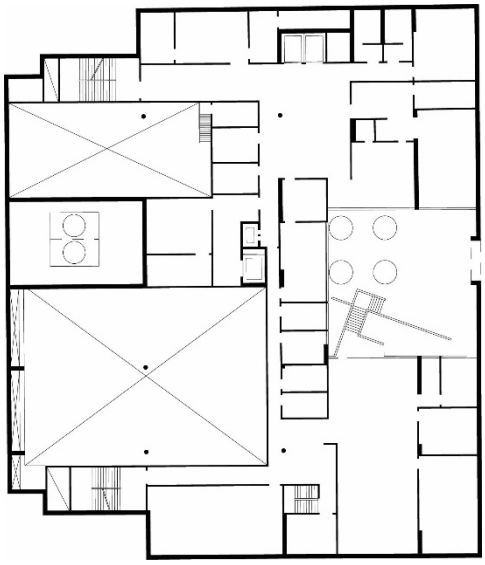


Figure 31: 5th Floor Plan

The new library when compared to the old Carnegie Library have expanded the space and reach up to 100 miles of shelve space with only up to 24 before, which translates for a capacity for 1.5 million

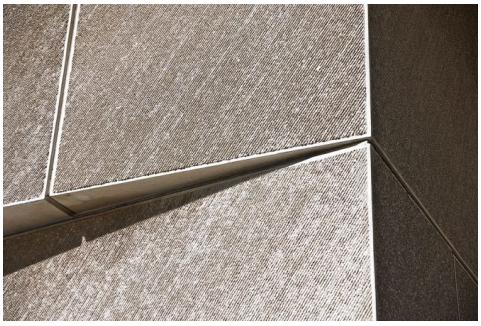
books. The openness and flexibility achieved in the design are helped by the steel structural system made of columns laid out in rectangle of 8m by 14m.

When talking about the light that enters inside the building, we can say that there are more places where it occurs that it could have been guest at first glance since there is not an expanse of windows. This choice result from a need to be energy-efficient, with less heat transfer from the exterior surfaces and to protect book that are light sensitive and would be damage by the sunlight. Nonetheless, there is few areas that will not be connect to the outside it is the case in the public part as the part for the staff that is provide with an outside courtyard at the centre. Marcel Breuer when talking about light said that it must also be controlled without flooding the interior through unreflected glass walls.

Materiality

The architecture proposed by marcel Breuer is made of sincere contrasts, multi-sensory experiences, holistically expressed in metalanguage, that embraced the multiple complexities and diversities of humanity. His language is produced by immense spans, folded structures, cantilever, pierced veils, with a use of concrete that seek the most suitable typology for each programme. Every building must have a material that transmits force and unifies the space:

Like many architects of its time Marcel Breuer believed that concrete, untouched wood, metal and other materials have a quality of their own that should be raise at their true value and should not be conceal. He had always favoured concrete for its plasticity, for its expressive quality and the textural opportunities given by the material, how sunlight could enhance and show different detail of the façade. He recognises concrete as a universal material that suffice both architectural and structural needs.



The façade of the Atlanta Central Library is form by pre-cast, non-structural concrete panels, and its surfaces were textured by pouring concrete onto plastic forms with diagonal striations of relatively 1,3 cm. Finally, the smooth surfaces of the concrete had been bush-hammered to give it a rough texture and expose small aggregates. The panels itself are 4,6 meters high which are the height of the interior floors, connect by thin joint.

The structural system of the building is based on concrete slabs and a steel structural frame made of columns laid out in a rectangle of 9m by 14m that allows to achieve the openness and flexibility that prevails inside the library.

The different materials used inside have been chosen to avoid as much as possible visual nuisance and to favour a quiet atmosphere needed for a Library. For the floor, it has been decided to place carpet in the public areas for acoustic purposes since it helps maintaining a quiet space necessary for a library. To continue in this vein and create a continuous and peaceful space that will be filled with people, resources, and equipment that could be overwhelming, it has been choose that the walls and the bookstacks would be white with carpet that would be a light marble grey or dark slate grey to define certain specific areas. On the first floor the layout is as follows, there is a central area define by the dark grey carpet with a white service desk and a Lounge grouping surrounded by a wide open space with the light grey carpet.

The multiple stairs are well design and well thought out, the pre-cast concrete panels composing the walls of the staircase on the side of the building have been texture by the same bush-hammered technique and framed by a smooth concrete surface. This rough texture from the concrete contrast with the windows on the side and embellish one another. The stairs itself are made from board-form poured concrete topped with solid granite that creates a relief, and the landing are made of bluestone pavers. The interior of the balustrade of the stairs are again made of concrete where the trace of the wooden cast has been let visible. Place has been made for the rail, the top of the concrete balustrade being offset, the rail is made of ash wood treated with a clear finish to allow us to see the natural colour of the wood. The outside of the balustrade is once again bush-hammered to bring out this rough texture framed by a smooth part. Both grand staircases are made in the same manner.

Facade

The monolithic cube-shape structure of the Atlanta Central Library may seem cumbersome at an initial glance, but it is enhanced and lightened by the extrusion of the mass that create an unexpected placement of windows, a dynamism as an overall and by the subtle patterns of the concrete panels.

These panels are carefully placed on the façade which are in general staggered yet not all of them are, depending if the plane of the façade is on front are a recessed plane. The panels are the only clear expression of the interior floors, however the grand openings, the rhythmic play of different planes and texture deluded the vision of the observer in favour of the grand vision of the form.

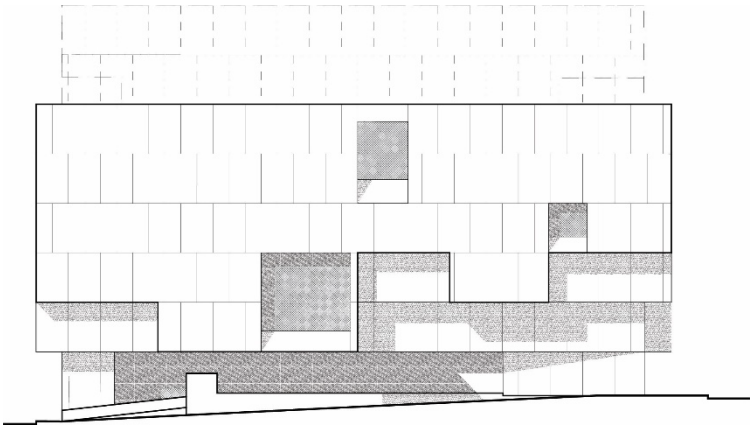


Figure 32: East Façade

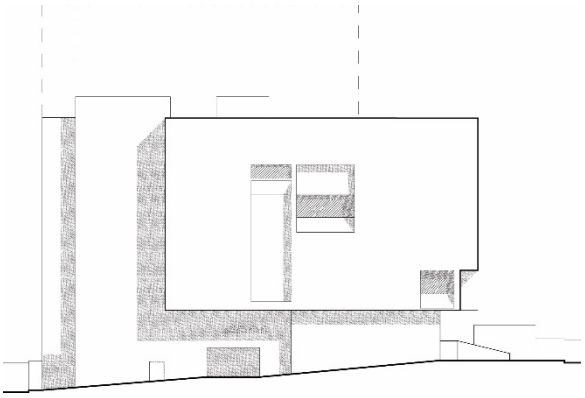


Figure 33: South Façade

The composition of the façade can be described in terms of symmetry, repetition, contrast, and rhythm. The façade has a unity by its materiality made of pre-cast concrete panels and glass, nevertheless the intricate composition contributes to shape a visual rhythm that is pleasant to look at and is even intriguing and challenging for the mind. It is asymmetric yet balanced a composition, there is here a desire to give the structure a set of emergent shapes, to established hierarchies and to induce relationships between the different shapes. The overall dynamism of the façade can be understood at first glance, it can be realised as the viewer will tend to pay attention to the façade in its integrality rather than focusing on some strong areas.

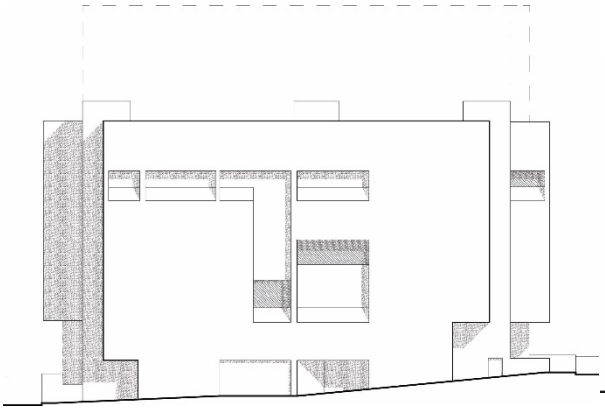


Figure 35: West Façade

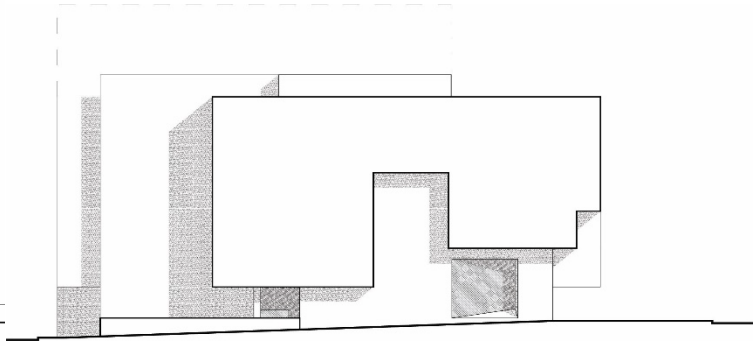


Figure 34: North Façade

This work is a perfect reflection of Breuer's insistence on the finish of each detail, which was an integral part of the whole. In the words of Gatje, who worked with him for 23 years: "*He was very particular about the way the stone was laid and insisted that if we were to expect the mason to do the job right, we had to draw it right".*[321]

Conclusions

The analysis of the Atlanta library reveals a strong visual identity for the building, which both reflects the perfect technicality of the materials and eloquently conveys the function and content of the library. As Dominique Amouroux says in a book about the library: "*Its compact forms, the interplay of planes and deep hollows, the relationship between generous full spaces and measured empty spaces, the way it captures natural light and views through limited openings (...) are valuable references for them (contemporary architects*)"[322].

[321] GATJE R., Marcel Breuer. A Memoir, p.54
[322] AMOUROUX D., Marcel Breuer. Les réalisations françaises, 2014, p.35

The concept at work in this space is intimately linked to all the contexts of Breuer's career, from the beginnings with Kandinsky and Itten's full and empty spaces[323], to the accumulation of experiments using the Bauhaus method, then the encounter with concrete, its textures, depth and relief, and finally the memorability of the image, which had to translate into form and space the symbolic needs that American society wanted to convey in its public institutions. As Miguel Salve puts it so well: "*Breuer integrated all these experiences, creating an order and a method from them. Breuer's artistic talent and his acquired sense of materiality, gravity, tension and plasticity led him to combine all these concepts in an architecture in which contrasts and tensions merged into a complete physical experience*"[324].

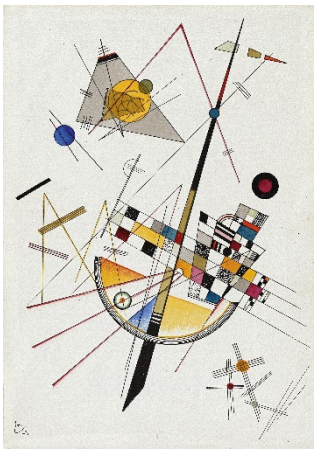


Figure 36: Delicate Tension. No. 85, Wassily Kandinksy, VEGAP, Madrid

For the Atlanta library, the challenge was to build a space that was both prestigious and modern, but also flexible and accessible to all. We have seen how important these aspects can be in a city as racially diverse as Atlanta. The building also had to present the strength and solidity of a public institution in an environment of glass, finance and commerce. This identity had to stand out in the jungle of glass skyscrapers, while *transforming the vitality of the street into the sincerity and depth of the art*[325]. Breuer understood this very well when he created this place, full of contrasts both in its perception and in its form, textures and materials. Solid, silent, recognisable, demonstrative, his library takes the codes of a classical library, but transforms them, creating the "genius loci" that makes it an emblematic building.

His work for the library can be describe has an architecture that embodies heavy lightness.[326] It's a place where fabrication, freed from composition, works on the physicality of shaping processes, and where the modernist vocabulary is not the only interlocutor, but modernism as a whole makes sense. It's an approach that contains humanity taken as a whole with clarity and sincerity, where the totality of the interior is pressed outwards, a permeability that is felt but not exposed, and which invites us to enter as if into a secret, sheltered place. Few areas are not connected to the outside via windows, and the monolithic appearance is punctuated by hollows and protrusions, contrasting negatives and positives. Breuer has once again integrated engineering and architecture. The space is a sculpture that you enter, and its shape is determined by the materials it is made of. Everything is considered from the inside: from the colours of the carpets to the wood of the staircase balustrade: a global vision that integrates people and their differences. As Breuer himself put it so well:

> *"A lot of people ask: in this new, anonymous space, with its continuity — in this architecture in which one part is dependent on the next—where is the place for the human being, where is the place for individual, personal expression? I think the answer is that, in reality, the simpler the space, the plainer the backdrop, the more important becomes the individual human being seen against this backdrop....a wall covered with Rococo paper fights with the individual in that room, gives him or her much less chance to be a self-expressive person."*[327]

[323]

[324] SALVE M., op.cit., p. 443

[325] BREUER M., "Notes for M.B.'s comments at the Presentation of the Project of the Whitney on November 12th," Box 21-Reel 5729- Frame 418-435, Breuer Papers, Archives of American Art, Smithsonian Institution, Washington

[326] The airy shapes, combined with the heavy massing of concrete, led Barry Bergdoll, the chief curator of architecture at the Museum of Modern Art, to refer to this type of construction as "the invention of heavy lightness."

[327]

Dialogue between concept and context according to Breuer

the end of these chapters, how did Breuer use context as a conceptual tool to create an architectural object? How did he develop a dialogue between conceptualising the context and contextualising the concept?

A design by Breuer is always eminently social, made for people, fundamentally holistic, and also clear in the sense of being unequivocal both in the unique final concept, albeit derived from multiple contexts, that created it, and in the multiple context that generated it. In Breuer's work, spaces, materials, shapes and structures each have a place that has been carefully thought out, within a content that is in spatial tension, so as to keep it alive and structure the envelope in a poetic materiality that is indissoluble from that content. It's not a question of using concrete in a purely brutalist sense, i.e. by stripping it of any existence other than its materiality: it's a question of multiplying the possibilities of its materiality. As Breuer put it: "*We can distinguish two ways of understanding the material and its visual perception in architecture, we speak of two different levels: the first is that of the material itself "its intrinsic characteristics which are used in the search for its own expression and the second level, the level of the work as an overall design, an order imposed by the architect-builder, with the technological resources of the time and "the creative roots of the builder*"[328]. For Breuer, what can be seen as both material and spatial constraints become a process of experiential creation, in which he transforms matter into form and spatial tension, and boldly integrates it into contrasting sites. The genius loci is at work: the site becomes a meaningful place. The context is conceptualised as an emblem. The concept is contextualised through experiential processes. As Miguel Salvé points out in his thesis on Breuer: "*If the fireplace is the centre of the family nucleus within the private space, the house will be the centre of its environment, of a wider social group and of a cultural relationship with its time*."[329]

[328] BREUER, M.. *Matter and Intrinsic Form*, conférence à l'Université de Michigan, mars 1963. Marcel Breuer Papers, 1920-1986. AAA.
[329] SALVE M., Ibidem, p. 398

From theory to project: Contexts are a Concept

"*When I personally have to solve an architectural problem, I am constantly - and almost without exception - confronted with an obstacle that is difficult to overcome (...) The reason for this seems to be the heavy and complicated burden resulting from the way in which architectural design works with countless, often mutually discordant, elements. Social, humanitarian, economic and technological requirements, combined with the psychological problems of the individual and the group, the internal movements and frictions of crowds and individuals, all form a tangle that cannot be resolved rationally or mechanically*."

Alvar Aalto

Introduction

As we have seen, the use of context as a conceptual tool to create an architectural object, the subject of this paper, must produce a place that has meaning. This context is also "plural, unlike the concept, which is singular", as Bernard Tschumi explains[330]. So, in order to carry out a project, we had to weave together the reciprocal constituent and dialectical links between these contexts - those at work in any project and those specifically prioritised for a library project - in order to build a conceptual tool.

The notion of concept was explored at length, and without going into the heart of what was developed in the brief, it can be said that "*it is futile to try and control the development of a project, the essence of which of course eludes the projector itself, a mixture of personal, simultaneous and contradictory emotions, surprises, chance events and encounters. In the end, doesn't the result of the project come from interactions so numerous and complex that they are impossible to grasp*?"[331] This is what Alvar Aalto said when he talked about the way he worked on a project. As for Breuer, his approach was not identical, but similar in a more societal sense, as he put it: "*The New architecture might be compared to a crystalline structure in process of formation. Its laws correspond to human laws and functions, which are other than those of nature or organic bodies. In its more immediate conception, New Architecture is the "container" of men's domiciles, the orbit of their lives."*[332]

Context and concept therefore remain far from being able to claim a definitive definition. It was therefore by establishing a relationship between context and concept that we were able to understand the two libraries under study, without claiming precedence for one over the other. The last word on this relationship goes to Bernard Tschumi: "*Does the context become the concept or the opposite? Concept and context are interchangeable*"[333]. Contexts are a concept.

Two architects. What lessons can be learnt?

Far from the reductive contextuality that has become widespread in recent decades[334], the reciprocity between context and concept, both in theory and applied by Alvar Aalto and Marcel Breuer, was the starting point for the library project.

As we have seen, Aalto is concerned with the contexts at work: environmental, psychological, social and cultural. He tells a story like a book. His conception of architecture is based on the people who live in or use the space. His conceptual approach is based on drawings, memories, sounds and smells,

[330] TSCHUMI B., Event Cities 3, Concept vs Context Content, The MIT press, 2005, p.1
[331] CORAJOUD M. & MADEC Ph. "Le temps vu de l'horizon : Dialogue sur la participation de l'architecte et du paysage au mouvement du monde". Prost R. (dir.). Concevoir, inventer, créer. Réflexions sur les pratiques. Paris : L'Harmattan, coll. Villes & entreprises, 1995, pp.95-116
[332] GYULA E., *Breuer Marcell Marcel Breuer,* Ervek es Eredmenyek, Principles ans Results, Pecs, Kiado, 2008, p.58
[333] TSCHUMI B., *Event Cities 3, Concept vs. Contexte vs. Content,* The MIT Press, 2005, p.1
[334] DELPORTE A. Shuk context, Mémoire de fin d'études, ENSA Clermont-Ferrand, 2016

whether conscious or unconscious, and he transcends them by combining volumes, materials and spaces that make sense.

Breuer works with context based, as he puts it, "*on intuition, clarity and truthful elements. The contexts are also multiple, but he integrates them as much as he combats them when he doesn't want the Atlanta library to resemble the large companies around it, but encourages people to enter it in order to "transform the vitality of the street into the depth of art*"[335]. As Tschumi puts it: "t*he aim of architecture is not necessarily to adapt to the context*"[336]. It's much more a multi-contextual, phenomenological approach that builds a concept. Breuer is more inclined towards poetic juxtapositions than irresponsible impositions. As he puts it:

> "*reciprocity corresponds to a situation in which concept and context interact intimately, complementing each other, seeming to blend into a single continuous entity without fracture*".[337]

The conceptualisation of contexts

Introduction

As we have already said, "(*architects') work is often presented in narrative form, suggesting that "architecture is also about telling stories*"[338]. So, what is the narrative that was at play here in this project? It's a story that wants to take a broad approach to the range of possibilities, aware that territories sometimes metamorphose before our very eyes, and that the insights gained are all the more enriching for having been cultivated through the links forged. In the words of Luis Angel Dominguez, architect and professor at the Escuela Técnica Superior de Barcelona, we need to give "*importance to the architect as mediator of the relationship between space and society, and to the impossibility of dissociating architecture from the interpretation of context*"[339].

The story begins with Brussels, in the broadest sense, with a focus on a district and then a site where the idea of a library would be appropriate. I started with the priorities of the Brussels Region Development Project (the PRDD[340], which covers the 19 communes of Brussels). I then decided to combine information from a map of existing libraries in the Brussels region, adding a 15-minute catching area, and the PRDD map. This allowed me to identify three areas where there was a lack of libraries, and within these areas, wasteland appeared. From these, I introduced two other concepts already identified in the PRDD in the idea of polycentric development, namely accessible public transport and the population density of the area. A wasteland in the municipality of Anderlecht (one of the Region's 19 municipalities to the west) then came to the fore, whose contextual history will enable a new conceptual narrative to be written.

But the history of the project also continues through social, artistic and political life. A colourful society runs through these neighbourhoods, and has done so for decades, a social history marked by centuries of economic production, transforming hops into beer or linen into textiles. The walks are marked by the work of the workers, their presence and then their disappearance, and the buildings that remain

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[335] BERGDOLL B., *Marcel Breuer and the Invention of Heavy Lightness,* 2018,in Places, https://placesjournal.org/article/marcel-breuer-and-the-invention-of-heavy-lightness

[336] For Tschumi, the link between concept and context is either ignorance, reciprocity or conflict.

[337] BERGDOLL B., ibid

[338] PIANO R. et CASSIGOLI R, La désobéissance de l'architecte. Conversation avec Robert Cassigoli, 2004

[339] ANGEL DOMINGUEZ L., *Sur la nécessité du contexte dans le projet en architecture,* in Muntanola Thurnberg J., *Architectonics Mind, land, Scale and Society-Arquitectura y contexto,* édition UPC, 2004, p. 29

[340] Plan Régional de Développement Durable (PRDD), 2018 (Regional Sustainable Development Plan), online https://perspective.brussels/fr/outils-de-planification/plans-strategiques/plan-regional-de-developpement-prd/prdd

as a reminder of their passing. Today, different functions have taken over, such as small shops or the occupation of large old industrial buildings by artists or associations.

Identify the site of the library

The existing Libraries in Brussels Region

To begin this journey to the design of a Library in Brussels it was first considered to diligently determine the site of the project, and therefore the area that would benefice the most of such a building. The first step was to determine all the libraries present in the area, according to a study made by Perspectives Brussels[341], in 2021 there are 0.6 libraries per 10,000 inhabitants and 4 libraries per 10,000 children of school age (6-17 years).

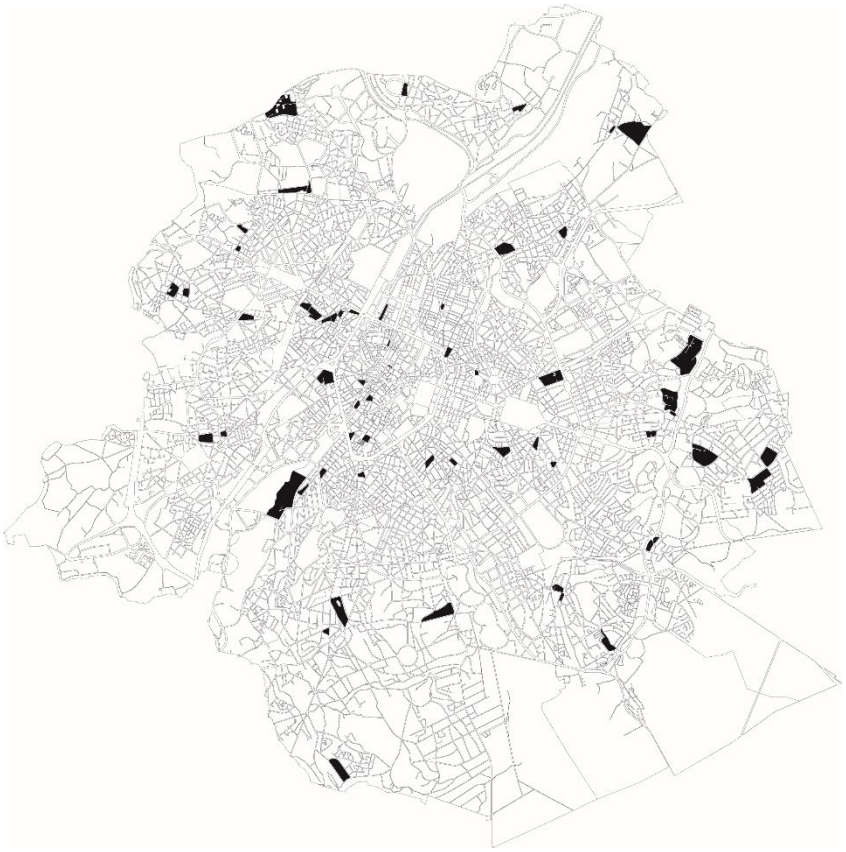


Figure 37:Plan of Existing Libraries in Brussels

As it can be observed on the map beside, libraries are found throughout the region with a concentration of the different types in the city centre. There is a total of 108 libraries, of which 78 are French speaking and the rest are Dutch speaking. centre of the municipality.

I would add that most of the libraries that are now present in the region are for the majority small places which are mainly a place to rent books. Yet library became today a place of discovery and socialisation. Libraries have had to adapt and diversify in order to respond to digitalisation and the demands of a cosmopolitan and multilingual public.

[341] Perspective Brussels, Rapport annuel 2022, [en ligne :] https://perspective.brussels/sites/default/files/documents/ab_bibliotheques_fr_final.pdf,

To continue the research for the right site I decided to work with a catching area which can be, for a service, defined and based on a number of different factors. I chose here to focus on distance, with a circle drawn around the library that will identify a zone in which citizens can easily access the library.

A more in-depth analysis led me to differentiate between libraries exclusively for children and the rest. And to draw areas with a radius of 900m which is approximately a 15-minute walk, and for the kid's library the radius decreases to 600m for a 10 minute walk.

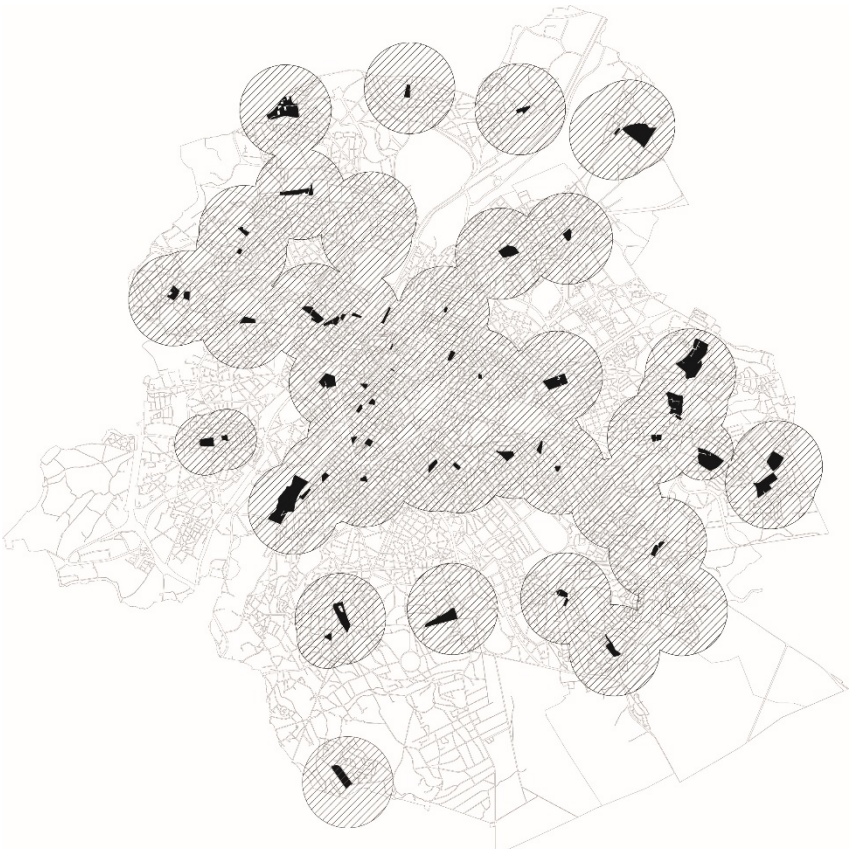


Figure 38: Catching area of the libraries

We can clearly observe that some areas of the city are in a poor state in terms of finding themselves with any library nearby. Areas as the North district, Evere[342], where there is only one library, some areas of the municipalities of Ixelles and Uccle and some places of Anderlecht, where libraries are only concentrated in the municipality.

Areas of interest to implement a new library

Figure 39: PRDD

Furthermore, into the analysis I relied on the PRDD, which is a comprehensive planning instrument for regional development, which is the result of research conducted by consultancy firms for the region. These priority areas aim to densify the existing fabric of the city and strengthen its urban structure.

I then set about intersecting this map with the negative of the catching area map to get a first cross-section of the region in precise zones where it might be an appropriate space to install a new library.

The last step to determine the zones of interests was to understand the relation between the different universities and colleges present in the city and the areas. It should not be too close to

[342] One of the 19 Municipalities of Brussels

one of these establishments as they have big libraries to offer but not as far to be completely remote and to have no link to any of them. And would be therefore useless for students that are an important target as they a in search of new place to calmly work, study and research, outside of the crowded university libraries.

Figure 41:Areas of Interest

Figure 40: Universities and Colleges

Identified site for the library

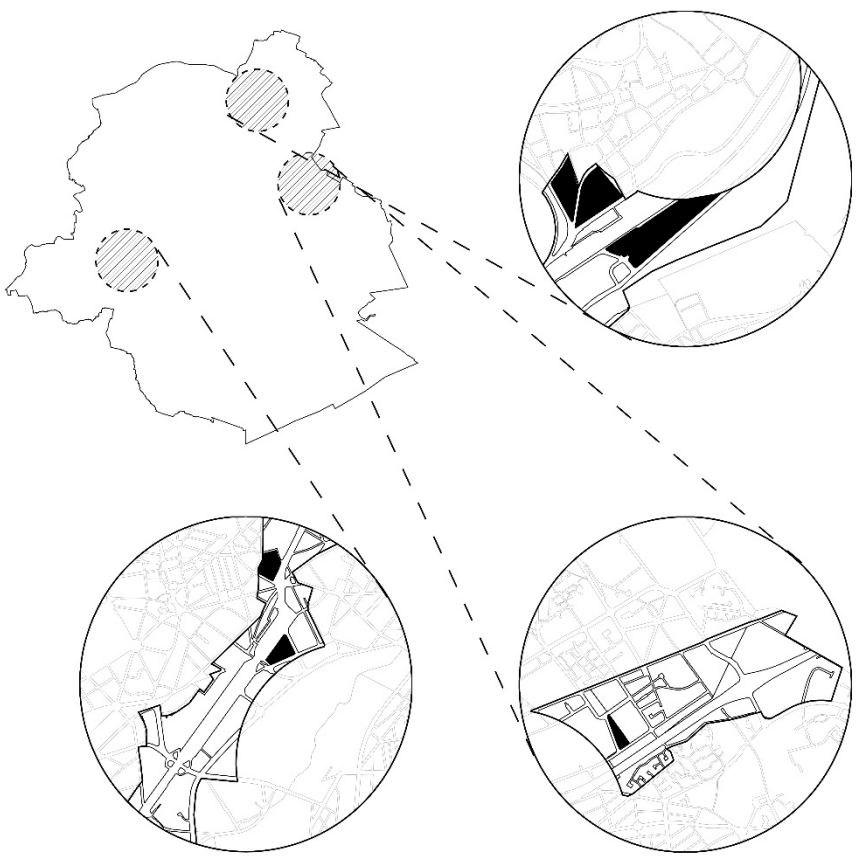


Figure 42: Empty lot in the zones

This investigation led me to determine three different zones around the city. At that point I started to search for empty lot where ultimately the library would be built. They are depicted in black in these plans.

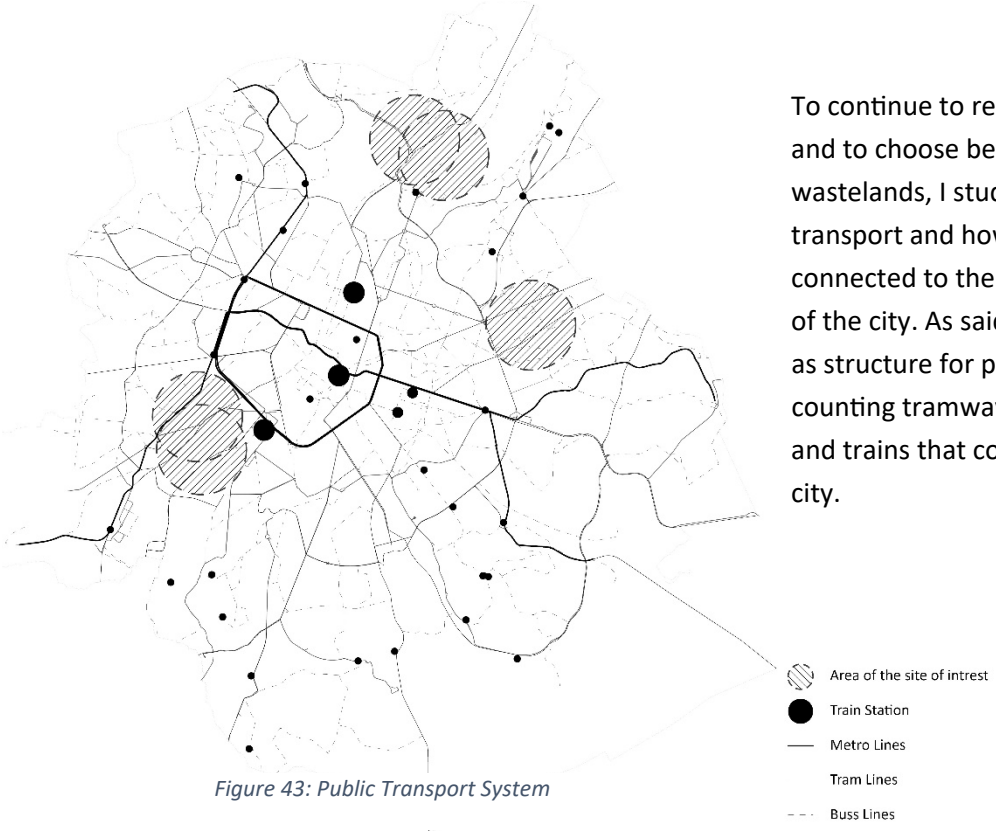
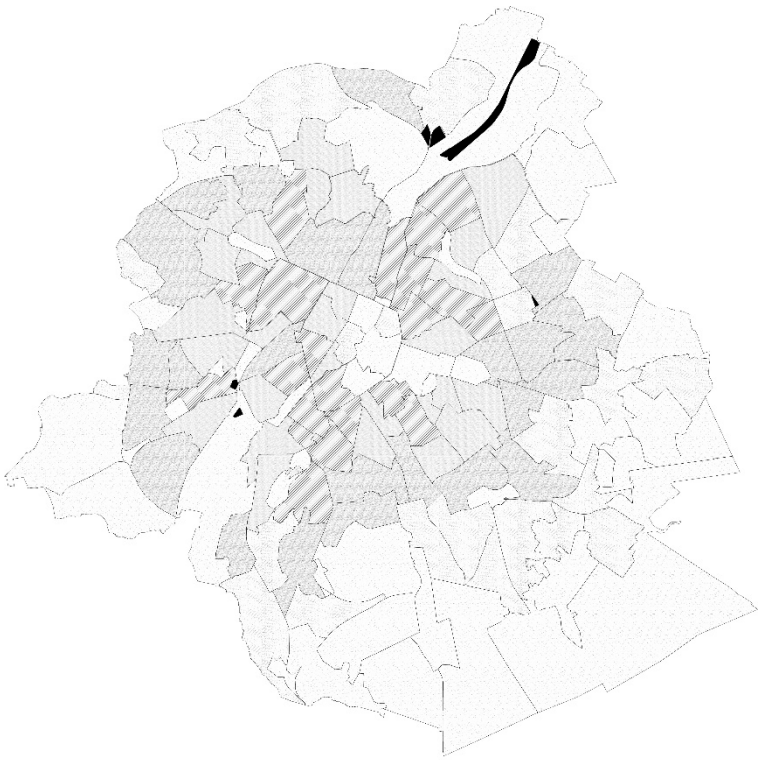


Figure 43: Public Transport System

To continue to refine the research, and to choose between those wastelands, I studied the public transport and how well the land was connected to the transport system of the city. As said before, Brussels as structure for public transport counting tramways, busses, metros and trains that connect the entire city.

I refine the research, by studying the density of Brussels neighborhoods, as a denser area would accommodate more people.



Conclusion

To conclude, this analysis allowed me to identify the more suitable site for a new library in Brussels which has been chosen for multiple reasons. This new project would be placed on a site next to the Canal and the railway in the municipality of Anderlecht in the South-West of the city, only just into the third rings of Brussels.

It has been determined because it is out of the catching area of the existing libraries, which means it's an area with a need of a library. It is also placed in a sector for development defined by the region. The land is a constructible site, as for now it is only a brownfield land.

In terms of public transport, it is easily accessible being close to the South Station, the metro and many trams and buses pass close by the site. Finally, it is situated in a part of Brussels with a high density of population.

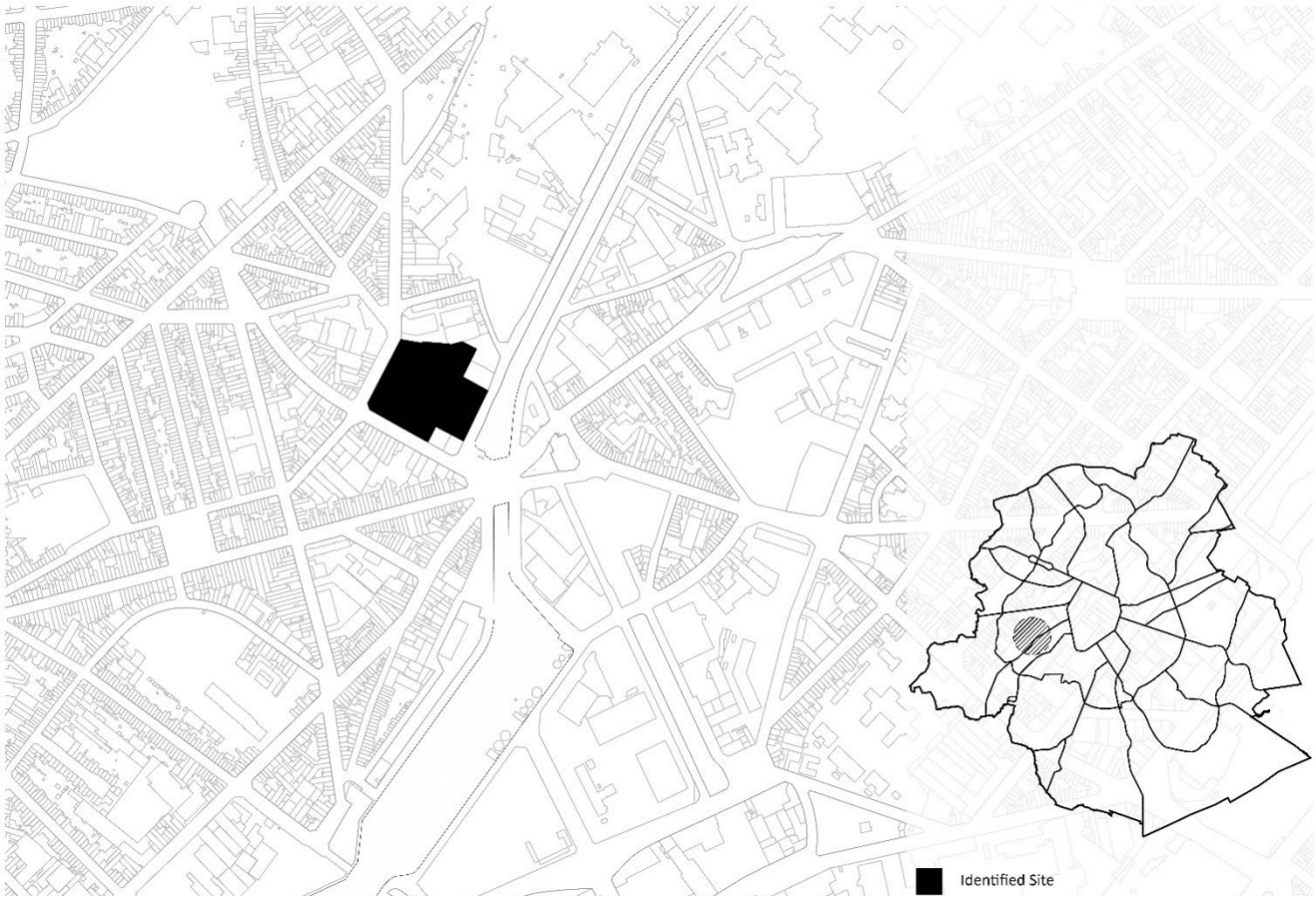


Figure 44: Identified Site for the Library

Contextual analysis

History

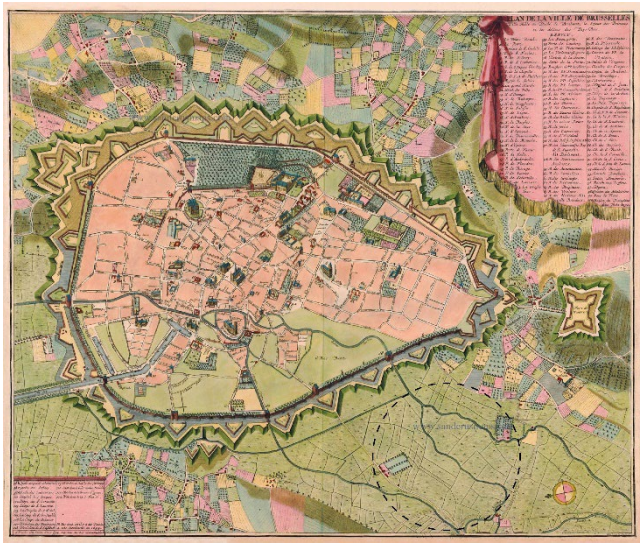


Figure 45 : Plan of Brussels in 1712 - Table des cartes des Pays Bas et des Frontières de France, Avec un recueil des plans des villes, sièges et battailles données entre les Hauts Alliés et la France. Bruxelles, H. Fricx, 1712.

The history, as is so often the case in old European towns, is at once economic, political and social, of a district that was once outside the walls, and which in the 16th century boasted large tracts of pasture and meadowland stretching over a vast area. Two centuries later, although the area around the second city wall was already inhabited, the Anderlecht area was very sparsely populated, as shown on the map beside from 1712. In fact, it was frequently flooded and was used to feed the people of Brussels, with its water mills and large quantities of wheat, hops, rye, rapeseed, and oats…

cOn Ferraris' map below, you can see the large expanses of pastureland near the town and crops in the area around the village of Anderlecht. However, there was already a major road close to the village: the Chaussée de Mons. To this will be added a shopping street at the end of the 19th century: rue Wayez, already served by a tram. This is the area bordering the Cureghem district, where the chosen site is located.

Figure 46: Ferraris Map (1770-1778)

Figure 47: Wayez Street in 1920

Between 1827 and 1832, the Charleroi Canal was dug in order to create a commercial link between the north and south of the country, and in particular to supply the north of Belgium with coal[343] for the industries that were developing. This digging also made it possible to absorb some of the flooding, and was further reinforced when the canal was widened in the 1920s.

The Senne, the river that runs through the city and which was dammed in 1870 following a cholera epidemic that killed 3,500 people, and the canal were to give rise to an intense industrial axis in Brussels, which could not have developed so ardently without the addition of the railway. The areas between water and rail underwent unprecedented development. The population density changed radically, and working-class houses were built between the factories, a tangle of alleys and cul-de-sacs, with a maximum of one storey and basic comforts. In the second half of the 20th century, the

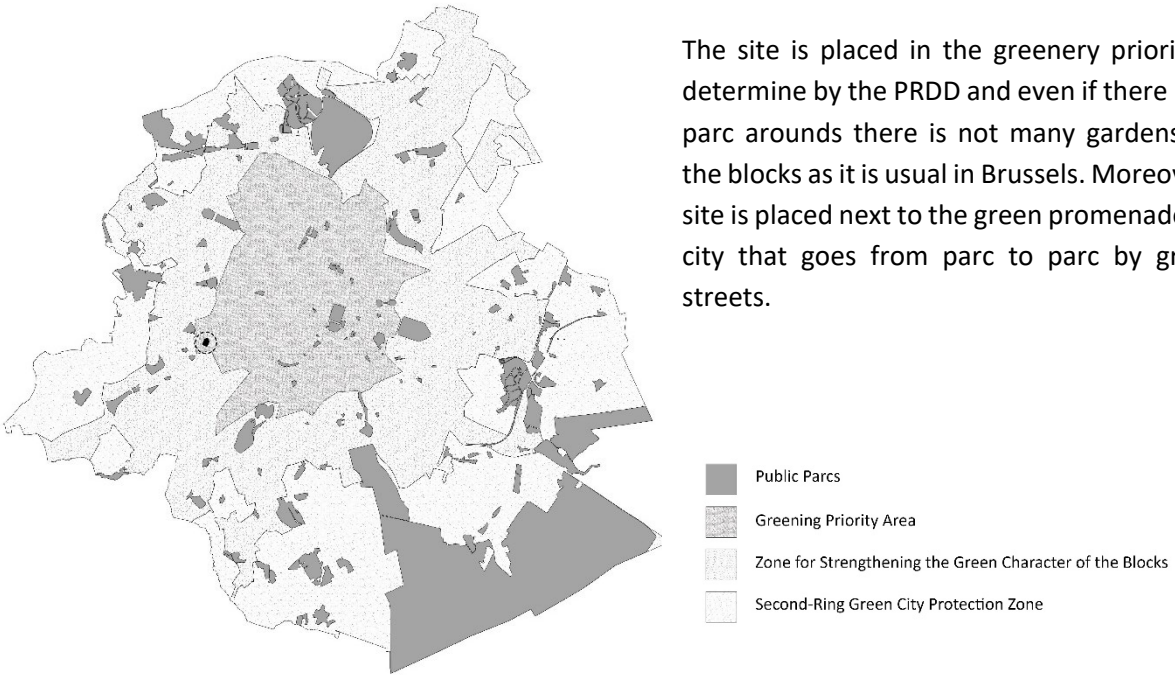
[343] It was necessary to cross the divide between the two valleys (Meuse and Scheldt). Fifty-five locks and a tunnel over a kilometre long were built between 1827 and 1832 to establish a waterway link between Charleroi and Brussels.

descendants of the workers of the previous century left the district, and immigrant workers[344]. moved in. Around 1950, no fewer than 525 factories or craft businesses were still operating in Cureghem.

Figure 48: Pictures of the site

In conclusion, the 19th century was to produce a municipality that was very different from what it had been in previous centuries, turned towards industry and dividing its population between hard-working labourers and a wealthy middle class centred around the town hall and the old town centre. At first glance, the current era is no different, with the area dotted with a jumble of buildings with different purposes, sizes, materials, heights and volumes. However, it is no longer valued as such, as the industrial activity of the time has completely disappeared.

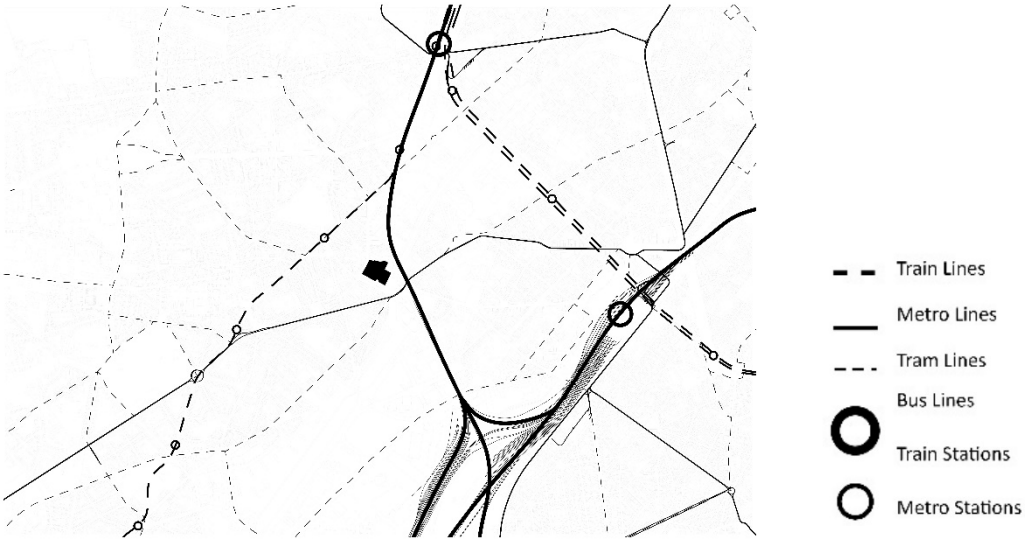
Green System



The site is placed in the greenery priority area determine by the PRDD and even if there is a few parc arounds there is not many gardens inside the blocks as it is usual in Brussels. Moreover, the site is placed next to the green promenade of the city that goes from parc to parc by greenery streets.

[344] Because of its proximity to the Gare du Midi, Cureghem is a transit district, a point of access to the city for new immigrants who settled there permanently or temporarily while waiting for an improvement in their economic and social conditions. In the 1970s, refugees arrived from Latin America and Lebanon; from the late 1980s, African refugees and from the 1990s - after the fall of the Berlin Wall - from Eastern Europe. The last decade has seen the arrival of immigrants from Brazil, Bulgaria and Romania.

Public Transport



As stated, before the site for the project is placed close to many different means of transportations, there is multiple tramways and busses line that pass nearby. The nearest metro station is the Aumale stops on the 1 and 5 lines that is by 4 minutes walking of the terrain. The site is only 10 minutes from the South station, which is one the biggest station of Brussels.

The site is close to the so-called de Cureghem crossroads, at the junction of the Brussels-Charleroi canal, the L28 railway line linking Brussels Midi station to Schaerbeek station via the west of Brussels, and major roads such as the Chaussée de Mons. An intermodal junction that combines water, rail and noisy streets on one side and quiet streets on the other, the Cureghem bridge is a crossroads for cars, trams and buses that stop there, and urban visibility is virtually non-existent. It's a huge, noisy, barely defined space, exclusively mobile for motorised users. Passers-by run for the traffic lights when they get off the trams and buses to avoid this inhospitable expanse. A quick glance is all it takes to see that there are no green spaces, that you're at a crossroads but with no opportunity/willingness to stop before the shopping street beyond.

Figure 49: Cureghem crossroads

Built form figure ground

Figure 50: Built form figure ground of the area

This map shows that the area around the canal has a densely built-up and inhabited left bank and a dense but virtually uninhabited right bank. However, the immediate surroundings are not lacking in interest. With its breweries, old railway station, ancient bridges and industrial wasteland, the area is interesting in more ways than one and will help to guide the project. The area lies at the junction between the urbanised hills of Anderlecht and the industrialised plain of the Senne valley. The land is known as the Shell block because of the silos that were based there for a long time before being dismantled in the late 80s and 90s.

Figure 51:Site in 1971

Landuse

Figure 52: Landuse of the area

There is a triangular area between the chosen large plot of wasteland and the canal, which distances it from the canal both visually, as it is elevated and the canal itself is overhanging, and in terms of distance. This means that, despite the closeness of the canal, no link is created between the site and the water. I would add that the site can be seen has peculiar for the city being at the edge between the railyard, the canal and the different industries and the rest of the city that is more residential and commercial.

The Contextualisation of the concept

Introduction

Half a century apart, Alvar Aalto and Marcel Breuer each experimented with and created projects in which concept and context are intimately linked, without one merging into the other. It is interesting to note that, with hindsight, both remain architectural benchmarks, and that it is perhaps precisely because they succeeded in conceptualising contexts and contextualising the concept that their projects remain benchmarks. Both of them, with very different visual results, took a long, hard look at contexts in the broadest sense and at the concept that could be the basis of them. Aalto, by designing projects based on the human being with an affirmed humanism, and Breuer, by creating places designed for the human being with a societal vision, distanced themselves from the modernism that was their teaching in order to extract the marrow from it without entering into deleterious dogmatism. The two architects thus created two emblematic libraries.

The idea of a library was also discussed, in the sense that a building must give meaning to a landscape by generating imagination, inviting reflection and exchange. A library assumes this role in its own right. Its architecture must therefore reflect this. I was also guided by what Breuer and Aalto taught me about how they designed their libraries.

We will therefore look at the contexts at work, the idea of a library and the themes that guided the conceptual development of the project.

First impressions

As I live in Brussels, I easily had the opportunity to visit the site and immerse myself with its impressions. And try to simply see it without too much knowledge and background ideas to simply experience the area and maybe understand what kind of project would make sense on this site.

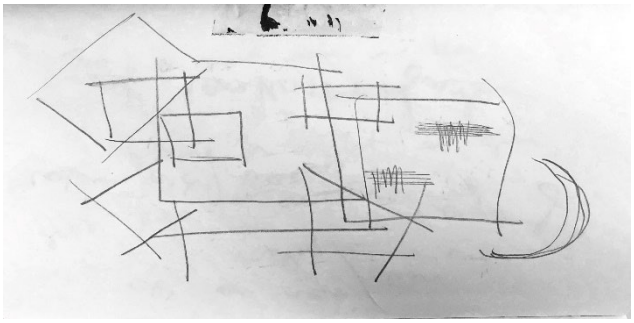


Figure 53: Drawing made during the walk of the Feeling of the context

So it was in the district of Anderlecht, with its many contextual approaches to be conceptualised, that I went for a walk. As I explained in the theory section, you can't immediately approach a piece of land. In order to gain some perspective, I walked around the area from several sides, to get a better idea of what the area had to say. The first impressions of the land itself were the same as those of the surrounding area: an imbrication of volumes, materials and disparate scales, a dilation of space with vast undefined areas adjacent to small streets and tightly packed houses.

Although Aalto's and Breuer's library projects were set in different spaces - a vast park for one and an intensely built-up (but not especially inhabited) city for the other - the definition of spaces was clearer. And yet, as Aalto said, "*The best committee for standardisation was nature itself, but in reality, standardisation in nature occurs practically only at the level of the smallest units, the cells. The result is millions of flexible combinations, without any formalism. Hence the unlimited richness and transformability of organic forms. Standardisation in architecture must follow the same path*" [345] . In the same way, the non-standardised chaos surrounding the site presented multiple combinations, and for this project I didn't want to imitate the surrounding chaos, but to insert myself into its spatiality by imposing myself not through size but through a strong presence in the space of the park and through

[345] LAHTI, Op.cit.,2004, pp.11-12 prononcé lors d'une réunion de la construction nordique à Oslo ,1938

the materiality. As Mies van der Rohe said : *"Architecture starts when you carefully put two bricks together. There it begins."*[346]

Thus, the grammar involved in writing a story with so much contradictory information meant that putting it into a new situation required reflection that was both memorable and forgettable. Memory, because it's a library and the contexts described lend themselves to it; oblivion, because slavishly copying or imposing a current standard that has been seen over and over again would entail the risk that users wouldn't recognise themselves in it. The aim was to show kindness and modesty, but also singularity and a sense of sharing: an invitation to enter, as it were.

A concept of structures in dialogue with the context

"The Library, as a public building and a civic space, deserves to be in a state of constant experimentation and evolution as our circumstances and needs change (…) "What can a library be ?" We need public libraries more than ever as place for gathering and exchanging the knowledge that is the bedrock of our society as well as places for social interaction for communities and the empowering exchange for ideas."[347]

Inam Asseem

Figure 54: Conceptual Collage, Imbrication of Volumes

The broader context is represented first and foremost by the unstructured environment of the surrounding buildings, their diverse uses as homes and businesses, their temporalities over two centuries, and their disordered interweaving. This historical, social and economic context is reflected in the project in a concept that is not fused into a disintegrative vision but arranged in dialogue with this disruptive environment. The different parts have different shapes and volumes, referring to this context of small working-class houses as well as industrial buildings, a desire to create a project with a juxtaposition of scales and elements. Above all, there is also a desire to create a coherent whole that is sensitive and pleasant for anyone passing through it. Just like the Viipurii library, where Aalto embraced curves and humanistic modernity, making the site serene and intelligible and allowing gentle, soothing strolls, the project is part of this memorial journey.

The immediate surrounding context influences

"Architecture is the petrification of a cultural moment"

Jean Nouvel[348]

Secondly, in terms of occupation of the site, the general context of the immediate surroundings led me to ask myself the conceptual question of how the library project should be *used*. Much more than a reductive functionalist vision, as Aalto expressed it when he spoke of the dangers of "d*ogmatic and*

[346] WAGNER WF Jr., *Ludwig Mies van der Rohe: 1886-1969,* Architectural Record, n°146, 1969, [online] https://docplayer.fr/amp/39944099-Theorie-de-l-architecture-iii-professeur-bruno-marchand.html

[347] ASEEM INAM P;D;, Chair in Urban Design and Founding Director TRULAB, Cardiff University, cited in LEHMAN S., Reimagining the library of the future, 2022, p.5, [online] https://issuu.com/oro_editions/docs/library_of_the_future_look

[348] NOUVEL J., *Jean Nouvel et l'architecture: «La pétrification d'un moment de culture,* Le Temps 1998

inhuman" modernism, more than a simple place for reading or studying, it must also be a place for meeting and dialogue. What could be better than to set it up in a large space that allows views from and onto the library, encourages meditation and invites you to take a stroll? Just as the jury that appointed Alvar Aalto to build the Viipurii library said in 1927, almost a century ago: "*It is good that the library is located freely in the park*"[349]. There are not so many green spaces in the surrounding area as to neglect the importance of adding one, and one with a library that redefines existing and planned hyper-urbanity.[350]

The idea of a library

The *idea* of a library therefore involved interlinking conceptualised contexts with the nature of a library. In addition to the contexts usually invoked in the construction of housing, for example, there are various notions as to the priority meaning to be given to a library. In my opinion, there were five terms that I felt were necessary in any programmatic thinking for a library: anchoring in the world ,temple, crossing, intimate and universal and memory. Each of these, in addition to the usual contexts in which they are used, can be used to create a mental construct in order to create a suitable conceptual tool.

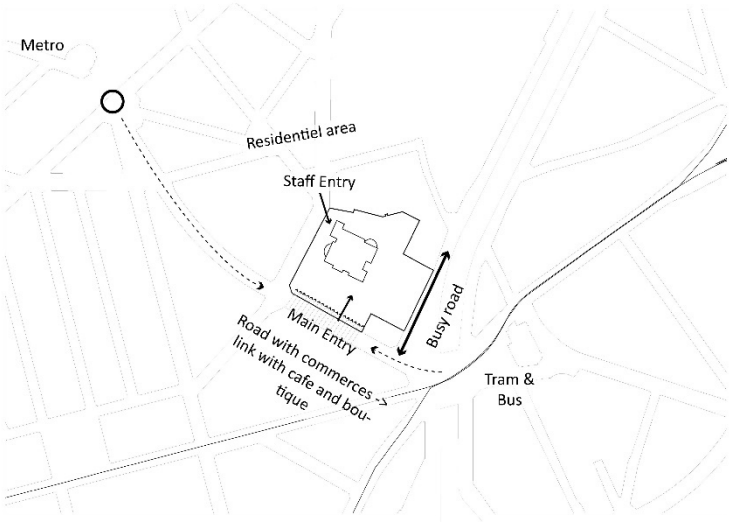
The lessons that can be learned from the two libraries in Viipuri and Atlanta are obviously numerous and have been explained at length in the thesis.

Grounded in the world

Building a library is no longer just about putting knowledge in systematic order, this project must be an act of hope and should give us a sense of being in the world. Hope for Man anchored in the world.

Attempt to work with the context as a starting point, diverting it or going beyond it towards an architecture determined by the idea of progress. Perceiving a library as a "*closed world open to the world*" must therefore respond to a human spatiality in its dimensions, a familiar proximity in its feelings, a reflector of ancient and symbolic emotions to be projected into a misty future. The project must transform the site into a place. A library is more that symbolic ideas it also need to be anchored in reality. The context and history of the site become as evidence to work with and that would define lines of actions for the project.

The projected library will therefore be influences by the location, like the streets around the site and the different means of transportations. For the streets that surrounds the site, they are three, one is calm mainly residential, the neighbourhood extending in the North is also a calm residential area, another street with commerce, and this time the commercial and mixed used continue in the South and finally the one close to the Canal that is a narrow street with a busy traffic. Choice in term of connection to the library have been with this information in mind.



[349] AALTO A., Le rationalisme et l'homme, in *Alvar Aalto, De l'Œuvre aux écrits*, p. 131.
[350] The Canal plan was developed by the Brussels Region, which is over-urbanising the area, [online]https://canal.brussels

The idea of a Temple of Knowledge

"A library, by virtue of its size and social function, can become a structuring element in the urban development of a town. Libraries have the potential to play a key role in local urban regeneration, to represent the renewal of a promise of new micro-local development, and even to redefine the urban character of the city." [351]

Stéphane Wahnich

As such, a library has a strong symbolic value. As Michel Melot explains, it is "*the deterioration of the social bond that reveals the symbolic force of the library in the very proportions in which this community loses its ties and landmarks, and struggles against dispersion*". It is also a place of freedom. In her book on libraries, Anne-Marie Bertrand declares: "*Libraries offer a different kind of time, one that escapes the tyranny of presentism and the obligation to renew. A space apart, which protects us from the dispersal of fashions and the passing of time*"[352]. According to Merleau-Ponty, "*The establishment of a library also concerns the genesis of a relationship to meaning in its general sense. The term meaning, though difficult to define precisely, goes beyond that of signification; it designates the whole of the transitional space that both inscribes the human being within nature and detaches him from it, the whole of the 'phenomenological conditions' in which thought has a hold on itself, contact with itself, is 'sensitive' for itself.*" [353]

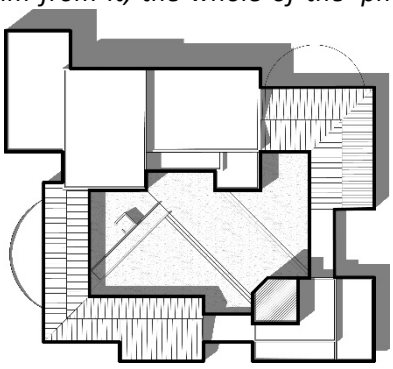


Figure 55: Cloister and "Calling tower"

The project is based around a cloister. An enclosed space[354] that used to be a place to get away from the world and meditate, and which is reflected in the project by a desire to wander around, but also to commit to a long period of research, dialogue and reflection, a symbol of a community space that is desired rather than imposed upon. To achieve this, an entrance tower is the landmark that invites you to enter[355], just as Breuer built an almost opaque block in Atlanta, inviting you not to sneak a peek but to delve deeper[356]. A temple of knowledge, then, that beckons. [357]

[351] WAHNICH S., A quoi sert une bibliothèque ? https://bbf.enssib.fr/consulter/bbf-2011-02-0023-004
[352] BERTRAND A-M., Les bibliothèques, La Découverte, 2011, p.128
[353] FORESTIER F., Ibidem, p.19
[354] The word "cloister" comes from "enclosure".
[355] It should be noted that library towers are important in Belgium: the Boekentorren by the architect Henry van de Velde in Gant or the one in Louvain burnt down twice in 1914 and 1940.
[356] This is in stark contrast to the MVRDV agency, which in 2012 completed a large glass-covered pyramidal structure for the Spijkenisse public library to reveal "a mountain of books" - as the architects called the project - in the form of a sort of mastaba of shelving. There is a significant risk, however, of turning readers into aquarium fish, according to architect Albert Cohen (see BARIDON L., L'architecture des bibliothèques à l'heure des nouvelles technologies, p.13).
[357] For the Tama Art Library, near Tokyo (2007), Toyo̅ Ito̅ designed a set of arches whose spans cross over the entire surface. The arches are slightly curved, and the shelves wind their way between the spans. The large semi-circular arches evoke Western religious architecture and the image of contemplation that accompanies it (see BARIDON L., L'architecture des bibliothèques à l'heure des nouvelles technologies, p.16).

The idea of passage

"Autonomy recognizes the importance of interrelationships not only between individuals, but also between the individual and social institutions and norms (McLeod, 260). As a major social institution, the library itself plays an important role in developing autonomy.(…) By consciously and publicly rejecting this social norm through prioritizing autonomy over self-sufficiency, the library can help dismantle the oppressive socialization which causes people to experience and internalize differences as social disabilities. If the library does not take autonomy seriously as it designs services, it can unconsciously perpetuate this and other forms of commonly accepted oppressive social assumptions"[358]

Spatial continuity takes into account the specific features of each space in terms of its function, but also suggests discovery, encounters, ways of interacting and moving around. The quality of the voids is essential here, promoting the relationship between the spaces, their links, their horizontal and vertical visual connections. This passageway also allows a degree of freedom and fluidity by preserving both near and distant views, while organising a clear and reassuring route without giving the impression of crossing thresholds. The project sets out a clearly defined territory and routes to create unity in diversity. When we read, exchange ideas, think and walk, it's not just a question of physicality, but also of a virtual physicality that emerges from the world to be re-enchanted by books and exchanges. When we walk, we talk, and we think. As a space for both silence and conviviality, a library can not only compete with a public place in terms of the spaces it encloses, but also enable people who are tired of life outside to come and recharge their batteries through reading and sharing.

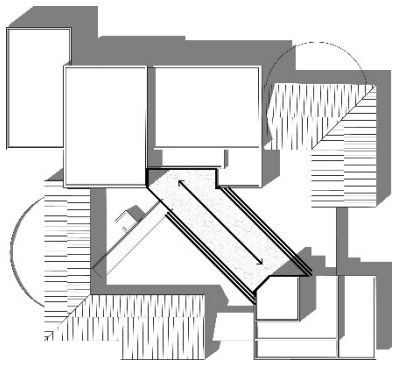


Figure 56: Central Passsage

The proposed library has an assertive and intuitive circulation created by a diagonal from the lobby to the main library crossing the cloister. As I mentioned earlier, the architect Norberg-Schulz explains that "*existential space*" is achieved when man succeeds in orienting himself and identifying with his environment, or "*when he experiences the meaning of an environment*"[359]. The project had to create a library that was fluid and comprehensible in its circulation, embodied in a vanished history. It had to encourage people to enter, to discover and to stay: man is at the centre of such a process. Alvar Aalto didn't think otherwise.

The Intimate and the Universal

« The libraries thus possess the opportunity to become the catalyst of several new public activities due to their renewed spatial program, their crucial urban role and changing societal expectations. Therefore, through the lens of the library, a new idea of public space emerges, and this is where the book makes fascinating discoveries and contributes to the debate".[360]

The image of the book when articulating the idea of a library, which can be discern as a common other (in the sense of community) that does not exclude presence in itself for its own sake. But one that is shared in a common place. The project is about discovering places where we can meet, talk to each other, be close, be silent together. An articulation between the familiar and the distant, creating a sense of belonging without exclusivity or identification, but one that allows empathetic relationships

[358] BARBAKOFF A., Libraries Build Autonomy: A Philosophical Perspective on the Social Role of Libraries and Librarians, University of Washington, 2010, [online] https://digitalcommons.unl.edu/cgi/viewcontent.

[359] Norberg-Schulz, 1979, p.5

[360] PEDRABESSI D., Architect and Senior Lecturer, University of Portsmouth UK and Milan Italy, cited in LEHMAN S., Op.cit., p.5

between readers, a form of proximity. Places juxtaposed like neighbourhoods, places juxtaposed like books, places juxtaposed in their uses allow for the paradox of being in common in what is read, felt, said and transmitted.

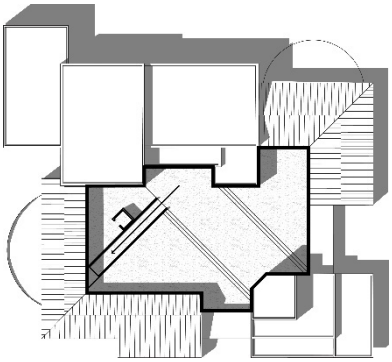


Figure 57: Cloister and the stairs to the archives

A library can also be interpreted by the intimate and the universal intertwined with each other. The intimate is represented and enhanced by the cloister. It creates and intimate world inside the world, connected to the archive, the memory, the knowledge, the universal.

The idea of revealed and protected silo memory

"In a good bookroom, you feel in some mysterious way that you are absorbing the wisdom contained in all the books through your skin, without opening them"
Mark Twain

If we move a little closer to the site on which the library is to be built, it's a good idea to look back to the 1930s and 1980s, when oil silos were installed there, a not-so-distant memory that has been forgotten by the under-40s. Their excavation in the project speaks of memory in the same way that a library does. The rounded elements dug deep into the ground contains the archives, a memory that is both *revealed and protected*. [361] It is accessed from the cloister via a staircase that cuts through the space. Several silos of different sizes are connected underground, creating spaces that differ from one another and make it possible to perceive the dilation of space in the discovery of each area. Several of the silos have large bay windows, so the archives can be seen from the park. With this in mind, just as the analysis of Aalto's and Breuer's projects were approached from the angle of phenomenology, here too it is interesting to delve into what is the genius loci, the space of memory and imagination, because as Julien Pallasmaa says: "*only the mental images, associations, memories and bodily sensations aroused by a work succeed in communicating its artistic message*". [362]

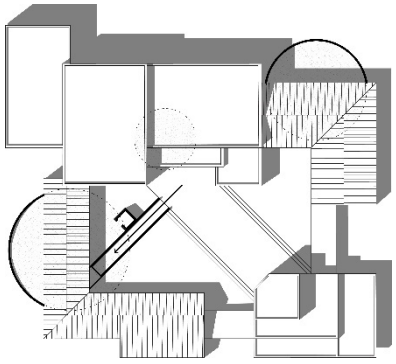
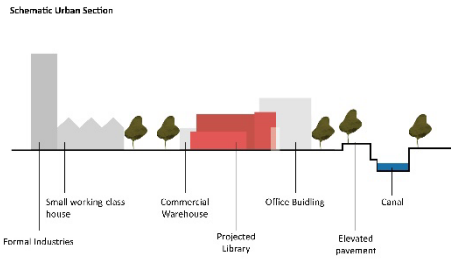


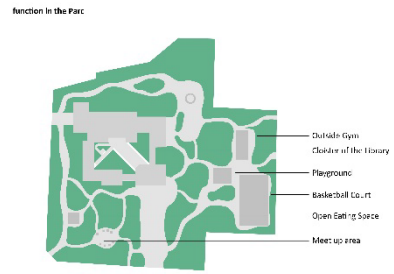
Figure 58: The underground arhcives and the stairs

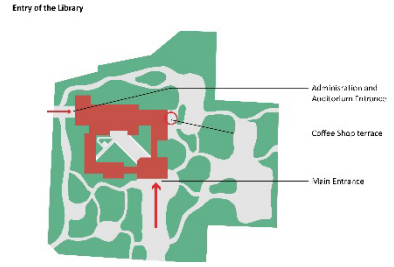
[361] The Tower of Babel is an archetype to which they often refer indirectly, even unconsciously, through vertical effects that convey the slow and persevering ascent towards knowledge (BertranD, Kupiec, 1997). Mario Botta, at the Maison du livre, de l'image et du son in Villeurbanne (1988), organised the spaces around a central well whose treatment evokes the spirals of the mythical tower.
[362] PALLASMAA J., *Percevoir et ressentir les atmosphères L'expérience des espaces et des lieux*, online https://popups.uliege.be/0774-7136/index.php?id=788&lang=es#tocto1n1

The project

At the scale of the parc







The project as said before is in an area with mixed used and a wide range of building of difference size, and despite the closeness of the water there is no link to it because of the urban fabric of the location.

This project is library but also a parc which the building is integrated into. There are several winding paths enlarging themselves to create bubbles containing functions. These functions are an outside gym, a meet up area, a basketball court to name a few, the purpose is to structure the parc but also to create an attractive area for the neighbourhood.

To enter through the main entry of the library you will cross a path boarded by trees, it is also possible to enter from the coffee shop, its terrace is placed in front of the main square of the parc. On the side there is another entrance dedicated to the administration, close to their office inside the library, this entry will also allow you to access directly to the auditorium.

Figure 60: Ground Floor plan at 1/500

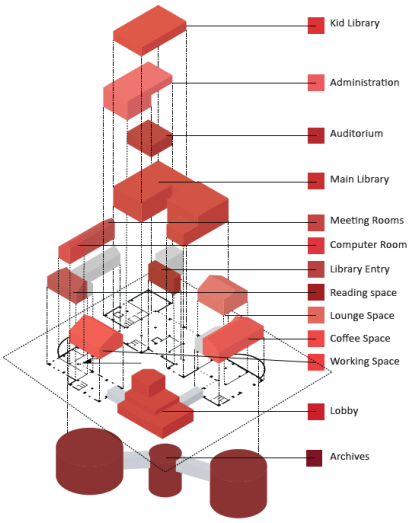
Figure 59: Urban Section at 1/500

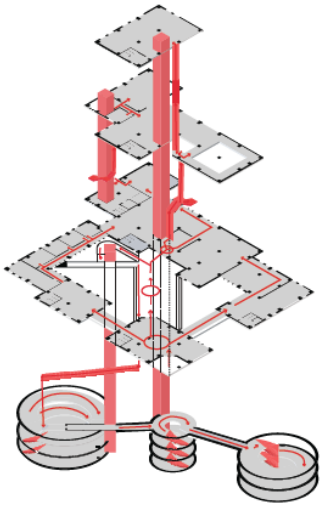
At the scale of the project

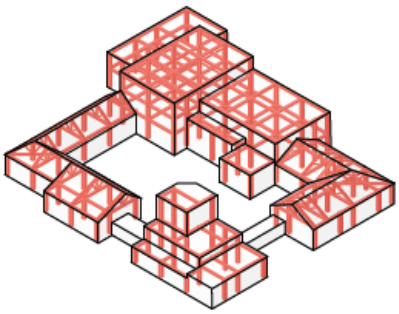
The Social World

The designed building is shaped by different volume to which they enclose certain functions of the program. What I called the calling tower is placed at the entry of the project. The biggest volume is composed of the main library, the administration, the auditorium, the kid's library and the administration offices that has counter on the main library for questions and to rent any books. The smaller volumes with a slope roofs houses smaller spaces as the meeting rooms, the smaller working room,… on one side and the social part with the lounge area and the coffee shop on the other. All those are structured around the cloister.

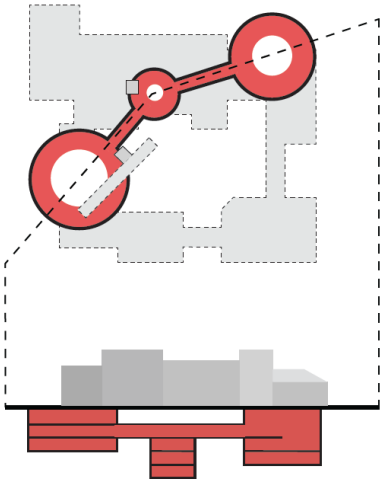
The structure for the building is made of a grid of beam and colums, or a framework made of wood





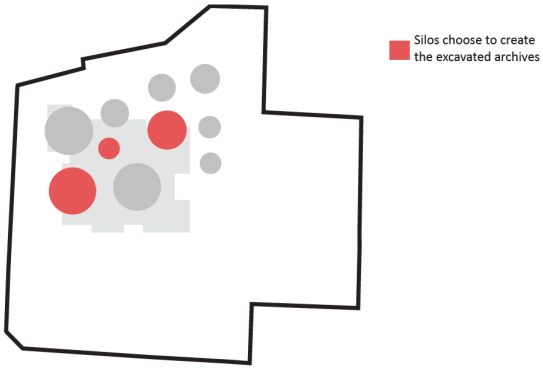


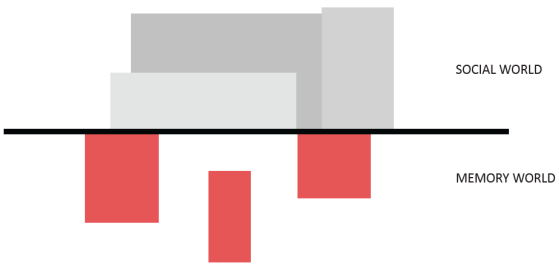
The World of Memory



The project is in a certain way made of two different entities, the social world and the world of memory, enhance here by the archives that are placed underground. These volumes have been chose to retraced the silos that was there before. There is three silos that encompass all the archives of the library and are accessible by the cloister and the main library.

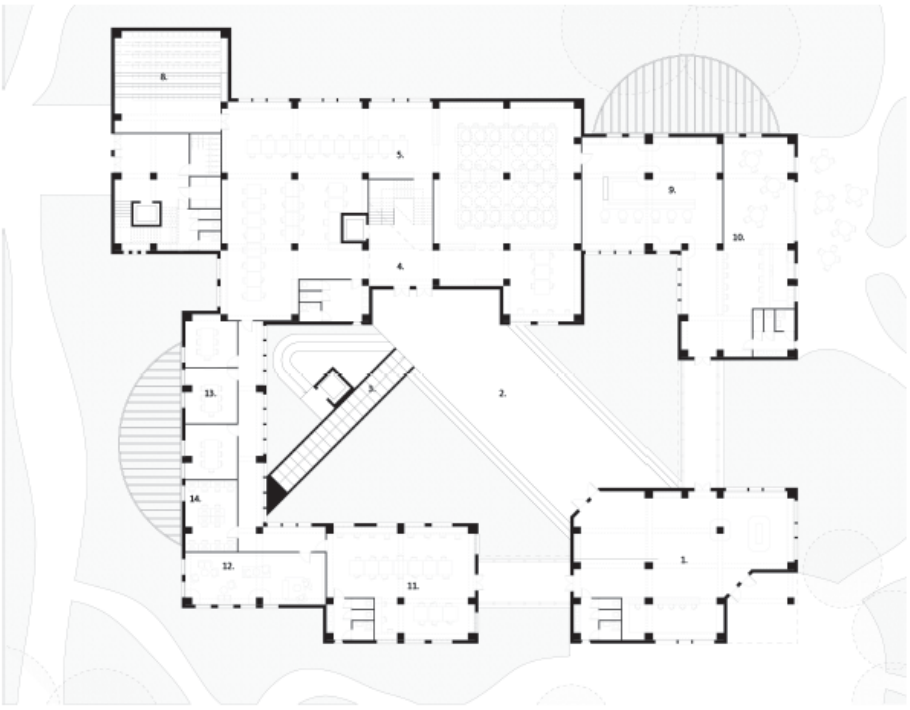
It has been decided to make these spaces different size in width, following the traced of the silos, and in height, creating a sensation of dilatation of space being from a bigger and shorter space to a narrower but higher space, sometimes only on story heigh sometimes two or three. The Three archives are connected to on one level, only two have a visual connection to the the exterior word by the means of a window.



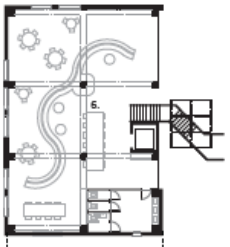


The project

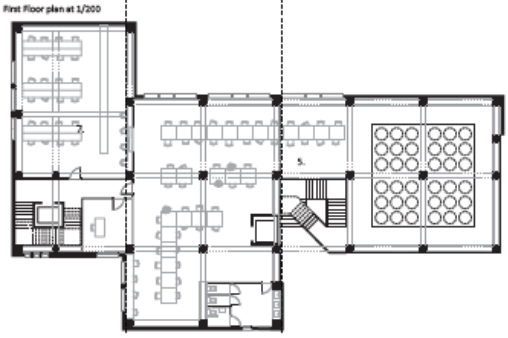
Ground floor plan at 1/200



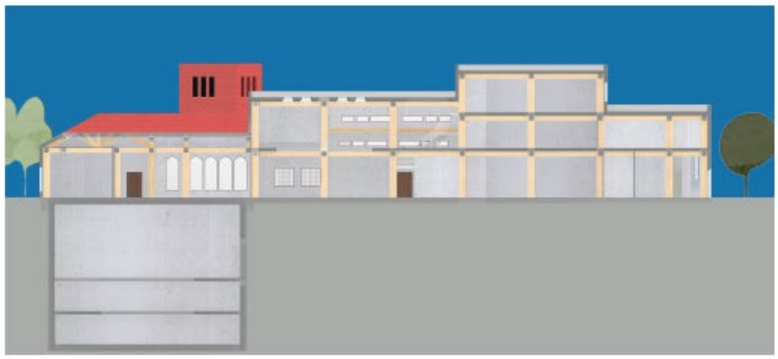
Second floor plan at 1/200

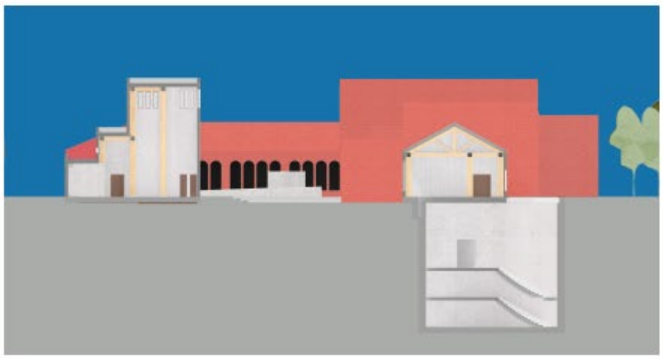


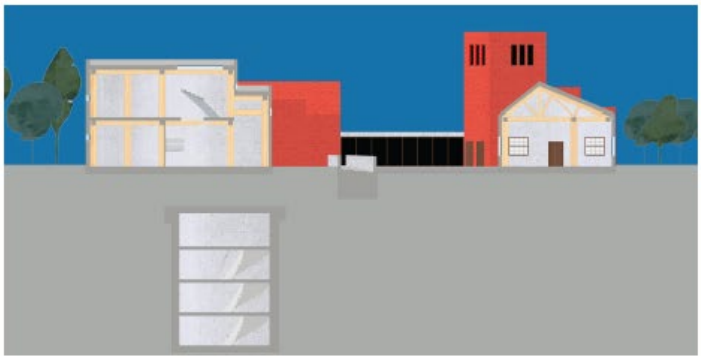
First Floor plan at 1/200

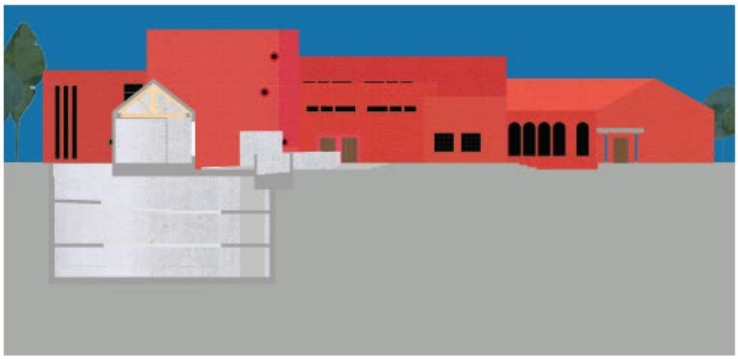


1. Lobby
2. Cloister
3. Stairs to the Archives
4. Entry to the Main Library
5. Main Library
6. Kid Library
7. Administration
8. Auditorium
9. Lounge Space
10. Coffee Space
11. Working Space
12. Reading space
13. Meeting Rooms
14. Computer Room

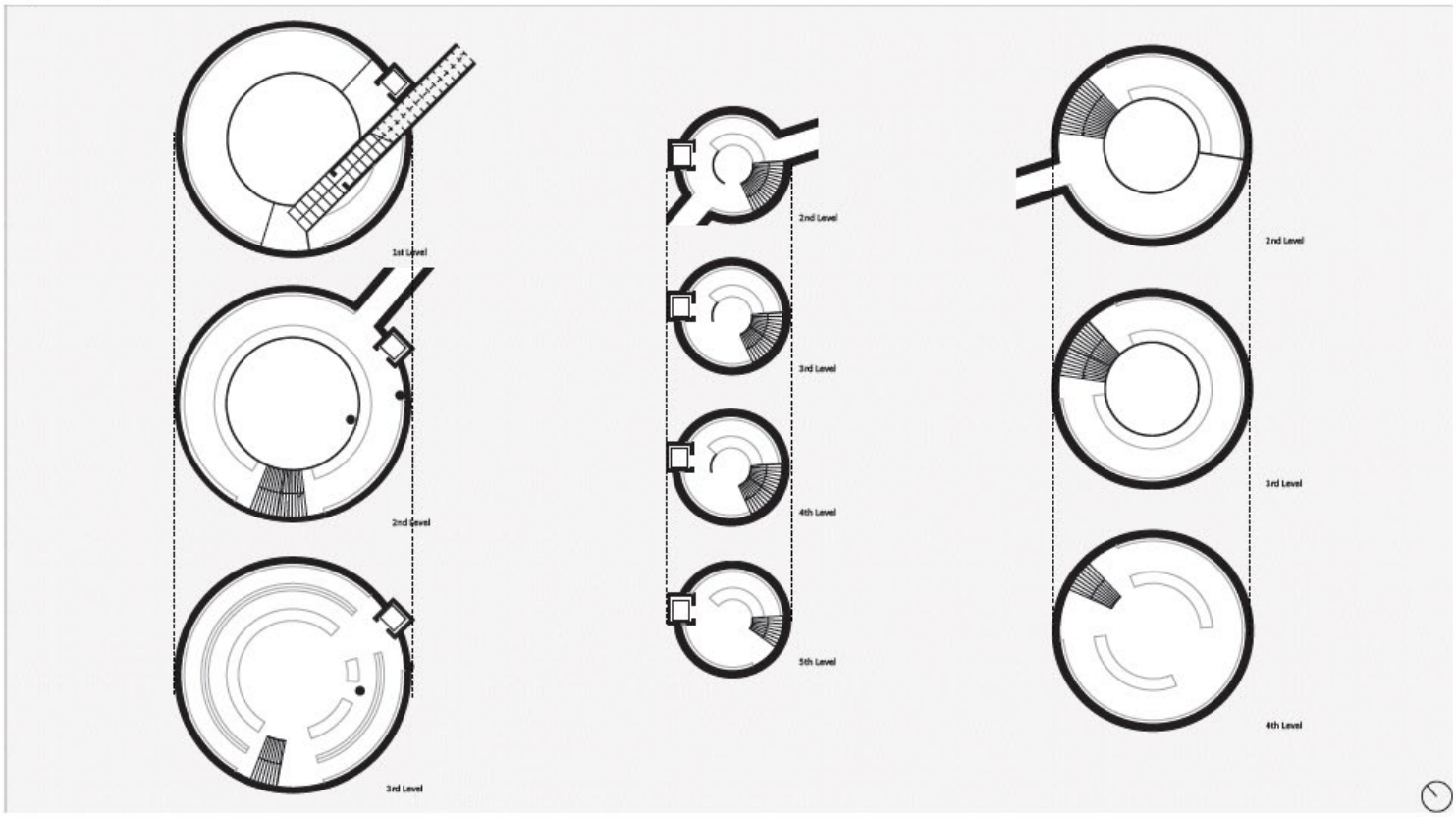


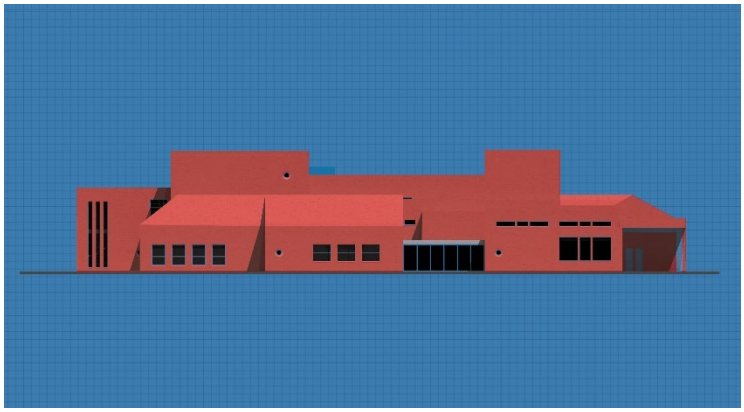


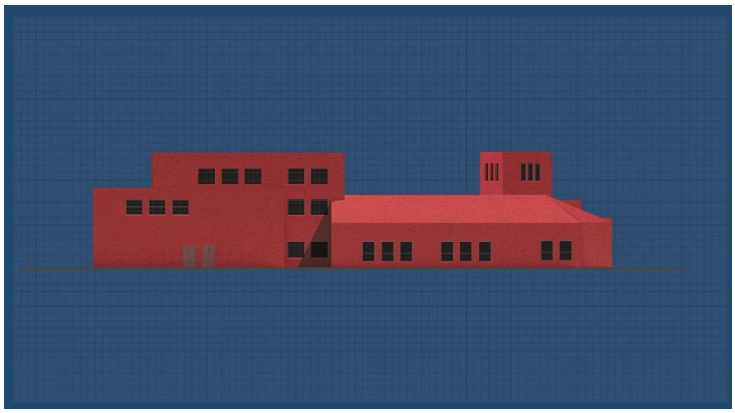


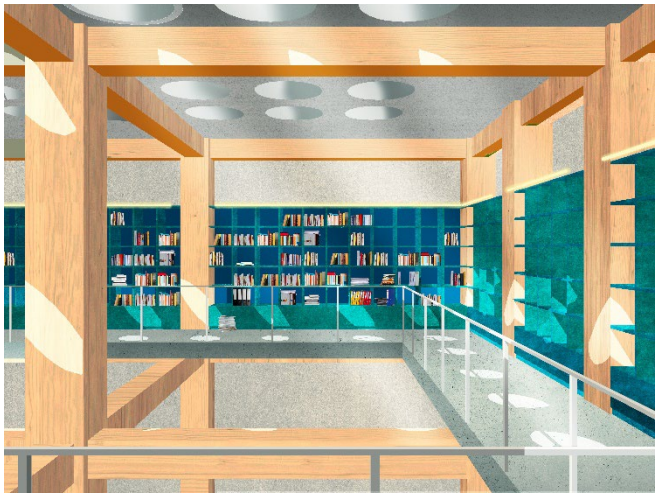


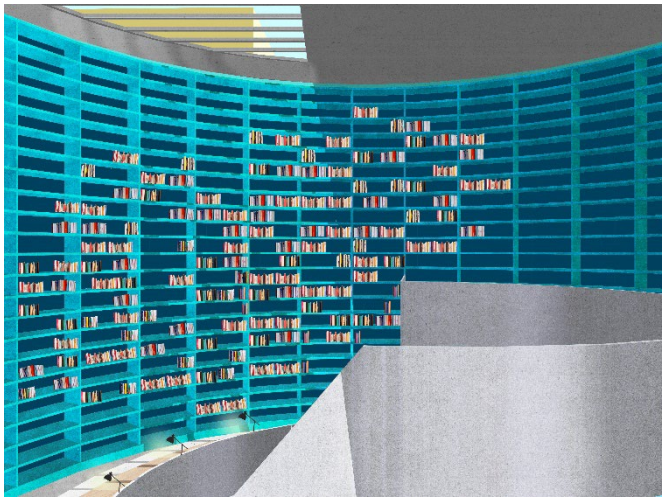
Underground Plans at 1/200

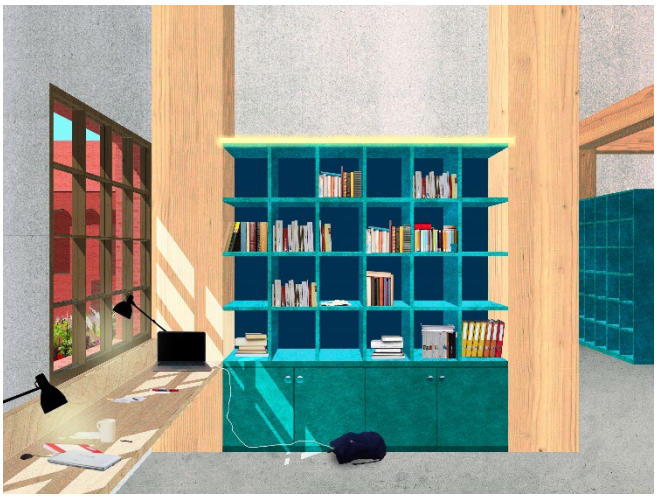










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Conclusion

As I come to the end of these months of research, writing and designing the project, the subject of this thesis (in this case the way in which context can be used as a conceptual tool to create an architectural object based on the context of Brussels and a project incorporating an educational programme), has enabled me to learn how a concept and a context affect a project, on its premises, on the first images and drawings that were inserted into my mind, on their slow maturation, on the back and forth that took place, and on the indefiniteness of a precise description of what concept and context are.

Le Corbusier used to say, "*When I'm given a task, I usually put it inside my memory, in other words, I don't allow myself any sketches for months on end. The human head is made in such a way that it possesses a certain independence: it's a box into which you can pour the elements of a problem in bulk. You let it "float", "simmer", "ferment". Then, one day, a spontaneous initiative from the inner being, something clicks; you take a pencil, charcoal, coloured pencils (colour is the key to the process) and you give birth on paper: the idea comes out, the child comes out, it has come into the world, it is born*".[363]

However, unlike Corbusier, I was occupied with a preliminary task, that of getting to know the site, initially extended to the whole of the city, then restricted. As with Aalto, for whom the site is respected as much as the people who use it, and Breuer, for whom the environment is society, I felt it was essential to get to know the environment concerned by the future project. An environment that is a concept in its own right, because visiting the sites and looking at them is enriched by personal references, because observations change with each stroll through the city, in the vicinity of the project site, in the photographs taken. We may or may not accumulate ideas, we may or may not articulate them according to our experiences, we may or may not remember when the first ideas germinate. At the same time, theoretical research is also shaking up the reflective process and the phases of the project. As we saw when we mentioned Tschumi, "*the context is not a fact. It is always the result of an interpretation".*[364]

So, what were the main phases?

The first chapter drew me into the history of Brussels, a journey that was at once physical and historical, sociological and visual, sensory and linguistic. It was clear that this general analysis could not hope to cover all the contexts of the present day. However, some lessons could be learned about the most appropriate educational programme, based on the theoretical and physical wanderings I had undertaken.

Although the educational aspect of Brussels is diversified in terms of study choices, relatively accessible financially and geographically, the PISA results are not convincing. The question was where progress could be made. And it was above all a library in the municipality of Anderlecht, to the east of Brussels, that proved to be a promising project. The geographical, historical, cultural, economic and political contexts were all significant: the area was still undeveloped, there were not enough libraries in the area, the population was dense and diverse, and there had been no investment for decades.

[363] LE CORBUSIER, *Textes et dessins pour Ronchamp*, Forces vives, p.66, cité par DE BIASI P.-M., *Pour une approche génétique de l'architecture*, Paris, 2000, p. 28
[364] TSCHUMI B., *Event Cities 3, Concept vs. Contexte vs. Content,* The MIT Press, 2005, p.1

The second chapter quickly threw me into what a library should be today. And as one European report sums it up so well, the library is "a third place to signify the multitude of services, activities and spaces that make it one of the most inclusive and democratic public structures". From there, it was a matter of getting to the heart of the matter, in this case how to conceptualise a context in order to contextualise a concept, using two emblematic libraries: the one designed by Alvar Aalto in Viipuri in 1933 and 1935, and the one built by Marcel Breuer in Atlanta between 1977 and 1980.

The second part of the chapter first made me think about how to ensure that "*the programmatic and contextual components of the design are superimposed to create a building whose spatial and conceptual properties become continuous with an idea for its context*"[365]. However, trying to master the conceptual process, despite a great deal of research, has proved to be rather futile (as Chupin says, the concept is inconceivable), and it was through phenomenology that it seemed to me that an answer to Aalto's concept might prove most revealing. A review of Aalto's biography during the period leading up to and including the construction of this library showed that, detached from dogmatic standardisation, Aalto created a building tailored to the human being, made up of memories, humanist functionalism and a real concretisation of existential space. As for the conceptualisation of context, this proved just as impossible to define without recourse to phenomenology. And here again, it turned out that Aalto had transformed the site into a place that participated in a re-enchantment of the world. As Shigeru Ban says, "*In Aalto's architecture found a space created to complement its context."* [366]

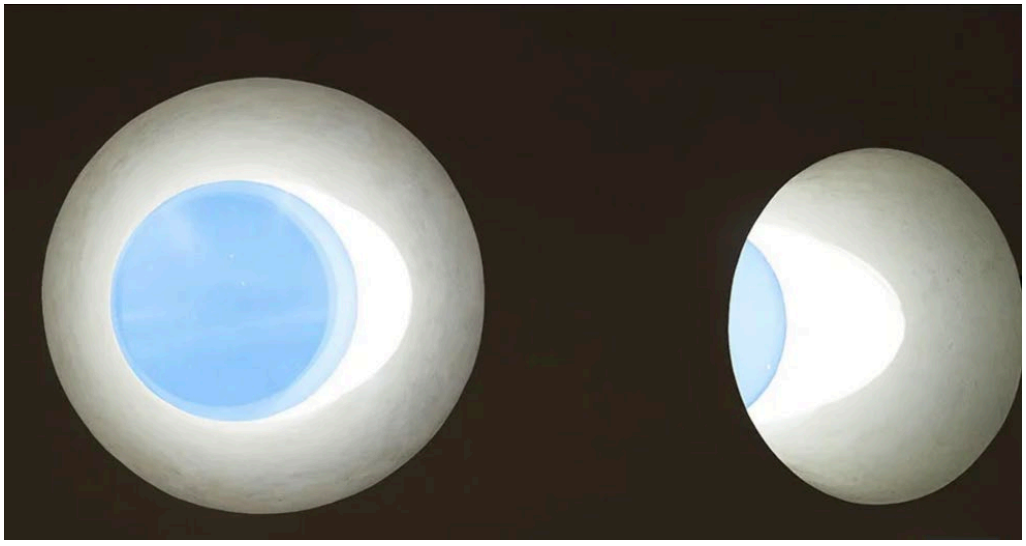

Figure 61:Skylights in the Viipuri Library

A more in-depth analysis of the Viipurii library revealed an almost "literary" vision that placed the library both in its historical continuity and in its visual environment, a deliberately unchanged context. For him, the concept that Aalto developed encompassed "thousands of different and contradictory factors", skilfully combined, far from standardisation, inflexibility, superficiality or an economy of thought, transcending this conviction in the combination of materials and spaces that make sense, and above all without losing sight of a humanity that still makes the building relevant almost a century later: the user feels at home.The rest of the chapter takes us back

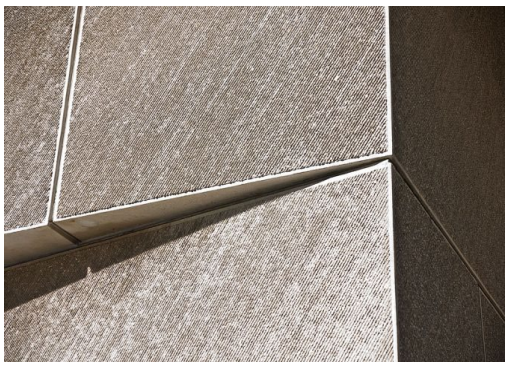

Figure 62: Detail of the facade of Atlanta Central Library

[365] FRITSCH E., Op.cit.,

[366] SWENGLEY N., *An eye on" the little man ", Financial Times, 2007,* [online] https://www.ft.com/content/52573560

to the Atlanta library, built 50 years later by Marcel Breuer. In conceptual terms, Breuer designed an architecture that was intuitive, clear and sincere. Inspired by the Bauhaus, of which he was one of the teachers, he used contrasts, collages and an evocative materiality from the detail to the whole. However, he went beyond it, both in his technical, tactile and visual use of concrete, and in his artistic use of spaces and structures, which he transformed from material constraints into a process of experiential creation in which he transformed matter into form and spatial tension. On a contextual level, it is the wider social group that imposes itself culturally and historically in places that absorb an infinite number of contexts at work and invite people to enter his complex and immense but never insignificant buildings, created for mankind. With Breuer, the user is at the heart of a social process to which he belongs and which he can/should help to develop.

The Atlanta library, built at the very end of Breuer's career, presents a relationship both to the street and to the interior spaces that is not lacking in audacity, as much in its monolithic appearance as in the contrasting materials, the studied gaps and the rhythmic openings in disharmony, a skilful and uncompromising metalanguage. The totality of the interior is exposed from the outside; the totality of the interior is a space sculpted both by the materials deliberately chosen and by the contrasting tensions. The sincerity that Breuer always sought here takes on an assertive aspect, denying the supposed ultra-glazed transparency of the commercial surroundings in favour of a public space that shelters from the outside through the cantilever and invites you to enter to discover it. Imposing and emblematic, it is also a genius loci of grandeur and silence.

The final chapter is devoted to the project. The use of context as a conceptual tool for designing an architectural object, the theme of the thesis, is reflected in my project from several angles.

A broad contextual approach led me to question a number of parameters in developing it. Both integration with respect for the environment (closer to the vision of Aalto) and broader social reflection (closer to Breuer) are essential in a city as diverse as Brussels. The lack of green spaces, the marks of the old silos on the site, the fragile scaffolding of the surrounding architectural mix, the noise of the multimodal junction and the chaotic urban planning - all these aspects and more combined to create a library that had to give meaning to the site, to signify it.

Designing a library, however, reflected the need to know what the idea of a library is, what needs to be said about it, what story it tells, just like the thousands of books it will house and the thousands of users who will come to use it. For me, a number of terms represented the contexts and concepts of the programmatic reflection: the temple, the memory, the intimate and the universal, the crossing and the anchoring in the world. Each of them presented a common thread : a memorial context broadened towards a concept of structures in dialogue; a temple of knowledge that does not invite a fleeting vision but an intensification of knowledge; an immediate surrounding context bringing a concept that softens the hyper-urbanity of the city ; a nearby memorial context revealing the concept of a signalled and protected memory of the silos; a socially unequal context towards the idea of passage in egalitarian distribution and exchanges; the intimate and the universal as two aspects of life within a single place and finally an anchoring to the world in its spatiality on a human scale.

To conclude, Alvar Aalto and Marcel Breuer created two libraries in their own image and in the image of their time; but they were not content with pale repetitions or slavish dogmatic reflections; they interpreted the spaces entrusted to them to tell a story: that of the world contained in a library both by the memory it contains and by the memory it shares, for as Nabokov said: "*Memory and imagination are both a negation of time*".

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