Co-design in Architecture
Use of participative approach for the revalorisation of a municipal library

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Abstract

Nowadays, book libraries are moving towards a new role. They are no longer places only to borrow a book; they have indeed become more than social places hosting several activities for the citizens as they also became places where people can work, create and learn together. In other words, third-places.

Libraries could, therefore, be designed using co-design methods. Co-design highlighted that any new concept does not necessarily have to be only driven by costs, efficiency, nor quality but preferably by more collaboration between the several stakeholders involved. This thesis considers the application of these concepts in the case of the revalorisation of the *Bibliothèque adultes de Watermael* in Brussels. This library is currently facing a visibility issue as it is housed in the same building as the cultural centre *La Vénerie*.

Consequently, the goal of this thesis is to investigate how co-design can be integrated into this case study and to assess whether and to what extent it can be done. The research was conducted thanks to an inductive methodology divided into two steps: a state of affairs and a participative approach. The state of affairs consisted of a timeline of a project currently being held for the building and interviews. On the other hand, the participative approach consisted of a workshop with three activities and involving several stakeholders.

The intermediate results from the state of affairs showed that some participative approach had already been tried during the ongoing project. The same results showed that in order to have co-design, some prerequisites need to be met. Indeed, institutions must first all be in favour of such an approach; otherwise, no co-design can occur at all. This is also tied to the fact that these institutions need to be ready to change their view on the way of working as co-design is still young. Additionally, a clear vision and clear objectives need to be set. In that vein, the library had a clear vision, but the objectives regarding this vision were not clear, yet. The workshop was thus organised according to these results, and its first goal was to clarify the objectives regarding the building.

This workshop showed that co-design might be an excellent answer to the library's stakes as the stakeholders present during the workshop decided to go on with this kind of approach. Momentum was created and proved that co-design will not stop and will be continued.

Keywords: library, third-place, co-design, inductive methodology, workshop

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1. Introduction

Since their emergence, book libraries have been erected to allow the broadest possible audience to access recorded knowledge. Once this role was defined, libraries were soon considered a public utility and slowly became one of the main concerns of the national authorities regarding public expenditure. Furthermore, in her paper, Galluzzi mentions that several articles acknowledge the public awareness on the significant role of libraries to the education of citizens and the development of critical skills. This new role has been more critical in recent years, with the outset of the digital era (Galluzzi, 2014).

Accordingly, this thesis will show how libraries are complex and socialising. Therefore, designing libraries with the citizens, thanks to the concept of co-design appears relevant. Co-design is "a creative approach that supports and facilitates the democratic involvement of people in addressing social challenges" (Szebeko & Tan, 2010). In other words, co-design aims to integrate all kinds of users as collaborators rather than research subjects.

Nevertheless, it should be kept in mind that co-design is not merely a survey nor an expert panel, but it gathers all stakeholders with different insights to the benefit of the project (thinkpublic, 2009). Thereupon, a copious amount of design methods has been developed (Skiba, 2014), giving more significance to the users. These methods have undergone intensive experimentation in several fields during the past decades. Many communication technology projects benefit from this breakthrough (Sanders & Stappers, 2008), and those concepts are already being piloted in the built environment (Skiba, 2014).

Nonetheless, co-design needs more case studies to continue to evolve, and this thesis will constitute an additional case study for the field. The objective will thus be to develop, apply and assess a co-design methodology in the specific case of the *Bibliothèque adultes de Watermael*. In order to do so, this thesis is divided into four parts: state-of-the-art, methodology, results and discussions.

In the state-of-the-art, the context of the public libraries will be analysed from their creation to their impact in Belgium. The main stakes around the new role of libraries will be exposed and summarised. It will be indeed concluded that libraries become third-places and co-design appeared as a way to make libraries closer to this concept. Co-design will, therefore, be analysed to see whether and how it may be a way to answer to the new role of libraries. Then, co-design will be looked at from its origin to its application in architecture, particularly in libraries. Several examples will be compared and analysed to pinpoint the main elements that should be maintained and improved. Consequently, several questions will be raised regarding the applicability of co-design in the specific case of the *Bibliothèque adultes de Watermael*.

Once research questions are clearly stated, the different stages of a co-design methodology will be explained. This thesis has been conducted following an inductive approach. This approach will be explained as well as the consequences of such a method on the research process. This methodology is divided into two steps: a state of affairs and a participative approach. In the section of the state of affairs, a timeline was drawn, and interviews were conducted; the protocol and methods used will be detailed in this section. The intermediate results from this part will directly influence the following part, as new research questions will be raised after the state of affairs. During the participative

approach, a workshop was organised, and three specific activities were chosen based on what was found during the state of affairs.

Furthermore, in the results section, the different type of data gathered will be explained as well as the way they were analysed. The type of data was indeed multiple, and each one of these had been analysed differently and based on their relevance. The different outputs will be depicted and described, focussing on the main points that need to be kept for the last part, the discussion.

In the discussion, the results will be analysed to dig out some conclusions. The influence of the different results on the choice of activities for the workshop will also be detailed. Due to the results, the discussion will requestion some theoretical models used in the state-of-the-art as some elements need to be met upstream even before speaking about co-design. The concept of optimum participation and optimum co-design will consequently be developed. Moreover, based on the results, answers will be proposed to the research questions stated in the state-of-the-art. Finally, a conclusion will sum everything up by summarising the contribution of this thesis as well as some limitations. The thesis will be concluded with some perspectives for the future of co-design in libraries and by showing how this research helped relaunched a co-creation process.

2. State-of-the-art

2.1. Book libraries

The first book libraries can be found five thousand years ago in Southwest Asia. They housed the earliest writings, which were written on various materials such as bones, skins, bamboo, clay, and papyrus. They consisted of pictographs representing a subject or an idea. From its establishment, this written knowledge needed storage and organisation, i.e., libraries (Murray, 2009). Most of those old libraries were created because these written records could be used to contain the thoughts and experiences of human civilisations in various places and time (Lerner, 1998). Nevertheless, the first writings were initially invented to record land ownership and keep track of debts. However, it did not take long before poets, priests, and prophets found other uses for it (Lerner, 1998).

Ever since then, libraries have spread significantly and can currently be found in a different form such as academic libraries, school libraries, special libraries and public libraries (Cornell University Library, 2018). The following chapter will focus on the public libraries meaning "buildings where people can read or borrow books without having to pay" (Cambridge, 2018). This chapter will then subsequently focus on the status of municipal libraries in Belgium as it encompasses the case study of this thesis. Furthermore, libraries will be presented that are described as exemplary meaning that they both transfer knowledge and innovatively connect people.

2.1.1. Public libraries

The first forms of public libraries were initially funded by generous benefactors (William L. Whitesides, 1998). Throughout ancient Greece and Rome, records of rulers were found that consolidated funds to construct buildings to house public records. Moreover, this did not only occur during ancient time. Indeed, in England in the seventeenth century, a public library was funded through private donations (William L. Whitesides, 1998). In addition to that, in America, during the mid-nineteenth century, several public libraries were founded thanks to the generous support of wealthy benefactors (William L. Whitesides, 1998).

In most cases, the underlying goal of the institution was to ensure free public access to a large amount of historical and cultural information (William L. Whitesides, 1998). Unfortunately, these public libraries, mostly during the Renaissance Europe, were intended only for the use of scholarly gentlemen. Even after the Reformation, most public libraries were meant for the use of clergymen or public officials (Lerner, 1998). The public library, as the term is used nowadays, came into existence as a response to the needs of an evolving democratic society (Lerner, 1998). They indeed transformed into a means for shaping the thought and behaviour of the lower classes of society. More recently, the public library in Western countries has evolved from an instrument of education, intended to uplift the working classes, into a recreational facility for the middle classes (Lerner, 1998).

From there on, libraries have markedly developed during the past decades. Many pieces of research are currently being held and what comes from these studies is that scientists and professionals can

highlight several trends that are strongly affecting the libraries and librarians of today. The digital revolution is the main one. Additionally, there is a need to build more sustainable libraries (Galluzzi, 2014).

Besides those researches, the public perception about public libraries presently develops around two main aspects: the physical and the digital library. The physical library is generally identified with the building itself. In fact, in people's minds, libraries do not exist independently of their physical appearance. On the other hand, the digital library is conceived as the sum of the natively digital resources and the digitised collections. The physical library seems highly valued by citizens not only as a place to consult collections and to study but also as a social and meeting space for the community. There, the public sphere is still preserved, and all kinds of people from different social classes can gather together and share a multicultural leisure time (Galluzzi, 2014).

On the other hand, the digital library was born from the rapid technological growth. This lead to the fact that the physical libraries are becoming obsolete due to access to information and quality content provided by the Internet (Galluzzi, 2014). Nevertheless, computers and the Internet have been valuable instruments to enhance the librarian and users' abilities (Murray, 2009).

Besides the technological development, the apparition of the concept of the third library is an essential milestone in the evolution of the contemporary library. This term describes a place where culture, leisure and social bond, human' interactions and permanent education goes hand in hand and intertwine to the benefit of a population becoming autonomous (Association des Bibliothécaires de France, 2015). This notion, coined in the early 1980s by Ray Oldenburg, stands out from the first place, the sphere of focus, and the second place, the field of work. The third-place is understood as complementary, dedicated to the social life of the community, and refers to spaces where individuals can meet and exchange informally (Servet, 2010).

The third-place library is divided into three generations. The first one is integrated into the urban fabric. The second-generation libraries are based on the network of civil society organisations, in other words, community libraries. The third generation focusses on integrating technology manufacturing workshops such as fablabs, digital creation, as well as shared workspaces and collaborative learning. In this third generation, it is much more than a question of drinking, eating and talking in a meeting place (Abrassart, Gauthier, Proulx, & Martel, 2015). Users need to be involved, engaged in collective thinking while creating things together, which reveal a full potential for the creation of social transformations (Martel, 2015). With the third library, more than ever, the community and the individual are placed at the centre of library services. Libraries see themselves in the role of supporting community members' journey through life, providing resources to assist them in every life stage. Libraries aim to become a community meeting place, encouraging formal and informal opportunities to socialise and mix. They are attempting to involve the community more in the decision-making of the library, providing participatory opportunities in planning, budgeting and acquisition (Nicholson, 2017).

With all of this in mind, determining space needs is a compound exercise, which requires a thorough understanding of the several elements such as the collections and the technologies that will be housed in the library. One should think of how human beings work, study, use technology and socialise in a library. Sustainability is one of the central issues of this decade, and therefore, continuous improvement and adaptability economically responding to changing circumstances should not be forgone (McCabe & Kennedy, 2003).

What follows from these insights is that contemporary municipal libraries are often housed in open buildings and have the desire to attract a bigger and more diverse audience in order to become places of meeting, social insertion and questioning as the third-place library aims (Taesch-Förste, 2011). Indeed, they are no more only frequented by a restricted cultivated audience. Under these circumstances, the new means of lending, the user and the librarian are found more and more side by side. Librarians also embrace their new role of mediator, cultural and social animator (Jacques, 2011).

Regarding the design itself, new trends can be highlighted such as fewer sections divided by support, no more bridging between generations, the addition of intimate spaces, presence of collective workspaces and individual workplaces, free reading in different positions or modulation of workspaces. (Jacques, 2011).

It can be seen very early on that public libraries were used as a means to transfer knowledge. Being firstly a privilege for the elite, it slowly moved to the lower classes of society. From education to leisure, libraries were recently influenced by the outset of the new digital era (Galluzzi, 2014). This evolution goes along with the concept of a third-place where the library becomes a social place not only to share but also to have the people involved to work together. For this, space must be tailored to respond to those needs with new architectural answers and tools. Considering the literate and digital education mixed with the concept of the third-place, make the libraries a complex issue. This complexity is tied to the new role of libraries, and now it is essential to see how it has affected the library sphere in Belgium as a municipal library in Brussels will be used as a case study for this thesis.

2.1.2. Municipal libraries in Belgium

As stated in a report of the *Ministère de la Fédération Wallonie-Bruxelles*, libraries are a significant concern. Indeed, investments of real estate for public reading are declined according to two significant axes: public reading centres and support to local communities who build, arrange or renovate their libraries. However, the investments made over the last 25 years have had a little impact on the quality of the architecture of public facilities intended for readers. Knowingly, in consultation with the *Service de la Lecture Publique*, a redefinition of the stakes of a current library has been discussed in order to describe the main lines of work for the 20 years to come. What came out of these discussions is that focus should be put more on the development of cultural practices that frame the architecture, thus on deploying partnerships with other cultural operators. Interconnecting disciplines, promoting meetings and decompartmentalising should be the priority (Dassonville, 2011). These stakes are perfectly aligned with the concept of the third-place mentioned in the previous chapter.

The year 2009 was an important milestone as a new decree was applied. The so-called *Décret relatif au développement des pratiques de lecture organisé par le réseau public de la lecture et les bibliothèques publiques* states: « The purpose of this decree is to recognise and subsidise the operators who work to develop the reading practices of the population in the French Community. It aims to promote access to knowledge and culture through the supply of documentary and cultural resources on all media, both tangible and intangible, as well as to allow their multiple uses by the greatest number (Décret relatif au développement des pratiques de lecture organisé par le réseau public de la lecture et les bibliothèques publiques, 2009)."

In other words, this legislation explicitly prescribes a primary mission to Belgian public libraries. They must develop reading practices. This mission comes with the definitions of the direct operator and the support operator. The direct operator is an "operator of the Public Reading Network who offers services directly to the population; it can be composed of one or several libraries managed by one or more organising authorities number." (Décret relatif au développement des pratiques de lecture organisé par le réseau public de la lecture et les bibliothèques publiques, 2009) On the other hand, the support operator is an "operator of the Public Reading Network, which offers its services to direct operators. The support operator carries out its activities for the benefit of the recognised direct operators and the entire Public Reading Network. It intervenes on the second line to help, without any substitute, the direct operators to meet their missions. It assists the organising authorities of libraries wishing to obtain recognition as a direct operator under this decree." (Décret relatif au développement des pratiques de lecture organisé par le réseau public de la lecture et les bibliothèques publiques, 2009) Concretely, the direct operators engage in mediation processes between the documents and the potential audience of the latter. Nonetheless, this decretal requirement was already a reality for a long time in the daily life of libraries. The decree only ratified what was gradually being put in place. Also, it must be noted that it is through these activities included in a reading development project that libraries are approaching their greatest success. The public is present and growing in number each year. Attracting so-called "remote readers" is hardly accessible but is still one of the primary missions of libraries. (Ministère de la Fédération Wallonie-Bruxelles, 2017).

More recently, 2015 was synonymous with the first budget difficulties. Indeed, due to lack of budgetary means and in line with the fiscal trajectory established by the government, the new recognitions were suspended. Twenty-two libraries wanted to be recognised and have not. In addition to the lack of new recognition, budgetary difficulties have had another effect on the day-to-day work of already recognised public libraries. Those have suffered a reduction in their operating subsidies, which, initially set at 1%, has finally risen to 19% (Ministère de la Fédération Wallonie-Bruxelles, 2017).

It can be quickly concluded that Belgian libraries are a concern for the municipality as a new decree was written, clarifying the stakes of the libraries. The latter was in alignment with the concept of third-place as it focuses on the access to knowledge and culture.

Nonetheless, budget issues hamper the ability to enforce this decree fully. The questions that may arise could be: How can it be ensured that the vision of the new decree is adopted? What have other libraries done to be close to this vision?

2.1.3. Exemplary libraries

From the previous section, an exemplary library can be defined as having strong social concerns, i.e. they should mainly focus on how to create libraries as a third-place, a place where people can meet, discuss, educate themselves and work together. All of this should be done while keeping in mind the digital revolution and the sustainability practice that is becoming compulsory. The two following examples illustrate this well.

The first noticeable example is the Liyuan library (Figure 1) from the Chinese architect Li Xiaodong. It is located in the wisdom valley of the small Jiaojiehe village in the Huairou district (McManus, 2018).

This project aimed to conceive a place to reflect, to improve life quality and stimulate the local economy together with a strong will to serve the population. Indeed, Li was touched by the fact that the residents of the area, especially the children, lacked education (Xiaodong, 2014).

The Liyuan library is a non-profit library, created to provide free books and reading space for both tourists and residents. The visitors are therefore asked to give two books for each book they borrow. Consequently, no librarians are needed, and the library is self-sustaining with the help of the users (Xiaodong, 2014). With this example, the Chinese architect shows how social and sustainable aspects can be brought to a project while having the issues of the users in mind. The Liyuan library illustrates a great example of a third-place building as the educational and socialising goals are met without the need for any external participant.

Figure 1: Liyuan library interior (liyuan-library-li-xiaodong-, 2018)

Spatially speaking, the library allows the different users to own the space and use the steps as they want. Indeed, a step can be used as a comfortable seat to read or a table. Those same steps constitute shelves to host the books. Those different uses are one part of the richness of the spaces. The steps and the whole volume composition has been designed to be used in different manners but also allows the reader to find come intimacy while providing space to discuss, share and read. This spatial quality was achieved thanks to the subtle games of levels that are highlighted in green in the sections below (Figure 2).
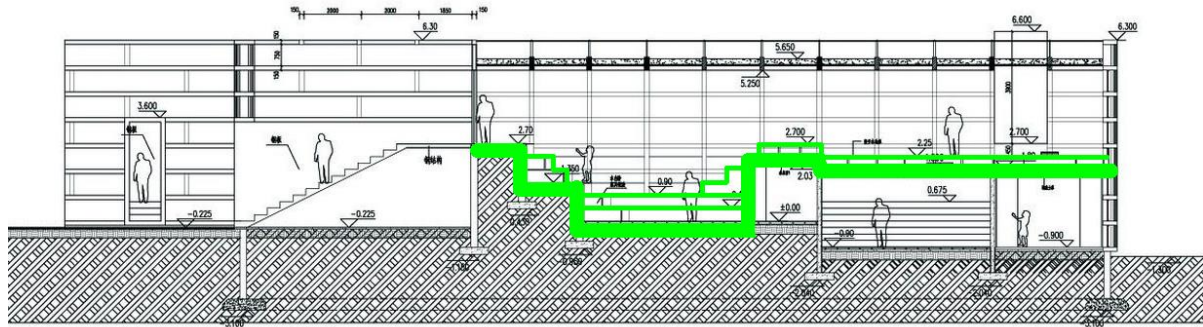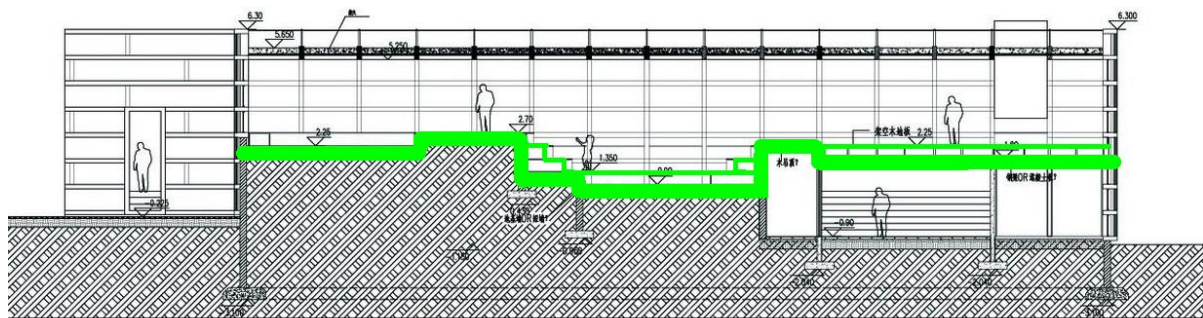
Figure 2: Liyuan library section (Liyuan Library, 2019)

The second example is the Richmond Public Library's Ironwood Branch, located just outside Vancouver in British Columbia. This library is conspicuous for its planning process and users satisfaction. The Richmond library wanted to look anew at the roles of libraries in the community and decided to go for the retail trend of more extended hours. Additionally, the library was designed using technology to their advantage and by having a library that could adapt to future needs. This adaptability already meets the new digital and sustainable era mentioned in the previous section. As a result, many of the library users are found late at night, having a drink, reading their favourite books and meeting people. Moreover, the use of the library rose up, and the citizens and staff described themselves satisfied because their concerns were considered. Most importantly, they were put as a priority while designing, considering the community role the library has to fulfil. This is all the more impressive as the library is only 12000 square-foot (McCabe & Kennedy, 2003). This feat has been spatially achieved by placing most of the bookshelves on the walls and leaving central spaces for multimedia areas, for instance, as depicted in the image below (Figure 3).

Figure 3: Richmond Public Library's Ironwood Branch interior (Kostinuk, 2014)

This configuration seems to follow the new trends mentioned by Jacques in the previous section. Indeed by placing almost all the shelves on the walls, there are fewer sections, and the few shelves in the middle create intimate, collective or individual spaces inside the space. This space optimisation was also achieved thanks to the replacement of the circulation desk with a small "cards and accounts" station to manage on-site registration and a reduced information desk (McCabe & Kennedy, 2003).

All those stakes should be held paramount while thinking of the redesign of a library. Where the Liyuan library was an excellent example of a third-place, the Richmond library also represents how to consider the users in the process as they ultimately own the space as well as taking into account the new trends around the design of libraries. In both cases, the users were thoroughly considered while designing. Can these concerns of the user be pushed further?

With the previous examples, the users were carefully considered. Nevertheless, they were not directly involved in the design. A step further would then be to include them in as many stages of the design thanks to a co-design methodology.

2.2.   Co-design

Co-design is not novel and originated from the user-centred design movement in the product design field. This move from user-centred design to co-design had an impact on the roles of the players in the design process. Indeed, user-centred design began with an expert perspective in which researchers observe passive users. Those users were asked to perform instructed tasks and to give their opinions about product concepts that were generated by others (Sanders & Stappers, 2008).

Nonetheless, the terms co-design and co-creation are often subject to confusion. Even dictionaries do not yet have entries for these terms. Sanders and Stappers use the word co-creation to "refer to any

act of collective creativity, i.e. creativity that is shared by two or more people" (Sanders & Stappers, 2008). By co-design, they indicate collective creativity as it is applied across the entire span of a design process. In other words, co-design is included in co-creation. In the following chapter, co-design will be used in a broader sense to refer to the collective creative work of designers and not trained people together (Sanders & Stappers, 2008).

It can be thus understood that co-design is more a catch-all word than a clearly defined term. It includes many design concepts, and the next chapter will look at the horizon of possibilities and chose the aspects of co-design the more relevant for this thesis. The standard design process will be explained, as well as the way it differs from co-design.

2.2.1. In general

As already mentioned, co-design came from user-centred design. The latter came itself from the human-centred design, which emerged against the technological design. The human-centred design also has a great many other variants and to name a few of them: participatory design, living lab, open innovation, emotional design, and others. Despite this large number of designations, these concepts are all bound by the will to have the users taking part in the design. Those are shown in the figure (Figure 4) below depicting their underlying principles, their year of creation, and how much they are human-centred (Skiba, 2014). In this figure, it can be seen that the users (green dot) are treated differently in the various methods. The first methods include the user a bit and the more to the right, the more the user becomes the core of the design to the point that in some approaches such as the user-generated content, no other player is involved.
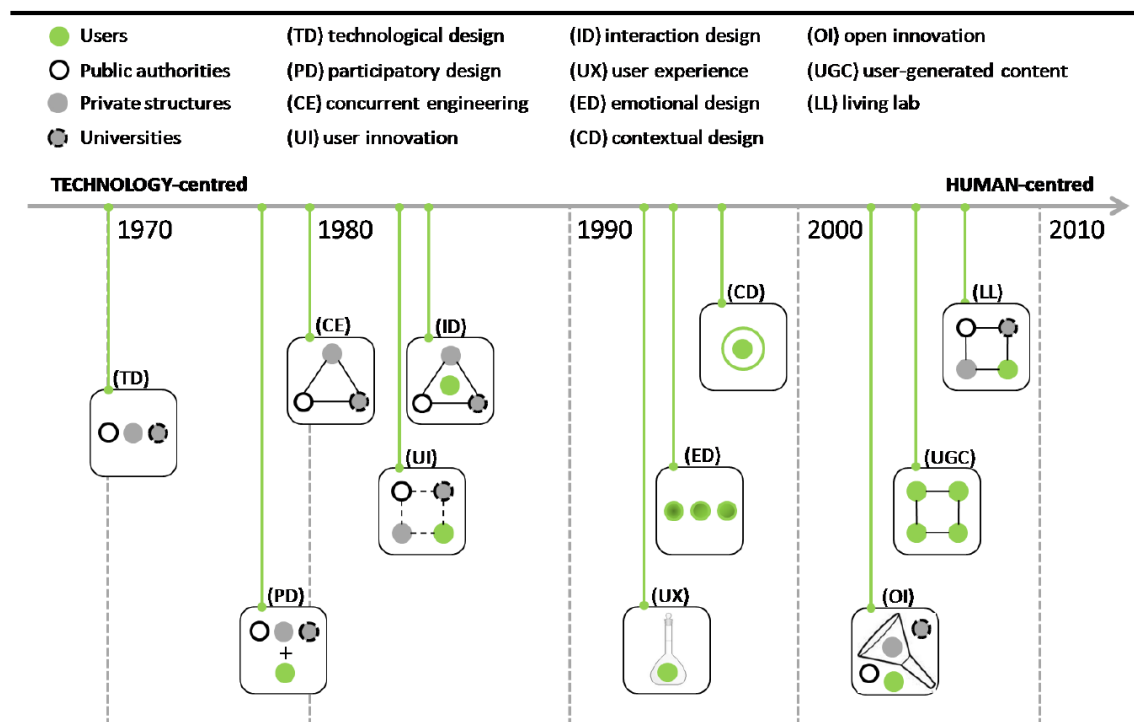
Figure 4: Chronology of human-centred approaches (Skiba, 2014)

This figure clearly shows the vast horizons of human-centred approaches that exist, how it evolved, and that each approach considers the user differently and has its particularities. From now on, the participatory design will be considered for the use of co-design in this thesis. Compared to the others,

this term suits the best integration of the users within the complete process of design. In this type of approach, the user is considered as a partner as depicted in the following figure (Figure 5).
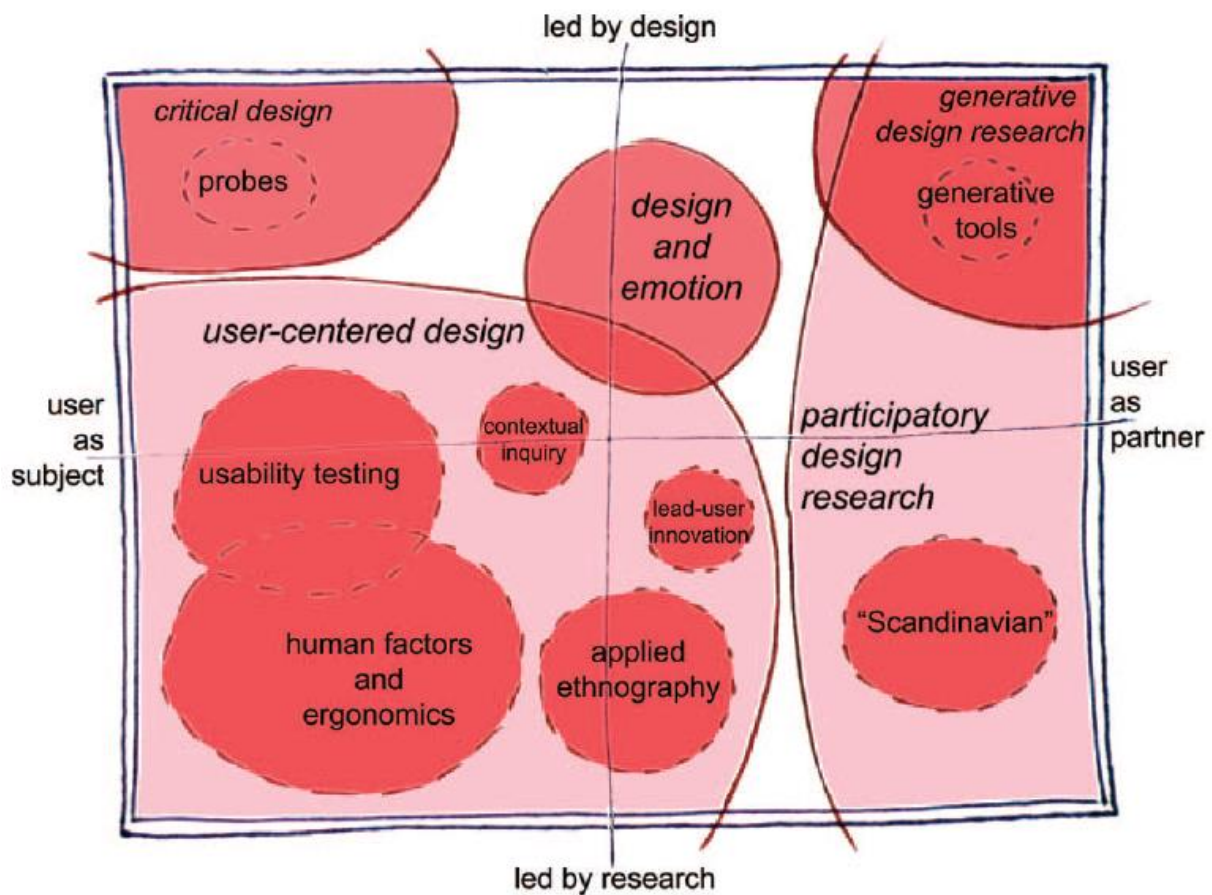
Figure 5: Landscape of human-centred design (Sanders & Stappers, 2008)

This figure gives an overview of the current state of the human-centred design research landscape (Sanders & Stappers, 2008). It is another good representation of the complexity of the human-centred design. Including users necessitates first to understand what position they take and to see whether the methods are led by the design itself or by theoretical background. As this thesis aims to consider the user as a partner, the participatory design will be considered, and the generative design tools will be used.

As co-design may differ from a standard design process, it is worth defining what a standard design process entails. Every field such as engineering, architecture and science have its way of designing, but this can be summarised in the following steps depicted in the figure (Figure 6) below (Chicago Architecture Centre, 2019).
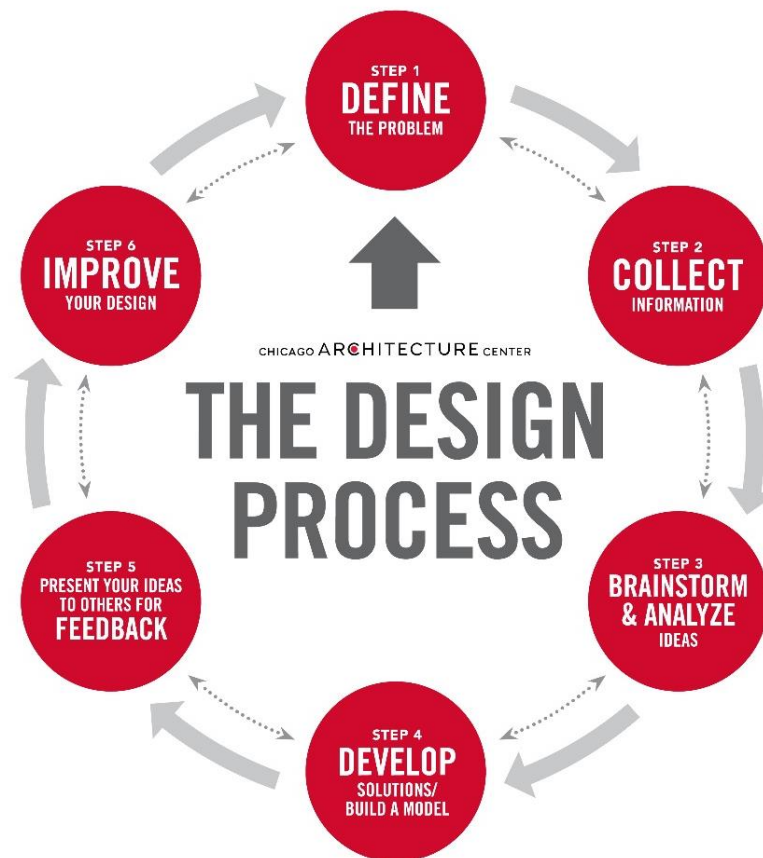
Figure 6: Design process (Chicago Architecture Centre, 2019)

The first step of a design process is to get a clear idea of what the problem is. Then, the second step consists of gathering as much information possible on the target point. Afterwards, during the third step, the designers sketch, make, study and start the process of understanding how the data collected may impact the design. The fourth step consists of developing the first solutions, and the second-to-last and fifth step focuses on discussing the first solutions in order to improve them on the last step. Step four to six can be repeated in a cycle until the design is final (Chicago Architecture Centre, 2019).

As co-design is a specific type of design, it follows the same steps, but the difference with a standard procedure is the type of people involved in the process. Several classification systems have been developed to adapt the previous scheme to co-design, and the one by Skiba will be considered for the rest of the thesis as it includes only four steps and is easy to understand. The steps are the followings:

- "Exploration. This phase aims to build a global vision of the problem, to identify the real causes as well as the needs to which the solution should answer.
- Ideation. In this phase, creativity techniques are used to generate concepts and ideas that can answer the problem.
- Co-creation. Ideas and concepts are materialised.
- Experimentation. Materialised elements are used in this phase to confront them to future users and other stakeholders. " (Skiba, 2014)

Comparing the two models, the exploration step in the Skiba model includes steps one and two of the previous one. The ideation includes step three and co-creation step four. Finally, the experimentation

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occurs at steps five and six. For the scope of this thesis, the work will not be done beyond the co-creation due to time constraints.

Once the type of approach to use and the steps to consider is established, different parameters should be taken into account. Indeed, although co-design can consider the user as a partner with the means of a participative approach, the level of creativity that the user can achieve should also be considered. Sometimes users can become co-designers, but not always. It depends on the level of expertise, passion, and creativity of the user. Sanders and Stappers state that "all people are creative, but not all people become designers" (Sanders & Stappers, 2008).

In the standard design process, the researcher served as a translator between the users and the designer. In co-designing, the researcher takes on the role of a facilitator. When it is acknowledged that different levels of creativity exist, it becomes evident that it is needed to learn how to offer relevant experiences to facilitate people's expressions of creativity. In other words, different approaches must be devised to involve future users into the design, depending on the different levels of creativity (Sanders & Stappers, 2008).

Once one knows how creative a user can be in design, another point is to consider his level of involvement. To that end, Schelings and Elsen defined the notion of "optimum participation", a function of the level of citizen involvement and authorities involvement. The level of involvement could be defined here as the investment in time, the effort involved, and the amount of knowledge or data shared by the user as depicted below (Figure 7) (Schelings & Elsen, 2018).
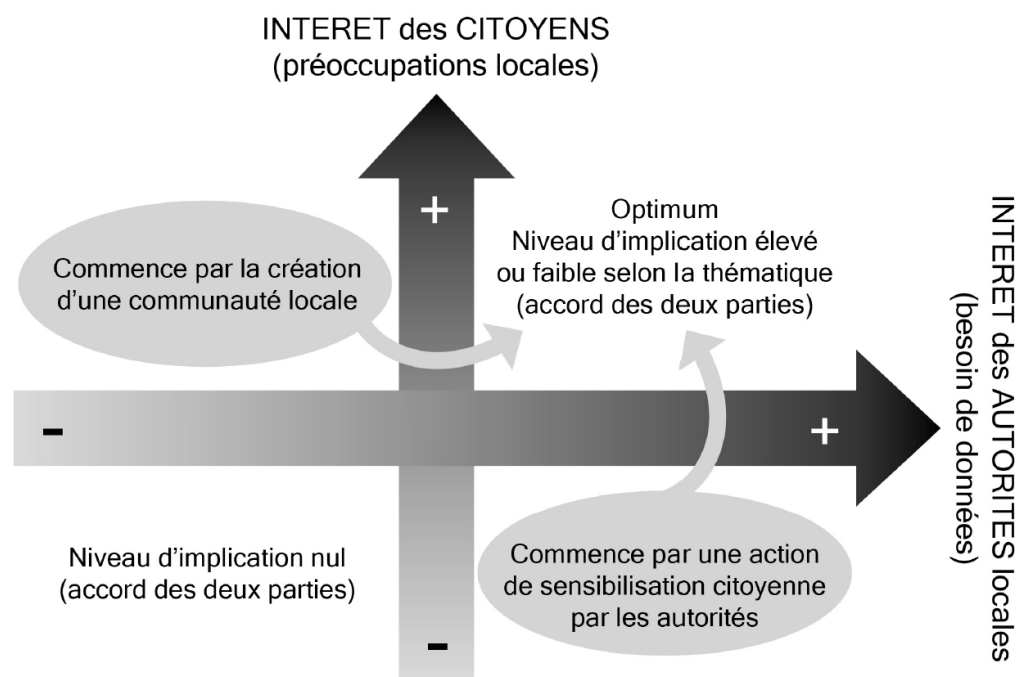
Figure 7: Optimum participation (Schelings & Elsen, 2018)

This graph shows that to reach a maximum level of involvement, the interest of the citizens and authorities should be both positive. Depending on the position in this graph, a different methodology should be applied. Each level of involvement requires a different strategy (Schelings & Elsen, 2018).

Based on the elements mentioned above, co-design will be defined, for the scope of this thesis, as a design method where all the different players are involved in as many stages possible of the process and are all considered partners. The term participatory approach will thus be used. Additionally, the level of creativity and the involvement of the players seem to be critical in order to co-design.

Nevertheless, these concepts were created for product design, so can they be used in architecture? The next chapter will explore what has been done in the built environment.

2.2.2. In the built environment

Habraken is often told to be the initiator of the international "Participation movement" in architecture. As a starting point, Habraken published a manifesto in 1961 under the name of "Supports: An Alternative to Mass Housing". In his book, the Dutch architect pointed out that nowadays, when designers build for the whole society, they tend not to desire individuality, although it has not always been the case in the past. He strives for an architecture where the specific considerations are more and more embedded in the design (Habraken, 1961).

An excellent example of applying these considerations is Landy Land. This project consisted of changing an industrial wasteland into an ephemeral garden using co-design methodologies. This land was part of a Parisian suburb that was at the heart of French industrialisation, formerly known as *La petite Espagne*. The different inhabitants, artists and architects have worked together towards this project. This project was done thanks to, among others, urban development workshops, surveys and logbooks of the neighbourhood youth. All those tools finally led to the participative design of a square that integrates visual and sound elements (Longeot, 2015).

Looking more in detail at the Landy Land project, certain elements are worth highlighting. However, first, the broader context of this project has to be explained. The whole project consisted of an urban project at Aubervilliers divided into two sub-projects: *Le jardin des fissures* and the *Square Roser* (Figure 8). Adeline Besson from the association didattica decided in 2009 to work on her city and her neighbourhood with her high school pupils (Association didattica, 2016).

Figure 8: Jardin des fissures on the left (Association didattica, 2016) and Square Roser on the right (Agence Philippe Hamelin, 2016)

What can be remembered from this approach is that the high school and primary school pupils were the leading players in the *jardin des fissures*. They accompanied the artist in his creative process, looking in the archives the routes of the old companies, planting seeds, working on graffiti in the garden and imagining slogans reflecting the memory of the neighbourhood. Together they worked on a brownfield of 5300 square meters. For the *Square Roser*, the work began in early 2012, with six classes. It continued with adults from the neighbourhood in September 2012 at the Henri Roser Social Center (Association didattica, 2016).

The challenge of the project was as much the co-design of public space as well as the elaboration of a pedagogy of the urban project for the inhabitants. In this context, the issue of information was strategic. Two young architects were working, between the workshop sessions, to imagine the tools that will allow everyone to grasp the constraints and resources of the project. They had transformed a large room in the Algecos installed in front of the Roser centre into a workspace with a few tables, a large map of the district drawn on the wall and some photographs. On the tables, prepared pieces of paper with inscriptions in colours had been laid. The participants discussed and reorganised the cards. The organiser questions the inhabitants, pushing them a little in their entrenchments. The organisers wrote that dealing with these questions in a very concrete way led everyone to understand that a tree, hedge or bench indicates both a threshold, space, but also provides shade and the opportunity to share a conversation. They, therefore, have several functions, sometimes hardly compatible (Association didattica, 2016).

During the district reunion, some feedbacks were expressed, and participants expressed that it was great to involve local people in projects like this. Some others said that they enjoyed attending those sessions. They mentioned that the architects were friendly and that there was a family feeling. The only thing they hoped was that they would not have been sold a dream, that they will see this project come to fruition. On the other hand, organisers were expecting more participants.

Nevertheless, they learned many things, including techniques that they did not know at all. However, some participants felt that they were left with a tiny piece of decisions and that the participation was somewhat limited. They would have hoped more democracy. Those comments already show some of the drawbacks and limitations of co-design (Association didattica, 2016).

The project finally came to fruition and is considered for all the people involved as a success (Association didattica, 2016). If co-design occurred for an urban project, was it also done in the library, and how did it go? The next section will present two examples of co-design in libraries.

2.2.3. In libraries

As shown In the previous section, libraries are acknowledging the importance of participation and seeking to use it to increase engagement. The rise of participation is being reflected in public libraries in two ways. For the first one, libraries are attempting to access and utilise existing participation in order to increase community engagement. Secondly, libraries are attempting to create new participation that centres around themselves, repositioning themselves as collaborators. Libraries are attempting to tap into existing participation in order to connect with a broader demographic, engage with their communities in innovative ways, and increase promotion of the library and its services. Libraries often state that they want to become part of people's everyday lives, to be the place where people go, meet, learn and share or in other words, a third-place (Nicholson, 2017).

Looking at some examples of libraries experimenting with participatory approaches, two good examples in Montreal are worth mentioning. Two co-design workshops were conducted between April and June 2014. The first was a workshop on the gamification of the future library Pierrefonds and another on the future library of Villeray. The contexts of these interventions were different. In the first case, the intervention was done after the architectural competition to enrich the winners' proposal with gamification devices. In the second case, the intervention was done further upstream of the process, to help the services of the City of Montreal to prepare the terms of the architecture competition (Abrassart, Gauthier, Proulx, & Martel, 2015).

The library Pierrefonds

The co-design workshop of the Pierrefonds Library was organised by the members of the design and society group. The aim was to explore the possibilities of gamification, which is "a process of enhancing a service with affordances for gameful experiences in order to support user's overall value creation (Huotari & Hamari, 2012)." This collaborative design activity brought together about forty participants who were representatives of local organisations and communities, librarians, game design experts, innovation experts and designers, as well as the architects' winners of the architecture competition. It marked the desire of the Cultural Districts Division of the City of Montreal to develop its plan for renovating, expanding and building neighbourhood libraries, in consultation with the populations they serve and their stakeholders. (Design ∩ société, 2014).

The actual Co-Design workshop was divided into five steps. The first one was the immersion with the discovery of the territory and people. During this phase, a series of in-depth interviews were filmed with users and non-users of the library. These interviews revealed the residents' attachment to their library and the creation of five user profiles that were used as a starting point for the work of the five teams during the co-design day. Parallel exploratory work had also been done with designers of play to formulate prototypes of ludification in the form of sketches of game mechanics adapted to different users. These sketches were intended to give illustrative examples to the teams; they could be completed, deconstructed and reconstructed, or used as a source of inspiration to imagine other prototypes. Thanks to this preparatory work, the users' place was assured of two manners, by video portraits entrusted to the teams, presenting people reality with their routine, their imagination, their aspirations and their contradictions. Also, these inhabitants were invited to discuss with the participants during the plenary session of the afternoon. (Abrassart, Gauthier, Proulx, & Martel, 2015). The second part was the ideation on the gamification of user experiences in the library. There were single groups of work in parallel followed by the design of a proposal of game mechanics for each of these users. Finally, presentations of an extraordinary day of this user in the form of a theatrical interpretation were conducted in plenary sessions. The third step was the presentation of architects' plans by the team of architects who won the contest. The fourth one was the integration of game mechanics into architects' plans. The five groups deepen the game mechanics of their users by placing them in the architects' plans. There were also some additional plenary session and discussion with library users in the audience. The last step was the proposal for a technological program in the form of discussions with the architects (Martel, 2015). The different steps can be summarised with the next figure (Figure 9).

CITY OF MONTREAL PLAN
Expanding and building libraries

CONSULTATION OF THE STAKEHOLDERS
40 participants from various profiles

INTEGRATION
Integration of the game mechanics in the plans

GAMIFICATION

PROPOSITION
Proposal for a technological program in the form of discussion with the architects

PRESENTATION
Presentation of the architects plans

IMMERSION
Interviews with users and non-user
Creation of 5 users profiles
Prototyping by designers

IDEATION
Design of a proposal of game mechanics
Theatrical presentations

Figure 9: Library Pierrefonds co-design workshop steps

After the workshops, for Philippe Gauthier, co-founder of *Groupe Design et société,* the deadlines were too short to allow a deep co-design. According to him, the first condition of success would be to give oneself time to do it properly. To make observations in circles, to recruit relevant people, all of this takes time. The recruitment of participants was also a crucial point. It was necessary to consult the users to identify the real needs, but also the non-users to know how to attract them. The fact of including non-users was hard because, naturally, those who want to participate and have more ideas are frequent users of libraries or those who are already there. More in-depth preparation work with non-expert participants would have been useful so that they could take a critical stance on the ideas presented to them, be analytical and have a vocabulary to express their opinions (Office de consultation publique de Montréal, 2014).

The library of Villeray-Le Prévost

This co-design workshop was organised to imagine the new service functions which could be offered as part of its renovation. This workshop day had a more open agenda than the one of Pierrefonds. It was indeed upstream of the architectural competition and aimed to feed this competition in ideas and design criteria. About 30 people from different horizons (librarians, managers borough, local elected representatives, representatives of organisations and local communities, experts in design and social innovation) have been invited, and the program of the day was divided into two parts. A team

prototyping activity took place in the morning to generate concepts possible for the future library. Three fictions of departure were proposed to the participants to organise a divergence. Two work teams were associated with each fiction to prepare and stimulate debate and controversy between teams in plenary sessions where the concepts were presented. A second ideation activity took place in the afternoon. Starting from a user fiction, each team had to present its morning proposal and deepen it from this user's experience. These stories of experience then plenary sessions in the form of stories told and discussed collectively (Abrassart, Gauthier, Proulx, & Martel, 2015). The different steps can be summarised with the next figure (Figure 10).
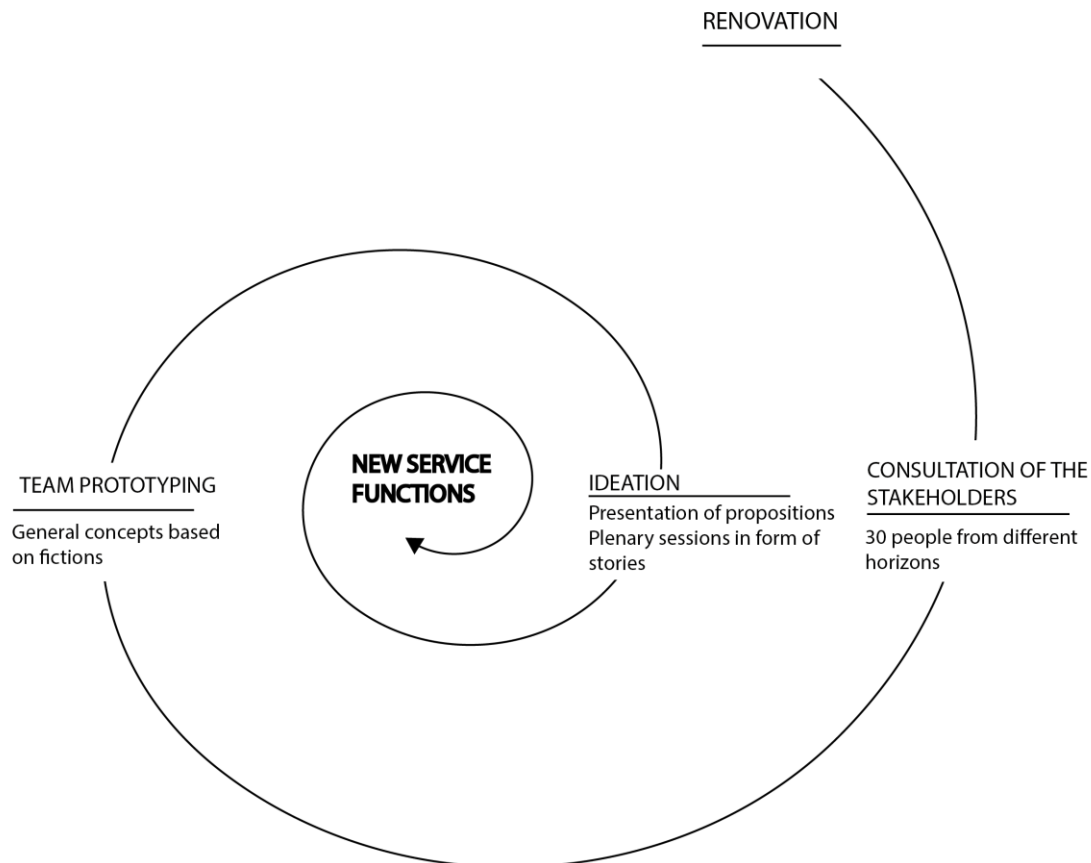
Figure 10: Library Villeray-Le Prévost co-design workshop steps

Many other examples can be mentioned, such as the Bergen Public Library in Norway where Berge partnered with students from the Bergen School of Architecture. The students were given the task of designing the library's new youth room collaborating with the target age group in interviews and focus group workshops (Nicholson, 2017). Another example is the Helsinki City Library, which has embarked on a wide-reaching participatory design process to involve Helsinki residents in the design of the building. The scope of the collaboration is impressive. The involvement of the community in the design of the library is aligned with the City of Helsinki's objective to provide more opportunities for residents to have an influence over decision-making in the City (Nicholson, 2017).

All those examples show how people are becoming more concerned regarding the use of participative approaches for libraries. With those examples in mind, the questions that are raised are: was co-design

applied and can it be applied at all stages? How much time did it take? What were the limits? The next chapter will try to answer these questions and sums this section up.

2.2.4. Summary

The following table (Table 1) compares the three projects mentioned in the previous section on several aspects. One of this aspect is the stage and the one proposed by Skiba will be used, i.e., exploration, ideation, co-creation and experimentation.

Project	Context	Stakeholders involved	Number of people	Stage considered	Duration	Tool used	Limits
Landy	Industrial wasteland	•Architects •Denizens •Pupils •Artists	/	•Ideation •Co-creation	Two years	•Urban development workshops •Surveys •Logbooks	•Political barriers •Limited participation
Pierrefonds	Gamification	•Representatives of local communities •Librarians •Game design experts •Innovation experts •Designers •Architects	40	•Exploration •Ideation	/	•Interviews •Personas •Workshops •Plenary sessions	•Time constraints •More relevant people •Non-user difficult to integrate
Villeray	New service function	•Librarians •Managers borough •Local elected representative •Representatives of local communities •Experts in design and social innovation	30	•Ideation	One day	/	/

Table 1: Co-design in the built environment summary

This table shows that they are not precise tools or methods that can be standardised. These are preferably trials than a specific methodology that had been thoroughly followed. The diversity in terms

of stakeholders, time and tools in those three trials is proof of that. All of this, as well as the previous sections, need to be kept in mind in order to apply those principles in the case of the *Bibliothèque adultes de Watermael.*

2.3.   La Bibliothèque adultes de Watermael-Boitsfort

2.3.1. Presentation

The *Bibliothèque adultes de Watermael* or also informally called Delvaux library is located at *3, rue Gratès* in Watermaal-Boisfort on the third floor of the *Espace Paul Delvaux* (Figure 11). The *Bibliothèque adultes de Watermael* is part of the *reseau des bibliothéques et ludothéques de Watermael-Boitsfort*. This network does not include only the adult section of the library but also a youth section, a toy library and the *centre du livre d'artiste*. The latter is very specific as it is the only one in Brussels to have its section where books can be borrowed (Biblio & ludothèques de Watermael-Boitsfort, 2018).

Nevertheless, the whole building is also used by *La Vénerie*. Structured as an *ASBL*, *La Vénerie*'s missions are to make artistic and cultural productions accessible to as many citizens as possible and to encourage people's participation in culture through collective practices of expression, creation and social transformation. The activities of *La Vénerie* are split over two places: *Les Ecuries* and the *Espace Paul Delvaux*. The latter, with its 259-seat theatre, hosts live shows, cinema and many other activities (Venerie, 2018).

Figure 11: Espace Paul Delvaux (Watermael-Boitsfort, 2018)

The living of those two entities is the same building seems to be a significant issue as they do not have the same mission. Indeed, *La Vénerie* has a profitable goal while the library is free. The mix of those two entities by floors is shown in the drawings below (Figure 12)

Plan -1 Plan 0 Plan +1 Plan +2 Plan +3
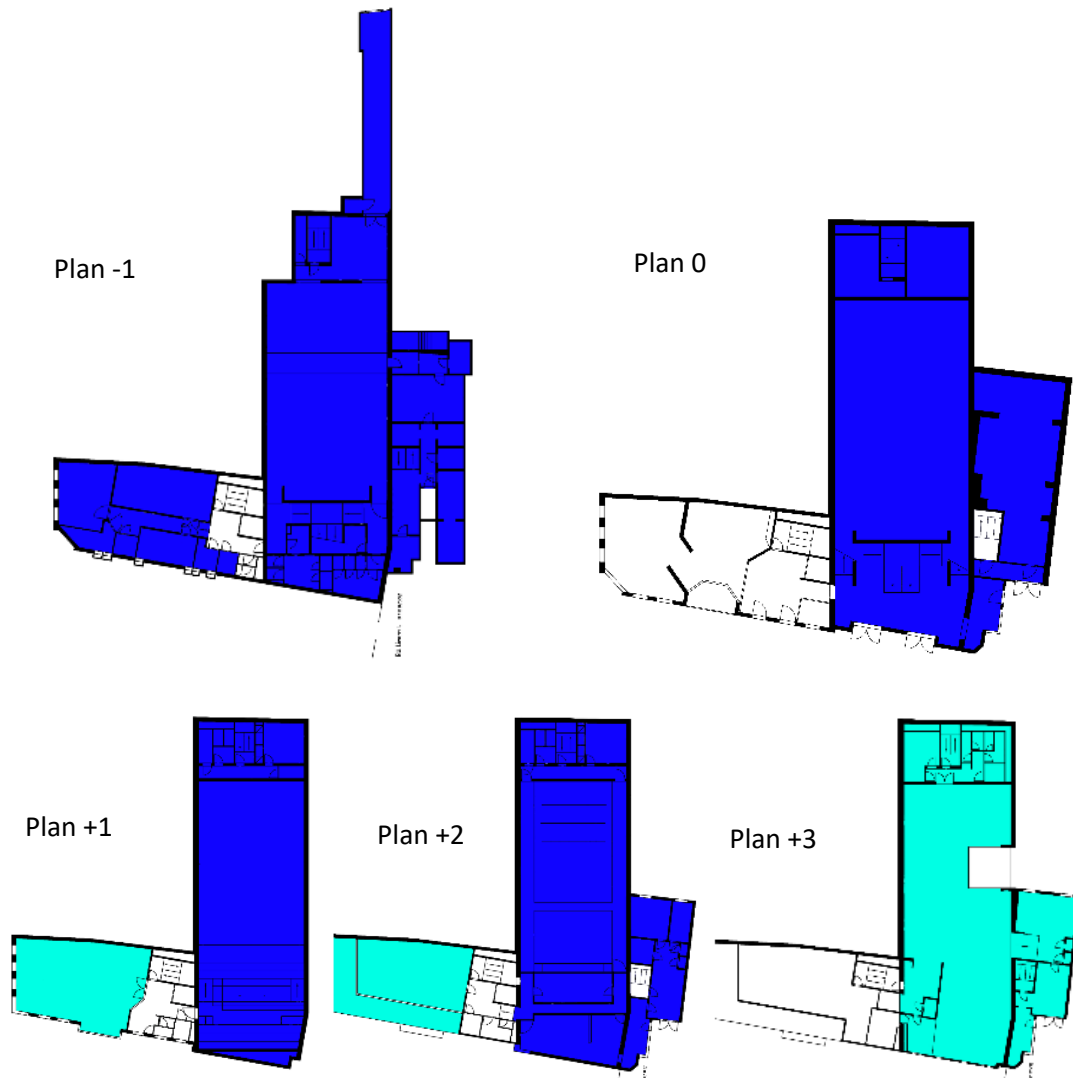
Figure 12: Espace Paul Delvaux floor plans

The spaces occupied by *La Vénerie* are shown in dark blue and light blue for the library. The spaces that remain in white are used by both entities. Additionally, a virtual visit to the library can be found in Annex 8.1.1.

2.3.2. Short historic

The whole *Espace Paul Delvaux* building was inaugurated in 1987 and the oldest plans of the library date from 1979 (Figure 13). There were drawn by the architect C. Goelhen and engineered by beai. Here below are the first plans of the third floor of the Delvaux building, which hosts the library.
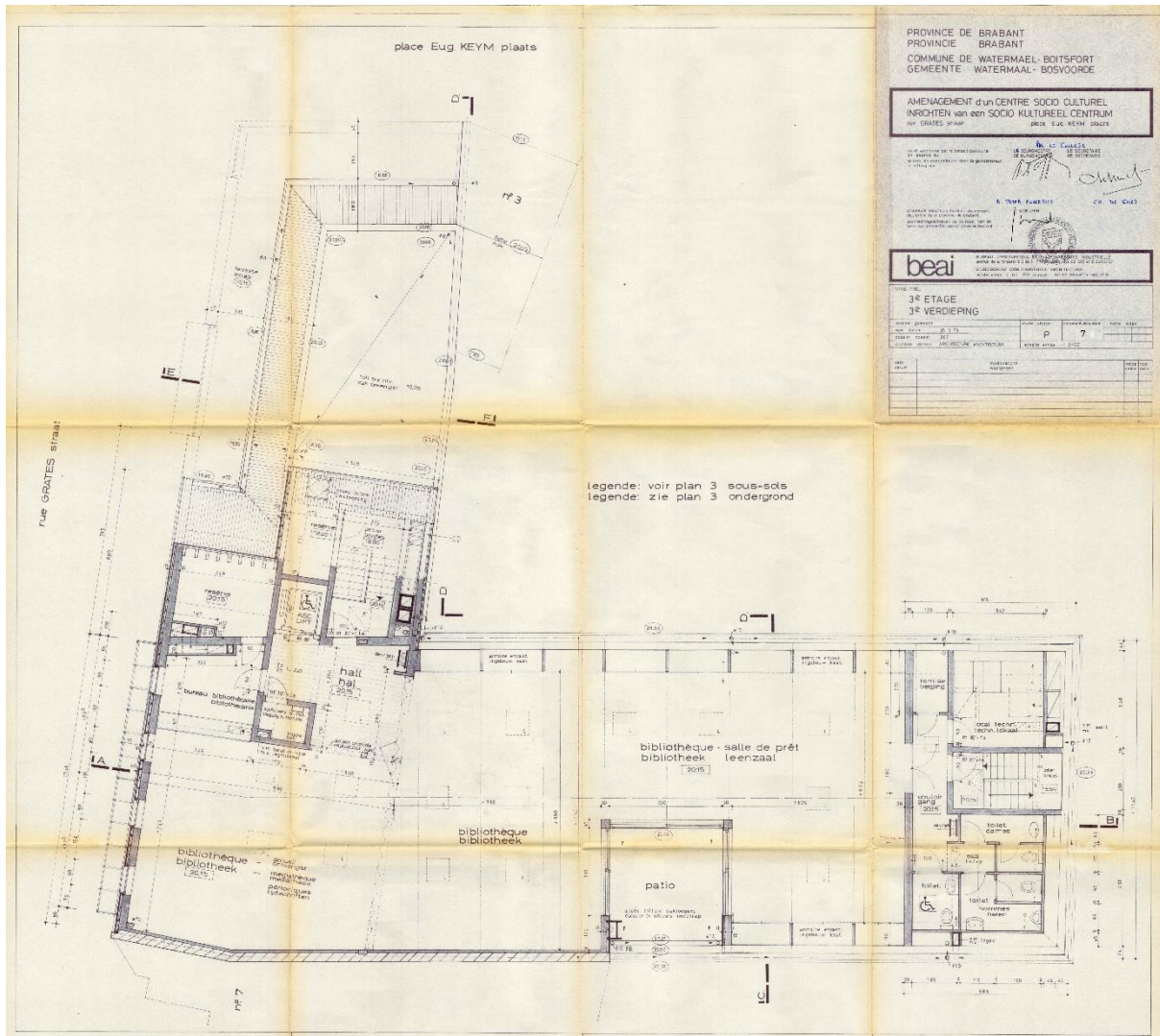
Figure 13: Delvaux library plans from 1979

From these initial plans, it can be seen that space is quite open, and it can be noted the presence of a patio which is still standing today. There are not many apertures for the light on the left-hand side. The presence of an office for the librarians can also be pinpointed. Built-in shelves are also drawn, and the entrance is made of removable walls. The entrance was directly facing the welcome desk located at the left-hand corner. On the far-right corner, the storage, toilets, technical area and emergency stairs are drawn.

Later, a first change was done to *Espace Paul Delvaux* by the same architect. The plans from this intervention date from 1999 (Figure 14) and show the ground floor of the building, which is shared by the two entities.
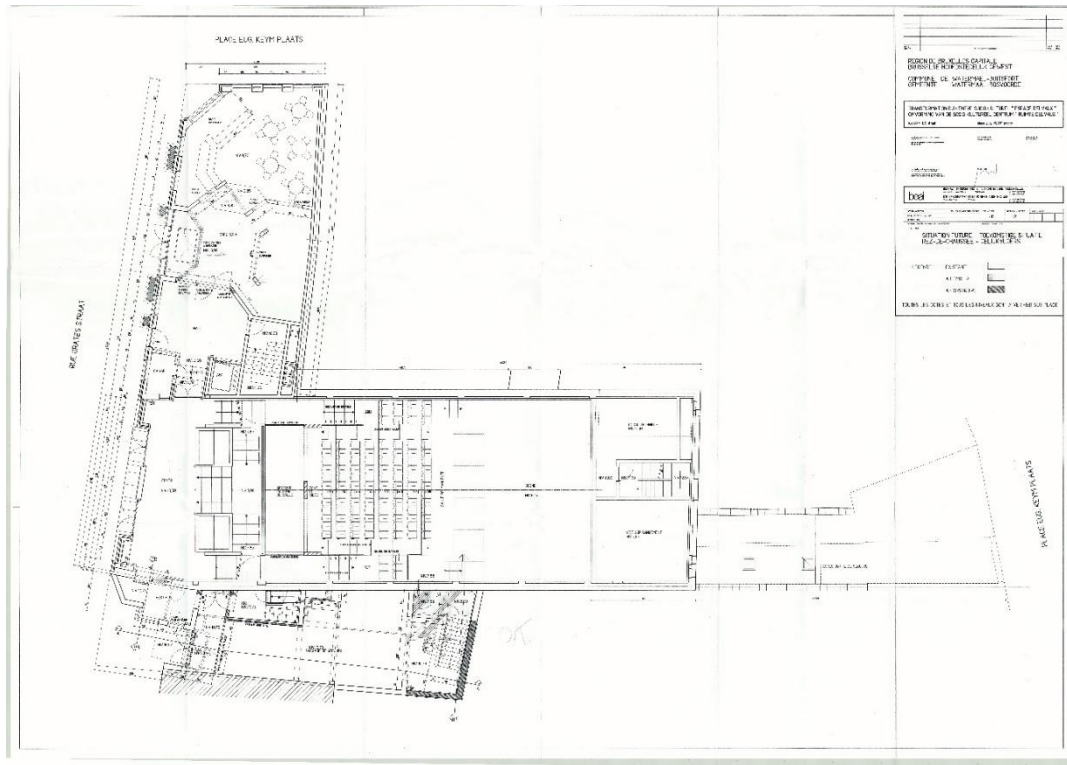
Figure 14: Espace Paul Delvaux ground floor plan from 1999

At that time, the library had already its entrance leading to a hall where one can take the stairs or the elevator to go to the library on the third floor. Since then, several changes in the facilities have been done in the library itself on the third floor. The most recent one dates from 2006. Indeed, Xavier Lust redesigned the library with plans dating from 2002 (Figure 15).
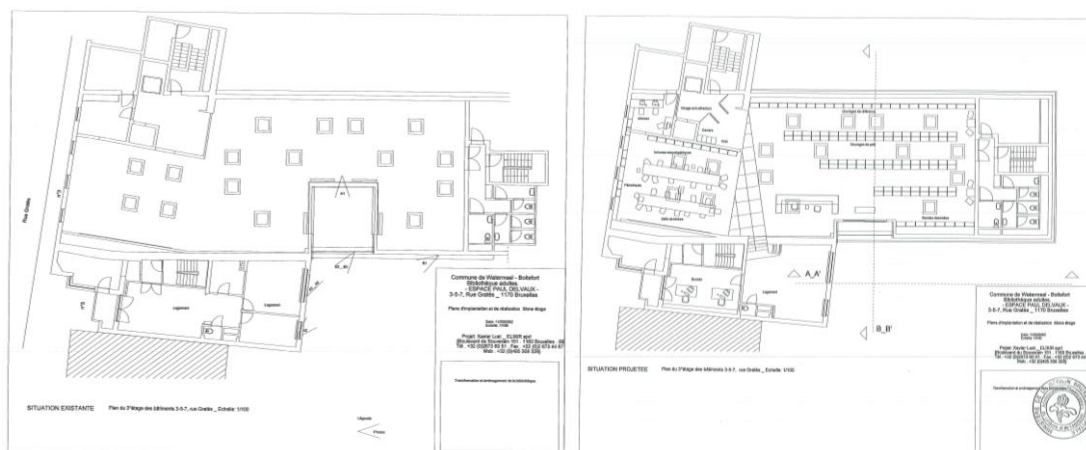
Figure 15: Delvaux library floor plan before and after Lust

A first change compared to the plans of 1979 is the change of the entrance. Instead of having two orthogonal walls, there is currently a single diagonal wall giving a broad view when one enters the library. Accordingly, the welcome desk was moved, which allows more space at the left-hand corner to turn it into a reading and learning space. Also, the former librarian office was changed into an *espace public numérique* or informally called EPN which is "a space equipped with computer equipment made available to the general public where initiations and training in computer science are also offered" (be.brussels, 2019). The presence of the EPN goes along with the mission of libraries to educate people to the new technologies.

However, on these plans, the patio has been reduced while it is not the case in reality. A new reunion room is also drawn. Again, no wall separations on the plans as they are in the current situation. This new room was formerly part of the adjacent building. It is also worth mentioning that some pieces of furniture were changed to have them on wheels in order to allow more freedom in terms of space. Nevertheless, all the bookshelves are not on wheels, which could have brought more freedom of space.

After those changes, a project is currently held to work on the ground floor of the *Espace Paul Delvaux* for approximately three years. The municipality of Watermael-Boisfort launched a call for tender in 2017, and the design office IDDA was chosen for the design. The project is still ongoing and is expected to be constructed by the end of 2020.

2.4.   Research question

The Delvaux library is currently facing a visibility issue. As mentioned above, two entities live in this building: the cultural centre *La Vénerie* and the library. The cultural centre has great success, but the library has become more and more hidden due to this craze. The lack of visibility is unfortunate, knowing that people visiting the cultural centre could find the library by serendipity. The library could then profit from a stream of regular newcomers. This visibility is all the more critical seeing the importance of libraries and the new role they have to take. With this issue in mind, a redesign of this library is necessary. Consequently, the main research question is: **How and to what extent can the participative approach be implemented for the revalorization of a library?** In this context, revalorisation means the fact of bringing libraries as close as possible to the concept of third-place.

This central question may raise other sub-questions, such as: **How can two different entities with different objectives co-exist in the same building? Is there an ideal model of co-design or essential parameters to take into account? What do the players think of a more participatory method? What obstacles can appear in this kind of methodology? How to stop these obstacles?**

These questions will be addressed in this thesis through a rigorous methodology detailed in the next section.

3. Methodology

3.1. Choice of an inductive method

As shown in the previous chapter, this thesis aims to apply co-design to the Delvaux library in order to revalorise it. However, before diving into the participative approach, the context of this building had been examined. Furthermore, the precise strategy to be adopted could not be defined beforehand as co-design is highly dependent on the pre-existing context. For instance, it is not known what has been done and not; it is, therefore, important not to start with predefined theories but to base them on actual fieldwork. In other words, observations must first be carried out before being able to conclude. This type of method is called the inductive method. This method of reasoning starts with the observations and theories are proposed later at the end of the research process as a result of these observations (Goddard & Melville, 2004). More specifically, in inductive approaches, the construction of the object of research is made from the investigated ground. Questions, methods and analysis grids are guessed and shaped along with the advancement of the research as opposed to deductive methodologies, where statements are used to reach a logical conclusion (Benelli, 2011).

One of the main advantages of such a method is that the theory is not imposed from the beginning and it makes it possible to shape the theory according to what is happening on the field (d'Arripe, Oboeuf, & Routier, 2014). Nevertheless, these methods have also several limits. The main difficulty of an inductive methodology being that information can often become plethoric and challenging to manage (Perrin, 2005). This large amount of data could also lead to the problem of overinterpretation. To be overcome, it is then necessary to confront the understanding in the field via observations with, for example, interviews. The researcher has to go back and forth between observation and participation. It allows to include a progressive questioning and a change of perspective on the object studied (Perrin, 2005).

As observation is an essential part of inductive researches, the position of the researcher must be defined beforehand. For this specific case, the researcher position was one of an observer. This means that the research was carried out by going several times to the building and attending some meetings with no implication of what is being done. Knowingly, having a logbook was of utmost importance to keep track of the work.

In an inductive method, Benelli suggests mentioning the ideas and questions of departure before diving into the observation phase (Benelli, 2011). For this thesis, the questions of departure are the ones coming from the state-of-the-art and the short analysis of the building.

In order to address these questions as well as the related sub-questions, the methodology was divided into two parts: state of affairs and the participative approach. The state of affairs includes a timeline of the project currently being held and interviews. On the other hand, the participative approach consists of a workshop. Because of the time available, only one workshop was organised. The aim of each of these and their practical implementation will be detailed in the following sections.

3.2. State of affairs

The first step of the state of affairs was to understand the environment of the Delvaux library. It was thus needed to get acquainted with the library workers. During a meeting in May 2018, the aim of this thesis was explained to several employees, and they got introduced to the concept of co-design. This step was essential to be done before any thorough study as it makes it possible to assess already the willingness of people to collaborate or not. Subsequently, one other part was to analyse the environment but in the eye of a regular user to be better able to identify the stakes. The method of the fly on the wall was used to gather more information about the library. This method consists of blending in the desired environment, literally like a fly on the wall. It has the advantage to be non-intrusive, and as long as the observer does not partake, it does not influence the behaviour of the observed people (Lallemand & Gronier, 2016). This first acquaintance helped to have a person of contact within the building to help for the other stages of the process.

Right of the bat, thanks to these acquaintances, it was apparent that the problem of the library could not only be solved by dealing only with their floor. Instead, the whole building should be considered primarily as the latter is dealt with a cultural centre and knowing that the decree of 2009 aims to better collaboration between those two types of entities. This acquaintance was also followed by a personal visit to the building to ask questions informally to the workers. Additionally, several visits to the building were done to study in the library in February 2019 or to see a concert at *La Vénerie* in March 2019 to have a better understanding of the space as a user.

This state of affairs was divided into two parts: the timeline and the interviews. The first one had the objective to trace the history of the current project. It will later be analysed to understand how it started and in which direction it is currently going. The second step helped to understand the stakes of this project and collect the feeling of different players about the *Espace Paul Delvaux* and the project. It was also used to confront the timeline to the people involved in the project and see if discrepancies appear.

3.2.1. Construction of a timeline

Once the thesis was explained to the library workers, a timeline of the current project had to be drawn to understand the ongoing project better. The timeline was done mainly thanks to the minutes of the meeting. Additionally, all the different plans were also asked. Some information also needed to be completed by asking questions by emails, for instance. Along the way, the information in the form of plans or 3D were regularly sent as an update of the project. This process took several months as the project was still ongoing and new reunions were regularly added. Old pictures of the building were also given. The objective here was to thoroughly analyse all the documents and summarise them into the form of a timeline which will be depicted in the results section.

3.2.2. Interviews

Alongside the timeline, interviews needed to be prepared and conducted. However, before doing so, the stakeholders must be known in advance as it cannot be simplified to a single average (Lallemand & Gronier, 2016). It is also essential here to make a distinction between stakeholder, user and player. According to the Cambridge dictionary, a stakeholder is " a person … who is involved with an organization, society, etc. and therefore has responsibilities towards it and an interest in its success"; a user is "someone who uses a product, machine, or service"; and a player is "someone who is very involved in an activity or organization" (Cambridge, 2019). From these definitions, it can be seen that the term stakeholder has the broadest definition and will, therefore, be used here to define the four big categories considered for this thesis: the visitor, the worker, the official and the architect.

Mehrezi defined three categories of library visitors: retirees and intellectuals, students and children. The researcher mentions that the first category is the most diverse (Mehrezi, 2014). Nevertheless, this considers only the casual visitors or in other words, the people coming intentionally to visit this library. The visitor category can indeed be divided into two subcategories. The captive and non-captive visitors as defined by the Delvaux library workers themselves. Captive means that people do not come from their own, which means that this includes groups from schools, for instance. In the non-captive visitor's category, the people are coming for a specific activity and the people animating those activities. In the non-captive users, there are also the casual visitor and the students who come mainly to find Wi-Fi and quiet spot to study.

Moreover, in the worker's category, one can find the librarians and the direction of the library and *La Vénerie*. Furthermore, in the officials' category, there are officials from the municipality. The last category is the architect of the project, which cannot be put in the other categories. The chart (Figure 16) here below depicts this.
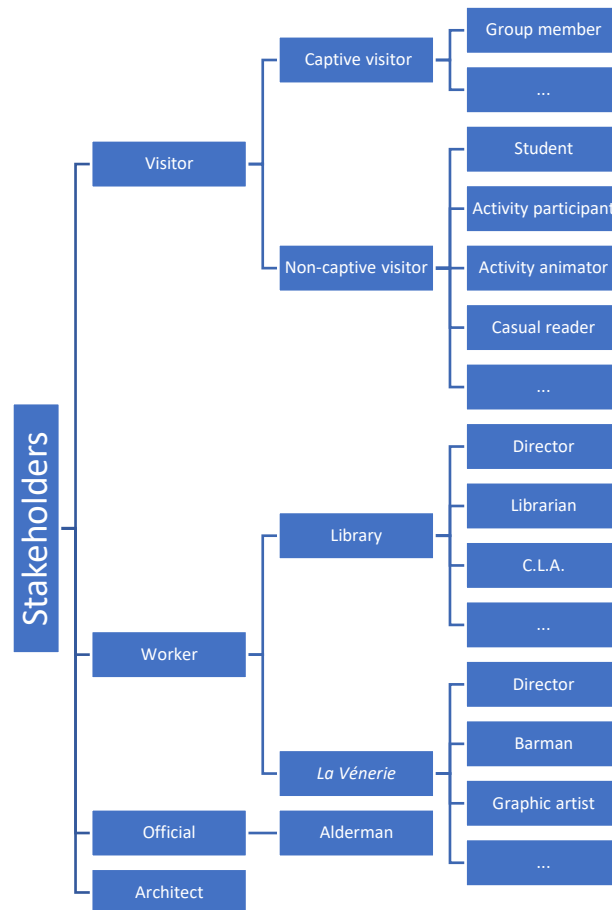
Figure 16: User profiles chart

For the interviews, a person from each of the four categories had to be present. More specifically for the worker category, as this research entails the particular case where two entities live in the same building, a person of each floor had to be represented.

Once this chart was set up and the user profiles concerned chosen, a convincing strategy had to be mapped out. For instance, most of the workers were not sure what to expect, and only a few people were present at the acquaintance presentation in May 2018. A second presentation was therefore organised in September 2018 with this time, people from *La Vénerie* as well. Nevertheless, this second presentation was not sufficient to convince them to partake to the interviews, and another presentation was done during the library team meeting in December 2018.

Regarding the recruiting of these users, the snowball effect was used. This method starts by choosing someone from one profile and thanks to this person; new users can be recruited (Lallemand & Gronier, 2016). For instance, library workers were first approached, and from there, a person of contact was found. This person was then asked to transfer a call for application (see annexe 8.2.1.) to his colleagues, provide the contacts of users and send another call for application to officials and the architect. For the users, for instance, a different call for application was written to recruit them. Few people from the library were also contacted to know whether they knew other people that fit those profiles. Tools such as doodle were used to plan all the interviews.

Alongside the recruitment, the interviews themselves needed to be prepared beforehand. Their main aim was to identify what were the right things and the main issues and why there are there, according to the different stakeholders. Another goal was to assess their interest to participate in a co-design approach. Moreover, also, it was a way to check the timeline with the people involved. Those interviews were done in a semi-directive way, which means that a bright scheme which will be the same for every interview. A systematic method was required as, for instance, the way the interviewer presents himself influence what kind of answers will be given (Lallemand & Gronier, 2016).

These interviews helped to get the perception of everybody and pinpoint some differences in perception. Those interviews were conducted with a grid (see annexe 8.2.3.), different for each user profile, to guide the course of the interview. Lallemand and Gronier advise to have a grid in 3 parts with :

- An introduction where the interviewer recalls the interview framework and introduce the topics to be discussed.
- The body of the interview guided by the interview grid
- A summary with a short debriefing

These interviews lasted for about one hour and were conducted on the working space in order to have a context for the interviewees. Different tools were used during this interview such as plans or for example, sketches to question the users in terms of spatial qualities (see annexe 8.2.4.). A consent form (see annexe 8.2.2.) was handed into them beforehand in order to make audio recordings in order to analyse these interviews.

In total, 13 people were interviewed and from the four user profiles defined above. All these interviews occurred during January and February 2019 and were a preparation for the next step, which was the workshop which. Based on the intermediate results, which will be detailed in the results section, this workshop focussed on the ground floor.

Based on the state of affairs, new research questions were raised: Can a workshop relaunch co-creation? What role does the architect play in a co-design approach?

3.3. Workshop

All the people attending the interviews as well as some additional persons were asked to attend the workshop. However, the direction of *La Vénerie* was contacted for the workshop and said she did not personally want to participate in a co-design workshop. A first doodle was made, but only two of the four user profiles could be present. A second was then made, and this second one included all the user profiles except someone from the official category. In other words, three of the four user profiles are present.

The inspiration and preparation for the workshop started back in April 2018 where, in order to prepare such a workshop, and in order to gather as much information as possible, discussions were engaged with students in Delft studying industrial design, who had courses on co-design. Discussions were also engaged with fellow architecture engineer doing a co-design project in Denmark, for instance. In that vein, the organisers of the Landy Land project were also contacted by mail. They were pleased and

made it possible to watch their documentary to have more insights about how they organised the workshops. In that vein, all the projects studied in the-state-of-the-art were also used as inspiration.

With all of this in mind and some additional research, several generative design tools were chosen. This workshop was organised to last for three hours and was enforced with a schedule (see annexe 8.3.2.) similarly to the interviews. Several assets (Figure 17) and activities were prepared in advance, and the workshop was organised following these steps :

- Presentation of the interview results
- First activity: picture analysis
- Second activity: choice of functions
- Third activity: placement of functions
- Conclusion
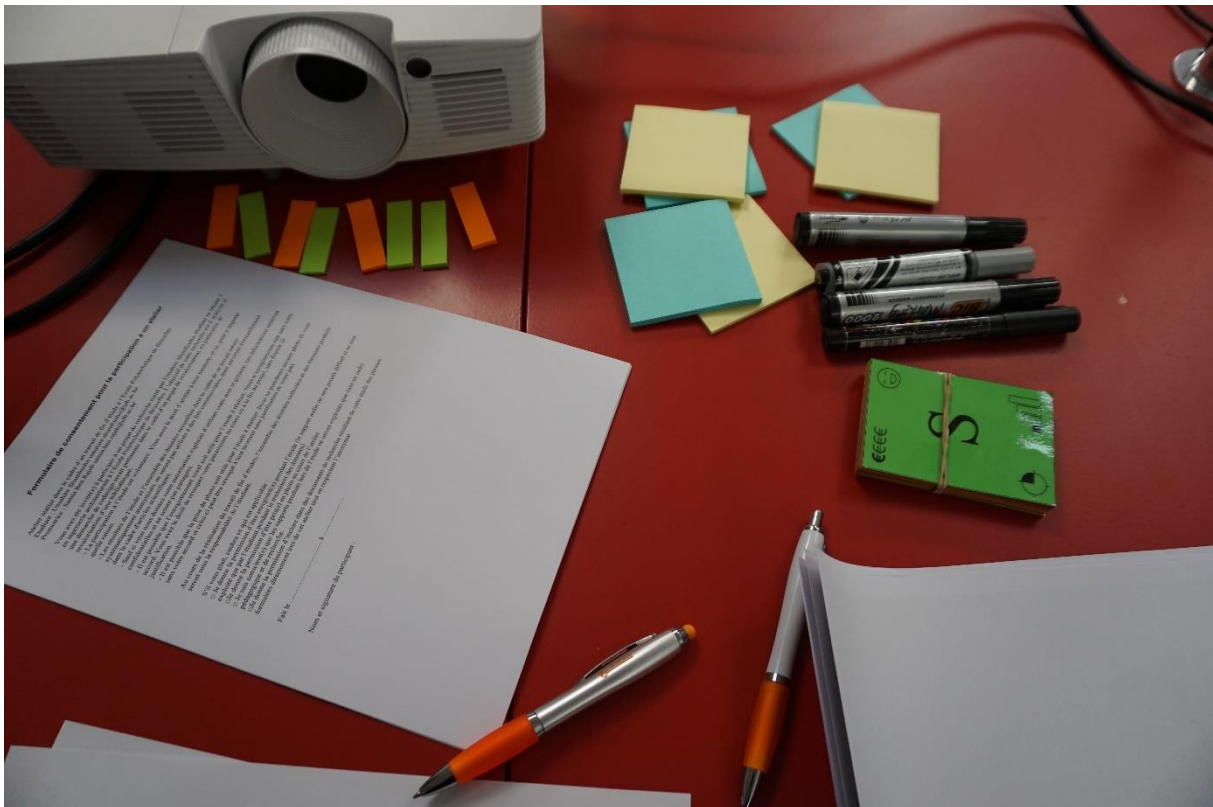
Figure 17: Workshop assets

The workshop occurred on Monday, April 29 and in total, nine participants attended the workshop and two people who were from *La Vénerie* cancelled. The different activities laid out during this workshop are detailed in the next sections. For each activity, groups were made in advance in order to make sure that the different profiles were mixed.

3.3.1. First activity: picture analysis

The first activity (Figure 18) consisted of asking different groups to analyse specific pictures (see annexe 8.3.3.) which were chosen based on the issues found during the state of affairs. The point here was to create a common ground before starting the actual work. For this activity, the 9 participants were divided into three duos and one trio. Each group was given an image and was asked to show with green post-it's what they liked and with orange post-it's what they disliked. Afterwards, they presented their observation to the group. The goal was that people comprehend what they want and what they do not want for the ground floor in order to have insights for the following exercise.

Figure 18: Group presentation during the first activity

3.3.2. Second activity: choice of functions

The second activity (Figure 19) was conducted following the affinity mapping method. This part served as analysis and was here to diagnose as the point was to identify the most critical functions that needed to be considered for the ground floor. Affinity mapping was used as it is a means to help organise ideas and data. It is composed of the following steps (Veldhuijzen & Zessen, 2018) :

- Writing down desired actions for the ground floor on the blue sticky notes
- Writing down functions related to these actions on the yellow sticky notes
- Placing all the actions and functions on the board to avoid duplication
- Prioritising and sorting the actions and functions with the whole group

For this activity, three groups of three were done. When the map was drawn, some additional questions were asked, and colour cards were used to vote and to know whether a specific choice was unanimous or not. Indeed, participants were given a green, yellow, orange and red card, used to answer the different questions asked.

Figure 19: Choice of the primary actions during the second activity

3.3.3. Third activity: placement of functions

The third activity was conducted with two groups with one model each (Figure 20). The idea of this step was to conceptualise and propose solutions based on what had been done during the previous steps. The main inspiration was the co-design workshop carried out in South Africa in 2013 as part of the lead-up to world design capital 2014 (Design, 2013). Two different models were made with small furniture modules so that the participants could play with them.

Figure 20: Ground floor model

At the end of this activity, each group was asked to present their proposition to the others.

Once the workshop was done, a feedback questionnaire (see annexe 8.3.4.) was given to the participants to assess what they thought of the workshop. In this questionnaire, the questions were graded with a 4-scale (very unsatisfied, unsatisfied, satisfied, very satisfied) system in order to force the participants to position themselves and the questions asked addressed different themes:

- The assessment of the methodology followed and tools
- The appreciation of the workshop
- The willing or not to go on with such methods

3.4.   Assessment method

The complete assessment of this thesis was mainly done through continuous evaluation, meaning that the intermediate results, as well as the process in itself, were assessed. It goes from evaluating the workers' early enthusiasm for the workshop to the feedback questionnaire. The continuous evaluation considers for instance elements such as the presence or not of an individual participant as the case of non-present participants can range from ten to forty per cent and is therefore non-negligible (Lallemand & Gronier, 2016). The whole methodology can be summarised with the following figure (Figure 21).

PROBLEM STATEMENT

The Delvaux libary needs to be revalorised

↓

STATE-OF-THE-ART

Libraries

Libraries became third places and are complex and socialising

Codesign

Codesign is a catch-all word and there is no standardised methodology

↓

STATE OF AFFAIRS

Timeline

• Build a timeline of the ongoing project
• Understand what has already been tried

People concerned
-Library team
-Team of the Vénerie
-Official
-Architect

Type of data
-Minutes of the meeting
-Old pictures
-Plans and 3D model

Interviews

• Present the codesign
• Collect the vision of the interviewees on the Espace Delvaux
• Correct and update the timeline
• Identify trends and contra-dictions

People concerned
-Library team
-Team of the Vénerie
-Official
-User
-Architect

Type of data
-Audio recordings
-Notes
-Annotated plans

↓

PARTICIPATIVE APPROACH

Workshop

• Sharing of each other's perceptions and comparing them with others
• Identify contradictions between the information mentioned in the group and that said during the interview
• Assess satisfaction of the participative approach
• Relaunch co-creation

People concerned
-Library team
-User
-Architect

Activity 1

Create a common ground

Type of data
-Inpsirational pictures with sticky notes

Activity 2

Clarify the objectives

Type of data
-Affinity map

Activity 3

Propose first solutions

Type of data
-Pictures of the model

Figure 21: Methodology summary

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4. Results

The types of data gathered during the observation part and the different activities were multiple. There were videos, photos, audio recordings, field notes, and plans. The sorting of all this data was done differently depending on the type of data.

First, audio recordings were used during the interviews in order to analyse what was said. Those were not transcribed, but critical elements and sentences were written down to be able to analyse and compare them to each other. This comparison entails several listening's of every recording.

For all the activities, hand notes were taken. The note-taking occurred during the meetings, during the interviews, and during the break moments during the workshop. For the interviews, notes served as a support to the audio recording to help retrieve the relevant information.

Pictures were taken only during the workshop. They were taken at several critical moments in order to show what was produced during the workshop. Additionally, it helped trace what has been done and remember the different elements that occurred.

During the workshop and the interviews, specific supports were produced. For the interviews, plans were given and annotated by the users. For the workshop, an affinity map was drawn. These elements were taken back and analysed. Models were also produced during the workshop but were given back to the users so that they can further work with it. The next sections will depict all the results gathered for each step of the process.

4.1. State of affairs

4.1.1. Timeline

The different analyses of the different minutes of the meetings and architectural documents were summarised into the following timeline (Figure 22). The above timeline is composed of boxes which represent crucial moments, and above those, five small boxes can be found that are sometimes coloured and sometimes not. These boxes represent the different steps of the co-design process mainly based on the Skiba model but adapted to this case. The steps are exploration, ideation, proposition, discussion and implementation.

Legend: Exploration · Ideation · Proposition · Discussion · Implementation

---

January 2016

"CHEZ PAUL" PROJECT

- Definition of the objectives of the library and *La Vénerie*
- Current status of the building
- Presentation of sketches
- Creation of working groups
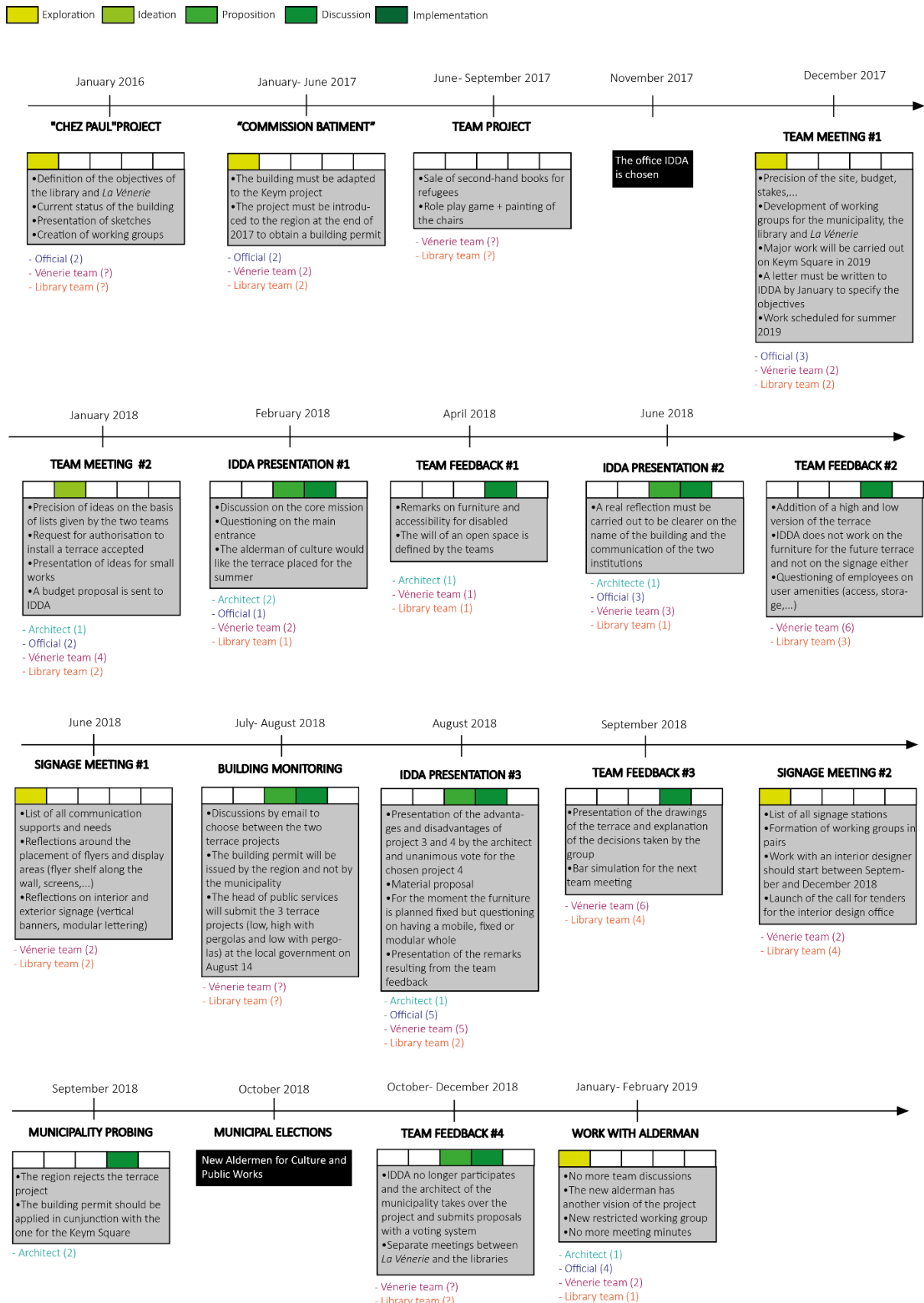
- Official (2)
- Vénerie team (?)
- Library team (?)

January- June 2017

"COMMISSION BATIMENT"

- The building must be adapted to the Keym project
- The project must be introduced to the region at the end of 2017 to obtain a building permit

- Official (2)
- Vénerie team (2)
- Library team (2)

June- September 2017

TEAM PROJECT

- Sale of second-hand books for refugees
- Role play game + painting of the chairs

- Vénerie team (?)
- Library team (?)

November 2017

The office IDDA is chosen

December 2017

TEAM MEETING #1

- Precision of the site, budget, stakes,...
- Development of working groups for the municipality, the library and *La Vénerie*
- Major work will be carried out on Keym Square in 2019
- A letter must be written to IDDA by January to specify the objectives
- Work scheduled for summer 2019

- Official (3)
- Vénerie team (2)
- Library team (2)

January 2018

TEAM MEETING #2

- Precision of ideas on the basis of lists given by the two teams
- Request for authorisation to install a terrace accepted
- Presentation of ideas for small works
- A budget proposal is sent to IDDA

- Architect (1)
- Official (2)
- Vénerie team (4)
- Library team (2)

February 2018

IDDA PRESENTATION #1

- Discussion on the core mission
- Questioning on the main entrance
- The alderman of culture would like the terrace placed for the summer

- Architect (2)
- Official (1)
- Vénerie team (2)
- Library team (1)

April 2018

TEAM FEEDBACK #1

- Remarks on furniture and accessibility for disabled
- The will of an open space is defined by the teams

- Architect (1)
- Vénerie team (1)
- Library team (1)

June 2018

IDDA PRESENTATION #2

- A real reflection must be carried out to be clearer on the name of the building and the communication of the two institutions

- Architecte (1)
- Official (3)
- Vénerie team (3)
- Library team (1)

TEAM FEEDBACK #2

- Addition of a high and low version of the terrace
- IDDA does not work on the furniture for the future terrace and not on the signage either
- Questioning of employees on user amenities (access, storage,...)

- Vénerie team (6)
- Library team (3)

June 2018

SIGNAGE MEETING #1

- List of all communication supports and needs
- Reflections around the placement of flyers and display areas (flyer shelf along the wall, screens,...)
- Reflections on interior and exterior signage (vertical banners, modular lettering)

- Vénerie team (2)
- Library team (2)

July- August 2018

BUILDING MONITORING

- Discussions by email to choose between the two terrace projects
- The building permit will be issued by the region and not by the municipality
- The head of public services will submit the 3 terrace projects (low, high with pergolas and low with pergolas) at the local government on August 14

- Vénerie team (?)
- Library team (?)

August 2018

IDDA PRESENTATION #3

- Presentation of the advantages and disadvantages of project 3 and 4 by the architect and unanimous vote for the chosen project 4
- Material proposal
- For the moment the furniture is planned fixed but questioning on having a mobile, fixed or modular whole
- Presentation of the remarks resulting from the team feedback

- Architect (1)
- Official (5)
- Vénerie team (5)
- Library team (2)

September 2018

TEAM FEEDBACK #3

- Presentation of the drawings of the terrace and explanation of the decisions taken by the group
- Bar simulation for the next team meeting

- Vénerie team (6)
- Library team (4)

SIGNAGE MEETING #2

- List of all signage stations
- Formation of working groups in pairs
- Work with an interior designer should start between September and December 2018
- Launch of the call for tenders for the interior design office

- Vénerie team (2)
- Library team (4)

September 2018

MUNICIPALITY PROBING

- The region rejects the terrace project
- The building permit should be applied in cunjunction with the one for the Keym Square

- Architect (2)

October 2018

MUNICIPAL ELECTIONS

New Aldermen for Culture and Public Works

October- December 2018

TEAM FEEDBACK #4

- IDDA no longer participates and the architect of the municipality takes over the project and submits proposals with a voting system
- Separate meetings between *La Vénerie* and the libraries

- Vénerie team (?)
- Library team (?)

January- February 2019

WORK WITH ALDERMAN

- No more team discussions
- The new alderman has another vision of the project
- New restricted working group
- No more meeting minutes

- Architect (1)
- Official (4)
- Vénerie team (2)
- Library team (1)

Figure 22: Project timeline

Aside from the timeline, the minutes of the meeting mentioned specific points about the objectives and the vision of the bar. Major objectives were written in 2016, and a letter was sent in 2018 to the architecture office IDDA with new objectives. The table (Table 2) below shows them side by side.

	2016	2018
Objectives	•Increase the visibility and influence of the Espace Paul Delvaux outdoor •Communication reflecting all the activities of the Espace Paul Delvaux and its "open" character •Participate in the upcoming renovation of Keym Square •Opening to new audiences by the decree •Spark the interest of new users •The ground floor could become an original convivial place as reception, bar, and exhibition •Rethinking the attractiveness of the *Espace Paul Delvaux* building to attract new users •Mark the main entrance of the building on the side of Place Keym •Rethinking traffic flows on the ground floor •Gaining space, versatility, pleasure and atmosphere •Increase in the number of visitors and revenue •Rethinking the info centre •Change and innovation	• Coordinate the construction works with the Keym Square in 2019 •Revitalise the aesthetics and signage of the landings overlooking the various premises •Opening of the ground floor to the outside and building more visible from the square •Great attention to disabled accessibility •Only one access for the day and evening •Consider the flow to avoid traffic jams •Mobile furniture to modulate space •Ecological considerations •New display system common to both institutions
Bar vision	•Specific identity •Cultural and friendly •Appropriate for all users of the building •Different from other hotels and restaurants •In line with ongoing decree reflection •Create a terrace and a new counter and back bar •An attractive and pleasant "consumer" space with tools for adequate communication •A space more used, in its own right, by associations,...	•A workshop location (for a maximum of 50 people) •An EPN training place •A ticket office with a workstation for reception staff •A bar, which can accommodate an audience of up to 259 people •A small minimalist kitchen area to make the place more friendly and to have the possibility to cook for associations •An open space during the day to welcome the public who would like to read the press or work •A meeting space •A space that can accommodate small concerts

Table 2: Objectives and bar vision

4.1.2. Interviews

For the interviews, multiple listenings of the different recordings were done. The analysed was broken down into two parts: the architectural space analysis and the current project analysis.

For the architectural analyses, the analyses were done by floors. For each floor, the different annotated plans were layered (see annexe 8.2.5.) on top of each other to see whether certain elements were highlighted. Then all the functions living in the floor were listed. Additionally, all the spatial qualities were divided into the following categories: light, ground surface, sensory comfort, amenity, openness. The following tables (Table 3) summarises the architectural analysis.

	Level -1	Level 0	Level 1	Level 2	Level 3
Functions	•Cellar •Storage •Workshop •Show venue •Sanitary equipment	•Reception •Bar •Traffic flows •Place for associations •Lunchroom of *La Vénerie* •Meeting room of *La Vénerie* •Room for « *Rencontre autour d'un livre* » •Space for photo exhibitions	•Youth loan •Space for entertainment •Stage management	•Administration of *La Vénerie* •Loan of games •Space for entertainment •Meeting venue	•EPN •Adult loan •Space for entertainment •Meeting venue • Lunchroom of the library team •Offices •CLA •Collection •Kitchenette
Ground surface		•Small •Low ceiling •Fresco limits the space	•Fresco limits the space	•Fresco limits the space •Unused terrace •Required storage space	•Adequate •Hardly available with the conflict of activities
Light	•Only from the end of the corridor	•Light blocked by the bar and posters	•Shelves block the passage of light	•Good lighting in the toy library but filtered by the shelves •Too much in the offices of *La Vénerie*	•Dark in the shelves •Sunlight damages artists' books
Sensory comfort	•Wet •Cold in winter	•Too connoted a bar •Wind corridor	•Poor ventilation	•Hot in summer •Noise of children not heard above	•Overheating in summer •Sound conflict

		•Sound insulation required	•Odour of the sanitary facilities •Very cold in winter		•Odour propagation in the CLA
Amenity		•Disturbing double level •Too many walls Small tables		•Small and cumbersome utility offices	•Popular red tables •Large and non-mobile furniture
Openness		•Entrance not clear •The place is intended to be closed •Banal view			•Non-optimal library entrance

Table 3: Spatial qualities per floor summary

From the interviews, numbered were also extracted, such as :

- Seven out of thirteen interviewees consider that the entry is not clear
- Six interviewees out of thirteen say that the ground floor is used 90% of the time by *La Vénerie*
- Seven out of thirteen interviewees mention the problem of sound conflict in the 3rd floor
- Eleven employees out of eleven consider that there is no common space between the two entities
- Five employees out of eleven would like a relaxation room shared by both entities
- Eleven employees out of eleven want the ground floor to become a multi-purpose space for both entities

From the interviews, it appeared that there was almost no interaction between the two entities in the building or projects. There is also no movement between levels within the building. A worker often comes, stay the day at the same spot and then leave without the need to move across different parts of the building. The signage was an issue mentioned by all stakeholders. Moreover, as the current project concerns the ground floor, the latter is the major issue and centre of concern.

The main result of the state of affair was that the library could not be dealt with alone and the ground floor of the *Espace Paul Delvaux* is the primary concern. This will be detailed in the discussion section, but all the points above were used in order to work on the workshop and to focus it on the diversity of functions and the setting up of priorities.

4.2. Workshop

4.2.1. First activity: picture analysis

Here below is the panel (Figure 23) at the end of the first activity.

Figure 23: Result of the first activity

The different mentioned elements in the panel above are summed up in the following table (Table 4).

Group	Positive elements	Negative elements	Remarks
1st group	•Friendly, •Many interactions between the inhabitants •Luminous •Possibility to appropriate the space	•Missing security •Intimacy problem •Lack of place to rest •Very little storage, everything must be clean •Suitable for Japanese culture but probably not suitable for Europeans	•No defined functions, mixed opinion on whether good or not good
2nd group	•Invitation to rest •Seems versatile •Excellent choice of materials (space "warmer" than the previous one) •Several small spaces that allow everyone to meet each other	•Missing security •Missing signage •Not very practical in terms of layout (integrated furniture car) •Not available to disabled	•It is not a very large space, but the architecture gives an impression of grandeur
3rd group	•Allows to discuss, to meet each other	•No privacy •Lack of comfort (for reading for example) •Lack of sound insulation •Gives the impression that one is invited to leave the place	•Maybe perfectly suitable for a specific type of audience (student) •Refurbishment of a place in contrast with new architecture with integrated furniture •Separation of functions, mixed opinion
4th group	•Interesting double function •Beautiful architecture	•Cold/Austere •Imposed circulation •Bookstore excluded, not highlighted •Energy consumption? •Sacrificing the book or the opposite?	•Discussion around the place (Church) •Discussion about the fact that the image does not represent the place enough to understand it

Table 4: Summary of the first activity

4.2.2. Second activity: choice of functions

At the end of the second activity, the affinity map (Figure 24) looked like that.

Figure 24: Affinity map

In the above figure, several points can be pointed out. Certain elements were highlighted and can be summarised in the next table (Table 5). The different actions have been sorted depending on their importance and functions related to these actions have been written in brackets.

Primary Actions	Important Actions	Desired Actions	Actions to be discussed	Actions doing a disservice to modularity
•Exchanging and meeting	•Enter (reception) •Participate in a workshop (modular space) •Access to the internet (connected space with well-designed floor sockets) •Cloakroom, storage, tickets, queue	•Attend a spectacle (forum area) •Eat and drink on site without obligation (conviviality area), •Play •Circulate •Communicate on works (info support) •Communicate a schedule) •Get informed •Settle down •Discover •Exhibit (exhibition area) •Sit down, read, study, work	•Cooking •Farniente	•Cocoon and silent space

Table 5: Actions from affinity map

4.2.3. Third activity: placement of functions

At the end of the third activity, the models were taken back so they could not be analysed, but pictures were taken while the participants were designing (Figure 25).

Figure 25: Group discussion around the model during the third activity

4.2.4. Feedback questionnaire

At the end of this activity, a feedback questionnaire was handed in, and here below the answers are depicted (Figure 26).

Interest of the activity for the choice of functions

- Very unsatisfied
- Unsatisfied
- Satisfied
- Very Satisfied

Interest of the activity for the placement of functions

- Very unsatisfied
- Unsatisfied
- Satisfied
- Very Satisfied

Overall interest of the workshop regarding expectations

- Very unsatisfied
- Unsatisfied
- Satisfied
- Very Satisfied

Would you like to have such approach for the rest of the project ?

- Yes
- Eventually

If yes on what ?

- Preliminary draft for budgeting
- Model
- Raised questions
- The ground floor
- The furniture
- Whole building

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What did you enjoy the most ?

- The participant enthousiasm
- The approach
- Using concrete tools (model)
- Affinity map
- Groups made beforehand
- Freedom of designing
- Pooling of wills
- Exterior participant with expertise

What did you dislike the most ?

- Dispersed aspect
- The absence of La Vénerie
- Uncertainty of the continuity of the approach
- Should have been done at the beginning
- The placing of functions
- The time constraint

Figure 26: Answers to the feedback questionnaire

5. Discussion

5.1.   State of affairs

During the observation phase, some elements had already been mentioned by the workers, such as the fact that, concerning the ongoing project, decisions were slow and that there were too much going back and forth with the architects as the will of the workers were not satisfied. Those issues confirm the idea of using co-design even before starting the actual approach.

Also, as mentioned in the methodology, several visits to the building had been done as part of the state of affairs. It is worth mentioning that during the first time the building was visited, the entrance was not evident and had to be indicated by someone in the surroundings. Also, when studying in the library, it had been observed that some users gave comments on, for instance, a noise issue or the elevator not working.

5.1.1.   Timeline

Looking at the timeline, the first element to notice was that the project started slowly. The project started only with ideas and sketches but was finally becoming more concrete after a close collaboration between the two teams. However, it is once the municipalities were imposing deadlines that the project started to move faster. Indeed, the building permit had to be sent with the one for the new square next to the building, so it forced decisions to be made more quickly, and a call for tender was launched.

Thanks to the timeline, it also appears that the workers were consulted at different stages of the project. In that vein, one of the monthly general meetings of the library was done following the institutional pedagogy. It was created by Fernand Oury and Raymond Fonvieille in order to enforce rules of life in the school using talking places. The point is that everyone has a distinct role defined by the collective, and the latter does not encroach on the individual. Every participant should "take his place, his whole place, nothing but his place" (Collectif europeen d'equipes de pedagogie institutionnelle, 2019). It can, therefore, be related to a form of participation. During that meeting, the new alderman should have been present but did not come. It is also worth mentioning that during this meeting, co-design tools were already known by the users as they were using mind maps to explain their current priorities for each section of the library.

Nevertheless, the discussions took several months, and one of the main reasons is the fact that the workers present at the meeting were not always the same people. The change in participants at each meeting means that the feedbacks were always different, and the architect was going back and forth without satisfying all the needs. Another striking element is that since the change of alderman, the workers are no longer involved in the discussions at all even though the workers were never present during the proposition phases with the architects. Additionally, *La Vénerie* and the library do not give feedback on the plans of the municipality architect together anymore but within their team reunion. Collaboration has, therefore, been massively reduced.

Looking at the different stakeholders, the workers, as well as the officials, were present during the majority of the process. Indeed, in general, workers are more represented than officials or architect approximately respectively, seventy, twenty and ten per cent. Within the workers and looking at the numbers, *La Vénerie* was often more represented by sheer numbers only.

Regarding the way the project was conducted, the project went smoothly at the beginning even though the ideation phase took a long time. The process went smooth until the discussions with the teams where things began to go back and forth. The architect office chosen for the project even left the project, and the architect of the municipality went on with it. This whole process was even more disturbed when, due to elections, the aldermen changed and the project return back to the ideation phase. In the middle of this change, it is worth mentioning that the way of working changed. For the first method, the architect office was designing and then presented their design to the teams which give feedbacks and then the architects reworked based on the remarks. The architects were present at the beginning but then decided to leave the discussions as it was said they were challenging to manage. Also, at some point, it became clear that the signage and the ground floor should be worked separately. New standalone meetings were thus organised only for the signage.

5.1.2. Interviews

Based on the interviews, it appeared that one element that makes it challenging to work on such a project is that *La Vénerie* and the library do not have the same interests and goals. This difference makes that half of the participant are enthusiast about the project, and it produces confusion about the objectives. Several workers mentioned that they did not know where everything was going. It is also not clear who has the last word, so it makes it difficult to make decisions. Since the project started three years ago, some participants also expressed that they were tired and less motivated.

Looking more precisely at the different objectives and comparing those from back in 2016 and those mentioned in 2018 from the letter to IDDA, it can be seen that some elements are staying :

- Coordinate the construction works with the Keym Square in 2019
- Revitalising the aesthetics and signage
- Opening of the ground floor to the outside and building more visible from the square

Concerning the vision of the multi-purpose space, several elements are also kept :

- A small minimalist kitchen area to cater to artists, to make the place more friendly and to have the possibility to cook for associations
- An open space during the day to welcome the public who would like to read the press or work
- A space that can accommodate small concerts

As these elements stayed the same through the years and with different people, these points seem to be more critical.

It is also important to mention that most of the problems stated by the workers were not an issue for visitors. This difference in point of views probably comes from the fact that these users are already used to this space. A way to check this would have been to recruit non-users as in the library Pierrefonds where one of the organisers mentioned the importance of the non-user as it is ultimately the non-user that should be attracted.

So by looking up carefully at the timeline and the different interviews, it appeared that the library could not be dealt with alone. Accordingly, to the new decree, culture and reading need to work more closely. The issue of the ground floor is, therefore, the main concern as it is to be used by both entities. The vision of the Delvaux ground floor already exists and is already clear to everyone. All the interviewees mentioned the desire for a multi-purpose space used by both entities and open to the public. This vision is further confirmed in the plan for the 20 years to come written by *Ministère de la Fédération Wallonie-Bruxelles* to stating that cultural centres and libraries are getting closer and closer and they should collaborate even more in the future. However, the objectives related to this vision are not clear. For example, it is not clear which particular functions should coexist in this space. Also, it is not clear to what extent and how *La Vénerie* and the library will share this space.

Several obstacles were identified. One of them comes precisely from the confusion about the objectives. Since they were vaguely established, team discussions focused more on personal preferences than on choices for something specific. Consequently, multiple meetings go round in circles and always question everything. Following this, the architect of the municipality collected all the impressions, proposed plans and set up a voting system. The architect also indicated that he did not need to be part of the internal discussions and that he just needed to know what to do to work. During this voting system, another obstacle appeared. Indeed, a player did not want to question the work done before and wanted to push the project done with the old office. This barrier is compounded by the fact that it is not clear who has the last word and how the decision-making hierarchy works.

During this voting system, it was also mentioned that it would have been useful to have the architect's arguments for this or that proposal. Some found that they chose only based on aesthetics rather than on flow or other reasons that they say they do not control. There, another obstacle will be identified, which is the feeling of lack of competence to co-design, which is linked to the level of creativity mentioned by Sander and Stappers.

An institutional barrier also appeared. This barrier was first mentioned during the interviews, where most mentioned that libraries and cultural centres are not the priorities of politicians. This barrier relates to what was mentioned in the state-of-the-art as the subsidies are reduced and is confirmed by the fact that the new alderman did not attend one of the library meetings. Additionally, the fact that the new alderman stopped the reunions with the workers confirms this barrier.

It, therefore, appeared that in order to have co-creation, institutions must first all be in favour of such an approach as well as the architect. As for the institutional pedagogy, each player should know the purpose and limits of his or her role. This criterion connects to the optimum participation concept (Figure 7) mentioned by Schelings and Elsen. Nevertheless, this model only included the involvement of the authorities and the citizens. This thesis shows that some elements need to be added. First, the citizens should be divided between players and users and the local authority between micro and macro authority. This distinction is essential, but as it will be shown in the next section, even if the people are interested in the approach, the micro authority can put the priority somewhere else and prevent them from joining. This micro authority issue does not influence all the citizens, but only the players of the library and is it is therefore essential not to see each citizen in the same manner. Additionally, new axes need to be added in order to go from a 2D approach to a 5D approach in order to reach maximum participation (Figure 27).
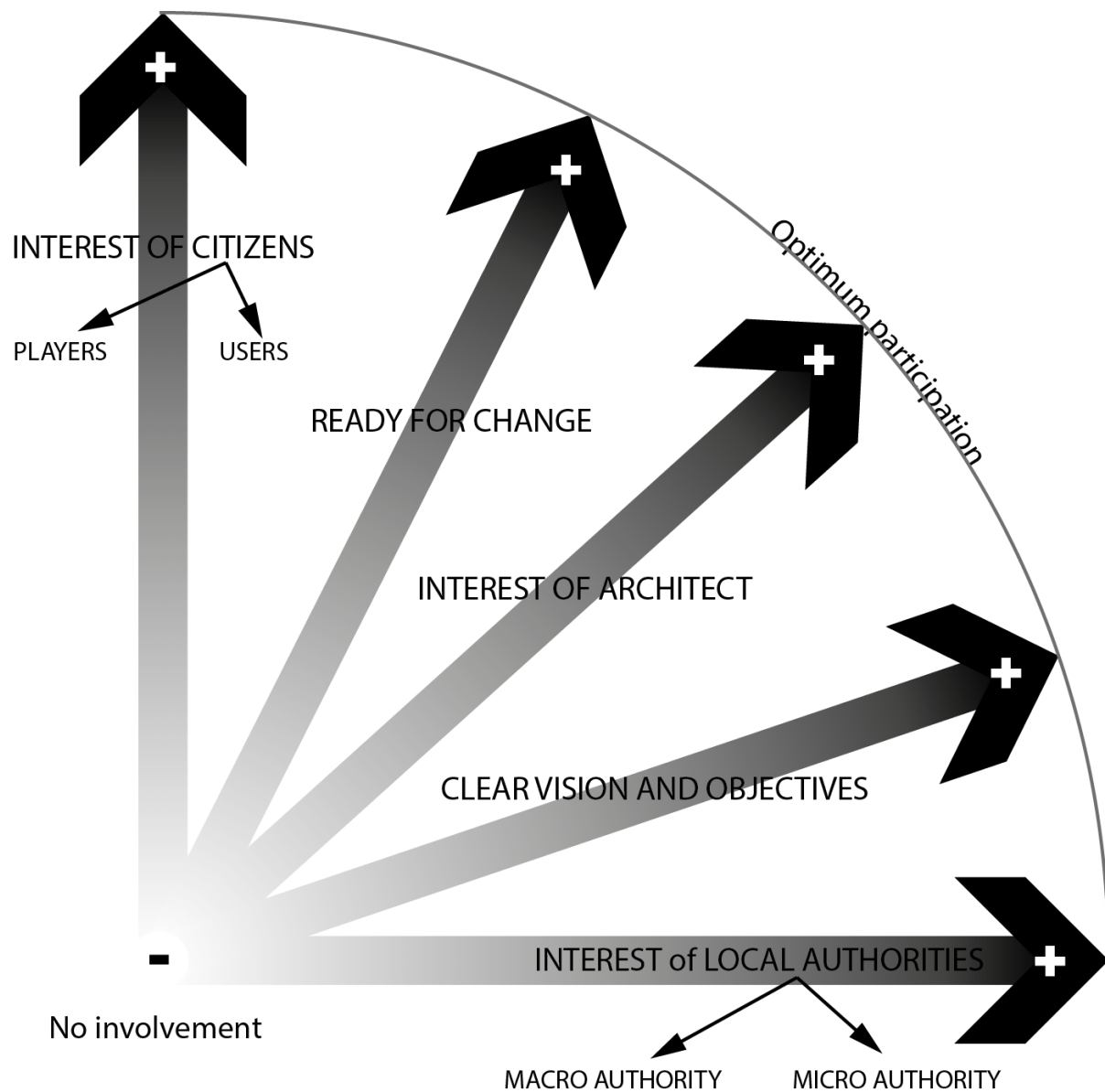
Figure 27: Optimum participation in design, based on (Schelings & Elsen, 2018)

The first new axis is the fact of being ready for change. Co-design is new, and not everybody is ready to work in this way. The Delvaux project showed, for instance, that some players such as the alderman were reluctant to change as he stopped discussions with the workers.

Additionally, the direction of *La Vénerie* did not want to participate in the co-design approach, which can also be related to a reluctance to this concept. The next axis is having the architect interested. The architect cannot be seen as an authority or as a citizen but really as a mediator between the two and should, therefore, be considered individually. The Delvaux project showed that when the architect does not want to take part in the internal discussions, communication becomes difficult. The last axis is the fact of having clear decisions and objectives. The Delvaux project showed that without it, no participation could occur adequately, and the project goes in circles.

From the analysis of the timeline and the interviews, it appeared clear to work on the objectives of the multi-purpose space. What functions do they have? What does it generate? How will the two institutions share the space? The workshop will be conducted to try to answer these questions. The state of affairs also showed the main actions to be taken based on the main elements that kept being mentioned :

- Encourage interaction between the two entities
- Focus on the ground floor
- Clarify the desired functions for the multi-purpose space on the ground floor
- Define the cohabitation of the different functions of the ground floor
- Work on signage

5.2. Workshop

The two people who were not present at the workshop were people from *La Vénerie*. This absence can be related to the involvement of citizens in the graph in the previous section. This absence could also be an issue of micro authority if maybe the direction of *La Vénerie* wanted them to work on another more critical mission. Before actually starting the workshop, the optimum participation model above shows that it will make it more difficult right from the start.

The first part of the workshop was the presentation of the results of the interviews. During this part, the participants agreed with the results of the interviews except for the ground surface of the third floor, which was said to be sufficient, but some participants argued it was not. There was also a rectification of the CLA which was said to be more public as the idea was that it is already public but needs to be more visible. The architect also intervened at some point and mentioned that the ground floor had to be 50/50 and that the library needs to appropriate the space in order to achieve that. Finally, it was pointed out that the use of the word bar should stop and multi-purpose space should be used instead.

5.2.1. First activity: picture analysis

During the picture analysis, many functions and actions were mentioned, and some came back. This redundancy shows what they mostly care about and what they should work towards for the project. They were, for instance, quite sensitive to the materiality and the light. They were more in favour of an integrated space where one can appropriate the space and blend the different functions. This first activity also showed that the information is not communicated to everyone. For instance, the architect mentioned to put a computer on the bar table and one participant was surprised and pleased with this idea he had never heard, but the others seemed to know, and he insisted it was the first time he had heard it.

5.2.2. Second activity: choice of functions

During this activity, the importance of modularity and the multi-purpose space came back, which confirms the vision mentioned in 2016 and 2018. This will of modularity can also be related to the state-of-the-art, where one of the new trends mentioned by Jacques is the modulation of spaces. With the discussion, one person even mentioned that this looks like a youth centre, so why not put that idea to the maximum and consider the building as a home for everyone. Where the modularity was evident, the questions of the public space did not lead to any consensus. Nevertheless, this project helped new ideas to emerge such as the idea of moving the borrowing of books to the ground floor which generated other concerns such as the fact that it depends on the technical solutions, the cohabitation and the acceptability of the idea by the team, which sees it as a "shop and go". The importance of the EPN can also be noted as shown in the state-of-the-art that this digital era has significant influence. This activity also helped everybody to understand that the concept of quiet space could not work with a modular space. New questions were also raised, such as the fact that polyvalence is often mentioned but is it all the time or at a specific moment of the day.

To sum up, the second activity helped the different people to express themselves and see that the work of the architect is not evident at all. All these questions must first be answered before the project can go on. At the end of this exercise, the architect wanted to go on with this as it was not entirely clear for now.

5.2.3. Third activity: placement of functions

During the work with the model, it was repeatedly said that the model was beneficial. It was said that all the activities before had somehow already been done, but the model was the only new thing. It helped the participants to realise the impact that architectural choices have on the space. It was said: "it is the first model we have seen in 3 years". This optimism felt during the workshop can be compared with the ones conducted for Landy land. In the same manner, it helped the users to understand the impact of furniture on the space. It has excited the different people as they came with entirely new ideas such as food truck to relocate the bar function outside. In the end, people were an enthusiast and spent several minutes discussing the model. Even outside of the building, some participants were discussing how they envision the food truck. This enthusiasm shows the importance of being concrete.

At the end of the workshop, it was advised to the participants to try to apply these methods to another project such as the signage. Most importantly, it was asked them to keep on debating on all the raised questions.

The architect seemed pleased with this workshop and participants mentioned at the end that they felt supported by him. They also mentioned this was what he was looking for as no more meeting with the teams is organised anymore. This then seemed to be a solution to the interest of the architect mentioned in the graph in the previous section. The architect wanted this workshop as a tool for him to work. However, in the end, he was not entirely satisfied as it was not a full list of requirements. He was advised to keep on working with this type of tools, and the workers kept the models to keep on discussing with them.

To sum up, after the workshop the importance of the multi-purpose space and the modularity were confirmed. A new idea of a home for everyone also emerged. Certain aspects still need to be clarified, such as the notion of public space and the fact of putting some functions downstairs. With those elements in mind, the worker does not have to forget that they consider essential the materiality, the thermal and acoustic insulation, the light, as well as the main actions they want such as welcoming, exchanging, meeting, and connecting. Furthermore, these functions directly relate to the concept of third-place.

The global enthusiasm felt during the workshop was later confirmed. Indeed, two weeks after the workshop, a mail was sent by one of the participants wanting to apply this workshop to the youth library. This request proves that co-design can help the process of revalorisation by creating a momentum.

The feedback questionnaires were globally very positive, showing the importance of the involvement of the citizens. One participant mentioned that he did not feel capable of co-design because he is not an architect. In the same manner, it relates to the level of creativity mentioned by Sander and Stappers. It was also highly mentioned that the absence of *La Vénerie* was an issue. Again this goes with either the involvement of the citizens presented in the graph or the micro authority interest.

The graph in the previous section showed how to have optimum participation, but co-design can be still pushed a step further to have optimum co-design as co-design is not only about participation. The present research showed that even if the participants were willing to participate, it does not necessarily mean that codesign will occur. For instance, the workshop showed that is it important to have a clear vision and objectives, and this can be done thanks to the creation of common ground. As mentioned before, different profiles work together, and thus, several viewpoints need to be taken into account in co-design (Détienne, Martin, & Lavigne, 2005). This difference in point of view should be carefully considered in order to reach the common ground (Murer, Jacobsson, Skillgate, & Sundström, 2014). Additionally, a transparent process needs to be there as the state of affairs showed that it was not the case, and this slowed the process. Finally, the workshop showed that the participants need to feel capable to co-design otherwise just having them wanting to participate is not sufficient. Those elements are related to the concept of share lab which arose after observing joint activities in architecture, design and engineering. The concept attempts to build awareness, trust, shared items, common ground unincorporated, and cognitive and operational synchronisation. Furthermore, it has as goal to support design collaboration and collective ideation by involving all stakeholders (Rajeb, Senciuc, & Pluchinotta, 2015). This concept can be related to an optimum co-design and obtain the following graph based on the elements mentioned above (Figure 28).
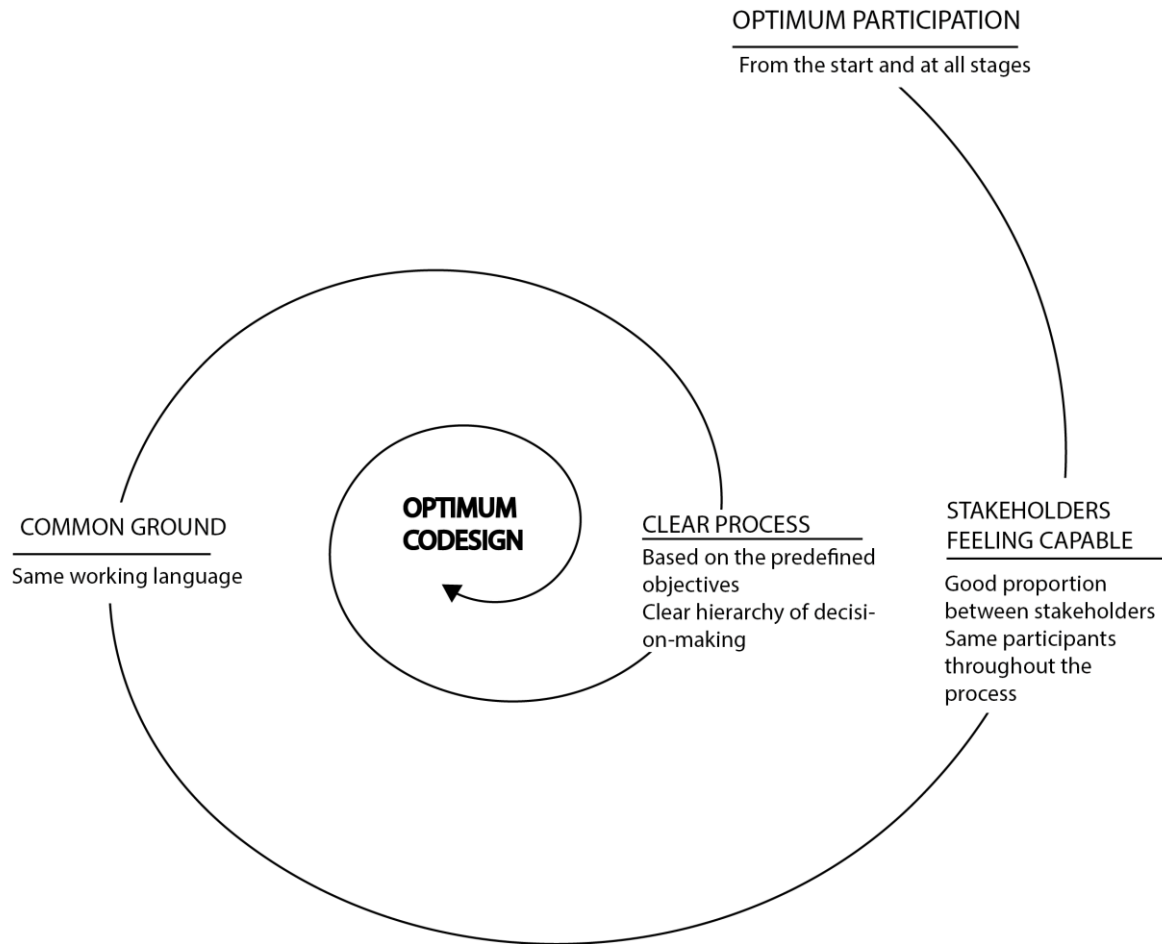
OPTIMUM PARTICIPATION
From the start and at all stages

COMMON GROUND
Same working language

OPTIMUM CODESIGN

CLEAR PROCESS
Based on the predefined objectives
Clear hierarchy of decision-making

STAKEHOLDERS FEELING CAPABLE
Good proportion between stakeholders
Same participants throughout the process

Figure 28: Optimum co-design, based on (Rajeb, Senciuc, & Pluchinotta, 2015)

Optimum co-design should start from the optimum participation mentioned in the previous section. Then it should be ensured that all the participants feel capable of co-design. Then a common ground should be created, and then a transparent process should be laid out. The workshop was organised according to those elements. Indeed, the first activity aimed to create a common ground; the second was there to clarify the objectives, and the third one directly reached optimum co-design by having the participants designing together. The only point that was not met during this workshop was having all the participants feeling capable of co-design.

5.3. Research questions

The main aim of this thesis was to find an answer to several questions. Based on the results and discussion, answers will be proposed here below.

How and to what extent can the participative approach be implemented for the revalorization of a library?
For the "how" part of the question, the research was done in a 2 step inductive method consisting of a state of affairs and a participative approach. Several other methods exist, but this one had been

chosen as it was easier to apply within the time allocated to this thesis. This method showed to be working as the results were positive, and a momentum of co-design seemed to have been created. Concerning the "to what extent" part of the question, the different results depicted above showed that in this specific case study, the co-design hit substantial obstacles. The first one was a political barrier with the elections and the non-interest of the new alderman.

Additionally, an essential player of the building was not involved during the workshop. For this point, one could argue that not all libraries live in the same building as a cultural centre, making this concern, not the primary issue. However, on the other hand, the concept of third-place, as well as the decree of 2009, prove that cultural centre and libraries will work more and more together and this is something to take into consideration. Additionally, the workshop showed that some participants were not feeling capable of co-designing, which hampers the process. From this, it can be concluded that for now, it seemed to be only applicable with a certain amount of involvement from the higher institutions and that some barriers still need to be broken before reaching optimum participation and optimum co-design.

Is there an ideal model of co-design or essential parameters to take into account?
This thesis only considered one model and the latter was laid out based on the observations following and inductive methodology. Looking at this and considering the examples in the state-of-the-art, it appears that no ideal model can be created and that a specific methodology should be designed based on each case. However, the research shows that some elements are essential to co-design. Those elements have been summarised in the optimum participation graph and the optimum co-design figure.

How can two different entities with different objectives co-exist in the same building?
The research showed that they need to have a shared vision and have clear objectives. For the *Espace Paul Delvaux,* the vision had already been defined a long time ago and was clear to everyone. However, in this case, study, the objectives related to this vision were not as clear. The 1st activity of the workshop made sure that common ground was present. The affinity map helped in this way as it showed that the objectives related to this vision need to be aligned in order to achieve such a result. Without a clear vision and objectives, discussions become just endless, and no consensus can be found.

What do the players think of a more participatory method?
This research had a small sample of people, but the vast majority of them were satisfied. The different players were questioned during the interviews and at the end of the workshop. From the interviews, most of them said to be enthusiast working on a participative approach. However it must be kept in mind that the people came from their free will to the interviews and knowing the purpose of the thesis, they were from the start more likely to be eager to work in a co-design approach. The second point was that in the feedback questionnaires, every participant was either satisfied or very satisfied with the workshop regarding their expectations.

What obstacles can appear in this kind of methodology, and how to avoid them?
During the process, it also appeared that several obstacles could be met. Those were summarised in the optimum participation and optimum co-design figure. The main obstacle was the political barrier directly related to the reluctance to change, which was a necessary condition. Again, this goes along with was Schelings and Elsen mentioned in their paper. Another critical obstacle was the involvement of the different stakeholders and the clarity of the vision and the objectives. A way to avoid those obstacles would be to convince politicians to be in favour of such approaches. This obstacle can be

avoided, for instance, with more and more case studies that show the benefits of such approaches. The same thing goes for the micro authority issue. More case studies could also help to tackle the obstacles met in the optimum co-design, such as having the participants feel capable of co-design.

Can a workshop relaunch co-creation?
In this specific case, it was proven that it does as a mail was sent to ask how to redo a workshop for another part of the building. Moreover, the enthusiasm of the participants at the end of the workshop confirmed that a co-creation process was relaunched. During the interviews, it was said that some people were tired as the project lasted for a long time, and the construction has not started, yet. Also looking at the timeline, the small amount of participation was left apart. This workshop seemed to have created a momentum for further collaboration between the stakeholders. Indeed, the architect who first stops attending the discussions with the workers seemed to be pleased with the workshop.

What role does the architect play in a co-design approach?
The workshop showed that he was a communication mediator. He has to understand the stakes and then translate them into a design. His presence is, therefore of utmost importance and was very valued by the people present during the workshop. His presence becomes even more critical than in a standard design process as many voices need to be listened and understood to come up with the best architectural solutions. As shown in the 5D approach, his interest was one of the critical element for optimum participation.

6. Conclusion

In this thesis, the new stakes of libraries have been analysed, and it was concluded that libraries are complex and social. From that, it appeared that co-design might be an answer to these stakes and the different approaches have been analysed to see which one suits the best for this research. Then an inductive method was chosen and applied to a specific library in Brussels to assess how and to what extent a co-design approach could be applied.

In this regard, a state of affairs was conducted, and from that, it was seen that a form of a participative approach had already been tried. Unfortunately, the involvement of the workers did not last. Indeed, the change of politicians disturbed the process, and the new alderman stopped the discussions with the workers. Additionally, even before that, the balance between the stakeholders was not representative as one entity was often more represented than the other instead of equal representation.

At the beginning of the state of affairs, it appeared that the two entities did not have the same goals, but the intermediate results showed that they do share the same vision for the ground of the building, but the objectives related to this vision were not clear as well as the hierarchy of decision-making. A participative approach was then enforced, and the latter showed the importance of the multi-purpose space and the modularity. Furthermore, it created momentum as the workers will be able to organise a new workshop for another part of the building.

The contribution of this research is, therefore, more theoretical than methodological. Nevertheless, in this thesis, a co-design protocol was optimised and aimed to be reproducible. However, as seen in the state-of-the-art, co-design is highly dependent on the context, and this procedure should be tailored to each particular case. The methodological part of this research considered existing tools but combined them in a new way that suited the best the case of the Delvaux library.

Theoretically speaking, this thesis showed that co-design could indeed be a way to revalorize libraries, but it comes with several obstacles. Before diving into a participative approach, one should be sure that all people involved are ready to change and use new methods. A clear vision and clear objectives also need to be clearly stated. Then, all authorities must be in favour of this; otherwise, no co-design can occur at all. It is only when those elements are met that optimum participation can be reached and that one can start to consider the different actors and users in the design process. Subsequently, new elements may be considered to achieve optimum co-design. These are, for instance, the creation of common ground and having the stakeholders feeling suited to co-design as well as a transparent process.

This thesis also showed how important being able to make two entities living in a single building is essential, especially for libraries. Indeed, as mentioned in the state-of-the-art, libraries and cultural centre are going to collaborate more and more often in the future, and they should not be considered as standalone entities. Every co-design project concerning libraries should, therefore, consider the future and how culture would blend into it.

Comparing this approach to the current project at the *Espace Paul Delvaux*, two points are worth highlighting. The first one is the presence of the user, which was not conducted at all during the entire project. The second one was the use of a physical model for the workshop. Also, the researcher being

a person external to the project seem to have been appreciated. This meant having a specialist available to gather ideas and encourage discussion among individuals allowed the elimination of the hierarchy barriers previously discussed.

Regarding the limitations, it appeared from the start that this process should have been done at the upstream of the project. Several participants pointed out this element during the workshop and were surprised that this had not been done before any plan was drawn. The involvement of people also appeared to be vital. Not only was everybody not interested, but an entire entity of the building did not attend the workshop, which makes it very difficult to design something for both entities. The number of participants was also a limitation. This limitation could have been avoided if all the profiles were present, which was not the case for the workshop.

Another limitation is related to the fact that one of the objectives of the building was to attract new people, and this study did not consider non-user. As mentioned in the state-of-the-art, this would help better understand what could have been done to improve the co-design process. In the same way, no official was present during the workshop, which also hampers the approach.

Regarding the workshop, the lack of experience and expertise was also a limitation. The prepared schedule was not followed, and some activities had to be shortened to focus the debates around the main issues. More experience with the help of a professional will optimise the workshop. Furthermore, co-design does not have formal ways of analysing results. Results are more inspiration for new ideas.

This thesis was also focussed on only a specific case study, which makes it delicate to draw general conclusions that could be applied to every library. Further case studies should be conducted by applying this methodology to other libraries and most importantly comparing the results. In the same way, the Delvaux library was already built and looking at libraries to be built would also have been interesting. This would have lead to an opportunity for the findings to be applied upfront, which is an ideal situation.

The most significant limitation was due to time constraints. First, convincing the different stakeholders to participate took several months and therefore this limited the time required to allocate a participative approach. Indeed, co-design work in loops and is an iterative process. One workshop was not sufficient to develop the project, but the findings provide momentum for future work in this area of co-design application. An email was indeed sent a few weeks after the workshop to ask some questions on how to reapply this methodology of the building just as it was proposed to the participants at the end of the workshop.

More generally speaking, co-design in libraries still has a long way to go and first the political barriers need to be broken. Once this is done, optimum participation could be reached, and optimum co-design could be aimed. Further studies should indeed be conducted to understand how to convince the politicians, to set clear visions and objectives and to have the stakeholders feel capable of co-design. Nevertheless, this thesis already proved that a single workshop could relaunch co-creation for a project that started three years ago.

7. Bibliography

Abrassart, C., Gauthier, P., Proulx, S., & Martel, M. (2015). Le design social : une sociologie des associations par le design ? Le cas de deux démarches de codesign dans des projets de rénovation des bibliothèques de la Ville de Montréal. *Lien social et Politiques*, 117-138.

Agence Philippe Hamelin. (2016). *PRU ZAC Cristino Garcia – Landy à Aubervilliers et Saint-Denis – 93* . Retrieved from Agence Philippe Hamelin: http://www.agencehamelin.com/pru-zac-cristino-garcia-zac-du-landy-aubervilliers-saint-denis-93/

Association des Bibliothécaires de France. (2015). *Bibliothéques troisiéme lieu.* Paris: Collection Médiathèmes.

Association didattica. (2016, June 15). *PROJET 2009-2015 : Porteurs d'un projet urbain à Aubervilliers*. Retrieved from Association didattica: http://www.didattica-asso.com/rubrique91.html

be.brussels. (2019, May 2). *Espaces Publics Numériques* . Retrieved from be.brussels: https://be.brussels/bruxelles-gratuit/internet/espaces-publics-numeriques

Benelli, N. (2011). Rendre compte de la méthodologie dans une approche inductive : les défis d'une construction a posteriori. *Recherches qualitatives*, 40-50.

Biblio & ludothèques de Watermael-Boitsfort. (2018, June 24). *Biblio & ludothèques de Watermael-Boitsfort*. Retrieved from Biblio & ludothèques de Watermael-Boitsfort: http://www.biblioludowb.be/blog/

Cambridge. (2018, July 30). *public library*. Retrieved from Cambridge dictionary: https://dictionary.cambridge.org/dictionary/english/public-library

Cambridge. (2019, May 16). *player*. Retrieved from Cambridge dictionary: https://dictionary.cambridge.org/dictionary/english/player

Cambridge. (2019, May 16). *stakeholder*. Retrieved from Cambridge dictionary: https://dictionary.cambridge.org/dictionary/english/stakeholder

Cambridge. (2019, May 16). *user*. Retrieved from Cambridge dictionnary: https://dictionary.cambridge.org/dictionary/english/user

Chicago Architecture Centre. (2019, May 12). *DiscoverDesign Handbook*. Retrieved from Chicago Architecture Centre: https://www.discoverdesign.org/handbook

Collectif europeen d'equipes de pedagogie institutionnelle. (2019, May 16). *Manifeste de Pédagogie INSTITUTRICE*. Retrieved from Ceepi: http://www.ceepi.org/index.php?id=033E

Cornell University Library. (2018, July 26). *Books & Bytes: Librarians as Information Managers: Types of Libraries*. Retrieved from Cornell University Library: https://guides.library.cornell.edu/c.php?g=30898&p=198569

d'Arripe, A., Oboeuf, A., & Routier, C. (2014). L'approche inductive : cinq facteurs propices à son émergence. *Approches inductives en communication sociale*, 96-124.

Dassonville, C. (2011). État des lieux en Communauté française. *Lectures, 170*, 42-50.

Décret relatif au développement des pratiques de lecture organisé par le réseau public de la lecture et les bibliothèques publiques, D. 30-04-2009 (April 30, 2009).

Design ∩ société. (2014, March 19). *La ludification de la bibliothèque de Pierrefonds. Premier atelier de co-design des bibliothèques publiques de Montréal*. Retrieved from Design ∩ société: http://www.gds.umontreal.ca/blog/2014/03/19/la-ludification-de-la-bibliotheque-de-pierrefonds-premier-atelier-de-co-design-des-bibliotheques-publiques-de-montreal/

Design, I. C. (2013, August 14). *City of Cape Town Co Design Workshops*. Retrieved from Youtube: https://www.youtube.com/watch?v=acJqkOZ0c3U

Détienne, F., Martin, G., & Lavigne, E. (2005). Viewpoints in codesign: a field study in concurrent engineering. *Design Studies*, 215-241.

Galluzzi, A. (2014). *Libraries and Public Perception : A comparative analysis of the European press.* Chandos Publishing.

Goddard, W., & Melville, S. (2004). *Research Methodology: An Introduction.* Blackwell Publishing.

Habraken, N. J. (1961). *SUPPORTS : an alternative to mass housing* (The Architectural Press ed.). London.

Huotari, K., & Hamari, J. (2012). Defining Gamification - A Service Marketing Perspective. *16th International Academic Mindtrek Conference*, (pp. 17-22). Retrieved from https://www.researchgate.net/publication/259841647_Defining_Gamification_-_A_Service_Marketing_Perspective

Jacques, J.-F. (2011). La bibliothèque : un lieu à s'approprier. *Lectures, 170*, 24-28.

Kostinuk, B. (2014, August 29). *Richmond library launches new age with old tenet*. Retrieved from Richmond News: http://www.richmond-news.com/news/weekly-feature/richmond-library-launches-new-age-with-old-tenet-1.1334509

Lallemand, C., & Gronier, G. (2016). *Méthodes de design UX.* Nanterre: Eyrolles.

Lerner, F. (1998). *The story of libraries : From the Invention of Writing to the Computer Age.* New York: The Continuum Publishing Company.

liyuan-library-li-xiaodong-. (2018). Retrieved from Pinterest: https://www.pinterest.co.uk/pin/326299935482100999/

Longeot, L. (Director). (2015). *Landy land se métamorphose* [Motion Picture]. France.

Martel, M. D. (2015, November 15). *Des bibliothèquesparticipatives ou des bibliothèques centrées sur les gens*. Retrieved from Cité du design: https://www.citedudesign.com/doc_root/2015/ejc2015/566edcc57d2ca_06-Marie%20Martel-colloqueLivingLab%20EJC%202015.pdf

McCabe, G. B., & Kennedy, J. R. (2003). *Planning the modern public library building.* London: Libraries unlimited.

McManus, D. (2018, May 6). *LiYuan Library – Huairou Building, Beijing*. Retrieved from e-architect: https://www.e-architect.co.uk/beijing/liyuan-library-huairou

Mehrezi, M. (2014). La rénovation d'une bibliothèque municipale : Entre enjeux architecturaux et attentes de public. *Communication et organisation*, 298-306.

Ministère de la Fédération Wallonie-Bruxelles. (2017, June). Le réseau public de la lecture en fédération Wallonie-Bruxelles. Bruxelles: Imprimerie Bietlot.

Murer, M., Jacobsson, M., Skillgate, S., & Sundström, P. (2014). Taking things apart: Reaching common ground and shared material understanding. *Proceedings of the SIGCHI Conference on Human Factors in Computing Systems*, (pp. 469-472).

Murray, S. A. (2009). *The Library, an Illustrated History.* New York: Skyhorse Publishing.

Nicholson, K. (2017). *Innovation in Public Libraries : Learning from international library practice.* Cambridge: Elsevier.

Office de consultation publique de Montréal. (2014). *Atelier : Codesign de politiques et services publics*. Retrieved from Office de consultation publique de Montréal: http://ocpm.qc.ca/fr/livre/atelier-codesign-de-politiques-et-services-publics

Perrin, N. (2005). La méthode inductive, un outil pertinent pour une formation par la recherche ? Quelques enjeux pour le mémoire professionnel. *Formation et pratiques d'enseignement en questions*, 125-137.

Pinterest. (2019, April 25). *House NA Sou Fujimoto Architects*. Retrieved from Pinterest: https://www.pinterest.com/pin/117093659035081133/

Pinterest. (2019, April 25). *The world's most beautiful libraries*. Retrieved from Pinterest: https://www.pinterest.com/pin/462463455484347750/

qdaily. (2019, April 25). *This gorgeous joint office is said to attract creative people*. Retrieved from qdaily: http://www.qdaily.com/cooperation/articles/toutiao/21928.html

quatremille. (2019, April 25). *Maastricht au fil des mois… la boekhandel dominicanen, un veritable vitrail litteraire*. Retrieved from quatremille: https://quatremille.be/maastricht-fil-mois-boekhandel-dominicanen-veritable-vitrail-litteraire/

Rajeb, S. B., Senciuc, A., & Pluchinotta, I. (2015). ShareLab, Support for Collective Intelligence. *Proceedings of the Fifth International Conference on Advanced Collaborative Networks, Systems and Applications.* Malta.

Sanders, E. B.-N., & Stappers, P. J. (2008). Co-creation and the new landscapes of design. *Co-Design*, 5-18.

Schelings, C., & Elsen, C. (2018). La participation citoyenne à l'heure des « Smart Cities ». Liège.

Servet, M. (2010, July). *Les Bibliothèques troisième lieu*. Retrieved from Bulletin des Bibliothèques de France: http://bbf.enssib.fr/consulter/bbf-2010-04-0057-001

Skiba, N. (2014). Processus d'innovation centré sur l'utilisateur : identification des besoins et interprétation de données issues de l'intégration de l'utilisateur dans le processus de co-conception. Lorraine.

Szebeko, D., & Tan, L. (2010). Co-designing for Society. *Australasian Medical Journal, 3*(9), 580-590.

Taesch-Förste, D. (2011). La bibliothèque, un bâtiment. *Lectures, 170*, 20-24.

thinkpublic. (2009). *The Story of Co-Design by thinkpublic*. Retrieved May 24, 2018, from https://www.youtube.com/watch?reload=9&v=HWgJlwTDIRQ

Veldhuijzen, K. v., & Zessen, R. v. (2018). *Affinity mapping*. Retrieved from Codesign Methods:
https://codesignmethods.com/#/portfolio/affinity-mapping/

Venerie, L. (2018). *La Vénerie : un nom, deux lieux*. Retrieved May 4, 2018, from
http://www.lavenerie.be/?module=VENERIE

Watermael-Boitsfort, B. &. (2018). *Contact*. Retrieved May 3, 2018, from
http://www.biblioludowb.be/blog/?page_id=4937

William L. Whitesides, S. (1998). *Reinvention of the Public Library for the 21st Century.* Englewood,
Colorado: LIBRARIES UNLIMITED, INC.

Xiaodong, L. (2014, January 22). Li Xiaodong. *Royal Academy of Arts*. Retrieved from
https://www.youtube.com/watch?v=DozShHsqj_U

8. Annexes

8.1. Espace Paul Delvaux

8.1.1. Virtual visit

From the Eugène Keym square (Figure 29), one can go up the street to join the *3, rue Gratès* (Figure 30)*.*

Figure 29: Side view of the Espace Paul Delvaux from the Keym Square

Figure 30: Front façade of the Espace Paul Delvaux

Two entrances can be seen. The biggest one in red is for *La Vénerie* and is only used when a big event. The casual entrance to the library is a small door on the right (Figure 31).

Figure 31: Night (left) and day (right) entrance of the Espace Paul Delvaux

Once inside, on the left one can go to the cafeteria of the Vénerie. To access the library, one can either chose the stairs or the escalator (Figure 32).

Figure 32: Bar (left) and stairs (right) entrance

No specific signage shows that one has reached the library. One then enters a small hall and can enter the library(Figure 33).
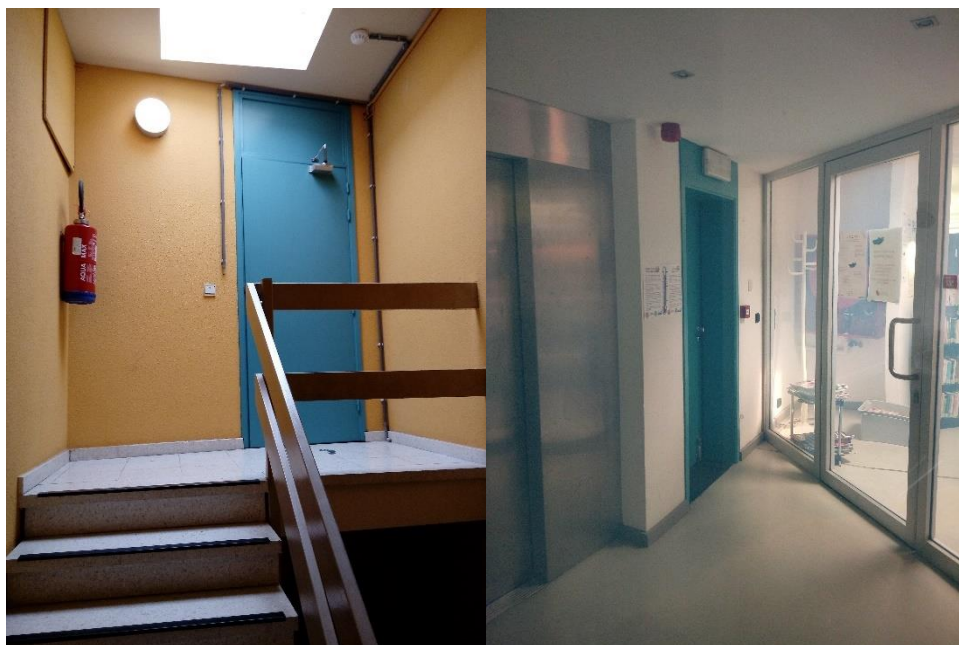
Figure 33: Delvaux library entrance

From there, one can enter the library and have a clear view of the whole space as its view is directly oriented towards the welcome desk (Figure 34).

Figure 34: Delvaux library hall (left) and information desk (right)

In the library, one can plod between the shelves and discover the lecture space and the toy library (Figure 35).

Figure 35: Delvaux library reading room (left) and bookshelves (right)

One can also discover the EPN as well as the *adolespace*, space where the young reader can relax (Figure 36).
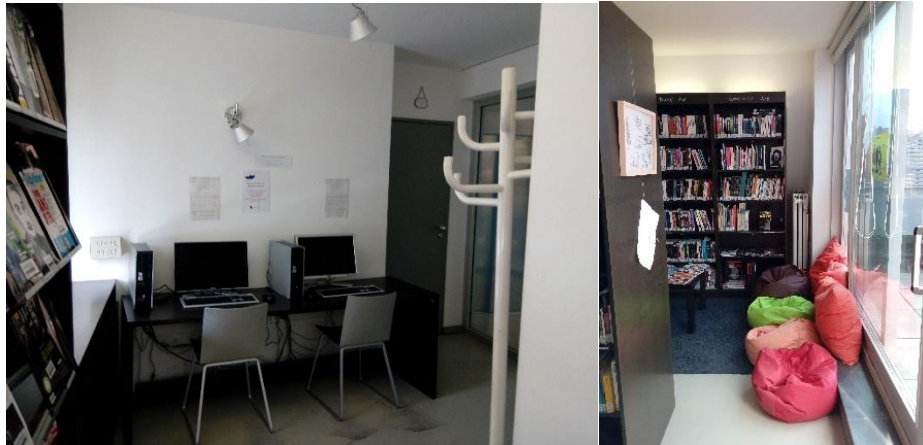
Figure 36: Delvaux library EPN (left) and adolespace (right)

8.2. Interviews

8.2.1. Calls for application

Worker

<u>Appel à candidats pour mon T.F.E sur le co-design en architecture</u>

Bonjour à tous,

Je m'appelle Umuhire et suis étudiant ingénieur civil architecte en dernière année de master à l'ULB. Comme mentionné lors de la réunion bâtiment du 6 septembre, je sollicite votre aide aujourd'hui pour mon T.F.E. qui porte sur le co-design appliqué en architecture. Le co-design est une approche de conception qui a pour but d'impliquer différents acteurs dans le processus de conception et ma recherche a pour principal objectif d'analyser si une telle démarche serait pertinente dans le cadre d'un projet de revalorisation de bibliothèque. Dans un premier temps, j'aurai donc besoin de quelques volontaires pour un entretien afin de recueillir votre vision et attentes au niveau de l'Espace Paul Delvaux.

Que vous soyez :

- Employé (direction, bibliothécaire, barman, technicien(ne) de surface, ancien(ne) employé(e),…)
- Officiel (échevin, responsable communal,…)
- Visiteur (membre d'un groupe scolaire, étudiant, animateur ou participant d'une activité, lecteur régulier,…)
- Non-utilisateur (personne ayant connaissance de l'Espace Paul Delvaux mais ne le fréquentant pas)

Je souhaiterai vous rencontrer pour une interview (maximum 1h).

Cet appel concerne autant l'équipe de la bibliothèque, que celle de la Vénerie, mais également à vos relations extérieures que cela intéresserait.

Pour participer à ces entretiens, n'hésitez pas à me contacter à l'adresse mail suivante: Umuhire.Shumbusho@ulb.ac.be

Je vous remercie d'avance pour votre aide et collaboration dans ce travail.

Indiquez votre contact (e-mail ou téléphone) ainsi que vos disponibilités afin de s'accorder sur une date pour l'entretien.

Merci à tous !

Umuhire

Official

Chers représentants communaux,

Je m'appelle Umuhire et suis étudiant ingénieur civil architecte en dernière année de master à l'ULB. Je vous écris cette lettre car je travaille actuellement sur mon T.F.E. qui a pour cas d'étude l'Espace Paul Delvaux. Dans ce cadre, je souhaiterai appliquer une démarche de co-design avec différents acteurs de ce bâtiment dans le but final de tester cette méthodologie pour co-concevoir un projet fictif. L'objectif de ma recherche est donc d'analyser si une telle démarche serait pertinente dans le cadre d'un projet de revalorisation de la bibliothèque. Pour cela, j'ai commencé à interviewer plusieurs acteurs de la bibliothèque afin de recueillir les différentes visions et attentes au niveau de l'Espace Paul Delvaux. Une des catégories que j'aimerais aussi interviewer sont les représentants communaux. Je fais donc appel à vous et souhaiterais rencontrer et interviewer (maximum 1h) au moins deux d'entre vous et avant la fin de ce mois de janvier si possible.

Si vous êtes intéressé et avez des questions ou remarques, n'hésitez pas à me contacter à l'adresse mail suivante: Umuhire.Shumbusho@ulb.ac.be

Je vous remercie d'avance pour votre aide et collaboration dans ce travail.

Indiquez votre contact (e-mail ou téléphone) ainsi que vos disponibilités afin de s'accorder sur une date pour l'entretien.

Très cordialement,

Umuhire

Appel à candidats pour mon T.F.E sur le co-design en architecture

Bonjour à tous,

Je m'appelle Umuhire, suis étudiant ingénieur civil architecte en dernière année de master à l'ULB et sollicite votre aide aujourd'hui pour mon T.F.E. qui porte sur le co-design appliqué en architecture. Le co-design est une approche de conception qui a pour but d'impliquer différents acteurs dans le processus de conception et ma recherche a pour principal objectif d'analyser si une telle démarche serait pertinente dans le cadre d'un projet de revalorisation de bibliothèque. Dans un premier temps, j'aurai donc besoin de quelques volontaires pour un entretien afin de recueillir votre vision et attentes au niveau de l'Espace Paul Delvaux.

Que vous soyez :

- Lecteur régulier ou occasionnel
- Etudiant
- Animateur ou participant d'une activité

Je souhaiterai vous rencontrer pour une interview (maximum 1h).

Pour participer à ces entretiens, n'hésitez pas à me contacter à l'adresse mail suivante: Umuhire.Shumbusho@ulb.ac.be

Je vous remercie d'avance pour votre aide et collaboration dans ce travail.

Indiquez votre contact (e-mail ou téléphone) ainsi que vos disponibilités afin de s'accorder sur une date pour l'entretien.

Merci à tous !

Umuhire

8.2.2. Consent form

Formulaire de consentement pour la participation à un entretien

Entretien réalisé dans le cadre d'un travail de fin d'étude à l'Université Libre de Bruxelles
Etudiant : Umuhire Shumbusho umuhire.shumbusho@ulb.ac.be
Promotrice : Samia Ben Rajeb samia.ben.rajeb@ulb.ac.be

Vous avez été invité(e) à participer à un projet de recherche mené par Umuhire Shumbusho, étudiant en Master 2 en ingénierie architecturale à l'Université Libre de Bruxelles. L'objectif de cette recherche est d'analyser si une démarche de co-design serait pertinente dans le cadre d'un projet de revalorisation, en particulier de revalorisation d'une bibliothèque. Au cours d'un entretien vous serez amené(e) à répondre à plusieurs questions dans le but de recueillir votre vision et attentes au niveau de l'Espace Paul Delvaux.
- La participation à l'étude est volontaire. Vous avez le droit d'arrêter à tout moment, et ce, pour n'importe quelle raison.
- Les résultats de l'étude et l'ensemble des données recueillies dans le cadre de ce travail seront systématiquement anonymisés, ne seront pas utilisés à des fins commerciales, mais serviront éventuellement dans le cadre d'articles scientifiques.
- Sauf si vous nous donnez votre autorisation explicite d'utiliser votre nom et prénom, ces informations resteront confidentielles et ne seront pas partagées.
- Il est possible que l'enregistrement vocal soit utile pour l'étude à réaliser. Nous n'enregistrerons rien sans votre accord. Vous avez le droit de révoquer votre permission au cours ou à la fin du projet, sans fournir de justification.

Au cours de la réalisation du travail de fin d'études, l'ensemble des données collectées et des éléments produits seront sous la responsabilité de l'étudiant.

S'il vous plait, cochez ce qui est applicable :
□ Je donne la permission d'être enregistré(e) pendant l'étude (le support audio ne sera jamais diffusé et ne sera exploité que par l'étudiant pendant le traitement des données)
□ Je suis conscient(e) que les supports produits lors de l'étude ne seront exploités que dans un cadre pédagogique et de recherche.
□Je donne la permission d'inclure dans des documents de recherche résultant de cette étude des phrases formulées directement lors de cet entretien

Chaque partie reconnaissant avoir obtenu son exemplaire.

Fait le ……………………… à ………………

Date et Signature du participant, ou de son représentant légal :

Date et Signature de l'étudiant :

8.2.3. Interview grid

Worker library

Présentation   Bonjour! Je me présente, je m'appelle Umuhire. Je suis étudiant ingénieur civil architecte en dernière année de master à l'ULB. Je vous sollicite aujourd'hui dans le cadre de mon mémoire qui porte sur le codesign appliqué en architecture. Le codesign est une approche de conception qui tente d'impliquer différents acteurs dans le processus de conception. L'interview effectué ici a pour but de recueillir votre vision et attentes au niveau de la bibliothèque Delvaux. Je vous remercie d'ailleurs de me consacrer du temps à cet effet. Pour ce faire je vais vous poser plusieurs questions et parfois vous demanderez de m'indiquer certains éléments sur les plans que j'ai ici. Mais avant que nous commencions seriez-vous d'accord que j'enregistre cet interview ? Cela m'aidera à avoir un meilleur support pour analyser cette interview et aussi mieux préparer la suite.

Thème	Sous-thème	Questions	Relances	Objectifs	Timing Idéal	Abordé ?
Introduction					2 min (TOT : 2)	
Echauffement		J'aimerais que vous me parliez brièvement de votre parcours professionnel.	Racontez-moi comment en êtes-vous arrivé à travailler à l'espace Delvaux.	Contextualiser	3 min (TOT : 5)	
		Décrivez-moi quelle est votre fonction à l'espace Delvaux.	Où travaillez-vous dans l'espace Delvaux aujourd'hui ? (Montrer sur le plan) Avez-vous été ailleurs à un certain moment ? Expliquez	Identifier la fonction de l'interviewé et son lien avec l'espace Delvaux		
Espaces	Entrée	Sur ce plan pouvez-vous me monter comment on entre dans le bâtiment.(COULEUR A)	Est-ce que tout le monde passe par cette entrée ? Y a-t-il une ou des entrées secondaires ? (COULEUR B)	Identifier la position de la ou les entrées selon l'interviewé	15 min (TOT : 20)	
		Que pensez-vous de cette ou ces entrées ?	Quels sont les points positifs de cette ou ces entrées selon vous ? Quels sont les points négatifs ?	Recueillir la perception sur l'entrée		
	Accueil	(En montrant la zone d'accueil) Quel est la fonction de cet espace ?	Qui selon vous utilise cet espace ? Si plusieurs personnes utilisent cet espace, qui utilise quelle partie ?	Recueillir la perception sur l'accueil et la compréhension du partage de cet espace		
	Espace de travail	Où se trouve dans le bâtiment le ou les espaces dans le(s)quel(s) vous travaillez ?	Montrez moi sur le plan comment se rend on dans votre espace de travail.	Identifier le lieu de travail et le chemin pour y accéder		
		Comment est l'espace dans lequel vous travaillez et son accès au quotidien ?	Partagez-vous cet espace avec d'autres employés ? Comment se passe la cohabitation ?	Recueillir le ressenti sur le lieu de travail		
		Votre espace de travail est-il suffisant ?	Avez vous besoin de plus ou moins d'espace ? (Utiliser une échelle de -2 à 2)			
	Espace de réunion	Avez-vous souvent des réunions organisées ? Entre vous ? Avec la Vénerie ? Avec des jeunes ?	Si oui, à quelle fréquence ? Avec qui et sur l'initiative de qui ? Combien de temps durent-t-elles en moyenne ?	Recueillir le ressenti sur les réunions organisées		
		Avez-vous souvent des réunions improvisées ? Entre vous ? Avec la Vénerie ? Avec des jeunes ?	A quelle fréquence ? Avec qui et sur l'initiative de qui ? Combien de temps durent-t-elles en moyenne ?	Recueillir le ressenti sur les réunions improvisées		
	Espace de détente	Avez-vous un ou des espaces de détente ? Montrez moi sur le plan	Si oui pouvez-vous le décrire ? Si non comment l'imagineriez-vous ?	Recueillir le ressenti sur l'espace de détente		
		Dans quel espace mangez-vous ? Montrez moi sur le plan	Pouvez-vous me décrire ? Est-il approprié pour votre pause midi ?			
Interactions avec d'autres espaces	Séquence	Racontez-moi une journée typique. Montrer moi sur le plan les espaces par lesquels vous passez (COULEUR C)	Que faites-vous en premier ? Et ensuite ? Comment terminez-vous la journée ?	Identifier le parcours d'une journée de travail et le ressenti de l'interviewé à ce sujet	5 min (TOT : 25)	
	Déplacements	Faites-vous beaucoup de déplacements au cours d'une journée ?	A quelle fréquence devez-vous vous déplacer ? Quelles sont les raisons de ces déplacements ?			
	Proximité	Votre espace de travail doit-il être nécessairement connecté à un autre espace ?	Doit-il être loin d'un autre espace ?			
Besoins	Général	Dans votre travail au quotidien, qu'est-ce qui vous manque ?	Avez-vous des besoins dans les catégories suivantes : Espace de travail, intimité, espace de partage, équipement particulier, lumière, autre ? (UTILISER SYMBOLES COMME AIDE MEMOIRE)	Identifier les besoins de l'interviewé	2 min (TOT : 27)	
		Avez-vous des besoins spécifiques ?				
	Equipements	Avez-vous besoin d'équipements particuliers ?				

Cohabitation avec la Vènerie	Général	Pouvez-vous me décrire la cohabitation avec la Vénerie	Vous croisez-vous souvent ? Avez-vous des interactions longues ou courtes ? Montrez moi où sur le plan		3 min (TOT : 30)	
	Espace commun	Partagez-vous des espaces communs avec la Vènerie ? Si oui lesquels ?	Comment la bibliothèque exploite-elle cet espace ? La Vènerie ? Est-ce que vous l'exploitez aussi ensemble ? Si oui dans quel cas ? Comment ?	Recueillir le ressenti sur la cohabitation avec la Vènerie		
Le projet en cours	Connaissance du projet	SI C'EST UN REPRESENTANT (Expliquer très brièvement la rétrospective du projet à l'aide du tableau) Voyez-vous une information erronée ou manquante dans la rétrospective que je viens de vous faire ?	Si oui la ou lesquelles ?	Vérifier la véracité de la rétrospective	10 min (TOT : 40)	
		Avez-vous pris connaissance ou non du projet en cours ?	Savez-vous qui est impliqué dans le projet ?	Vérifier la véracité de la rétrospective		
		Avez-vous vu le projet en cours ?	Si oui qu'en pensez-vous ? Si non avez-vous partagé votre avis à un certain moment dans le processus ?			
	Enthousiasme	Etes-vous enthousiaste concernant ce dernier ?	Que pensez-vous du projet en cours ?	Cerner l'enthousiasme concernant le projet		
	Réunions	Avez-vous participé à la commission bâtiment qui a précédé la mise en route du projet actuel ?	Si oui, que pensiez vous de ces réunions? Vous sentiez vous investis ?	Cerner l'enthousiasme concernant le projet		
		Avez-vous participé à une ou plusieurs réunions en présence des architectes d'IDDA ?	Si oui vous êtes-vous senti impliqués lors de ces réunions ? Vous a-t-on souvent sollicités ?	Recueillir le ressenti d'implication		
		Avez-vous participé à une ou plusieurs réunions de retour sur les propositions des architectes	Si oui, vos idées proposées sont-elles considérées par la suite lors des réunions suivantes avec les architectes ?	Recueillir le ressenti de considération		
	Durée	Pensez-vous approcher de la fin du projet ?	Reste-il encore beaucoup de choses à faire? Si oui, lesquelles ? Pensez-vous que le processus est plutôt lent ou rapide ?	Recueillir le ressenti sur la durée du projet		
Co design		(Réexpliquer briévement le codesign) Pensez-vous qu'une approche participative serait pertinente dans le cadre de la bibliothèque Delvaux?	Que pensez-vous de ce genre de démarche ?	Attester la volonté de faire du codesign et les attentes	5 min (TOT : 50)	
		Aviez vous déjà entendu parler du codesign avant ?	Si oui, racontez moi par quel biais ? Quel était votre réaction face à l'évocation de cette méthode ?			
		Voulez-vous y participer ?	Êtes vous enthousiaste ? Si oui, quel éléments vous rendent enthousiaste? Si non quels sont vos appréhensions			
Rétrospective		Comment voyez-vous la bibliothèque dans 10 ans ?	Qu'est qui aura changé et qu'est-ce qui ne changera pas ?	Recueillir la vision long terme de l'interviewé	5 min (TOT : 55)	
Debriefing					5 min (TOT : 60)	

Figure 37: Interview grid worker library

Thème	Sous-thème	Questions	Relances	Objectifs	Timing Idéal	Abordé ?
Introduction					2 min (TOT : 2)	
Echauffement		J'aimerais que vous me parliez brièvement de votre parcours professionnel.	Racontez-moi comment en êtes-vous arrivé à travailler à l'espace Delvaux.	Contextualiser	3 min (TOT : 5)	
		Décrivez-moi quel est votre fonction à l'espace Delvaux.	Où travaillez-vous dans l'espace Delvaux aujourd'hui ? (Montrer sur le plan) Avez-vous été ailleurs à un certain moment ? Expliquez	Identifier la fonction de l'interviewé et son lien avec l'espace Delvaux		
Espaces	Entrée	Sur ce plan pouvez vous me monter comment on entre dans le bâtiment.(COULEUR A)	Est-ce que tout le monde passe par cette entrée ? Y a-t-il une ou des entrées secondaires ? (COULEUR B)	Identifier la position de la ou les entrées selon l'interviewé	15 min (TOT : 20)	
		Que pensez-vous de cette ou ces entrées ?	Quels sont les points positifs de cette ou ces entrées selon vous ? Quels sont les points négatifs ?	Recueillir la perception sur l'entrée		
	Accueil	(En montrant la zone d'accueil) Quel est la fonction de cet espace ?	Qui selon vous utilise cet espace ? Si plusieurs personnes utilisent cet espace, qui utilise quelle partie ?	Recueillir la perception sur l'accueil et la compréhension du partage de cet espace		
	Espace de travail	Où se trouve dans le bâtiment le ou les espaces dans le(s)quel(s) vous travaillez ?	Montrez moi sur le plan comment se rend on dans votre espace de travail.	Identifier le lieu de travail et le chemin pour y accéder		
		Comment est l'espace dans lequel vous travaillez et son accès au quotidien ?	Partagez-vous cet espace avec d'autres employés ? Comment se passe la cohabitation ?	Recueillir le ressenti sur le lieu de travail		
		Votre espace de travail est-il suffisant ?	Avez vous besoin de plus ou moins d'espace ? (Utiliser une échelle de -2 à 2)			
	Espace de réunion	Avez-vous souvent des réunions organisées ? Entre vous ? Avec la bibliothèque ? Avec des jeunes ?	Si oui, à quelle fréquence ? Avec qui et sur l'initiative de qui ? Combien de temps durent-t-elles en moyenne ?	Recueillir le ressenti sur les réunions		
		Avez-vous souvent des réunions improvisées ? Entre vous ? Avec la bibliothèque ? Avec des jeunes ?	A quelle fréquence ? Avec qui et sur l'initiative de qui ? Combien de temps durent-t-elles en moyenne ?			
	Espace de détente	Avez-vous un ou des espaces de détente ? Montrez moi sur le plan	Si oui pouvez-vous le décrire ? Si non comment l'imagineriez-vous ?	Recueillir le ressenti sur l'espace de détente		
		Dans quel espace mangez-vous ? Montrez moi sur le plan	Pouvez-vous me décrire ? Est-il approprié pour votre pause midi ?			
Interactions avec d'autres espaces	Séquence	Racontez-moi une journée typique. Montrer moi sur le plan les espaces par lesquels vous passez	Que faites-vous en premier ? Et ensuite ? Comment terminez-vous la journée ?	Identifier le parcours d'une journée de travail et le ressenti de l'interviewé à ce sujet	5 min (TOT : 25)	
	Déplacements	Faites-vous beaucoup de déplacements au cours d'une journée ?	A quelle fréquence devez-vous vous déplacer ? Quelles sont les raisons de ces déplacements ?			
	Proximité	Votre espace de travail doit-il être nécessairement connecté à un autre espace ?	Doit-il être loin d'un autre espace ?			
Besoins	Général	Dans votre travail au quotidien, qu'est-ce qui vous manque ?	Avez-vous des besoins dans les catégories suivantes : Espace de travail, intimité, espace de partage, équipement particulier, lumière, autre ?	Identifier les besoins de l'interviewé	2 min (TOT : 27)	
		Avez-vous des besoins spécifiques ?				
	Equipements	Avez-vous besoin d'équipements particuliers ?				
Cohabitation avec la bibliothèque	Général	Pouvez-vous me décrire la cohabitation avec la bibliothèque	Vous croisez-vous souvent ? Avez-vous des interactions longues ou courtes ? Montrez moi où sur le plan		3 min (TOT : 30)	
	Espace commun	Partagez-vous des espaces communs avec la bibliothèque ? Si oui lesquels ?	Comment la bibliothèque exploite-elle cet espace ? La bibliothèque ? Est-ce que vous l'exploitez aussi ensemble ? Si oui dans quel cas ? Comment ?	Recueillir le ressenti sur la cohabitation avec la bibliothèque		

Le projet en cours	Enthousiasme	SI C'EST UN REPRESENTANT (Expliquer très brièvement la rétrospective du projet à l'aide du tableau) Voyez-vous une information erronée ou manquante dans la rétrospective que je viens de vous faire ?	Si oui la ou lesquelles ?	Vérifier la véracité de la rétrospective	10 min (TOT : 40)	
		Avez-vous pris connaissance ou non du projet en cours ?	Savez-vous qui est impliqué dans le projet ?			
		Avez-vous vu le projet en cours ?	Si oui qu'en pensez-vous ? Si non avez-vous partagé votre avis à un certain moment dans le processus ?			
		Etes-vous enthousiaste concernant ce dernier ?	Que pensez-vous du projet en cours ?	Cerner l'enthousiasme concernant le projet		
	Réunions	Avez-vous participé à la commission bâtiment qui a précédé la mise en route du projet actuel ?	Si oui, que pensiez vous de ces réunions? Vous sentiez vous investis ?	Cerner l'enthousiasme concernant le projet		
		Avez-vous participé à une ou plusieurs réunions en présence des architectes d'IDDA ?	Si oui vous êtes-vous senti impliqués lors de ces réunions ? Vous a-t-on souvent sollicités ?	Recueillir le ressenti d'implication		
		Avez-vous participé à une ou plusieurs réunions de retour sur les propositions des architectes	Si oui, vos idées proposées sont-elles considérées par la suite lors des réunions suivantes avec les architectes ?	Recueillir le ressenti de considération		
	Durée	Pensez-vous approcher de la fin du projet ?	Reste-il encore beaucoup de choses à faire? Si oui, lesquelles ? Pensez-vous que le processus est plutôt lent ou rapide ?	Recueillir le ressenti sur la durée du projet		
Co design		(Réexpliquer brièvement le codesign) Pensez-vous qu'une approche participative serait pertinente dans le cadre de la bibliothèque Delvaux?	Que pensez-vous de ce genre de démarche ?	Attester la volonté de faire du codesign et les attentes	5 min (TOT : 50)	
		Aviez vous déjà entendu parler du codesign avant ?	Si oui, racontez moi par quel biais ? Quel était votre réaction face à l'évocation de cette méthode ?			
		Voulez-vous y participer ?	Êtes vous enthousiaste ? Si oui, quel éléments vous rendent enthousiaste? Si non quels sont vos appréhensions			
Rétrospective		Comment voyez-vous la bibliothèque dans 10 ans ?	Qu'est qui aura changé et qu'est-ce qui ne changera pas ?	Recueillir la vision long terme de l'interviewé	5 min (TOT : 55)	
Debriefing					5 min (TOT : 60)	

Figure 38: Interview grid worker La Vénerie

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Visitor

Thème	Sous-thème	Questions	Relances	Objectifs	Timing Idéal	Abordé ?
Introduction					2 min (TOT : 2)	
Echauffement		J'aimerais que vous me parliez brièvement qui vous êtes et votre parcours professionnel.	Racontez-moi comment avez-vous découvert l'espace delvaux ?	Contextualiser	3 min (TOT : 5)	
		Décrivez-moi pour quelles occasions vous rendez-vous à l'espace Delvaux.	Où allez-vous réguliérement dans l'espace Delvaux aujourd'hui ? (Montrer sur le plan) Avez-vous été ailleurs à un certain moment ? Expliquez	Identifier la fonction de l'interviewé et son lien avec l'espace Delvaux		
Espaces	Entrée	Sur ce plan pouvez vous me monter comment on entre dans le bâtiment.(COULEUR A)	Est-ce que tout le monde passe par cette entrée ? Y a-t-il une ou des entrées secondaires ? (COULEUR B)	Identifier la position de la ou les entrées selon l'interviewé	15 min (TOT : 20)	
		Que pensez-vous de cette ou ces entrées ?	Quels sont les points positifs de cette ou ces entrées selon vous ? Quels sont les points négatifs ?	Recueillir la perception sur l'entrée		
	Accueil	(En montrant la zone d'accueil) Quel est la fonction de cet espace ?	Qui selon vous utilise cet espace ? Si plusieurs personnes utilisent cet espace, qui utilise quelle partie ?	Recueillir la perception sur l'accueil et la compréhension du partage de cet espace		
Interactions avec d'autres espaces	Séquence	Racontez-moi une journée typique quand vous vous rendez à l'espace Delvaux. Montrer moi sur le plan les espaces par lesquels vous passez	Que faites-vous en premier ? Et ensuite ?	Identifier le parcours d'un visiteur et le ressenti de l'interviewé à ce sujet	5 min (TOT : 25)	
	Déplacements	Faites-vous beaucoup de déplacements au cours d'une journée ?	A quelle fréquence devez-vous déplacer ? Quelles sont les raisons de ces déplacements ?			
	Proximité	Pensez-vous que l'espace où vous passez doit être nécessairement connecté à un autre espace ?	Doit-il être loin d'un autre espace ?			
Besoins	Général	En tant que visiteur, qu'est-ce qui vous manque ?	Avez-vous des besoins dans les catégories suivantes : Espace de travail, intimité, espace de partage, équipement particulier, lumière, autre ?	Identifier les besoins de l'interviewé	2 min (TOT : 27)	
		Avez-vous des besoins spécifiques ?				
	Equipements	Avez-vous besoin d'équipements particuliers ?				
Cohabitation entre les deux entités	Général	Combien d'entités utlisent l'esapce Delvaux ?	Pouvez-vous me dire leurs noms respectifs ?		3 min (TOT : 30)	
	Espace commun	Savez-vous quels espaces appartienne à qui ?	Selon vous, ces espaces sont-ils bien exploités ?	Recueillir le ressenti sur la cohabitation des deu entités		
Le projet en cours		Saviez-vous qu'il y a un projet de rénovation de l'espace Delvaux en cours ?	Si oui, savez-vous qui est impliqué dans le projet ?	Vérifier la véracité de la rétrospective		
		Avez-vous vu le projet en cours ?	Si oui qu'en pensez-vous ? Si non avez-vous partagé votre avis à un certain moment dans le processus ?			
		Etes-vous enthousiaste concernant ce dernier ?	Que pensez-vous du projet en cours ?	Cerner l'enthousiasme concernant le projet		
Co design		(Réexpliquer briévement le codesign) Pensez-vous qu'une approche participative serait pertinente dans le cadre de la bibliothèque Delvaux?	Que pensez-vous de ce genre de démarche ?		5 min (TOT : 50)	
		Aviez vous déjà entendu parler du codesign avant ?	Si oui, racontez moi par quel biais ? Quel était votre réaction face à l'évocation de cette méthode ?	Attester la volonté de faire du codesign et les attentes		
		Voulez-vous y participer ?	Êtes vous enthousiaste ? Si oui, quel éléments vous rendent enthousiaste? Si non quels sont vos appréhensions			
Rétrospective		Comment voyez-vous la bibliothèque dans 10 ans ?	Qu'est qui aura changé et qu'est-ce qui ne changera pas ?	Recueillir la vision long terme de l'interviewé	5 min (TOT : 55)	
Debriefing					5 min (TOT : 60)	

Figure 39: Interview grid visitor

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Thème	Sous-thème	Questions	Relances	Objectifs	Timing Idéal	Abordé ?
Introduction					2 min (TOT : 2)	
Echauffement		J'aimerais que vous me parliez brièvement de votre parcours professionnel.	Racontez-moi comment en êtes-vous arrivé à être associé à l'espace Delvaux.	Contextualiser	3 min (TOT : 5)	
		Décrivez-moi quel est votre par rapport à l'espace Delvaux.	Travaillez-vous dans l'espace Delvaux aujourd'hui ? (Montrer sur le plan) Si oui, où ? Avez-vous été ailleurs à un certain moment ? Expliquez	Identifier la fonction de l'interviewé et son lien avec l'espace Delvaux		
Espaces	Entrée	Sur ce plan pouvez vous me monter comment on entre dans le bâtiment.(COULEUR A)	Est-ce que tout le monde passe par cette entrée ? Y a-t-il une ou des entrées secondaires ? (COULEUR B)	Identifier la position de la ou les entrées selon l'interviewé	15 min (TOT : 20)	
		Que pensez-vous de cette ou ces entrées ?	Quels sont les points positifs de cette ou ces entrées selon vous ? Quels sont les points négatifs ?	Recueillir la perception sur l'entrée		
	Accueil	(En montrant la zone d'accueil) Quel est la fonction de cet espace ?	Qui selon vous utilise cet espace ? Si plusieurs personnes utilisent cet espace, qui utilise quelle partie ?	Recueillir la perception sur l'accueil et la compréhension du partage de cet espace		
	Espace de travail	Où se trouve dans le bâtiment le ou les espaces de travail des employés ?	Montrez moi sur le plan comment se rend on dans votre espace de travail.	Identifier le lieu de travail et le chemin pour y accéder		
		Pensez-vous que ces espace de travail sont suffisants ?	Pensez-vous que les employés ont besoin de plus ou moins d'espace ? (Utiliser une échelle de -2 à 2)			
	Espace de réunion	Participez vous souvent à des réunions organisées à l'espace Delvaux ? Entre vous ? Avec la bibliothèque ? Avec la Véneire ? Avec des jeunes ?	Si oui, à quelle fréquence ? Avec qui et sur l'initiative de qui ? Combien de temps durent-t-elles en moyenne ?	Recueillir le ressenti sur les réunions		
		Participez vous souvent à des réunions improvisées à l'espace Delvaux ? Entre vous ? Avec la bibliothèque ? Avec des jeunes ?	A quelle fréquence ? Avec qui et sur l'initiative de qui ? Combien de temps durent-t-elles en moyenne ?			
	Espace de détente	Y-a-t-il un ou des espaces de détente ? Montrez moi sur le plan	Si oui pouvez-vous le décrire ? Si non comment l'imagineriez-vous ?	Recueillir le ressenti sur l'espace de détente		
		Dans quel espace pensez-vous que les employés mangent ? Montrez moi sur le plan	Pouvez-vous me le décrire ? Est-il approprié pour une pause midi ?			
Besoins	Général	Dans leur travail au quotidien, pensez-vous qu'il manque quelque chose aux employés ?	Pensez-vous qu'ils ont des besoins dans les catégories suivantes : Espace de travail, intimité, espace de partage, équipement particulier, lumière, autre ?	Identifier les besoins de l'interviewé	2 min (TOT : 27)	
		Avez-vous des besoins spécifiques ?				
	Equipements	Avez-vous besoin d'équipements particuliers ?				
Cohabitation entre les deux entités	Général	Combien d'entités utlisent l'espace Delvaux ?	Pouvez-vous me dire leurs noms respectifs ?		3 min (TOT : 30)	
	Espace commun	Savez-vous quels espaces appartienne à qui ?	Selon vous, ces espaces sont-ils bien exploités ?	Recueillir le ressenti sur la cohabitation avec la bibliothèque		
Le projet en cours	Enthousiasme	(Expliquer très brièvement la rétrospective du projet à l'aide du tableau) Voyez-vous une information erronée ou manquante dans la rétrospective que je viens de vous faire ?	Si oui la ou lesquelles ?	Vérifier la véracité de la rétrospective	10 min (TOT : 40)	
		Etes-vous personnellement impliqué dans le projet en cours ?	Savez-vous qui est impliqué dans le projet ? Quelle est votre implication ?	Vérifier la véracité de la rétrospective		
		Avez-vous vu le projet en cours ?	Si oui qu'en pensez-vous ? Si non avez-vous partagé votre avis à un certain moment dans le processus ?			
		Etes-vous enthousiaste concernant ce dernier ?	Que pensez-vous du projet en cours ?	Cerner l'enthousiasme concernant le projet		
	Réunions	Avez-vous participé à la commission bâtiment qui a précédé la mise en route du projet actuel ?	Si oui, que pensiez vous de ces réunions? Vous sentiez vous investis ?	Cerner l'enthousiasme concernant le projet		
		Avez-vous participé à une ou plusieurs réunions en présence des architectes d'IDDA ?	Si oui vous êtes-vous senti impliqués lors de ces réunions ? Vous a-t-on souvent sollicités ?	Recueillir le ressenti d'implication		

		Avez-vous participé à une ou plusieurs réunions de retour sur les propositions des architectes	Si oui, vos idées proposées sont-elles considérées par la suite lors des réunions suivantes avec les architectes ?	Recueillir le ressenti de considération	
	Durée	Pensez-vous approcher de la fin du projet ?	Reste-il encore beaucoup de choses à faire? Si oui, lesquelles ? Pensez-vous que le processus est plutôt lent ou rapide ?	Recueillir le ressenti sur la durée du projet	
Co design		(Réexpliquer briévement le codesign) Pensez-vous qu'une approche participative serait pertinente dans le cadre de la bibliothèque Delvaux?	Que pensez-vous de ce genre de démarche ?	Attester la volonté de faire du codesign et les attentes	5 min (TOT : 50)
		Aviez vous déjà entendu parler du codesign avant ?	Si oui, racontez moi par quel biais ? Quel était votre réaction face à l'évocation de cette méthode ?		
		Voulez-vous y participer ?	Êtes vous enthousiaste ? Si oui, quel éléments vous rendent enthousiaste? Si non quels sont vos appréhensions		
Rétrospective		Comment voyez-vous la bibliothèque dans 10 ans ?	Qu'est qui aura changé et qu'est-ce qui ne changera pas ?	Recueillir la vision long terme de l'interviewé	5 min (TOT : 55)
Debriefing					5 min (TOT : 60)

Figure 40: Interview grid official

8.2.4. Spatial qualities symbols
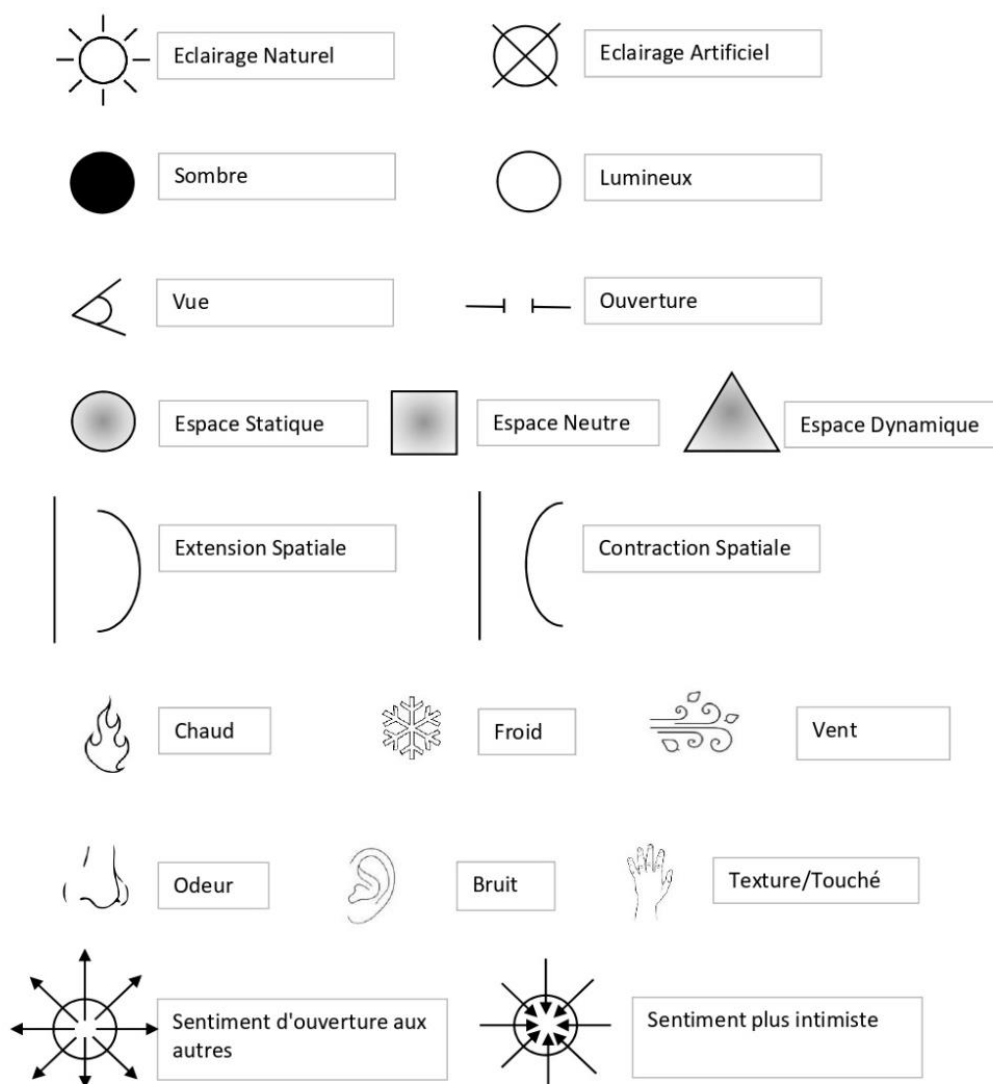
Figure 41: Spatial qualities symbols

8.2.5. Layered plans

Level – 1
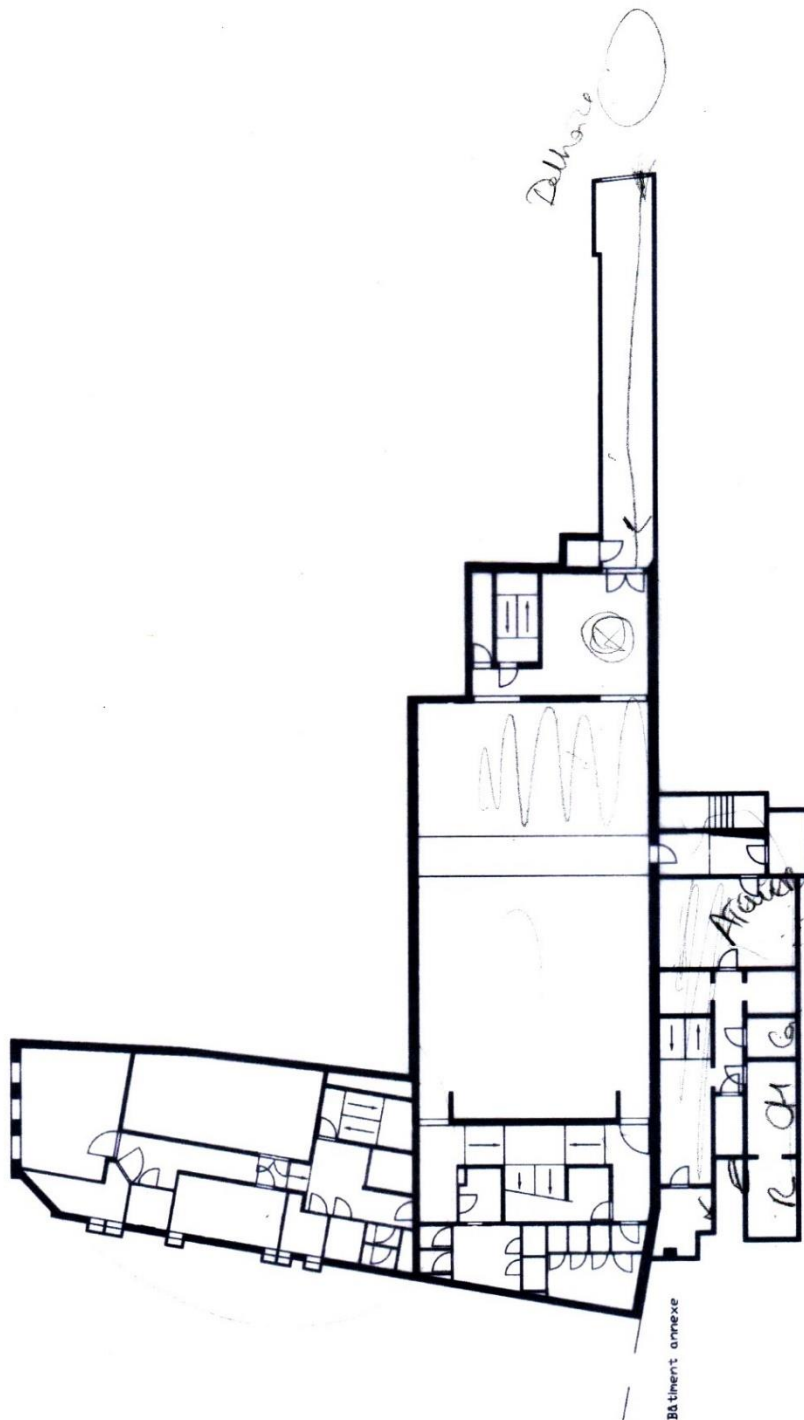
Figure 42: Layered plan level - 1

Figure 43: Layered plan level 0

1er étage.
mobilier mobile.
mauvaise odeur > toilettes C/palier
lumière nat freinée / étagères
froid hiv
étouffant été
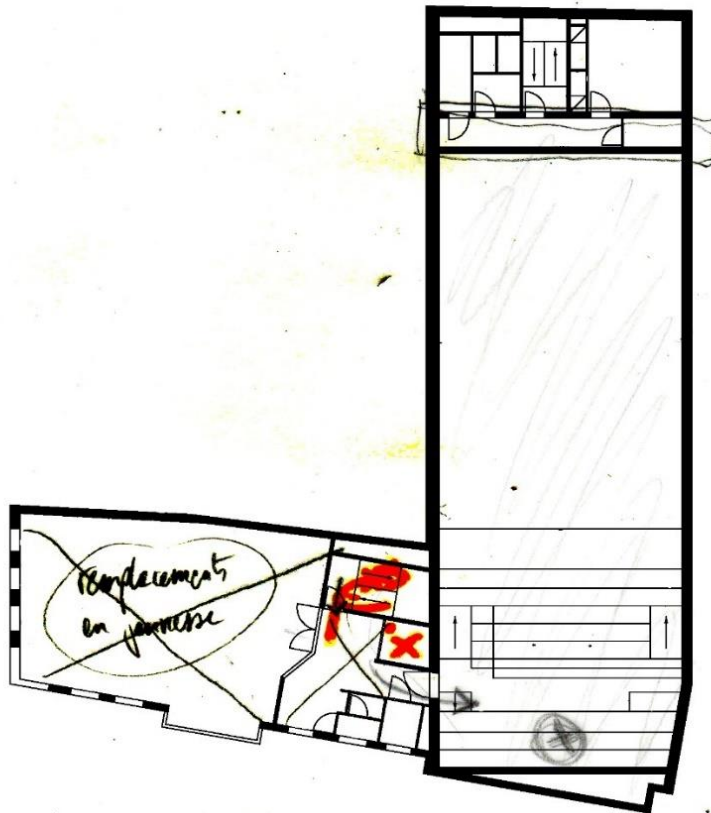
Figure 44: Layered plan level + 1
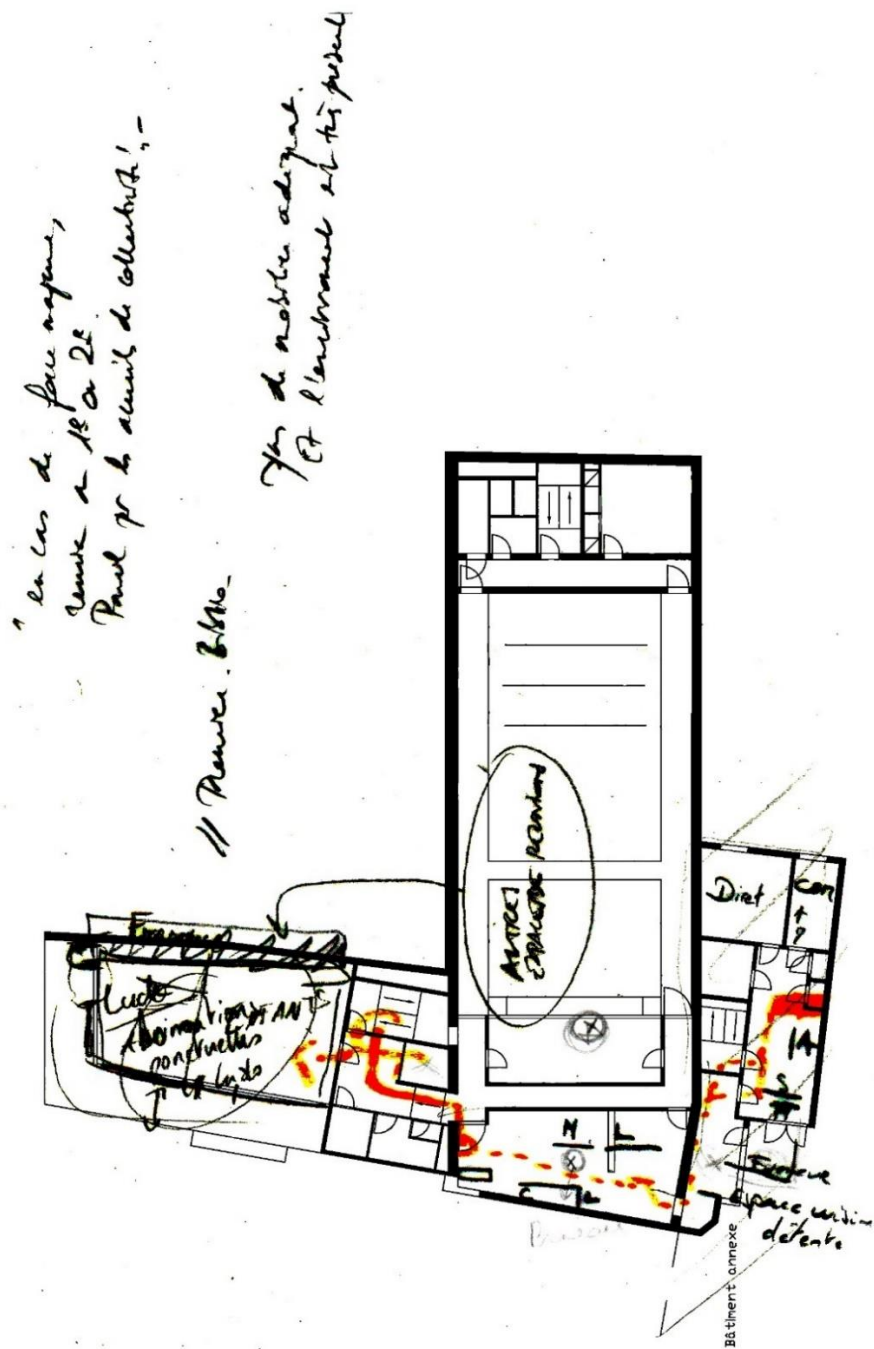
Level + 2

Figure 46: Layered plan level + 3

8.3. Workshop

8.3.1. Consent form

Formulaire de consentement pour la participation à un atelier

Atelier réalisé dans le cadre d'un travail de fin d'étude à l'Ecole Polytechnique de Bruxelles
Etudiant : Umuhire Shumbusho umuhire.shumbusho@ulb.ac.be
Promotrice : Samia Ben Rajeb samia.ben.rajeb@ulb.ac.be

Vous avez été invité(e) à participer à un projet de recherche mené par Umuhire Shumbusho, étudiant en Master 2 en ingénierie architecturale à l'Ecole Polytechnique de Bruxelles. L'objectif de cette recherche est d'analyser si une démarche de co-design serait pertinente dans le cadre d'un projet de revalorisation, en particulier de revalorisation d'une bibliothèque.
- La participation à l'étude est volontaire. Vous avez le droit d'arrêter à tout moment, et ce, pour n'importe quelle raison.
- Les résultats de l'étude et l'ensemble des données recueillies dans le cadre de ce travail seront systématiquement anonymisés, ne seront pas utilisés à des fins commerciales, mais serviront éventuellement dans le cadre d'articles scientifiques.
- Sauf si vous nous donnez votre autorisation explicite d'utiliser votre nom et prénom, ces informations resteront confidentielles et ne seront pas partagées.
- Il est possible que l'enregistrement vocal soit utile pour l'étude à réaliser. Nous n'enregistrerons rien sans votre accord. Vous avez le droit de révoquer votre permission au cours ou à la fin du projet, sans fournir de justification.
- Il est possible que la prise de photo soit utile pour l'étude à réaliser. Nous ne prendrons aucune photo de vous sans votre accord et celui-ci peut être révoqué à tout moment sans justification de votre part.

Au cours de la réalisation du travail de fin d'études, l'ensemble des données collectées et des éléments produits seront sous la responsabilité de l'étudiant.

S'il vous plait, cochez ce qui est applicable :
□ Je donne la permission d'être enregistré(e) pendant l'étude (le support audio ne sera jamais diffusé et ne sera exploité que par l'étudiant pendant le traitement des données)
□ Je donne la permission d'être pris(e) en photo au cours de l'atelier
□ Je suis conscient(e) que les supports produits lors de l'étude ne seront exploités que dans un cadre pédagogique et de recherche.
□ Je donne la permission d'inclure dans des documents de recherche résultant de cette étude des phrases formulées directement lors de cet atelier tout en respectant l'anonymat

Fait le ……………………… à ………………

Nom et signature du participant :

8.3.2. Schedule

Activités	Description	Timing Idéal
Accueil	Accueil des participants + remise du formulaire de consentement	5 min (TOT : 0h05)
Introduction	Introduction	5 min (TOT : 0h10)
Résultats des entretiens	Présentations de fonctions cohabitantes aux différents étages, de leurs qualités spatiales ainsi que certaines remarques des interviewés	10 min (TOT : 0h20)
1ére activité	<u>Image de référence</u> -Présentation de l'exercice (5 min) : Par groupe de 2 ou 3 vous serez assigné une image. Vous avez 5 min pour indiquer ce qui vous plait et ce qui ne vous plait pas à l'aide des post-its vert et orange. -Discussion par binome (5 min) -Présentation (2 x 5 min)	20 min (TOT : 0h40)
2éme activité	<u>Choix des fonctions</u> -Présentation de l'exercice (5 min) : Vous serez divisé en 3 groupes et chaque groupe doit penser à des fonctions envisageables et souhaitables pour le rez-de-chaussée et les écrire sur un post-it. Ensuite nous nous réunissons et cherchons ensemble les fonctions qui peuvent être liés ensemble afin de créer des groupes et/ou sous-groupes de fonctions -Choix des actions (5 min) -Choix des fonctions (5 min) -Création de groupes et sous-groupes (3 x 10 min) -Questions avec les cartes (15 min): A quel point le résultat de ce tableau correspond à vos attentes ? A quel point pensez-vous que toutes ses fonctions peuvent cohabiter ensemble ?	60 min (TOT : 1h40)
Pause	Biscuits et rafraichissements	10 min (TOT : 1h50)
3éme activité	<u>Disposition des fonctions - Maquette</u> - Présentation de l'exercice (5 min) : Vous serez divisé en 2 groupes et A à'aide du matériel ici présent, travaillez pour représenter dans la maquette comment vous imaginer l'emplacement et la cohabitation des groupes de fonctions choisis pendant la précédente activité - Travail en petits groupes (30 min) - Présentation de chaque groupe de sa proposition (2 x 10 min)	55 min (TOT : 2h45)
Synthése	Résumé de la séance + remise du questionnaire de satisfaction	5 min (TOT : 2h50)
Cloture	Cloture et remerciements	5 min (TOT : 2h55)

Figure 47: Workshop schedule

8.3.3. Inspirational pictures

Figure 48: House NA (Pinterest, 2019)

Figure 49: Liyuan Library (Pinterest, 2019)
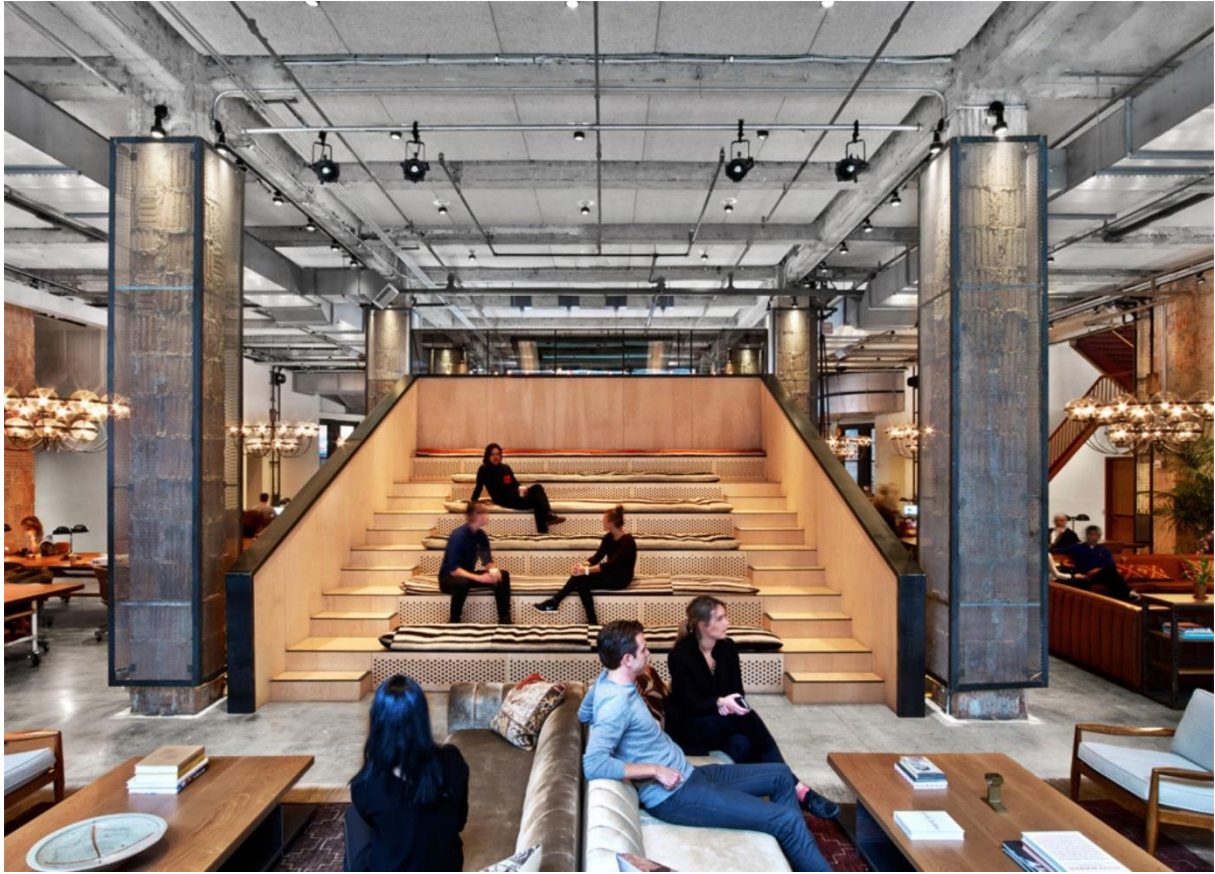
Figure 50: Neuehouse Mandison Square (qdaily, 2019)

Figure 51: Boekhandel dominicane (quatremille, 2019)

8.3.4. Feedback questionnaire

Questionnaire de satisfaction

Ce questionnaire anonyme vous permet de donner votre avis sur le déroulement de l'atelier afin de pouvoir l'évaluer. Entourez la réponse la plus adéquate.

Intérêt de l'activité pour le choix des fonctions

Très insatisfait	Insatisfait	Satisfait	Très satisfait

Intérêt de l'activité pour la disposition des fonctions

Très insatisfait	Insatisfait	Satisfait	Très satisfait

Intérêt de l'atelier dans son ensemble au regard de vos attentes

Très insatisfait	Insatisfait	Satisfait	Très satisfait

Souhaitez-vous poursuivre ce type de démarche pour la suite du projet ?
Si plutôt oui, sur quoi ? Si plutôt non, pourquoi ?

Qu'avez-vous le plus apprécié dans cet atelier ?

Qu'avez-vous le moins apprécié dans cet atelier ?

Merci pour votre participation !

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