Research & Design Report



Reconstruction of the Notre Dame de Paris as a moment for reinterpretation

Keywords: Notre Dame, reconstruction, authenticity, heritage, emotional mapping, mental image, public perception

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B. Design

1. Introduction

The Notre Dame de Paris, situated on Île de la Cité, in the heart of Paris, is a cathedral that dates back to the 12th century. The monument is part of the "the banks of the river Seine"¹, that contains a large area of Paris and is listed as UNESCO World Heritage. "The ensemble, regarded as a geographical and historical entity, forms an exceptional and unique example of urban riverside architecture, where the different layers of the history of Paris, the capital city of one of the first great nation states of Europe, are harmoniously superposed."² The Notre Dame holds many sculptural qualities and is therefore, for great importance for the art history sector. In addition, it is one of the most emblematic monuments to French history, thanks to the remarkable events that the site provided, such as the marriage of Henri IV in 1572, the celebration of the liberation of Paris after the Second World War or masses held by former President Charles de Gaulle.³ The Notre Dame is deeply intertwined with the French culture and historic events, which is effectively the reason to preserve the great monument.

15 April 2019, the Notre Dame set fire (shown in figure 1) and was severely damaged. The roof and its spire got fully destroyed and the stone vault roof got damaged. The whole country witnessed – on television or first hand – the destruction that the fire caused. I've been intrigued by the emotions of the people that were brought up by the fire. People were literally grieving about the loss of their monument; see figure 2. This event showed the very strong and emotional relationship between the French and this monument. Since then I have a specific interest in the human relation to heritage and the way people dealt with the issue of reconstruction after an important monument got destroyed. What is the way to rebuild it? Completely identical as before, completely new or as something that reminds of the destruction? What are the proper considerations in this issue? What is the most authentic way of reconstruction? I came to understand that – since the heritage derives from an importance that the people ascribe to it – reconstruction should respond to the public's desire in order to not degrade this importance of heritage. A debate about how to reconstruct is therefore essential.

In this research an intervention after destruction of architectural heritage is considered as a moment of reinterpretation throughout the perception of the people. The second chapter elaborates on the debate of reconstruction in case of the Notre Dame. The third chapter presents the main question of this research. In chapter 4 the method on mapping people's perception is defined by explaining the interview method and the way of processing. Chapter 5 points out the results of the research and the relevance for and translation to a future reconstruction of the Notre Dame. Lastly, chapter 6 contains an overall conclusion and reflection of this research.

2 Ibid.

¹ UNESCO World Heritage Centre, "Paris, Banks of the Seine," Paris, Banks of the Seine, accessed March 25, 2021, Available at: https://whc.unesco.org/en/list/600/.

³ Ministère de la Culture, "Le Monument," Notre Dame de Paris, accessed March 25, 2021, https:// notre-dame-de-paris.culture.gouv.fr/fr/monument.



Figure 1: The Notre Dame of Paris on fire and the collapse of the spire on April 16th 2019. Retrieved from https://www.poynter.org/fact-checking/2019/why-fact-checkers-couldnt-contain-misinformation-about-the-notre-dame-fire/



Figure 2: Parisians grieve after the fire of Notre Dame. Retrieved from https://www.nbcnews.com/ news/world/notre-dame-cathedral-fire-parisians-grieve-pay-their-respects-landmark-n994896

2. Problem Statement

Soon after the fire French prime minister Edouard Philippe announced a future competition for its reconstruction. Emerging and established designers posted proposals of a possible reconstruction on social media.⁴ Supporting renders showed extreme ideas for the Notre Dame, like a swimming pool, a greenhouse or gardens, as shown in figures 3 and 4. Sharable images resulted in public anger at architects capitalising on tragedy.⁵ Architect neglected the fact that designing the reconstruction of the Notre Dame is actually a profound job.⁶ Comments on social media labelled the proposals as "shamefully insensitive to the building and its history"⁷ and they called for reconstruction *à l'identique*. And so it happened. Before a debate about reconstruction could even start, the French senate passed a law to rebuild the Notre Dame to 'its last know state'.

The debate about the reconstruction is overshadowed by an assumption that rebuilding the Notre Dame identically preserves the collective memories and rebuilding differently would mean a loss of these memories and values the French cherish so deeply. This assumption is very black and white. Obviously, our history is reflected in our heritage. Consequently, heritage helps us understand this history, which, for its part, influences our identity and culture. When making choices for the future, remembering the past can be important. The way history is represented through our heritage needs to be viewed critically because if heritage suggests another story of an event and history is understood in a different way, history can repeat itself in an undesirable way or an important meaning can be lost.⁸ Heritage helps us interpret the today's time. However, reinterpretation of history also happens because we view history through todays norms and values. Groups like Black Lives Matter question tributes of historic figures, in the shape of street names, statues, definitions, etc. since their actions can be questions through today's notions. Heritage helps us to interpret today but today's notions make us reinterpret heritage just as much.

Responding to the public when reconstructing heritage means to act in accordance with the way this particular piece is lived today. A major intervention requires a process of reinterpretation. What values, symbolisms, lessons, derive from this monument? What should be revised? What purpose does it serve?

8 John Darlington, *Fake Heritage Why We Rebuild Monuments* (New Haven, East Sussex: Yale University Press, 2020), 10-11.

⁴ Hamish Lonergan, "Pools, Carparks and Ball-Pits: Or Why the Notre Dame Restoration Competition Is a Meme," *Footprint: The Architecture Competition as Contact Zone* Spring / Summer 2020 (2020): pp. 125-136, 125.

⁵ Ibid.

^{6 [}DÉBAT] Faut-Il Reconstruire Notre-Dame à L'identique ?, Reconstruction De Notre-Dame : Quatre-Mois Pour Sauver La Cathédrale, 2019, https://www.leparisien.fr/culture-loisirs/reconstructiondenotre-dame-quatre-mois-pour-sauver-la-cathedrale-26-04-2019-8061246.php.

⁷ Hamish Lonergan, "Pools, Carparks and Ball-Pits: Or Why the Notre Dame Restoration Competition Is a Meme," *Footprint: The Architecture Competition as Contact Zone* Spring / Summer 2020 (2020): pp. 125-136, 126.



Figure 3: The swimming pool design by Stockholm-based Ulf Mejergren Architects, Photograph: UMA/u-m-a.se, Retrieved from: https://www.theguardian.com/world/2019/may/15/swimming-pool-roof-notre-dame-architect-proposals-shock-traditionalists



Figure 4: Greenhouse Roof for Notre Dame by Studio NAB Retrieved from: https://www.archdaily.com/915803/studio-nab-designs-a-greenhouse-roof-for-notre-dame

3. Research question

In order to reconstruct heritage in response to the desire of the people, the piece of heritage will be reinterpreted. The current interpretation needs to be mapped out. A heritage status might derive from physical features like important materials, techniques, crafts, elements, characteristics, etc. However, when reinterpreting heritage the focus should be on how the monument is perceived by the people. This perception might be linked to physical features, but equally well to intangible notions like emotions, memories, societal and cultural concepts and symbolisms throughout which the importance derives. Elia Romanelli's film 'Venice elsewhere'⁹ beautifully shows that a the image of a place becomes disconnected from the place itself. The films shows places, like a beauty parlour in Zagreb, a giant mall in Istanbul, a Romanian village with more sheep than people, that are named after Venice and somehow build further on the image that people have. Does a place have to physically exist to exist? In heritage we see that a monument is lived in a tangible but also an intangible way. In case of architectural heritage, we are talking about a space or a building that serves a function. A space that is used and has a relation to the surroundings. A space that is experienced and remembered by people. The space is lived. When reinterpreting architectural heritage, its architecture should be mapped as an intangible domain, in the way the monument is lived. The main question of this research is therefore:

How can mapping of architecture as intangible domain help to interpret architectural heritage?

4. Method

This research focusses on people's relation to architectural heritage. Given the size and timeframe of this research, the focus lies on the mapping the perception of seven individuals and the translation towards a position-taking concerning reconstruction principles.

Since the fire at the Notre Dame attract so much attention and money throughout the whole world, I state that it is everyone's monument and the group of interviewees should be as diverse as possible. I would like to move away from the group of delegated experts that have the power and the voice to have a say in the debate. The list of interviewees therefore contains both Christian and non-Christian (other religion or secular). Also it involves French and non-French people and experts (in fields connected to heritage and architecture) and non-experts. The list of interviewees is as follows, also shown in figure 5:

⁹ *Venice Elsewhere* (Amalia Carandini for Doc Art s.r.l., 2021).

- Geneviève Guétemme: a not religious French art historian teaching at the Université d'Orléans.
- Julia Cailleteau: a Parisian born, practicing Christian and lobbyist in Brussels.
- Mathilde Millet: a not religious Parisian born and former singer of the choir of the Notre Dame de Paris.
- Clara Beckers: a not religious German architecture student that lived in Paris for one year in 2016.
- Florence Egli: a not religious Swiss fashion designer that has lived in Paris for five years now.
- Zivar Aliyeva: a practicing Muslim from Azerbaijan, studying in the Netherlands that visited Paris for the first time recently.
- Alexander de Ridder: a not religious Dutch architecture teacher that visited Notre

Dame several times.

A place is lived by people and they experience and remember this place in their own way. When you ask someone to draw a place out of their memory, their 'mental image' is "soaked in memories and meanings"¹⁰ as Kevin Lynch explains in his book The Image of the City. Therefore, an effective way to grasp someone's perception, is to let them draw the place. In semi-constructed in-depth interviews of one to one and a half hour. I asked the interviewees to start draw the Notre Dame. Me and the interviewee would have an ongoing conversation in which I reflect on what they drew in order get explanation why they drew the things they drew. In addition I would ask whether the interviewee to draw the context of the Notre Dame. Again the interviewees were free in interpreting this question. This way the interview would address form, function, geographical and historical context and discourse as shown the script in figure 6.



GENEVIÈVE GUÉTEMME (48) FRENCH ART HISTORIAN LIVING IN ORLEANS NOT RELIGIOUS



JULIA CAILLETEAU (23) FRENCH, PARISAIN BORN LOBBYIST WORKING IN BRUSSELS PRACTICING CHRISTIAN



MATHILDE MILLET (25) FRENCH, PARISAIN BORN FORMER SINGER IN THE CHILDREN CHOIR OF THE NOTRE DAME, NOT RELIGIOUS

(LARA BECKERS (27) GERMAN ARCHITECTURE STUDENT (IN NL) THAT USED TO LIVE IN PARIS FOR ONE YEAR NOT RELIGIOUS

> FLORENCE EGLE (25) SWISS FASHION DESIGNER LIVING IN PARIS FOR FIVE YEARS NOW NOT RELIGIOUS

ZIVAR ALIYEVA (26) AZERBIJANI ARCHITECTUR OTUDENT (IN NL) THAT RECENTLY VISITED PART POR THE FIRST TIME. PRACTICING MUSLIM.

ALEXANDER DE RIDDER (60) DUTCH ARCHITECTURE TEACHER THAT VISITED NOTRE DAME MULTIPLE TIMES NOT RELIGIOUS.

PARTS

10 Kevin Lynch, The Image of the City, 21st ed. (Cambridge, Massachusetts, USA: The MIT Press, 1992), 1.

Figure 5: Names and faces of interviewees, self-made image, June 2022





Figure 6: Script for drawing experiments, self-made image, april 2022

This resulted in three to six fully drawn A3 papers for each interview with very personal interpretations of the Notre Dame. Mathilde Millet starting drawing the Notre Dame next to the Eiffel tower, explaining the difference in image of the two monuments. The Eiffel tower attracts more superficiality whereas the Notre Dame attracts more intellect, shown in figure 7. Mathilde, as former singer in the choir of the Notre Dame, described how the building had a normalized status in her view. She talked about daily use of the cathedral and about other finding it very special that she sang there, were as is was normal to her. She talked about the imago of the Notre Dame and Paris that was constructed by people, while positioning herself distant from it, as an actual insider when it comes to usage of the space.

Contrary to Mathilde, Julia Cailleteau expressed her personal and valuable relationship to the Notre Dame. Together with other monuments like the Sacré Coeur, les Invalides and the Eiffel tower, the Notre Dame was part of the "Parisian wonders and therefore and integral part of her", as shown in figure 8. The existents of these monuments where vital to her, despite the fact that she actually never goes there. She doesn't use the building physically but she needs to know they are there. Can we then say she uses the building mentally? The presence of the building serves certain awareness of symbolisms and cultural values? During the interview she illustrates personal meaning through a historic and religious perspective.

Geneviève Guétemme defined several elements in detail, out of her expertise but ended up mostly explaining how the church, as an institute is embedded in the French culture and how Notre Dame played a vital role in understanding this connection. France has a strict separation between church and state (Laïcité) and church buildings act in accordance with important norms and values. This is shown in figure 9. Like this Geneviève also ruled on the role the Notre Dame plays and should keep playing in the future.

Florence Egli made her story very personal and – to a lack of a memory of her visiting the Notre Dame – she talked about many church visits on holidays during her youth throughout Europe, shown in figure 10. Florence's view corresponded with Clara Beckers' regard that they were never attracted to visit Notre Dame because it was too touristic in their opinion, since they rather would not like to be seen as tourists when living in Paris as a foreigner, shown in figure 11. Both do not consider the Notre Dame as their monument but were still moved by the fire, seeing the French people that emotional. Florence and Clara showed that everyone has a perception on something by connecting the things you notice to personal experiences. Also with Alexander de Ridder this was the case when he referred to the fire in the Architecture Faculty in Delft, something that touched him intensively, as something he thought of when seeing the French people losing their monument. This is shown in figure 12.



Figure 7: Fragment of Mathilde Millet's mental image, May 2022



Figure 8: Fragment of Julia Cailleteau's mental image, April 2022



Figure 9: Fragment of Geneviève Guétemme's mental image, May 2022



Figure 10: Fragment of Florence Eglis's mental image, May 2022



Figure 11: Fragment of Clara Beckers' mental image, April 2022



Figure 12: Fragment of Alexander de Ridder's mental image, April 2022

In Zivar Aliyeva's memory the Notre Dame was less extensive since she had only seen the building once in winter when it was already closed, due to the fire. She was more modest in drawing and had a very fragmented memory of the Notre Dame. Zivar described the context more in terms of the atmosphere she experienced and mentioned several images from movies of which she had a clearer memory, shown in figure 13.

The forgoing shows only small fragment of the interviews but nonetheless, the diversity of the different people responding throughout their own personal experience. This is also shown by the variation in drawings. Whether something is drawn from the inside, outside, bird's eye view, eye level, big or small in relation to other things, in words or in figures, geographically accurate or dragged out of its proportion and lastly, whether one thing is connected to something else in the drawing.



Figure 13: Fragment of Zivar Aliyeva's mental image, April 2022

Kevin Lynch illustrates how he translated several mental images to one 'public image', "an image that derives from a multiple mental images"¹¹. Elements that were mentioned many times get a more empathized look than elements that are less collectively present, see figure 14. In this way the hierarchy of perceived elements become clearly visible. This is an example of a very straightforward translation since the notions of people are characterised which makes it easy to translate the mental images to one public image. Seeing the diversity and complexity of the outcome of the semi-structed interviews that I have been doing, the question arises how to translate this in one product that enhances it all?

Apart from visual characteristics, the mental images also show narratives, memories and emotions. Someone that knows well how to put this in drawings is the Dutch artist Jan Rothuizen. In his Soft Atlas of Amsterdam¹² he maps out a walk he had with the mayor of Amsterdam, shown in figure 15. But also the physical spaces with a story like the Ann Frank house, shown in figure 16. The artist puts himself as observer in both spaces and situations and makes a both spatial and storytelling drawings. The language and friendliness of the descriptions of the – sometimes most basic – things brings a nuance and a feeling of how the artist interpreted the situation. Also, in the way the space is constructed, the artist's interpretation is visible because it is not accurate but constructed. He probably deliberately left things out and emphasized other things more. Like this someone gets lost in his drawings and get an extensive idea of the artist's mind.



Figure 4: Legend of public images, Kevin Lynch, *The Image of the City*, 21st ed. (Cambridge, Massachusetts, USA: The MIT Press, 1992), 145.

Kevin Lynch, *The Image of the City*, 21st ed. (Cambridge, Massachusetts, USA: The MIT Press, 1992),
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¹² Rothuizen, Jan. *De Zachte Atlas Van Amsterdam*. Amsterdam, Netherlands: Nieuw Amsterdam Uitgevers, 2019.



Figure 15: Rothuizen, Jan. De Zachte Atlas Van Amsterdam. Amsterdam, Netherlands: Nieuw Amsterdam Uitgevers, 2019. 92-93.



Figure 16: Rothuizen, Jan. De Zachte Atlas Van Amsterdam. Amsterdam, Netherlands: Nieuw Amsterdam Uitgevers, 2019. 38-39.

In accordance with this example I could make a public image with the tangible and intangible notions, being both spatial and textual, of all knowledge and perceptions that I gathered. A drawing holds an extra dimension in relation to text. When reading text you can only move down to follow the right direction of the narrative that was set out by the writer. When reading an image however, you get to start where you want, you can go up, down, left and right, see interlinks and move through different scales. Thus, this medium was more suitable for the complexity and diversity of bringing together the seven interviews. Instead of linear translation from mental images to a public image, the public image was drawn by constantly looking back on the mental images. Letting one part of the drawing, inspire the other and giving opinions or notions a place in relation to other things no matter if they are complimentary or contradictive to each other. Like this a drawing expands and expands, forming one in-depth overall public image. The drawing should be a thick description which serves the goal to "not just to describe a situation, but also add details so that readers understand the significant and complex cultural meanings underpinning any observable scenario."¹³



¹³ Chris Drew, "5 Key Principles of 'Thick Description' in Research," Helpful Professor, July 5, 2022, https://helpfulprofessor.com/thick-description/.

5. Results

The public image I made, happens to be a pair of drawings, to be found in appendix B. One drawing shows the inside and direct surrounding of the Notre Dame and the other one the context. The drawings carry multiple dimensions and scales. The context drawing shows the history of the Notre Dame (shown in figure 17), the event of the fire, the debate after the fire (shown in figure 18), the geographical context as base layer (shown in figure 19), the history of Île de la Cité and cultural developments (shown in figure 20). The drawing has a playful inaccurate composition to make it storytelling. The Notre Dame is placed on a pedestal standing in the middle of France with many roads leading to Paris to show the centrality of France and Paris as a capital and the Notre Dame as starting point of that. When looking closer, there are quotes of the interviewees about the specific scenery in the drawing.



Figure 17: Fragment of public image of context, self-made image, June 2022



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Figure 18: Fragment of public image of context, self-made image, June 2022



Figure 19: Fragment of public image of context, self-made image, June 2022



Figure 20: Fragment of public image of context, self-made image, June 2022



The other drawing involves a axonometric section cut of the Notre Dame, also to be found in appendix B. It contains supportive descriptions about the building (shown in figure 20) but also some specific sceneries and perspectives that were described by some of the interviewees as shown in figure 21, figure 22 and figure 23.



explore lab graduation project - 2022 / 2023 - Bas van Duijne

YOU CAN'T RUN HERE! EXCUSE ME MISTER DON'T CALL ME MISTER, CALL ME MONSTGNOR KISS MY RING! AUTHORITY AND RESPECT IS VERY TANGIBLE IN BEING A PART OF THE THE NOTRE DAME CHOIR AS A CHILD, I SAW THE NOTRE DAME AS MY PLAY GROWND. I WAS RUNNING ONCE. (math:16, 2022) AS A CHELD I DIDN'T LIKE TO GO INTO CHURCHES. I ONLY SENSED AN OPPRESSIVE FEELING. (Bas, 2022) CHURCHES ARE ALWAYS FREELY ACCESSIBLE IN FRANCE. IN THE CATHEDRALE OF ORLEANS, FOR EXAMPLE, PEOPLE ARE MORE SHY TO ENTER. IT PEELS MORE RESERVED FOR RELIGIOUS HURE RESERVED TOR RELIGIONS PURPOSES. IN NOTRE DAME OF PARIS THIS IS NOT THE CASE, YOU OBVIOUSLY SEE THAT EVERYONE IS TREE TO ENTER. IT IS A MORE TOURISTIC PLACE. (geneuitive, 2022) SOMETIMES PEOPLE PON'T RESPECT THE SPACE AND THEY ARE BEING NOISY DURING A MASS. (mathilde, 2022)

Figure 21: Fragment of axonometric public image, self-made image, June 2022

THESE COLUMNS ARE SO INMENSELY BIG COMPARED TO A HUMAN BEING. THE STRENGTH AND THE DENSITY OF THIS CATHEDRALE ARE ASTONISHING ! IT LOOKS UNTOUCHABLE! (alecander, 2022) I REMBEMBER THE NOTRE DAME AS VERY DARK. (Genericue, 2022)

Figure 22: Fragment of axonometric public image, self-made image, June 2022



THIS ROSE WINDOW IS 33 METERS HIGH AND USTE. YOU FEEL VERY SHALL WHEN LOOKING AT IT.

> WHEN SUNLIGHT COMES IN, THE EFFECT IS A FULL BODY EXPERIENCE. THE COLOURED LIGHT IN RELATION TO THE SUBDUED LIGHT IS AMAZING. (abromber, 2022)

THESE WINDOWS TELL STORIES AND HAVE ETERNAL VALUE (alexander, zoize)

THIS LOOKS LIKE A MANDALA. (Forence, 2022)

Figure 23: Fragment of axonometric public image, self-made image, June 2022

In short, the context drawing consists of notions regarding the city, cultural identity, symbolisms and national importance and use. The axonometric section drawing covers physical characteristics, religion, tourism, embodied perception, visiting experience. It is remarkable that the context drawing is way bigger and detailed than the other drawing. The French interviewees that showed the most affinity with the subject, were mostly explaining the context of the Notre Dame and were less talking about an actual visit. Whereas foreign interviewees tented to talk more about the Notre Dame as a building and space which people use. The two drawings are contradictive to each other. The one where the Notre Dame is shown as a building which someone can physically enter and experience, represent in the physical realm. The other shows the Notre Dame as a statue, being present in the mental realm. Julia did not focus on the physical realm - since she actually never visits the Notre Dame - but felt a strong personal connection to the mental realm. Mathilde was a regular user of the Notre Dame but stated that she would not take offence to the earlier mentioned greenhouse as reconstruction. She seemed to be personally less attached to the mental realm. It illustrated how the mental and physical realm can be disconnected. But since the context drawing is bigger, it seems that people's perception on the Notre Dame is mainly build upon the intangible context than on the actual use of the space.

As architects, we make physical interventions. We operate in the physical realm but in case of architectural heritage we also take mental realm in account. If not, symbolisms will be neglected and importance might get lost. Our task is now to form the bridge between intangible notions and physical interventions, translate intangible notions to physical interventions. What statements, contradictions or remarkable conclusions came out of the public images that trigger a study of architectural solutions?

When addressing the function for example, Geneviève states that the Notre dame has to stay a cathedral (see quote in figure ??). When the function would be changed, people are not stimulated anymore to understand the history of Christianity and the establishment of the French culture. It would break down the importance of the Notre Dame. Since the French revolution in the year 1789, which led to the separation between church and state, the building is a public domain for all citizens. The building now serves an educative function about these historic developments. Therefore it has to be freely accessible for everyone without any entrance price. Julia affirms that Notre Dame is unquestionably a cathedral and that the building still serves a function of worship. Clara and Florence however, confirm that it is a cathedral in the end, but for them mostly a touristic attraction. We need to conclude that tourism contributes to a conflict here. The Notre Dame attracts 15 million visitors a year. On a busy day it happens that 50.000 visitors come to visit the Notre Dame. Where lays the border between an important monument for the people living there, keeping it accessible to everyone and a touristic attraction which scares away the regular users. Can it be both at the same time?

Another issue connected to function but also form, is the already mentioned fact that Julia does not use the Notre Dame as a building. But its presence is essential to her. She need to know that it exists. It's like a relic to her. She wants her children and grandchildren to see it the way she saw Notre Dame. The building is static, and should not change. Whereas Mathilde expresses that the Notre Dame more normalized for her than for others since she was coming there so often as a child. She explains that the building is a natural environment for her. She thought putting a greenhouse on top was quite an original idea. This contradiction is remarkable. Someone that uses the building is open for a possible change of form, whereas for the other that does not use the building physically, the space is nevertheless declared to be from too great importance to touch. Can the Notre Dame be dynamic and changeable or would that be sacrilege?

Another contradiction can be found in the historic awareness of the building. Julia expresses that she would like to see the spire come back that was completely destroyed in the fire. Yet, Geneviève says it would not be important to rebuild the spire. It was after all, not an original part but only added halfway the 19th century by the French architect Eugène Viollet-le-Duc. Florence mentioned she did not really know exactly where the spire was situated, when drawing her mental image. People get attached to the forms the are used to see. Julia mentions a wish recognize Notre Dame as it was before. The ironical part of the spire is that this was added later halfway the nineteenth century. At that very moment people also had to get used to a new shape and appearance. During the interview with Julia I showed an alternative plan of Eugène Viollet-le-Duc in which he also would add two extra towers on the original towers in the west facade. Julia reacted with envy, saying that this is not how Notre Dame should look like. But for all we know, the cathedral could have looked otherwise and we would have get used to something else and we would hundred and fifty years later react the same way if we saw an alternative idea. This situation is also included in the public drawing, shown in figure 17. It raises the question: where is this balance between the opportunity to get used to something new and preserving something familiar?

To follow up on the form of the building, Julia puts that the Notre Dame is a survivor! The roof and the spire got lost but overall the Notre Dame survived the fire. However, since the roof got lost, the Notre Dame is exposed to the elements and faces instability danger. There needs to happen something in order to save the building as it is now. Zivar states that it would be best to just protect the building from the elements and fix stability issues but leave everything how it is now. The building will not be restored to its former glory but also not left to decay. Geneviève adds that before the fire, there was no question of changing something. Because everything functioned still. The only interventions were minor technical interventions. Now we have to rethink everything. Is the reconstruction of the Notre Dame a question of reinterpretation or only a very technical issue, in which it should be protected against further degradation and be spared of strong architectural gestures?

Another example on how form is connected to historical context is described by Mathilde that mentioned that in Paris, there are two questions: "Where were you during the attack on Charlie Hebdo¹⁴?" and "Where were you during the fire in Notre Dame?" Alexander affirms that if you have ever experienced a fire of a building that it dear to you, you are familiar the absurdist impact that has. Clara adds that in Germany "we are good in commemorating thing. We don't rebuild, we commemorate." There is a subtle balance between rebuilding those things that are dear to you and acceptance of loss. Furthermore, there is a constant tension between remembering and forgetting. Accordingly, there is a danger in continual honour of memories of suffering and, on the contrary, forced forgetting of horrors and the prevention of a possible repetition of history.¹⁵ Architecture can play a role in finding creative ways to create both a feeling of familiarity and loss. To which level is it appropriate to bring attention to event of the fire and the things that got lost?

Another example of friction is illustrated by Mathilde: "Visitors – mainly tourists – were sometimes loud and annoying. Notre Dame is not a superficial attraction like the Eiffel tower. It is still used for religious purposes for which you should have respect when being inside." Alexander adds: In the end it is very interesting visit cathedrals because of the beauty of the building. The form is impressing and seeing the light coming in through the rose window is a full body experience. In the past centuries, Notre Dame always attracted a lot of (international) visitors. However, the use might change. Are the international tourists of today visiting the cathedral with the same intentions as pilgrims that came from far and near a couple of centuries ago? The amount of visitors changes and the intention of the visit might so too. In the glory days of Christianity, the visitors of the Notre Dame always came for the purpose the building with (next to being a cathedral) an educational and cultural function. Probably a big part of today's visitors of Notre Dame are one time visitors and that do not come to practise religion. Yet, like Alexander describes, it is because of its religious function that the architecture

¹⁴ On January 7th 2015 the offices of French satirical weekly newspaper Charlie Hebdo was attacked by two Muslim terrorists that killed twelve people and injured eleven others.

¹⁵ Robert Bevan, *The Destruction of Memory: Architecture at War* (London, UK: Reaktion Books, 2016), 229-230

of the building is fascinating and offers a beautiful experience. We are living in a world of secularization and increasing tourism. How does the original function of a building relate to a constant changing usage? Should the building facilitate this changing use or try to conserve the original way of usage?

The six above defined topics according to the input given by the interviews, give architectural considerations on function, form, historic and geographical context. One could see these considerations as a mixing console, , as shown is figure 24. Six propositions: Is the Notre Dame a freely accessible public domain or touristic attraction? Rather a fluid changeable normalized space or a static unchangeable form? Should we call for preservation of the well-known or an opportunity to get used to something new? Would a technical approach be best or rather an interpretation of the design and a process of rethinking the existing? Shall the building propagate resilience and shall the perfection be restored or is there place for commemoration and acceptance of the imperfection? And lastly, shall the original use be conserved or would the building be able to adapt to a new kind of use?



Figure 24: Architectural considerations as a mixing console, self-made image, Juni 2022





Figure 25: A Notre Dame for French conservatists, self-made image, Juni 2022

Since people's opinions were sometimes opposing to each other, the best architectural solution would be to find a middle ground in these six propositions. It is a balancing act. Imagine if the Notre Dame will be restored to its last known state but also will be protected from tourisms by simply building a visitor centre on the side the buttons mixing panel would shoot to the sides as shown in figure 25.



Figure 26: Cover & Go strategy, self-made image, Juni 2022

Another scenario could involve a new roof in order to stabilize the construction and protect the building from the elements, shown in figure 26. This proposal makes a less firm statement about the function and the public to which the building is destined. Also this idea finds a middle ground between preservation of the well-known but the fact that people will have to get used to a new form of the roof construction. It is a bit more balanced out than the previous proposal.



Figure 26: A Notre Dame as two churches in one, self-made image, Juni 2022

But what if the roof of the Notre Dame would contain a space as well. The original roof of the Notre Dame was never a space that was included in the visit, but what if it would in the future? It would create a second dimension within the church, shown in figure 26. If the roof would cover a space for visitors coming for touristic purposes, the church interior would be kept for original religious usage. The Notre Dame would facilitate both. This proposal approaches the space as both fluid and static, both conserving the original use and adapting to a new form of use. Between the visitors space and the user space, the holes in the roof due to the fire can be elements for commemoration of this event. But from the outside and interior the cathedral could look quite the same as before the fire.





Figure 27: A Notre Dame with a inverted spire, self-made image, Juni 2022

In the previous proposal (figure 26) the two dimensions of visitors and user are separated. But imagine if they would interact more, see figure 27. The visitor space on the roof could also enter the user space by an inverted and newly invented spire-shaped element. There will be a dialog between the visitors and the users of the Notre Dame which offer interesting architectural solutions. The last two proposals how the buttons of the mixing console move more to the middle and how architecture offer solutions to balance out complex considerations by expressive spatial interventions.

The last chapter shows how the perception of seven individuals were combined in one product. Not to simplify is, but to show the complexities, ambiguity, background knowledge and concepts. It showed that there does not seem to be one consensus regarding architectural heritage. However, within the creativity of architectural interventions, solutions can be found to meet contradictions.

6. Conclusion

This research contributes to the debate about the reconstruction of the Notre Dame after it was severely damaged after the fire in April 2019. The emotions brought up by the fire showed the deep connection between people and heritage, which is exactly on what this research focusses. It leaves out the evaluation of the Notre Dame of physical characteristics but highlights the human perception of it all. When reconstructing heritage it should respond to the desire of the public, since it is the people that assign the importance to it. But the debate of the Notre Dame was overshadowed by the assumption that rebuilding the Notre Dame identically preserves the collective memories and rebuilding differently would mean a loss of these memories and values the French cherish so deeply. This qualitative research tries to formulate a response on this black and white thinking and offer a humanistic and anthropological way of thinking. Heritage is subjected to a constant pressure of interpretation by the people. This research approaches the reconstruction of the Notre Dame as a moment of reinterpretation and therefore maps out the perception of seven individuals by doing interviews in which the interviewees are stimulated to draw. The drawings of the interviewees were processed in a set of two drawings as thick description, showing the complexities, ambiguity, background knowledge and concepts of the insights that were provided by the interviewees. Propositions were formulated concerning form, function, usage and historic context according to which reconstruction principles can be defined. Architectural interventions as example were discussed and showed that architectural interventions can offer solutions to meet ambiguities.

In this research the public image was inspired seven individuals. But the method proposed in this research could also be applied on a bigger target group. The same way individuals were given a place in the public drawing, specific groups could have a place in a drawing that represents the whole society. In such way the research would be more representable given the desire to reinterpret heritage and respond to the people's desire as a whole. However I hope to have introduced a method to reinterpret architectural heritage that is nuanced, exploratory, extensive and sensitive to the context. In this research I tend to form a bridge between the people that intervene in and the people that have a relation to the building. In decision process of the group of interviewees and translation to the public image it might be possible that my personal interpretation and positioning plays a role. But I tried to have a restrained role and give the stage as much as possible to the interviewees.
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B. Design

1. Symbolism

When referring to the mixing panel that was introduced in the last chapter of the research, I wished to have the buttons quite in the middle. Working with a context like the Notre Dame of Paris or other examples of architectural heritage require sensibility. As sad, the introduction of an extra dimension makes it possible not to choice between one of the extremities. The Notre Dame should be a place for the notions on both sides of the mixing panel, as shown in figure 28.

Besides, we are seeing that the intention of a visit of the Notre Dame might also disconnect from religious or societal symbolisms that the building represents. Boldly sad, on the one side there is some religious person that visits the Notre Dame regularly to attend the mass, but on the other side some tourist from another part of the world that visits the Notre Dame because it simply is something that tourist do, because it was mentioned in a travel book. This is shown in figure 29. Everyone is free to position himself or herself on this scale. But we cannot deny that secularism is present on this scale. How does religious symbolism relate to secular symbolism?

In figure 30 religious symbolisms are written in black and secular symbolisms in red, of which the most important is, the notion of free interpretation. This notions is, additionally, an important key in how to handle the sensibility of this building and the mixing panel. When one is free to interpret the space, one can appropriate the space. The solutions lies in ambiguity.



Figure 28: notions, self-made image, January 2023



Figure 29: Scale of intention of visit, self-made image, January 2023



Figure 30: religion vs secularism, self-made image, January 2023

2. Form

During the fire, the spire got lost. This is a great lost for the skyline of Paris. This spire embodied the presence of the Notre Dame in the bigger whole, the city of Paris and France. So a lot of people that are attached to the mental realm consider this as a great lost. But since this mental and physical realm are separated, I invite these people back in by turning the spire inside-out, as shown in figure 31. Not literally but a reinterpreted version. This meets the conditions of the last example I showed in the research: the proposal of the *flèshe inversée*.

The Notre Dame exist originally of two routes because it is a pilgrimage church. People can attend the mass but people can also walk around the mass without disturbing the ritual. The research showed the third dimension, the mental realm that is disconnected from the physical realm. I introduce the fourth dimension which concentrates on the right site of the scale shown in figure 29. This is a new route for those who come to visit the Notre Dame with an intention that is disconnected to the symbolisms. It simply offers an experience consisting of the fascinating physical features of the building. The dimensions are shown in figure 32.



Figure 32: the four routes, self-made image, January 2023



Figure 31: emergence of the inside-out-spire, self-made image, January 2023

3. Outside & the bigger whole

To paint a picture of the ambiguity of the design I talked to many people and two of my interviewees, combined their reactions and used it to introduce my design. Firstly there is the dimension of outside and the bigger whole. Seen from far away, the roof is restored to how it looked before the fire, except for the spire that is not restored. On the front square a public function can be added, like a market, in order to have more local people in and around the Notre Dame. Tourism gets it's place on the side and the back. Lines for go upstairs to the experience route will be on the side of the Notre Dame where people can take the stairs to the roof. An impression of the outside and the bigger whole is shown in figure 33.



Figure 33: impression of outside and the bigger whole, self-made image, January 2023

4. The ritual

A professing christian thinks it is important that the ritual does not suffer from the intervention. The new spire hangs out of the broken vault roof and consists of a composition of multiple vertical illuminated elements. This makes the impact of the new spire relatively light compared to a massive element. Additionally, the passing of the time is an important symbolism of the Notre Dame. The damage of the fire can be visible but it can not be diverting the attention from the fact that the Notre Dame is a place of worship.

There is someone else sitting in the benches that likes to think about our existence. Since a long time, this person stops going to church but misses the opportunity to get together and talk about existential matters. That is why the existence and preservation of these kind of places are important.

Next to the pervious person, there is someone that likes to contemplate. Long ago he turned away from church and found other way of contemplation, like meditation. But a church, with all its light, sounds and other physical features stays valuable, also when one found other ways of interpreting contemplation and the transcendence. This new spire touches the notion of transcendence.

Lastly there is a humanist. This individual is convinced that everyone is responsible for her or his own faith. An institute that claims to be omniscient has nothing to do with that. Answers are to be found withing yourself and not in a church or a inaccessible god. This new spire does not point towards god, but down, towards the earth and ourselves.

An impression of the ritual is shown in figure 34.

Deze interventie onderbeekt het ritueel gelukkig niet. De schade mag zichtbaar zijn maar niet afleiden van de essentie van deze plek: het zijn van een gebedshuis!

> Deze spits wijst niet naar god, maar naar onszelf.

Ik ben voor het behoud van plekken waar we het over het bestaan hebben.

> Deze plek gaat over het overstijgende

Figure 34: impression of the ritual, self-made image, January 2023

5. The pilgrims route

A low-key visitor that is only coming for a small ritual, lighting a candle, is happy that more square meters were created for visitors. The lengths of the queues have lowered and it became more easy to go in and out.

Someone that likes art says that church are always very impressive. He or she has less affinity with the ritual is happy that there is a place for art in the church. Art rather poses questions than that it gives answers. That is actually the beauty of art. This way this new spire is contrasting to the religious thinking that is trying to find answers. Raising questions fits in the secular think of today.

The architecture enthusiast states that it is beautiful if architecture is able to translate certain intangible notions or symbolisms in a spatial design that brings a sensational experience. The sun shining through the stained-glass windows for example. Within the existing sensational space of the cathedral, the spire adds the experience by its sharp light and dynamical form.

The art historian walks through a church and observes the emergence of a society. Our world changed a lot over hundreds of years, but churches are still here. They always have to adapt. This new interventions brings the Notre Dame to the 21st century. Furthermore, this spire is an addition, but not an addition at the same time. It derives from things that were already there: light, sound and ritual, without undermining the original function, like a swimming pool or greenhouse roof would do.

An impression of the pilgrims route is shown in figure 35.



Een kaaarsje aansteken in de Notre Dame is toch extra bijzonder.



Het nieuwe borduurt verder op dat wat er al was. Deze reconstructie brengt de Notre Dame naar de 21e eeuw.

Een nieuwe abstracte vorm dat bijdraagt aan de sensationele ervaring van deze ruimte!

Kust in de kerk! Het roept vragen op en dat is mooi!

Figure 35: impression of the pilgrims route, self-made image, January 2023

6. The experience

People consider it an experience to climb up the Notre Dame and discover the building throughout new perspectives. This space is on many field the exact contrary as the space downstairs. By dramatizing the contrast people will become aware of the spatial characteristics of this building. There is no echo here, but sounds are rather muffled. There is daylight coming in through a window in the roof which becomes smaller the more you proceed towards the spire. The daylight fades out and is replaced by the yellow warm lights of the church and the sharper white lighting of the spire elements. Where downstairs is all about directing your view vertically, this space is orientated horizontally.

Downstairs, the space is drenched by symbolisms whereas upstairs it is more about the literal; the construction and the how-it's-made.

Art historians might say that this space does not fit in the medieval way of thinking, but in today's time, it is possible to create this route on the roof.

An impression of the beginning of the experience route is shown in figure 36.

People walk through the elements of the spire. Downstairs the spire is not approachable and it makes one focus on the limitlessness. But here we can approach it and discover its sober and no-nonsense construction. When walking through the forest of elements, one's view is now directed completely vertically since people watch through the glass windows, down on the church interior.

An impression of the walk through the spire is shown in figure 37.



Figure 36: impression of the experience (begin route), self-made image, January 2023



Figure 37: impression of the experience (near spire), self-made image, January 2023

On the floorplan of the new roof looks as shown in figure 39. Visitors climb up in one of the towers, right through the wooden construction, and find themselves outside again on a platform between the two towers. There they can go back inside to the roof which is around 33 meter above the ground. A set of impressions of this route is shown in figure 38.

This roof floor contains an empty space, consisting of the four wings of the Notre Dame. As shown in the impressions on the previous page, the spire sticks through the roof and is accessible. The yellow coloured squares in the floorplan indicate windows in the floor. These windows walk-on glass and frame the views on the cathedral as shown in figure 40. One might look on the vault roof, or through one of the holes (created by the collapse of the old spire during the fire).

One continues walking in the direction of the spire. The elements of the spire are positioned in a way that it directs people to the right, to the south wing, next right through the spire to the north wing, and then out and downstairs through one of the staircases next to the transept.





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Figure 41 shows a section. The floor at the beginning of the experience route goes up and down a bit to play with the perspective in order to let the visitors lose their sense of scale, which is effectively one of the spatial characteristics of a cathedral.



Figure 40: Set of windows through flooring, self-made image, January 2023



Figure 41: (scaled) section, self-made image, January 2023

Figure 42 shows the 1:20 fragment near the first hole in the vault roof. New tailor-made wooden trusses hold the new wooden floor in place and facilitate the height differences. It makes the wooden floor float above the vault roof. The floor is finished with linoleum for the purpose of the acoustics. The detail of the roof window is shown in figure 43.







Figure 43: 1:5 detail of roof, self-made image, January 2023

Above the transept, where the new spire is located, a wooden framed floor is placed on new trusses. As figure 44 shows, the rectangular elements continue from the upper floor down to the church. However they are separated to not have the sounds mixed. Figure 45 shows the construction in detail. The element consists of four steal pipes that are fixed within a steal element on the floor beams. The construction is covered with a canvas of glass fibre, covered with a plastic Teflon layer. The light, that is installed behind, is diffused by the canvas, shown in figure 46. The walk-on glass in installed in a way it is in line with the floor. And the elements fit precisely in the 0,5x0,5m grid as shown in figure 47.









Figure 45: construction of the element 1:5, self-made image, January 2023



Figure 46: model of the element 1:5, self-made image, January 2023



Figure 47: 1:5 detail (horizontal) of element, self-made image, January 2023

7. Conclusion

In retro-perspective positioned itself on the mixing panel, shown in figure 48. My design as reconstruction of the Notre Dame did not choose between the free public domain or a touristic attraction. It can be both and everyone is free to choose its preferable route. I approached the space as more fluid than static and unchangeable. However the new intervention literally placed itself between the holes in the roof. It did not force something to be destructed. The new design is an opportunity to get used to a new shape, but is deriving from everything that was already there. The new design reinterprets the building but seeing the building from the exterior, the roof is rebuild as is was. The design provides a place for commemoration of the damage that was caused by the fire, but the intention is to recover the building so it can continue serving the people. Lastly, the design facilitates a new kind of use by adding a new route. But this is only an addition to what it already is. It does not impose a new random function on the cathedral like a swimming pool or greenhouse on the roof would.

This way, the design positions itself in a sensitive and empathic way towards the cultural and historical values without being stuck in the idea that everything has to be restored to as it was before. Therefore it became a sustainable design for the people. The people that are able to appropriate this building and therefore ascribe importance to the existence.



Figure 48: reflective mixing panel, self-made image, January 2023

