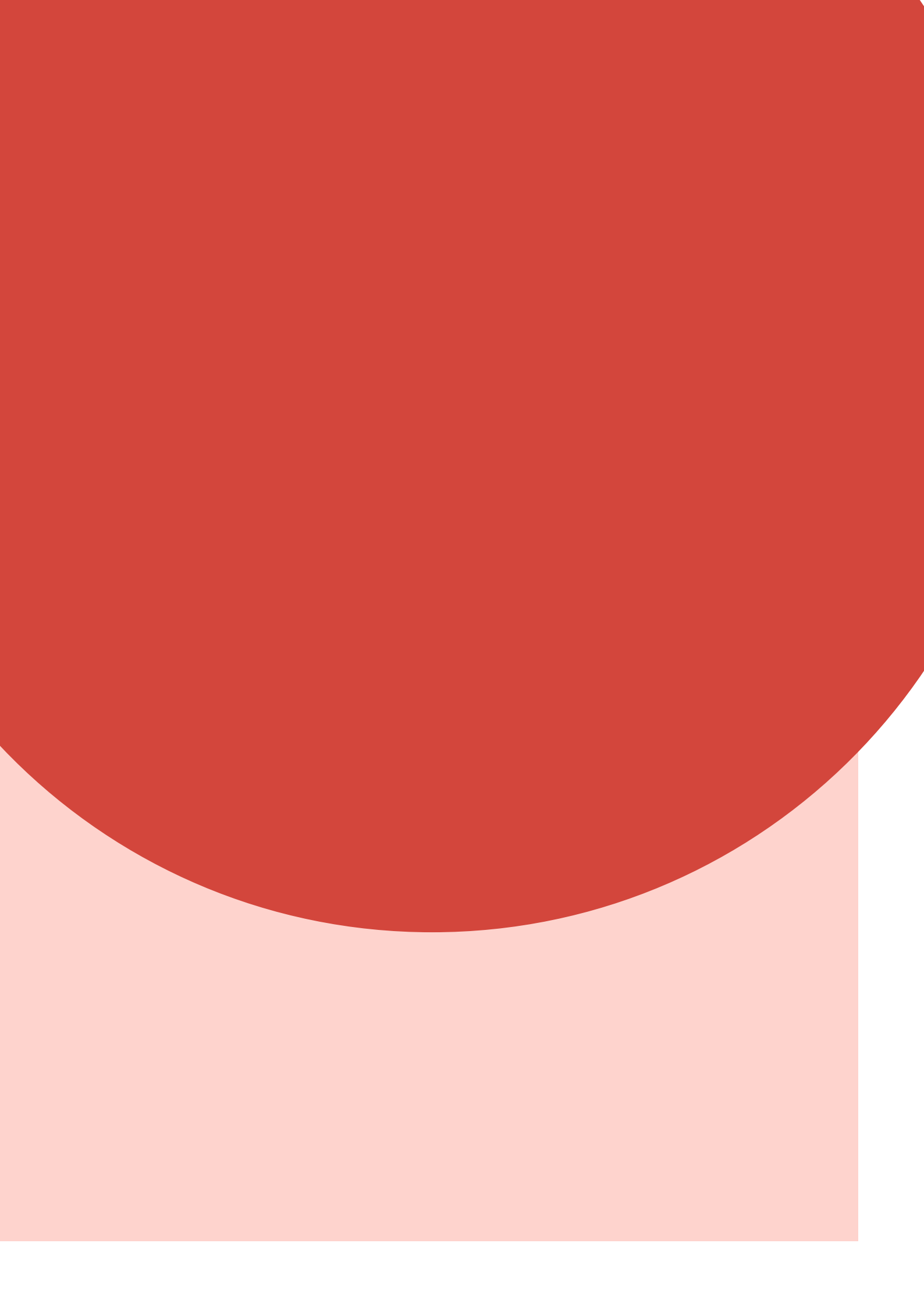


engaging millennials around the collection of the Fotomuseum

by Emma Hoogenboezem





colophon

engaging millennials around the collection of the Fotomuseum

master thesis

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November 5, 2019



preface

Not even one year ago, I visited the Fotomuseum for the first time. At that time, I would never imagine that I would be given the opportunity to do my thesis for the Fotomuseum Rotterdam. As a regular museum visitor, I am honored I could develop my research and design skills regarding experience design and museums. Besides that, it was pleasurable seeing the beautiful skyline of Rotterdam every time on my way to the museum.

This project has given me the strength and confidence to hopefully become an experience designer soon. The past half-year has been inspiring and motivating, with special thanks to:

Arnold, for helping me in setting up this project and guiding and supporting me in transforming ideas and insights into practical and concrete formulations.

Maarten, for making me think further and in new perspectives while appreciating my personal ambitions.

Olav, for always giving me a warm welcome at the Fotomuseum and providing me valuable insights as a sparring partner.

My sister, for being my inspiration throughout the entire project.

My father, for carefully reading and checking the report in stressful moments.

Claire, for making me use your design gadgets and supporting me throughout the project.

My lovely friends who participated in the creative sessions.

I wish you an inspiring and pleasurable read,

Emma Hoogenboezem

glossary

engage around museum

Involve visitors in all stages of the museum experience, from before, to during, to after visit.

engage around exhibit

Also called immersion, a deep sensory-perceptual or mental involvement with exhibit content.

museum experience

All sequentially ongoing interactions that take place to engage a visitor, the moment a visitor has the first interaction with a museum.

interaction

Actions that takes place between the visitor and the museum, or actions that take place between visitors.

interactive

A two-way flow of information between a museum and a visitor, responding to a visitor's input.

participatory institution

An institution where the audience can create, share and connect with each other around content.

experience vision

An interpretive vision as a guideline for designing the experience.

Abbreviations

Het Nederlands Fotomuseum

The Fotomuseum

executive summary

This thesis describes the research and design on how to engage millennials around the collection of the Fotomuseum. For the Fotomuseum to shift from a traditional institution to an open and social environment, the public should be involved. Involving the public is necessary to create a high-quality visitor experience (Black, 2010). According to Motivaction (2019), millennials are open to go to museums more often, but they visit museums together rather than alone. The following assignment was formulated:

design a social and interactive experience to engage millennials around the collection of the Fotomuseum

As millennials come with desires and expectations, extensive literature and empirical studies were conducted in different domains; the Fotomuseum, millennials, participatory, and engaging museum principles. The holistic approach resulted in a starting point for developing a framework for an overarching social museum activity. Within this framework, the four core-elements socialization, meaning-making, escapism, and interaction are integrated on the Experiential Journey (Bär & Boshouwers, 2018) through extensive literature studies in the visitor museum experience.

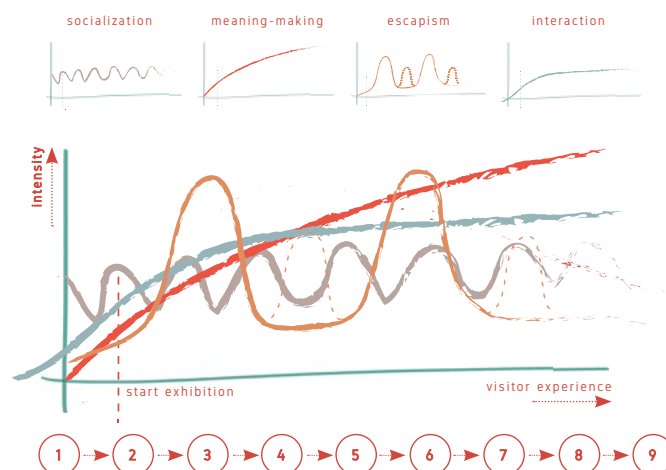


Figure 1. Integrated Experiential Journey.

The resulting design framework for an overarching social museum activity consists of a model for designing open-ended activities, encouraging social interactions and prolong the experience outside the museum's walls. A narrative architecture presents six different narrative spaces to activate participation and engage millennials around the collection on-site. In addition to these two models, fourteen design principles are formulated.

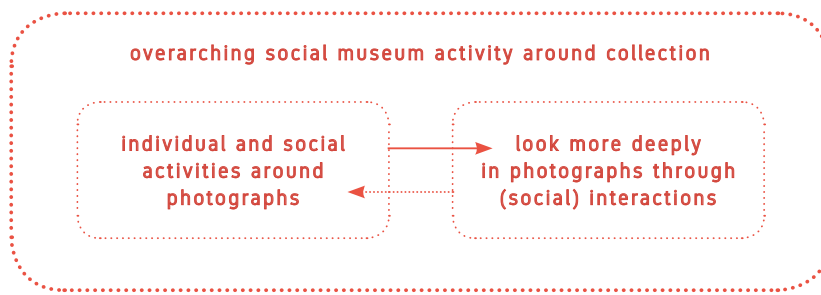


Figure 2. Simplified framework for social museum activity.

The formulated design goal accompanied by an experience vision functioned as a starting point for the design process. In addition to individual designing, different co-creation and evaluative sessions were organized, resulting in a concept base for further development. Continuing the iterative process, the concept was developed into a holistic proposal for an overarching social museum activity: Photo Studio.

Photo Studio offers millennials an active and memorable experience at the Fotomuseum, inviting them to explore and use the collection for developing one's own mini-exhibition. The platform allows visitors to explore co-produced exhibitions at home, which highlights the museum as an open, essential, and social place (Simon, 2010). The activity supports and encourages individuals to collaborate in creative activities in a larger social experience. One could see the concept as a vehicle for maintaining social relationships, as well as a process for personal meaning-making. Throughout the journey the link between photographers and millennials is addressed, allowing visitors to reflect the world as they see it and engage with each other around photos. Six different stages are described that move the visitor towards developing one's Photo Studio. With an application and three different interactive exhibits, visitors can select photos from the archive, edit them in the darkroom and construct their own visual story in the interactive exhibits space. Each interactive exhibit is designed with personal entry points and tools for creative expression to engage with each other socially. Finally, visitors can view their Photo Studio anytime, anywhere,

as the platform provides a replica in an interactive 360-view.

The concept was tested with 16 participants in a simulated environment and seven different prototypes. The three design challenges formulated for the thesis and design goal were addressed in the validation study. Additionally, the development of new understandings around photos was evaluated. Based on the insights, the overarching activity is presumably found to facilitate the desired engaging experience for millennials. All of the 16 participants positively reviewed Photo Studio. Each group developed discussions around photos, collaboratively discovering new perspectives. The activity was reviewed as fun, active and motivating.

Photo Studio is found to be a concept-base to engage millennials around the collection of the Fotomuseum. Recommendations are formulated regarding further development of the concept proposal. Additionally, a concept combination is suggested to be feasible for the Fotomuseum in the short term.

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phase one

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phase one
analysis

1 project outline

introduction

In this chapter, the project is introduced by formulating the assignment and design challenges. The project approach is described that addresses these design challenges and the different domains for an holistic approach. Then, the requirements regarding the Fotomuseum are formulated followed by a description of the exhibition space.

introduction

Decades ago, the role of museums was primarily to preserve and manage our collective heritage. The collection, or the object, was the central point of focus. Nevertheless, society has become more and more critical in how museums present their collection and identify themselves. Especially in the 21st century, society got a more critical role. According to ICOM (International Council of Museums), museums have the task ‘to be at the service of society and its development.’

For more than a generation museum researchers have worked at describing and figuring out the visitor experience better (Black, 2010; Falk, 2009, 2014; Hein, 2006). According to Black (2010), involving the public is necessary to create a high-quality visitor experience. In his book *The Engaging Museum*, he addresses the importance of creating an open and social museum environment that invites visitors to engage with the collection. For museums it may sound risky to involve the public around their collection. However, involving the public can help museums in meeting the needs and expectations of visitors and building their audience.

Traditional museums often present themselves as institutions that teach people how to look at art and thereby to elevate them with knowledge. However, a museum acting as an expert can exclude parts of its audience. Simon (2010) addresses five commonly-expressed dissatisfactions of the public where ‘the authoritative voice of the institution does not include my view or give me context for understanding what’s presented’ is one of them.

generation Y

We live in a fast-changing society. For museums to reach their audience, they have to incorporate these changes and shift their perspectives. Millennials (generation Y) grew up in this shifting world where technology has become part of daily life. Millennials are a desirable target group for museums, now and certainly in the future; the large generation with around 3,5 million in the Netherlands (CBS, 2019) becomes essential for companies as they are now entering their adulthoods. Museums are reshaping to better connect with them (Bello, J., & Matchette, S., 2018), as the generation comes with a different set of desires and expectations.

Millennials do acknowledge the importance of museums. A recent research by Motivaction (April 2019) has stated that millennials visit museums more than the Dutch national average. Only one in four in this group never visits a museum. Among this group, the weekend is the favorite moment to visit a museum, and preferably during the day. Only 10% of millennials are interested in an evening opening. Young audiences seek ways to engage with peers to have lasting memories (Bello, J., & Matchette, S., 2018). If millennials visit a museum, 78% say they want to visit a museum rather together than alone.

The Fotomuseum has an opportunity to enrich its museum design for younger audiences, making its collection meaningful for the always-connected generation. Half of the millennials in The Netherlands are open to visit museums more often (Motivaction, 2019). What can the Fotomuseum do in engaging this large group of young adults who are willing to visit museums? Millennials (67%) say they need something ‘extra’ during a museum visit. However, what is this ‘extra’? The combination of participatory and engaging museum principles and several millennial studies resulted in a design framework with the aim to develop a holistic concept proposal for the Fotomuseum to engage young adults.

1.1.1 assignment

design a social and interactive experience to engage millennials around the collection of the Fotomuseum by studying Millennials and participatory museum principles

As the museum’s name expresses, the collection consists of photographic images. The museum exhibits many aspects of photography. Its exhibitions alternate between historical and present-day photography, documentary and experimental, and Dutch and international work. As millennials like historical content and large visuals (Motivaction, 2019), the museum already provides what they are interested in.

However the right content might be there; to make it relevant for young adults, the museum should offer (tangible) interactions inside the museum, as well as before and after the museum visit. According to Simon (2010), these interactions should invite people to actively engage ‘as cultural participants’, not passive consumers. Inviting visitors to participate actively can make them feel more connected to the museum, instead of just another ‘attending’ visitor. Especially millennials who have

a critical look at authority, need a more open environment. If the museum wants to engage and include a wider group of young adults, it should shift from a traditional, static institution to a more open, dynamic, and collaborative institution, inviting millennials to serve as active participants where their input will steer the direction and content of the final product.

a participatory institution is a place where visitors can create, share and connect with each other around content (simon, 2010)

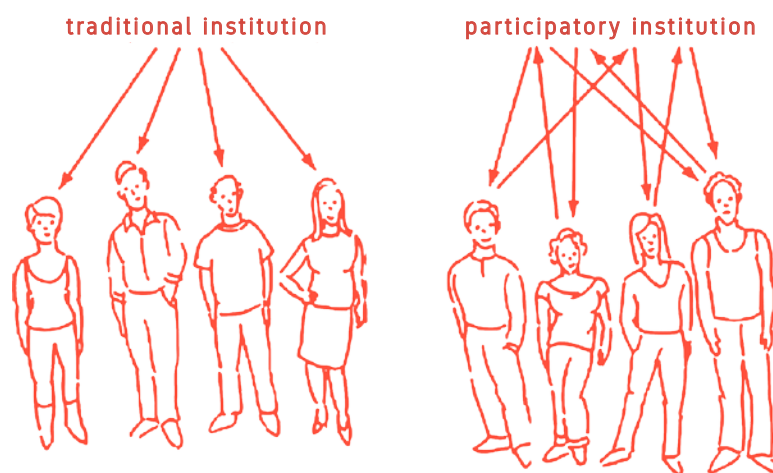


Figure 3. Traditional institution as content provider (left) and participatory institution as platform provider (right).

Currently, the Fotomuseum is a one-directional content provider providing every visitor with the same content. To become an open environment, the authority should adapt to a platform provider where visitors are invited to collaborate and engage around content with each other (Figure 3).

In her book *The Participatory Museum*, Simon (2010) addresses three fundamental theories to activate participation. The Fotomuseum should:

- function as an open and accessible environment in where the audience is centered in the experience, serving useful and relevant content to each visitor;
- treat visitors as individuals, knowing that every individual constructs his own meaning from cultural experiences;

- enable visitors to influence, reinforce and add to the presented content.

Participation has the most impact when all interested visitors have collaborative opportunities. This means offering different ways of contribution in different touchpoints, from simple interactions in the museum to extensive reviews online. Although some visitors only act as consumers and will not contribute to the museum, also visitors who experience adaptable and peer-generated content only, feel more closely connected with such an open institution. Museums implementing participatory principles may attract audiences for whom creative activities and social connections are preconditions for visiting museums.

1.1.2 design challenges

diving into the world of the Fotomuseum, millennials and engaging and participatory museum experiences.

The Fotomuseum should define at 'a strategy to extend the museum visitor experience beyond the temporal and physical boundaries of the visit' (Falk, 2014). Visitors come to a museum with 'an identity-related need' and want this to be satisfied during their visit. This need drives the behavior along the visit as well as the reason for visiting. If the need is met, the individual lays down long-term memories, resulting in the museum being part of the individual's enrichment of personal identity. If millennials want to engage with their peers and have social museum experiences, the identity-related need would be 'socializing.' Since this term remains abstract in what it means for millennials in the context of the Fotomuseum, research was set-up to confirm and understand this identity-related need and to understand what other desires and expectations the group has.

The design challenge is formulated by transforming the assignment into a question:

how to engage millennials around the collection of the Fotomuseum?

From this overarching design challenge, three sub challenges were formulated:

how to design an experience that transforms the Fotomuseum into an open and social environment and activates participation?

how to enhance the collection of the Fotomuseum and make it part of a social and interactive experience?

how to design a meaningful museum experience for millennials, and how can the Fotomuseum connect with millennials?

From these design challenges three research areas were defined to start the analysis:

the fotomuseum

- What is the current role of the Fotomuseum and what are its aspirations?
- What does the Fotomuseum have to offer?
- What is the context in which the design will be embedded and what are its boundaries?

millennials

- How are millennials characterized and how can these characteristics influence the museum experience in a positive way?
- What are their motivations to visit and what are their needs inside a museum?

engaging and participatory museum experiences

- What are the building blocks for an engaging experience for millennials?
- Which tool or technique will produce the desired participatory experience?

The image in Figure 4 illustrates how the Fotomuseum opens up to audience and starts engaging millennials.

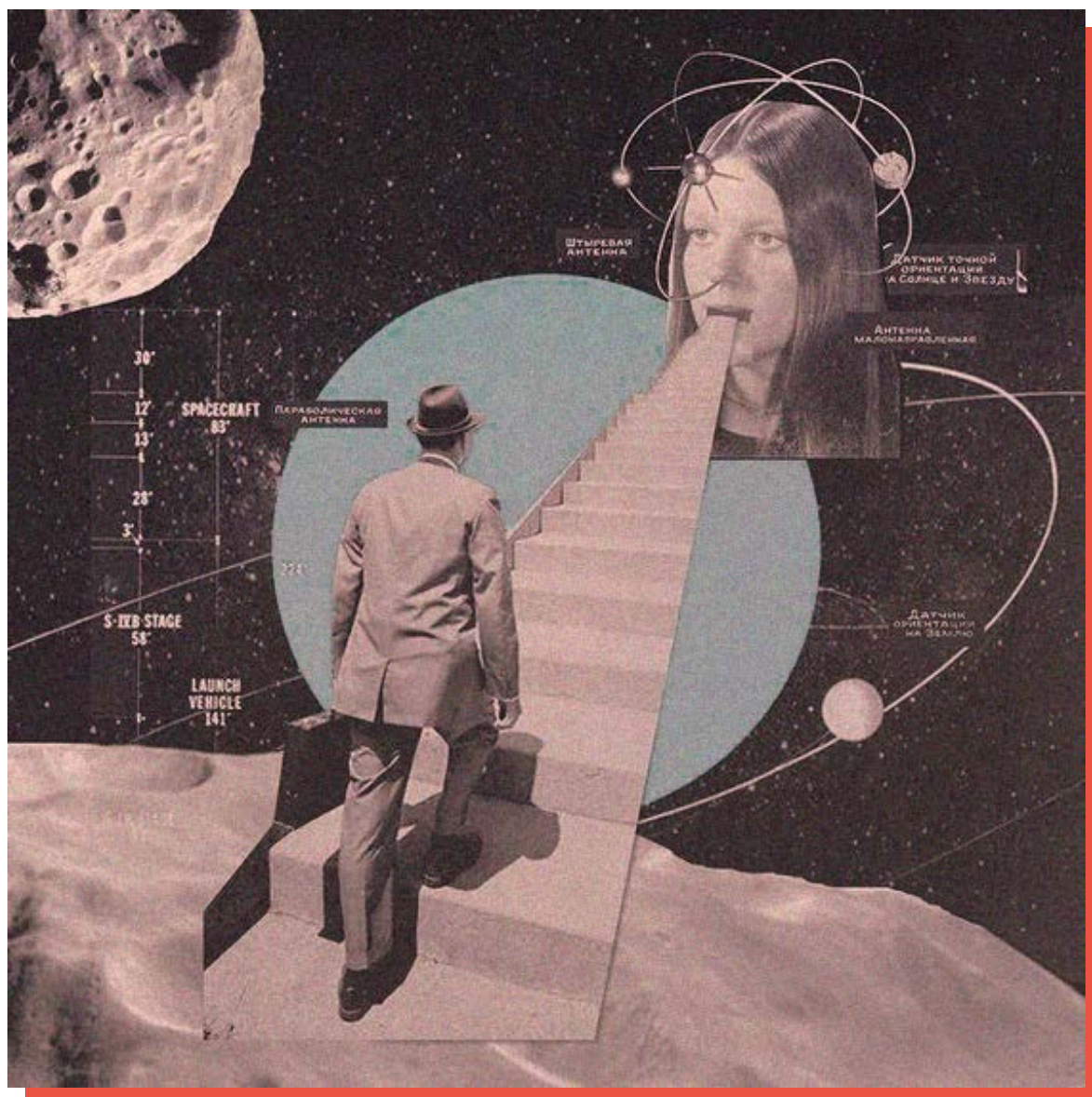


Figure 4. Metaphor for the Fotomuseum participating with millennials.

1.1.3 project approach

The process of the project is constructed with the use of the Double Diamond model (Design Council UK, 2005). The process consists of two phases: analysis and designing. The approach is visualized in Figure 5 on the following page, explaining the phases and the performed activities. The project approach aims to analyze three different domains to create a holistic overview of the context and eventually develop a comprehensive concept proposal. With this project approach, the user was central in both the research and designing phase.

The analysis phase (first diamond) started with the initial project aim. During discover, the context was explored by literature and empirical studies to gain further insight into the problem. Extensive studies such as generative sessions, observations, and interviews were performed to acquire an accurate and extended view of the context as possible. For inspiration and confirmation of findings, self-explorational studies took place like visiting (photography) museums and exploring millennial environments.

During define, translated insights are put into a design framework. The design framework consists of a simplified model for a museum activity supporting social interactions. In addition to this model, a narrative architecture is developed accompanied by design principles. The design goal was formulated, consisting of an interpretive experience vision functioning as a starting point for the designing phase.

During develop, different inspirational and evaluative sessions were organized to guide the individual design process. An evaluative user test with 9 participants has resulted in a concept-base for further concept refinement.

During deliver, a concept was proposed as the result of continuous developments and small iterations. This concept proposal was tested in a validation study with 16 participants.

design a social and interactive experience to engage millennials around the collection of the Fotomuseum

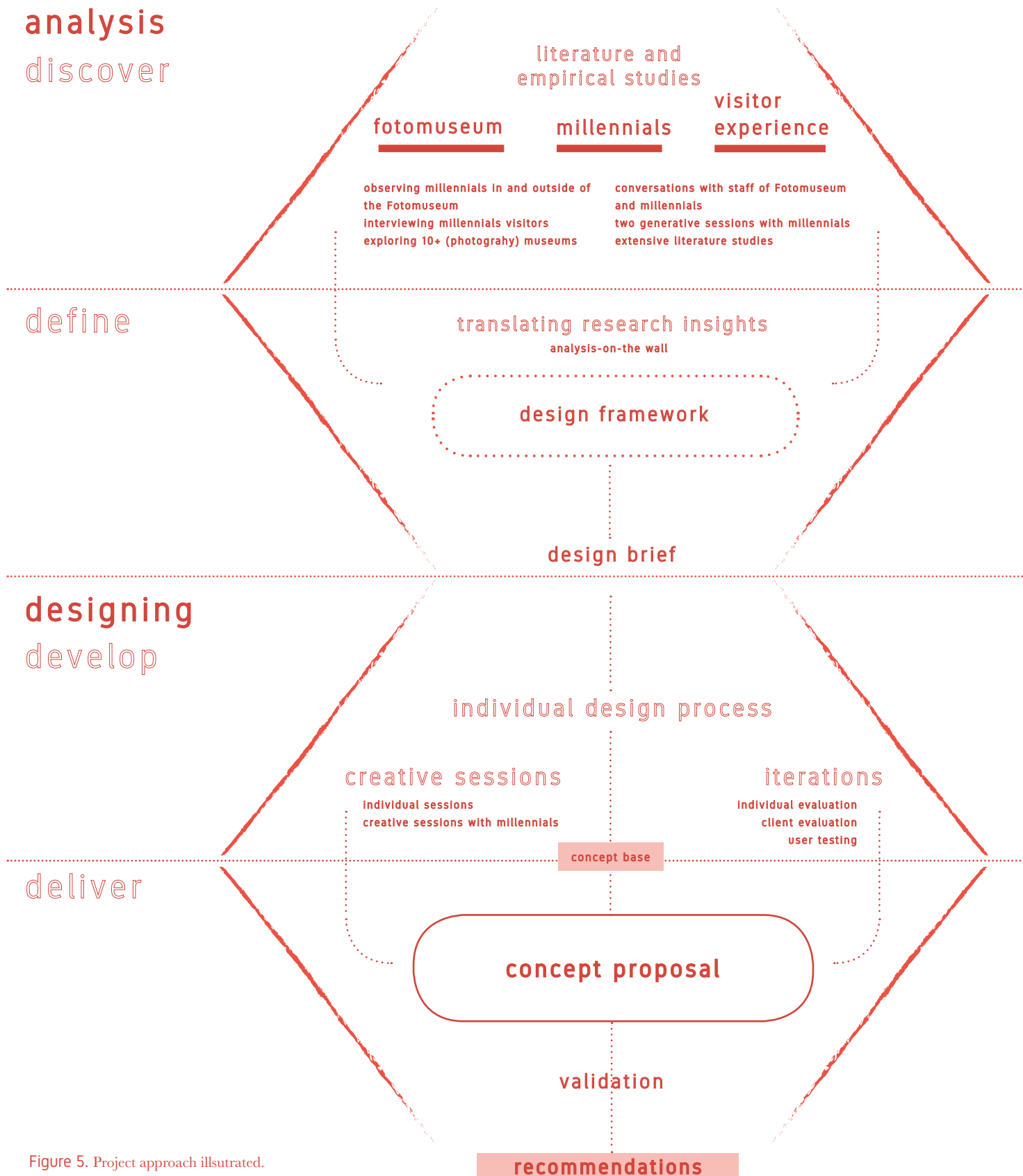
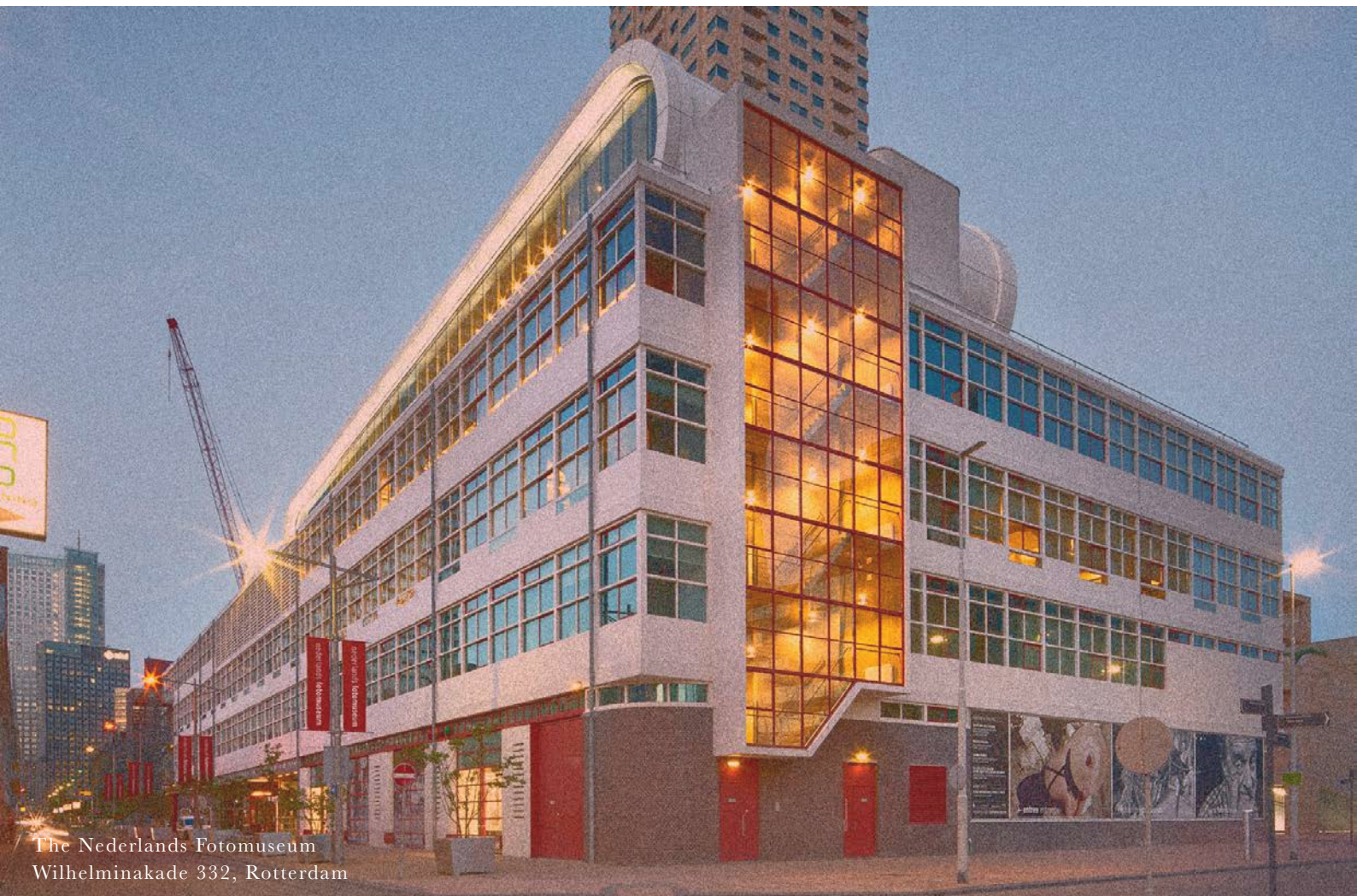


Figure 5. Project approach illustrated.

1.2

the netherlands fotomuseum

In the analysis phase, the context and the collection of the Fotomuseum is explored. In this section, the current role of the Fotomuseum and its aspirations become clear. The museum and its collection have been analyzed through online research, interviews with staff, and several museum visits inspire to figure out what the museum can offer to the audience and what can be used in the design.



The Nederlands Fotomuseum
Wilhelminakade 332, Rotterdam



The Nederlands Fotomuseum in Rotterdam

1.2.1 the collection

The Nederlands Fotomuseum is the national museum of photography based in Rotterdam. It has a rich collection of **5.5 million photographic images** and exhibits many aspects of photography. The seven to eight exhibitions a year alternate between historical and present-day photography, documentary and experimental, and between Dutch and international work. The museum aims these **dynamic exhibitions** to be ‘both a source of inspiration and an object of study’ for its audience (The Nederlands Fotomuseum, 2019).

In addition to exhibiting, the museum collects and safeguards **a significant part** of the ‘**visual heritage of the Netherlands**’ in its archive and wants to make it accessible to the public. The museum currently manages more than **160 archives** of historical and contemporary Dutch photographers. The collection continues to enrich every year through donations, legacies, and purchases. Ed van der Elsken, Aart Klein, and Cas Oorthuys are some examples of image-defining photographers from the 19th and 20th centuries, of which the museum manages the complete archives.

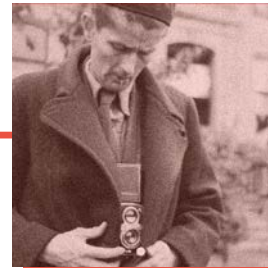
What is unique for the archive of the Fotomuseum is that it safeguards complete photo-archives. Many of these archives contain workbooks with try-outs of photo-combinations and visual storytelling, personally selected and created by the corresponding photographer (Appendix A.1). These inspiring **visual stories** with personal captions give, for example, an insight into how Ed van der Elsken approached his target at the street or how Cas Oorthuys carefully selected photos to create a compelling story.



Work from contemporary photographers such as Bertien van Manen, Vincent Mentzel, Hans van der Meer, Viviane Sassen, and Mieke Van de Voort is representing the collection as well. To get an idea of the museum's diversity, eight photographers are analyzed through online literature research and the online collection of the Fotomuseum. For each photographer, a brief description of photographer-specific characteristics is presented with some photograph specific examples:



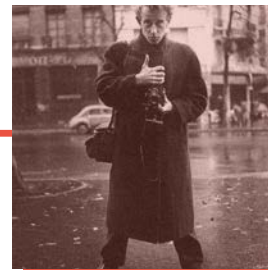
socially and politically engaged photography | WWII and reconstruction | people and human actions | black-and-white | square sized photos



Cas Oorthuys



world traveler | provocative images | people person | brutal and intimate | expressive characters | film documentary | experimenting



Ed van der Elsken



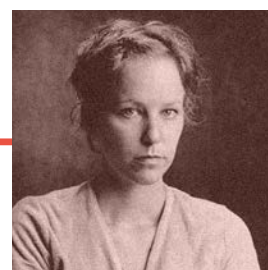
Second World War | distinct graphic style | black-and-white | dark room techniques | every-day-life photography



Aart Klein



Socially engaged photography | morality or human behavior | Dutch colonial history | interdisciplinary artist



Mieke van Voort



Bertien van Manen



Socially and politically engaged photography | feminism | travel | Soviet Union
| everyday reality | intimate | artistic



Hans van der Meer



Dutch landscape | amateur football | the ordinary | European landscape



Vincent Mentzel



portrait | theatre | NRC Handelsblad | wide-angle lens | photorealism



Viviane Sassen



fashion photography | artistic | aesthetic | colorful | inspired by Afrika | strong contrast | experimenting with light

A common complaint from visitors (The Nederlands Fotomuseum, 2019) is that they miss the extensive collection in their visit. Visitors expect to see a 'diverse and rich' collection, as described on its website. The Fotomuseum mainly shows temporary exhibitions with a narrow selection of photos and an exclusive and specific story. These exhibitions can be perceived as poor or unsatisfying, especially by visitors who expect to see a diverse exhibition.

Millennials who visit the Fotomuseum (results obtained from interviews, Appendix B.1) complain about the lack of diversity too.

1.2.2 aspirations

The Fotomuseum manages a large percentage of the photographic heritage of the Netherlands and aims to organize exhibitions with a contemporary approach. ‘We collect and display photography that **reflects the world** we live in, in order to enrich people’s lives with visual stories that matter.’ They select those ‘photographers who are distinctive, **who question the world.**’ Their vision is to make everybody ‘feel welcome, even for those who are not typical visitors to the museum.’

Since November 2018, the Nederlands Fotomuseum has a new director, Birgit Donker. According to her, the Fotomuseum is the leading museum in The Netherlands for photography and visual culture. ‘It manages a treasure trove of images and has a dynamic exhibition policy. What the museum owns can be brought more into the spotlight, and this is what I plan to focus on.’

Birgit Donker wants the museum to **showcase its wealth** more clearly, ‘so that it will shine even more.’ Now it is the moment to show the Dutch photographic memory as it is stored and bring it to the actuality. ‘We must bring the archive to the present, show the urgency.’

‘the museum can be more brutal’



Thus, the design should:

- bring the photography to today’s context and reflect the world we live in;
- convey the museum’s ‘distinctive’ photographers in questioning the world;
- enabling regular as well as non-typical visitors to make meaning from their visit with visual stories;
- show the wealth and diversity of the collection, bringing the Dutch photographic memory to the actuality



Figure 6. Photograph with tags and caption.

1.2.3 digitization

For a couple of years, the Nederlands Fotomuseum has been digitizing its photographs. From the 5,5 million images they own, only around 13% has been registered, and 4% (220.000 photos) have been digitized. There has been a growing awareness of the historic nature of the fragile albums and the need to conserve them properly as part of the photographic heritage of the Netherlands. The digitization is an ongoing process that will continue; in the next years, the museum will catch up with a large percentage with the help of government grants.

A part of the digitized collection has been made available online for the public. The website offers a search engine in which photos with watermark can be searched for, based on filters like photographer, country, city, year/period, or using personally typed tags (Appendix A.3). The search mechanism is goal-oriented and possibly mainly attracts a small part of the museum's audience, users that have a specific interest in photography already.

The digitized archived photos have objective tags (Figure 6) to ensure an efficient search process. Currently, these tags are added by the staff of the Fotomuseum (2019), which makes the digitization process time-consuming. However, in the (near) future, the museum wishes to use artificial intelligence (machine learning) to be able to tag large percentages of photos in a short amount of time.

The Fotomuseum does involve the public already; an online project invites volunteers to help to describe images. Although describing images is quite personal interpretative work, the Fotomuseum has developed a system in which volunteers follow a process to name the images objectively. These steps are visualized in Appendix A.2. However, it is quite a labor-intensive process. For example, people search on the internet to find the street names that belong to photographs.

Only a small part of the audience knows of the existence of the online collection. Since the digitized collection will continue to grow, it is interesting to invite a wider audience and to **receive relevant input** for the museum. Thus, the design should **activate all visitors to explore the collection** and gain relevant input for the Fotomuseum. This can be beneficial for the digitized collection as well as for the museum to understand better what visitors want.

1.2.4 opportunity

At this moment, the museum collects and displays content as a traditional institution (Simon, 2010), showing the same photos to all visitors. To embrace the full potential of participation, the museum should offer a **two-way interaction** between the museum and its (potential) visitors, serving customized content to each visitor.

as a result of the previous analysis of the Nederlands Fotomuseum I see the opportunity

to enhance the rich photo collection and make it attractive and accessible for the audience, being part of a customized museum experience

The aim is to bring the already available and future-to-be digitized collection of the Nederlands Fotomuseum in the spotlight, enabling millennial visitors to experience photography in a meaningful way, on-site and at home. In order to affect how people perceive the Fotomuseum as an open and social space (Simon, 2010), the design should make the collection available to an extent where each **visitor is invited to explore, comment on and share content**.

Currently, the website does not invite museum visitors to explore the collection. Moreover, the platform does not invite potential visitors to visit the museum. The goal-oriented search mechanism functions separately from the on-site experience. The design should consist of a platform that creates a **link between the digital collection and the on-site museum experience**, extending the experience outside the museum's walls. This link can not only regulate visitors' expectations; it can also invite them to act as active participants, reaching a wider audience.

To communicate the 'heritage of the Netherlands' is 'of all of us, for all of us' (The Nederlands Fotomuseum, 2019), the museum should enable visitors to **share their personal stories** regarding their interpretations of content. Co-produced, ever-changing content emphasizes the cultural institution as a dynamic and essential place. After all, knowledge is not only between the walls of the organization.

The museum wants to showcase its promising collection. By enhancing the richness and using this in the visitor experience, visitors will perceive their visit as diverse and complete. The design should allow visitors to **explore** and **investigate the collection** themselves, **discovering** its secrets and its beautiful sides. Free-choice-learning (Falk & Dierking, 2014) emphasizes visitors' active roles in exploring and investigating a collection; they choose what to reveal and explore.

exhibition motive

In this section, the contextual boundaries for the design are set.

In 2021 the museum wants to start a permanent exhibition in addition to its temporary exhibitions. This exhibition is meant to highlight the showpieces of the museum's collection. From the original idea to present the museum's masterpieces in a traditional way, the idea for this assignment is to come up with a 'new and extraordinary way' in presenting its collection to the audience.

In addition to this broad scope, more practical requirements are that the (physical) design of the experience should:

- fit in the environment of the Nederlands Fotomuseum;
- fit in the basement of the Nederlands Fotomuseum;
- be modular in the sense that the design allows to adapt its content after receiving input from newly digitized archives;
- function as a (semi-)permanent exhibition.

Additionally, the design has to fit within the museum's aspirations (section 1.2 The Nederlands Fotomuseum).

From page X the allocated exhibition space is presented.

1.3.1 visitor aim

The Fotomuseum generally attracts experienced visitors or visitors with a background or interest in photography (Figure 18). For the new target audience (Figure 67), a rough estimation was based on the visitor aim of the exhibition Lust for Life from May to October 2019. This exhibition (Lust for Life '19) was designed with a different approach compared to regular exhibitions of the museum, with a campaign specially focused on millennials.

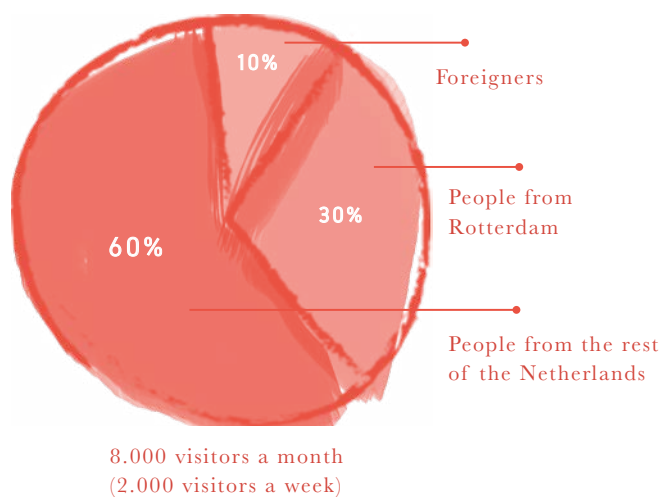


Figure 7. Current visitor distribution.

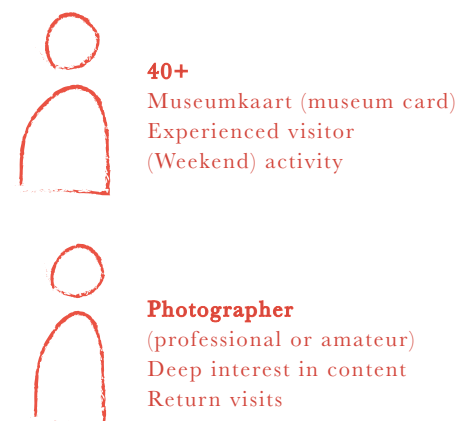


Figure 8. Current type of visitors.

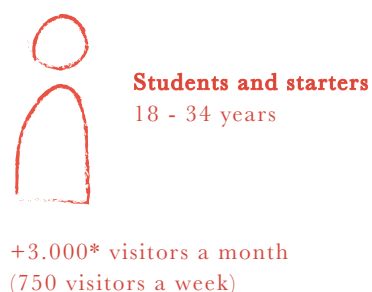


Figure 9. New target audience

For the **visitor aim** of the design, the audience was targeted on 750 visitors a week. Assuming that 90% of the millennial visitors will visit the museum during the weekend, the experience should be able to allow ca. 350 visitors on a busy day. However, considering regular visitors will use the experience as well, the visitor aim **on a busy weekend day** is estimated on around:

500

* rough estimation based on visitor aim of exhibition Lust for Life May - Oct '19.

1.3.2 practicalities

The Fotomuseum has three exhibition spaces: the main hall (large gallery), the basement (small gallery), and the top floor (small gallery). For this assignment the basement was designated, consisting of the ‘overflow’, the ‘Kuip’, and the ‘small gallery’ (Figure 10). After going downstairs from the main hall (Figure 11), visitors enter (1) the ‘overflow’. From the ‘overflow’ visitors can enter (2) the ‘Kuip’ or (3) the ‘small gallery.’ The ‘Kuip’ can be entered (4) from the ‘small gallery.’ However, the entrance is very close to the ‘overflow’.

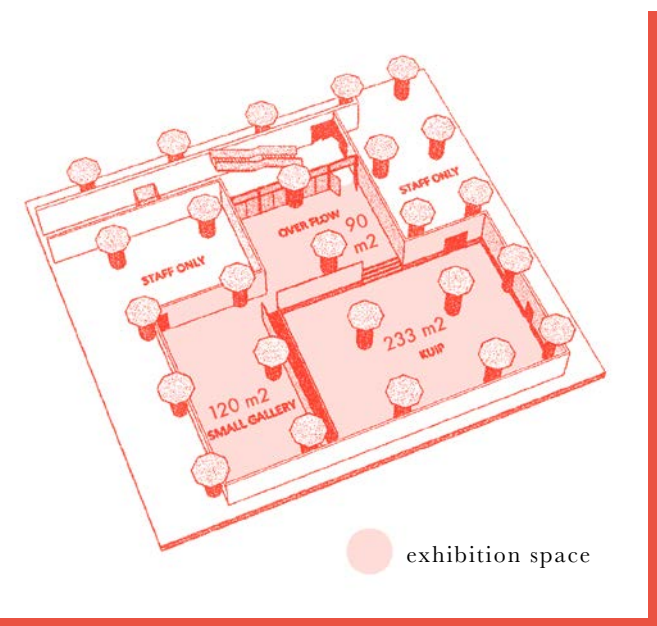
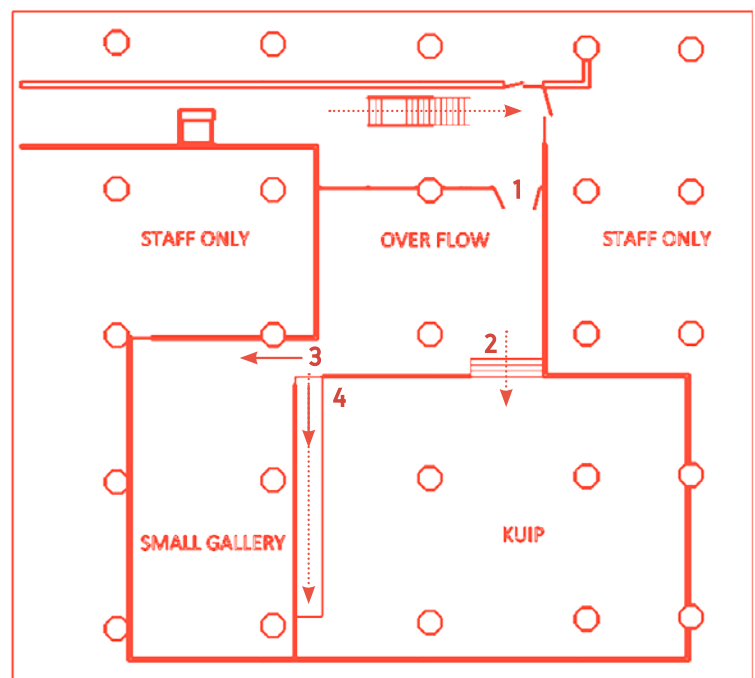


Figure 10. Basement of the Fotomuseum.



.....> direction stairs
——> direction entrance room

Figure 11. Floor plan basement of the Fotomuseum.

Figure 12. One of the many imposing, concrete columns in the Fotomuseum.



The Fotomuseum's building has an impressive architecture on its own. Known as Las Palmas, the building served as a workshop building for the Holland-America line (shipping company). The building's concrete monumental pillars (Figure 12), are part of the spatial experience when visiting the museum.



Figure 13. Building Las Palmas.

Building Las Palmas, Before the Nederlands Fotomuseum was located there.

conclusion project outline

The analysis of the Fotomuseum was presented regarding its collection and its aspirations. As the traditional institution currently does not engage millennials around its collection, different participatory elements were described that can highlight the institution as an open and dynamic place. From these findings, several design requirements are formulated:

From the museum's requirements, the design should:

- bring photography to the actuality;
- show the museum's distinctive photographers with visual stories;
- present diverse content;
- allow 500 visitors a day;
- fit in the contextual boundaries;
- present and highlight the collection in a new and extraordinary way.

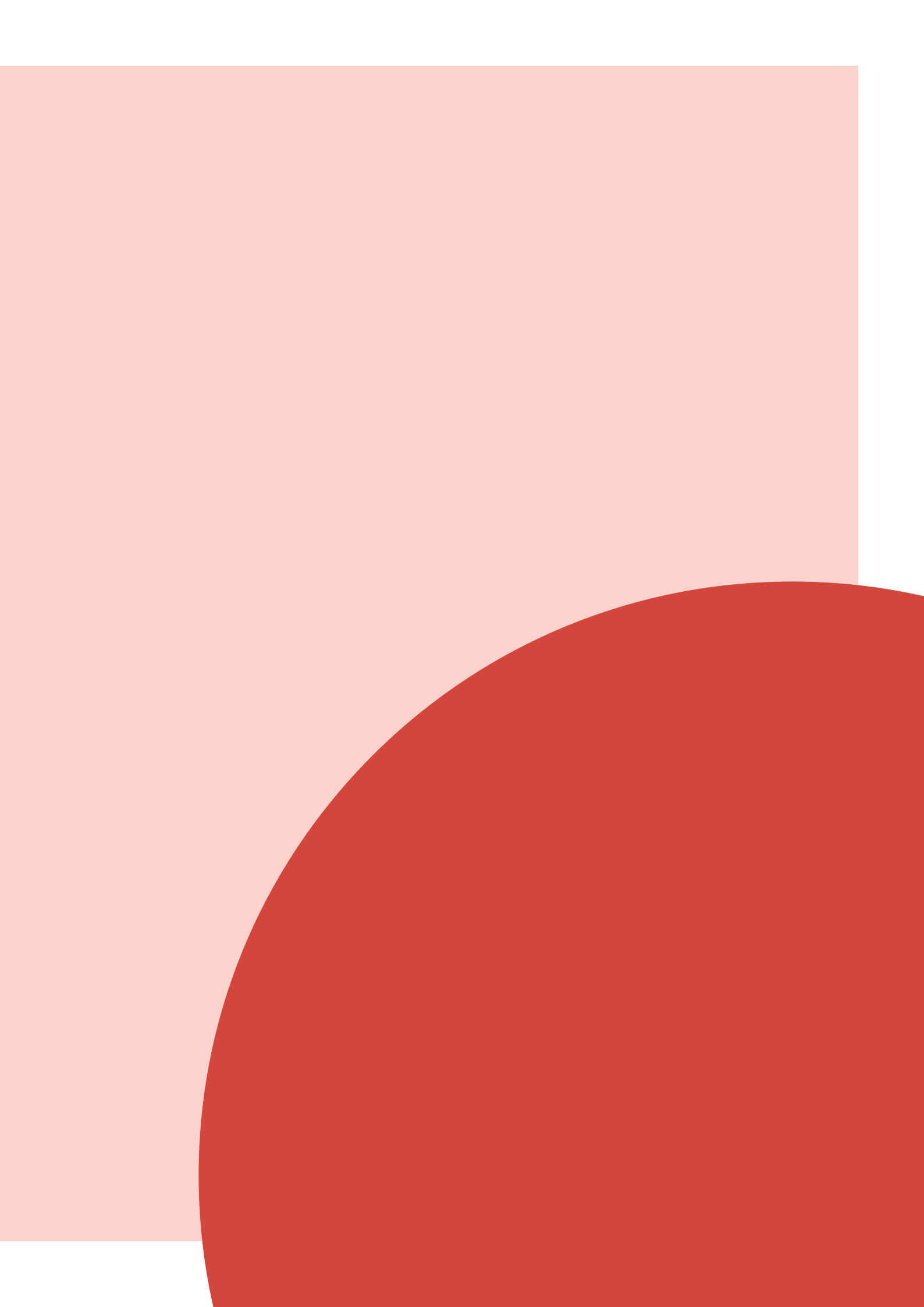
For the museum to function as an open and essential space, the design should:

- serve customized content to each visitor

- invite visitors as active participants by allowing them to comment on and share co-produced content, investigating the collection themselves;
- extend the visitor experience and connect the digitized collection to the on-site experience, bringing the rich collection into the spotlight.

Additionally, the design should gain relevant visitor input for the Fotomuseum.

To make visual stories (i.e. photographs) matter for young adults, the design should create a connection of what the museum has to offer and what is relevant to millennials. In the following chapter, literature and empirical studies were conducted to find out how young adults are characterized and what they expect from their museum visit.



phase one
analysis

2 research

introduction

For the design to fit millennial's expectations and needs regarding museums, primary and more profound needs should be implemented in the design framework.

In section 2.1, the needs of millennials and how to create a connection with them, come to light. Several millennials studies were executed, from literature studies to empirical studies like observations, interviews and two context mapping sessions. First, an introduction to who millennials are and how they are characterized. Then, millennial needs are described resulting in four core elements for an engaging experience. Section 2.1 ends with a description of typical visitor personas that support the chosen direction of the design goal.

In section 2.2, summarized insights from literature studies about meaningful and immersive museum experiences are presented. Then, the four core elements are further described regarding the visitor experience.

In section 2.3, photography is demonstrated from different perspectives. First, photography is described as a process, aiming to make millennials experience photography more than a 'press on a button.' Then, photography is presented as a form of art. To continue finding techniques for visitors to see relevance in photography, different literature studies were conducted to create a simplified framework for deep looking and reflection.

2.1

millennials

2.1.1 who are they?

Although exact birthdates of generation Y vary among different sources, they are born between the early 1980's and the late 1990's/early 2000's. For sure is they all grew up around the new millennium. To concretize the birthdates for this project, they are set from 1985 until 2000 (between 19 and 34 years old*).

* Due to the scope of this project, millennials that bring children are not considered. Parents and their children come with different sets of needs during their visit.

Generation Y is less traditional than previous generations (Ng & Johnson, 2015). Millennials have less savings and possessions, are getting married later and live in rental houses rather than owning a house (Stanford, 2018). Instead, sharing an apartment with friends is more common, as big cities like Amsterdam and Rotterdam are popular among the generation (BPD, 2018). Growing up in a 'knowledge' society has made them less self-sustaining; paying for a repairing service is more common than fixing things on own forces.

The positive sides of fading away of traditional habits is that millennials boost the growth of the sharing economy (Ranzini, et al. 2017), having less care about privacy. Young adults strive solidary: they take part in communities like sharing services and neighborhoods. They value open and transparent institutions (Motivaction, 2019). Additionally, they appreciate autonomy and freedom to go anywhere anytime.

they are:



digital natives



experience
seekers



used to direct
effect



perfectionists



self-focused



idealistic



Known as **Digital Natives**, millennials are the first generation that has grown up surrounded in a world of digital technology. They use the internet to talk to friends, to shop, to read the news, to study. According to the American Alliance of Museums (2016) ‘millennials are the first generation of digital natives, and they expect their museum visits to conform to their digital lifestyle seamlessly.’ As social media are an integral component of their daily life (Keeter, 2010), millennials express a strong desire to ‘engage in interactive information sharing’ (Bello & Matchette, 2018)

Millennials preferably buy a **meaningful experience** rather than a desirable product (Colleen Dilenschneider, 2016). The transfer of just knowledge and information is not exciting anymore (Museumpeil, 2017). In contrast to baby boomers, who value the educational aspect of museums, millennials use museums to find memorable experiences (Bello & Matchette, 2018) that will have a lasting impression on their lives.

The generation that grew up in the information age is used to **immediate rewards** and feedback (Howe & Strauss, 2000) and direct satisfaction of needs. Webshops and online companies adapt to these needs and promise a next or even same-day delivery.

Today’s young adults are **perfectionists** (Sherry & Smith, 2019), having high expectations from today’s wealthy society and putting high pressure on themselves, making the best life possible (Twenge & Campbell, 2008). Social media and controlling parents are constant surroundings by which to measure success and failure, which causes constant dissatisfaction. Psychologists are becoming more standard among the generation. Since recent years there is even a group of young adults who end up sitting home suffering from burn-outs (Sherry & Smith, 2019).

Growing up in a wealthy and comparative society (Twenge & Campbell, 2008) has made young adults **self-aware**. Millennials think personal development is more important than any other form of development (Het Millennials Onderzoek, 2018). They continuously reflect upon their life and their choices, searching for happiness and better possibilities to enrich their identity.

Last but not least, millennials have an **optimistic** view (Keeter, 2010) and a strong bond with the world around them. They seek experiences to positively change the world and feel empowered to make changes (Bello & Matchette, 2018). Attending

they want to do something ‘good’



socially
engaged



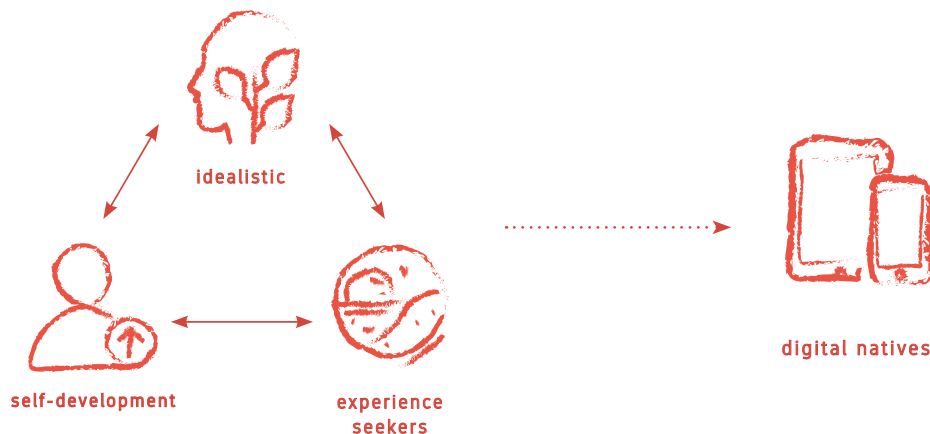
environmental
friendly



striving
for equality

live events makes them feel more connected to other people and the world. Growing up as the most ethnoculturally diverse (Pew Research Center, 2012) generation has made them empathic concerning the differences and inequalities in our society and the planet (Ford, Jenkins & Oliver, 2012). Young adults strive for a better climate; they are concerned with the fate of people and animals.

The idealistic view and conscious lifestyle that young adults have creates opportunities. Millennials want to contribute to society and have a strong bond with the world around them, which is a distinct characteristic of the photographers too. The Dutch photographers of the museum are world explorers, photographers who reflect and question the world. The design should **emphasize the dual interest in the world**. This way, the visitor can identify him or herself with photographers and will feel more involved with the museum.



Knowing that millennials are experience seekers and want to build on their personal development, it can be interesting to provide millennials an experience in where they can build their personal meaning around certain topics that make them feel involved with the world. As described in section 1.2.2, the museum offers photographers a place to reflect the world. Instead of giving just photographers the stage, the museum should **give visitors a voice in how they view the world**.

As digital natives expect their museum visit to conform to their digitally connected lifestyles, such as information sharing on social media platforms, the museum should provide young adults to **share their museum experience with the outside world**. This can be beneficial for the museum too: making visitors share their Fotomuseum experiences, triggers and possibly reaches new visitors, making them advertisers for the museum.

2.1.2 empirical studies

The needs and behavior of millennials regarding museums were studied from different perspectives. Several interviews, observations, and a generative study led to relevant input for the design framework. Please refer to Appendix B for an extensive description of these studies.

In order to understand how millennial visitors experience the Fotomuseum, what they expect from it, and what their needs are inside museums, eight interviews and two observation sessions were conducted. Due to the dynamic exhibitions motive of the museum, different exhibitions were evaluated. The central insight from this study is that visitors' expectations are higher than what they experience during the visit; unfortunately, the majority was somewhat disappointed. However, this does not count for the exhibition *Lust for Life* (May - Oct '19). Visitors say:

- the collection is not diverse enough, and the museum feels small;
- they expect to see more impactful photography (similar to World Press Photo);
- the content is too specific and not connecting with their interests.

In order to get a deeper understanding of millennials' needs regarding museums, two context mapping sessions were organized according to the generative research theory of the Convivial Toolbox (Sanders & Stappers, 2014). The designed creative tools and the session set-up can be found in Appendix B.3. Participants were sensitized to activate thoughts about museums in general. During the session, several individual and group activities took place. The topics of activities shifted from leisure time activities to general museum visits, to photography museums (and experiences).

In a two-day 'analysis-on-the-wall' session, the interpreted quotes from these studies were grouped and clustered (Appendix B.4). The outcome is an overview (next page) of four dominant clusters (deep needs) socialization, meaning-making, escapism and interaction, and their underlying groups (problems relating to the deeper needs). The groups are interconnected; social interactions, for example, are a form of meaning-making since interpersonal communication stimulates thinking processes. One can feel immersed (interaction) and escape into a new world (escapism) when entering a museum.

Four core elements, resulting from the deep needs, are the base for designing the framework. Each of the four core elements is explained from the next page.



deep need

need/problem

dominant need/problem

meaning-making

large visuals

finding relevance

sympathize with photographer

understanding photography

forced feeling to look (critically)

context and story around content

thinking processes

new perspectives

socialization

collaborative interactions

interpersonal communication

reflect on content together

interaction

doing something active

immersive

relaxation

escapism

enter new worlds

sensational experience

making discoveries

spatial experience

overview

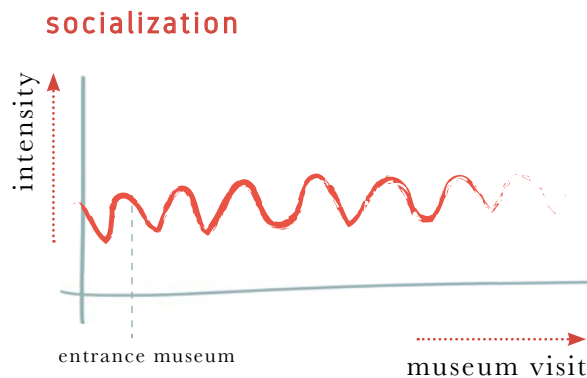


Figure 14. Intensity of socialization along museum visit.

Many museum visits are the result of two friends coming together motivated by ‘**doing something together.**’ The museum visit should function as a social leisure-time activity. If millennials have a social company, they do not want this to be discouraged during their visit. However, interviewees said to experience problems in staying in contact during their visit.

‘I want to be able to have conversations with my friend ... and then we talk about it later’

Although millennials want to be autonomous too, the design should support social interactions between two or more millennial friends along the entire museum visit (Figure 14). The design should support social interactions:

- by stimulating interpersonal communication;
- with collaborative interactions supported by (interactive) elements;
- by discussing and reflecting on the content together.

meaning-making

In addition to finding meaning in social interactions, millennials want to support in **gaining new understandings** relating to content, growing in meaning along with the visit (Figure 15). On the one hand, photography is accessible because of its realistic representation; however, often it remains **unclear** why a photograph is good or exceptional.

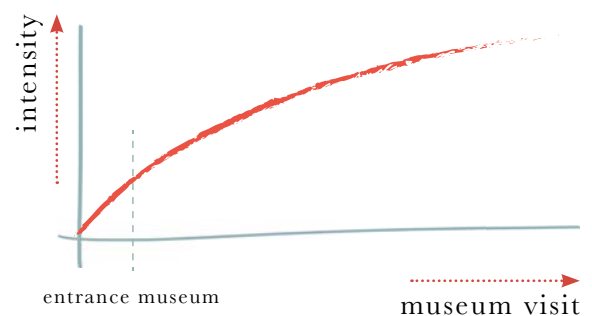


Figure 15. Intensity of meaning-making along museum visit.

First of all, a large part of the collection contains content from before millennials were born. It can be challenging to place photos in a particular context, lacking background information not seeing relevance in it. Some interviewees said to see the content as 'old and not actual'. The design should trigger visitors to create meaningful stories around photographs.

Another interesting finding is the need to **sympathize with professional photography** and see the art of a photograph. Although they are interested in photography, millennials do not always understand how much

work is done and what skills are needed to develop a photograph. As digital natives, they are used to take photos anytime, anywhere, without effort. The design should trigger visitors to see photography as a profession or a form of art in which photographers put effort and to think further than a simple press on a button.

‘Sometimes it feels so forced, pretending to know what to see in it, while I actually don’t know what to think or say’

Young adults feel forced to act as in a certain way when looking at a specific piece of work; they think there is a 'right answer.' The design should make visitors perceive they can interpret photos in their own way, giving them the feeling there is no right or wrong.

Millennials want to 'experience more than just a visual experience', as one participant explains in her collage. They want to get surprised by seeing things in a new light. The design should trigger thinking processes by:

- questioning the content
- stimulating reflection upon their knowledge and their own life
- placing content/photographs from new perspectives

Finally, the design should make visitors look more deeply into photography than just passing them quickly. 'Sometimes

there are too many small pictures, and I do not really look at them, I just pass by them.'

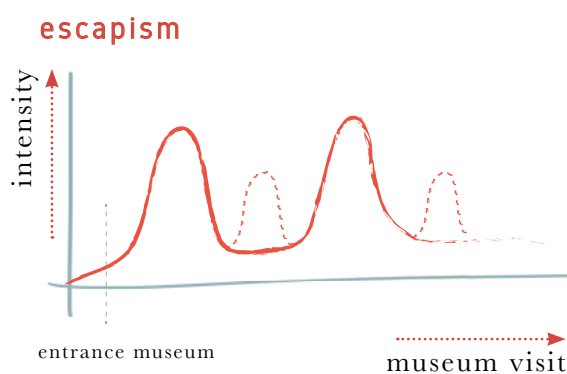


Figure 16. Intensity of escapism along museum visit.

As millennials now enter the job market, they have to rearrange their leisure time. They have been giving up their unstructured life for a more traditional, adult life. If they have free time, they do not want to experience any effort. The environment should immerse visitors in **a new world**, making them feel 'escaped' from daily life.

‘It is also a way to escape from daily life for a moment ... What I like about museums is that you can enter a new world’.

Besides, the museum experience should provide visitors to feel 'escaped' from their activities inside the museum as well. The experience should have different phases (Figure 16, where the intensity of 'escapism' has substantial differences), where each phase has a

different appearance and is varying in activities not to become dull and predictable. Along the visit, different senses should be stimulated.

Millennial visitors do appreciate the building of the Fotomuseum. In order to enhance spatial awareness, the design should allow them to 'walk inside' the presented art, where spatial design and activities merge in one holistic space. The design should provide millennials to have overview along the experience, making them 'sure to see everything' in a reasonable time. A reasonable time for a museum visit varies between a short 30 min visit to a long 1,5 to 2-hour visit.

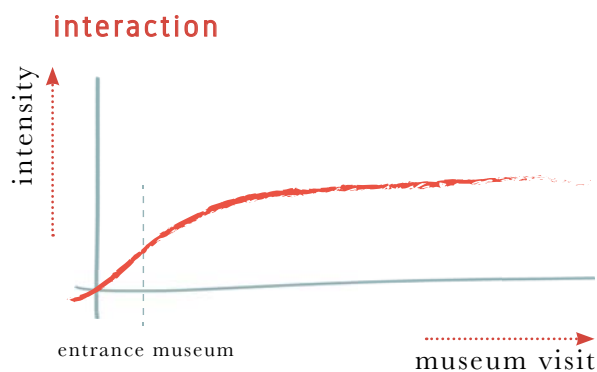


Figure 17. Intensity of interaction along museum visit.

Traditional museums, where the visitor is passive in its visit, are often identified as dull and monotonous. A majority of the interviewees said to be bored after a while. A monotonous and inactive visit results in low attention and motivation to stay focused, resulting in dissatisfaction.

Young adults want an active visit. They want to be able to touch and

grab interactive elements, playfully exploring the content. They want to get immersed by doing something, **learning from the activity itself**. To activate and engage millennials around content, the Fotomuseum should offer interactive elements that:

- are tangible and provide them to learn-by-doing;
- gradually immerse them in the activity.

‘I like it when I can touch things with a certain effect, it doesn’t even need to have a clear purpose ... I just want to do something’.

2.1.3 personas

Visitors come with different motivations to a museum. According to Falk (2009; 2014), there is also a ‘causal link between visitor memories and the reasons someone has to visit the museum in the first place. People’s motivations to visit, what they do during the visit, and what they remember from their visit are based all inter-related.

From the empirical studies (section 2.1.2) and Falk’s research on visitor experience, four different characters are formulated. Each of the characters has different motivations and behavior within the museum. These characters are not real persons; they are a realistic description of typical millennial visitors that could visit a (photography) museum.

Currently, the Fotomuseum mainly attracts visitors that are ‘photographers’ and ‘creative soles.’ The museum aims to be ‘for everyone.’ To engage a larger group of millennials and become an open house, the Fotomuseum should design for ‘socializers’ and ‘experience seekers’ too. The primary persona for the design is ‘socializer,’ as a large group visit museums for the social aspect. ‘Experience seekers’ visit the museum for the destination, yet they socialize during their visit too by sharing experiences on Social Media or by inviting friends to go with them.

primary visitors now



photographer



creative sole

‘I follow the museum on Instagram to stay up to date. Before entering the museum I already know what is there, I come for specific exhibitions. I want to see how professional photographers use techniques which I might use as well.’

‘I like museums. With my museumkaart I can go whenever I want, also just for a short visit. I try to visit as much museums as possible, although sometimes it does not fit in my busy schedule.’

primary visitor focus for the design



socializer

‘I am visiting the museum with my friend I didn’t see for a long time. Although I want to see what’s inside the museum, I particularly visit the museum to catch up with my friend.’



- Stay together the entire visit.
- Want to connect with each other.
- Want to discuss the content.



experience seeker

‘I saw on Instagram that someone I follow went to [name museum]. When I wanted to do something during the weekend, the first thing I thought of was that place, so I went there and I shared it on Instagram too.’



- Coordinate with each other along their visit, balancing between individual and social interactions.
- Share their experience on social media voluntarily.

2.2

engaging experience

For the design to become a holistic museum experience, literature studies were done about meaningful and immersive museum experiences. In this section, the stages of engaging an audience and create meaningful practices are described. Next, the theory of spatial storytelling to activate visitors in their journey is explained. For the core elements (socialization, meaning-making, escapism and interaction) to become practice, additional research (literature study and explorations) was done to add to the design framework.

According to Black (2010), visitors can be engaged around a museum collection by creating an open and social museum environment. He addresses the importance of the different stages of the visitor experience, from the stage where potential visitors think of a museum visit to the actual visit, to the moment visitors have gained new memories after their museum visit. Vermeeren & Calvi (2019) suggest examining a set of different stages in the visitor experience for engaging new audiences. Their integrated framework for designing relevant experiences divides the visitor experience into four phases; trigger, engage, consolidate, and relate. They see the relevance as a growth factor from the first stage ‘trigger’ to the fourth stage ‘relate’ (Figure 18).

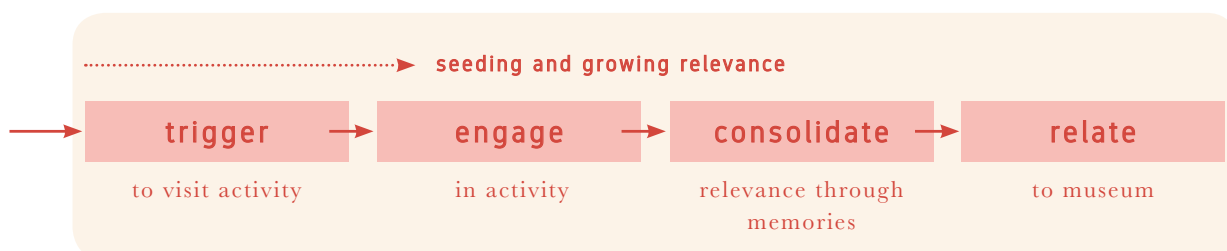


Figure 18. Different stages in the visitor experience (Vermeeren & Calvi, 2019).

Vermeeren & Calvi (2019) propose that the core elements ‘meaning-making’, ‘play,’ and ‘acceptable effort’ should be balanced and designed for each of the four stages. Playfulness is seen as a valuable element since it is used to design for entertainment and as a process for making meaning.

Thus, to engage millennials and offer them a meaningful museum experience, the design should:

- have a promise of meaning and play at acceptable effort to trigger the audience (trigger);
- invite, explore and immerse the audience in playful interactions to engage the audience;
- invite visitors to come back and create lasting memories (consolidate);
- build and maintain a relationship (relate).

2.2.1 experience design

As inspiration and as reference for designing an immersive experience, the theory on Experience Design of Bär & Boshouwers (2018) was used. The book 'Worlds of Wonder' explains how to create spaces that tell a story by following a framework for spatial storytelling. According to Bär & Boshouwers, physical spaces (Experience Design) have a higher potential to activate visitor participation than virtual spaces (User Experience Design).

Bär & Boshouwers support the idea that spaces should be dynamic, adventurous environments where people engage with the content creatively and attentively. A WoW (World of Wonder) can turn an institute into an open house, which is beneficial for the Fotomuseum to engage a wider audience.

‘inspiration is the free perspective. People thrive when inspired and so does the subject of their inspiration; it grows in impact and attractiveness’ - Bär & Boshouwers

The idea of spatial storytelling is to convey a story through spaces; visitors walk around in the story. As millennials want to 'enter new worlds' and 'have spatial experiences' (section 2.1.2), this theory is well applicable. Besides, a WoW can generate new fresh perspectives by 'making people imagine.' Imagination enables people to think outside

of the box and step out of their comfort zone into the 'wonder zone' (Figure 19). When people imagine, they become 'more creative and more enthusiastic.' Good spatial storytelling challenges people to think further, to think in 'the fantastic unknown.' In order to come in that wonder zone and make people create stories around photos,



Figure 20. Communication approaches.

inspiration, and guidance should be balanced (Figure 20). An inspirational force (evocation) draws people to higher states, and a guiding force (information) leads people to more common ground. Narration is the backbone of the journey. Section 2.3.4 explains how these approaches vary on the visitor journey.

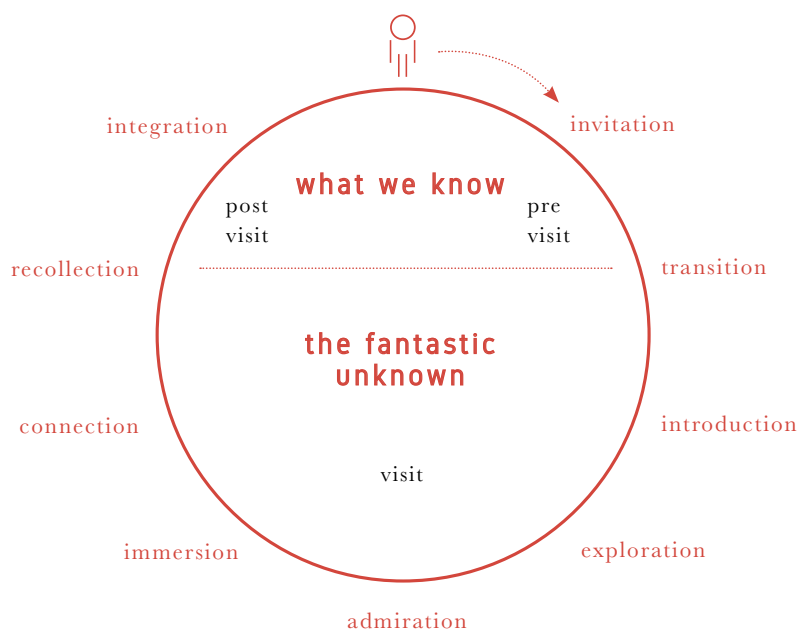


Figure 19. Experiential Journey by Bär & Boshouwers (2018).

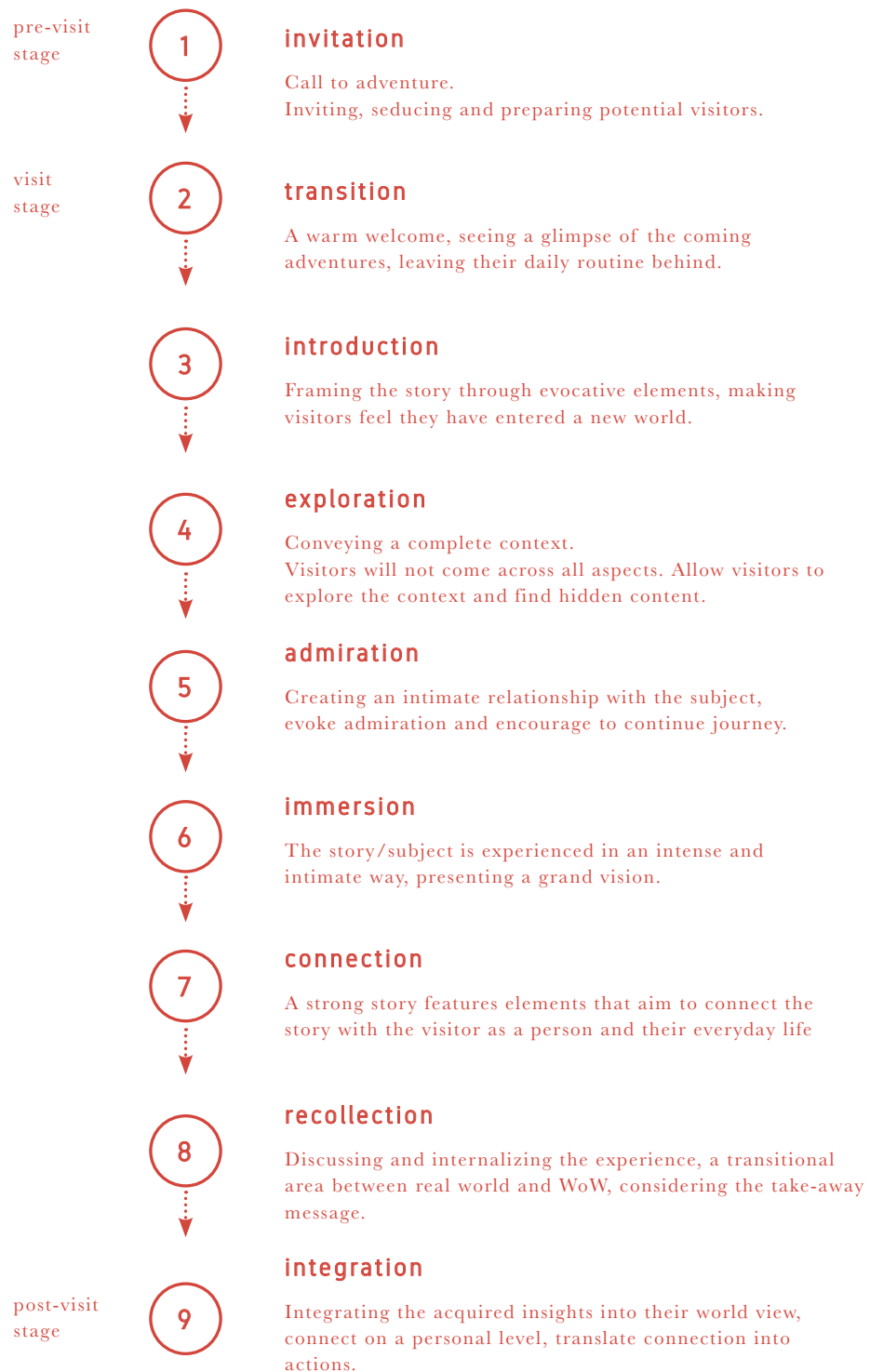


Figure 21. Experiential Journey following nine phases.

The framework for designing narrative spaces consists of nine phases (Figure 21) directing the visitor through the museum. The Experiential Journey encourages visitors to engage in the story.

The four core elements that were found (section 2.1.2) to meet the needs of millennials in their museum visit can be added to the framework of Bär & Boshouwers (2018):

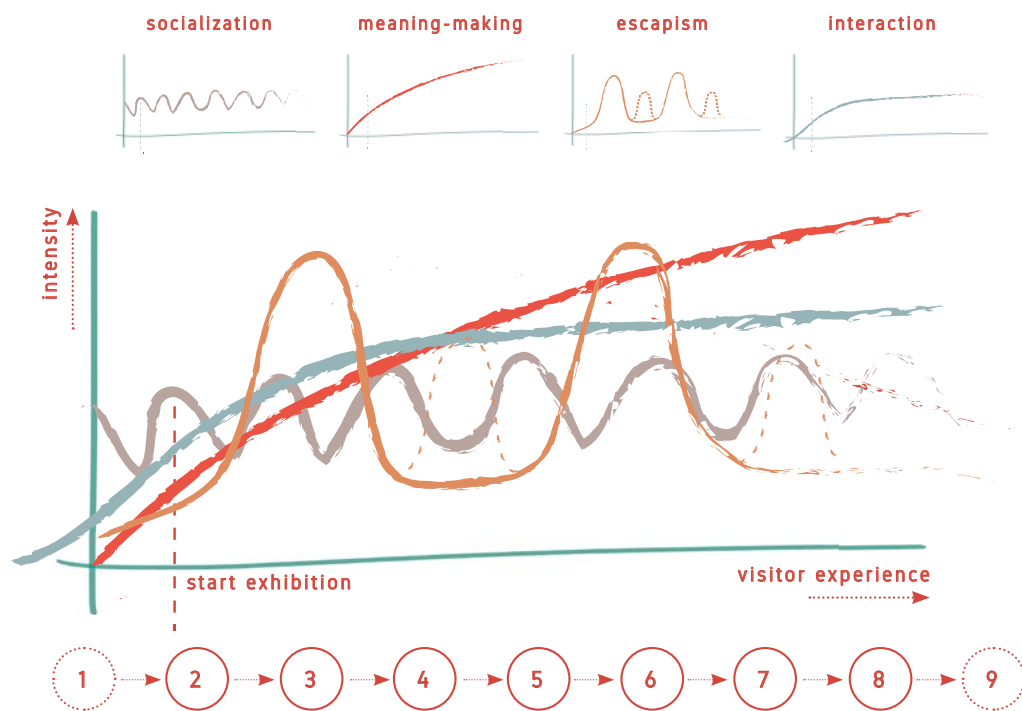


Figure 22. Integrated Experiential Journey.

In the following four sub-chapters, each core element is described in how to fulfill the element in the visitor experience. Although they are explained individually, they are all inter-related with each other.

2.2.2 socialization

For millennials, who come in small groups and want to stay together, a significant aspect of their visit is the group experience. Social interactions highly influence the museum visitor experience, and the conclusions people draw are affected by others. Studies of interpersonal communication (Lehn et al., 2001) in museums have revealed how social interaction influences paying attention to and engagement with exhibits (symbolic interaction, Blumer 1969). Visitors who come together regularly coordinate with each other in their participation with exhibits and activities.

'We're social beings, and many of our own beliefs are the product of our conversations with others.'

Bär & Boshouwers (2018)

Blumer (1969) demonstrates that activities around exhibits are the **center of social interaction** and interpretation, becoming the focus of reflection and self-reflection. However, individuals use objects to build private spaces within a public, open environment (Goffman, 1963).

Thus, interactive exhibits should be promoted in the center of social interaction. The activities around exhibits should support co-participation and collaboration as well as providing visitors to build their private spaces

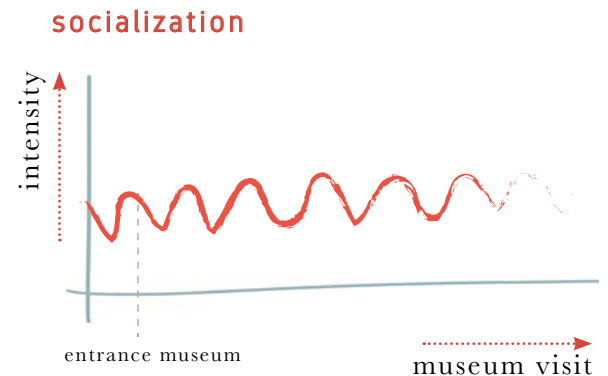


Figure 23. Continues social engagement around content.

momentarily.

According to Simon (2010), social objects are ‘the engines of socially networked experiences.’ Social objects should provide (interactive) tools to engage with each other around the collection ‘promoting visitors to discuss and share them.’

Each exhibit should provide **individual actions** that can add to a ‘social experience but are not essential to the exhibit’s success’ (Simon, 2010). The me-to-we approach (Figure 24, next page) shows how individuals can contribute to a broader social experience following the five steps. In order to activate social engagement around interactive exhibits, visitors should be instructed to use the object.

Additionally, when individuals’ tasks become entertainment for observers, they have something to talk about, and

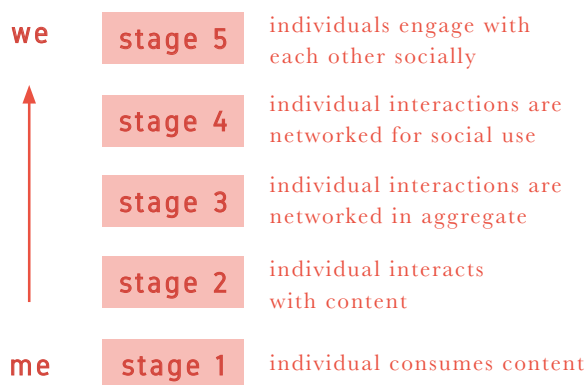


Figure 24. Me-to-we approach (Simon, 2010).

the experience becomes even more social (Simon, 2010). Thus, activities should allow people to use their bodies in interacting with the exhibit or contain viewable outcomes for other visitors to have something to talk about.

Open-ended techniques work well for social engagement (Simon, 2010; Bär & Boshouwers, 2018). Open-ended techniques that stimulate social engagement around content share two characteristics:

- There is no right or wrong answer.
- The activity draws on the visitor's knowledge.

In order to encourage people to be more thoughtful in their engagement with exhibits and to result in extensive and confident conversations, visitors should be **personally approached** (Simon, 2010). The design should enable visitors to relate photos to their own beliefs, prompting more self-reflection.

Additionally, visitors should be able to build on each other's answers to further stimulate interpersonal dialogue.

Imaginative, open-ended activities are for everyone; people with all levels of knowledge can develop stories around the content. Speculative activities are used to make visitors imagine and move away from the things they know (Simon, 2010). Thus, to make visitors create new stories around photos, the activity should encourage people to use the object (i.e. a photograph) as a reference for imagination.

Another way to stimulate interpersonal dialogue is to put objects (i.e. photographs) in conversation with each other. Thus, to provoke discussions around photos, two or more photographs should be placed in the center of the activity. Open-ended activities around multiple photographs activates visitors to imagine, and it allows visitors to construct their own story. This way, visitors are encouraged to look more deeply into photos, and the museum can present its collection in visual stories.

2.2.3 meaning-making

In cognition, meaning-making is the process of how individuals construe, understand, or make sense of the world and the self (Ignelzi, 2000). Through narratives and dialogues, people can (Bruner, 1991) understand what they think, reducing the complexity of the input from their contexts.

Museum researchers describe the visitor experience in terms of meaning-making (Falk & Dierking, 2014; Hein, 1998). In museums, meaning-making refers to an active interpretation of objects and activities, rather than the transfer of prepared knowledge. Meaning-making has to do with creating personal meaning, integrated with one's own beliefs. This underlines the significance of the internal processes of imagination and reflection during a visit.

The framework Falk and Dierking (2014) demonstrate consists of three contexts, organizing the complexity of meaning-making. The 'Contextual Model of Learning' is a contextually driven dialogue between an individual's personal, socio-cultural, and physical contexts.

The personal context represents the sum of personal experience and beliefs someone carries. The design should allow visitors to control their process of meaning-making. From a constructivist perspective (Hein, 2006), meaning-

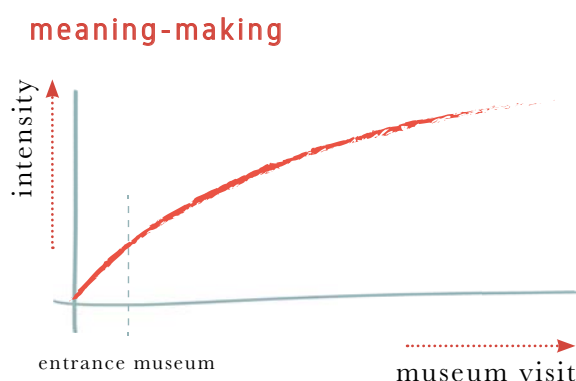


Figure 25. The desired process of meaning-making along the visit.

making is about what meaning the visitor chooses to make of the museum experience (free-choice-learning). The curatorial voice needs to be muted to activate personal meaning-making. Thus, the open-ended activities should allow a broad range of outcomes, where the focus is on exploration rather than on getting the right answers. Museum experiences without curatorial authority have reached a higher range of visitor participation (Robert, 1997).

A personalized, on-site experience (Simon, 2010) serves people with custom content. Thus, the design should provide visitors to 'pull' content from a rich content base and a mechanism by which visitors 'can retrieve content of interest.' A personalized experience is beneficial for the museum too, as it provides the museum to receive visitor information. The better the museum can understand its audience, the better they can serve the audience with a meaningful experience.

Culture and social relationships influence meaning-making. On a larger scale, visitors are affected by their cultural background in how they place the Fotomuseum within their communities. On a smaller scale, all social interactions that take place influence interpretation and decision making, as mentioned in the previous section.

The physical environment is how visitors

react to the surroundings, to interactives and exhibits, and how it affects active engagement. The framework of World of Wonder is used to create an immersive and inspirational environment and further explained in section 2.2.4.

Figure 26 illustrates how expectations are affected by personal beliefs and pre-visit motivation (Falk & Dierking, 2014). During visit, all three contexts (personal,

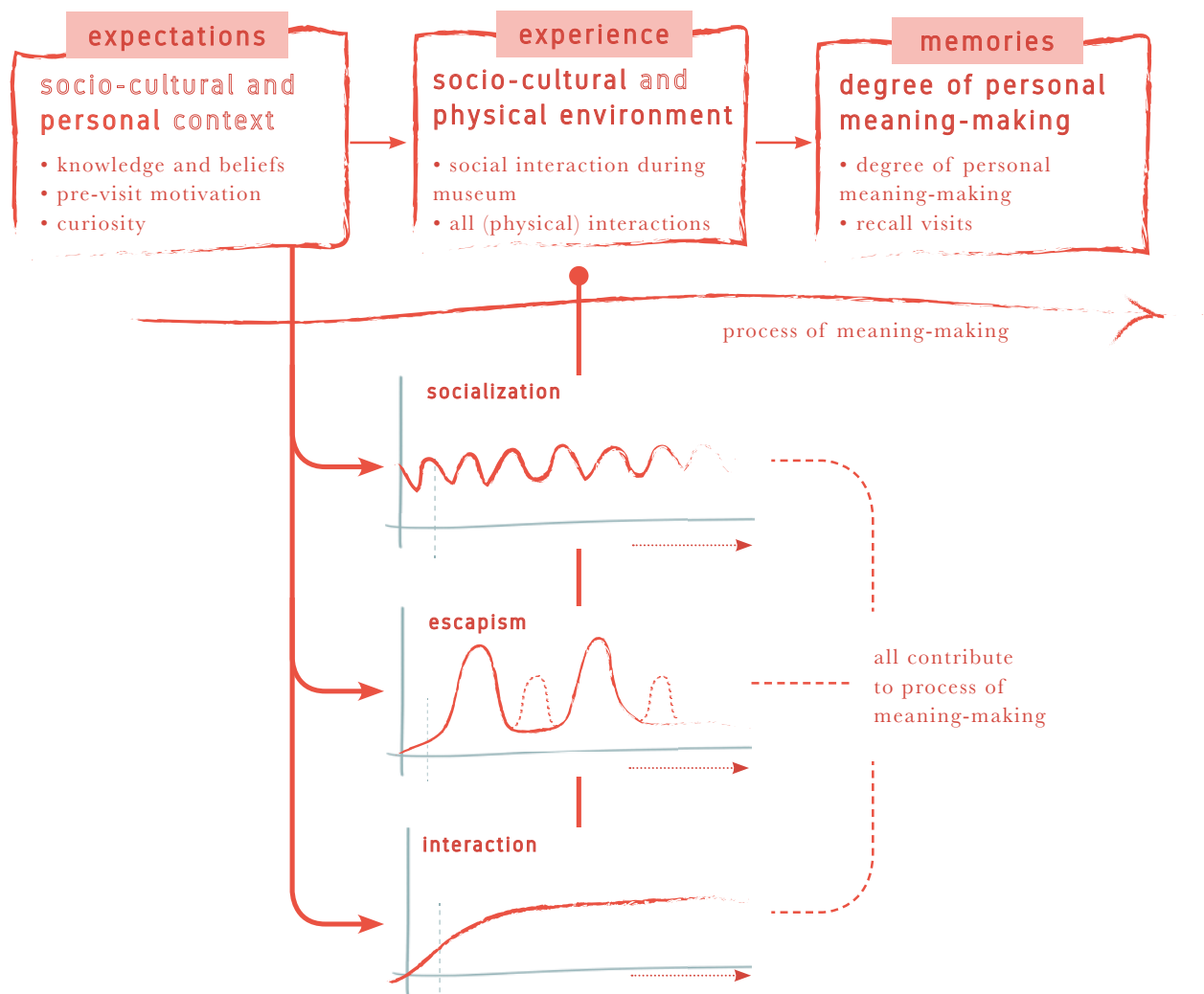


Figure 26. The core elements applied on the process of meaning-making.

socio-cultural, and physical) influence meaning-making. The remaining core elements (socialization, escapism, and interaction) all contribute to the personal meaning-making process.

2.2.4 escapism

In psychology, escapism is the tendency to seek distraction and relief from (unpleasant) realities of daily life, by seeking entertainment or engaging in fantasy (Cambridge Dictionary).

In order to enable visitors to immerse themselves in a new world and relief from their daily routine, the environment should inspire visitors to imagine. In this section, different aspects of spatial storytelling come to light. Explorative and inspirational studies on spatial design were conducted, relating to the Fotomuseum's archive, photography workplaces, classical archives, and more (Appendix C). The theory of World of Wonder and inspirational studies have resulted in four qualities for designing the narrative spaces:



discover



adventure



mysterious



imagination

integrated visitor experience:



Figure 27. Integrated visitor experience (Bär & Boshouwers (2018).

Imagination refers to personal interpretation, adventure to play, mystery and discover to creating curiosity.

Spatial storytelling is the sum of spatial design, scenography and museography (Figure 27); it is about designing the narrative space. A narrative space is a story expressed by physical elements in the spatial experience. The goal is to evoke a feeling of being inside a story. Museography represents the design of exhibits, creating spaces where visitors can use and consume content. In section 2.3.5, the requirements for designing immersive and interactive exhibits will be discussed.

The spatial design elements of classical archives (similar to libraries) were analyzed (Appendix C.1) to be used in the design. In classic archives, people move through different rooms to explore the collection. People can get immersed in the process of exploring, searching, discovering, filtering, selecting. As the activities should focus on exploration rather than finding the right answers, searching and walking around in an archive is used as a metaphor for designing the narrative spaces. Visitors should be able to walk around and discover spaces, areas and photographs. According to Falk (2009; 2014), visitors make choices based on curiosity. Active discoveries, such as finding hidden content and spaces, are perceived as very rewarding by visitors.

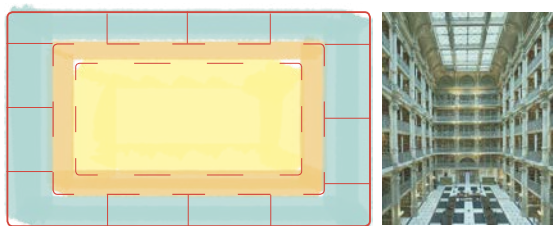


Figure 28. Classic archive with central atrium.

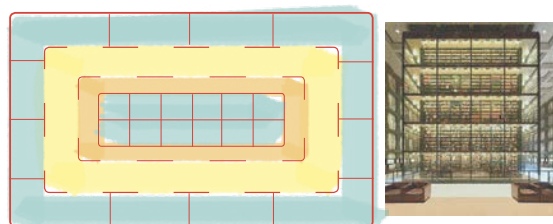


Figure 29. Modern archive with circular atrium.

file cabinets
corridors
atrium

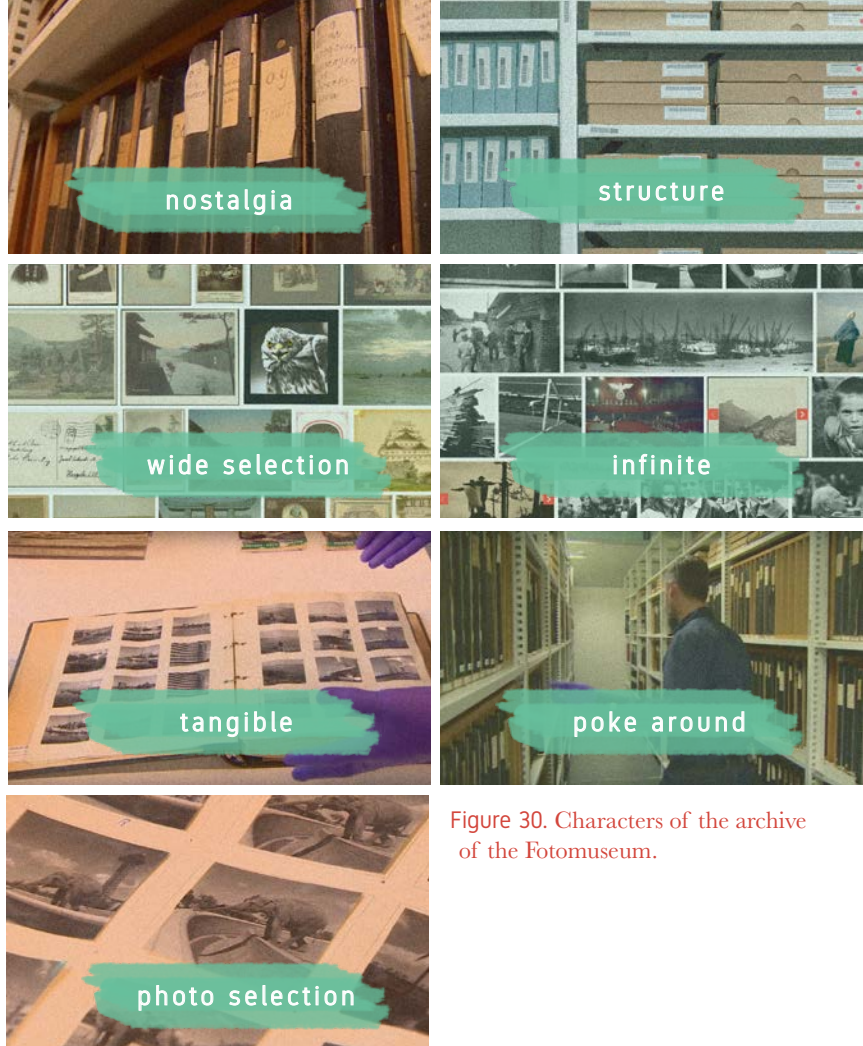


Figure 30. Characters of the archive of the Fotomuseum.

Classic archives usually have one spatial atrium where multiple side-rooms can be discovered (Figure 28 and Figure 29). In order to emphasize the museum as an explorational area, the design should allow users to discover new areas, going back and forth between areas and activities. The narrative spaces should balance between open space (like an atrium) and more closed, private spaces to be discovered. Corridors, for example, can emphasize a moment of ‘escape’ (or a discovery) along with the experience and at the same time, guide the visitor.

The Fotomuseum has the most extensive photographic archive of The Netherlands. To communicate the museum has a rich collection, visitors should be able to explore and poke around (Figure 30) in the digital collection:

- with a pre-generated structure;
- with tangible interactions;
- receiving pre-generated photo selections.

Figure 31 shows how the number of narrative spaces is the result of the division of the peak moments of the intensity of ‘escapism’ along with the visit. These peak moments refer to the moments when visitors want to get inspired by their surroundings. On the Experiential Journey (Figure 32), the six narrative spaces are shown in its evocative power. The larger the pink box, the higher the evocative power. In section 2.3.4, the balance between

evocation and narration is described.

The organization of human space is uniquely dependent on sight (Tuan, 2001). In combination with sight, hearing enriches the apprehension of space. Sound specifically enlarges one’s spatial awareness and dramatizes spatial experience. Thus, in stage 6 (immersion) of the Experiential Journey, the design should make use of sound to make the visitor meet in an intimate and intense way.

As mentioned in ‘Project Outline,’ section 1.3.2 Practicalities, the museum has impressive architecture. According to Bär and Boshouwers (2018), architecture and Experience Design should reinforce each other. Thus, the concrete columns will be emphasized in the design.

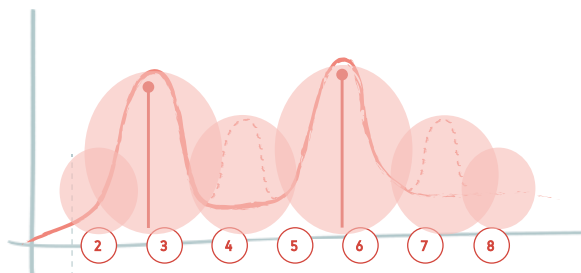


Figure 31. Using the intensity of escapism to divide the experience into different spaces.

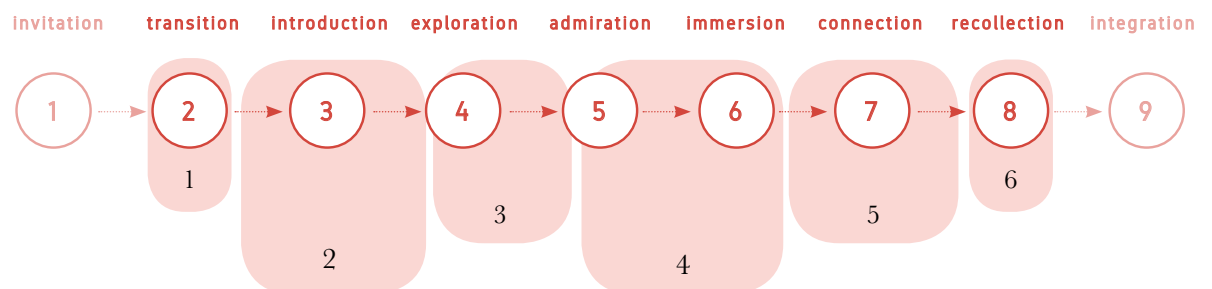


Figure 32. Different narrative spaces along the museum experience (escape moments).

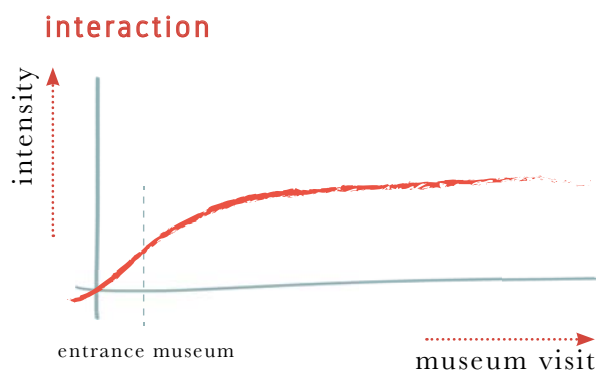
2.2.5 interaction

In this section, practices about interactive exhibits are described to make visitors immerse themselves in their interaction with exhibits. Research in the field of exhibits in museums has shown that the addition of interactives to an exhibition can increase the amount of time a visitor spends in that exhibition (Stevenson 1994). Interactives 'inspire and provoke exploration' making visitors look more deeply at regular exhibition displays.

Interactives are defined as 'hands-on' activities (Witcomb, 2006) and are characterized by:

- the technical construction functioning as a mechanism to receive and send information;
- the physical exhibit supporting (and hiding) the technical construction;
- physical entry points, allowing the visitor to operate and physically interact with the exhibit.

Interactives provide entertainment and fun. They can activate visitors by empowering them to make their own choices on their journey. Vermeeren &



Calvi (2019) refer to the Attention-Value model of Bitgood (2010), mentioning exhibit elements are only paid attention to if the 'perceived value' is considered high enough. The primary motivation to pay attention to an exhibit element is the balance of 'utility/satisfaction' and 'costs' such as time and effort.

How to make someone interact with an exhibit? Bitgood (2010) describes different stages of visitor attention when interacting with an exhibit (Figure 33). In the first stage, unfocused attention, the visitor is aware of a wide range of stimulus inputs. Attention is captured through either orienting or searching. A visitor needs to be triggered to consider

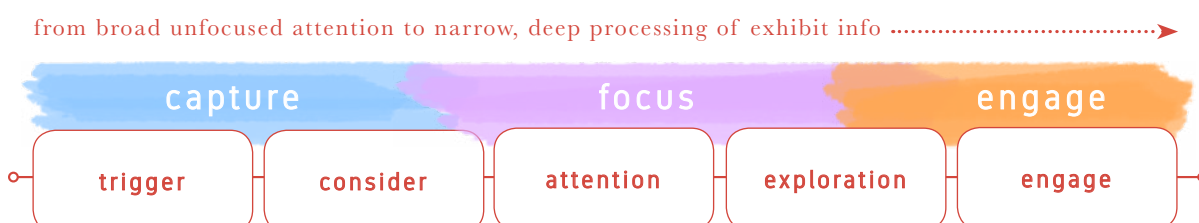


Figure 33. Different stages of visitor attention according to Attention-Value model of Bitgood (2010).

paying attention. Once attention has been captured, the focus of attention is narrowed to a single exhibit element. At this stage, visitors are still capable of being distracted by other stimuli; thus, each interactive exhibit needs some guidance to enable the user to consider its importance. While exploring the possibilities, the user gradually immerses in the exhibit content, involving deep sensory-perceptual or mental involvement.

Thus, to immerse visitors around photographs, each interactive exhibit should be designed:

- with a **trigger** to invite the visitor to interact with it at acceptable effort;
- to **explore** and **immerse** in playful and meaningful interactions.

Constructivism (Hein, 1998) and interactivity together are described as 'dialogic interactivity' (Witcomb, 2006), triggering dialogue using open-ended activities focusing on exploration. Dialogue is becoming 'the basis for a new understanding of interactivity in museums'. Dialogically interactive spaces allow visitors to interact with the story, conveying a highly aesthetical form of spatial storytelling. Thus, visitors should be able to explore the environment with the use of interactives.

Dialogically interactives allow visitors to represent their own beliefs, interpreting the content. Thus, visitors should consider

themselves as experts to interpret photographs, being part of the narrative structure. Additionally, the design should encourage visitors to document their interpretation of the activity for others. The 'opinions of non-experts and diverse creations' (Simon, 2010) can emphasize the Fotomuseum as an open place.

According to Simon (2010) 'participants thrive on **constraints**, not open-ended opportunities **for self-expression**'. Constraints stimulate creativity. Thus, in order to make individuals collaborate confidently in creative experiences, activities should contain restrictions with personal entry points.

Shedroff (2000) argues that most engaging, creative experiences allow for productivity, creativity and communication. Thus, to engage visitors around activities, the exhibits should allow visitors to create and produce content as a way to communicate with each other.

photography in various ways

It seems that millennials do not always perceive photography as a form of art (insights from empirical studies, section 2.1.2), resulting in dissatisfaction when interpreting specific photos in the Fotomuseum. In this chapter, photography is demonstrated from different perspectives. First, photography is described as a process, aiming to make millennials experience photography more than a simple ‘press on a button.’ Then, several photographers and their languages are presented to identify how photography can be seen as a form of art. To continue finding techniques for visitors to see relevance in photography, different literature studies were conducted to create a simplified framework for deep looking and reflection.

2.3.1 photography as a process

Millennials have difficulties in recognizing relevance in photographs. As one participant mentioned during the context mapping session, she does ‘not feel the same sympathy for photographers as for painters.’ Through online research and conversations with staff of the Fotomuseum, (professional) photography has been analyzed* (Appendix D), resulting in a simplified model with four phases. The purpose of this study is to be able to translate certain aspects of photography in the narrative structure.

*The analysis focused on analog photography since the Fotomuseum’s collection mainly consists of analog photos. However, digital photography has many similarities in its process (as Photoshop is a digitalized version of the darkroom).

There is a difference in taking and making photos. Most people can take pictures, while (professional) photographers make the image, framing a story. Four phases (Figure 34) are described that lead the process of making a photograph.

Preparation (before capture) can start from having a specific target (e.g. a specific building) or unconsciously being triggered about an occasion (e.g. personal history). During preparation, a photographer thinks about a subject to photograph. The photographer might explore the subject or context, preparing him or herself to



process of making one or more photographs to convey a story

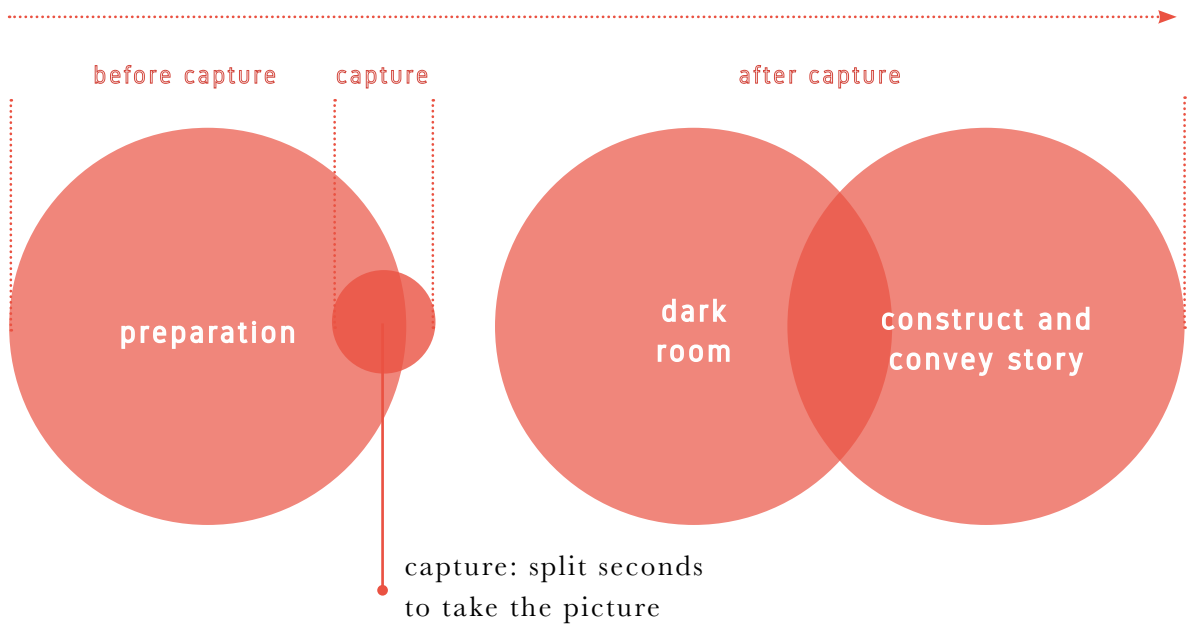


Figure 34. Process of making one or more photographs.

capture the target as intended. Within this phase, imagination is highly present.

Not surprisingly, **capture** is taking the photo itself. With professional photography, it is about setting the camera right, about finding the right composition, about an eye for detail, about knowing how to work with pore lighting or with bright sunlight.

After capture is divided into two phases: ‘darkroom’ and ‘constructing the story.’ In the darkroom, the ‘framed’ image is being edited. The photographer plays with different filters and exposure times to create the intended effect. In the darkroom, composing a photograph can be an experience in itself; the artist uses techniques to create beauty in it. Whereas in the darkroom photographs are being taken care of individually, ‘constructing the story’ is finding the right combination of multiple photographs.

The collection of the Fotomuseum contains many albums and books constructed by photographers, reflecting the world how they see it. These ‘visual stories,’ these messages, these reflections of the world, are carefully combined and constructed to convey a story, a story to show to the world. Each photograph is a ‘building block’ of the story.

In Figure 35, photographic skills are presented on a horizontal timeline. These skills are briefly described in Appendix D.1. In preparation and capture, personal and social skills are dominant, while artistic and technical skills are more dominant after capture.

Although in reality the process is less sequential and more random, the process has been simplified with each phase having one central task or concept:

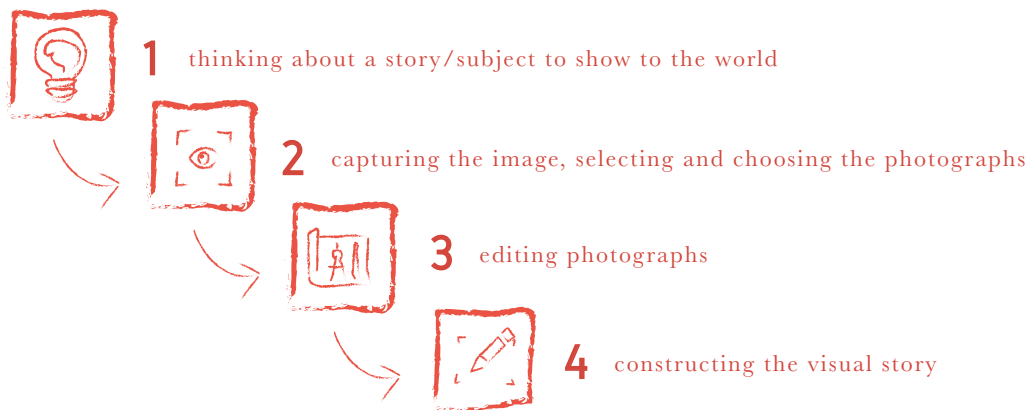


Figure 35. Process of photography.

Robin de Puy (2016) mentioned in the documentary ‘Ik ben het allemaal zelf’ (‘I am it all myself’), she thinks photography is much more about the person behind the camera than the person in front of it (the subject). Thus, the design should support visitors to express themselves with the use of photos in each of the four phases. Additionally, the design should enable visitors to connect with each other through photos, as photography is also about connecting with people.

2.3.2 photography as a language

On the one hand, photography is very accessible; it the most realistic form of art. On the other hand, photos are everywhere. Nowadays, the world is bombed with images through ads and social media. Especially for young adults who have been growing up surrounded by digital technologies, some even without knowing the existence of analog photography, experience photography differently than older generations.

What a photographer carries with him or her is often an occasion to start photographing. For instance, Robin de Puy (2016) has experienced a period in which she only pictured people who were left out in society because she feels left out as well. Ed van der Elsken (Fotomuseum, 2019) was brutal in approaching strangers because he believed then he could capture them most honestly.

Photographers are artists; they have something important to say and strive to deliver this message to the world (Art Photo Academy, 2018). They use tools and techniques as a means of creative expression to convey the right message. Thus, to make visitors use photos as a way to say something, they should be able to use tools that support them in creating and communicating their own 'message' with photos.

Below some examples of photographer-specific languages.



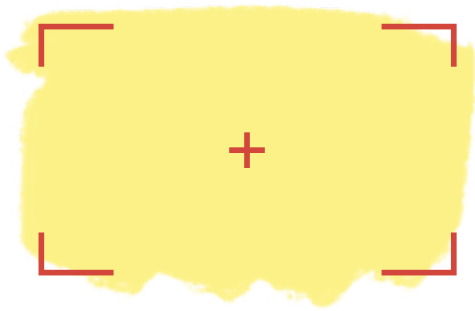
Aart Klein is known because of his distinct, high contrast effect. He used the darkroom to create such pictures, experimenting with exposure, filters and developers.



Ed van der Elsken used different techniques in the dark room to add highlights or to darken certain areas. In some of his photos you can clearly see he used the dodging technique (reduce exposure at specific area). He also used the burning technique; to 'burn' the surface, for e.g. to see more details.



Cas Oorthuys is known because of his feeling for composition. He used the environment to create lines in his photos to guide the eye. He used extraordinary perspectives; taking pictures from above, or from below. He supported his artistic style by photographing in squares, instead of regular rectangles.



how can a photograph become meaningful?



placing it in a context;
developing a story around it

2.3.3 interpreting photographs

Another way to create relevance around photographs is to activate deep looking. Critically looking at a photograph is a form of active engagement (Bitgood, 2010). First, an introduction to photographs and questioning its truth. Then, the answer is addressed on how to encourage visitors in looking more deeply in photos. This section ends with a simplified model to stimulate reflection around photos.

realistic untruth

A photograph is an image created by light falling on a surface. Photographs are reproductions of what the human eye would see; the camera or eye uses its lens to focus the light. In that sense, photographs are realistic; you put on the canvas what you see with your eye, nothing more and nothing less.

However, can a photograph demonstrate what really happened? What happened inside the frame of the surface, can be photographed to guide the eye of the viewer and make us believe things. The distortions in photographs are often active choices by the photographer. Artists who use photography as their means of creative expression give us a different view on reality and can make us see things that are not even there. Some examples of 'framed' photos:



UMBRA, Larvae, Pink (2014),
Viviane Sassen, Fotomuseum



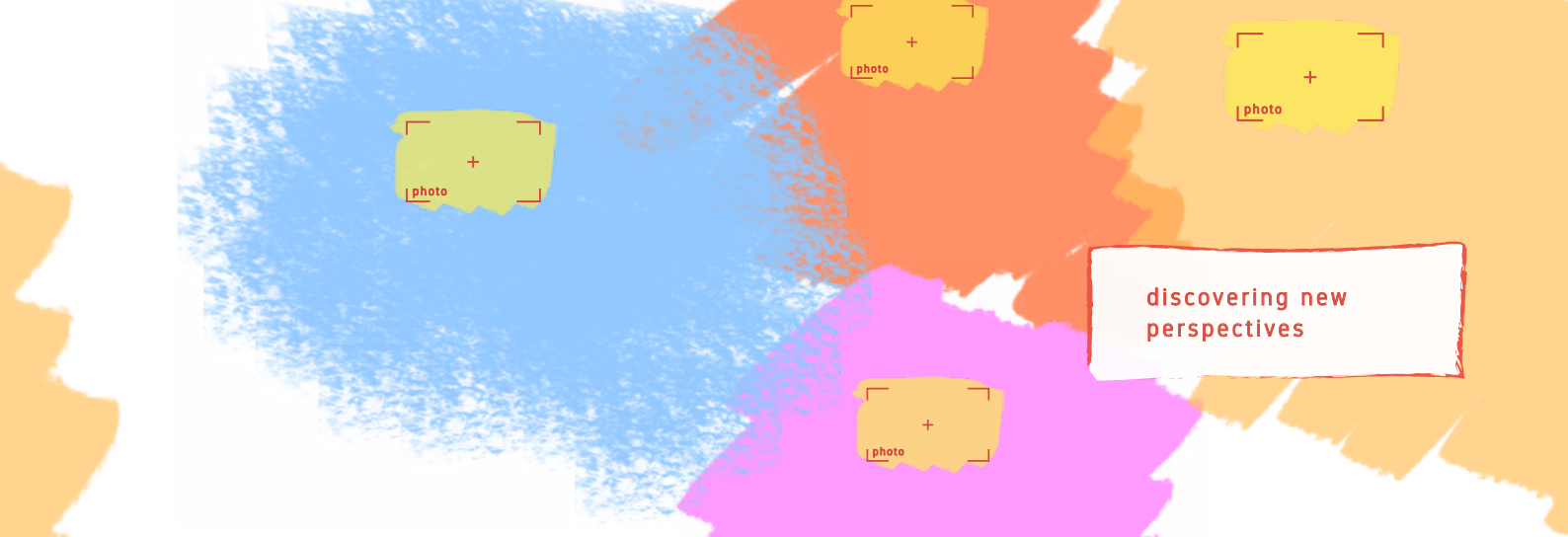
New York, Peter Martens, Fotomuseum



Joop den Uyl in de Tweede Kamer, Den Haag
(1980), Nico Naeff, Fotomuseum

deep looking

An aesthetic experience (Appendix D.4) is found to be an 'intense involvement of attention in response to a visual stimulus.' Young adults find it challenging to pay attention to a photograph longer than a few seconds (section 1.2.1). The design should support visitors in looking at photographs longer than a few seconds to potentially reach an aesthetic experience.



Hans Aarsman (Hollandse Meesters, 2015), also representing the collection of the Fotomuseum, calls himself a photo-detective. ‘With all present clues in a picture,’ he speculates what could have happened outside the frame. The details are those that reveal something; the details make the story.

Visual thinking strategies (VTS), the intersection of creativity and critical thinking, encourage deep looking. With VTS, people attach actions or experiences to the content in the image, animating the image (Shapiro et al., 2005). The interpretative method is used to encourage visitors to talk about what they see in art (Moeller et al., 2013). Thus, in order to make the visitor create new understandings, visitors should be encouraged to explore a photo on a deeper level and talk about what they see in a picture, as collaborative thinking stimulates deep looking.

Critical thinking is a way of thinking that helps a person in stepping aside from his prejudices to discover new possible ‘truths.’ Critical thinking (Moeller et al., 2013) is a thinking process that leads a person to new paths of understanding, developing new meaning. It is a dialogue between interpretation, discovering the subject through observation, and reflecting the content to put in a new perspective. Different critical thinking models are combined (Appendix D.5) that have resulted in a simplified model (Figure 36).

The aim of applying this model is to activate relevant thinking processes and make visitors discover stories around photos that give them new insights or understandings about themselves or the world. The simplified model for stimulating critical ‘looking’ is used in the design framework (chapter 3).

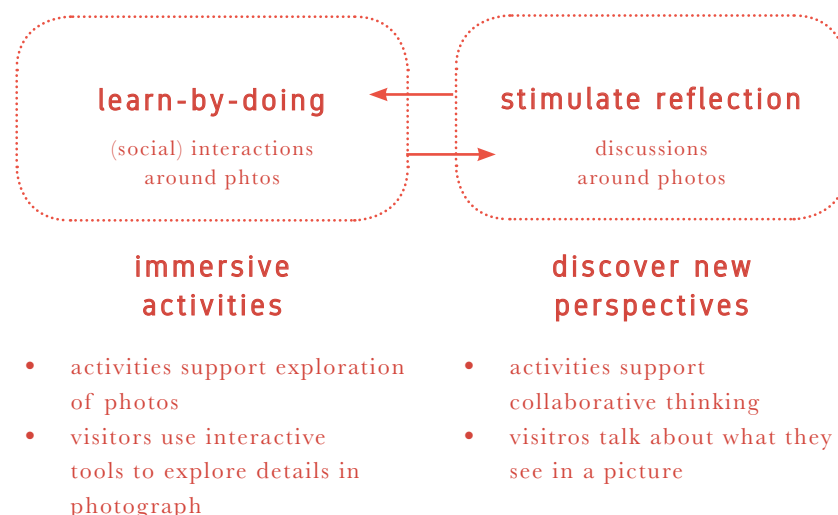


Figure 36. Basic model to stimulate active interpretation and developing new meaning.

2.3.4 narration

In order to not get lost in exploration and free interpretation, there should be some guidance along the visitor experience. According to Bär & Boshouwers (2018), evocation, narration and information needs to be balanced (Figure 37). Evocative communication is used to give rise to a creative mindset. It allows for personal inspiration and activates participation. The backbone of the experience is narration; it connects separate components to a whole, forming the bigger picture. A good narrative moves visitors through highlights and moments of rest. Informative communication allows visitors to pull information when entering exhibits.



Figure 37. Communicative approaches (Bar & Boshouwers, 2018)

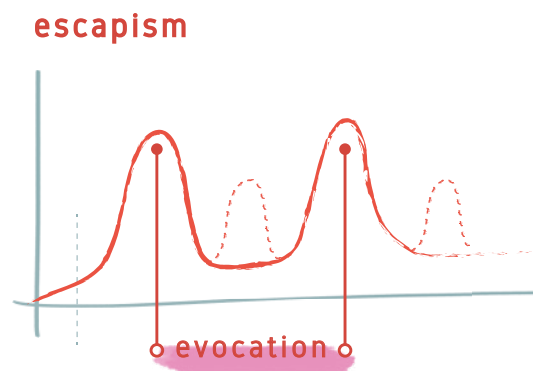


Figure 38. Evocation applied on moments of high intensity escapism.

The balance of the communication approaches on the Experiential Journey is presented in Figure 39. The evocative approach (pink) is applied to those moments visitors want to feel escaped through an inspirational force (Figure 38). The narrative backbone (yellow) guides the visitor through the experience, conveying a clear and motivational story. Visitors can pull content (red) when facing and interacting with exhibits.

Jenkins (2005) describes different narrative architectures for game design. Game designers tell stories designing complete environments, creating a narrative language with a goal (plot), and a story (how to reveal the plot) and translates this into the narrative and evocative elements of the design. Narration should open up space into which the visitor's thoughts can flow. A proper structure of activities in the imaginary worlds facilitates the visitor's movement towards the plot.

A combination (Figure 40) of two narrative architectures is chosen to be the right

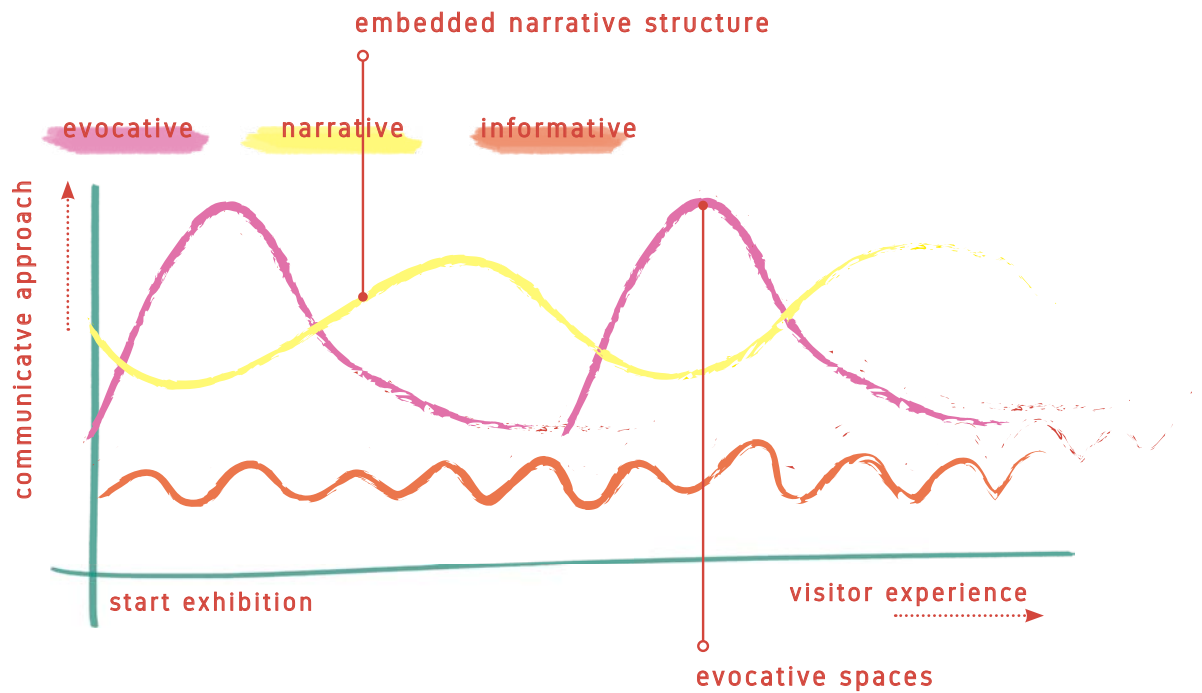


Figure 39. Communicative approaches balanced on the visitor experience.

balance for the design:

- evocative spaces, evoking pre-existing narrative associations;
- embedded narrative structure, embedding narrative information within the activities.

Evocative spaces are spatial stories expressed by an aesthetic environment. Visitors explore the space rather than developing the plot and are ‘held together by broadly defined goals.’ Evocative spaces inspire visitors to free their imagination. **An embedded narrative structure** allows the visitor to construct the plot through its interactions. Multiple guiding activities help the visitor to construct the plot filling in the gaps. These sub-activities fall back on a broad narrative language within which these actions become meaningful in moving towards the plot. Thus, the design should consist of **open-ended activities guiding the visitor in moving towards a plot** with in between evocative spaces, presented as in Figure 40.

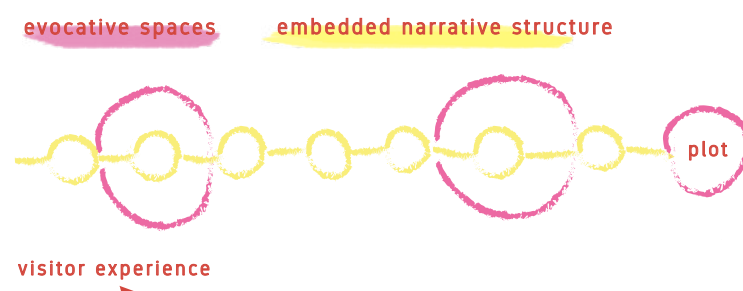


Figure 40. Narrative structure for visitor journey.

conclusion research

The research phase aimed to set requirements for designing a social and interactive experience to engage millennials around the collection of the Fotomuseum. Different research techniques were conducted to identify the building blocks for the design framework (section 3.1) to create a holistic concept, striving for a meaningful museum journey for young adults.

To engage millennials around the collection of the Fotomuseum, they should be invited with a promise, conveying a clear message before the visit. A digital platform should enable visitors to explore the collection and start the visitor experience from home by showing co-produced content. Enabling millennials to share their experience on Social Media, such as Instagram, could reach a wider audience and emphasize the Fotomuseum as an open and social place.

In the museum, young adults are engaged around photographs through open-ended activities. These social activities should contain personal entry points for visitors to express themselves and connect with each other in creative experiences, encouraging dialogue, and other forms of social interaction around photos between visitors that come together.

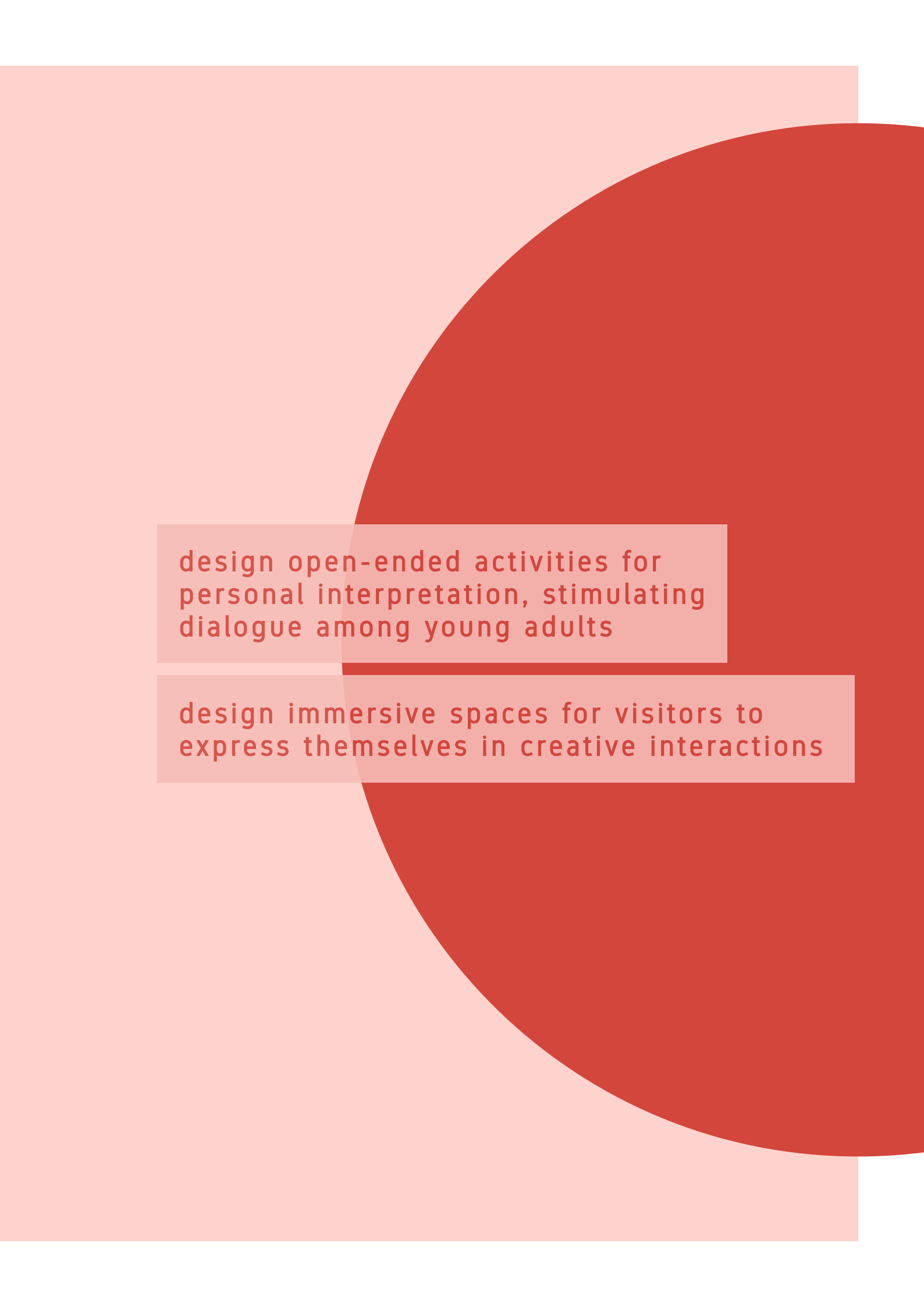
Activities around interactive exhibits should consist of a trigger to explore the collection

with interactive tools. These exhibits should allow visitors to create and produce content as a way to communicate with each other, conveying their ‘own’ message. The design should encourage visitors to document their ‘message’ for others.

In order to empower visitors to use their voices and feel inspired, a clear narrative language should be designed. The Experiential journey (Bär & Boshouwers, 2018) is used as a base to design the journey, in combination with a four-phase model illustrating the process of photography. Visitors are guided towards the plot through embedded activities in six different narrative spaces varying in evocative power, making them discover spaces, areas and photographs. Activities are balanced in ‘doing’ and ‘reflecting’, aiming to make visitors gain new understandings regarding photography and the world.

For an extensive list of the requirements, please refer to Appendix G.

The holistic design framework for designing an overarching social museum activity is demonstrated in the following chapter. Additionally, the initial design brief is presented consisting of a design goal and design principles.



design open-ended activities for
personal interpretation, stimulating
dialogue among young adults

design immersive spaces for visitors to
express themselves in creative interactions

phase one
analysis

3 design framework

introduction

In this chapter, the created framework for an overarching social museum activity is presented. The framework combines the results gathered through empirical and literature studies of millennials, literature studies for engaging and social museum experiences and literature and explorative studies for spatial storytelling.

First, a summary of the four core elements for an engaging experience for millennials is presented. These elements have resulted in

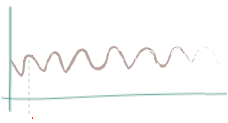
two main design principles. From these design principles, the framework for an overarching social museum activity is demonstrated. The holistic framework consists of a narrative architecture that combines elements of the process of photography and the Experiential Journey (Bär & Boshouwers, 2018). Twelve additional design principles are presented supporting the framework. Finally, the initial design brief is presented, followed by an experience vision to interpret the intended experience further.

3.1

design framework

To design an engaging experience, four core-elements are used as the basis for generating the design framework. The elements are:

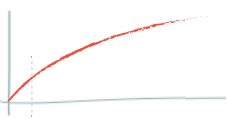
socialization



As the small group activity is a major part of the visit, the design should **support** and **encourage social interactions** along the entire museum experience, for two visitors coming together*.

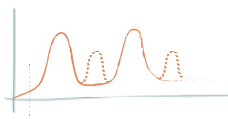
* The focus is on two visitors, however the design should allow social interactions between three to four visitors as well.

meaning-making



Open-ended activities work well for explorative and social environments. Provide visitors a personalized on-site experience and make them **use their own beliefs** and knowledge to make meaning around photographs.

escapism



Use spatial storytelling with six narrative different stages as presented in section 2.2.4, using the four qualities.



discover



adventure

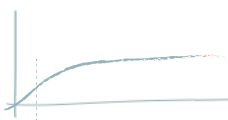


mysterious



imagination

interaction



Provide **interactive tools** that support exploration and provide visitors to **express themselves in creative** interactions. Each interactive exhibit should consist of the right immersive elements (Figure 41).

From the core elements, two main design principles have been formulated:

design principle one:

design open ended activities stimulating dialogue among young adults (who come together)

design principle two:

design immersive spaces for visitors to express themselves in creative interactions

A simplified framework for an overarching social museum activity is presented in Figure 42 on the following page. The framework combines the two main principles, allowing visitors to connect with each other in creative interactions around photos.

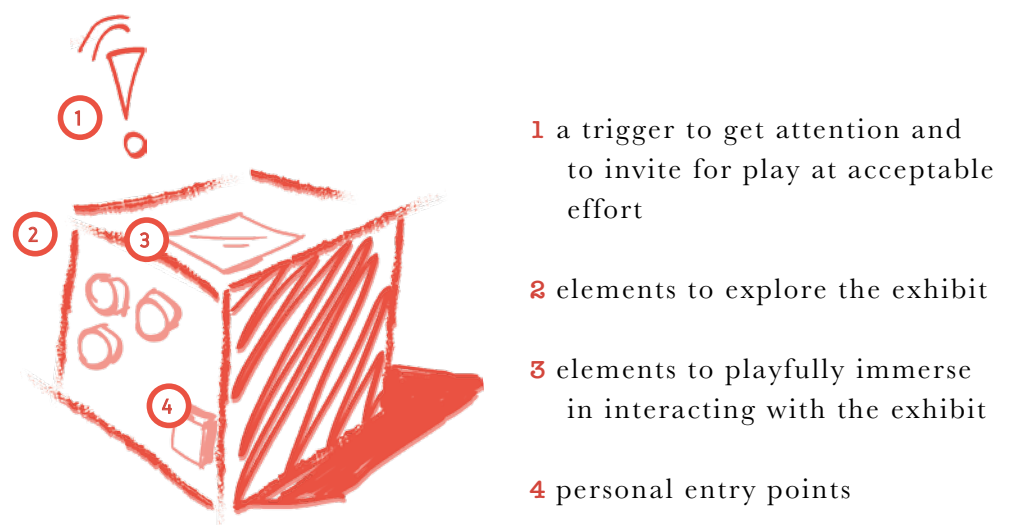


Figure 41. Elements of interactive exhibit.

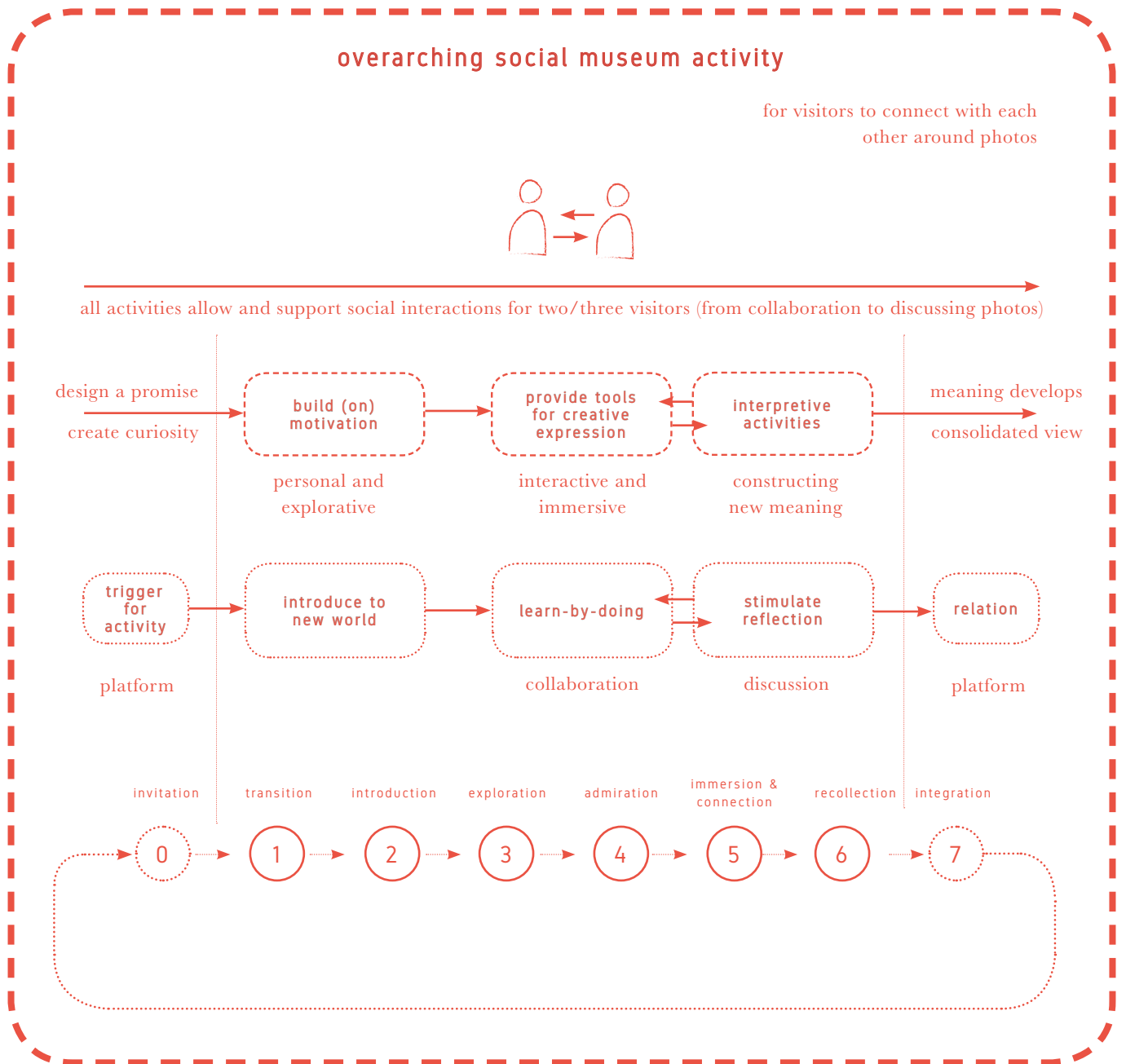


Figure 42. Overarching museum activity.

As the social aspect is a major part for millennials to visit a museum, the museum should enhance social interactions and encourage visitors that come together to connect with each other. The framework illustrates how an environment supports collaboration and interpersonal dialogue. First, visitors are invited to explore the co-produced content on a platform. During visit, visitors are introduced to the story by an explorative environment. Then, interactive tools help individuals to interact and engage with each other around photos. The activities should make visitors express themselves and through these social and creative interactions, photographs (i.e. the Fotomuseum) become meaningful to millennials. The conversations that rise around photographs make visitors look more deeply and construct new meaning, as collaborative thinking is a way to see things in different perspectives. After visit, visitors relate themselves to the museum through their meaningful experience and the platform.

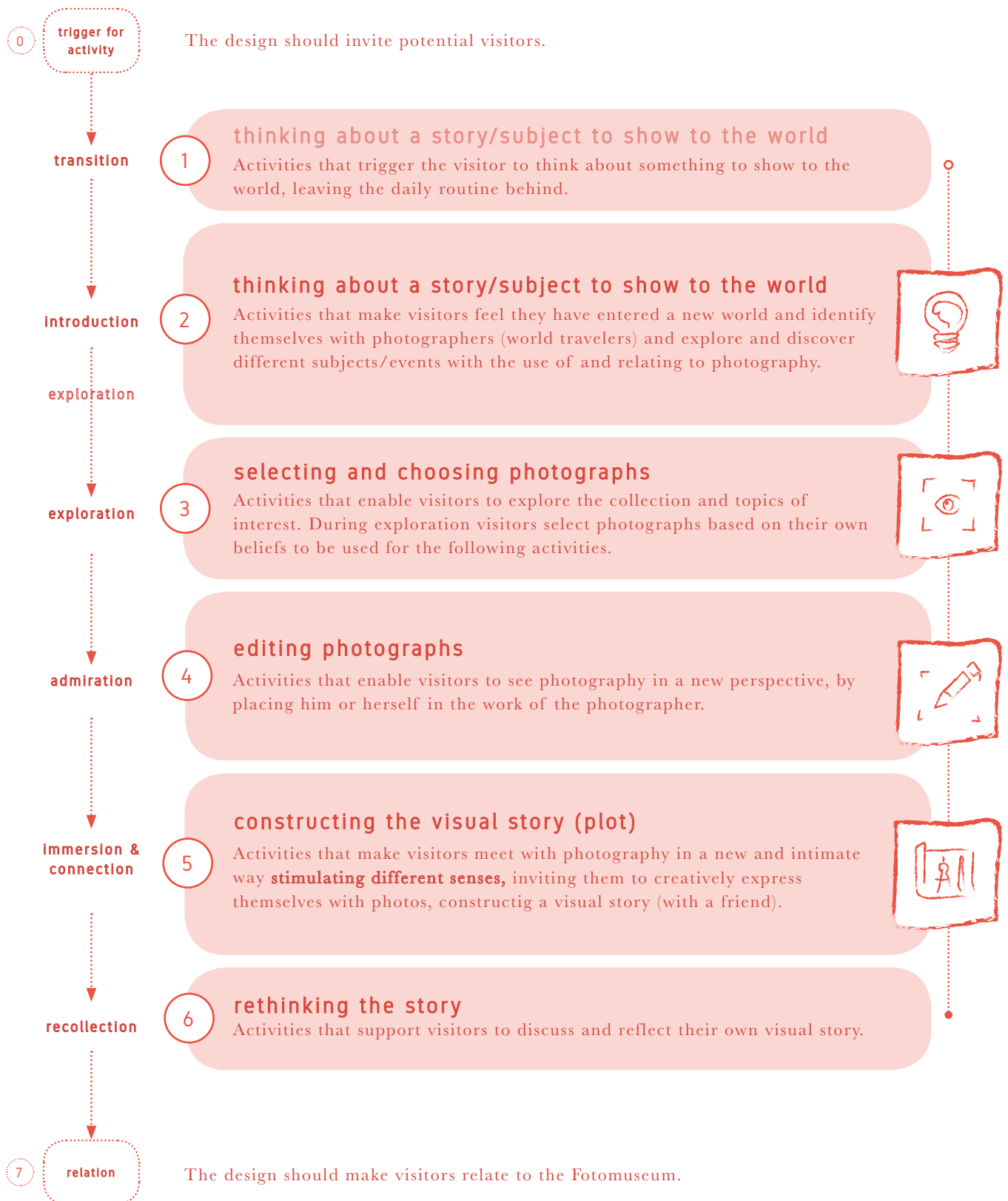


Figure 43. Narrative architecture: different narrative spaces inside the Fotomuseum and their corresponding activities.

The narrative architecture for the museum visit is shown in Figure 43. The journey has been divided into six narrative areas. The evocative power of each space is shown by its size (pink boxes). The activities for each space are described in the pink boxes, using the characteristics of the process of photography. The scenography should evoke visitors to think and place themselves in the act of an expert, using own beliefs and pre-existing knowledge to interpret the photos and corresponding activities.

In addition to the presented framework resulting from the two main design principles, twelve more design principles are formulated. Appendix G presents the list of requirements that are all applied into the design framework.

design principle 3

make the digitized collection part of the on-site experience and extend the experience by enabling visitors to explore the collection outside the museum's walls

design principle 4

offer a two-way interaction and motivate visitors to create, comment on and share content by treating visitors as individuals

design principle 5

provide a diverse experience: show the diverse collection and put photography in different perspectives

design principle 6

bring photography to actuality, create a link between the older content and the present

design principle 7

provide young adults an experience in where they can build their own meaning around certain topics that make them feel involved with the world



give them a voice how
they view the world



emphasize photographers
as world explorers



design principle 8

provide visitors to share their experience with the outside world, consisting of an entertaining element which is shareable

design principle 9

make visitors use photos as a way to express themselves, supporting them in creating and communicating their own 'message' with photos with the use of interactive tools

design principle 10

encourage individuals to confidently participate in creative activities by designing personal entry-points and constraints on every open-ended activity

design principle 11

provide one holistic social experience where visitors who do not want to contribute, make meaning too and where other visitors can connect with each other

design principle 12

provide visitors to discover hidden content (pull-content) and new areas

design principle 13

encourage deep looking by putting photos in the center of the conversation and/or activity

design principle 14

design spaces with the explorative character of an archive using the four qualities

3.2

design brief

overarching social museum activity

‘around the collection of the Fotomuseum Rotterdam’

In this section, the initial design goal is presented. To engage millennials around the collection of the Fotomuseum, a framework is proposed to design an overarching social museum activity. The social character of the experience emphasizes the Fotomuseum as an open and essential institution and it creates meaningful experiences for millennials around the collection.

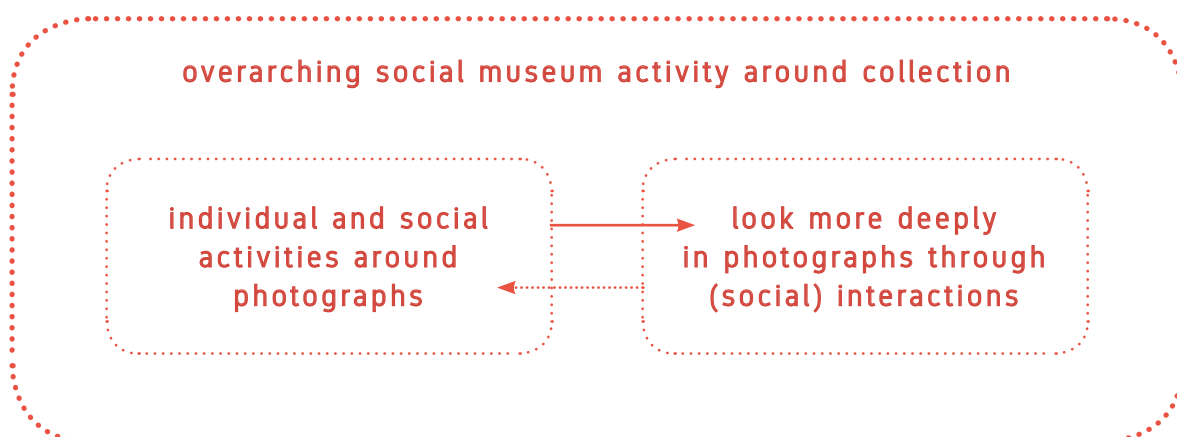


Figure 44. Simplified framework for social museum activity.

Figure 44 shows how activities around photos make visitors look more deeply in photos, and thus engage around the collection.

The design goal is divided in two parts. The first part is to emphasize the social aspect, triggering dialogue, to be achieved. The second part mentions the design framework as the base for designing the experience. Additionally, the layers for designing the concept are presented, starting the design phase with layer one.

3.2.1 design goal

the design of a social museum experience mediated by an **overarching museum activity** around the collection of the Nederlands Fotomuseum, **triggering dialogue** among peers around photographs

the sub-activities and the environment should enable visitors to engage in one holistic social and creative experience, facilitated by the proposed design framework

design layers for activity:

1 the story to convey for an open environment

2 the (social) interactions around the collection

3 spatial and interaction design

experience vision

For further interpretation of the desired experience, an experience vision (Figure 45) is developed. The vision functions as inspiration and as a reference for the designing the concept and the social activity. In addition to the core elements, the four qualities for the narrative spaces are mentioned. The interpretation was made by translating the qualities combined with the four core elements into an abstract example, with a reference to deep looking and thinking in perspectives (Appendix E.1).

‘Going on investigation as private detective Sherlock Holmes to solve a case’

adventurous

Going on adventure to find the cues to solve a case.

meaning-making

Personal interpretation, actively placing oneself in the case.

discover

Discover new cues and perspectives to come closer to the plot.

socialization

Going on adventure with your partner, discussing and reflecting on the findings.

mysterious

Privately investigating a case, entering mysterious places.

escapism

Escaping from personal life, totally immersing in the case. Danger and excitement.

imagination

Imagining what could have been the case, finding bits and pieces to construct the whole.

interaction

Interacting with the mystery through tools and other people that are involved.

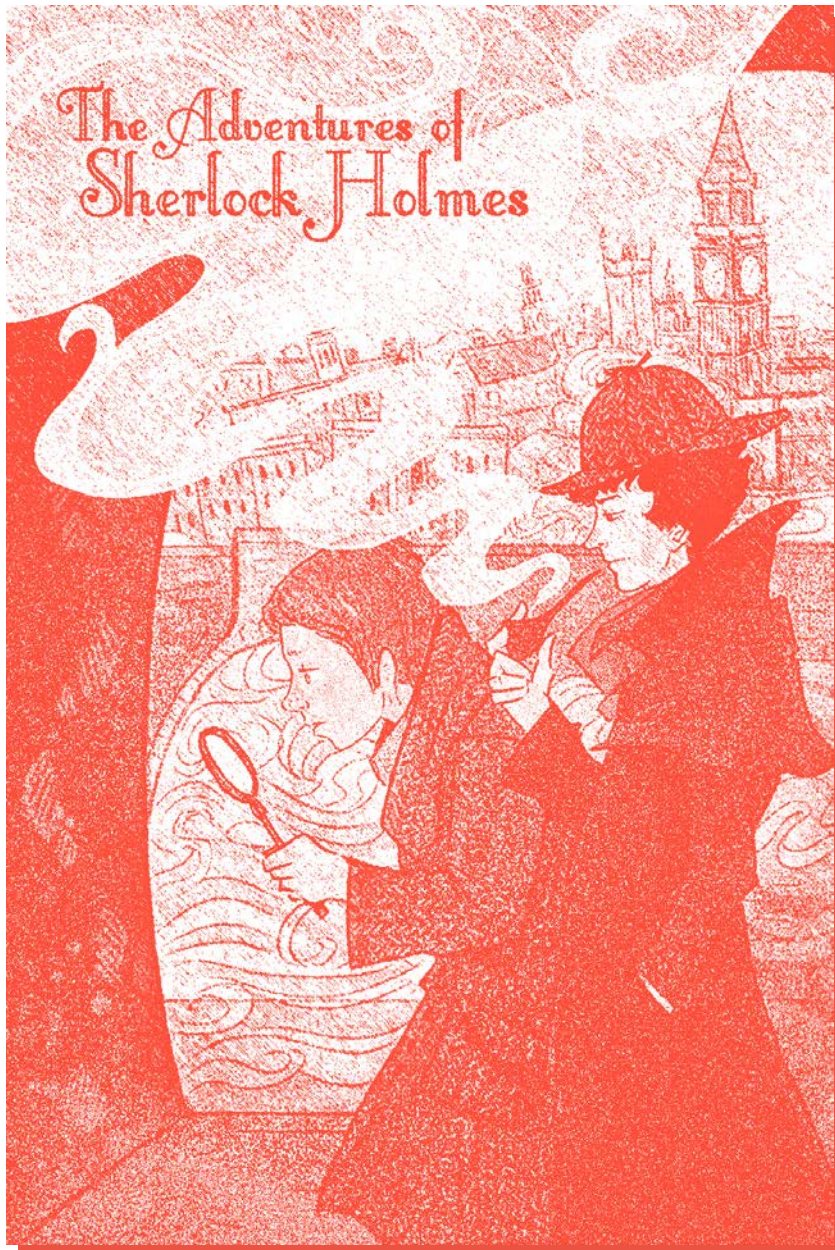
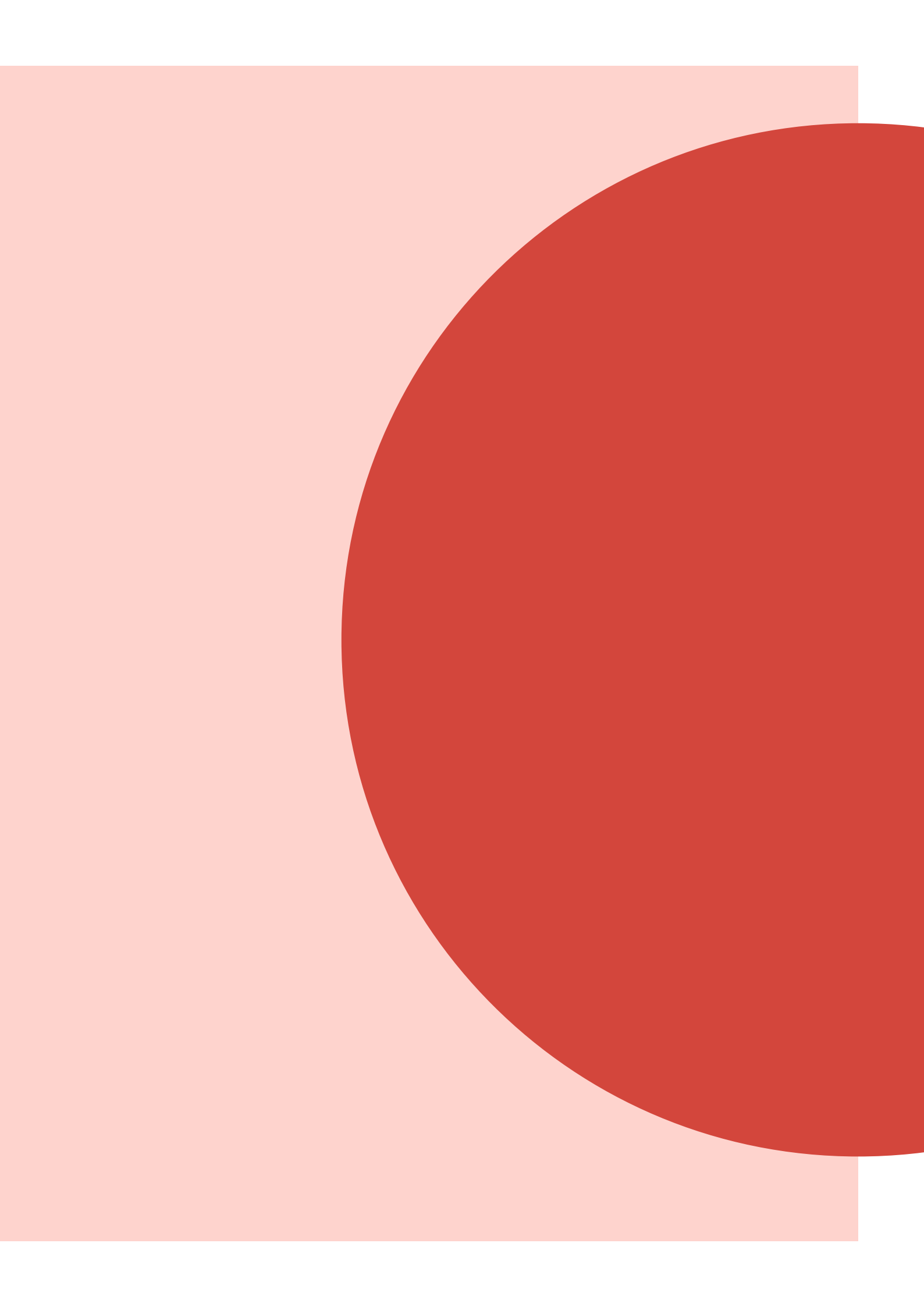


Figure 45. Illustration of the experience vision.

conclusion design framework

The design framework is proposed to be a holistic approach for designing a social museum activity to engage millennials around the collection of the Fotomuseum. The design goal is to trigger dialogue among millennials around photographs, following

this framework. The experience vision is to demonstrate the activity as a complete and overarching element of the design, and used as inspiration for designing the concept (chapter 4).



phase two

designing

phase two
designing

4 concept proposal

introduction

In this chapter, the concept proposal is presented. First, the different activities towards designing the concept are summarized. Then, the concept is proposed in four different layers, starting from a broad, holistic view to in a more detailed manner.

design approach

To design the overarching social museum activity, multiple design activities were performed. Referring to the second half of the project approach (), during ‘develop’ different explorative sessions were organized to set the design elements for the activity, resulting in a concept base. To ‘deliver’ a holistic proposal, the concept was developed and refined through several evaluative sessions. The activities are summarized below and visualized on the following page, for more detailed information please refer to Appendix E.

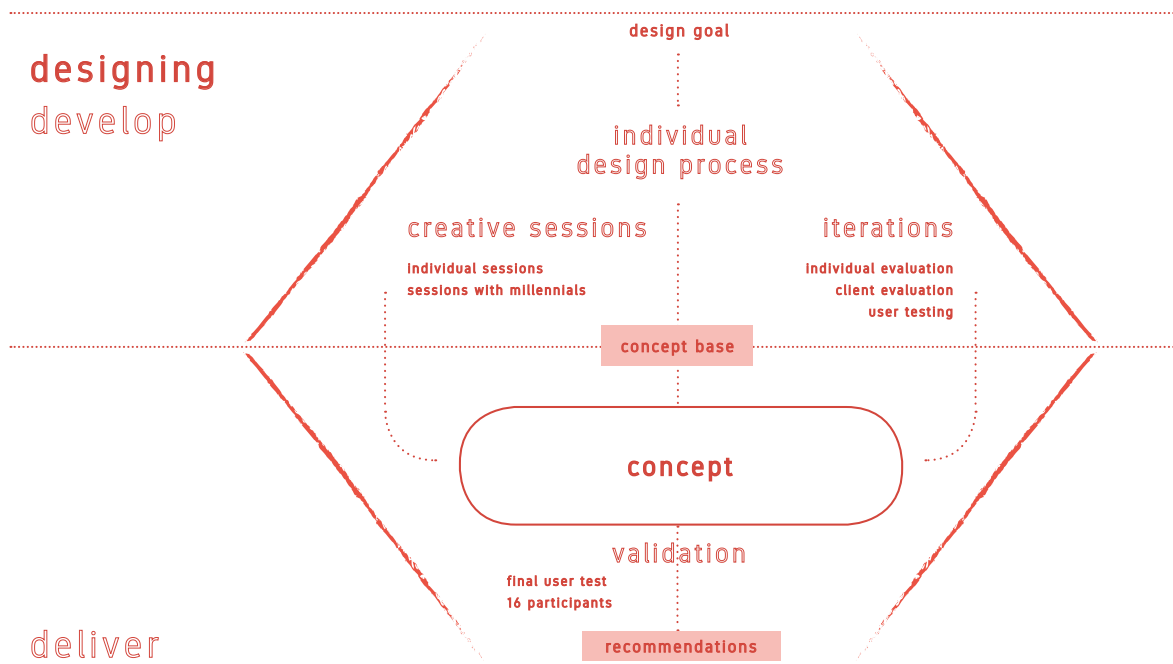


Figure 48. Designing phase of project approach.

The design process started with several **individual ideation** sessions to address the design goal, focusing on the first layer to be designed ‘the story to convey for an open environment’.

Outcome 1 Three ideas.

These three ideas were the base for three inspirational **sessions with millennials**, addressing the design goal and the project aim.

Outcome 2 Two different concept ideas on storyboard level to trigger, engage and relate millennials around the collection of the Fotomuseum.

From these storyboards, several **evaluative** and inspirational **sessions** were organized. From these insights, the first **design iteration** was made.

Outcome 3 An overarching activity that allows visitors to select and adapt photos to create their own walk-in experience. Visitor friends show each other’s own creation representing their personality.

Based on this concept two more directions were created. These two directions were evaluated by 9 participants, resulting in the **second design iteration**.

Outcome 4 Concept base for further individual development.

Individual development to develop and enrich the concept through an iterative

process between visitor flow, social and individual interactions around the collection and physical and interface design elements.

Outcome 5 The initial concept proposal for an overarching social museum activity, consisting of a six phase-visitor journey, four interactive exhibits and an application.

Fotomuseum **client meeting** with Senior of Education and Head Curator to evaluate the proposed themes for the digital archive and the initial concept proposal to find elements for development.

Inspirational and evaluative **concept test** with millennials to refine and further develop the concept.

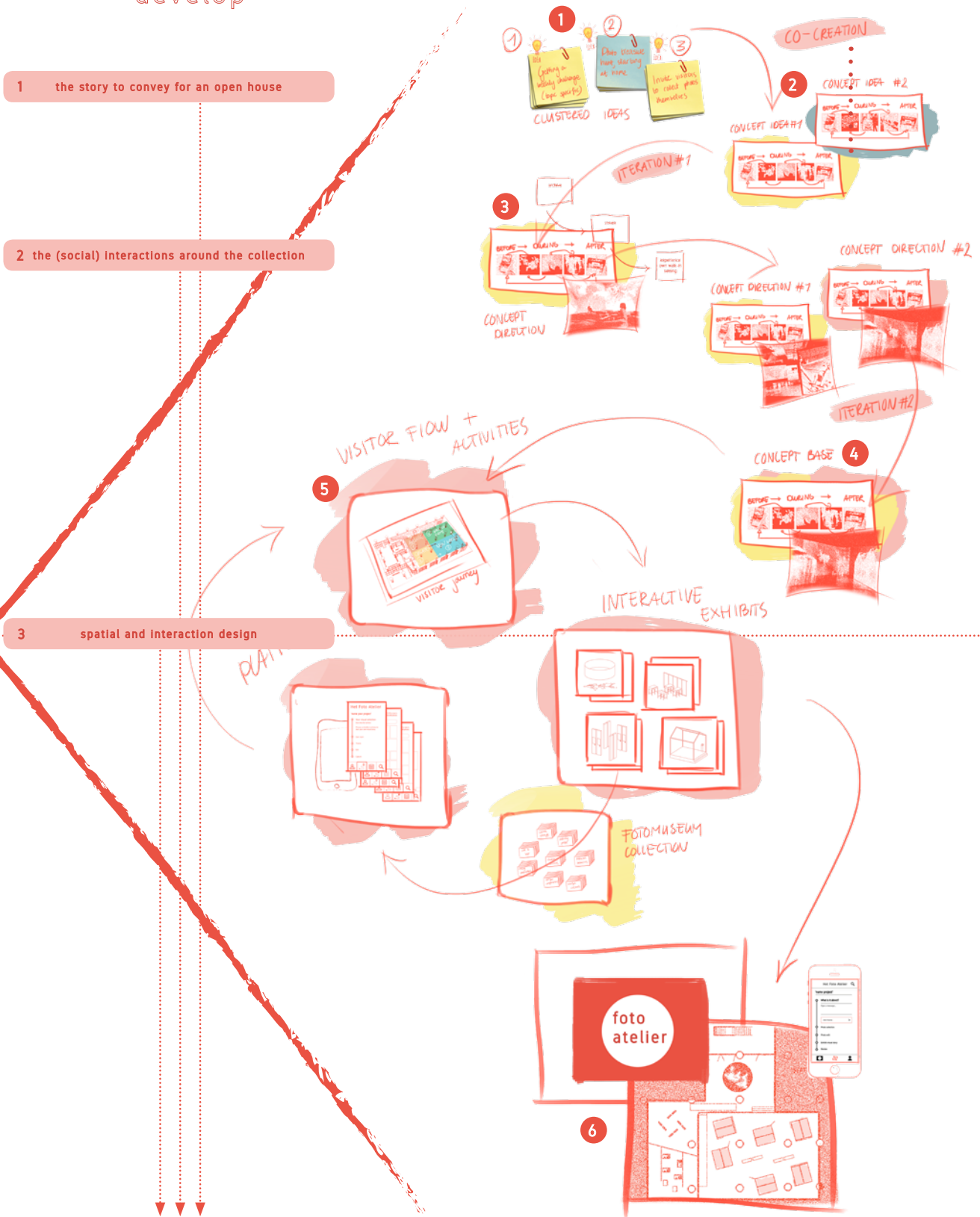
Co-creation and evaluative **session with architect** to design for evocation and narration in spatial elements.

Individual concept refinement towards a holistic concept proposal for an overarching social museum activity to engage millennials around the collection of the Fotomuseum.

Outcome 6 The concept ‘Photo Studio’ (Foto Atelier) described by the overarching social museum activity consisting of the museum journey and narrative flow, the interactive exhibits and activities and the application (described in chapter 4.2).

designing

develop



deliver

4.2

concept proposal

The concept proposal Photo Studio resulted from different iterations and is designed using the framework for an overarching social museum activity. The holistic concept is visualized in four different layers () and individually described in the following four sub-chapters. A brief description of the concept proposal is described below.

The concept is designed to give visitors a voice in how they reflect the world, using photos of the Fotomuseum to make their own exhibition, bringing the content to the present. The name 'Photo Studio' illustrates the idea of 'creating' something, which emphasizes the idea of allowing visitors to comment on, share, and create content.

Why do millennials come to the Photo Studio?

To socialize (with their friends) using the collection of the Fotomuseum;

- enabling visitors to think and act as a curator using own beliefs;
- provoking discussions around photographs that:
 - bring the 'older' topics and photos to actuality;
 - generate different perspectives around photographs.
- giving them freedom to explore and use the collection.



Figure 49. Proposed design for the logo (NL, NL, EN)

the overarching activity



trigger for activity



activity at the Fotomuseum

review experience

relate to museum



the museum journey



1 transition



2 introduction



3 exploration



4 admiration



5 immersion

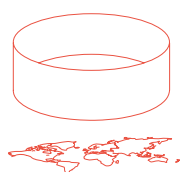


6 recollection

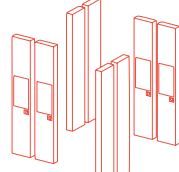
interactive exhibits

love	beauty
climate	social
culture	authority

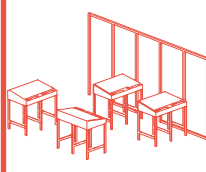
choose theme



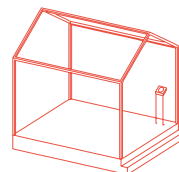
interactive world map



interactive archive



interactive dark room



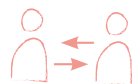
interactive exhibit space



360 view in application



receive sticker



choose theme together



collaborate to see photos



select photos



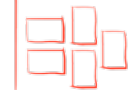
discuss selecting photos



edit photos



discuss editing photos



construct visual story



collaborate to create exhibition

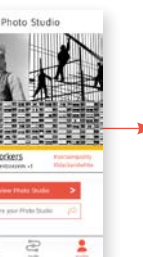
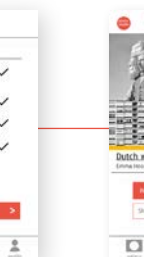
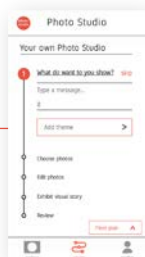


review and share



discuss creation and content

platform



4.2.2 the overarching activity

The Photo Studio offers millennials an active and memorable experience at the Fotomuseum. The experience starts at home, inviting the audience to make their own exhibition in the museum. A simplified model of the activity can be seen in 51. The platform allows visitors to see co-produced exhibitions, which highlight the museum as an open, essential, and social place (Simon, 2010). As millennials come together, the activity supports and encourages social interactions along the entire visit. One could see the concept as a vehicle for maintaining social relationships, as well as a process for personal meaning-making. The activities encourage individuals to collaborate in creative experiences (Me-to-we approach, Simon 2010) in a larger social experience. Throughout the journey, the link between photographers and millennials is addressed, allowing visitors to reflect the world as they see it following the process of photography (Figure 35, page 66). Through interactive tools, visitors are engaged around the collection of the Fotomuseum, as the explorative environment activates visitors to use photos in their creative expressions. The activity is divided into three phases:

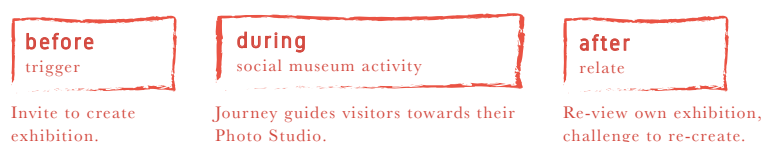


Figure 51. Three phases in overarching activity.

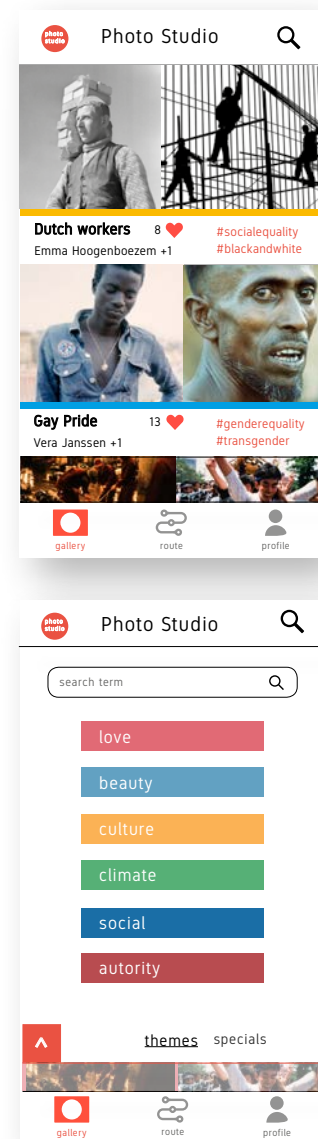


Figure 52. User interface suggestion for the application in 'gallery' function.

before

As the application encourages visitors to share their own Photo Studio, new audiences are reached through Social Media (Instagram, Figure 53 and Figure 54). Instagram and the application function as a promise for new visitors to gain meaning from their visit. Instagram reaches new visitors and gives a first glance into the experience, and the application provides them to explore the collection through other visitor's creations in the 'gallery' (Figure 55). The different themes and tags allow the audience to search for specific content, possibly already triggering thinking processes for one's Photo Studio. If visitors already downloaded the application, they can see a glimpse of their journey towards their Photo Studio, in the 'route' option.

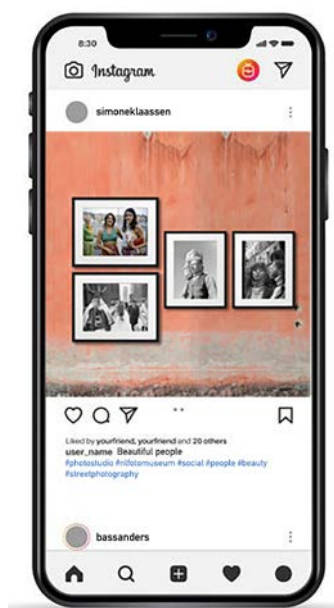


Figure 53. Example of Instagram post by a visitor.

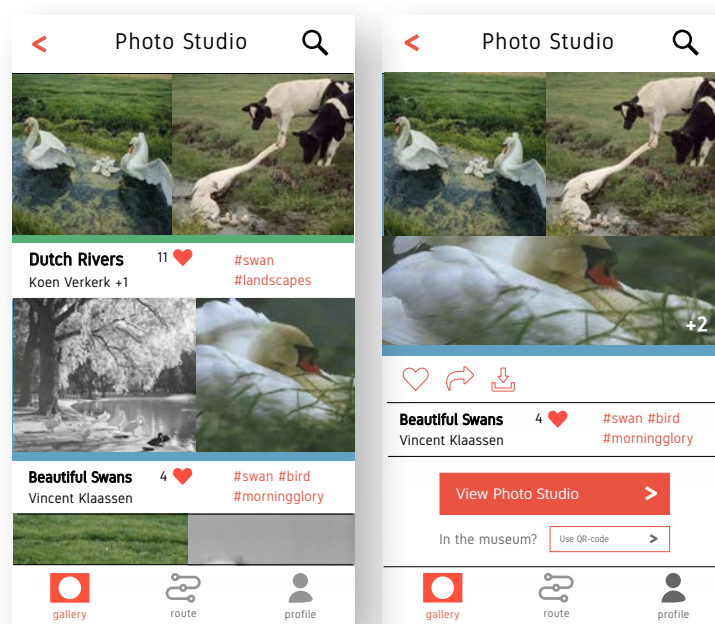


Figure 55. User interface of the application in 'gallery' function.



Figure 54. Example of Instagram account of Fotomuseum (Photo Studio account).

during

The explorative environment activates (Falk & Dierking, 2014) thinking into doing. The different spatial areas and their activities embed (hidden) content and information towards constructing one's own Photo Studio, together with someone with whom they entered the museum. Through the adventurous and mysterious characters of the spaces, visitors' curiosity increase towards finding new discoveries in every stage. As evocative spaces allow for imagination, visitors are activated to act as an expert and develop their own story around photos. The diverse and alternating journey puts photography in different perspectives, triggering thinking processes, and discussions around photos.

The interactive exhibits are designed to be used by individuals and pairs. Each activity contains constraints (striving creativity) and personal entry points (building confidence) to encourage individuals to participate in creative experiences. Along the journey, visitors use interactive tools as a means to express themselves and as a way to connect with each other, resulting in discussions around photos. The journey ends with a peak experience where pairs finalize and further personalize their Photo Studio. The visitor is part of his own Photo Studio, as he stands inside the exhibit using his body to interact with it. In this stage, all present visitors collaborate to one social experience as the six Photo Studio-exhibits function as temporary exhibitions for other visitors.

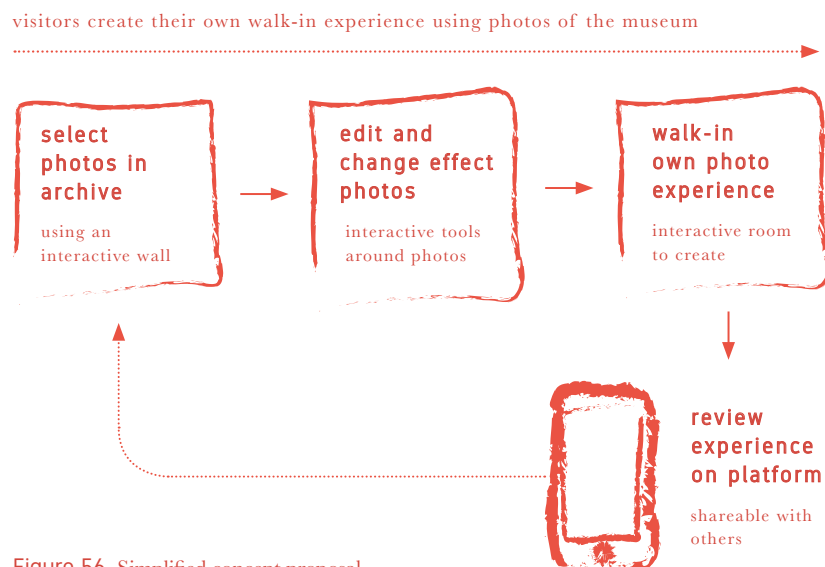


Figure 56. Simplified concept proposal.

after

After the visit, the meaning-making process continues developing, as the created Photo Studio represents a social relationship of the creators. Visitors can re-experience their Photo Studio in a 360-degree interactive view in the application, continuing the experience and discussion. Through the meaningful experience, millennials see relevance in the collection of the Fotomuseum, as the museum is part of their personal and social development.

The platform creates a relation with visitors by announcing the best-voted Photo Studio every month, being temporarily shown in the Fotomuseum. Visitors might even start campaigning for their Photo Studio, voluntarily advertising for the museum. Through new, topic-specific digitized photos and themes, visitors are challenged to re-create a Photo Studio. Additionally, visitors become part of a community where they connect through the gallery and their overarching themes (culture, love, etc.).

Due to the scope of this thesis, the focus for this concept is on the visitor journey inside the museum (Figure 57). The concept proposal consists of an extensive description of the museum visit to engage visitors and suggestions for the platform to trigger and relate visitors.

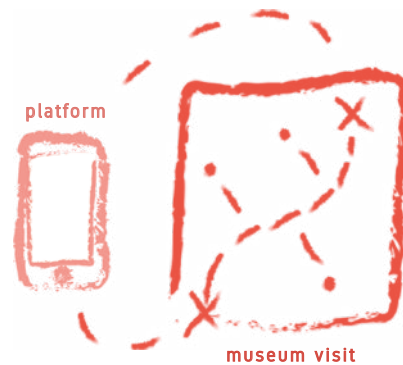


Figure 57. Focus concept proposal.

4.2.2 the museum journey

The museum journey consists of six phases following the proposed narrative architecture. First, the visitor flow is briefly described by a floorplan. Then, each phase is illustrated, describing the journey. Finally, a summarized ure shows which metaphors underline the experience and the Fotomuseum as a space for open interpretation and create curiosity through its adventurous, mysterious, imaginative, and discovering character.

The visitor flow (Figure 58) presents how visitors walk through different spaces, alternating between interactive exhibits and reflective observation. Interactive exhibits are designed to be in the center of each narrative space, allowing the visitor to

walk through the environment similar to a classic archive, shifting between open spaces and hidden rooms/activities.

Phase two to five are shown in the figure, as phase one and six are located on the ground floor and are part of the existing visitor flow. The designed flow from introduction to immersion fits the estimated number of visitors on a busy day.

The estimated journey in the basement endures around 45 minutes. For each phase, the number of persons in that space is presented (Figure 58). The visitor flow in the basement allows around 115 persons per hour, which meets the estimated number of 500 visitors a day. This rough calculation is based only on visitors who come in pairs of two, walking together through the exhibition together, using the interactive exhibits individually but at the same time. However, it could be possible visitors use interactive exhibits together, meaning there is a higher number of visitors per hour.

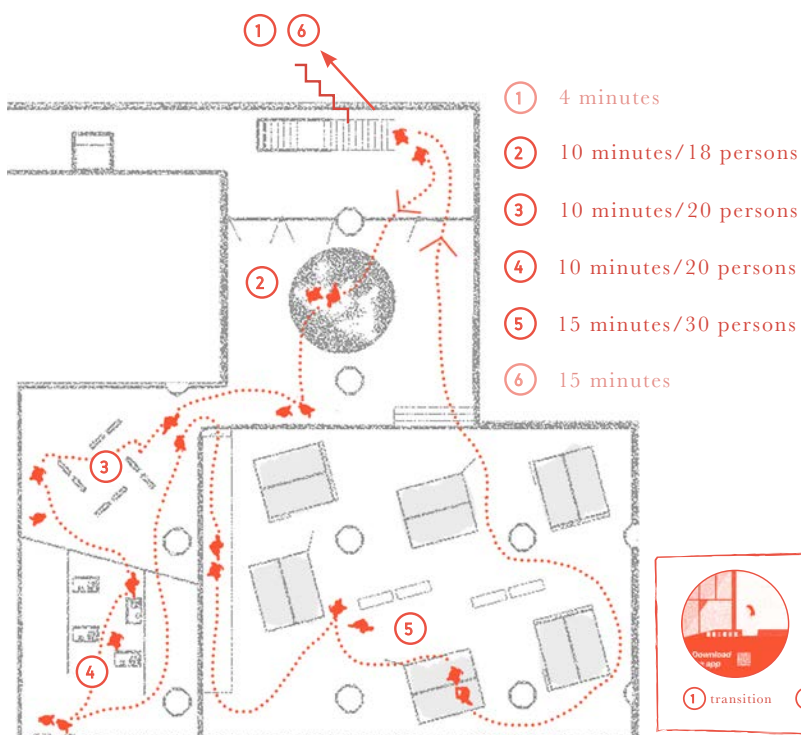


Figure 58. Visitor flow in basement.



Figure 59. The stages in the museum journey.

1 transition

When visitors enter the museum, they will find the brochure (Figure 60) explaining Photo Studio briefly. If visitors still have to download the app, they can use the QR-code. When they buy their tickets, they are asked to choose a theme together. This first constraint helps as a reference for the development of their Photo Studio, starting to think in a particular direction. The theme can trigger conversations around topics, using photographs as a reference. The

chosen theme is handed over in a sticker to be put on and identify themselves as visitors. It allows others to see which theme they are building their Photo Studio around, being part of one holistic social and creative experience.



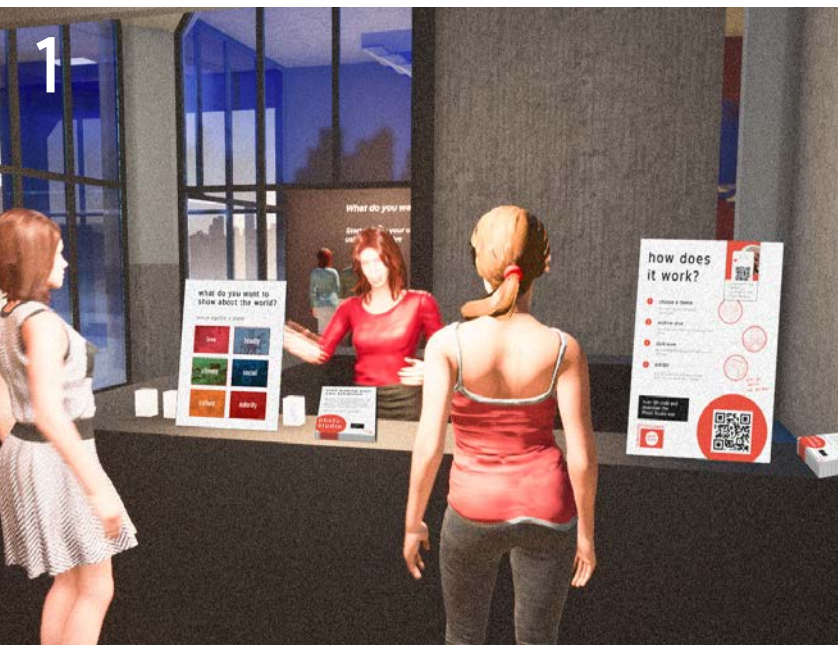
Figure 60. Flyer available at entrance and given to visitors when they buy a ticket (A5 format).

what do you want to
show about the world?

choose together a theme



1



2

What do you want to bring into the picture?

*Start making your own exhibition
using the archive*



2 introduction

When visitors enter the basement, they will come across the first interactive exhibit. The world map emphasizes photographers as world travelers and shows the diverse collection at the same time. When interacting with and stepping on a continent, photos light up being photographed in that part of the world (detailed description in section 4.2.3). Millennials start identifying themselves with photographers as they both care for a social and equal world and seek experiences to feel connected with the world.

Visitors recognize the form language of their sticker (theme) presented underneath the sentence 'What do you bring into the picture?'. Coming close, visitors find out that these colored boxes contain additional stickers with theme-specific topics. These topics further encourage visitors to think in a certain direction and use their voices. These stickers are printed on a roll, weekly, or monthly updated with actual topics, such as 'gender equality', 'fake news' and 'overfishing'. Figure 61 shows how these stickers can be put on their chosen theme.

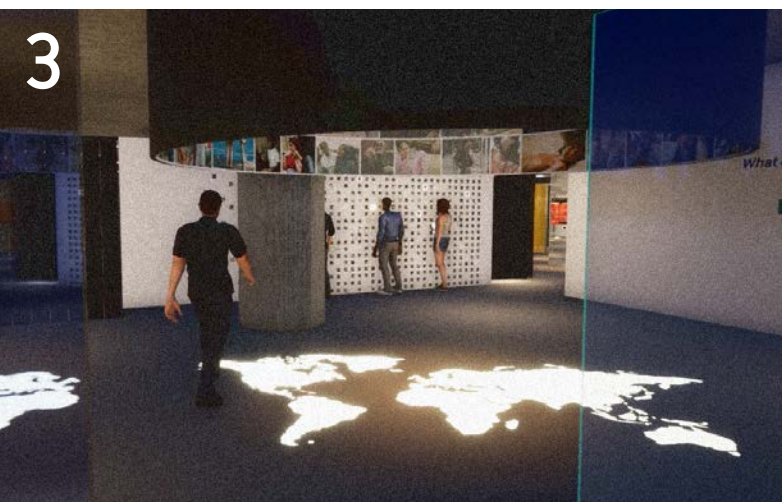
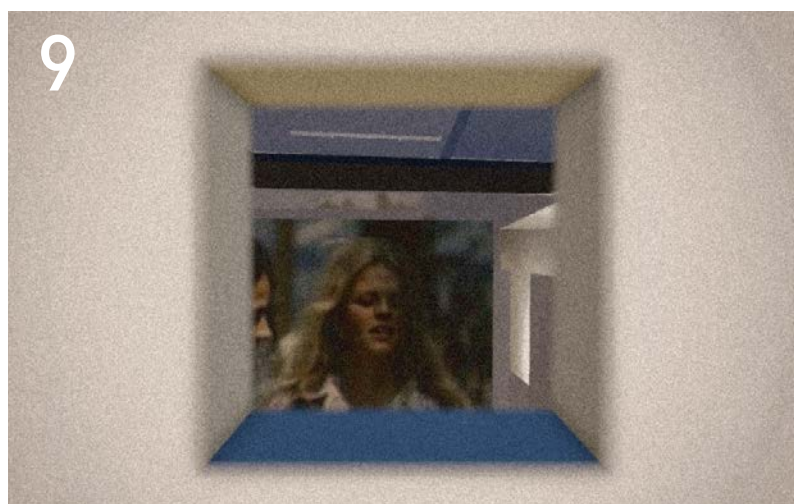


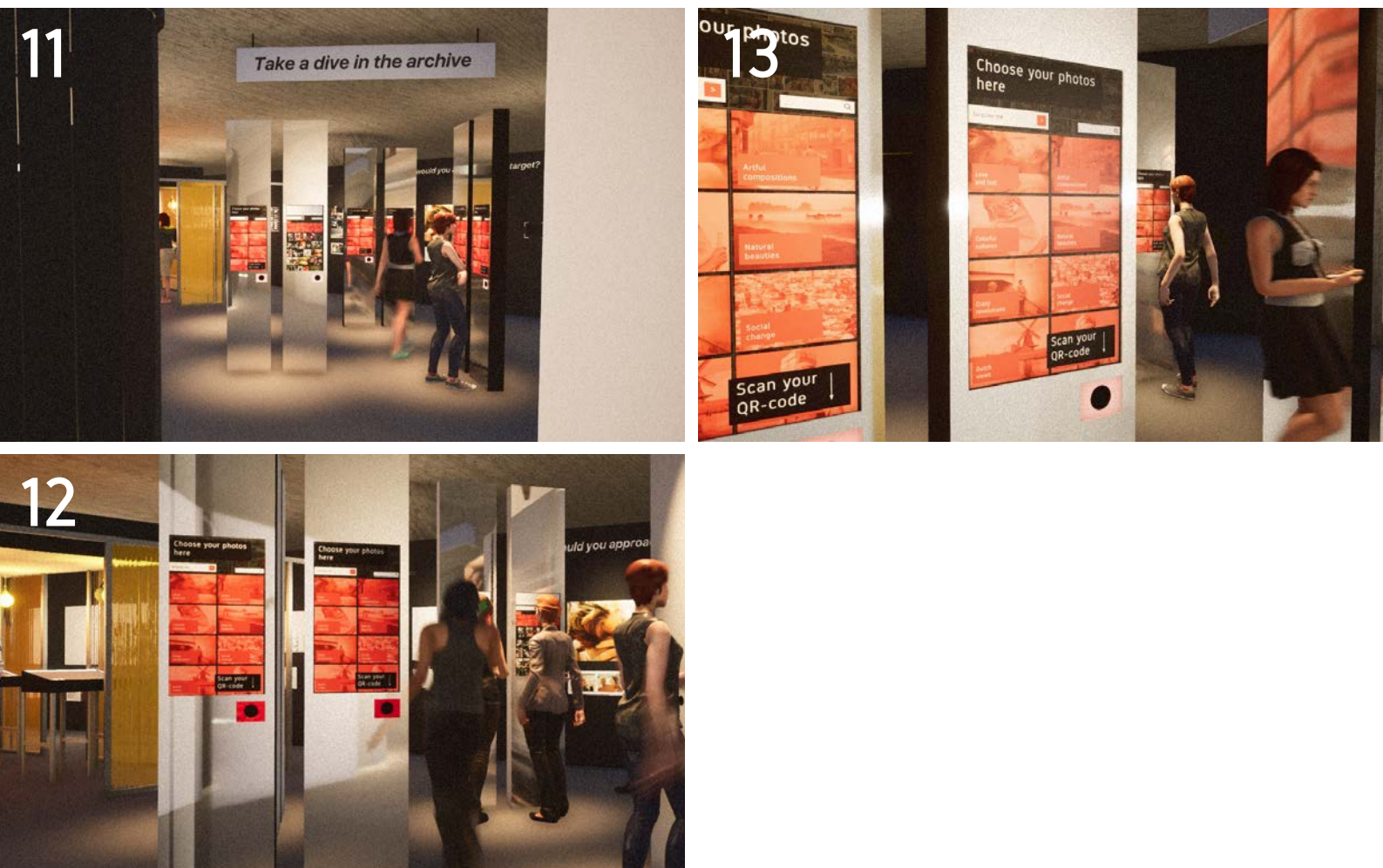
Figure 61. Visitor put the sticker in their theme, sticking it on their shirt.



In the same area, a wall contains dozens of small images from the collection of the Fotomuseum. The structured images refer to how archives can aesthetically present their content (Appendix C.1). When visitors come closer to the wall, they find out that they can use a loupe to get a closer look. During exploration and ‘investigating’ the slides, visitors are attracted into wholes in the wall. Each whole is highlighted with a LED-strip around, triggering visitors to look through it secretly and finding out they can already see a glimpse of others’ Photo Studios.

3 exploration

From the wall with images, visitors walk towards the interactive archives. Through the eight different themes and an intuitive workflow, the collection is explored efficiently and satisfactory. In this activity, visitors individually collect photos with a maximum of five for their Photo Studio. While collecting, visitors in pairs of two can collaborate and discuss as they stand close to each other. A detailed description of the workflow is presented in section 4.2.3.



As the narrative spaces follow the process of photography, this stage highlights the ‘capture’ stage. Next to the photo selection, visitors are triggered to reflect on how they would capture certain photos. Iconic photos are presented in visual stories (Figure 63). Visitors will not only understand that the museum’s possession consists of photo archives (instead of single photos), they will be triggered to place themselves in the shoes of a photographer and imagine how they would behave towards capturing a target. Additionally, the visual stories allow

observers to see the process behind an iconic picture and that it is more than ‘just a click’.

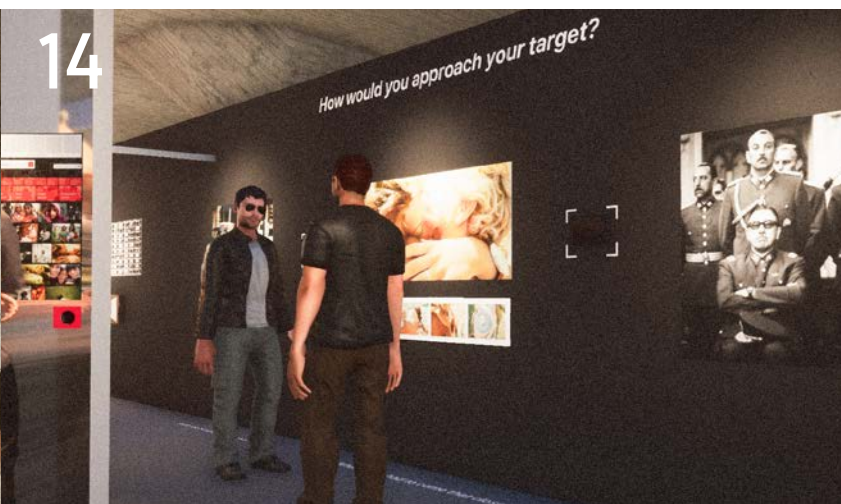


Figure 62. Iconic photo of Ed van der Elsken.

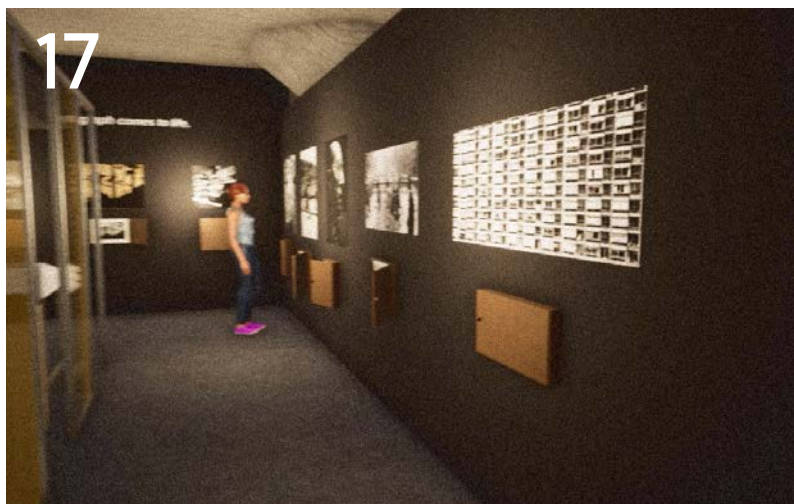


Figure 63. Visual background of iconic photo.

4 admiration

From the visual stories, visitors walk towards the fourth stage. In the darkroom, visitors can change the effects of their photo collection made in the interactive archive. The interactive darkroom exhibits consist of four techniques that were originally used to adapt and further develop an image. Through experimenting with these techniques, visitors learn from the activity and look to photos differently. Additionally, they might start to analyze details that were not seen before and make them discover new patterns and understandings (deep looking).

The darkroom area emphasizes photographers as artists. When visitors open a small wooden cabinet (17 and 18), they find seemingly the same image as hanging above it. The comparative photos show what darkroom techniques do to a photo, showing original (behind the wooden doors) and edited (above the door). Additionally, visitors might start to recognize photographers and their language. Ed van der Elsken, for example, can be recognized through his dodging, and Aart Klein can be recognized through his distinct contrast in black and white photographs. Again, this phase highlights the process behind a single photograph and shows visitors the collection's diversity.



5 immersion

After the darkroom, visitors walk back towards the wall with small images, to phase five. Dark curtains let through light rays and make visitors curious to see what is behind. Moving the curtains aside, visitors enter a passage. This passage builds up excitement towards constructing the mini-exhibition. In this passage, personal writings and captions of photographers are projected on a semi-transparent wall of glass and would fall onto the visitor (Figure 64). These captions highlight photos as stories, and could trigger visitors to develop their own story further. The passage ends with

plastic curtains (refer to moodboard in Appendix C.3), referring to the Photo Studio as a place where things are created and where no right or wrong exists.

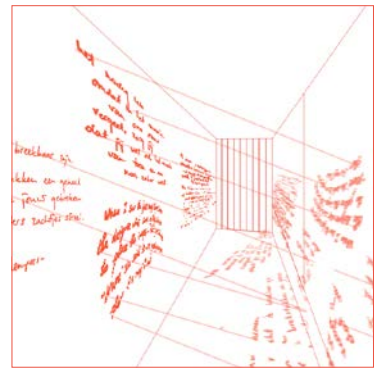
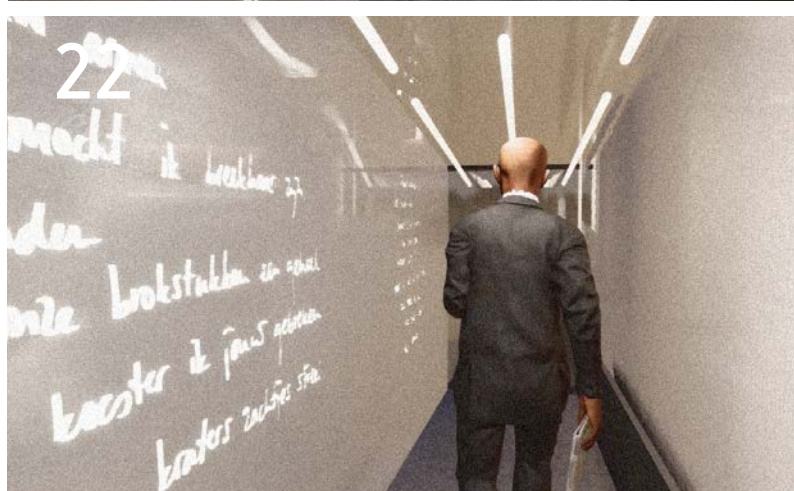
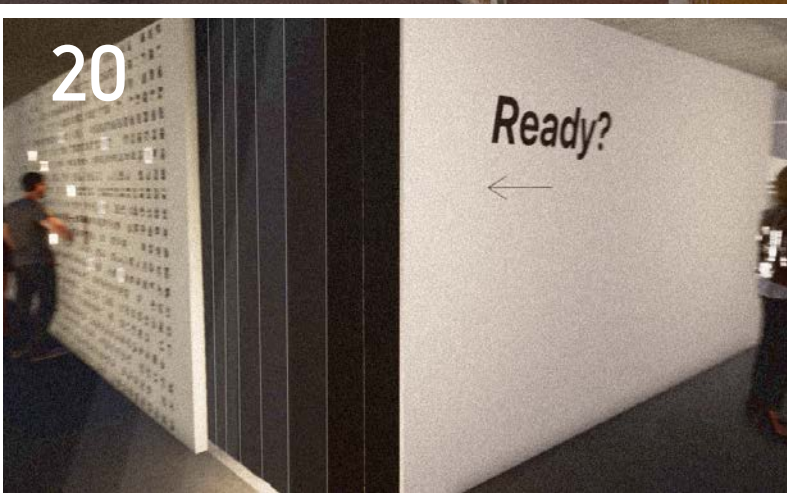


Figure 64. Illustrated version of how the projections would fall on the surfaces in the passage.



In this space, visitors that are present make the exhibition. Six 'houses' refer to living rooms, where visitors confidently construct and talk about their Photo Studio. The warm lighting, materials, and furniture pull visitors into such a 'house.' The outer space, such as the columns, contain colder lighting effects and materials to emphasize the 'warm' houses. The 'houses' vary in height as three of them are placed on a higher plateau to make visitors 'step' into their Photo Studio.

The interactive exhibit spaces react to gestures of visitors inside. Here, visitors can further personalize and customize their mini-exhibition. Visitors collaboratively finalize their Photo Studio, constructing the visual story. This stage emphasizes how photographers are not only taking pictures; they are also framing stories to show them to the world. The Fotomuseum safeguards albums and drafts of books made by photographers, clearly showing how photos are put together.

The holistic social experience would not exist without visitors; they need each other to see content. Visitors walk around and enter Photo Studios of others, or finish their own when they see a free spot. Again, section 4.2.3 describes a detailed workflow. The stickers (themes) allow others to see what a Photo Studio is about. It might even start new connections and conversations. Visitors can 'pull' content by using the application (section 4.2.4) and search for specific Photo Studios made by others or the Fotomuseum.



6 recollection

After constructing the visual story in the interactive exhibit space, the just created Photo Studio can be seen in the application, through an interactive 360-view. The app invites visitors to drink a cup of coffee and discuss their experience in the cafe.

The 360-view is a representation of the constructed Photo Studio, as all customizations are put into a program that combines a realistic view of what has been created.

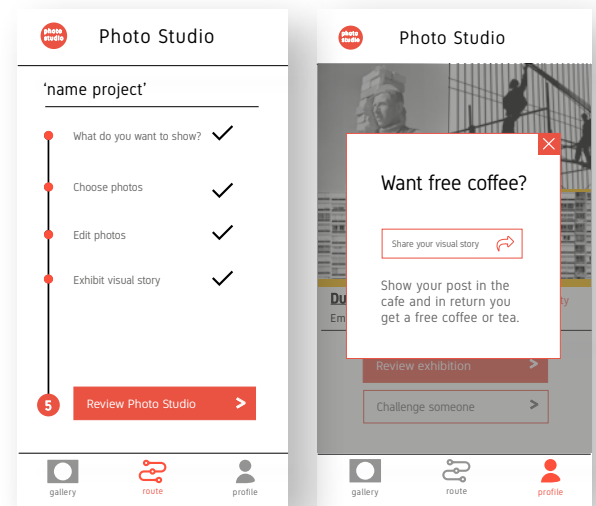


Figure 65. Application. Finished journey (left) and notification (right) after constructing visual story.



Figure 66. Interactive 360 view of Photo Studio



metaphors

- 1 Looking through the lens of a photographer.
- 2 Secretly and sneaky looking like a photographer, seeing the world through a frame.
- 3 The completely mirror-covered interactive archives make users look at themselves while they select photos. During capture, photographers capture what they see through the lens. The mirror refers to a projection of the self.
- 4 A photographer is a hunter, constantly trying to capture his target.
- 5 The darkroom is the place where photographs are edited and come to life. The yellow/red lighting refers to the original darkroom.
- 6 A look behind the 'scenes' of the photographer.
- 7 Personal writings refer to the personal stories around photos.
- 8 The houses refer to a warm and inviting place to comfortably tell your story.

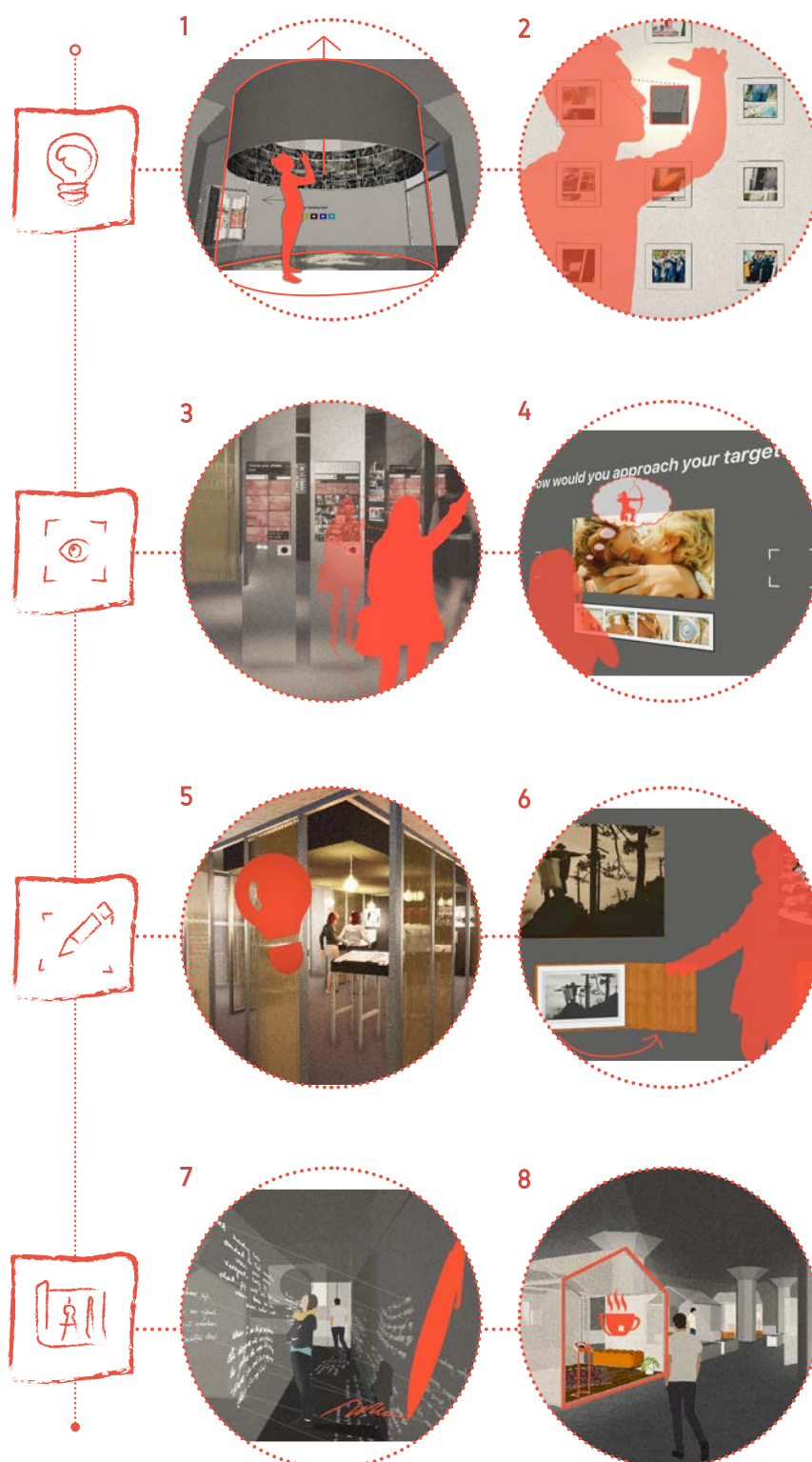


Figure 67. Metaphors in the narrative spaces.

qualities

Throughout the journey, the four qualities come from different perspectives in the narrative spaces. Below some examples of materialization or elements supporting the character.



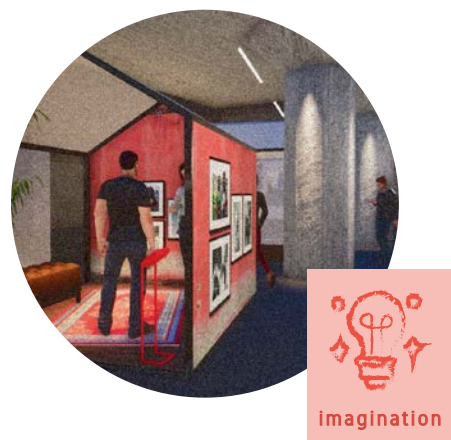
Semi-transparent materials that show movements of other visitors behind it.



Wholes or doors that allow visitors to make discoveries.

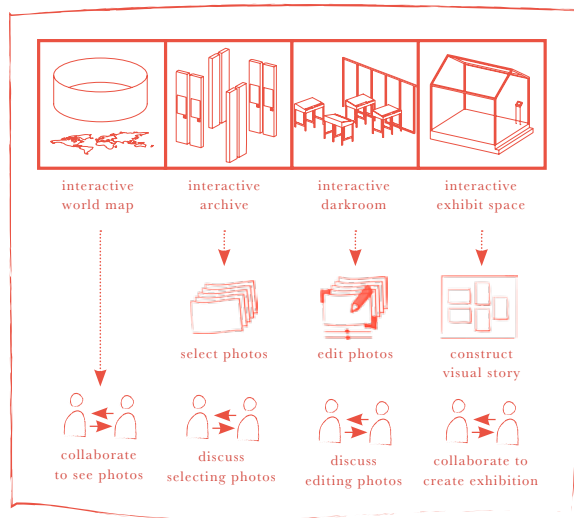


The explorative character of the journey and making visitors follow a set of steps towards their own exhibition.



The open-ended activities allow visitors to use their creativity.

4.2.3 interactive exhibits



This section explains the interactive exhibits in a detailed manner. First, the different types of exhibits are described. Then, a visualization shows the technologies used for each interactive

exhibit and a simplified network illustrates the system to make visitors construct their Photo Studio. Finally, each interactive exhibit is explained, presenting its workflow and tools that allow individuals and pairs to participate in a creative activity.

Figure 68 illustrates three types of activities. Activities with multiple technologies allow for creative expression and consist of a longer duration of user interaction. Activities without or few technologies could be seen as secondary activities in the progress of making one's Photo Studio. The exhibits and their digital technologies are presented in Figure 69.

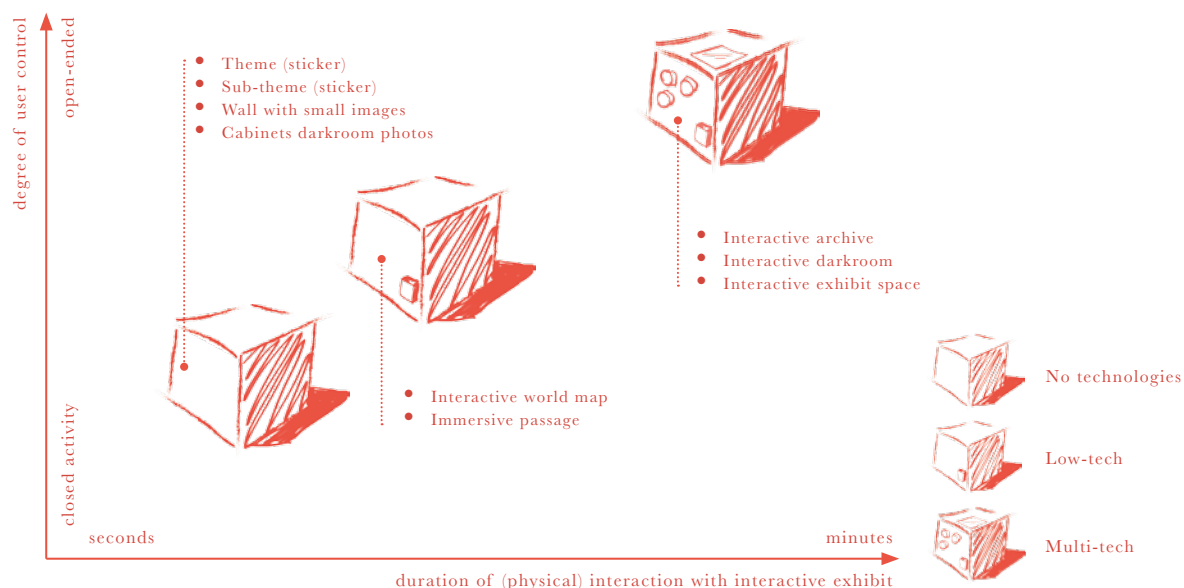


Figure 68. Exhibits on a scale of user-control and duration of interaction.

Figure 70 illustrates how the wireless connection would receive and send data information. Starting from the interactive archive, when the personal QR-code is scanned, the processor of the exhibit receives information. The system now knows that each interaction with the exhibit belongs to a specific visitor. When the visitor has selected photos, the network receives a trigger to send to the darkroom area when the visitor uses his QR-code again. In the interactive exhibit space, the same process is followed. Visitors can decide not to edit photos and still construct their visual story. After constructing the story, the network sends the personal Photo Studio to the platform.

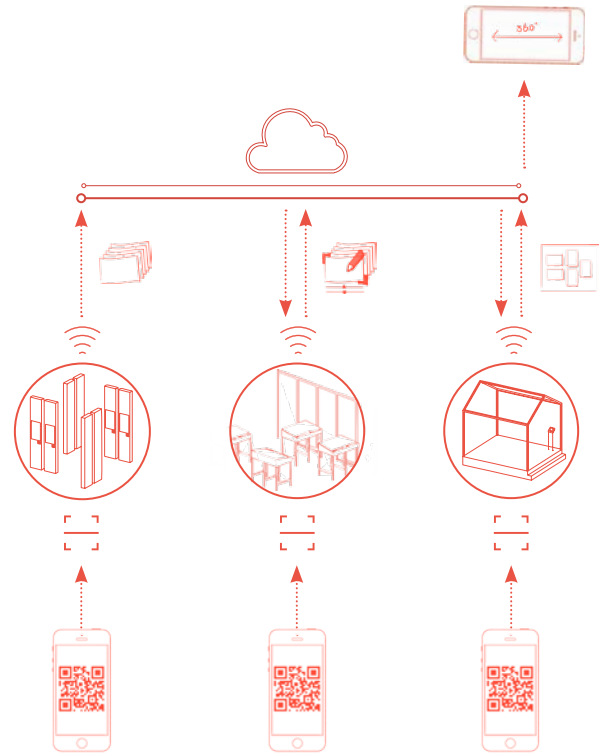


Figure 70. Simplified network for interactive exhibits and platform.

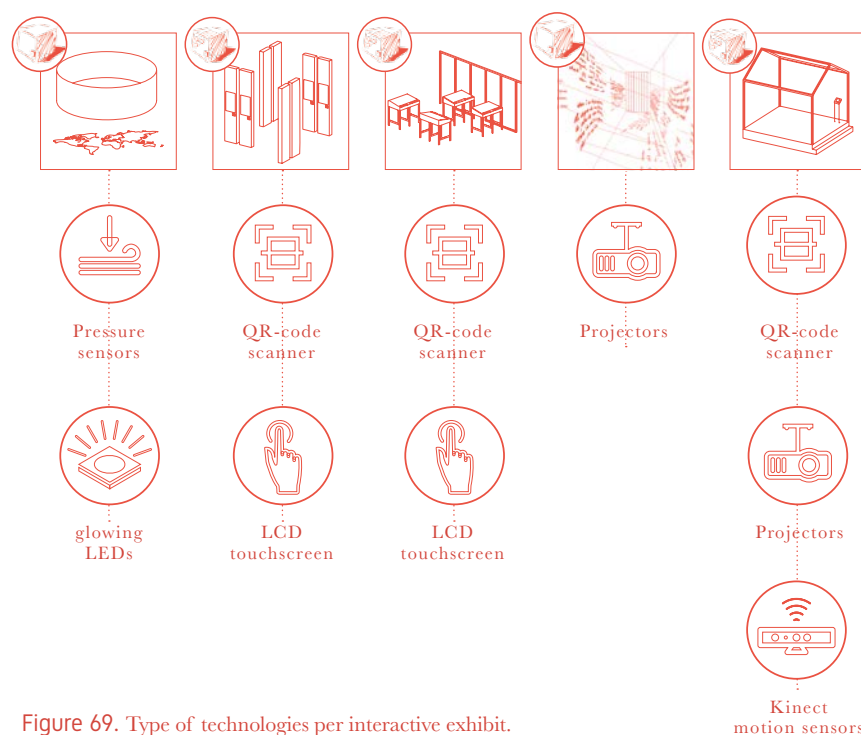


Figure 69. Type of technologies per interactive exhibit.

Only those activities that consist of interactive technologies are described in detail, which are the interactive world map, the interactive archive, the interactive darkroom and the interactive exhibit space.

For each exhibit, the following elements are addressed, starting from page X:



A trigger to obtain attention and invite the visitors to use the exhibit.



Elements to keep attention and make visitors explore the exhibit.



Tools that make visitors immerse in the interaction.



Personal entry points.



Social interactions.



Tools for creative expression.

interactive world map



The glowing continents, changing in brightness.



The photos that light up in combination with the continents.



Stepping on different continents to see differences.



The continent.



Collaborating to see photos from multiple continents light up.



Not applicable.

Visitors interact with the world map through stepping on a continent. When they step on it, the continent becomes

at is brightest and stays like this until stepping away. At the same time, the photos light up in the large cylinder. Multiple visitors collaborate in order to see all photos light up at the same time.

The height of the cylinder is designed to make visitors stand in the circle surrounded by pictures close to eye-height.

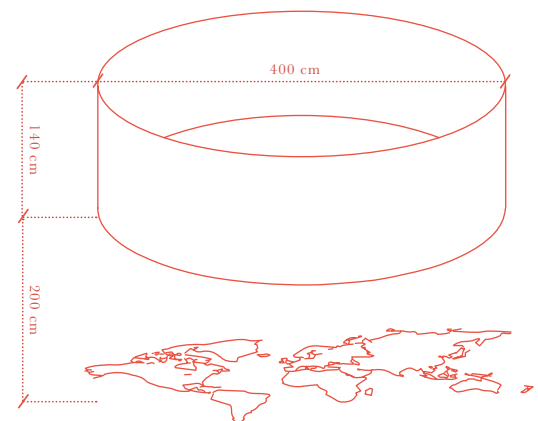
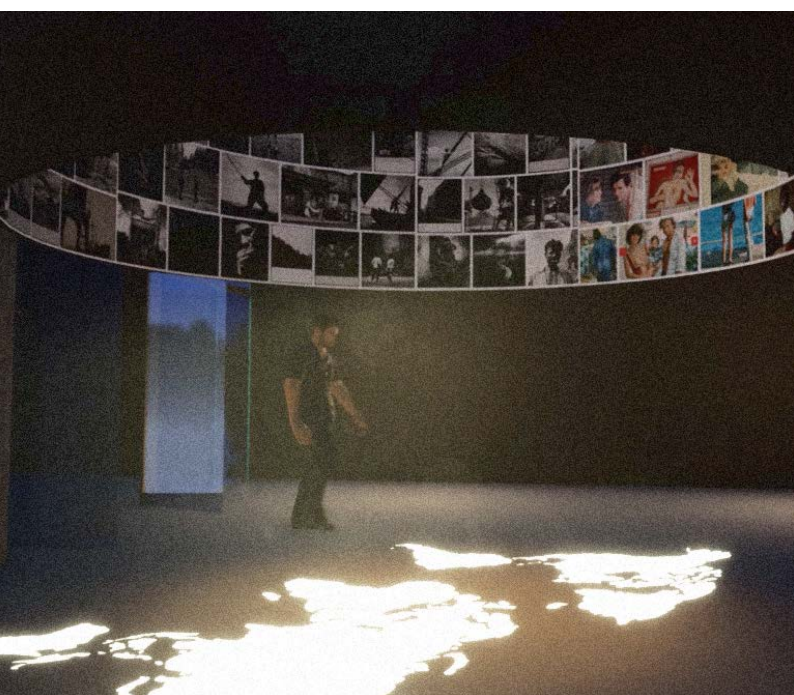


Figure 71. Dimensions interactive world map.



interactive archive



The long mirrored pillar in combination with the user interface (main-screen).



The interactive screen, its themes and the photos.



Selecting and comparing photos to put in personal selection.



Individually selecting photos.



Discussing and comparing photo selection with someone else next to the visitor.



The ability to choose from many photos and make a combination that possibly no one else has made before.

The collection is divided into eight themes with each four sub-themes (Appendix E.10). These names give an immediate idea what it could be. Although the photos stay the same, exploring the archive becomes easier.

The interactive archive is designed for individuals as well as pairs; individuals can select their photos and still discuss and compare them with someone else. The personal selection encourages visitors to talk about their own beliefs and the framing of personal stories around photos. These personal stories make visitors connect as they come to know each other differently.

Visitors can choose to select photos themselves or get a recommendation from the Fotomuseum. This function, 'surprise me,' allows visitors to create a person selection intuitively. When satisfied, visitors can save the selection for further use. The user interface design is presented on the next page, describing its functions briefly.

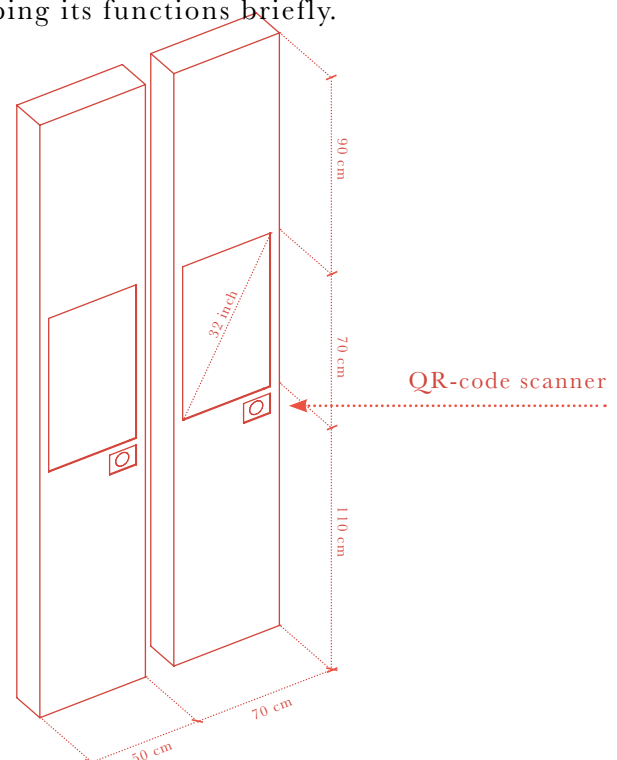


Figure 72. Dimensions interactive archive exhibit.



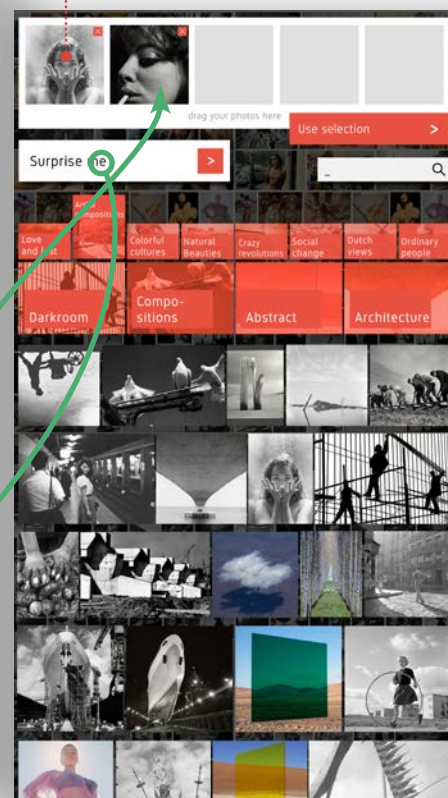
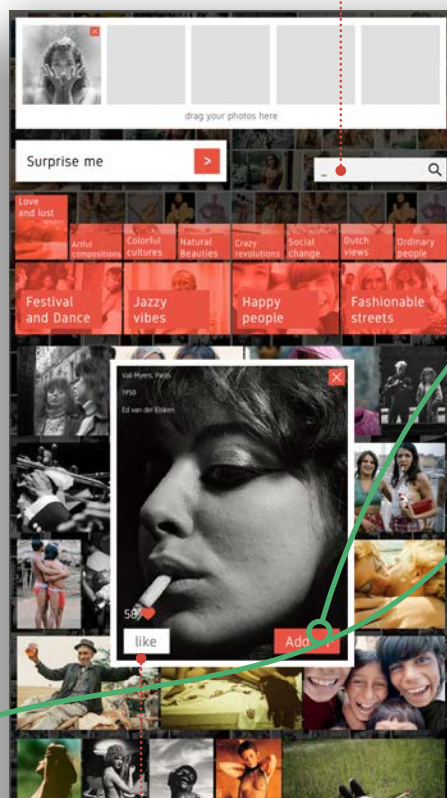
From function to screen.



Description function/element.

Free search.

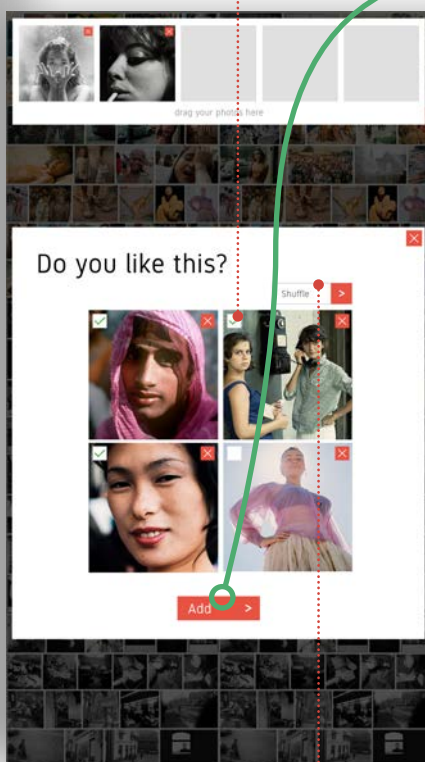
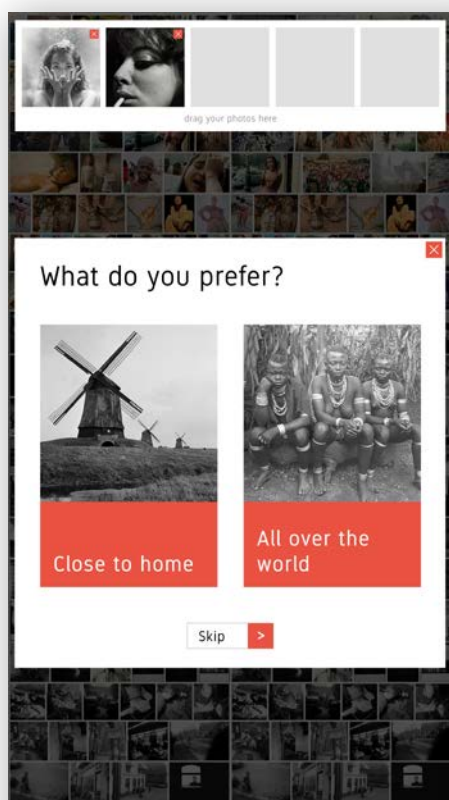
Personal selection.



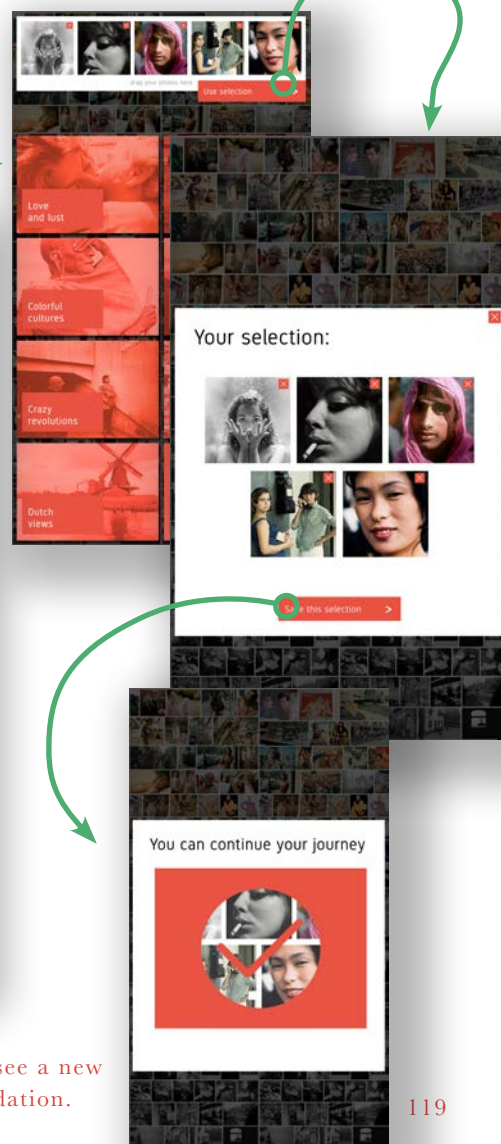
Eight themes with each four sub-themes.

Scroll down to see more photos.

Like photo and see number of likes.



Select or deselect photos.



Six questions related to photography to make visitors intuitively create their photo selection.

The archive recommends a selection based on the questions and preferred themes.

Shuffle to see a new recommendation.

interactive darkroom



The LED strip around and the main-screen itself.



The interactive screen and its options.



Trying-out different effects on photos.



Individually editing photos.



Discussing and comparing photo editing with someone else next to visitor.



The ability to change effects and crop photos from own photo selection, based on personal preferences and own style.

After scanning the personal QR-code, the photos selected in the interactive archive will pop-up. Each exhibit allows two individuals to work simultaneously. In each photo, visitors can change brightness, contrast, and use two techniques that come from the darkroom: dodging and burning (Appendix D.3). Visitors can become inspired by the photos presented around the darkroom, showing distinct darkroom languages from photographers. The functions and user interface are presented on the next page.

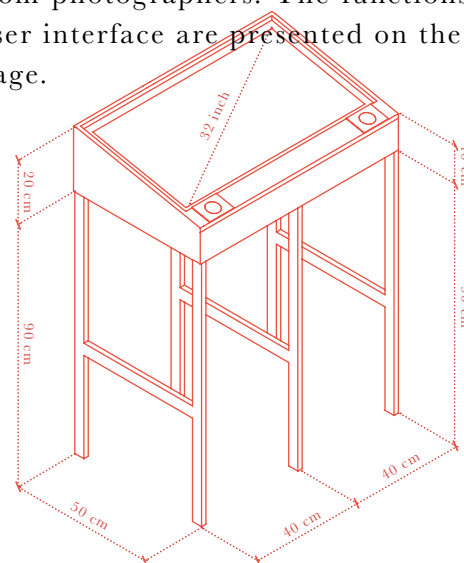
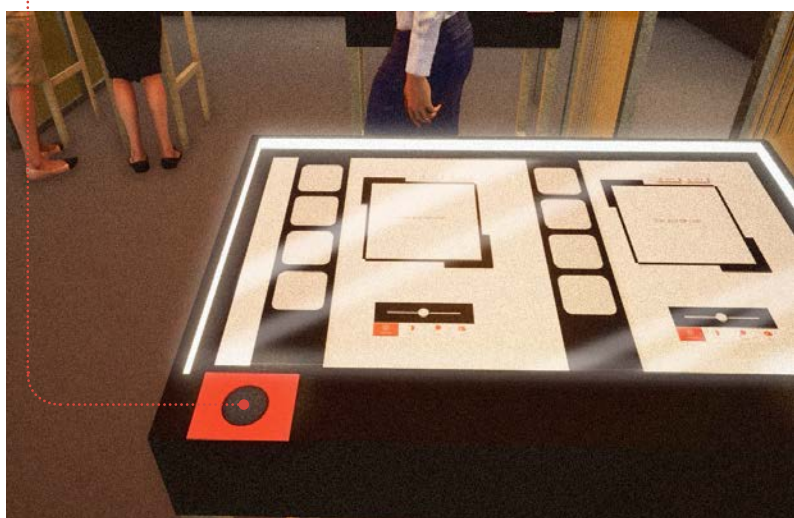
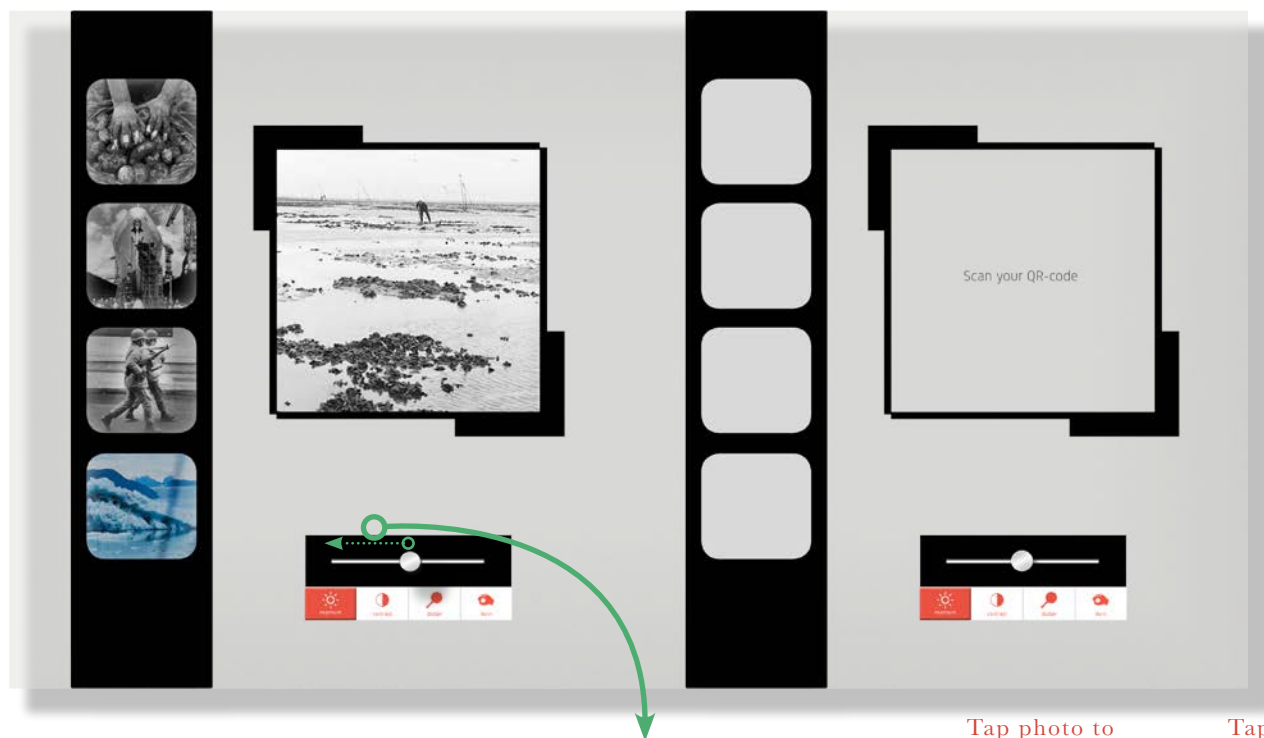


Figure 73. Dimensions interactive darkroom exhibit.

• Scan QR-code



- From action to screen.
- Description function/element.
- Movement of finger.



Visitor can reset each photo after adjustments.

Visitors do not necessarily need to save photos, but the 'save' option can satisfy those visitors who feel the need to save tasks.

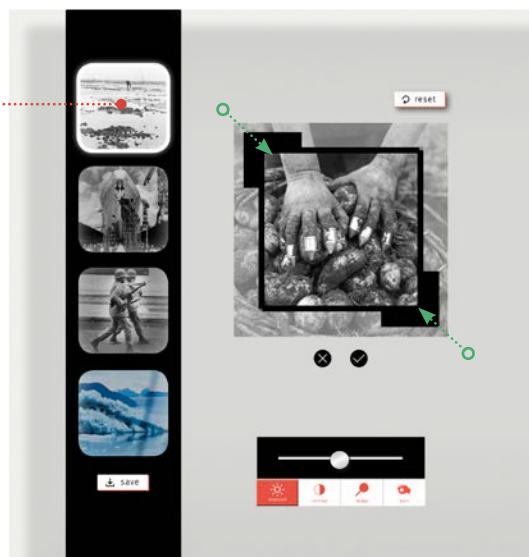
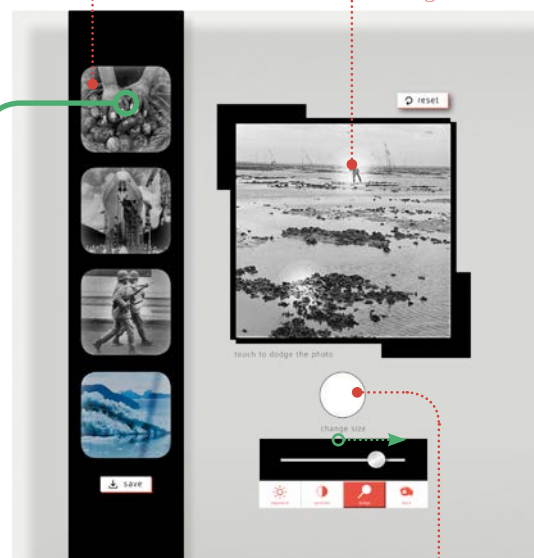
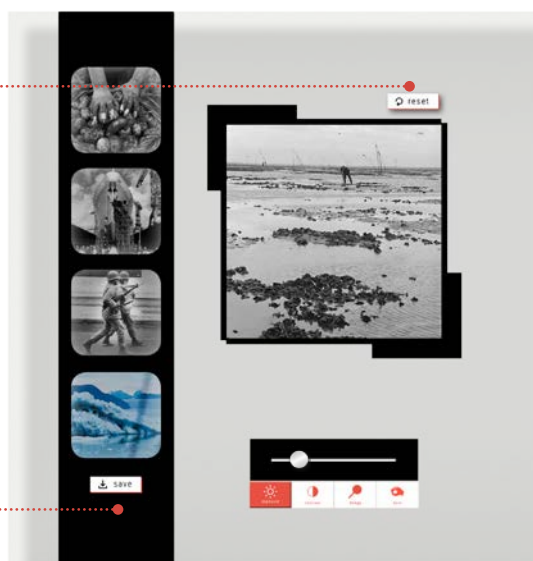
Photo becomes darker after lowering brightness.

Edited photo becomes brighter and gets a glowing line around it.

Tap photo to select.

Tap finger to dodge.

Adjust dodging size



interactive exhibit space



The spot lights in and around the house, no projections. The scanning device.



The introductory brochure, viewing and dragging photos.



Finding the right customizations for the visual story.



Individually interacting with the exhibit with gestures.



Discussing and comparing photos, collaboratively constructing the visual story.



The ability to create a unique Photo Studio with customizations and selected photos.

The exhibit space allows visitors to make their temporary exhibition, interacting with the screen using gestures detected by the motion sensors inside the frame. The gestures are designed to be intuitive; however, visitors might first need to read the instructions (next page) presented on to the QR-code scanner.

The semi-transparent material of the interactive screen allows other visitors to see how the visual story is constructed. Macada Innivision (2017) is specialized in projection materials for exhibits and has developed such a semi-transparent material for projections. The see-through walls make the exhibit space inviting when it is not in use, being able to see the warm and cozy furniture.

Figure 76 shows how two projections are

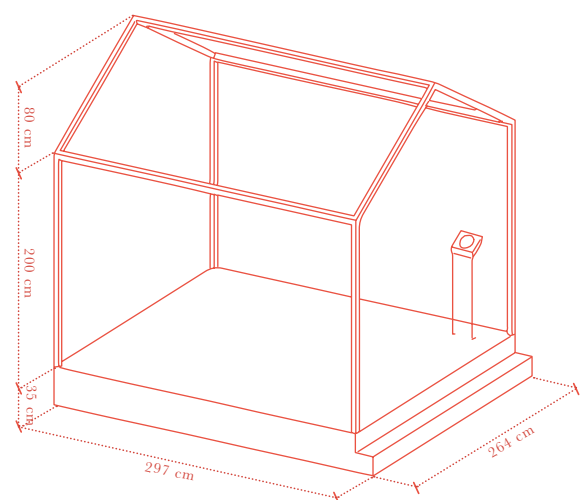


Figure 74. Dimensions interactive exhibit space.



Side entrance for smooth visitor flow.

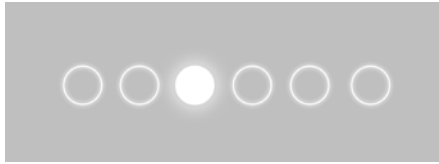


Figure 78. Process of ‘constructing’ the visual story.



Figure 77. Photo unselected (top) and selected (bottom) when pointing at it.

directed on one exhibit, covering three sides. Computer programs can use a technique called ‘projection mapping’ that allows one projector to cover two different surfaces. The motion sensors could be installed in the frame of the exhibit, having two sensors in on each side.

The process for the steps in customizations is presented on the screen (Figure 78). Visitors can swipe back and forth through these different customizations. When a photo is selected while pointing at it, a visitor will notice this by the feedback it gives (Figure 77). When all customizations are chosen, the photos are presented with their original captions (title and photographer, Figure 75).

The construction of and user interactions in a Photo Studio is visualized on the next page.

how does it work?

1 Scan your QR-code

You can scan up to three QR-codes.

2 Interact with the screen

Use the following gestures:

select



point at photo to select

move



use fist to drag photo

swipe



use arm to swipe

deselect



open hand

distance

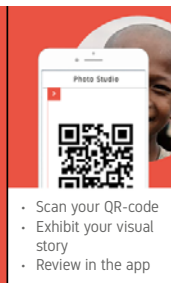


0,5 - 1 m distance

enlarge



use both arms to change size



- Scan your QR-code
- Exhibit your visual story
- Review in the app



Figure 75. Photographs and original captions.

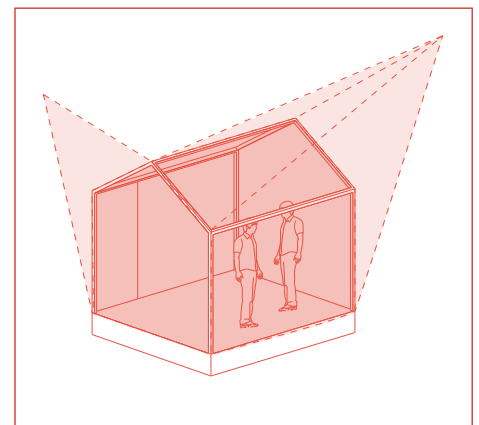


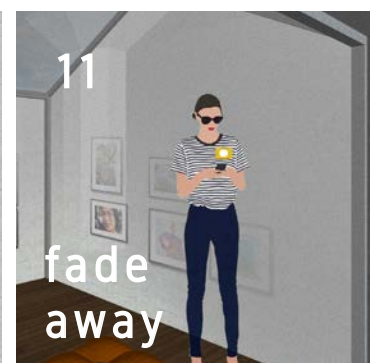
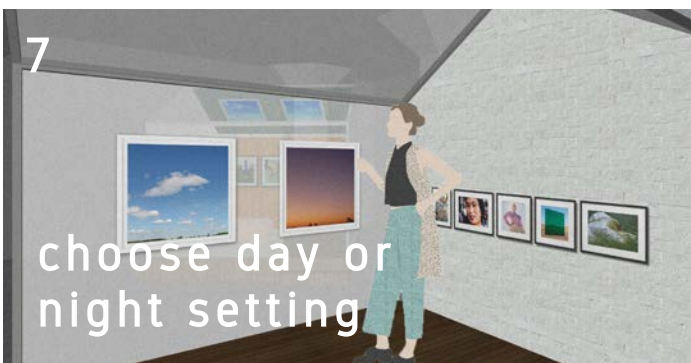
Figure 76. Directions projections.



1 First person has scanned QR-code: photos pop up randomly on one side of the exhibit.



2 Second person has scanned QR-code: photos pop up randomly on two sides of the exhibit. After a few seconds, ten white rectangles light up and visitors are instructed to put photos in the frames.



The left side is used to select customizations, the right side is used to see the chosen customization (background, frame).



4.2.4 platform

This section describes the platform around the museum experience. The platform prolongs the museum journey outside the museum’s walls. First, the application is described for the museum visit itself. Then, a suggestion of how visitors could relate to the Fotomuseum.

During the visit, visitors use the application to personalize their museum visit. Next to that, it guides them in which steps to proceed towards their Photo Studio. In the ‘route’ function, visitors can see a set of steps. These steps are linked to the phases inside the journey.

The ideal situation would be that visitors already downloaded the application before entering the museum. However,

when visitors buy their tickets, they are given a brochure that briefly explains Photo Studio and presents a QR-code to download the application (Figure 60, page 102).

After download and opening the ‘route’ function, visitors will find the first step ‘What do you want to show?’ (Figure 78). This step encourages visitors to make them use their voices. In this screen, the chosen theme can be added. When typing a message, the platform automatically suggests sub-themes (hashtags) based on the theme. Visitors can choose to skip this function first and fill in or change the message any time as all steps are clickable.

After a few minutes, a screen pops-up (Figure 80). If visitors are together and only one person has downloaded

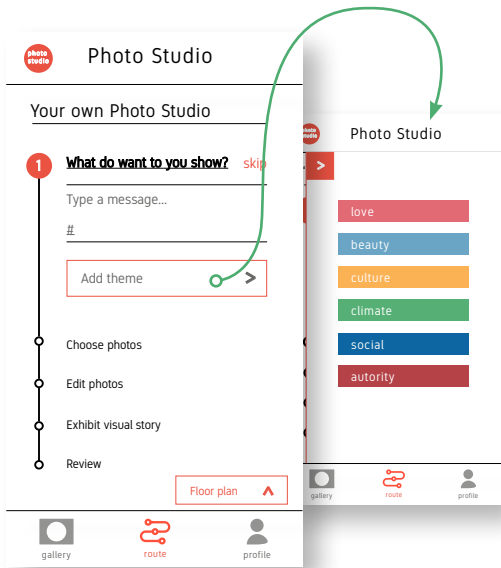


Figure 79. Step 1 in the ‘route’ function.

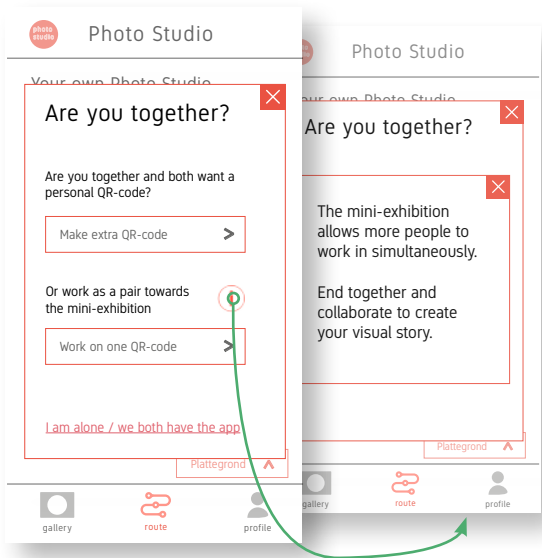


Figure 80. Notification pops-up when starting the journey.



the application, they can choose to add another QR-code. This QR-code could be sent to another phone to enable individuals to work simultaneously. The other option is to work from one QR-code. In this case, the system allows working on a maximum of ten images per QR-code (instead of five). Thus, if such a QR-code would be scanned in the interactive archive, visitors choose their photos together. However, if they both have downloaded the app, this would not be applicable.

The personal QR-code is used in step two to five, from interactive archive (step 2), to interactive darkroom (step 3), to interactive exhibit space (step 5). A floor plan (Figure 81) allows visitors to find the exhibit related to the step.

Finally, after step 5 ‘Exhibit visual story’, the Photo Studio can be seen in the application and added to the personal ‘profile’ (Figure 82), allowing visitors to see their Photo Studio any time anywhere.

In stage 5, visitors might also use QR-codes of others, as the gallery provides visitors search for specific Photo Studios. For example, if someone has shared his personal QR-code, someone else could use this QR-code another time to view in the Photo Studio in the interactive exhibit space.

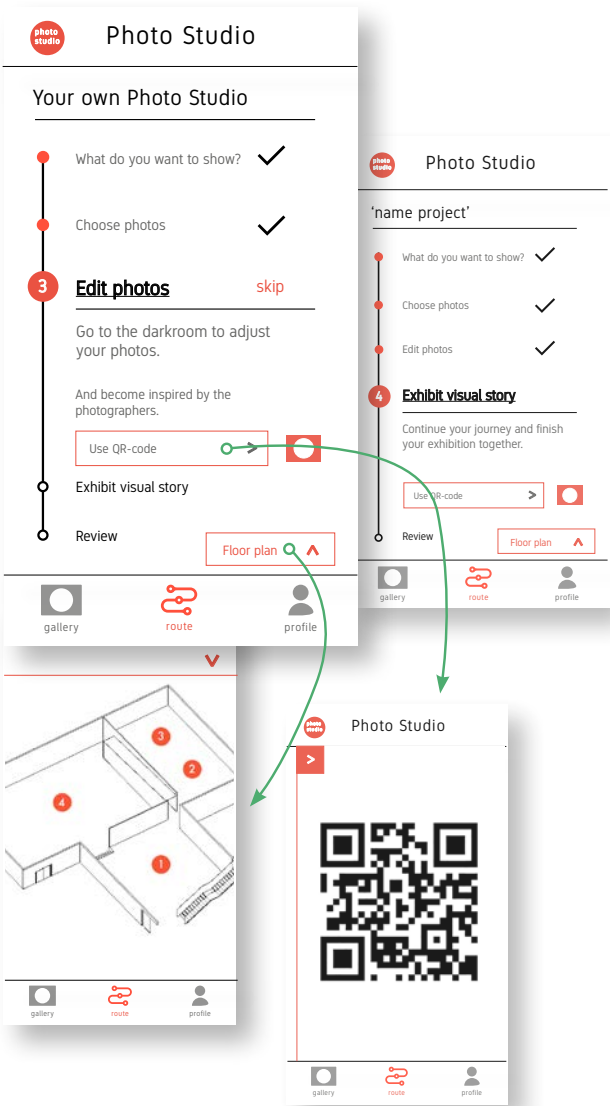


Figure 81. Guidance through museum visit.

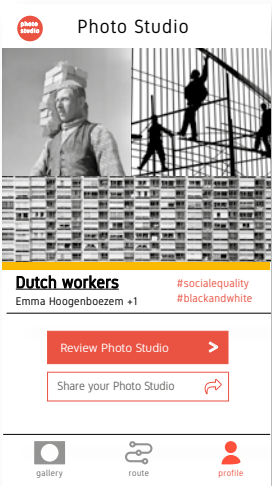


Figure 82. Review Photo Studio in application.

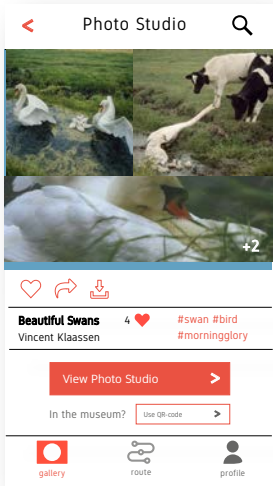


Figure 83. View Photo Studios of others.

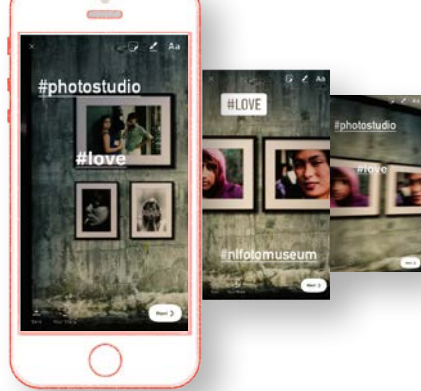


Figure 85. A Instagram 'story' showing a video of a Photo Studio.

outside the museum's walls

The suggestions presented on this page could trigger potential visitors and create a relation between millennial visitors and the Fotomuseum.

As millennials want to share live experiences on Social Media, the Fotomuseum could enable visitors to share a video of their 360-view (Figure 85) right after finishing their Photo Studio.

In addition, Photo Studio could be part of a Social Media platform, creating a link between Social Media and the application. Figure 84 shows a representation of an Instagram account for Photo Studio. The themes (love, beauty, culture, etc.) would then divide the different Photo Studios, enabling millennials to explore the collection and possibly triggering potential visitors.

To further stimulate sharing on Social Media, the Fotomuseum could award a monthly winner with the best Photo Studio, based on the number of 'likes' given by others (visitors and non-visitors). Visitors might share their experience on Instagram to campaign for themselves. Winners are presented in the application (Figure 86), shared by the Fotomuseum on Instagram, and receive a place in the Fotomuseum Photo Studio gallery.

Photo Studio on Instagram does not only trigger potential visitors; visitors that follow the account will be updated with weekly challenges and themes. This

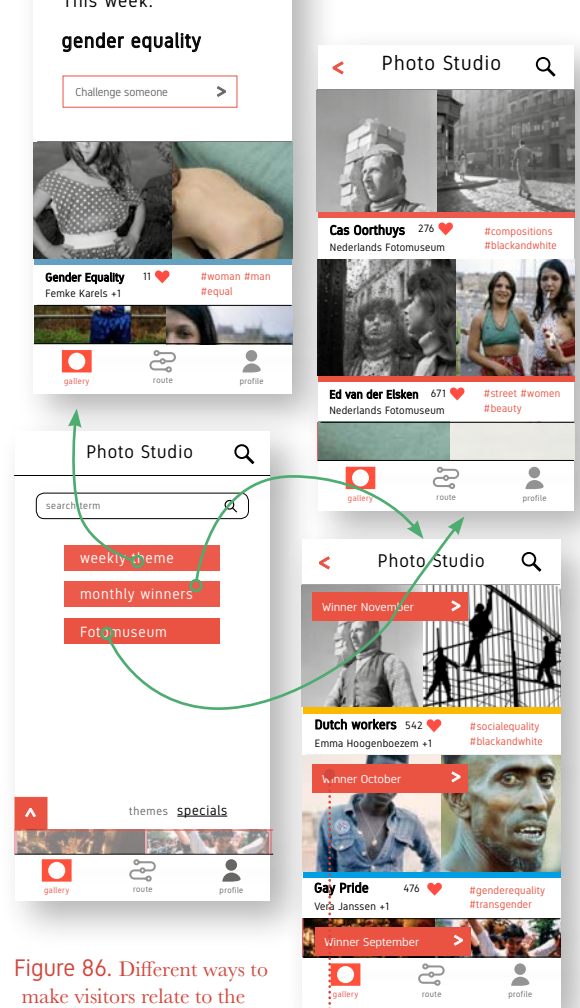


Figure 86. Different ways to make visitors relate to the museum.

Winner is shown in one of the 'houses' for one month.

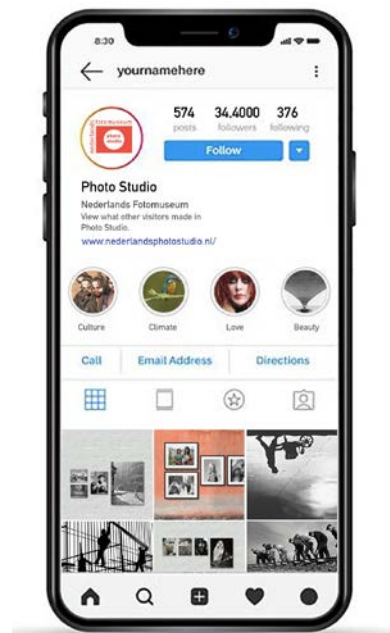


Figure 84. Instagram account Photo Studio

relation could stimulate return visits, as it challenges visitors to re-create a Photo Studio. Additionally, visitors that want to view their Photo Studio in 360-view anytime, might keep the application and thus relate themselves to the museum.

conclusion concept proposal

Photo Studio offers millennials an active and memorable experience at the Fotomuseum, inviting them to use the collection for developing one's own mini-exhibition. The platform allows visitors to explore co-produced exhibitions at home, which highlights the museum as an open, essential, and social place (Simon, 2010). The activity supports and encourages individuals to collaborate in creative activities in a larger social experience. Throughout the journey the link between photographers and millennials is addressed, allowing visitors to reflect the world as they see it and engage

with each other around photos. Six stages are described that move the visitor towards developing one's Photo Studio. With an application and three different interactive exhibits, visitors can select photos from the archive, edit them in the darkroom and construct their own visual story in the interactive exhibits space. Each interactive exhibit is designed with personal entry points and tools for creative expression to engage with each other socially. Finally, visitors can view their Photo Studio anytime, anywhere, as the platform provides a replica in an interactive 360-view.



photo
studio

phase two
designing

5 validation

introduction

This chapter describes the research set-up of the validation study. The key insights are presented following with an evaluation of the design framework.

5.1

research set-up

The study addressed four research questions. These questions are formulated based on the design challenges stated in the beginning of this thesis and the design goal:

- How does the design enable visitors to see the Fotomuseum as an open place for personal interpretation, activate visitors to contribute and to engage around the collection of the Fotomuseum?
- To which extent does the design stimulate dialogue and collaboration among young adults around photos?
- To which extent do participants develop (new) meaning to the collection of the Fotomuseum?
- What is the overall opinion of the participants regarding the interpretive activities and explorative environment?
- Which elements of the design need further improvement based on the validation?

participants

For this validation study, 16 millennials participated (nine women and seven men), between 21 and 28 years old, of whom nine were MSc students, and seven were working professionally. There was a fair balance between inexperienced (4 participants never visit museums) and experienced visitors, 6 participants had visited the Fotomuseum before. 10 out of 16 participants say they go to a museum for the social aspect, and 15 say they stay together during their museum visit. Each group consisted of two participants having a social relationship with each other, resulting in eight sessions over two days.

method

The different phases of the museum journey and the application (only ‘route’) were tested. Eight sessions of 60 minutes were organized at the Fotomuseum, divided over two days. Figure 87 shows the three phases of the test: an introduction with a questionnaire, concept testing, and evaluation.

Figure 88 on the next page illustrates the different phases and their activities during concept testing. The museum visit was simulated by multiple prototypes combined with a rendered video of the experience. The application was simulated by a paper prototype to test whether it guides visitors in their journey. In between the activities, the video was shown to refer to the narrative spaces. For the interactive archive, 24 photos were collected for each theme to simulate the exploration and selection procedure. The selection procedure was done with foam board and sticks, to allow participants to easily choose and combine photos. Each photo was coded to be able to look for the selected photo easily, to be used for phase 7 ‘constructing the visual story’.

The complete test was located in the small gallery of the basement of the Fotomuseum (Figure 89), which is part of the allocated space. The application and interactive darkroom were each tested with one prototype for two participants to keep control and overview during observation and hosting. After receiving permission from the participants, their interactions were recorded for part 7 ‘Constructing the visual story,’ and audio was recorded during evaluation. For a more detailed description of the set-up and materials, please refer to Appendix F.1.

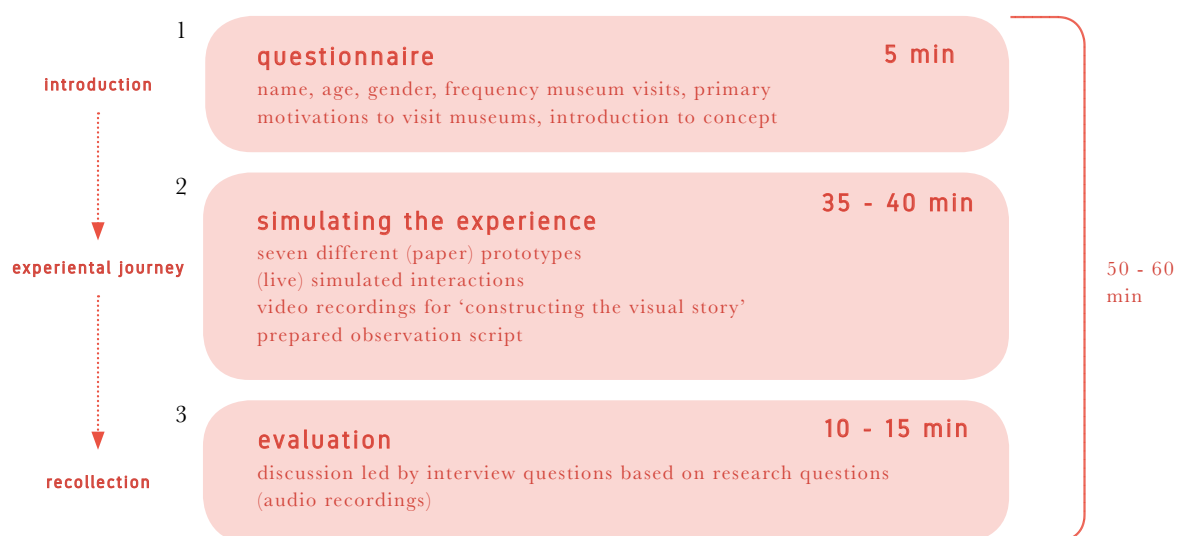


Figure 87. Phases validation study with estimated time.



Guided by a paper prototype of the application

- 1 **pick theme**
Participants were instructed to pick a theme together from the six presented themes.
- 2 **'world map' and 'small images wall'**
Participants were guided through the first phase of the experience through a rendered video of the concept.
- 3 **interactive archive | selecting photos**
With the use of three different paper prototypes participants were instructed to use the interactive archive (testing the usability) and to select each five photos from the prepared collection.
- 4 **observe photos | iconic picture**
Present printed photos on wall.
- 5 **interactive exhibit | editing photos**
With the use of a paper prototype the interaction was simulated on a television screen (this was done with examples, not the chosen photos).
- 6 **observe photos | darkroom examples)**
Present printed photos on wall.
- 7 **interactive exhibit space | constructing visual story**
The selected photos were used to project on a semi-transparent frame made from fabric that simulated the interactive exhibition space. Interactions were live simulated (Hoogenboezem) with the use of a laptop connected with a projector.
- 8 **re-viewing Photo Studio**
An example of the re-viewable Photo Studio was presented on a smartphone.

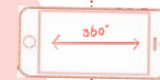
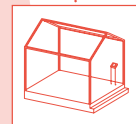
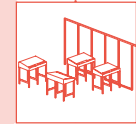
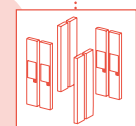
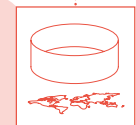


Figure 88. Phases of concept testing using paper prototypes, simulations and rendered videos.

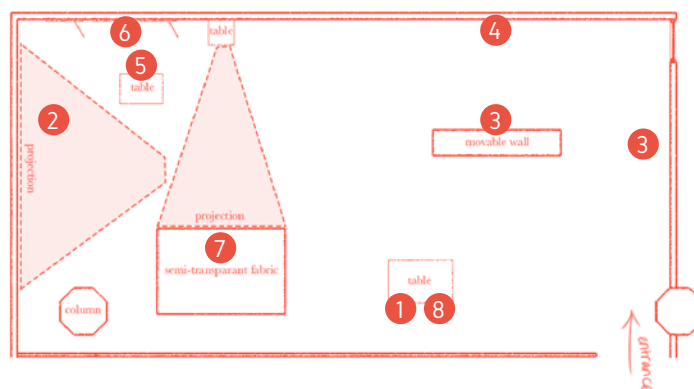


Figure 89. Floor plan set-up in small gallery.

Participants selecting photos from the prepared paper prototypes simulating the interactive archive and its collection.



Part of the gesture-interactive exhibit space (left) and participants watching the rendered video projected on wall (right).



5.2

key insights

Based on the observations of simulated interactions and evaluation sessions, key insights were summarized. For each research question, results are presented and illustrated with quotes of participants.

How does the design enable visitors to see the Fotomuseum as an open place for personal interpretation, activate visitors to contribute to and engage around the collection of the Fotomuseum?

'What is good about this concept is that you can choose photos yourself and that makes it very honest, there is no right or wrong because you choose yourself.'

10 out of 16 participants said they would go here in reality. The other remaining six were more doubtful in their answer, some explaining conditions like 'if I would be close to the Fotomuseum'.

'I was surprised that I became more critical in selecting photos; I thought: 'no, this does not fit in my selection.'

All participants liked the fact to be able to choose photos from the collection, being responsible for their own experience. Especially inexperienced visitors were positive about the influence of their actions.

Note; some participants mentioned by themselves the aspect of choosing photos themselves as rewarding before asking them.

'The variety is nice, between looking at the work of others and putting something together yourself.'

'I got stimulated to really look at photos because you have to search for them yourself.'

To which extent does the design stimulate dialogue and collaboration

among young adults around photos?

The majority of participants mentioned the positive effect of doing activities together, especially the discussion that resulted after 'selecting photos' as it automatically encouraged participants to compare each other's choices.

'It was quite a surprise to see which photos the other had chosen.'

8 out of 16 participants say they would possibly revisit Photo Studio with someone else. Some of the participants, exceptionally experienced visitors, mentioned they would possibly go again only if there would be a new exhibition.

A woman who was 'constructing the visual story':

'I am already thinking about whom of my friends I would do this too.'

In the first phase 'pick theme', participants discussed before choosing. After receiving the sticker, some participants started talking about the topic; however, around half of them did not mention the chosen topic in conversations right after choosing the theme.

Especially during and right after 'selecting photos' using the 'interactive archive' prototype (phase 3), participants started to compare their chosen photos, resulting in personal stories and discussions around photos.

In phase 6, the 'hidden photos' behind doors in the darkroom area, resulted in discussions focusing on these photos, mentioning and actively searching for differences in the details.

In phase 7, during 'constructing the visual story,' all participants collaborated in interacting with the screen. Before interacting with the screen, the majority of participants collaboratively decided where to put each photo, resulting in discussions around photos.

To which extent do participants attach (new) meaning to the collection and the Fotomuseum?

'It was nice to look at photos in a different way; I saw a new side of myself.'

In phase 7, all groups, except for one, started seeing new patterns while constructing the visual story. Interesting connections were made between multiple photos, such as

the number of people in a photo, to the used colors.

'I think the photos next to each other [in phase 4] are similar to the drawings of a painter or artist; you see the process of how he reaches his final piece of art.'

The majority of participants mentioned the collection's size.

'Are all of these photos from the Fotomuseum?'

A positive side effect, which was initially not the goal, was the result of participants (6/16) mentioning they got inspired to buy a photograph for themselves after seeing it projected on the semi-transparent wall in phase 7.

'It is nice that you have found a way to use the archive of the Fotomuseum.'

'I actually found out that it really matters how you put things together. There are so many things that artists think about that I did not know.'

What is the overall opinion of the participants regarding the interpretive activities and explorative environment?

All participants were positive. Keeping in mind that they might have been biased, the majority of the participants expressed a truly-meant positive or surprising reaction. Especially those participants who never visit museums said they enjoyed the concept. Participants that know more about photography were more critical about the digitized presentation of photos.

In phase 1, 'pick theme,' the results are contradictory. Half of the participants said the theme helped them to pick photos. The other half said they already forgot the theme while selecting and were randomly picking photos, based on other aspects. Additionally, almost all participants thought their chosen theme had something to do with the themes in the interactive archive, which sometimes confused them.

'What I missed a bit was that we had chosen the theme' culture,' and actually, when choosing photos, it did not come back so clearly.'

The idea of exploring the collection using the interactive archive was rewarded as very satisfying, as it allowed participants to see a large number of photos in a short amount of time. Although there was a limited time for selection, all participants

seemed to immerse in the selection process and delivered a 4 to 5-photo selection.

'I started to think about what would look beautiful with each other; I really got inspired.'

3/16 participants said they would see Photo Studio as a side activity, wanting to see 'regular exhibitions' next to it.

Around half of the participants mentioned they felt like a curator or artist. People with more knowledge about photography were more critical about the concept, especially in phase 6, 'editing photos,' as they said photos were 'already beautiful by itself.'

Which elements of the design need further improvement based on the validation?

For phase 1, 'pick theme,' the purpose of choosing a theme should become clear.

In phase 5, 'editing photos,' there should be more background information about darkroom techniques. Phase 5 might even be left out of the experience, as this was only partly tested, and participants were already satisfied with the concept.

In phase 7, there should be the ability to go back and forth between the chosen selections, presenting a menu with all options.

In Appendix F.2, a list presented for each phase with summarized results.



Participant interacting with prototype.

evaluation

This chapter demonstrates the evaluation of the design framework applied on the design and the interactive exhibits.



Figure 90. Narrative architecture: different narrative spaces inside the Fotomuseum and their corresponding activities.

design principle two:



design immersive spaces for visitors to express themselves in creative interactions

design principle one:



design open ended activities stimulating dialogue among young adults (who come together)

Based on two main design principles, the framework was created consisting of a narrative architecture accompanied by twelve more principles. The framework is evaluated based on the validation research. Figure 90 illustrates which phases of the journey meet the intended narrative architecture. Although the concept proposal consisted of suggestions for the platform, the user interface was not tested during validation. Introduction-phase was evaluated positively by participants; however this was tested by showing a video and thus not completely reliable. The same for recollection. Based on the evaluation of the narrative architecture and the insights from the validation study, it can be said that the two main design principles are met.

Two of the remaining twelve design principles are not completely met. Principle seven is partly achieved; participants could build their own meaning around certain topics; however, this was not always focused on concerns about the world. Design principle eleven is not completely achieved as the interactive exhibits are mainly designed for visitors that construct their own Photo Studio. However, just exploring the collection using the interactive archive can be satisfying too.

Finally, the interactive exhibits are evaluated. Although the interactive world map was not tested with a prototype, the responses to this element of the journey were quite positive. The

design principle 3



make the digitized collection part of the on-site experience and extend the experience by enabling visitors to explore the collection outside the museum's walls

design principle 4



offer a two-way interaction and motivate visitors to create, comment on and share content by treating visitors as individuals

design principle 5



provide a diverse experience: show the diverse collection and put photography in different perspectives

design principle 6



bring photography to actuality, create a link between the older content and the present

design principle 7



provide young adults an experience in where they can build their own meaning around certain topics that make them feel involved with the world

design principle 8



provide visitors to share their experience with the outside world, consisting a entertaining element which is shareable

design principle 9



make visitors use photos as a way to express themselves, supporting them in creating and communicating their own 'message' with photos with the use of interactive tools

design principle 10



encourage individuals to confidently participate in creative activities by designing personal entry-points and constraints in every open-ended activity

design principle 11



provide one holistic social experience where visitors who do not want to contribute make meaning too and other visitors can connect with each other

design principle 12



provide visitors to discover hidden content (pull-content) and new areas

design principle 13

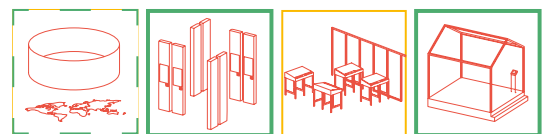


encourage deep looking by putting photos in the center of the conversation and/or activity

design principle 14



design spaces with the explorative character of an archive using the four qualities



interactive world map

interactive archive

interactive darkroom

interactive exhibit space



achieved



not validated/not completely achieved

responses to the interactive darkroom were contradictory, as around half of the participants said they did not see the value of editing photos. The interactive archive and interactive exhibit are both positively evaluated.

6 conclusion

introduction

In this chapter, the conclusion of the project results is described. In addition, limitations regarding research and design are discussed. Recommendations for future work are described followed by a proposed combination of interactive exhibits. Then, ethics regarding the Fotomuseum's collection are discussed. Finally, a personal reflection on the project approach and activities.

conclusion

For this thesis, the aim was to design a social and interactive experience to engage millennials around the collection of the Fotomuseum. Additionally, participatory museum principles needed to be applied to the design to involve visitors around the collection. Finally, a concept proposal needed to be delivered.

In the first phase of the project, a design framework for an overarching museum activity needed to be developed. Empirical and extensive literature studies resulted in four core elements (socialization, meaning-making, escapism and interaction) for creating the framework. The holistic framework consists of a simplified model for an overarching activity, to design social interactions around photos. A narrative architecture describes the different stages inside the museum, to make millennials engage with each other around the collection and to activate participation. A design goal, an experience vision and fourteen design principles guided the iterative design process. The proposed concept Photo Studio invites millennials to explore the collection from home, starting the experience before the visit. Inside the museum, visitors are guided through six narrative spaces towards making their mini-exhibition. The journey consists of sub-activities and interactive exhibits that are designed to make visitors interact with and engage around the collection socially. A platform was designed to prolong the experience and make millennials relate to the Fotomuseum.

A validation study with 16 participants was set-up to test Photo Studio. Seven different prototypes and a reconstructed environment simulated the museum journey. The different open-ended activities and associated interactive exhibits were tested to evaluate whether millennials' needs were fulfilled regarding the social, interactive, explorative and open character. The main focus of this concept test was to clarify whether Photo Studio facilitates the desired experience to activate participation and engage millennials around the collection. Additionally, the development of new understandings around photos was tested.

Photo Studio is found to be a concept-base to engage millennials around the collection of the Fotomuseum. Based on the insights obtained from the validation study, the overarching activity is presumably found to facilitate the desired engaging experience

for millennials. All of the 16 participants positively reviewed Photo Studio. Each group developed discussions around photos, collaboratively discovering new perspectives. The activity was reviewed as fun, active and motivating.

The proposed concept provides a proper base for further developing the overarching activity. The holistic approach aimed to include multiple perspectives; however, detailed design and specific elements regarding the interactive exhibits and technologies need further development. Additionally, the platform that prolongs the experience needs additional design explorations to ensure the number of potential visitors is reached.

discussion and recommendations

This chapter discusses the limitations of this project. Additionally, recommendations are formulated regarding further research and development of the proposed concept. Finally, a proposed concept combination is presented.

analysis

The project approach was set to explore different areas, resulting in a holistic overview of the context. Millennials and practices for a meaningful and engaging museum experience were examined through empirical and extensive literature research. However, some of the models developed during this thesis are combinations of different literature studies. Photography, for example, was explored to create a simplified model to apply to narrative architecture. A simplified model for ‘critical looking’ was created to apply to the design framework. However, these models are not validated in existing research. Therefore, these areas should be explored further to clarify whether they are truly effective.

Different explorative and observational studies were conducted to confirm previously found insights or find new directions for further exploration. Most of these studies are not presented in a detailed way. Additionally, several qualitative research activities were performed to gain insights and inspiration, such as explorative studies to identify spatial characteristics and spatial design elements. These findings are (visually) summarized but might be unclear as is it not precisely shown where these insights come from. Moreover, most of these insights are personal interpretations and might have been different for someone else.

design framework

The design framework that is presented in this thesis is an integrated combination of the different findings from analysis. As mentioned in this section, some of the foundations for this framework are not validated in existing research. Although empirical studies and extensive literature studies are combined to one holistic groundwork, some domains in the framework should be confirmed or explored further.

Not all of the described design principles are measurable requirements; they are rather formulated as conceptual guidelines to develop the design. Therefore, the

requirements presented in Appendix G need to be referred to when further developing the concept. Additionally, requirements regarding exhibit content and interests of millennials could be further specified, as they are now described broadly without explicit information.

designing

The design process balanced between individual development and collaborative sessions. The summarized insights from these evaluative sessions functioned as inspiration rather than accurate knowledge. These sessions were organized with an open approach; they followed each other up based on gathered insights instead of following a known design method or tool. The results as presented in the Appendix might be unclear as they are not presented in detail. Additionally, they were organized with participants from a creative domain; these participants might have different ideas or values than millennials from non-creative domains have.

The individual concept development was a continuous iterative process of the different elements. Unfortunately, not all iterative steps were documented. The concept development and refinement were conducted in a computer program in which the improvements were made in one file and not individually saved. For the reader, some steps might come out of the blue.

For further development, the compositions of the collection should be further explored, as this is a more appropriate job for a curator. However, the different themes for the interactive archive are a proper base for dividing the collection. Additionally, the interactive exhibits need further development and should be tested with high-fidelity prototypes to ensure they are intuitive and satisfying in use, also concerning the entire journey.

concept proposal

The concept proposal aimed to present Photo Studio in multiple layers, from the museum journey to the design of interactive exhibits. However, due to the scope of the project, some activities and exhibits remained abstract and detailed design is not yet achieved. Therefore, some suggestions for exploration and further development are presented below to add value to the design:

museum journey

- The proposed narrative architecture and its activities show to be valuable towards engaging millennials around the collection. It is recommended to build upon this structure, considering the open and shifting activities as most

important.

-
- The chosen theme in phase 1 (sticker) should have a clear purpose in following the journey, epically regarding the interactive archive.
- The experience should be tested whether it is satisfying without the interactive darkroom, as participants' reviews were contractionary.
- Pull-content should be designed consisting of background information about darkroom techniques related to photographers and their photos.
- Studies should be done on how visitors respond to live-creations of other visitors and if it is satisfying for visitors only to see user-generated content.
- Validate whether the design is satisfying for visitors who come alone or in groups of three or more, and for regular visitors of different age ranges.
- Studies of visitor flow should be executed regarding the number of interactive exhibits and other exhibitions inside the museum.
- Materialization is an important factor in evocative spaces. Further material and design explorations should be done in how to create an aesthetic that meets the mysterious, adventurous, etc. character.

interactive exhibits

- All interactives were tested with low-fidelity prototypes. Through an iterative design process, these interactives need to be developed further, shifting from medium-fidelity prototypes to high fidelity prototypes to ensure these exhibits and their user-interfaces are user-friendly.
- The proposed network demonstrates a possible way to develop the system around the interactives. However, further explorations should be done in order to ensure a smooth and efficient visitor journey.
- The number of photos in the interactive archive is not specified. A large number can be overwhelming. User tests should be done to specify the desired number of photos in each of the eight themes.
- Studies should be done regarding the duration of use of each interactive exhibit and the visitor flow.

platform and application

- Provide additional instructional information for each of the steps in 'routing'.
- Design a clear instruction in how to use the QR-code in relation to exhibits.
- The activities around sharing, voting and liking Photo Studios on Social Media need to be designed.
- The 360-degree view and its technologies are suggestions. Further explorations should be done on how to prolong the experience and make visitors relate to

the museum.

Additionally, a new interactive exhibit combination is proposed (Figure 91), which would presumably still meet the desired experience, but more feasible regarding time and costs.

As discussed in the insights chapter 5.2, the outcomes for the interactive darkroom were contradictory. Additionally, the outcomes for the interactive archive and the interactive exhibit space were considerably positive, in comparison to the darkroom exhibit. The selection procedure in combination with interactive exhibit space, would still create a personal and active experience. Besides, visitors can still create their unique Photo Studio. To even become more feasible regarding costs, the platform could consist of only an Instagram account, as proposed in section 4.2.4.

For further concept testing, the researcher should have a more passive role. In this project, participants might have been biased or influenced through the active role of the researcher during the tests. Concept testing should be done with millennials from different domains and provide more autonomous prototyping.

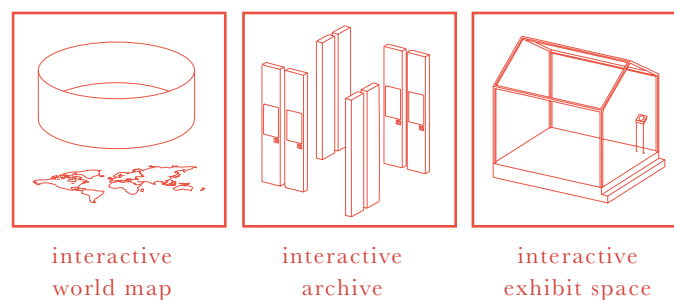


Figure 91. Proposed combination interactive exhibits.

ethics

Photo studio aims to bring the collection in the spotlight, by allowing visitors to select, edit and construct visual story stories digitally. Although more museums start to present their content digitally, this way of using a collection is completely new. In this chapter, the ethics regarding the design choices are considered from different perspectives.

the museum's collection

The Fotomuseum presents itself as a safe guarder of the visual heritage of the Netherlands (Fotomuseum, 2019). The aim is to communicate an open space for the public, which will affect how visitors interpret the museum. Additionally, it could influence the behavior or thoughts of visitors regarding other museums. However, as more museums make their collection available for public use (e.g., Rijksmuseum), Photo Studio could be a well-fitted opportunity to go along with this trend.

According to ICOM (2017), ‘museums should ensure that the information they present in displays and exhibitions is well-founded, accurate and gives appropriate consideration’. With Photo Studio, the museum has less control in what will be presented, meaning the museum cannot guarantee which information the visitor will consume. Communication regarding which information is user-generated content is strongly recommended.

enriching art or no respect for the artist?

Art is culture, and so is photography. The question can be raised if it is appropriate to ‘touch’ photographic images of the artist. Some audiences might not see the value of Photo Studio as there is a group that wants to see art in the original state. Additionally, a digitized presentation of photos has a different resolution and contrast as analog presentations. Ed van der Elsken for example used the effect of aging in his slides. However, digitized art can also enrich visitors’ perception.

the curator

Originally, museums present their content carefully collected by the curator, sometimes in collaboration with an artist. With Photo Studio, the curator is left out and the

visitor is entirely dependent on others. This might not only cause dissatisfaction regarding visitors that come to see traditional exhibitions settings, but it could also cause a lack of overview or become messy for the visitor's eye. A curator's work is to design exhibitions where individual pieces are in harmony. The Fotomuseum could generate collections presented in the interactive exhibits, in addition to user-generated content.

the visitor

Collecting user-data should be only used for the benefit of the user and the museum, not for other circumstances. The privacy of users should be a high priority in developing the platform around Photo Studio.

Altogether, the flexibility of Photo Studio creates opportunities. It is a great opportunity for the Fotomuseum to start collaborating with the audience, keeping in mind that the Dutch Heritage is for 'all of us' (Fotomuseum, 2019).

personal reflection

This chapter describes the personal and professional learning process along with the project.

museums as a starting point

Museums always got my interest. For me, not specifically the art but the environment is the main reason I visit museums. The ability to stroll around in a public environment, where strangers meet and collaborate in one social and cultural experience. This interest was the starting point to look for a museum as a client for this graduation project. Quite soon after starting the exploration, the Fotomuseum responded to my proposal to start a collaboration with the TU Delft and MuseumFutures lab.

Although museums are part of my leisure time activities, they do not always satisfy my needs. The formulated assignment was partly based on my own experiences regarding the satisfaction of needs. Additional research confirmed that young adults have different expectations and desires when they visit a museum. Throughout this graduation project, I got to understand the different types of visitors, which also resulted in understanding my own behavior in museums. Before this project, I assumed that one day I would become an experienced museum visitor that would know how to look at art. However, now I see that for me it is not

necessarily the art; it is about the way I make meaning from my visit, through the presented tools inside the museum, enjoying the stay on its own. Being able to see myself in a new perspective relating to museums was very valuable.

organization and management

One of the challenges for this project was to manage and communicate the project process to the stakeholders. As the project started with a broad project approach, the assignment was still developing after kick-off. During this project, I got to experience to deal with different values and changing perspectives of stakeholders.

As a researcher, I prefer to work collaboratively. As a designer, I prefer to work individually. This has resulted in a lower collaboration with the stakeholders during the designing phase. For future projects, the entire design process should be questioned and discussed to add value.

As broad as the assignment was, many different explorations were executed, which in the end did not add value to the concept. During this project, focus was sometimes too narrow or too far from the intended assignment. However, this resulted in valuable and holistic insights into different domains.

process

The approach addressed the domains holistically as well in a detailed manner. The different explorations and literature studies resulted in a lack of overview towards creating the design framework. Therefore, the construction of the framework continued during the designing phase. Time management regarding designing and further developing the framework was needed. As lost I was in the seemingly endless research details, as clear and applicable the construction of these insights became when everything fell into place.

For me, the creative part of designing is most satisfying. With this, ideas come with inspiration, and many decisions are based on intuition. Although designers have a foundation for developing a concept, to verify the outcomes to the reader, some decisions could have been communicated or evaluated in relation to the target audience. Additionally, many valuable steps were taken, which were unfortunately not documented.

To continue on designing, the focus was on creating an aesthetically beautiful concept rather than writing the thesis. After the green light meeting, I saw the opportunity to critically look at my writing skills and develop an engaging story. Efficient time management regarding the deliverables was needed. Although the story could have been more compact, I started to see the fun of writing. For future projects, I am motivated

to develop my storytelling skills further.

personal goals

One of the five learning ambitions was to set-up and execute generative sessions, as this was an uncommon domain for me. Through this, I have experienced that involving the user around research and design is extremely valuable.

During the master's program Design for Interaction I have developed an interest in designing experiences rather than products. With this project, I have gained more insights into how to develop engaging experiences holistically. I am proud to put Photo Studio in my portfolio to enter the job market.

Finally, it was enjoyable working for the Fotomuseum. Throughout this project, I could experience how people other than the creative domain of Industrial Design appreciate the work of a designer. Besides, it was pleasant working with supervisors from the TU Delft in a new perspective.

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