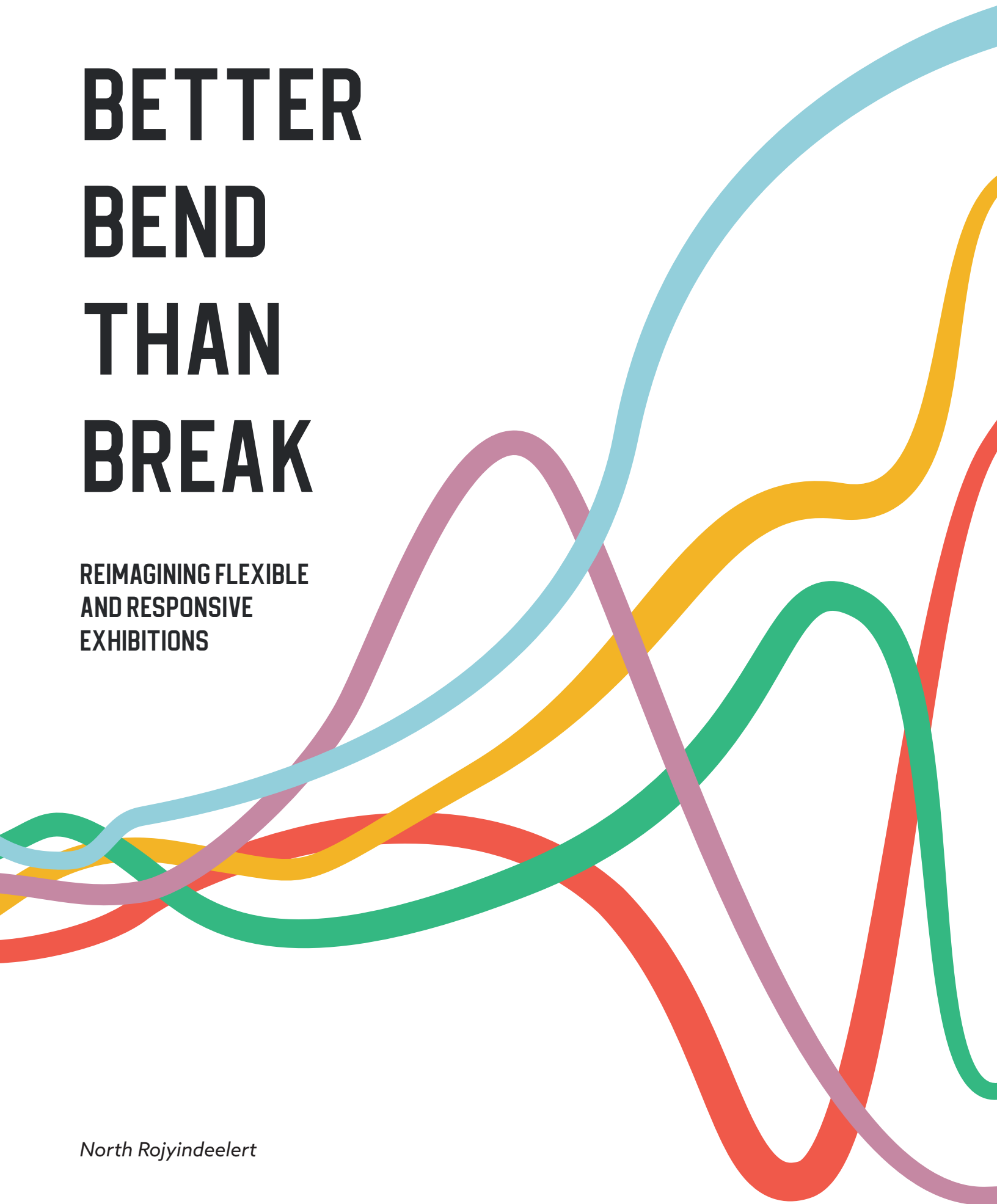


BETTER BEND THAN BREAK

REIMAGINING FLEXIBLE
AND RESPONSIVE
EXHIBITIONS

North Rojyindeelert



Better Bend Than Break:
Reimagining Flexible and Responsive Exhibitions
North Rojyindeelert
Museum Exhibition Planning and Design
The University of the Arts
Submitted May 2021

A thesis submitted to The University of the Arts in partial fulfillment of the requirements for the degree of Master of Fine Arts in Museum Exhibition Planning and Design.

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For more information contact:

North Rojyindeelert
628-999-1577
r.rojyindeelert@gmail.com
Northrojyindeelert.com

BETTER BEND THAN BREAK

Reimagining Flexible and
Responsive Exhibitions

North Rojyindeelert

Master of Fine Arts Thesis

The University of the Arts

Museum Exhibition Planning and Design

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Committee



Chair

Beth Van Why,

Adjunct Associate Professor, University of the Arts



Daniel Spock

Museum Exhibition and Planning Consultant



Paul Orselli

Chief Instigator, POW! (Paul Orselli workshop, Inc.)



Stacey Mann

Independent Interpretive Planner & Experience Designer, Senior

Lecturer and MEP+D Thesis Advisor, University of the Arts

Abstract

During COVID-19, museums have been challenged to prove their reason to exist and their importance to communities and visitors. Museums hold stories and collections that are valuable in the time of crisis, but mostly fail to strike while the iron is hot. How can museum exhibitions be more flexible in order to stay fresh and relevant to current topics, and address the needs of museum visitors in a timely manner? Drawing from museum best practices, conversations with museum professionals, and existing exhibitions, this thesis proposes five areas of consideration for flexible exhibitions: 1) Commitment for Flexibility 2) Proactive Practice 3) Flexible Content 4) Flexible Design and 5) Relationships. These considerations are neither a checklist nor chronological steps to create flexible exhibitions. Instead, museums need to apply these considerations into their practices and use them as the foundation to create their own version of flexible exhibitions.

Personal Statement

I am the kind of museum-goer who does not like to read, but instead push every button and engage with all kinds of interactives and immersive experiences. What makes museum exhibitions different from other places is that there are so many different ways to convey stories, for example, graphic, audio, and tactile experience. It opens more doors for people with different learning preferences.

When COVID-19 hit in March 2020, I knew exactly what would happen to those physical experiences. And I was right. The museum field was steering away from tactile experiences. In the Facebook fanpage, *Museum Professionals Covid-19 Best Practices*, many museum professionals shared that they were removing interactives from their museums. This same comment appeared in the *AAM 2020 Annual Meeting*, regardless of accessibility issues.

I hoped to revive the essence of physical experiences in museums, therefore I came up

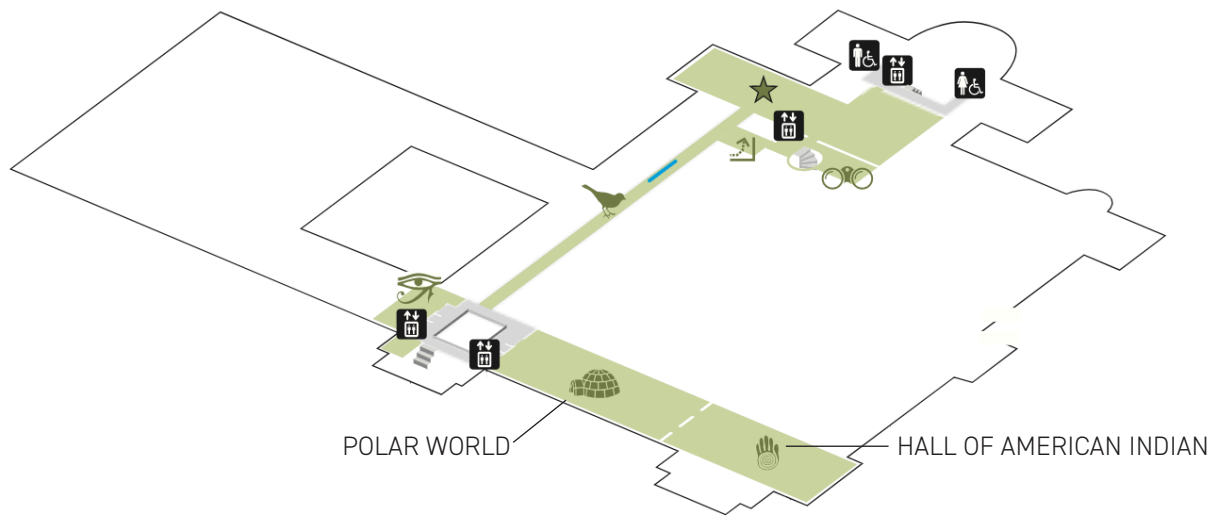
with a thesis topic: *Museum Interactive Design for Post-COVID Time*. With my background in biology, I believed that science could lead us to a balance between safety and meaningful physical experience in museums.

My head was filled with questions about COVID-19 and physical experiences in museums. I talked to many museum professionals asked what they thought about the future of physical interaction moving forward. I traveled to many museums that were daring enough to reopen in the middle of the global pandemic hoping to find some clue. However, the more I dived into the topic, the more I realized the bigger issue.

When I discussed a safe interactive exhibit with Paul Orselli, an incredible exhibition developer and designer who has interviewed hundreds of people in the museum field (see his interviews at POW!), he asked, what if there is an adaptive exhibit that works differently when there is a pandemic



THIRD FLOOR



Carnegie Museum Plan (Figure 0.1). When I visited Carnegie Natural History Museum in Summer 2020, the museum turned every visitor path into a one-directional path. It did not work very well in the Polar World and the Hall of American Indian. The storyline of the Hall of American Indian was thematic, but the new visitor path did not allow visitors to complete each theme at once. Instead, the path forced visitors to enter new themes before finishing the previous theme. Moreover, to complete the Polar World gallery, visitors needed to walk through the entire American Indian gallery before reentering the other half of the Polar World gallery. This new visitor path broke the exhibit narrative into small pieces making it hard for visitors to understand the big picture.

Illustration modified from
**Carnegie Museum of Art
and Natural History map.**

and when there is not? That **WHAT IF**, was lingering in my head for a while until I flew myself to the US Olympic and Paralympic Museum in Colorado Spring and noticed an adaptive display system that opened more possibilities for different sizes of material cultures. **(Figure 0.2)**

Then I thought that, **what if the entire exhibition is flexible?** What if it can adapt to any kind of crisis? This would be the long-term solution for museums, not only for this specific pandemic, but any crises from global warming to racial justice.

At first, I was not sure which way I should take between developing a short-term solution for a post-COVID-19 world, or a flexible exhibition which will be a long term solution for the museum field. The breaking point was when I did a prototype at the Franklin Institute in Fall 2020. I noticed that people who were already comfortable enough to visit the museum were comfortable enough to touch things. I was even surprised how close they were willing to be with a group of strangers. (Of course, they violated social distance rules which is another conversation.) The safe interactive design might have been a fun thesis topic, but with people being more comfortable with physical interaction, I believed that physical interactives will find their way back to the museum. And as I am writing this personal statement, we have learned that contaminated surfaces are not the major source of infection¹. Moreover, many people are vaccinated and we are reaching herd immunity soon.

Shifting the topic was rough but I am glad I made that decision because I know from my experience that I would never be able to get it through doing something I have lost my passion in.



1. Dyani Lewis, "COVID-19 rarely spreads through surfaces. So why are we still deep cleaning?," *Nature*, January 26, 2021, <https://www.nature.com/articles/d41586-021-00251-4>.



The display platform in *Summer Games* gallery at the US Olympic and Paralympic Museum (*Figure 0.2*). The mounting poles can be rearranged in different heights and locations based on the holes on the platform

Photography **North Rojyindeelert**

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Flexibility

How might we
shift into the
flexible mindset?

How can exhibit content
and narrative support
future changes?

How can
museum ex-
hibitions be
more flexi-
ble in order
to stay fresh
and relevant
to current
topics, and
address
needs?

What considerations
should be taken into
account to develop
flexible exhibi-

What does it take to be *flexible* and keep the
flexibility going throughout the process?

How could they make...

How could...

What...

AN...

How can exhibit content and narrative support future changes?

How can museum exhibitions be more flexible in order to stay fresh and relevant to current topics, and address needs?

What considerations should be taken into account to develop flexible exhibitions?

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Production

Responsive

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How could they make...

How could...

What...

AN...

The museum field has been through many shifts throughout history. They told people what they should see and what story they should know through the curatorial voice. The museum field has been gradually shifting to “being for somebody” and focusing on learning experiences since Stephen Weil published *From Being about Something to Being for Somebody: The Ongoing Transformation of the American Museum*, in 1999.¹ Today, there are many agents of change that are challenging the old guard and pushing the museum field in a better direction, for instance, *MASSAction* and *OF/BY/FORALL*. However, these changes are not easy to apply in practice and are still in progress. Sometimes changing how things are is hard as one of the posts on *Change The Museum*, an Instagram account aiming for US museums to move beyond lip service, “the only other person here who is actively trying to change things is treated terribly.”² And even two decades after Weil published his work, we can still see articles reminding people to avoid an object-centered narrative.³

So, why is it so hard for museums to change? The answer may be rooted in our history. Museums may have shifted from private to public and from object to visitor focus, but one thing that rarely changes is that we

see and present ourselves as a prestigious institution.⁴ And that is how the public sees us as well.⁵ This echo chamber tricks us to believe that the way we do things is the only right way. It embodies the static value into our roots and fosters us to be scared of changes. Some museums might be open to change but, with a burden to maintain the status quo, they take it slow, so slow that they are relatively static to the changing world. But how long do we have left until our visitors stop seeing us as a prestigious institution? Museums need to acknowledge their flaws and



Illustration
North Rojyindeelert

keep up with the changing world.

An emergence of COVID-19 pandemic has been disastrous to the field, yet it “forced humans to break with the past and imagine their world anew.”⁶ This is an opportunity to

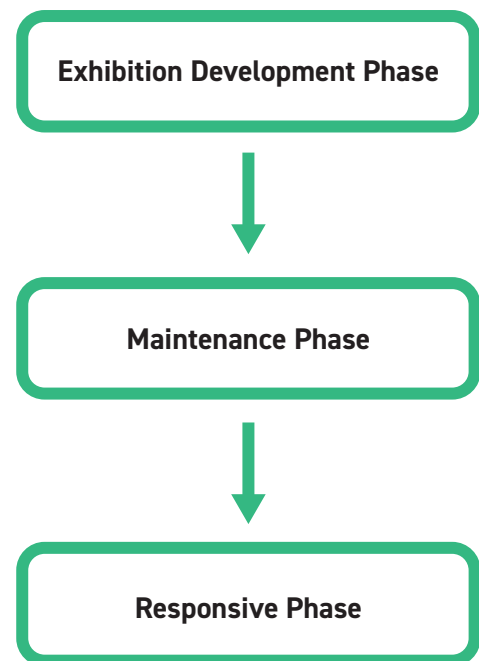
reconsider our way of doing things, pull out our old static roots, and plant a new seed of flexibility. Once this seed grows, it will yield a fruitful harvest which will allow us to be more open to and ready for new changes. The seed I am selling you in this thesis is a product of

a cross-pollination among several trees in the museum world. You can look forward to a **Fruit of Flexible Exhibition** in the first lot. And if you keep nurturing this tree, it may grow into a flexible programming, a flexible public outreach, or a flexible museum.

Area of Inquiry

I break the work of flexible and responsive exhibitions into three phases: 1) Exhibition development, 2) Maintenance and 3) Responsive (*Figure 1.1*). In the **exhibition development phase**, the museum creates an exhibition that has the capacity to change: movable cases, updatable content, or flexible mountings. However, one of the pitfalls that will be discussed in the next chapter is many museums do not move on to the second phase, **maintenance phase**. The subject of maintenance in this phase is not broken interactives or outdated screens, but the flexibility itself. Like languages, flexibility can get rusty without practice. Museums need to maintain this flexibility by being prepared for changes. Once current topics arise, museums transit into the **responsive phase**,

where they quickly change their content and design elements based on the topics.



Flexible and Responsive Exhibition Process (*Figure 1.1*).

Flexibility and responsiveness are closely related. In this thesis, flexibility is the

capability to adjust while responsiveness is the quality to react quickly in a logical manner. An exhibition does not need to be responsive in order to be flexible. The changing exhibit content need not to be relevant to current topics. But with this capability to change and the experience of updating the content, the exhibition is capable of addressing current topics, and when it does, it becomes a responsive exhibition. A museum can jump right into the responsive phase by creating a new exhibition specifically about current topics, but it is not what this thesis is about. This thesis focuses on responsive exhibitions that are transformed from existing exhibitions or unfinished exhibitions. It focuses on flexible values that will lead to responsiveness, and allow museums to be proactive in the non-responsive time.

How can museum exhibitions be more flexible in order to stay fresh and relevant to current topics, and address the needs of museum visitors in a timely manner? In order to answer this question, this thesis delves into the behind the scene of different museum exhibitions. What does it take to be flexible and keep the flexibility going throughout the process? How could they manage their limited resources: time, budget,

How can museum exhibitions be more flexible in order to stay fresh and relevant to current topics, and address the needs of museum visitors in a timely manner?

and people? What kind of preplanning and foresight do we need to have? What considerations should be taken into account to develop a flexible exhibition? And how might we plant the flexible mindset?

This thesis also reconsiders theory of exhibition design and development and questions how we can make those best practices be more flexible. How can design elements allow more flexibility? How can exhibit content and narrative support

future changes? This will make the work of flexibility easier moving forward.

While this thesis focuses on the flexibility aspect of responsiveness, it does not discuss how the responsive phase looks like or what topic a museum should choose to respond to. This project does not mean

to set a standard for flexible exhibition or say that museums need to follow all flexible qualities to be flexible. Instead, this thesis distills and analyzes flexible values from museum theories and examples with an aim to set a foundation for flexible exhibition in which museums can apply and create their own responsive protocol.

Glossary of Terms

Flexible - capable of adjusting the way things were to be more suitable, but not necessarily be perfectly fit, in the new circumstances. This is different from being adaptive which means being capable of completely changing the way things were to perfectly fit in the new circumstances.

Responsive - capable of reacting quickly in a logical manner. In this thesis, it means being capable of addressing current topics in a timely manner.

Current topics - incidents, issues, crises, movements or anything that people are interested in. They can be on-going or recently settled. They can be recently

emerged out of nowhere like the COVID-19 pandemic or they can be recurring incidents attached to on-going issues, like racial justice and police brutality.

Proactive - acting in anticipation of future problems, needs, or changes⁷

Relevance - the quality to connect, in this case, current topics to meaningful experience in museum exhibition.

Exhibition content - stories, key messages, and experiences that the exhibition conveys through various mediums.

Exhibition medium - techniques being used to communicate exhibition content, for example, storytelling, written content, objects, activities, and programs.



Design elements - design structures that are used to hold exhibition medium and facilitate exhibition content, for example, description labels, cases, cabinet, interactive exhibit, touch screen.

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Rationale for Flexibility

Rationale for Flexibility

Rationale for Flexibility

Rationale for Flexibility

Rationale for Flexibility

Rationale for Flexibility

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Rationale for Flexibility

Rationale for Flexibility

The COVID-19 pandemic and Black Lives Matter movement have shown that museums are slow to change and are not responsive. Following these incidents, there is a

need for museums to respond and provide guidance and hope for museum-goers.¹ Those needs did not just come up in 2020. People have been calling on museums to respond to contemporary topics — from social justice, racial issues, and white supremacy, to climate change — for a long time. For example, the American Museum of Natural History's Theodore Roosevelt statue communicates a racial hierarchy that both the public and the museum have long found disturbing, resulting in several protests including a series of protests from *Decolonize this Place* since 2016, as well as the 1971 and 2017 protests that both resulted in the defacing of the statue.^{2,3,4} The museum has been working on this case for a long time, but it was not until July 2019 that the museum contextualized the issue with the new exhibition, *Addressing the Statue*.⁵ The initial demonstrations from *Decolonize This Place* also called for a renovation of the museum's cultural hall regarding the colonial mentality and marginalization. Three years later, the museum took a transparent approach by adding 10 labels which identify problems with the exhibition.⁶ Even though the museum responded, these examples have shown that the museums are not agile enough to respond in a timely manner.

The 2008 survey result from the National Endowment for the Arts has shown that **people are steering away from museums and cultural institutions.**⁷ Nina Simon

mentioned in *The Participatory Museum* that museums need to “reconnect with the public and demonstrate their value and relevance in contemporary life.”⁸ This is because museums are part of a larger system and they depend on the relationships they have with the community they serve. One way to strengthen those relationships is showing the community that we care for them. For example, the Minneapolis Museum of Art (Mia)’s *Art and Healing: In The Moment* helps people with trauma and loss from the police murder of Philando Castile, a 32-year-old African-American man on July 6, 2016. Although the exhibition was opened two years after the murder, the exhibition was an embrace to the African-American community members, many of whom have viewed the museum as an institution with a long history that excluded them.⁹ Mia’s response emphasizes the role of museums, as described by ICOM: to acknowledge and address the conflicts and challenges of the present and to “work in active partnership with and for diverse communities to collect,

**“People
don’t care
how much
you know
until they
know how
much you
care.”**

—Theodore Roosevelt

preserve, research, interpret, exhibit, and enhance understandings of the world.”¹⁰

While serving our community, museums need to survive the crisis themselves. Elizabeth Merritt mentioned in the *TrendsWatch: Navigating a Disrupted Future* that there are a number of potential challenges ahead in the next decade, to name a few, earthquakes, cyberattack, and financial crisis.¹¹ Although we cannot predict the future nor we do have resources to prepare for all types of crises, museums can be proactive and practice flexible approaches so that we can adapt to new circumstances and thrive in the tide of change.

When it comes to current topics, museums normally respond through programs and public outreach. These approaches do not require people to visit museums and they are highly relevant due to Deirdre Wilson & Dan Spervber’s description of relevance: “the lower the effort, the higher the relevance.”¹² But are these approaches enough for museums to be relevant? Nina Simon describes relevance as a key that opens



**“If you do not
bend, you will
break.”**

—Zenyatta

the door to meaningful experiences and brings value to the table. But the door that leads to dullness is quickly forgotten.¹³ If museums aim to use programs and public outreach to invite visitors into their doors, they need to make sure that their exhibitions are relevant to current topics as well. Not to mention when the controversial issues are in the exhibition itself, like the case of racial hierarchy at the American Museum of Natural History’s cultural hall.

Exhibitions have the potential to provide meaningful experiences through their unique ability to fully immerse audiences with different mediums. Imagine walking into a *T. rex* exhibition at the American Museum of Natural History, you spot an enormous *T. rex* skeleton display and are pulled by your own curiosity. After staring at the display, you look at the graphic panel and touch a fossil replica to learn more about this creature. While you are diving into the story, the shadow of the *T. rex* display starts moving and the narrative starts telling the journey of the *T. rex*. The stories of *T. rex* are told through the combination

of objects, graphics, interactives, and immersive experiences. All of these make museum exhibitions unique and powerful.

However, exhibition development is a long process. It can take from one year to 10 years. By the time an exhibition is executed, the topic is out of date and people’s expectations might have already changed. Even when the exhibition is launched, the world continues to move on and the exhibition becomes less relevant to visitors.¹⁴ Taking the COVID-19 pandemic as an example, tactile experiences are suddenly in question. Dana Schloss, a prototyper and exhibit developer at New York Hall of Science, shared that they were developing a heavily interactive exhibition about happiness which involved a hallway full of hands that visitors can run down and get a million-high fives. They liked the idea but it was not an experience they would craft anymore.¹⁵

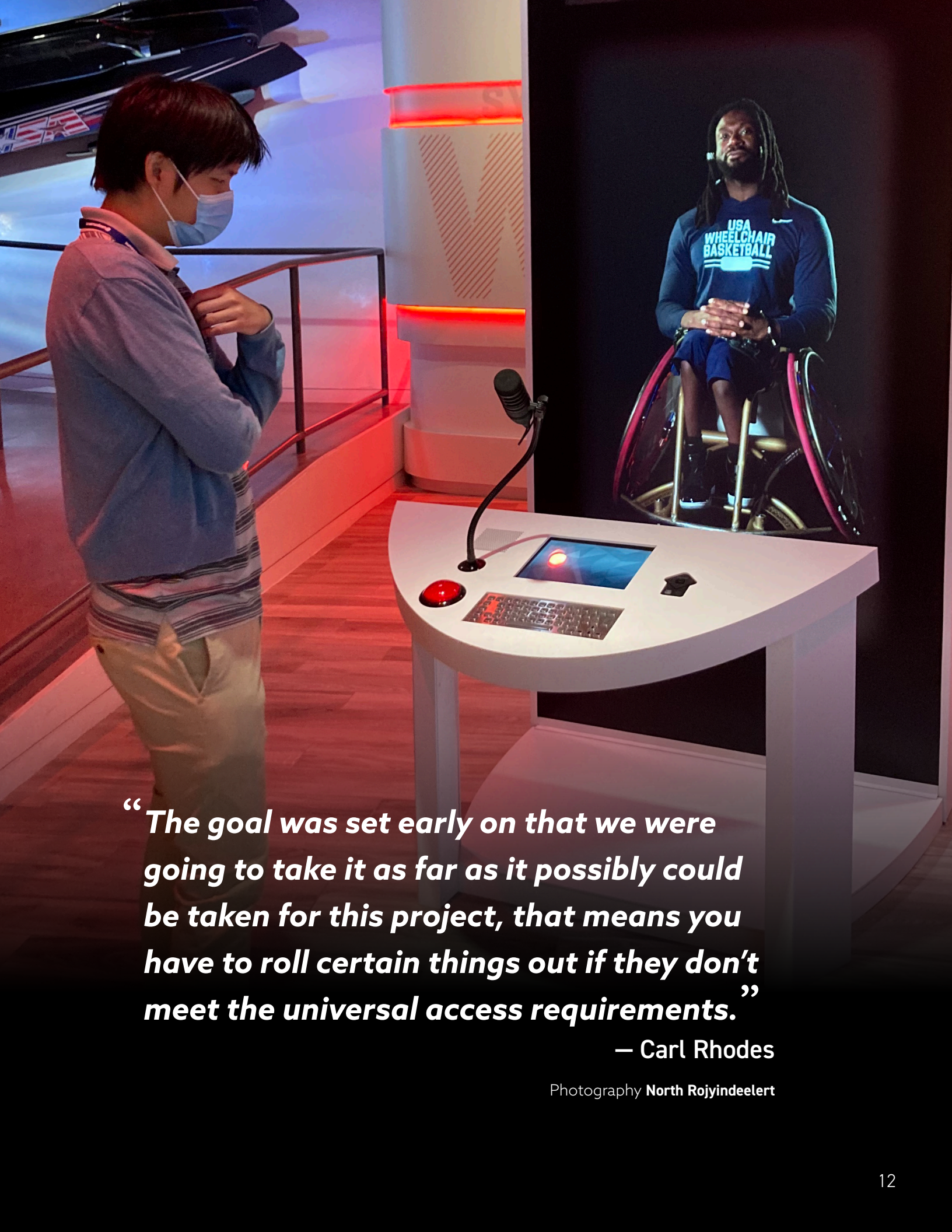
This thesis challenges museum exhibition planners and designers to reconsider the traditional way of exhibition development. The aim of this thesis is to help museums consider the ways in which they can embed flexibility into the exhibition development process as a way to achieve greater relevance, respond to the needs of their community, and survive upcoming disruptions.

WHAT DOES IT MEAN TO BE A FLEXIBLE EXHIBITION?

When asking people if they want their exhibition to be flexible, the answer is usually *yes*.¹⁶ However, Aaron Goldblatt, a museum developer and a senior exhibition developer at Metcalfe, shares from his experience working with many clients that flexibility for each person is different. Most of them describe flexibility as the end product of exhibition development: an exhibition on wheels, an ability to move things around and update content.¹⁷ But is that all it takes to be a flexible exhibition? Lauri Halderman, the Vice President for Exhibitions at the American Museum of Natural History, shared that they built an updatable exhibition but it has not been changed for ten years because they don't have the money and the team to update it.¹⁸

To be truly flexible, museums need more than just an adaptive exhibition space. They need to “embrace values of open endedness, fluidity, and multiplicity,” and embed those values in every step they take.¹⁹ The idea of

flexibility is similar to accessibility in the way that they need to be integrated at the beginning of the process. At the US Olympic and Paralympic Museum, the commitment to create an inclusive and accessible experience was made the first priority. “From conception, we wanted something that would really set a national and global standard in accessibility,” said Dick Celeste, the chairman of the museum’s board of directors.²⁰ With the commitment at the forefront, the museum gave all the green lights for the design teams to push their ideas beyond ADA requirements. Carl Rhodes of *Gallagher & Associates*, the lead exhibition designer of the museum, shared how the commitment to accessibility and inclusion guided their exhibition process. There were many good ideas that got left behind because they were not accessible enough. The design team needed to put those ideas into question: Is it really going to work for everyone? Or is it just going to work for certain individuals? Even when COVID-19 hit, six months before the opening day, they had to reconstruct a number of activities based on these considerations no matter what it took.²¹ **The US Olympic and Paralympic Museum’s strong commitment constantly reminded the design team to focus on accessibility and inclusion in every step, even COVID-19 could not prove to be an obstacle.**



“The goal was set early on that we were going to take it as far as it possibly could be taken for this project, that means you have to roll certain things out if they don’t meet the universal access requirements.”

— Carl Rhodes

Photography North Rojyindeelert

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12. Nina Simon, "The Art of Relevance," 32.
13. Ibid., 31.
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16. Lauri Halderman, Interviewed by North Rojyindeelert, January 22, 2021.
17. Aaron GoldBlatt, Interviewed by North Rojyindeelert, March 1, 2021.
18. Lauri Halderman, Interviewed by North Rojyindeelert, January 22, 2021.





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Flexibility in Review

Many museums and museum professionals have touched on the idea of flexibility and responsiveness, and applied them to both exhibitions and development processes, but often not with intentionality. This chapter reviews the essence of flexibility and responsiveness in museums from case studies, publications, and interviews. The lessons from each following example of museum spaces lend themselves to flexible and responsive practices.

3.1

Permanent Exhibitions

**“There
is no
such thing
as a
permanent**

exhibition,” Heather Maximea mentioned in “A World of Exhibition Spaces” in *Manual of Museum Exhibition*. Maximia described that the so-called ‘permanent’ exhibitions are planned to remain relatively unchanged for a number of years, but the line between permanent exhibition and temporary exhibition are increasingly blurred as museums seek to create more exciting experiences.¹ There are many other reasons for permanent exhibitions to be updated. Katherine Molineux explained that rotating collections displays can be an effective way of:

1. enabling more collection to be displayed,
2. allowing the more fragile or light-sensitive materials to be off display,
3. keeping the exhibition fresh and current, and
4. featuring recent donations, discoveries, or acquisitions.²

Changing elements within the gallery requires a lot of work even with a simple rotation of a few objects. Considering the Museum of the City of New York’s *New York at Its Core* as an example. The museum needs to constantly rotate objects mainly because of the preservation and loan condition, but they also see it as an opportunity to make collections more accessible and keep the exhibition fresh. Each rotation costs a few thousand dollars in installation and labor, thus it requires preplanning and foresight.³

“The need for constant change means the need for high levels of flexibility.”

—Heather Maximea





CASE STUDY I

NEW YORK AT ITS CORE

Photography North Rojyindeelert



Susan Gail Johnson

New York at Its Core is a permanent exhibition at the Museum of the City of New York opened in September 2016. It “captures the human energy that drove New York to become a city like no other, featuring the city’s big personalities.”⁴ The exhibition tells the stories through almost 450 historic objects and images drawn from the museum’s rich collections and loans.

A former project director of *New York at Its Core* and a museum consultant

Image **Susan Gail Johnson Museum Consulting**

Although it is intended to be a permanent exhibition, *New York at Its Core* was planned to be updatable. Susan Gail Johnson, the project director for the

exhibition, shared that they always knew that there would be rotations of the collection because there were a lot of loans, and some objects — especially paper, garments, and photographs — are light sensitive.⁵ Another reason was to display more of the museum's collections.

The intention to rotate the collections was implemented early on in the exhibition process. The museum set aside the money from the initial budget for the maintenance and rotation going forward. "But we just need to be careful [with] that amount of money," Susan said. The budget is limited because the Museum of the City of New York fundraising is separate from all the other exhibitions and it is harder to raise money for small changes, like maintenance, than new exhibitions in which people get excited.⁶

Cases in the exhibition were designed to be easy for the rotation. For example, the large cases in one of the galleries were custom made to have a giant door that can be swung open to access the collection. However, not every flexible design intention works in practice. The shelves in the cases were intended



Shifting content (Figure 3.1). The museum knew a collector of the hip hop flyers, so they shifted the content in the *Hip Hop* section based on these new materials that were available to find and replace the ones in need of preservation.



to be movable but creating a modular system of shelving was complicated, so they ended up with simple shelves.

The work for the rotation started right after the exhibition was opened and the museum rotates a handful of objects every



Photography
North Rojyindeelert

It gets easier every time you do it (Figure 3.2). The large cases in the *World City 1898–2012* gallery have a swing door to access the collection. After a few rotations, the museum has a clear sense that the shoes and garments in particular cases need to be substituted every three months.

three to four months. Susan shared that the first couple rotations were challenging before it became a routine. “As soon as one rotation is over, we’d start planning the next one,” Susan shared. She set up a regimented system of meetings for the rotation to keep everyone on

track because the rotation timeline is supplementary to the staff’s regular responsibilities. Sometimes, the team needs to notify the educators and docents to update their programs when there are major changes in content and collections.⁷

Multipurpose Spaces

Heather Maximea described that multipurpose spaces have long been included in the museum planning, especially in large institutions, as space that accommodates exhibitions, events, film showings, and receptions. Therefore, multipurpose spaces do not need built-in extraordinary facilities but require storages and spaces to support events. Maximea pointed out that the space should have an ability to be subdivided for different purposes, and adapted to multi-uses of technology.⁸ The space is not only an important source of revenue but also a way to engage more closely with the public by providing gathering spaces.⁹ Especially in the global pandemic, people are craving public spaces where they can

interact with one other.¹⁰ One of the survey results from Susie Wilkening's *COVID Data Stories* mentioned that people are craving third places, beside home and workplaces, for social and personal well-being.¹¹

A good example of a multipurpose space is *Q²rius* at the Smithsonian National Museum of Natural History. The space functions as an educational space, a theater, and a laboratory for scientists to conduct research. Sometimes people come to this space to hangout after a long walk in the museum's permanent galleries.¹²



CASE STUDY II

Q?RIUS

Image **afantas1**

In 2013, the Smithsonian National Museum of Natural History opened a new education space, *Q?rius* (pronounced as curious), oriented toward younger people. The museum described this setting as “part lab, part collections vault, part DIY garage and part hangout.” Within the 10,000 square-foot space,

there is a 100-seat theater, a studio classroom for workshops, a collection area, a lab area, and a loft for socializing.¹³

Shari Werb, a former museum’s Director for Education and Outreach, shared the idea behind *Q?rius*. Museum exhibitions normally tell basic science, but it does not



reflect curiosity in the scientific process. "We know that there are these three layers of the ocean... [But] what people don't really see are the people who are doing the research. So you've got all these curious scientists who are out in the world, learning stuff and asking big questions about the ocean and trying to

Shari Rosenstein Werb

A former Director of Education, Outreach, and Visitor Experience of the Smithsonian's National Museum of Natural History Museum

Image **Smithsonian Archives**



learn new things, new things happen all the time." So, a part of *Q?rius* became a behind-the-scenes laboratory where visitors can see scientists working with collections and asking questions.¹⁴

The idea of the unresolved and evolving knowledge in the scientific process was included in the design of the exhibition. Werb mentioned that, "we also want to be messy. When you start into science, you don't know all the answers, you might ask a question, and you kind

of follow a path around. So, we didn't want this space to be done." Many structures in *Q?rius* can be rearranged and repurposed, just like a black box theater:

- The laboratory benches are on wheels and can be moved around.
- Sign holders are designed with templates which can then quickly replace with updated content.
- The bleachers in the theater room can be pushed back to make more space for workshops.

**Permanent Collection
Wall (Figure 3.3).**

Image **Architect Magazine**

These flexible and modular structures allowed a number of opportunities for *Q?rius* to function differently; the space was open for school programs in the morning, then turned to its normal form for general visitors in the daytime. The space could also become a temporary exhibit. For example, on Ocean day, marine content and collection got switched in the space and all the laboratory tables focused on ocean related activities. With the pre-designed infrastructures, the changing process did not need much involvement from an exhibit team, instead *Q?rius* became a prototyping space for them, like testing physical interactives with visitors in an exhibition setting.¹⁵

The moving structures are low-budget but it doesn't mean that the space is entirely sketchy. *Q?rius* has a beautiful permanent collection wall, including shelves and drawers that conveyed the feeling of behind the scenes at the laboratory (**Figure 3.3**). Werb shared that a space with an experimental purpose alone would not work "because too many resources will need to go into changing all the time." However, Werb mentioned that the space

should have some permanent features as a foundation that focuses on a particular function, then the changing parts can be an overlay in other areas. She also mentioned that having a clear serving function was important to sell the idea to the board and **"it's really important to have buy-in from different parts of the institution that will support this agile experience, and have a commitment to allowing that kind of innovation and flexibility."**¹⁶

Laboratory Benches (Figure 3.4). The benches can be used for programming.

Image **Smithsonian Magazine**



Traveling Exhibitions

Museums and private organizations have been producing traveling exhibitions that create opportunities to gain additional revenue, and make collections more accessible.¹⁷ Although traveling exhibitions follow the typical exhibition development process, they have different requirements.¹⁸ In short, traveling exhibitions have to be flexible, low budget, and have a broad but flexible topic.¹⁹

First and foremost, the topic of a successful travelling exhibition should be broad, well-known, or timeless so that it can tour to different types of museums for a period of time. For example, *RACE: Are We So Different* was a traveling exhibition from 2007 that “explores the science, history and lived experience of race and racism in the United States.”²⁰ Focusing on the science and history aspect of race, the exhibition

traveled to over 46 public libraries, history museums, science museums, and natural history museums, for twelve years.²¹ It was so successful that the exhibition got updated and will premiere in 2021 at the Science Museum of Minnesota where it was born.

Traveling exhibitions need to be flexible so that exhibit structures can travel to other locations. The exhibitions may not stay in one place for long, but they need to be able to survive years of traveling on the road and multiple handlings. Piacente explained that designers and fabricators should consider making traveling exhibitions modular, simple, easy to put together and taken apart, and durable.²² These considerations allow exhibit elements to be disassembled into smaller parts, and be assembled at new locations, like when you order IKEA



furniture. The simple and modular design makes it easy for maintenance; broken parts can be replaced instead of rebuilding the whole structure. This also allows the opportunity to update content, for example, a modular label can be easily reprinted and replaced. However, Lauri Halderman, the Exhibition Director of the American Museum of Natural History, said that the hardest part is not making the exhibition flexible, but making it flexible and beautiful. When everything is designed to fit the same criteria, they all look the same as if they are out of a cookie cutter. The trick is including the opportunity for customization because, “in reality, it also needs to look like it’s custom designed for the next six museums it goes to.”²³

The survey in Rebecca J. Fell’s research has shown that the overall cost is the biggest issue for potential clients of traveling exhibitions because, beside exhibit cost, they will need to cover the expenses from staffing, maintenance, marketing, and transportation.^{24,25} Therefore, the creators of traveling exhibitions need to minimize the budget of the exhibition and set an affordable price.²⁶ Rebecca mentioned that the way to reduce cost lies within the design. The Museums on Main Street designs

light-weight modular panels that can be easily put in crates and save cost. They also design exhibitions that are easy to assemble by a few people and require no installers, reducing the cost on human resources.²⁶

Another way to reduce cost is offering different packages. When you book a flight, you get to choose between economy class, business class, or first class. You also have an option to add luggages or on-flight meals. The Museums on the Main Street applied the same concept by offering five tiers of each traveling exhibition with different sizes and costs.²⁷ However, breaking the entire exhibition into different layers is not as easy as a flight ticket; it requires flexible exhibit content. Each exhibit not only needs to speak to the core narrative, but also function on its own. The exhibit team needs to identify the hierarchy of each exhibit element: which elements are crucial to the core narrative? Which components can be left out without affecting the storyline? Which exhibit elements are included in different packages?

The idea of independent exhibit content are already presented in museum best practices. Beverly Serrell mentioned in *Exhibit Labels* that visitors do not read labels in the intended order, so exhibit labels should be able to stand alone or read out loud.²⁸ This

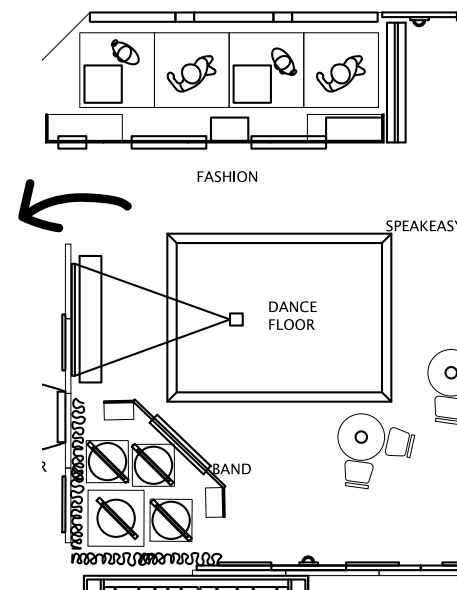
manner is also applied to larger exhibit elements, like objects and interactives. The solution for this purpose is guiding visitors with an **exhibit narrative**.²⁹ Exhibition developers can thread the story in a linear narrative. For instance, a chronological storyline that can be broken down into a clear beginning, middle, and ending.³⁰ Although the linear narrative structure allows exhibition developers to control visitor paths with the fixed story nodes, it has less opportunity for flexibility and gives visitors very limited access to exhibition content.³¹ For example, the core exhibition at the Museum of American Revolution tells the history of the American revolution in a linear and chronological structure.³² On the other hand, thematic narrative — “a theme having

several subthemes that could potentially be approached in any order.” — has more flexibility.³³ For example, the Exploratorium broke down their *Seeing & Listening* exhibition into four themes: light, vision, sound, and hearing.³⁴ Each theme consists of different interactives and visitors can approach any interactives in any order. However, the lack of clear direction of the thematic structure may cause confusion and it is not suitable for topics like history. The solution is a hybrid of both structures. For example, *American Spirits: The Rise and Fall of Prohibition* was a traveling exhibition that explored the political, social, cultural, and legal history of Prohibition. It unveiled the story in a chronological order, section by section. However, each section had a thematic narrative. This allowed some

Speakeasy Section in the *American Spirits: The Rise and Fall of Prohibition* in different museums (Figure 3.5). The section consists of 5 major subsections: 1) Bar, 2) Band, 3) Dance Floor, 4) Fashion, and 5) Powder Room. They can be rearranged differently in different galleries they travel to.

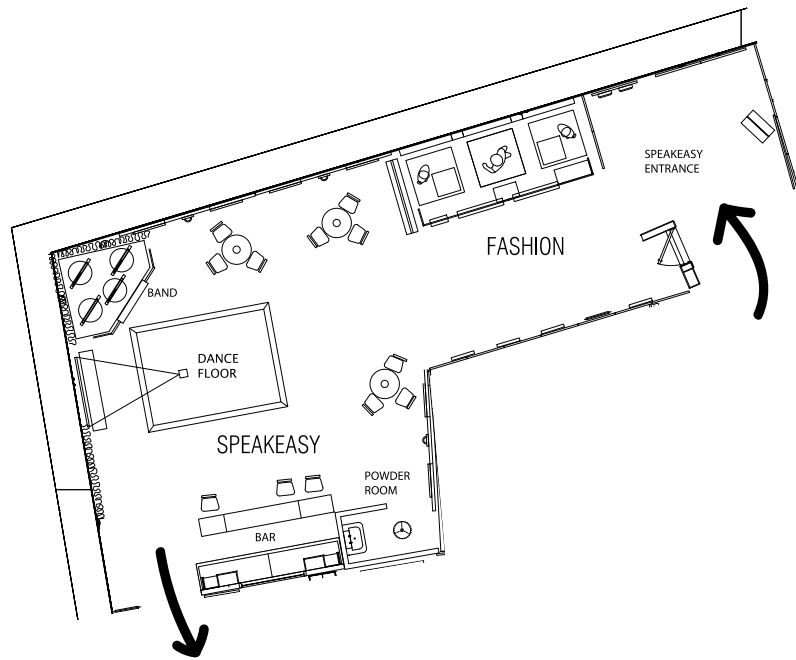
- (a) Indiana State Museum, Indianapolis, IN
- (b) Grand Rapid Public Museum, Grand Rapids, MI
- (c) Museum of History and Industry, Seattle, WA

Credit **Beth Van Why**

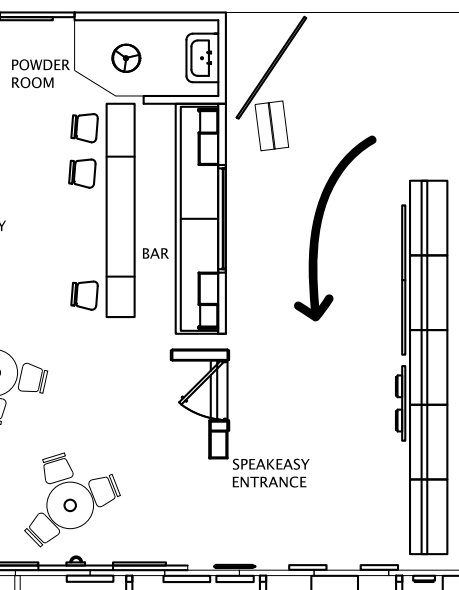


flexibility for the exhibition to rearrange the sequence of exhibit elements and contents to fit in different galleries it traveled to **(Figure 3.5)**. This will allow museum traveling exhibitions to shrink or enlarge its size to accommodate different galleries. In some cases, museums may want to include their collection as part of the show and this hybrid narrative will open more room for those kinds of adjustment.

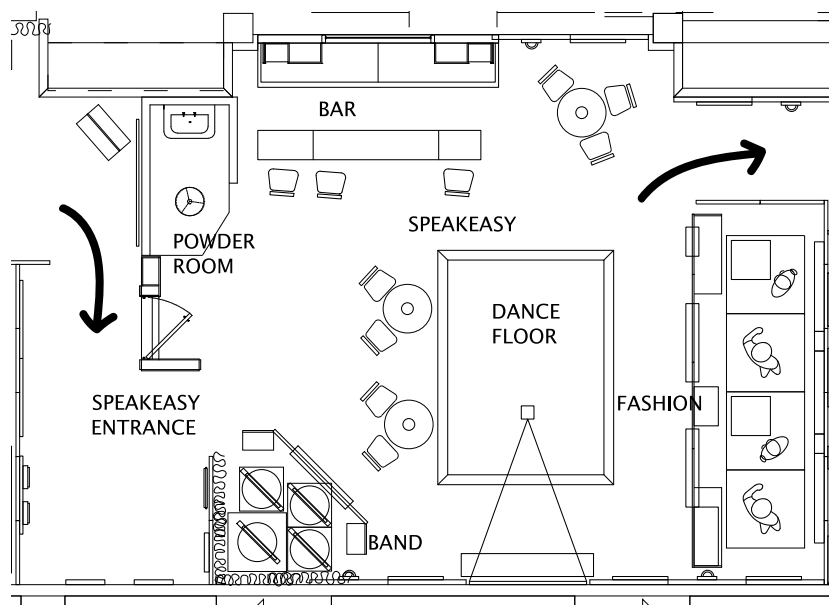
(Figure 3.5a)



(Figure 3.5b)



(Figure 3.5c)





The background of the slide is a photograph of an exhibition space. On the left, a mannequin is dressed in a vibrant red suit, standing in front of a wall with a repeating pattern of red and orange circles. To the right, there are glass display cases containing various items, including what appears to be a bowl of fruit. The floor is covered with large, interlocking hexagonal tiles in shades of red and orange. A semi-transparent blue rectangle is overlaid on the right side of the image, containing the text.

CASE STUDY III

THE NATURE OF COLOR

The Nature of Color is a traveling exhibition created by the American Museum of Natural History (AMNH). The exhibition first opened at the AMNH and was scheduled to be there from March 2020 to August 2021. The exhibition addresses a very broad and simple topic. It invites visitors to explore color in different contexts, each in different themes:

- *Color from Light*
- *Feeling Color*
- *Living Color*
- *The Meaning of Color*
- *Making Color*
- *Color of You*



Lauri Halderman

The Vice President for Exhibition,
American Museum of Natural History

Image **Chris Sorensen**

The first five themes are delivered within hexagon modules. Each module is built with enclosed temporary walls to create a smaller room with two entrances that connect to each other directly or through a hallway. The first theme is fixed as an entrance threshold, but visitors can explore other themes in a random sequence. This design gives the flexibility for exhibition planners to reconfigure the modules and find the best plan for different galleries. Another aspect of the modules is that they give a sense of a room. Lauri Halderman shared that “the room has a kind of architectural integrity to it.” It distracts visitors from thinking that the exhibition is meant to be reconfigured

Digital Interactive (Figure 3.6).

Photography **Courtney Ingalls**

Interactive Flip Panel (Figure 3.7). The acrylic panels on temporary walls function as flip panels.

Photography **North Rojyindeelert**



and makes them feel like the exhibition is more finished and polished than an open gallery. However, Halderman also mentioned that “the more room-like we make them, the less flexible they are.” This is because the exhibition contents are attached to different sides of the same wall are bound together, and if they are in different sections, the orientation of the plan is limited. The solution is to put the wall back to back, but it will cost twice as much money as it is to build one wall.³⁵

In the *Feeling Color* section, the main feature is a digital interactive that

conducts a live social science experiment. The interactive asks visitors to share what emotion they think of when they see a particular color. For example, what color represents **Anger?** Visitors can participate by answering the question at digital touch screen or on their smartphone. However, with the global pandemic, the museum has to disable the touchscreen and only allow visitors to participate through their smartphone (*Figure 3.6*).

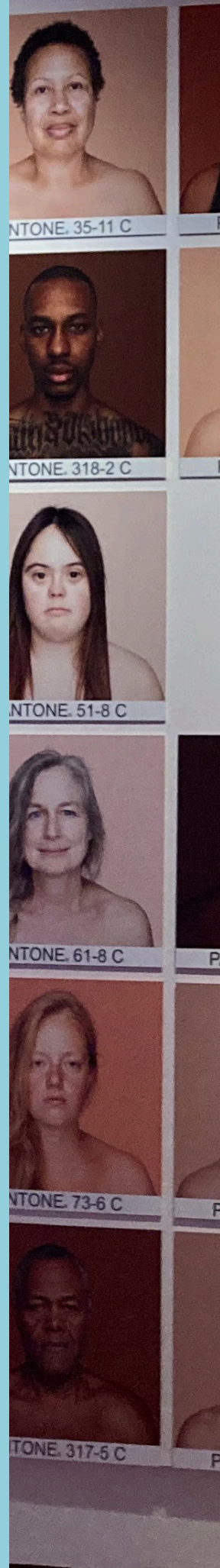
From my visit in December 2020, I noticed that each module had repeated design elements that could be taken apart. The



Color of You (Figure 3.8).
Photography **North Rojyindeelert**

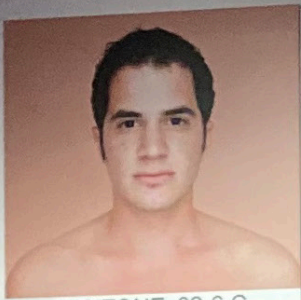
temporary walls of the module were made of separate acrylic panels that could function differently as a backdrop, label, or flip panel. Additionally, they could be removed to put cases or screens (Figure 3.7). The museum can easily update exhibit content by changing a few acrylic panels instead of reprinting the whole wall. If the future clients want to feature their collection in the exhibition, they can do so by adding new cases in one of the slots. However, Lauri Halderman mentioned that this kind of flexibility was not the initial intention of the design and the museum had no plan to change the exhibit content yet.³⁶

The final theme of the exhibition, *Color of You*, addresses a more specific aspect of color. (Figure 3.8) The museum addresses racial equity with portraits by award-winning photographer, Angélica Dass. The portraits were on the gallery wall instead of a hexagon module because of the limited space and budget. Lauri Halderman shared that if clients have a bigger gallery, the exhibit team can put it together in a hexagon module and include more portraits from Dass's collection.³⁷





PANTONE. 59-3 C



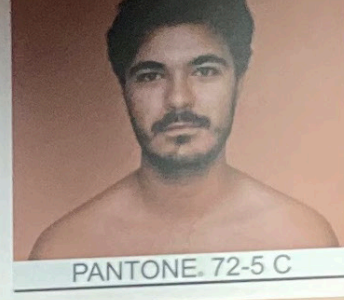
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PANTONE. 36-14 C



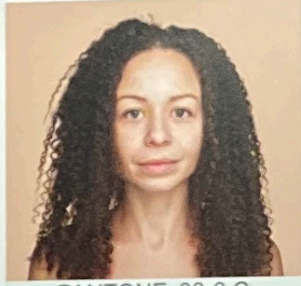
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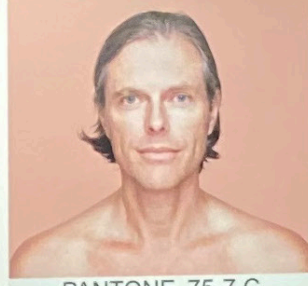
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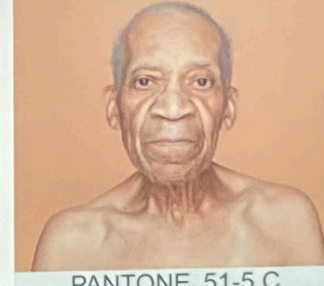
PANTONE. 50-6 C



PANTONE. 38-6 C



PANTONE. 75-7 C



PANTONE. 51-5 C



PANTONE. 53-7 C



PANTONE. 95-8 C



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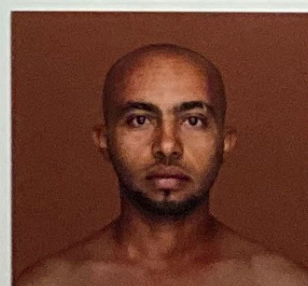
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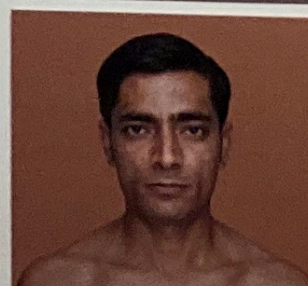
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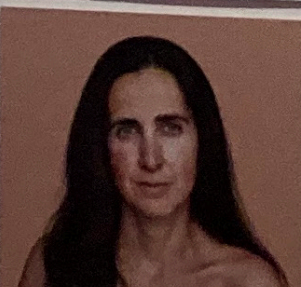
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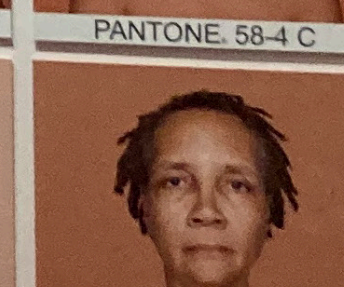
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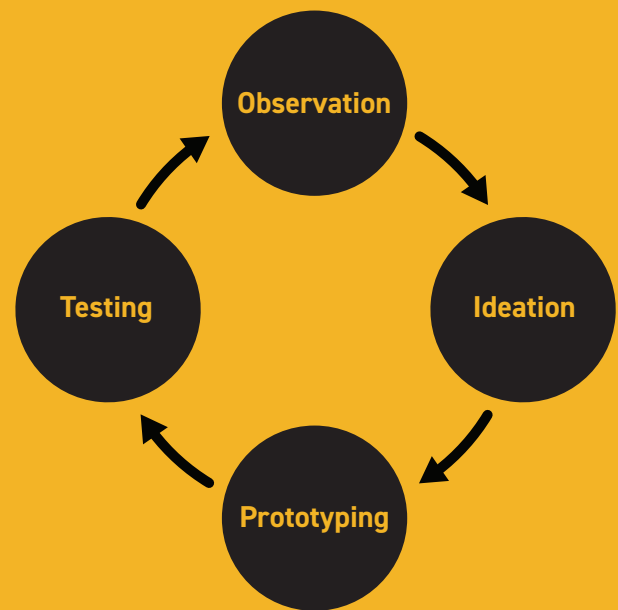
Iterative Exhibitions

HUMAN-CENTERED DESIGN

In Don Norman's word, "Human-centered design (HCD) is the process of ensuring that people's needs are met."³⁸ HCD includes four steps:

- **Observation** is the research of the background information to understand the problem and define the requirements.
- **Ideation** is the generation of potential solutions based on the observation.
- **Prototyping** is the creation of tangible representations of ideas, design, or experiences, in order to understand that the problem is well understood.
- **Testing** offers an exploration of solutions by involving a group of audience that is as close to the target population as possible.

These steps are iterative, meaning that they are repeated as a cycle over and over. The role of iteration in the HCD enables continual refinement of the idea until it gets closer to the desired solution.³⁹ The prototyping and testing steps are important as they can determine the right direction with a low-investment approach before proceeding to the more expensive steps.



Iterative Process and Gate-waterfall Process

In *The Design of Everyday Things*, Don Norman discussed that the gate-waterfall process is one of the traditional design processes where the progress goes in one direction. Once the requirements are met in a particular stage and the decision is made, the progress proceeds to the next stage, where turning back is difficult or impossible. It is in contrast with the iterative process where the process is repeated entirely. Each process has its own pros and cons. The iterative process is best for the early design phase to set the right direction for the project and it takes a lot of time to implement in a large scale project which involves many collaborations. On the other hand, the gate-waterfall process gives more control to the process by the ability to set clear milestones in each stage, but irreversibility of this process forces the team to spend more time in each stage, both crafting and reviewing the project, to make sure that everything is refined and there are no mistakes.⁴⁰

The best approach combines the advantages of both processes; iteration occurs in each stage to refine the problems and solutions, coupled with the review and decision

making at the gates.⁴¹ In fact, the exhibition development process is the combination of both worlds. Polly McKenna-Cress and Janet A. Kamien broke down the typical exhibition process into six stages:⁴²

1. Concept Development
2. Schematic Design
3. Design Development
4. Construction Documentations
5. Bids, Fabrication, Installation
6. Opening and Post-opening

Each stage has its own deliverables and requirements which are reviewed and approved by stakeholders before proceeding. Although the HCD process is not explicitly mentioned in their publication, McKenna-Cress and Kamien encourage the iterative process throughout the process (**Figure 3.9**). In the first three stages, content and design can be expanded and contracted based on the amount of research and accessible expertise. Prototyping and testing of ideas and concepts are crucial at the end of the design development and construction documentation, where there are serious cost implications from labor and construction.⁴³

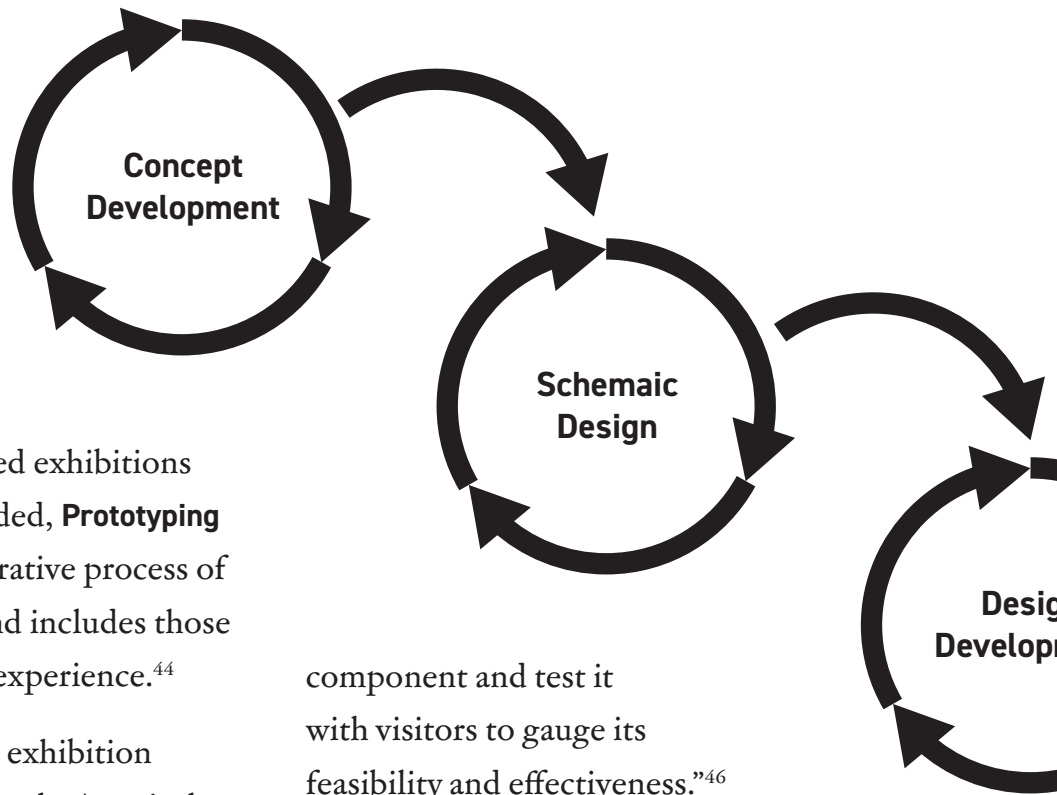
Once the exhibition passes the fabrication stage, the opportunity for iteration is narrowed or it will cost more resources.

However, some museums open their exhibition in the prototype state. Instead of spending money on polished exhibitions that may not work as intended, **Prototyping Exhibition** continues the iterative process of prototyping and testing, and includes those processes as an exhibition experience.⁴⁴

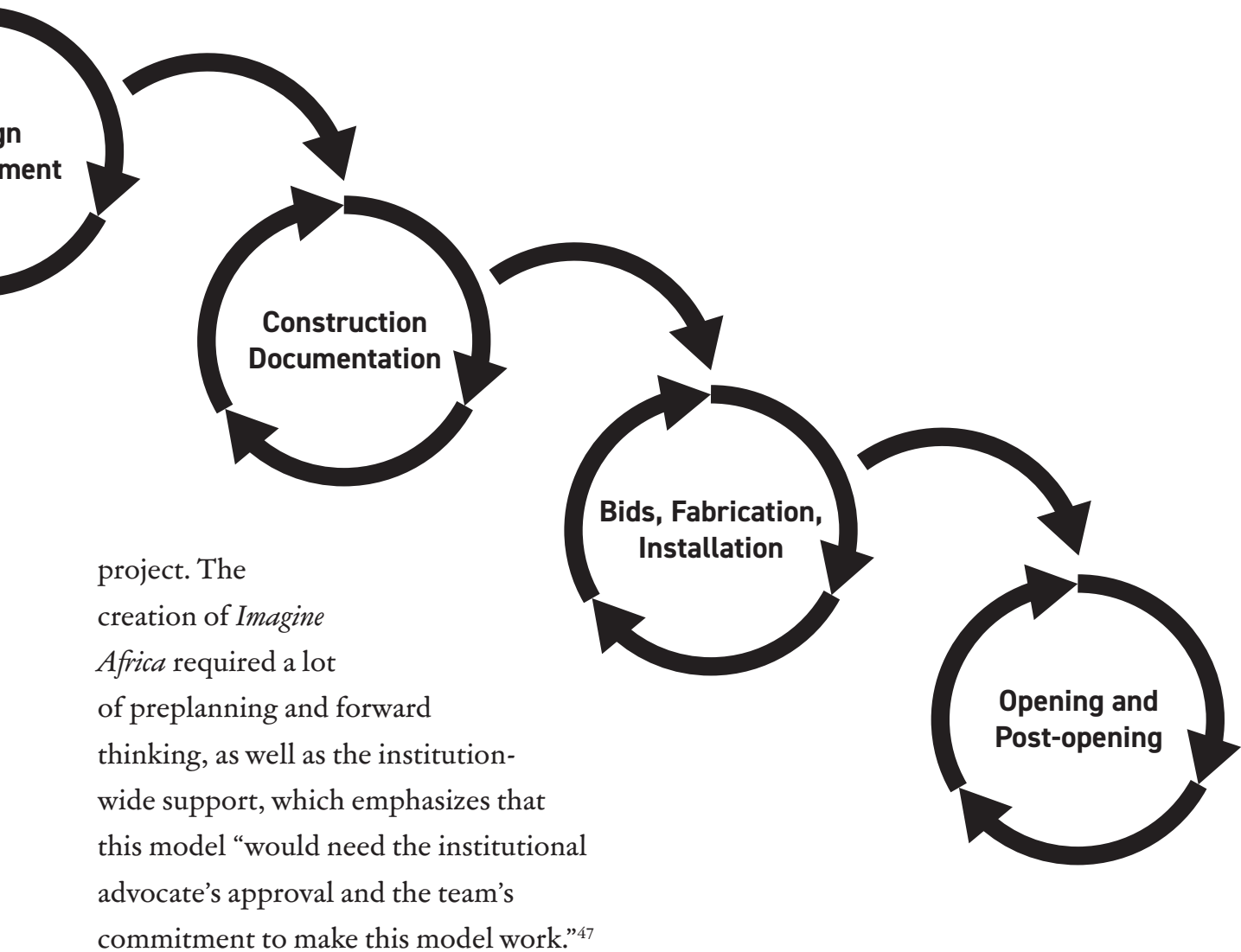
The idea of prototyping an exhibition can be applied on several levels. A typical example is the prototyping of interactives in science museums. At the Exploratorium, an exhibition developer pushes a prototype of a particular concept out onto the museum floor as quickly as possible. The development team works collaboratively with evaluators to test the prototype with the actual visitors and repeats the process again until the visitors use the interactive as intended. “This focus on engaging end users as a core part of the development cycle is key to the richness and robustness of the exhibits.”⁴⁵ This concept of prototyping an exhibition is also presented in the Science Museum of Minnesota where they “build a life-size model of the exhibit

component and test it with visitors to gauge its feasibility and effectiveness.”⁴⁶

While the concept of prototyping exhibitions is more common in science museums, there are possibilities for other types of museums. In fact, the Penn Museum, an archeology and anthropology museum, took prototyping exhibitions further than science museums by prototyping the whole exhibition. The museum created the *Imagine Africa* exhibition as a means to define what visitors want to see in the recreation of a new permanent African gallery. The exhibit content constantly changed as responded to the data collected from visitors. However, as mentioned earlier, the iterative process is difficult to implement for a large scale



A combination of iterative process and gate-waterfall process in museum development process (Figure 3.9).



CASE STUDY IV

IMAGINE

AFRICA

Photography
The Pennsylvania Gazette

In September 2011, the Penn Museum opened a temporary exhibition, *Imagine Africa*, as a prototyping space that asked visitors, “How do you imagine Africa?” Visitors were encouraged to share their thoughts and what they wanted to see on the white boards.⁴⁸ The museum responded to the feedback by changing objects in the exhibition and used that data to redesign the new African gallery. *Imagine Africa* was originally set to be a one-year exhibition, but it was so successful that the museum decided to extend it several times until 2017.⁴⁹



Kate Quinn

A former Director of Exhibitions at the University of Pennsylvania Museum of Archeology and Anthropology

Image **Jorge Cousineau**





When Kate Quinn, a former Director of Exhibitions at the University of Pennsylvania Museum of Archeology and Anthropology was tasked to renovate the museum's African gallery, she realized that the collection of about 20,000 artifacts was too large, let alone the research that needed to be done for each object. Quinn and her team decided to narrow the scope of the research by asking what the public wanted to see. However, they realized that people did not have enough foundation to give feedback, and they ended up having to bring out objects and tell stories in workshops.⁵⁰ The team decided to extend the idea of the workshop by creating *Imagine Africa*, and used the exhibition to elicit visitor feedback that could be used by museum staff as they redesigned the new African gallery.⁵¹

Quinn shared the approaches on creating and updating *Imagine Africa*. Quinn pulled together a team of collection experts to research and develop the exhibition in twelve themes, but only eight of them were displayed at a time. Each theme was developed by knowing that they would swap themes, as well as objects in each theme, in and out. With fully developed content, they were

ready to change objects and themes as a response to the feedback once they received those feedback from visitors. The team did not want the exhibition to look finished because they wanted visitors to understand that it was a work in progress. So, they had visitors write comments on the walls with pencil and put sticky notes everywhere. However, after testing the design with the public, they found out that people did not trust them when it did not look finished. In the end, they found the balance between sketchy and finished by putting whiteboard panels lined along the exhibit walls where visitors could write on with color pens (**Figure 3.10**). When the exhibition reached the point where they needed to update the exhibition, Quinn booked the update schedule ahead of time so that museum staff had a clear idea when they needed to work on *Imagine Africa*. In some cases, they did not know which objects needed to be changed yet because they needed to wait for the feedback from evaluators, but at least they knew exactly when the updates were and they could manage their own time.⁵²



Whiteboard (Figure 3.10). Visitors can share their thought on the whiteboard.

Photography
The Pennsylvania
Gazette

“I knew that the reason that I was successful is because I kept doing different things that they were just all kinds of spinning.” Quinn had been pushing many exhibitions in unconventional ways, so she already had the support from her team and the museum director. But the reason she could go as far as prototyping exhibitions like *Imagine Africa* was because she got the funding from **Pew Research Center** which allowed her to get the buy-in from her colleagues in the executive team. Quinn shared that it would be ideal to have the institutional buy-in,

but it was difficult to gain the entire support from such a large institution like Penn Museum that considered itself a traditional research institution.⁵³

Changeable exhibitions are a lot of work. It means more meetings, more paperwork, and more planning. It requires a lot of foresight to build in the opportunity to make it changeable. You have to properly plan for it, make it a priority, and do it when people are committed to it because people have other projects to work on as well.

Participatory Exhibitions

Nina Simon described in *The Participatory Museum* that the difference between traditional and participatory projects is the way information flows between museums and visitors. In traditional exhibitions, the museum has full control over what and how visitors approach the content. “In participatory projects, the institution supports multi-directional content experiences. The institution serves as a **platform** that connects different users who act as content creators, distributors, consumers, critics, and collaborators.” It will “make the relationship among staff members, visitors, community participants, and stakeholders more fluid and equitable.”⁵⁴ It opens an opportunity for visitors to take ownership, express themselves, and fulfill their needs in the museum. However, it means that the museum can not guarantee the outcome of the exhibition, and it requires more work for the museum to

design a participatory platform for visitors to share their thoughts and comment. In order to create a participatory exhibition, Nina Simon shared that the museum needs to embrace these three value:⁵⁵

1. Desire for the input and involvement of outside participants
2. Trust in participants abilities
3. And be responsive to participants’ actions and contributions

According to the *Public Participation in Scientific Research (PPSR)* report, in which Nina Simo drew from the Center for Advancement of Informal Science Education (CAISE), participatory projects can be divided into three models based on the degree of participation:⁵⁶

1. **Contributory project** - visitors are asked to contribute objects, stories, ideas, or feedback to be featured in an exhibition. However, visitors have no control over how their contributions will be interpreted or presented.



2. **Collaborative project** - visitors or other institutions are invited to serve as an active partner of the exhibition that is originated and controlled by the museum. The museum has already set the big idea, objectives, goals, and desired outcomes of the exhibition.
3. **Co-creative project** - visitors or partners are involved at the beginning of the exhibition development process to define the exhibition values.

In other words, it depends on what kind of question the museum opens for outsiders to help them answer: *contributory exhibition* lets visitors define **WHAT** will be in the exhibition, *collaborative exhibition* lets visitors decide **HOW** they are going to create this exhibition, and *co-creative exhibition* lets visitors answer “**WHY** are they doing this exhibition?” (**Figure 3.11**).

In order to create a participatory exhibition, the museum does not need to pick a model. Instead, the museum can incorporate elements from each of them. “When staff members embrace visitor participation in earnest, they frequently move fluidly from one model to another, using different approaches for different projects and community relationships.”⁵⁷ For example, in the MCNY’s *New York Responds: The First Six*



What How Why (Figure 3.11).

Months, the museum called for contributions from the public, and then collaborated with partners and community juries to select the submissions. Another example is Levine Museum of the New South’s *K(NO)W Justice K(NO)W Peace*. The museum co-created the exhibition with the Charlotte community through a town hall, having the public guided the direction of the exhibition. Then, the museum collaborated with an artist and universities to create the exhibition, as well as exhibiting stories and objects submitted by the community. The exhibition grew and changed after the opening date as visitors continued to contribute their stories and feedback on Post-it notes.

CASE STUDY V

K[NO]W JUSTICE K[NO]W PEACE

K(NO)W Justice K(NO)W Peace (KJKP), a rapid-response exhibition at the Levine Museum of the New South, focused on the police shootings of civilians in Charlotte and nationwide. The exhibition was “co-created with activists, scholars, photojournalists, artists, law enforcement, clergy, civic and business leaders, students, first responders, and many others.”⁵⁸ It opened on February 17th, 2017 as a response after Keith Lamont Scott, a 43-year-old African American, was shot and killed by a police officer in Charlotte, North Carolina, on September 20th, 2016.⁵⁹ The murder caused widespread protests across Charlotte. After the protest, everyone stayed indoors and businesses closed, so there was no safe space for people to process what was happening.



This was not the first time that the Charlotte community had been grappling with police brutality. In fact, roughly two years before the killing of Keith Scott, there was a police involved shooting incident that killed Jonathan Farrell.⁶⁰ Brenda Tindal, a Levine Museum historian at the time, shared that **the museum has been engaged in conversations around police and civilians for a long time**, so there was already a desire for a more community-centric response to the issue.⁶¹ This time, the museum acknowledged the community struggle and decided to address the incident and provide a safe space for people to talk to each other and be supported.⁶²

Within a week after the police shooting of Keith Scott, the museum hosted a number of public gatherings including an open house with self-guided tours that placed the incident into the historical context of their core exhibition, followed by a town hall, *How Could This Happen in Charlotte (Again)?* The dialogues that happened in these public programs revealed an appetite for further discussions and an eagerness to put this story within a historical context. All of these led the museum to *KJKP*.⁶³

The museum's ability to tackle this unsettled topic in less than five months relied on their reputations of dealing with sensitive issues



Brenda Tindal

A former Levine Museum historian

Image **Glenn Burkins**

and the pre-existing relationships they had with the Charlotte community and partners. Tindal shared that the board members lit the green light for this project because they had become used to the museum's provocative exhibitions and projects, and they recognized what their community needed, and what the museum had to offer. **The museum has been building relationships with the Charlotte community over time**, "not simply [by] talking about history but really activating that history to build community."⁶⁴ With the trust from the community, the museum was able to crowdsource images, stories,

“With the trust of [the] community, that trust goes a long way because the community doesn’t want you to touch their story, if they don’t trust you.”

— Brenda Tindal

and materials from their *Invitation to Respond* submissions.⁶⁵ The museum had a number of community partners who were eager to do like-minded exhibitions. The museum invited Dr. Tiffany Packer, a history professor at Johnson C. Smith University, and her students to repurpose their public history work within the

exhibition, *The Lives Beyond the Hashtags*. The museum also had a close relationship with Alvin C. Jacobs, a documentary photographer and image activist. Alvin and the museum originally planned to debut a small-scale exhibition in 2018 about social justice protests, but as the city struggled from the Scott shooting, they decided to shift the focus.⁶⁶

The museum’s approach to the interpretation of the ongoing and sensitive story is **presenting the story as it is** (*Figure 3.12*). The museum curated the historical records related to police brutality from the 1950s, but when it came to the present

Where were you during the Charlotte protest? (*Figure 3.12*).

Instead of presenting the story from the curatorial perspective, the museum opens the space for visitors to share their personal stories.

Photography **Jane E. Boyd**



incident, they gave the space for visitors to share their personal story. Tindal pointed out that the idea of history is often that “it’s got to be a fact, but what is also a fact is people feel.”⁶⁷ Personal stories have their own weight and importance that can help us tell the story in a way that reflects the diversity of the community. By **presenting personal accounts**, the approach reduced the curatorial voices and gave authority to the community to tell their own stories. It also cut the time for editing and special design elements which sped up the process for responsive projects.

However, Jane E. Boyd — an independent exhibit developer, museum consultant, and freelance writer and editor — argued that the storytelling of the exhibition could have been more effective. Sharing from her visit in 2018, Boyd felt that scripts on many exhibit panels were long, creating information overload for audiences, especially the large area with long quotes from personal stories (*Figure 3.13*), in which she mentioned, “reading and absorbing all the text was virtually impossible.” While telling authentic stories is a good approach to sensitive topics, Boyd argued that accessibility of the stories is more important when subject matter is recent

and traumatic. “Applying some basic best practices from exhibit planning and design does not have to be an expensive or lengthy process.” In fact, It can bring more clarity to the content and design which can help multiple voices be heard while still honoring the stories and contributions of community members.

But, in the end, visitors like Boyd are not the target audience of *KJKP*. This exhibition was created **WITH, BY, and FOR** the Charlotte community and it was a success. The museum chose the authenticity of the community’s voices over museum best practices.

Looking back, I am
From my point of
based on the evidence
is a problem in Charlotte
but I don't think the
terms – a black man
black police chief.
police geared toward
We saw children's
minds filled with
encouraging these
and our government
ALL working toward



An independent exhibit developer,
museum consultant, and
freelance writer and editor

Visitor's Story Section (Figure 3.13). "A large area with long quotes from personal stories had even longer laminated texts on hooks below the panels. The exhibit organizers may have felt compelled to include such lengthy stories to honor the full extent of the contributors' experiences and reflections, but reading and absorbing all the text was virtually impossible."—Jane E. Boyd⁶⁸

K[NO]W Justice K[NO]W Peace

CASE STUDY VI

NEW YORK RESPONDS: THE FIRST SIX MONTHS

Photography North Rojyindeelert

Museum of the City of New York's *New York Responds: The First Six Months* opened in December 2020, almost nine months after the city-wide lockdown. The exhibition tells the unsettling stories

of the COVID pandemic, racial justice uprisings, and the responses of New Yorkers through crowd-sourced objects, photographs, video, and artworks.⁶⁹



“It was very important to us to think about how to still play a meaningful role in life [in] the city, not only as a cultural institution in the city, like every other cultural

Sarah Henry

The MCNY’s deputy director and chief curator

Image **Atlas Obscura**

institution, but also because of our mission: being to celebrate, document, and interpret the past, present and future. So, [it] was really very mission control for us to tell the story,” Dr. Sarah Henry, the museum deputy director and chief curator, shared the reason behind the exhibition. The museum had been through similar rapid collections and responses in the past, like the September 11 attack and Hurricane Sandy. They knew from having worked on other disasters that the public understood the importance of capturing history while it was occurring. When it came to COVID, “we had the commitment to find ways to reflect on the present.” The museum noticed that the conversation around urban economy and population, social status, and neighborhoods were being discussed during the global pandemic. These topics were already addressed in their core exhibition, *New York At Its Core*. Therefore, Dr. Henry thought that they could not open up the museum in its current state. “We needed to open our galleries again with something that responded to the current situation.”⁷⁰

With a tight schedule and uncertainty of the situation, the focus and approaches of the exhibition had been evolving and

changing as the situation continued to unveil. This has shown that the museum embraced the value of flexibility.

Blurry Final Outcome. After launching a call for objects and images on April 1st 2020, the museum applied for a grant from the *National Endowment for the Humanities: Exploring the Human Endeavor*, with a proposal to showcase NYC’s responses stories through an outdoor exhibition, and, if the situation allowed, an installation at the museum.^{71,72} However, it was not until July 2020 that the *New York Responds: The First Six Months* was

Image Display (Figure 3.14a).



confirmed to be an indoor exhibition, which left them less than three months to the opening date in December.

Broaden the Focus. The museum's original plan was to tell NYC's responses only to COVID. However, with the racial justice uprising after the death of George Floyd at the end of May 2020, the museum broadened the focus of the exhibition to the crises of 2020, and included racial justice stories in the exhibition.⁷³

Design for Objects Without Objects. Prior to the opening day, the museum collaborated with a jury of a dozen New Yorkers

to select over 20,000 submissions.⁷⁴

Therefore, "the design had to go forward before we even knew what was going to be in the show." The exhibition designer came up with a simple, flexible, and modular display system that was not specific to a particular material culture, but with the information that the collection consisted of photographs, objects, artworks and videos (*Figure 3.14a-c*).

Exhibit Displays at *New York Responds: The First Six Months* (Figure 3.13).

Photography **North Rojyindeelert**

Object Display (Figure 3.14b).



Digital Screen Display (Figure 3.14c).



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LESSON LEARNED

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Lessons Learned

Based on the previous stated research, there are five areas in which museums can practice to become more flexible in order to address current topics. These are not a checklist that museums need to complete, nor chronological steps to create flexible exhibitions. Instead, each area supports the others and needs to be built up, little by little. Each museum is different and they will have different starting points in the journey

to the flexible exhibitions. They will need to find ways to incorporate these practices into their original processes and create their own version of flexible practices.

**PROACTIVE
PRACTICE**

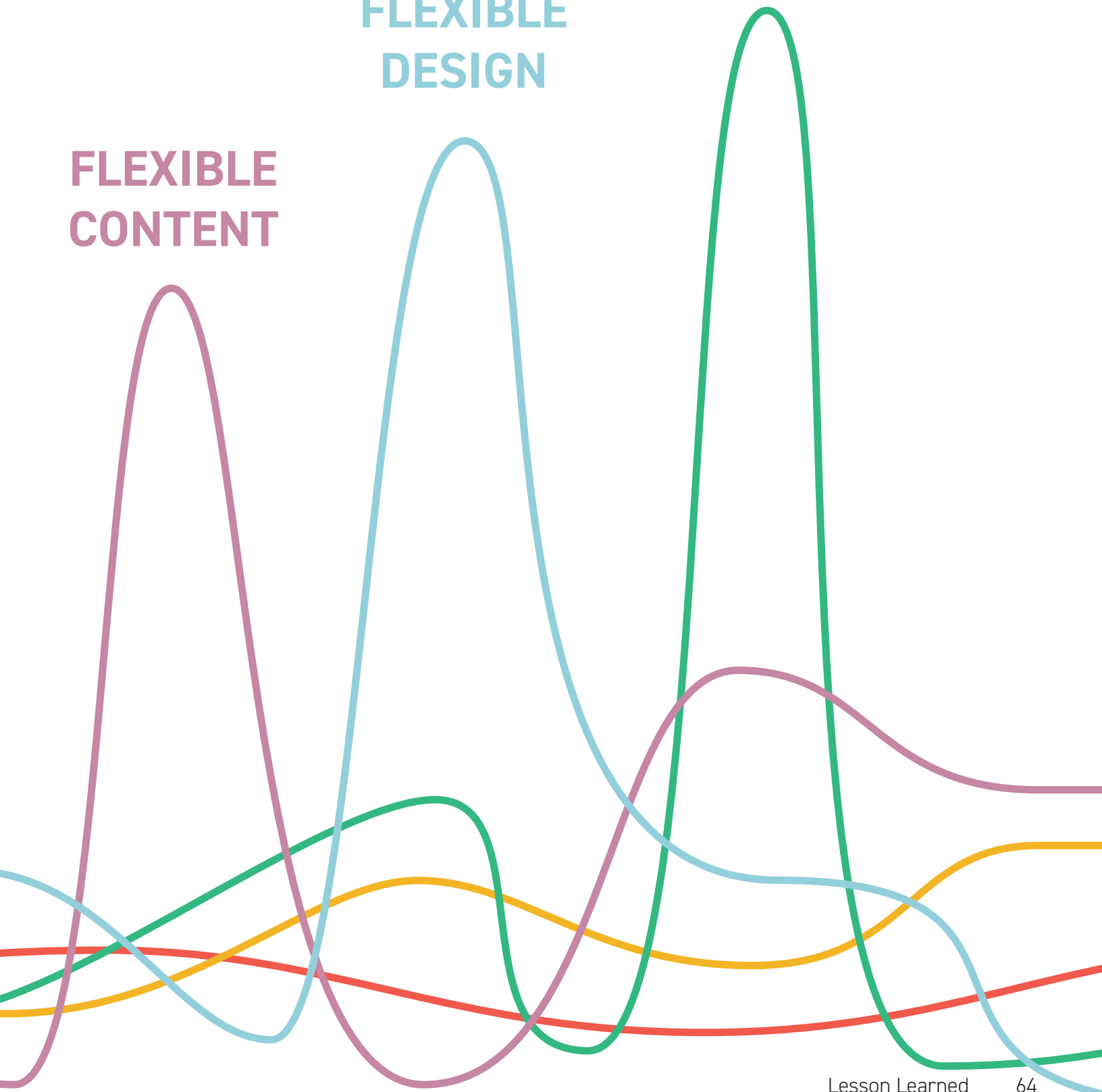
**COMMITMENT
FOR FLEXIBILITY**



RELATIONSHIP

**FLEXIBLE
DESIGN**

**FLEXIBLE
CONTENT**



Commitment for Flexibility

Creating a flexible exhibition requires the entire museum to have a mutual understanding that the world is inevitably changing and with that comes constant changes in visitor expectations. Flexibility will be the key value for museums to keep up with these changes.

Start with Why

Although this thesis focuses on flexibility, the review has shown that flexibility is not the initial foundation for flexible exhibitions; it is the **WHY** behind the exhibition.

The mission and goals of museums will determine the importance of flexibility.

Taking some of the case studies from the previous chapter into consideration, MCNY's mission is to engage visitors by celebrating, documenting and interpreting the city's past, present and future. The **present and future** part of the mission statement forces the museum not only to focus on the past but also include flexibility in their works in order to respond to the present and future topics. It clearly allows

*“Levine Museum of the South uses history to build community. Our mission is to connect the **PAST** to the **FUTURE** to realize the promises of a New South. Levine Museum aspires to build a stronger, more equitable community by connecting people to Charlotte and to each other through history, culture, and celebration. Our exhibits and programs foster empathy, ignite dialogue, and inspire action.”*

—Levine Museum of the New South
Mission Statement¹

the museums to create flexible exhibitions like the *New York at Its Core* exhibition and that flexible value leads them to a rapid-response exhibition like the *New York Responds: The First Six Months*.

The same goes for the Levine Museum of the New South in which its mission is “to connect the past to the future to realize the promises of a New South.” In this case, the **WHY** of the museum is to be helpful to their community by listening to what the community wants to see in the museum.

In these cases, flexibility serves as the **HOW** that builds on the **WHY**. Without the **WHY** as a foundation, museums can not practice flexibility. You cannot walk into the board meeting and say ‘let’s make a



“The Museum of the City of New York fosters understanding of the distinctive nature of urban life in the world’s most influential metropolis.

It engages visitors by celebrating, documenting, and interpreting the city’s PAST, PRESENT, and FUTURE.”

—Museum of the City of New York
Mission Statement²

flexible exhibition’ without the reason why it has to be flexible. Therefore, museums need to redefine the goals of the exhibition, their mission and institutional values, to support flexible practices moving forward.

Flexibility as an Institutional Value

The institution as a whole needs to embrace the value of flexibility: an open endedness and tolerance for ambiguity. Being a flexible exhibition means being prepared for future changes in which we have no control over. Sometimes, suggestions for an update emerge from a community constituency, or from incidents that erupt spontaneously, like the COVID-19 pandemic and social justice protests. Museums need to be prepared to respond to those changes. This

can be done by including flexibility in the decision making. During the exhibition process, the team will repeatedly expand and narrow down their ideas. Along with budget, feasibility, and other considerations, flexibility should be one of the idea filters — like when the *US Olympic and Paralympic Museum* incorporated accessibility and inclusion into their design process. However, the exhibit team alone can not maintain the flexibility of museum exhibitions without the help from the entire museum. Making changes in an exhibition requires assistance from other departments, or the changes might affect the work of others. For example, a marketing team normally develops a marketing plan and promotes the exhibition before it is executed. With an understanding of more flexible process, the marketing team needs to include the value of flexibility in their work as well. In the *New York at Its Core* exhibition where collections kept changing, the exhibition team was required to inform volunteers and educators so that they could update their programs. Creating a flexible exhibition is mainly the work of the exhibit

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team, but to keep it flexible, the museum as a whole needs to share the flexibility value.

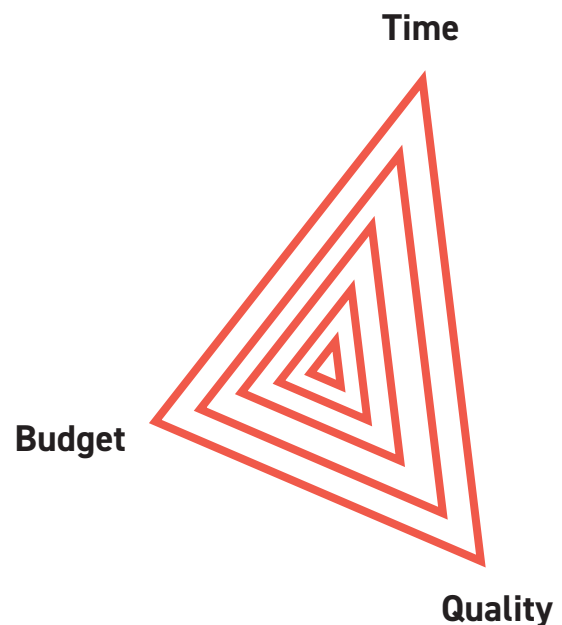
Iterative Mindset

Iteration is not just an academic theory but deliberately a responsive design tool; it is a means to respond to visitors' needs. The iterative process of an exhibition is endless because visitor behavior and feedback keep changing. But let's not forget why museums need to iterate. Museums exist to serve their communities and visitors, and museums rely on their support. Therefore, museums need to put visitors at the center of the design process, and an iterative and flexible design process is the best tool for that.

Museum professionals need to change the way they think about the exhibition process; that it is not a race to the finishing line, but a repeated cycle. In the ideal iterative process, the final product does not exist; however, it keeps evolving based on feedback. In the real world, the iterative process comes with a tradeoff between time, budget, and quality. In many cases, the most reasonable cut is quality: allowing an exhibition to be less finished and less polished. The unfinished look not only informs visitors of the dynamic nature of the exhibition but also prevents

exhibition designers from design choices that lack flexibility and cost a lot of money.

Museums need to clearly communicate the intention of the unfinished look to prevent their visitors from perceiving it as a failure. A part of this process is deconstructing the perception that museums are prestigious and only produce high standard works. This might be easier for science museums and those who do not present themselves as a high-class museum. However, when a traditional research institution like Penn Museum created *Imagine Africa*, they set up a clear expectation that the exhibition was



going to be an experimental space where they could practice iterative processes. Their scrappy design faced credibility critiques from visitors, but with a couple of reiterations, they were able to find the right balance. The result was an exhibition that kept changing based on visitor feedback. Another way to maintain the quality of the exhibition to the level that could maintain credibility was by combining polished structures and scrappy elements altogether like what the Smithsonian National Museum of Natural history did in *Q?rius* exhibition.

Decision Triangle of Time, Budget, and Quality (Figure 4.1).

Proactive Practice

Flexible exhibitions are not a one-time process; it is an endless practice.

Preplanning

The key to flexible exhibitions is foresight in financial and human resources management. Even making a single small change in an exhibition requires almost as much involvement as creating the entire exhibition, let alone the cost of design and construction. The institution should have a clear sense of where the money to practice flexibility comes from, whether it is the allocation of funds on an annual basis, initial exhibition budget, or future funds. Museums may consider applying for a grant like the Pew Center for Arts and Heritage that the Penn Museum applied for with *Imagine Africa* which allowed them to gain institutional buy-in for the project.

Planning for unknown situations may seem to be hard, but museums can start from the information they already have:

- What kind of contemporary topic has the institution been interested in responding to?
- Do we have collections or potential to address the topic with a current exhibition?
- How much space do we have to address the contemporary topic?

Based on this information, the exhibition team can create a rough schedule with responsibilities and timeframes ready to be adapted and assigned when the time comes. Setting a schedule ahead of time also allows museum staff to preserve their time and energy for the upcoming updates. For example, in *Imagine Africa*, Kate Quinn locked the working schedule for the update team even though they did not know what topic they were going to work with.

Keep the Flexibility Going

The previously stated case studies have one thing in common; they maintain flexibility. At the exhibition level, the continuity keeps the knowledge fresh and hones a more flexible practice. Imagine if the exhibit team at the Museum of the City of New York did not continue the work of object rotation right after the opening day, each member of the team might have moved

on to other projects and forget important details of the exhibition, not to mention forming a new team who have no background on the making of the exhibition. Shifting to flexible practices can be difficult, but nothing is easy at the beginning. The object rotation at the Museum of the City of New York was rough at first, but after a few rotations, it became a routine for them. However, the people involved in executing the project will definitely change, whether illness, retirement, promotion, or changing institutions. Therefore, project decisions and methods should be thoroughly documented in order to pass on to new members.

The continuity of flexible practice can and should be expanded beyond the exhibition level, which will lead the museum to a more flexible institution. From the review, the Museum of the City of New York has been documenting and responding to crises for a long time, from the September 11 Attack to the current COVID-19 pandemic. Similarly, the Levine Museum of the New South has a reputation of addressing sensitive issues allowing them to gain support from the board members and the Charlotte community once new topics arise.



Flexible Content

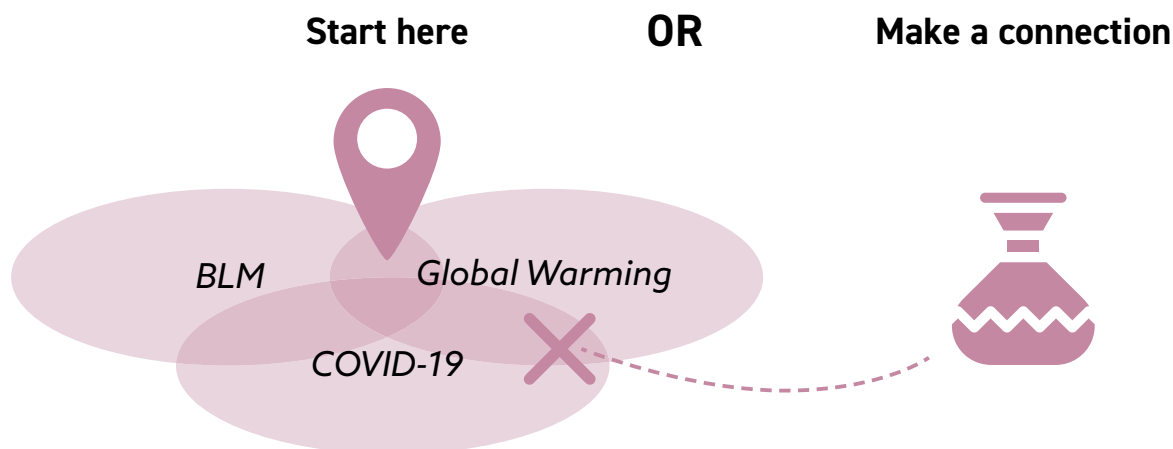
An exhibition with flexible content has a capability to **CUT** its current content and/or **ADD** new content during the development process or even when the exhibition is executed. However, as the content gets developed, the connection between each story gets stronger and harder to alter. How can we allow room for change in our exhibition content?

Broader Topic

The broader the exhibition topic is, the more opportunities the content can expand and evolve. For instance, *The Nature of Color* at the AMNH focused on the science and

social science of color, but with this broad topic, it had opportunities to collaborate with an artist to address the racial aspect of skin color. If an exhibition is based on a narrow story or a specific collection, the exhibition developer should make connections to the broader topic, depending on what the intended topic is. For example, as the MCNY was developing the *New York Responds: The First Six Months* exhibition, they initially focused on the story of COVID. But after the murder of George Floyd, they made the connection between the global pandemic and the racial injustice topic by expanding the focus of the exhibition to the 2020 crisis.

Start Broad or Make a Connection (Figure 4.2).



Variation in Modality

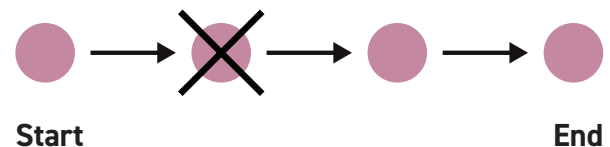
Having more than one way to access individual content is not only about providing choices but also allowing museums an opportunity to cut some of the accessing points if necessary. For example, an interactive game about color and emotion at the AMNH has four modalities; graphic label, touch screen kiosk, sound dialogue, and smartphone. When COVID-19 hit, the museum disabled the kiosk, but visitors could interact with the game using their smartphone, listen to the game audio, and read descriptions from labels. If the museum did not provide a variation of modalities, the entire interactive game might have been disabled which will affect the whole section.

Flexible Narratives

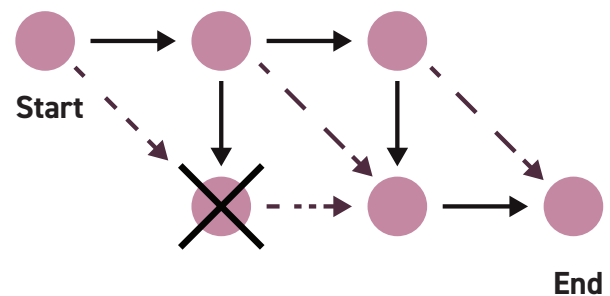
When developing exhibition content, museums should lean toward a dynamic narrative as opposed to the traditional linear narrative. If the subject matter leads itself to a more static or chronological storyline, it should be a combination of linear and dynamic narrative. This narrative allows museums to **CUT**, **ADD**, or **REPLACE** the exhibit content without affecting the main narrative.

As opposed to the original linear narrative, the dynamic narrative offers visitors choices to explore each story node in different sequences. Some story nodes contain discrete storyline but with multiple connections to other story nodes. We can prioritize each story node based on its relationship to the main storyline. This dynamic narrative allows us to cut or replace the content with less priority with new stories without affecting the main narrative.

Linear Narrative



Dynamic Narrative



- Story node
- ✗ Cut or Replace story node
- Expected visitor path
- - -> Alternative visitor path

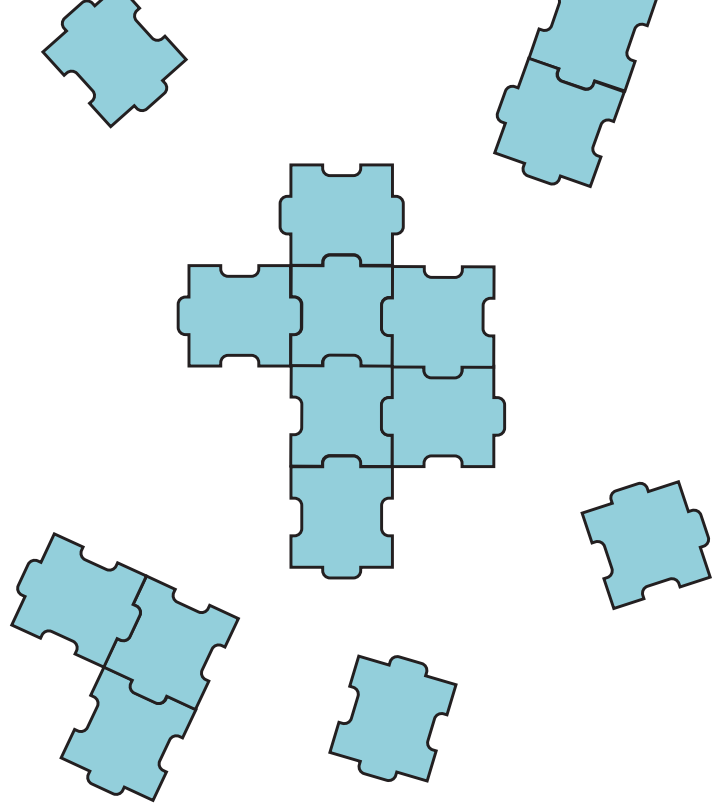
**Linear Narrative Vs.
Dynamic Narrative (Figure 4.3).**

Flexible Design

Planning and design go hand-in-hand with content development. The following approaches adopt the flexible qualities of traveling exhibitions and rapid response exhibition that can be applied in different hierarchy of design elements — ex. section, subsection, and graphic panel.

Modular and Simple Design Philosophy

Modular design is a design principle that subdivides a design piece into smaller units called modules. Each module can be independently recreated, modified, replaced, exchanged, or combined with other modules – like Lego pieces. The modular design philosophy can be applied at any level of the exhibition. For example, each section in *The Nature of Color* was designed as a hexagon module which connected to one another and could be rearranged. In the section level, the vinyl walls served as graphic panels which could be replaced with new graphic elements, cases, or screens. This will open more possibilities for future changes.



Modular and Simple Just Like Jigsaw (Figure 4.4).

Making the exhibition changeable with the modular design principle alone is not enough, if the modules are complicated and hard to handle; they need to be simple and easy to make changes. Exhibition designers normally put, and should put, visitors at the fore-front of the design process, but visitors are not the only group of people that utilize the exhibit. How can we design a display that is easy for art handlers to install art pieces? How can we design a case that allows conservators to observe the status of objects and repair them easily? How can a museum staff with no technical skills disassemble and assemble the modules?

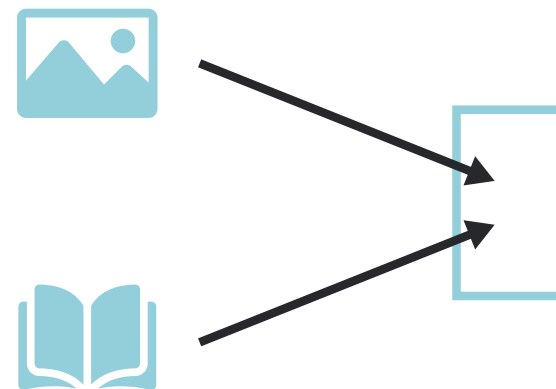
— not everyone finds IKEA furniture easy to assemble. As we are moving forward to a flexible exhibition, designers should include museum staff in other departments, especially the one that works closely with the update process, in the design process: prototype and test the design with them.

Template and Design Forward

A template is a series of design structures that has the same size, same function, and same design. Templates in an exhibition can be a structure of labels — in which their content can be replaced — or a series of cases or risers. Once the template is set, the team can assign the exhibit content to the template with little adjustment. Once the exhibition is executed, anyone can continue to make changes to the content based on the design guideline set early in the template design process. For example, signs and label panels are designed as templates and an exhibition developer can update content without having designers involved in the process. However, as Lauri Halderman mentioned, the exhibition team needs to find a way to apply the template without making the entire exhibition look the same.

Templates allows the team to proceed the design and construction process before the content is completed. This design approach will come in handy when the team works against time or the content is unsettled, although it may result in a lack of connection between content and design. The trick is to draw just enough information from the content before moving the design forward. In the *New York Responds: The First Six Months* exhibition, the team needed to design a display system without knowing the exact material. However, as the curators and juries narrowed down the object and story list, the designer knew the size range of prospect materials and were able to determine the size of the cases.

A Template that Anything can Fit In (Figure 4.5).

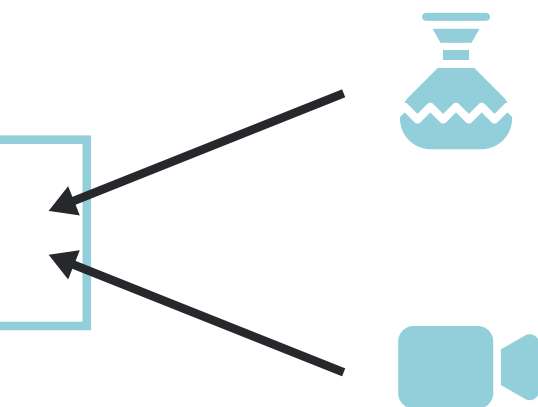


Relationship

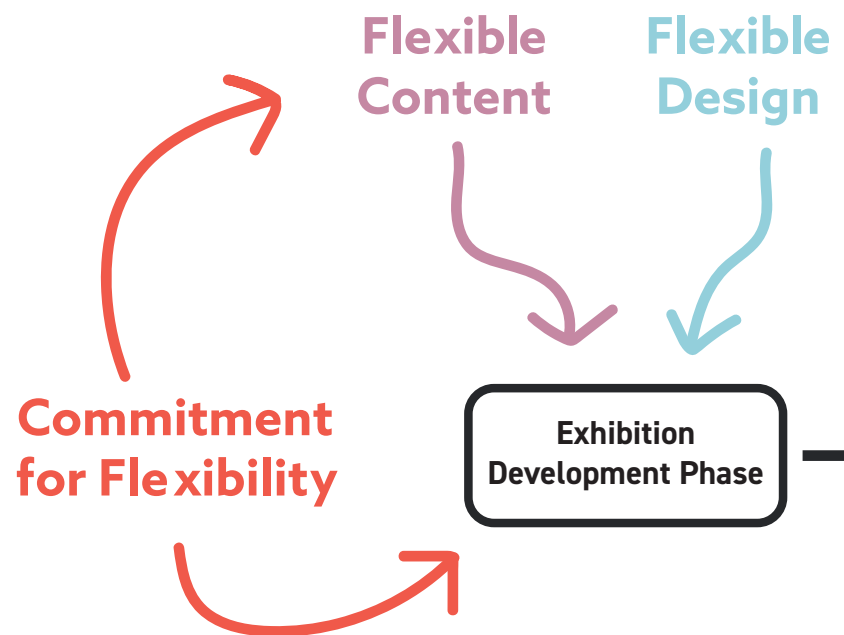
In the time of crisis or the rush to respond, museums require assistance from their partners and the community they serve. However, these relationships need to be initiated and strengthened before the crisis. In the case of *New York Responds: The First Six Months* and *KJKP*, the museums could have not jumped right into creating responsive exhibitions without trust from the community, especially with such sensitive topics. They had been sitting in the heart of their community for a long time. They constantly applied participatory practices into their projects which established new connections with partners and gained trust from the community. They did not take the advantage of the crises to bring attention

to themselves, instead they saw the crises as an opportunity to serve their community. Museums need to reconsider their mission and value: who are your partners and communities? Can you see them in the body of your work, your mission, and your value?

Furthermore, in both case studies, participatory practice has proved to be a great tool to strengthen relationships between museums and their partners and communities. It is a pragmatic way of saying “your voices, your stories, and your expertises matter to us.” It is not that we open the door and wait for people to join us, but by applying participatory practice, we meet people where they are, grab their hands, tell them they matter and we trust them, and lead them through the door. Although this thesis does not discuss how to respond to current topics, participatory practice can also be a great tool in the response phase. The point of responsive exhibitions is to address visitor needs and having visitors involved in the process help set the response in the direction that is most beneficial to visitors. And let’s not forget that crises affect museums and slow down the process as well. Partners and community can help the museums bounce back from the crises and speed up the process.



Consideration In Context



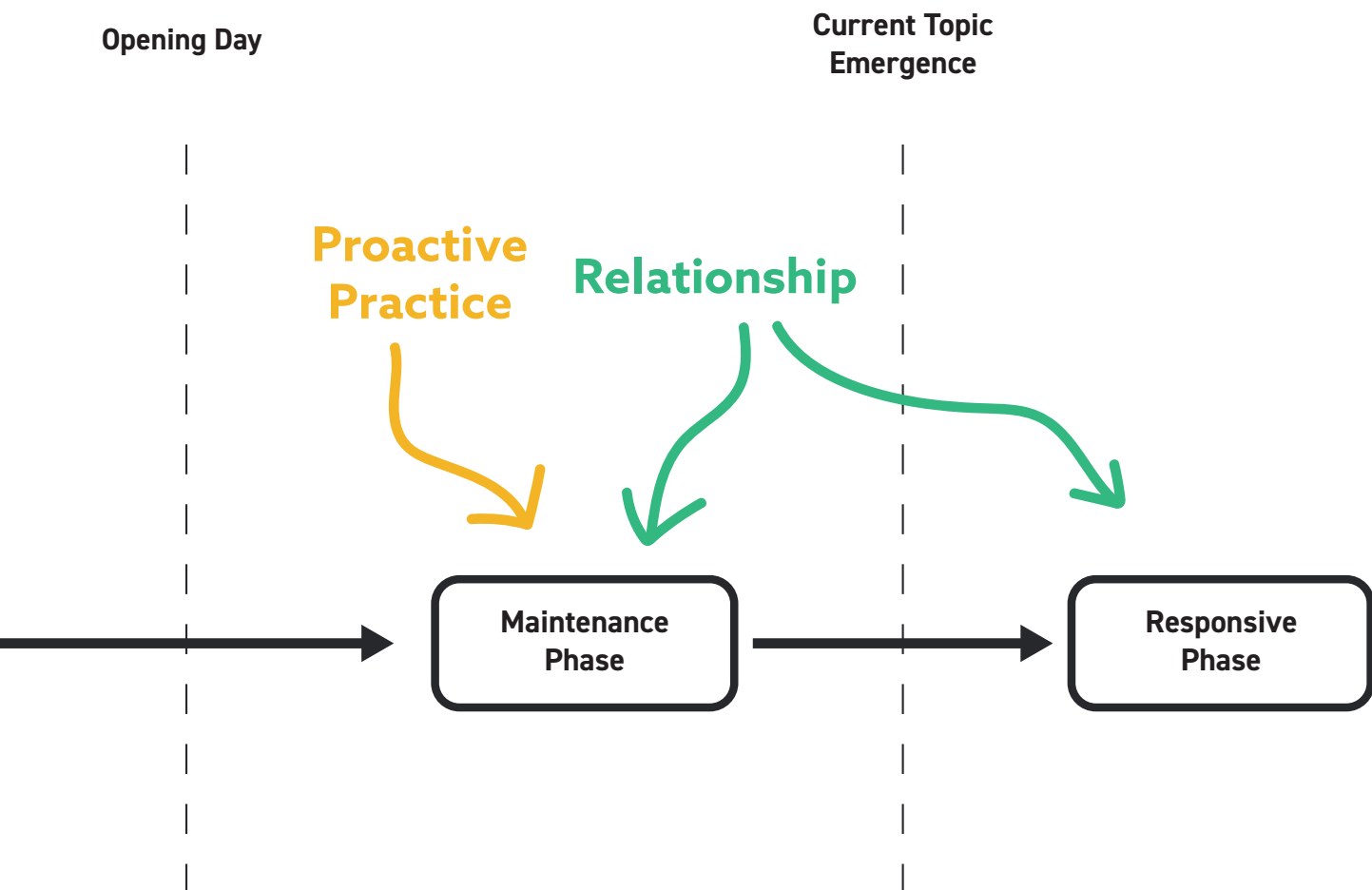
Lessons Learned in Context (Figure 4.6).

As the world is changing rapidly, museums need to be proactive and agile and flexibility is a tool for museums to do so. The considerations outlined in this chapter are the solutions for the thesis question: **How can museum exhibitions be more flexible in order to stay fresh and relevant to current topics, and address the needs of museum visitors in a timely manner?**

Each consideration can be applied in different phases of the flexible and

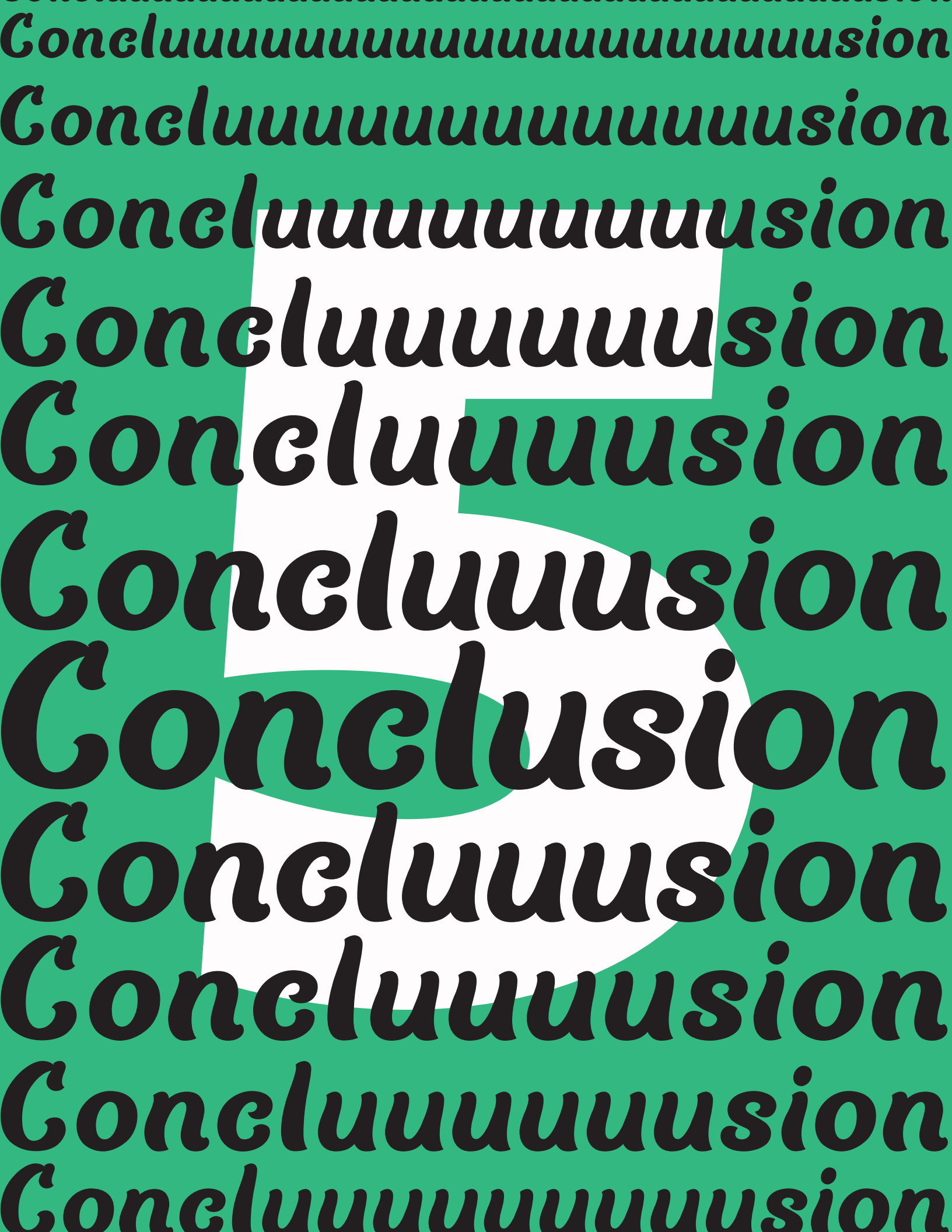
responsive exhibition process. **Commitment for flexibility** is the most important value that museums need to have in order to create a flexible exhibition. When the flexibility is incorporated into the museum's mission, vision, and value, it will result in the big idea and goals of the exhibition. Commitment to flexibility helps set a mutual understanding throughout the institution which is a foundation for other considerations. Incorporating **flexible content and flexible design** into the current





exhibition development process will allow the exhibition to be flexible and allow changes both during the development process and after it is executed. However, a flexible exhibition is not an outcome but the process. Museums need to maintain flexibility and be prepared by applying **proactive practice** and build up good **relationships** with partners and communities. This way, they will be ready when current topics arise. While this thesis does not aim to investigate

what the responsive phase might look like, the participatory approach can be applied in the responsive phase. Museums need to incorporate these considerations into their process and create their own version of flexible practices. These considerations are closely related to the others and museums need to incorporate these considerations into their process and create their own version of flexible practices.



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Museums have been through many changes, from private to public, being about something to being for someone, and now, toward a more diverse, equitable, accessible, and inclusive direction. However, the progress has been steady, even with many museum professionals as catalysts for change. The static characteristic of museums makes it hard for us to adapt and thrive in the changing world. We need to unlearn this static mindset and there is no better time than now. The emergence of COVID-19 has shaken our deep stagnant root by revealing the flaws in our practices. It has shown that museums have difficulties adapting to this 'new normal.' They struggle with utilizing their invaluable collections and stories to address this current topic and provide guidance and hope for their communities. This crisis has reinforced the needs for change, and now it is up to us to pull out our static root and plant a new mindset, a flexible one.

Better Bend Than Break challenges museums to reform their working processes to be more flexible by tackling the most static component of a museum, an exhibition. Drawing from case studies, literature reviews, and interviews, this thesis proposes five areas of considerations for flexible exhibition.

Museum professionals can incorporate these considerations into their practices in order to create a flexible exhibition, and maintain its flexibility to be proactive for future changes. By practicing flexible exhibitions, the museum as a whole will gradually shift toward a flexible institution. This is because the work of flexible exhibitions requires not only a design team, but also the entire museum to incorporate flexibility in their practices. Based on new changes made on an exhibition, educators need to update their programs, marketing planners need to develop new marketing strategies, and fundraisers need to apply for funding.

With more and more people receiving COVID-19 vaccines, the world is moving toward a new period of change. But it is unlikely that our life will return to normal. Human behavior and perception have permanently changed after the global pandemic, and they will keep changing based on new information and future incidents.

Museums need to constantly stay proactive for these changes, unless they will find themselves in the same situation in 2020.

Challenges and Future Considerations

There are many areas and challenges that are not fully addressed in this thesis and should be further explored:

The process of creating flexible exhibitions for each museum will be different since different types of museums have different missions, collections, and practices. **How can different types of museums apply the concept of flexible exhibitions in their institution?**

- How can cultural institutions with less flexible collections like zoos, aquariums, botanical gardens, and historical sites apply this concept?
- How can smaller institutions overcome budget and labor constraints?
- How can larger institutions speed up their processes?

Early in the process, I conducted an online survey to gather insights from museum professionals about the correlation between different types of museum and current topics they are interested in responding to, as well as what hinders those museums from responding to the current topics (**See Appendix A**). I hoped to find a pattern of the characteristics of different museums

and current topics, which would help me specify the flexible approaches for each type of museum. However, this thesis has not reached the state of study and I did not have enough survey responses.

There are **challenges and limitations of flexible exhibitions** that appeared in this study but have not fully resolved:

- What does the flexible practice of the marketing team, education team, and conservation team look like? How can they keep up with the changes of the exhibition?
- How should museums weigh between flexibility and other resources like time, quality, and budget?

If I had more time, I would like to interview people in different departments, as well as project managers who have control over budget, time, and human resources. I would explore how their work would be like in the flexible condition.

This thesis focuses on the aspect of exhibitions, but for museums to become truly flexible across an organization, they need to apply these considerations in every process, product, and service.



- What does flexibility mean at different leadership levels within an institution — from CEOs to front-line staff, boards to volunteers?
- How might one convince and introduce their colleagues or supervisors to flexibility?
- How might flexibility help address the aspects of monetization, equity, and inclusion?

This thesis covers how to set up and maintain flexible exhibitions but it does not discuss **how to apply flexibility in the responsive phase**. There are many questions that need to be further investigated:

- How do we know what current topics should be addressed?
- How do we know if we should address the current topic with an exhibition?
- What does the process for the response phase look like?

Whether the considerations proposed in this thesis will work or not can be proven in this responsive phase. Moving forward in my career, I would like to test this idea by applying these considerations into the project I work on. Once the appropriate topic arises and the project shifts into a responsive phase, I would like to examine the validity of these considerations, and further develop the responsive protocols.



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Sources and Resources

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Appendix A: Survey

INTRODUCTION

Responsive Museum

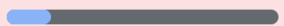
This survey aims to collect observations and insights from museum professionals about:

- 1) The relationship between specific museum characteristics and how effectively they respond to crises or social trends (specifically via museum exhibitions).
- 2) What conditions allow or hinder museums from effectively responding to crises, movements, and social trends (such as BLM, accessibility, etc.)

Please think of one specific example of the crisis or social trend when you fill in your answer. If you have more than one example to share, please plan to use the "submit another response" button at the end. Thank you in advance for participating in this survey.

This should take approximately 10-15 Minutes to complete

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PART 1

Responsive Museum

* Required

Part 1: Response to Crises and Social Trends (1)

*For this section, please choose one Crisis or Social Trend that the institution you worked with wanted to have an external response to. (An external response is a response that impacts the public audience directly — such as updating exhibition content, updating exhibition objects, implementing new programs, updating marketing materials.)

If you have more than 1 example you want to share, please click "Submit another response" at the end of this survey.

There will be a consent question at the end of this survey.

In your experience of working in the museum field, what was the crisis, movement, or social trend that the museum you worked with wanted to have an external response to? (Please exclude Covid-19 specific examples) *

- ☐ Social Justice
- ☐ Climate Change
- ☐ Immigration
- ☐ Accessibility
- ☐ Other: _____

How was the crisis or the social trend that the museum you worked with wanted to respond to relevant to the MUSEUM? (Please be as specific as possible) *

Your answer _____

PART 1 (CONT.)

How was the crisis or the social trend that the museum you worked with wanted to respond to relevant to its VISITORS? (Please be as specific as possible) *

Your answer _____

Rate how the crisis or social trend that the museum you worked with wanted to respond matched your interest *

1 2 3 4 5

Completely out of my interest ☐ ☐ ☐ ☐ ☐ Perfectly matched with my interest

Did the museum you worked with respond to the crisis or social trend? *

- ☐ Yes _____ → Go to Part 2
- ☐ No _____ → Go to Part 3
- ☐ I'm not sure _____ → Go to Part 4

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PART 2

Part 2: Response to Crises and Social Trends (2)

Did the idea of responding in the context of exhibition (ex. updating new exhibit content) ever occur in any form? *

- ☐ Yes
- ☐ No
- ☐ I'm not sure

Did the museum you worked with respond to the crisis or social trend in the context of exhibition? *

- ☐ Yes
- ☐ No
- ☐ I'm not sure

If you answer YES to the first question but NO to the second question, please explain what kept the museum from responding to the crisis and social trend in the context of the exhibition? (Please be as specific as possible)

Your answer

Please explain how the museum you worked with ended up responding to the crisis or social trend. (Please be as specific as possible) *

Your answer

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[Go to Part 4](#)

Never submit passwords through Google Forms.

PART 3

Part 3: Response to Crises and Social Trends (2)

Why the museum did not respond to the crisis or social trend. (Please be as specific as possible)


Your answer

How would the museum have responded to the crisis or social trend, if it was possible? *

Your answer

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PART 4

Responsive Museum

* Required

Part 4: Museum Characteristics

At the time of this example, what were your roles with the museum? (Choose all that apply) *

- ☐ Exhibition Developer
- ☐ Exhibition Designer
- ☐ Graphic Designer/ Environmental Graphic Designer
- ☐ Curator
- ☐ Label Writer
- ☐ Editor
- ☐ Project Manager
- ☐ Evaluator
- ☐ Content Researcher
- ☐ Educator
- ☐ Fabricator
- ☐ Administrator
- ☐ Senior Staff
- ☐ Other: _____

Name of the museum you worked with in this example *

Your answer _____

PART 4 (CONT.)

Type of the museum you worked with in this example *

- ☐ Natural History Museum
- ☐ Science Museum/ Science Center
- ☐ Art Museum
- ☐ History Museum
- ☐ Botanical Garden
- ☐ Zoo
- ☐ I'm not sure
- ☐ Other: _____

What was the scale of the museum you worked with in this example *

- ☐ Small (less than 20 staff)
- ☐ Medium (20 - 50 staff)
- ☐ Large (50 - 100 Staff)
- ☐ Very Large (more than 100 staff)
- ☐ I'm not sure

Did the museum you worked with have an in-house FABRICATOR? *

- ☐ Yes
- ☐ No
- ☐ I'm not sure



PART 4 (CONT.)

Did the museum you worked with have an in-house GRAPHIC DESIGNER? *

- ☐ Yes
- ☐ No
- ☐ I'm not sure

Did the museum you worked with have an in-house EXHIBITION DESIGNER? *

- ☐ Yes
- ☐ No
- ☐ I'm not sure

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PART 5

Responsive Museum

* Required

Part 5: Demographic and Consent

Full Name *

Your answer

Current Role *

Your answer

Name of your current organization OR independent museum professional *

Your answer

The answers you will provide in this survey may be published in my thesis. Please note if you are comfortable in having your name and the organization in your example mentioned. *

- ☐ Yes, feel free to share my name and the organization.
- ☐ Yes, use only my name but not the organization.
- ☐ Yes, use only the organization but not my name.
- ☐ No, please keep this information anonymous.

If any new questions arise from the survey answers, are you open to follow up questions? If so, kindly share your email address here.

Your answer

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Submit

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PART 6

Responsive Museum

Thank you so much!

If you have more example to share, please click "Submit another response"

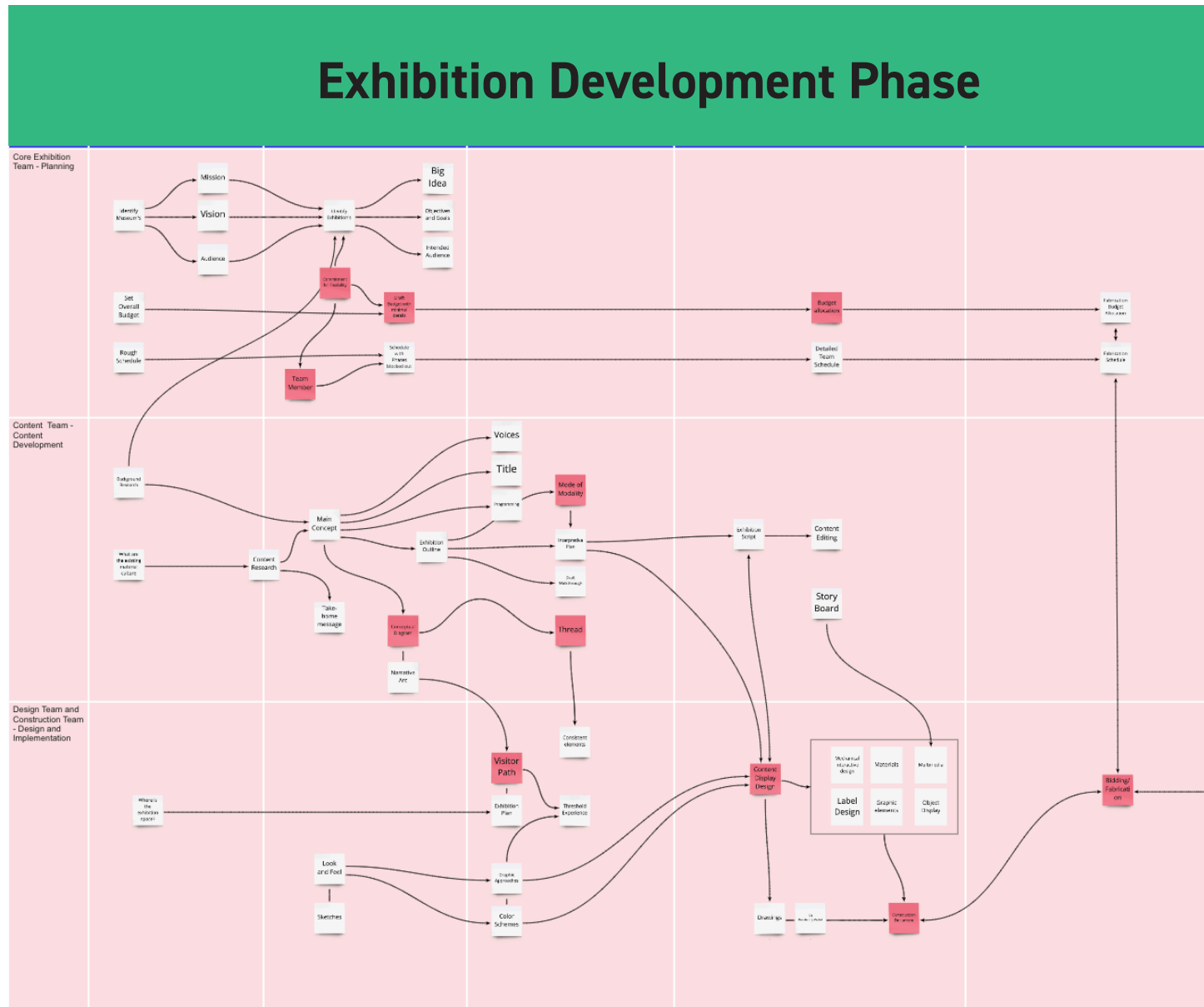
[Edit your response](#)

[Submit another response](#)

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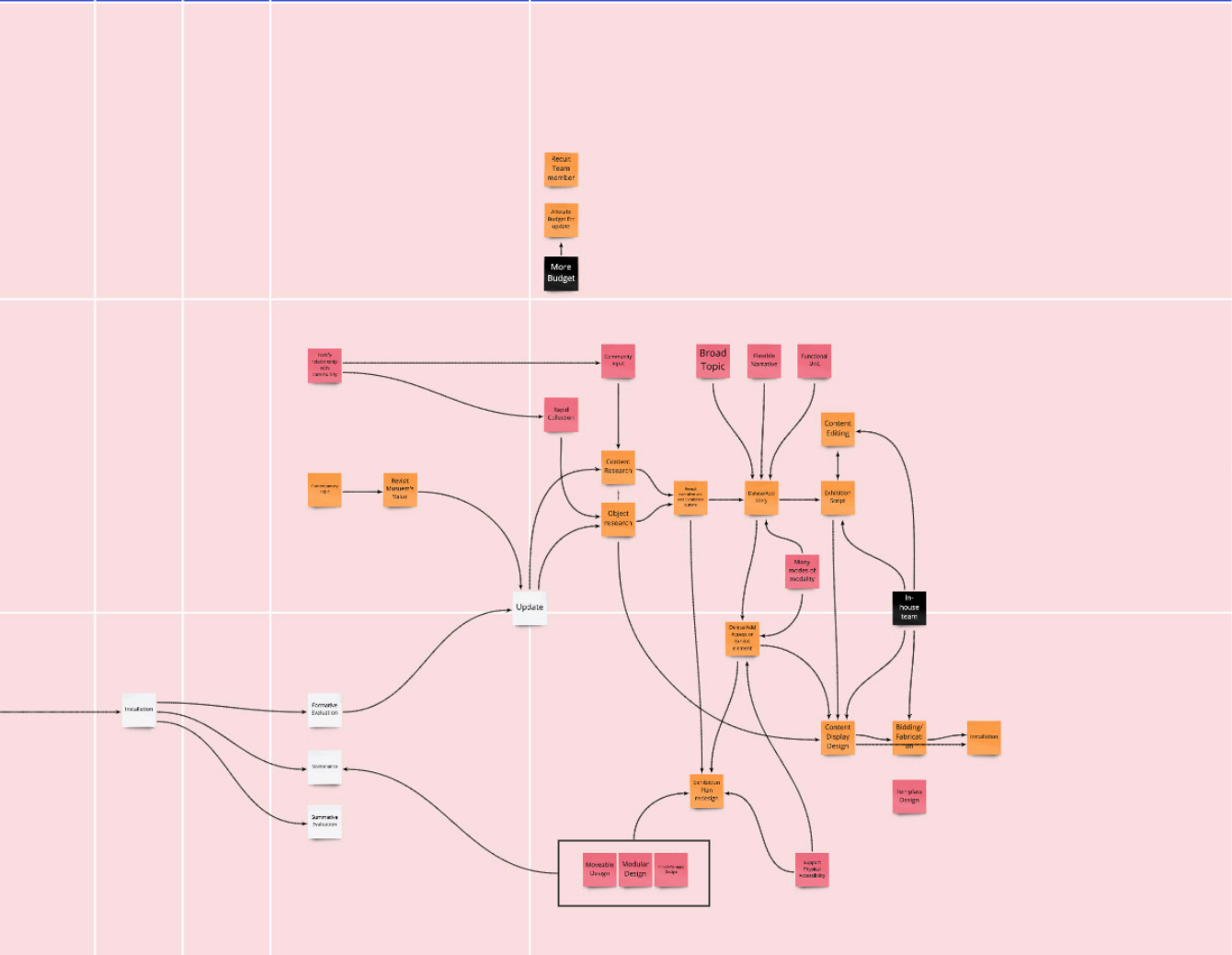
Google Forms

Appendix B: Exhibition Process



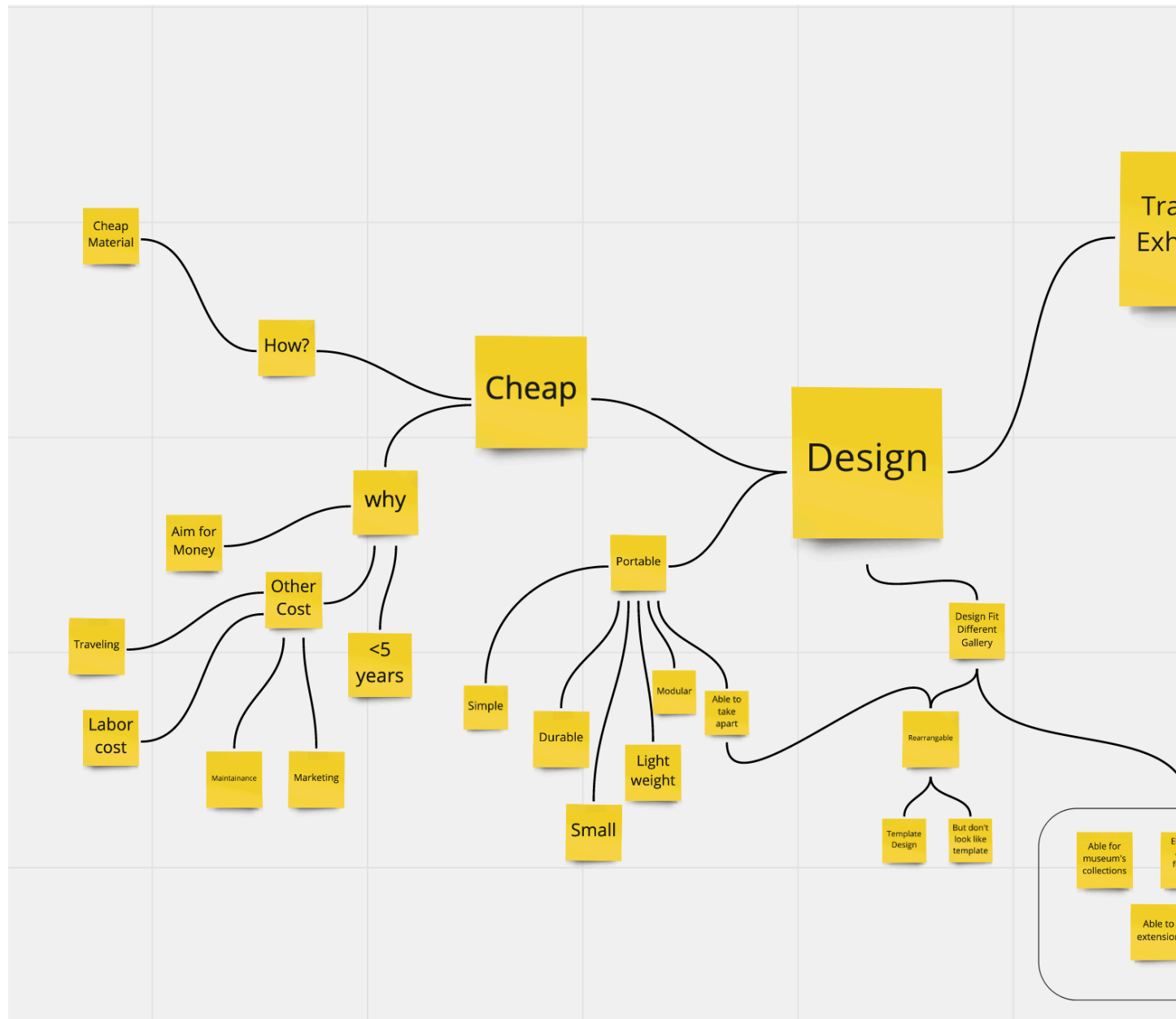
Maintenance Phase

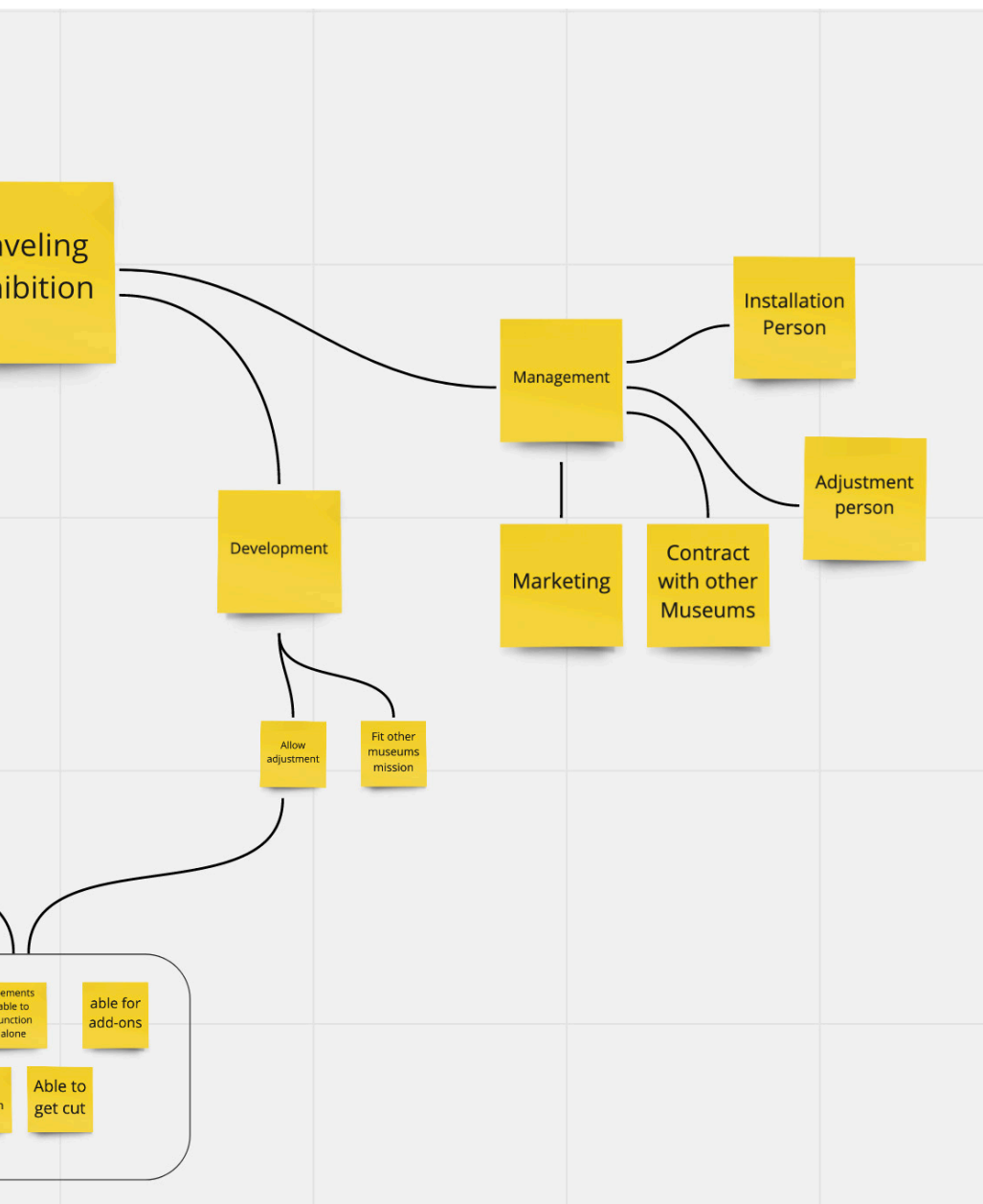
Responsive Phase



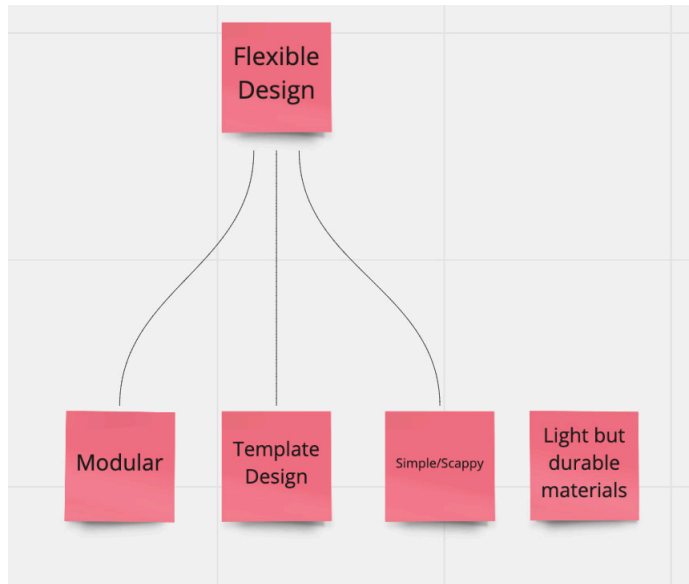
Appendix C: Word Clouds

TRAVELING EXHIBITION

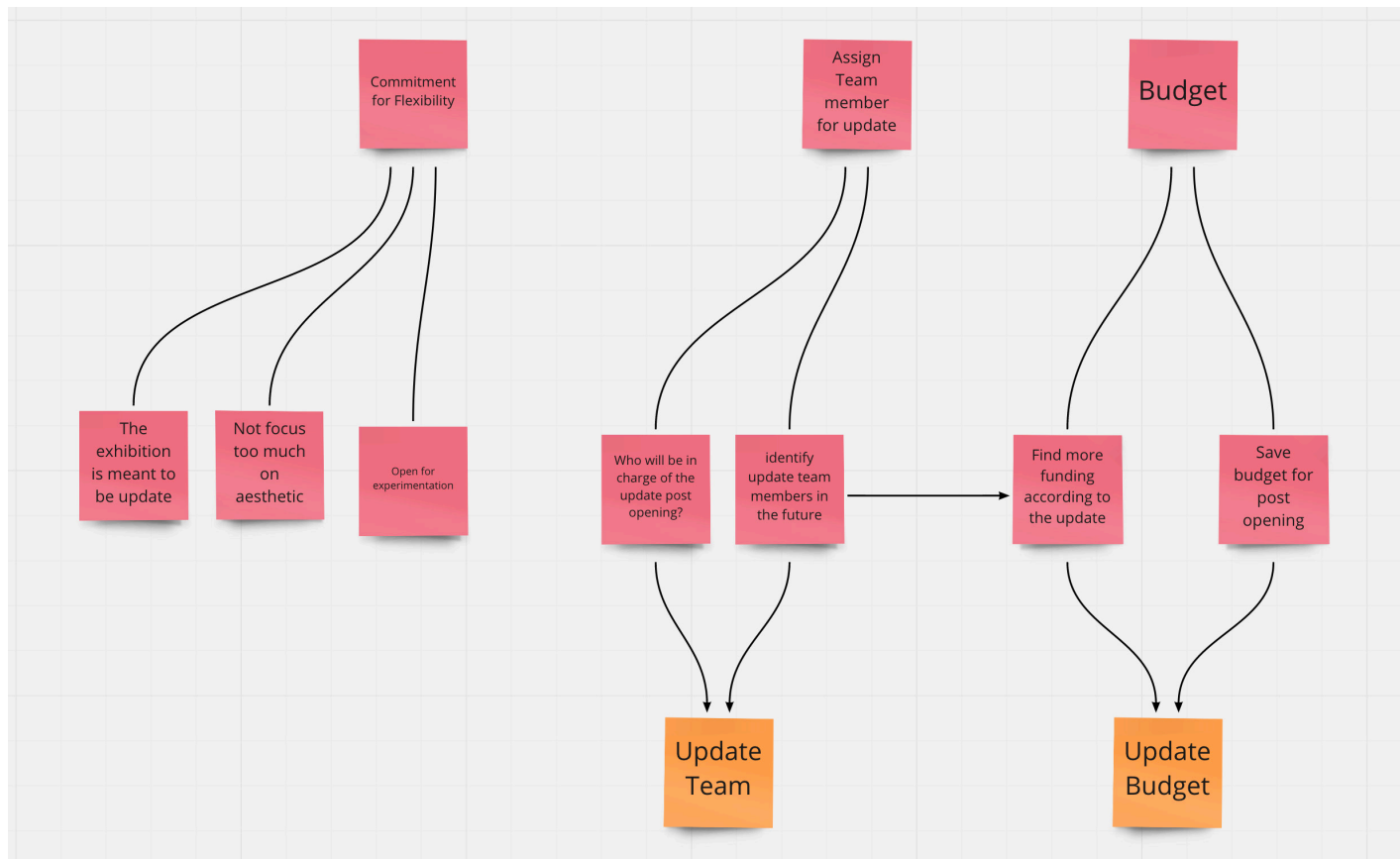




FLEXIBLE DESIGN



COMMITMENT FOR FLEXIBILITY AND PRE-PLANNING



FLEXIBLE CONTENT DEVELOPMENT

