UX Case Study

Mobile App for the Smart Museum of Art

What does a museum do? In the context of exhibitions, they are conversations from the curator to the viewer. The information should be insightful yet accessible, which my app design is trying to achieve. Beyond exhibitions, a museum has its collection that is not always on-view, but the viewer should be able to explore and understand its significance.

In 2022, I worked on an exhibition at the Smart Museum of Art for a few months, conducting object-based research, writing labels, and recording an audio guide for my favorite work on view. However, these audio guides and resources that the museum has put so much work into were not made obvious to the museum-goer, so I want to reimagine the user experience of visiting and engaging with the museum by creating a mobile app that simplifies information on the website and adds features that improve accessibility and increase engagement.

A lot of museums have apps, but what does a good museum app do?

Unfortunately, I have not found one that satisfied my Gen-Z standards (it's safe to say that we are very picky), but here are some recommendations by experts and common netizens:

- Imagery, text descriptions, and audio content
- Supplement guided tours
- Multi-language content

Museum expectations vs. realities

"Lots of people feel intimidated by today's art in particular, with its incomprehensible "masterpieces" and slightly disturbing figureheads. We want to understand it, be accepted into it, but even the act of visiting a museum can be less than ideal. With formidable columns and elaborate floor plans, entering a modern art haven can just as easily take the form of a dreamy afternoon jaunt or a nightmarish descent into the netherworld."

Art museum experience study

"Art museum professionals surveyed believe that empathy and engagement are the well-being factors that should be most highly prioritized, and art museums are currently most effective in increasing visitor empathy and engagement."

eMotion: Mapping Museum Experience

Dimension of experience	Description of experience dimension
Contemplative experience	The *contemplative museum experience* corresponds with a high degree of sentience and sensitivity to the exhibits. Visitors are alert and open to the arts and their beauty and wish to be surprised and entertained by this experience. S/he connects deeply, reflects and thinks about, as well as improves her/his understanding of the exhibited arts, and agrees with the design of the exhibited art and the exhibition.
Enthusing experience	The *enthusing museum experience* corresponds with the familiarity, i.e., the recognition of famous art already experienced and known before. Here, fame and beauty go hand in hand; fame might be a criterion for assessing a work of art as beautiful.
Social experience	The *social museum experience* corresponds very highly with the experience of companionship, with the togetherness of family or friends and correspondent entertaining situations, not with introspective silence or a deep connection with the exhibited art itself.

What I learned from curators
- They are usually very specific about how the viewer should walk through the museum, which is rarely made clear due to communication issues → let's include a map
- They are frustrated with people not reading labels → let's create audio components, since people are more inclined to listen than read

Are these concerns echoed by the visitor? Alternatively, would they be useful features?

What I learned from visitors
- Museums are confusing and difficult to navigate → an interactive map would help!
- Labels are hard to read and/or do not have enough context → let's have audio guides and text-to-speech conversion
- Upon seeing an interesting work, they want to see similar works or works done by the same artist → something to think about!
- Younger people want to see interactive features ("I don't have thoughts on this because I don't know where to begin") → okay, let's create some sort of comment section or discussion board that welcomes a diversity of opinions, reasonably moderated by museum staff

Therefore, features that will be included in the first iteration:

- An interactive map
- Audio components
- Section for additional resources
- Comment section

Alex

"How do you begin to think about art?"

20 | He/Him | College Student | Chicago, IL

Alex grew up in the Chicago suburbs, lives on campus, and is working toward a double degree in Economics and Public Policy. He has a busy lifestyle juggling school, internships, and extracurricular activities. In his free time, he enjoys watching sports, playing poker with friends, and reading nonfiction books. He goes to the Smart Museum every few months and takes a quick walk before heading back to his dorm, since he lives close, but he wants to get more out of his visits.

Expectations
- To feel intellectual and invigorated
- To walk away learning something new

Goals
- Learn some cool facts he can brag about it
- Take advantage of the university's free resources

Pain Points
- Too lazy to read wall texts and labels
- Gets frustrated when he does not understand something

Natasha

"I want to support the needs of my students."

32 | They/Them | Elementary School Teacher | Chicago, IL

Natasha lives in Hyde Park with their partner and two dogs, and they teach at one of the elementary schools. While at work, they care a lot about their students and want to make sure their needs are being supported, since some of them have turbulent home lives. They have taken students to various museum trips, but sometimes worry about not engaging their students enough. On weekends, Natasha practices freelance photography and hopes to eventually hold exhibitions.

Expectations
- To feel inspired and enjoy their time there
- To have a nice field trip with their students

Goals
- Introduce their students to more knowledge and resources
- Execute their lesson plan successfully and seamlessly

Pain Points
- Finding up-to-date resources to make their lesson plan
- Students getting distracted and being loud

Frances

"Days should be relaxing but meaningful."

65 | She/Her | Retired Psychiatrist | Chicago, IL

Frances is a retired psychiatrist who lives up north in Lincoln Park. She lives with her husband and daughter, who is finishing high school. She enjoys visiting all kinds of museums and has a few memberships. In the past, she had visited the Smart Museum every year or so. Recently, she experienced impaired vision as a result of aging and can longer read small texts like she used to. As a result, she usually opts for audio guides and guided tours when they are available.

Expectations
- Spend peaceful time alone or chatting with someone
- Understand some artworks but feel perplexed by others

Goals
- Enrich life after retirement by indulging in her museum-going hobby
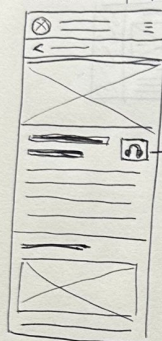- Get to know diverse perspectives and sympathize with them

Pain Points
- Cannot read small text and would rather listen
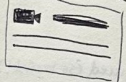- Not the best with complex technology but uses a few apps

Journey Map: Alex

Action	Opens app in the gallery	Opens the map	Clicks on an artwork	Learns more about the artwork	Takes a break
Task List	1. Clicks on different features 2. Goes back to home menu 3. Decides to check out the map feature	1. Locates himself and looks around 2. Moves around then re-centers the map	1. Finds an interesting work in-person 2. Finds it on the map and decides to "learn more"	1. Listens to audio guide 2. Looks at comments 3. Leaves a comment	1. Puts down his phone 2. Keeps wandering around the museum
Emotions	Curious	Slightly confused but interested	Intrigued, impatient	Engaged, focused, contemplative	Curious, motivated, distracted by phone?
Improvement Opportunities	Menu should be straight-forward and minimal	Map can zoom in and out; can track location	Artworks should be labeled somehow and easy to find	Make sure these features are connected and easy to find	Finds a balance between virtual and in-person experience

Sketches

interactive map

⑤

you are here!

① ② ③ ④

* don't have a map so we'll improvise :)

* pop up to [work] page Ⓒ back to map

- audio guide // video guide

ⓋⓈ

→ separate or connected?

solution   text-to-speech
numbering system? implementation
for current work? debatable......

home → map → work

exhibition

should everything be connected?

page

easy access

audio   work → search the work

Alex wants to learn.

ex → audio → wants to read more

read more

read comment

image description for visually impaired
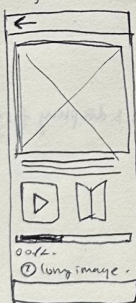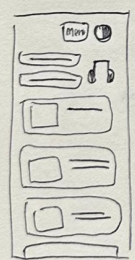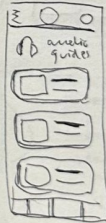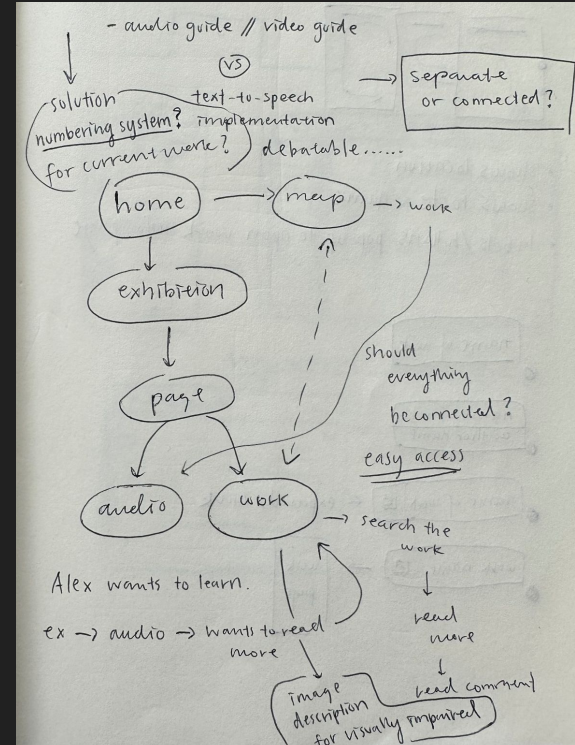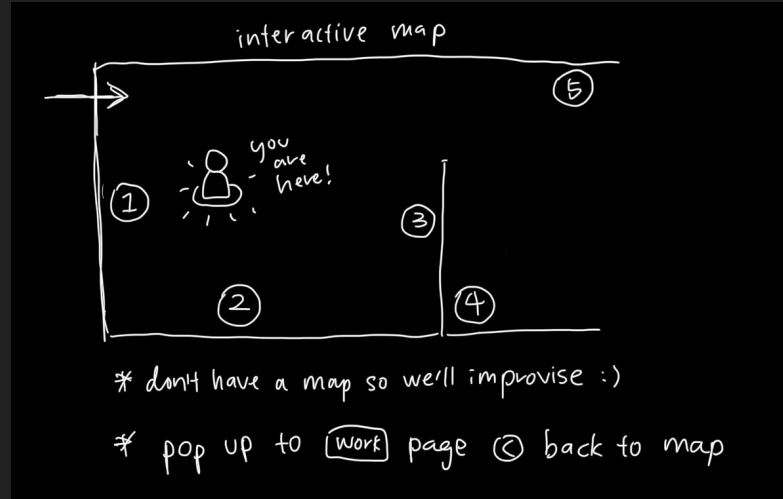
Prototype

Prototype

Design File

Homepage is divided into six sections that center around exploring works.

Some of the design is inspired by the Smart Museum's Digital Project website, which houses audio and video content to past exhibitions but is not part of the museum's official website.

I seek to bridge this gap and bring the materials together into one app.

Smart Museum of Art   Menu

Announcements

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Exhibitions

Audio & Video

Interactive Map

Explore Collection

Events

Learning

Monochrome Multitudes

This exhibition traces "the monochrome" as a fundamental if surprisingly expansive artistic practice. Revisiting classic modernist ideas about flatness, idealized form, and colors, Monochrome Multitudes opens up this seemingly reductive art to reveal its global resonance and creative possibilities while working toward a more expansive narrative of 20th and 21st century art.

A Multitude of Voices

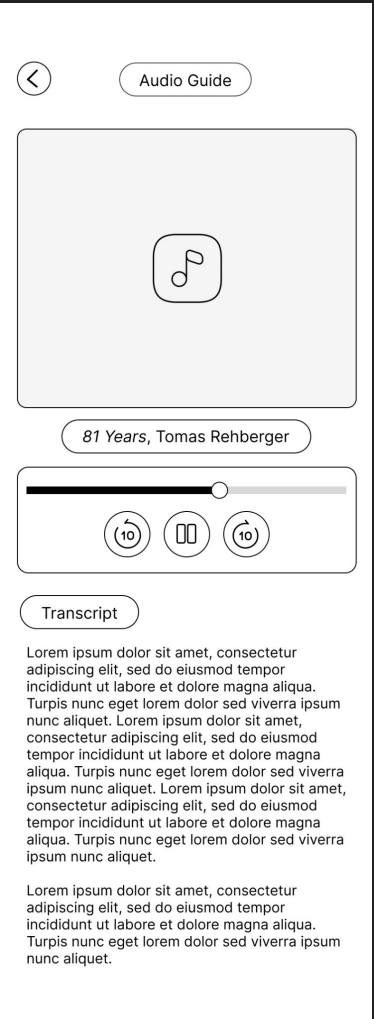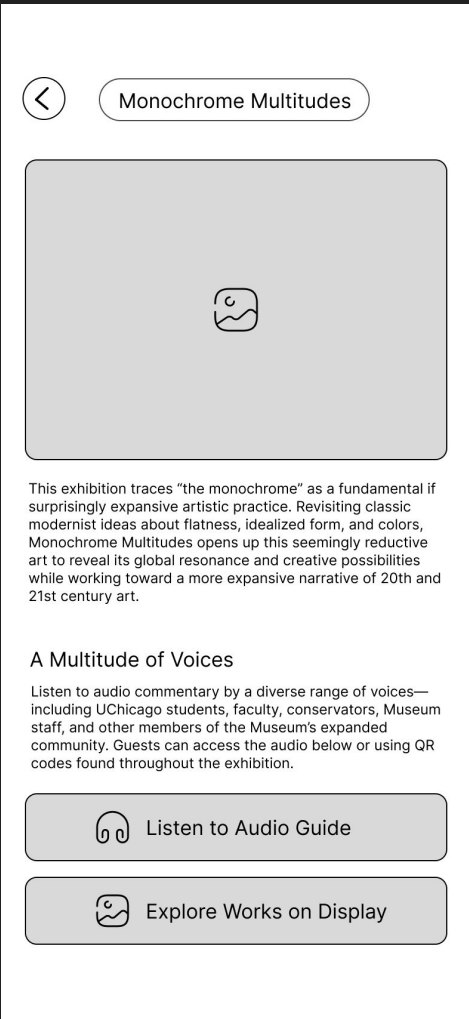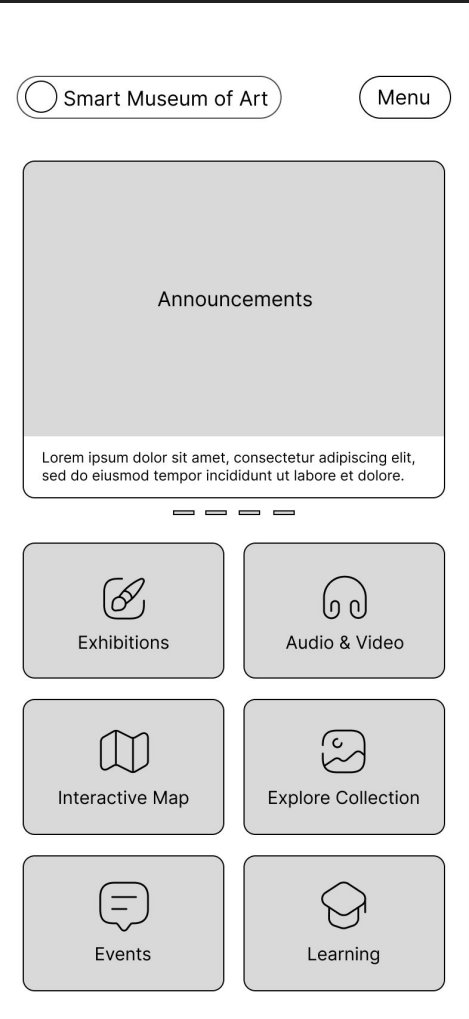Listen to audio commentary by a diverse range of voices—including UChicago students, faculty, conservators, Museum staff, and other members of the Museum's expanded community. Guests can access the audio below or using QR codes found throughout the exhibition.

Listen to Audio Guide

Explore Works on Display

Audio Guide

81 Years, Tomas Rehberger

Transcript

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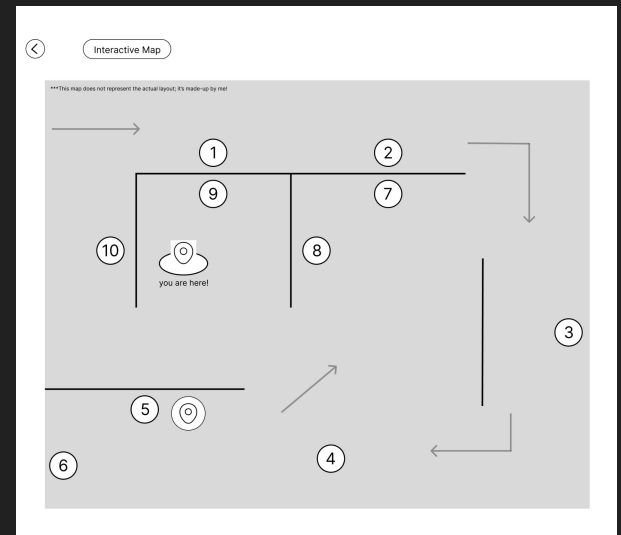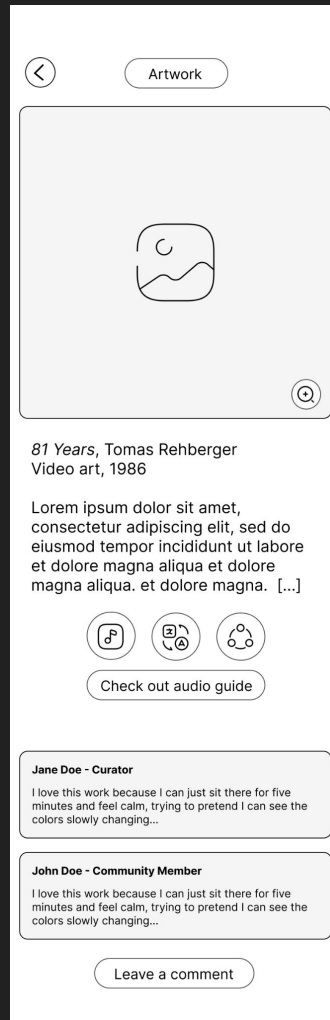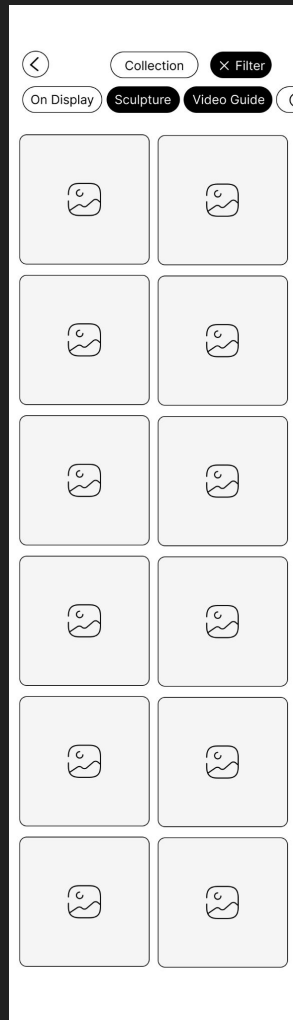
Prototype

In order to organize a large collection of artworks, there is a filter feature to several sections.

Several routes lead to the artwork page, which has several important features:

- Image zoom
- Text-to-speech conversion
- Translation
- Share
- Audio guide
- Comment

Collection | **✕ Filter**

On Display | Sculpture | Video Guide

Artwork

81 Years, Tomas Rehberger
Video art, 1986

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Check out audio guide

Jane Doe - Curator
I love this work because I can just sit there for five minutes and feel calm, trying to pretend I can see the colors slowly changing...

John Doe - Community Member
I love this work because I can just sit there for five minutes and feel calm, trying to pretend I can see the colors slowly changing...

Leave a comment

Interactive Map

***This map does not represent the actual layout; it's made-up by me!

you are here!

The interactive map helps the user to locate themselves and click on the numbered buttons to see which artwork it is, which then takes them to the artwork page.

The locate button helps to center the screen to the user's immediate location.

*This map is by no means accurate and the Smart Museum is much bigger. This is only made-up to visualize my design.

Managing the flow of information and organizing different sections are confusing when four sections (audio, exhibition, map, collection) lead to the same artwork page. This might be okay depending on different user journeys, but I'd like to conduct tests to find out.

Making sure the text sizes and buttons are accessible to people with different levels of technology literacy and visual capabilities.

Making sure the information selected from the Smart Museum website are useful, thoughtfully organized, and only keeping the essential.

This is my first ever case study, and I completed it in a sprint format with limited time and resources.

Therefore, I would love to conduct user tests and get feedback from people at the Smart Museum.

I would also love to delve into UI design once I am happy with the prototype. With this, thank you for reading this passion project of mine and stayed tuned for the second iteration!