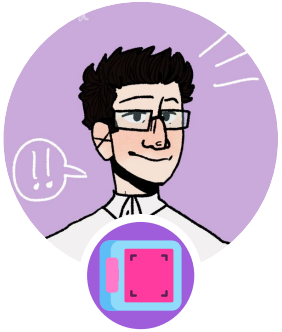
STEPPING THROUGH TIME, TEAM 1 PRESENTS:

LOW-FI PROTOTYPE & USABILITY TESTING

TEAM INTRODUCTION

Janine Fleming

Elizabeth Fitzgerald



William Song Liu

Hyunseok Hwang

OUR PROBLEM

When we reminisce about our old memories, we want to remember the emotions we felt in those moments.

Current tools exist to help document our memories (ex: 2D photos), however, it's still difficult for people to fully revisit and re-experience the emotions they felt.

Our solution?

“Treasure your memories”

OUTLINE

01 SKETCHING EXPLORATION

02 OUR LOW-FI PROTOTYPE

03 USABILITY TESTING

04 DISCUSSION

01

SKETCHING EXPLORATION

From Crazy 8's Storyboarding to our Final Realization

Map-Based Exploration

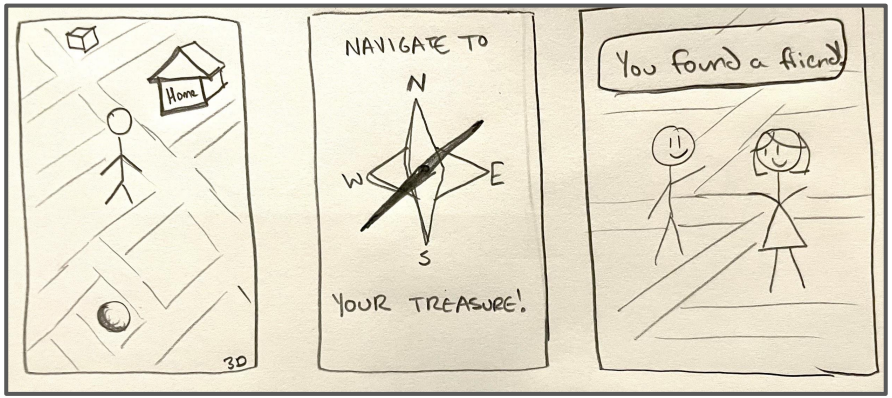
AR Glasses

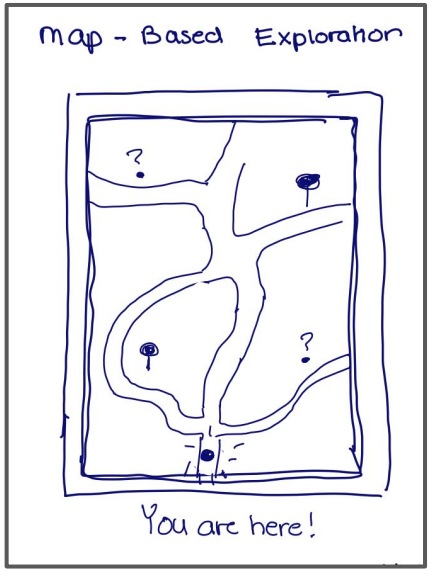
AR Mobile App

Smart Watch

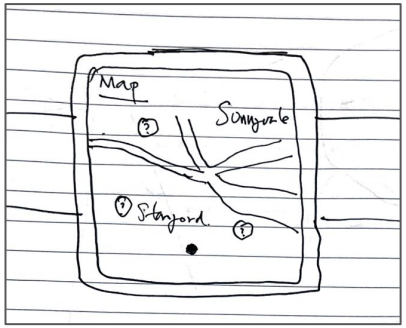
Mobile App w/ VR Headset Compatibility

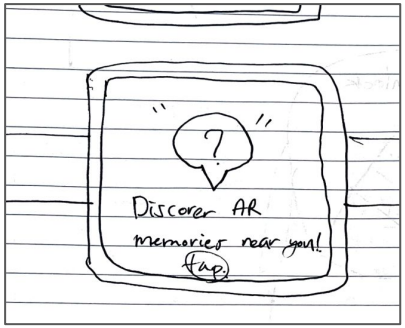
MAP-BASED EXPLORATION

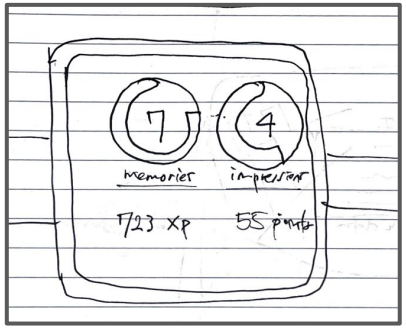


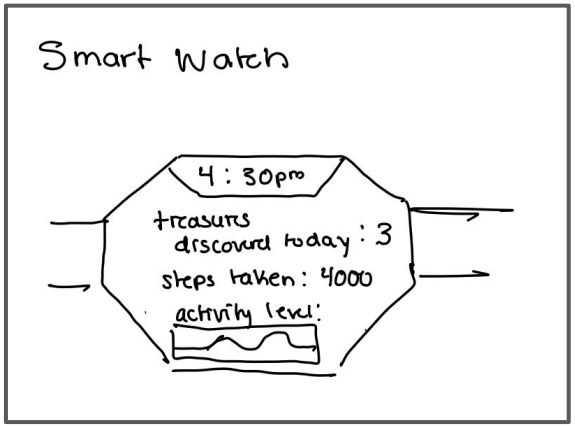


SMART WATCH

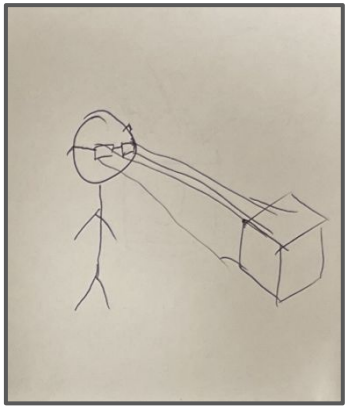

Map
Sunnyvale
Skyford.

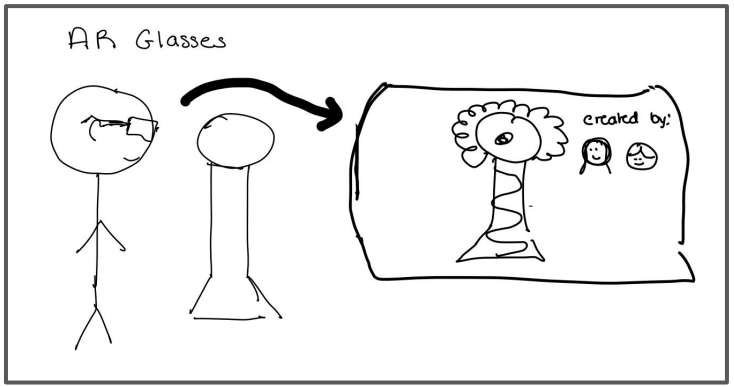

Discover AR
memories near you!
tap.

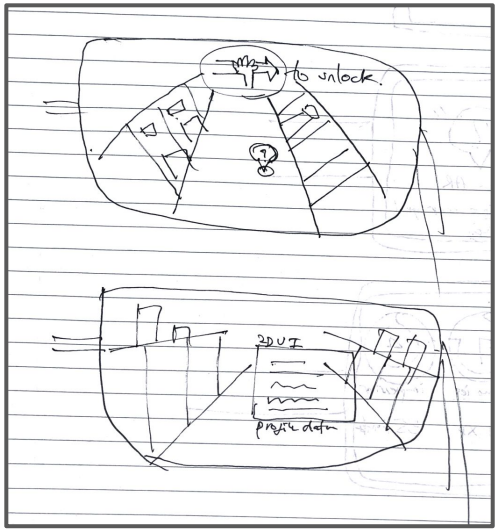

memories
impressions
7/23 XP
55 points


Smart Watch
4 : 30pm
treasures discovered today : 3
steps taken : 4000
activity level:

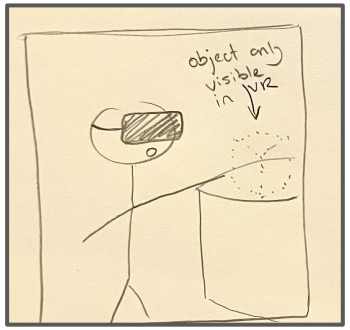
AR GLASSES

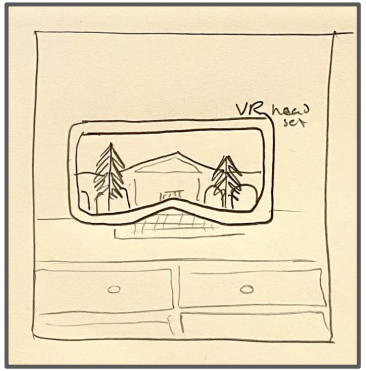


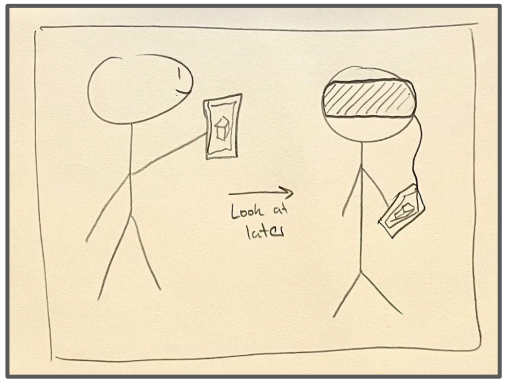


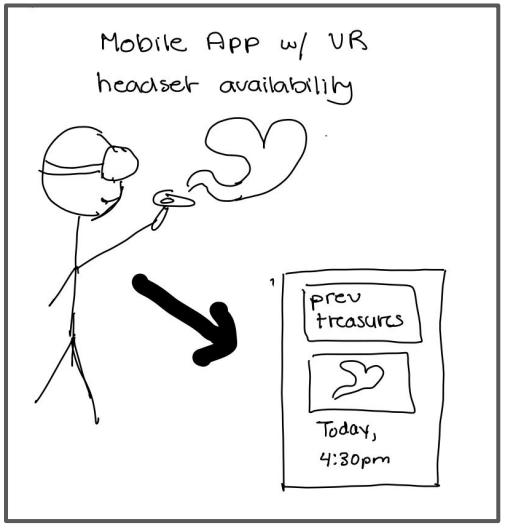


VR HEADSET

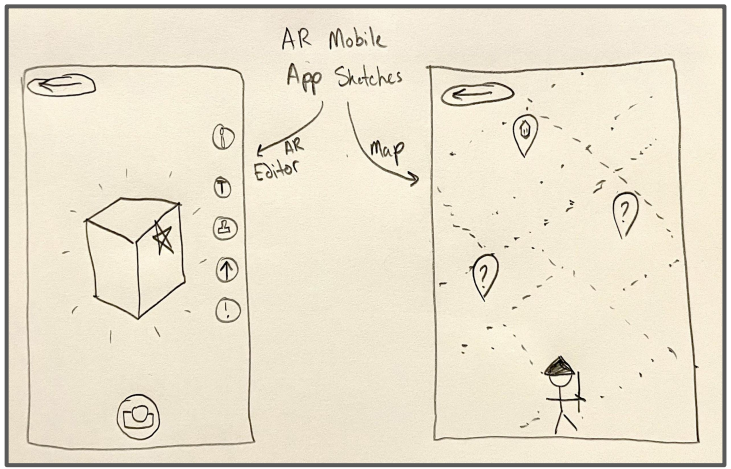

object only visible in VR

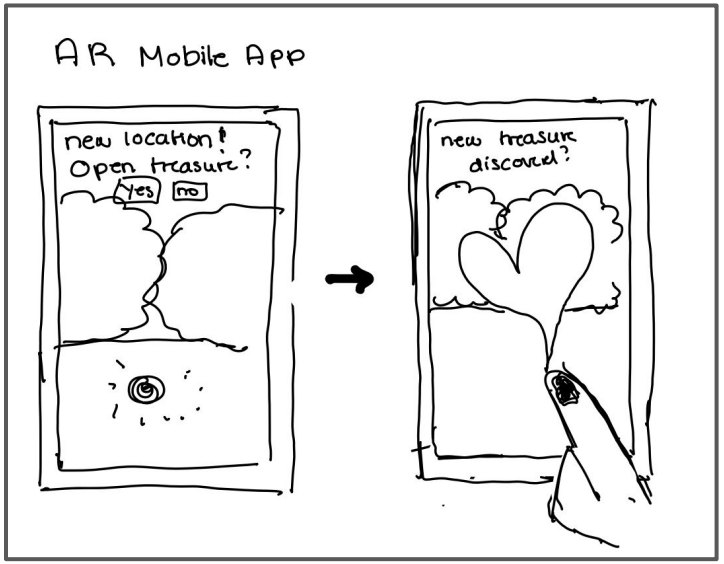

VR head set


Look at later


Mobile App w/ VR headset availability
prev treasures
Today, 4:30pm

AR MOBILE APP





Map-Based Exploration

AR Glasses

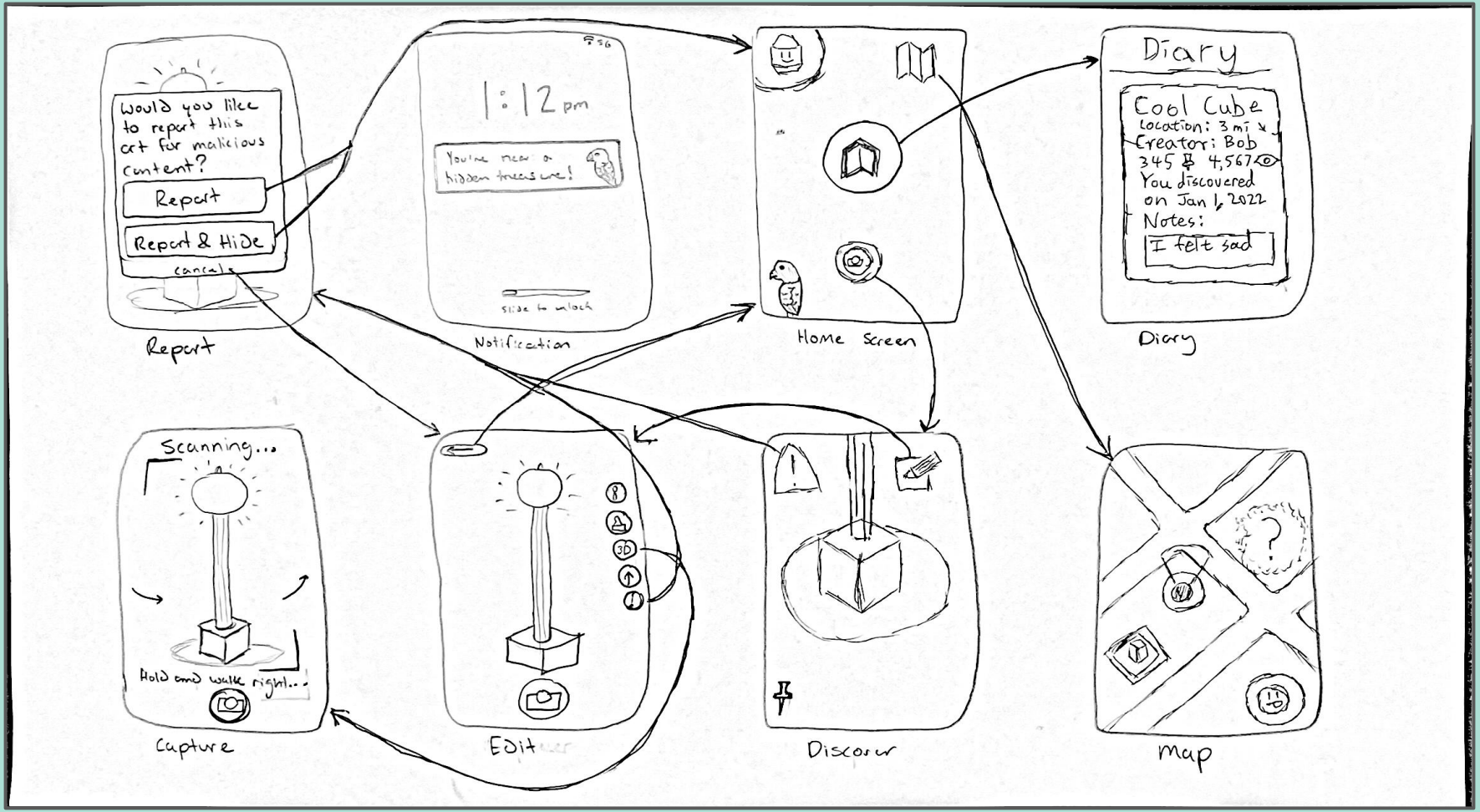
AR Mobile App

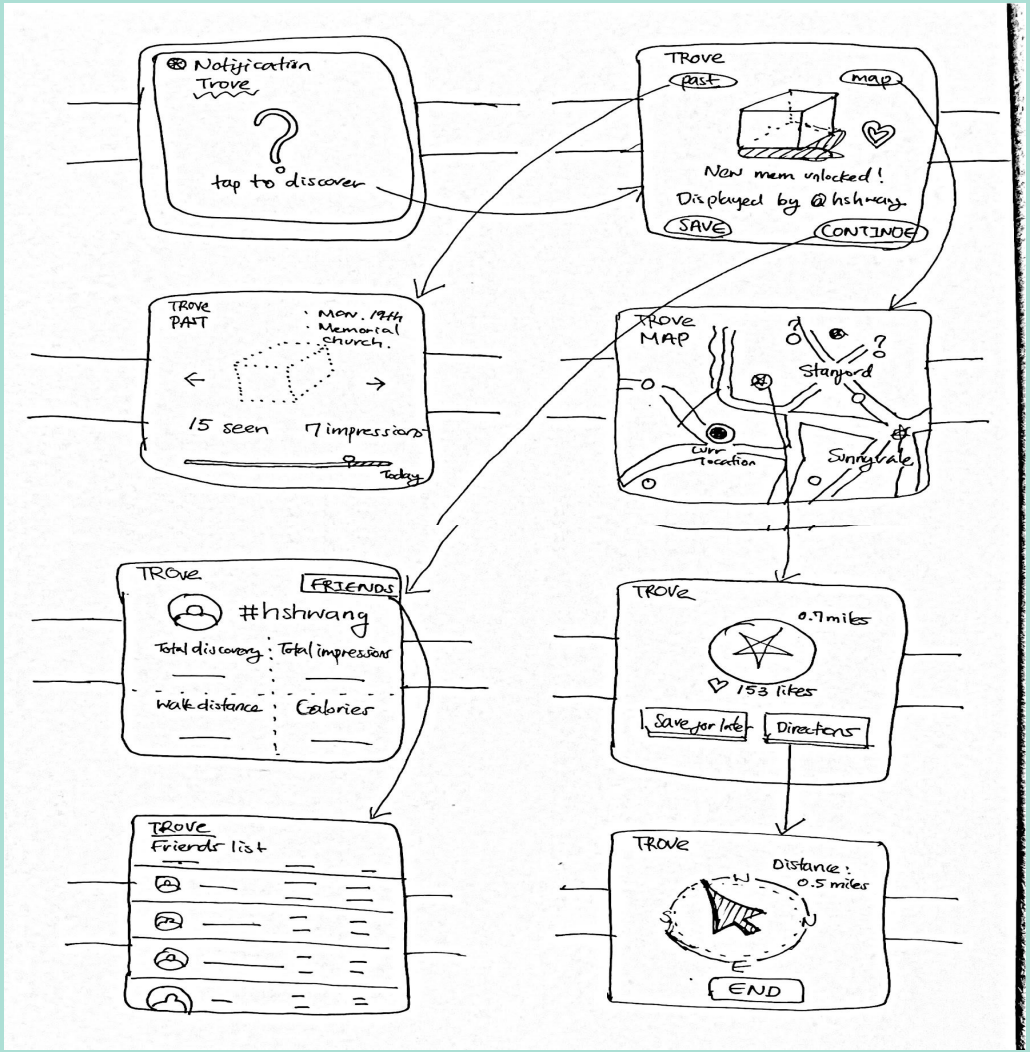
Smart Watch

Mobile App w/ VR Headset Compatibility

Smart Watch

AR Mobile App


Would you like to report this art for malicious content?
Report
Report & Hide
cancel
Report
1:12 pm
You're near a hidden treasure!
slide to unlock
Notification
Home Screen
Diary
Cool Cube
Location: 3 mi
Creator: Bob
345 4,567
You discovered on Jan 1, 2022
Notes:
I felt sad
Diary
Scanning...
Hold and walk right...
Capture
Editor
Discover
Map


Notification
Trove
tap to discover
TROVE
past
map
New mem unlocked!
Displayed by @hshwang
SAVE
CONTINUE
TROVE
PAST
Mon. 19th
Memorial
church.
15 seen
7 impressions
Today
TROVE
MAP
Stanford
Curr
location
Sunnyvale
TROVE
FRIENDS
#hshwang
Total discovery
Total impressions
walk distance
Calories
TROVE
0.7miles
153 likes
Save for later
Directions
TROVE
Friends list
TROVE
Distance:
0.5 miles
N
S
E
END

SMART WATCH

PROS

Easy to wear; portable

Encourages mobility; can capture mobility measurements

Users are familiar with using wearables

Simple integration of map/navigation and notification system

CONS

Small screen makes it difficult to include critical features (ex: drawing on/editing an AR piece, scanning in an object)

Integration of AR + Smart Watch isn't common

AR MOBILE APP

PROS

Most people have mobile devices

Ability to integrate map and notification system

Quick access to view logged art/memories

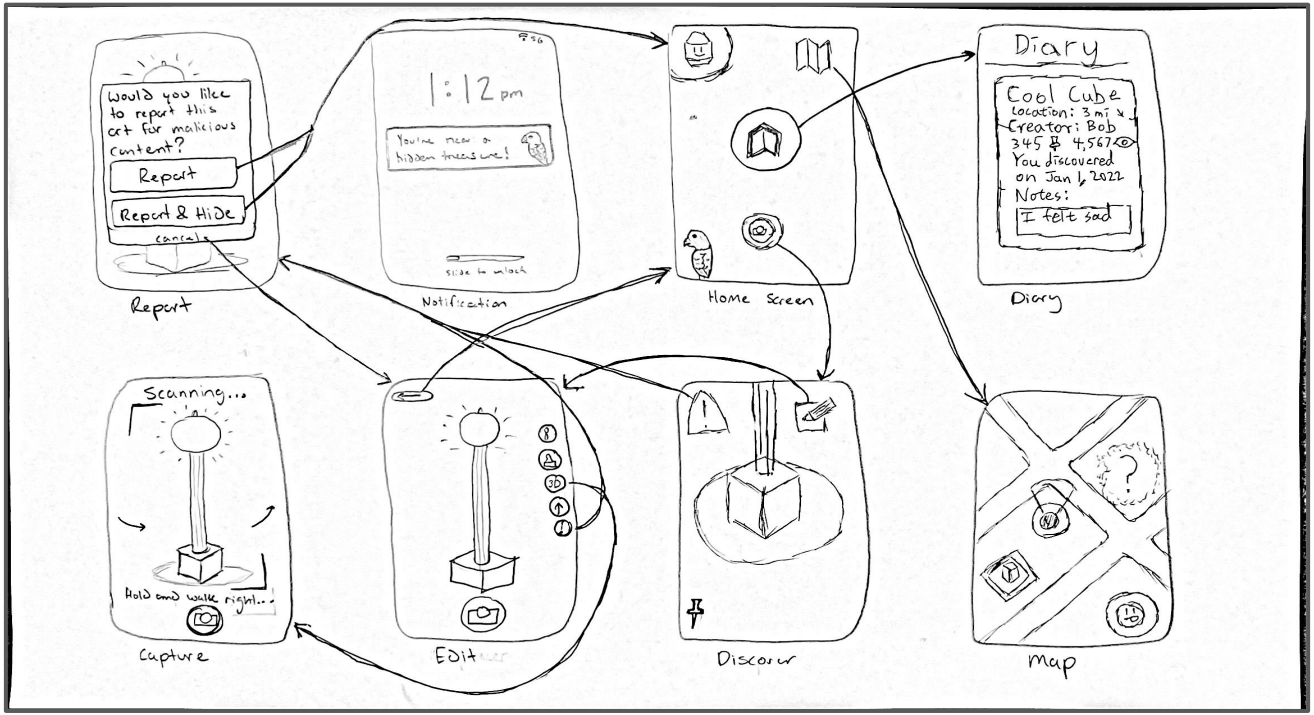
Encourages spontaneity to explore environment; can implement more interactive elements

CONS

Not all phones support AR

Smaller screen makes it difficult to edit AR pieces

SELECTED INTERFACE - AR MOBILE APP

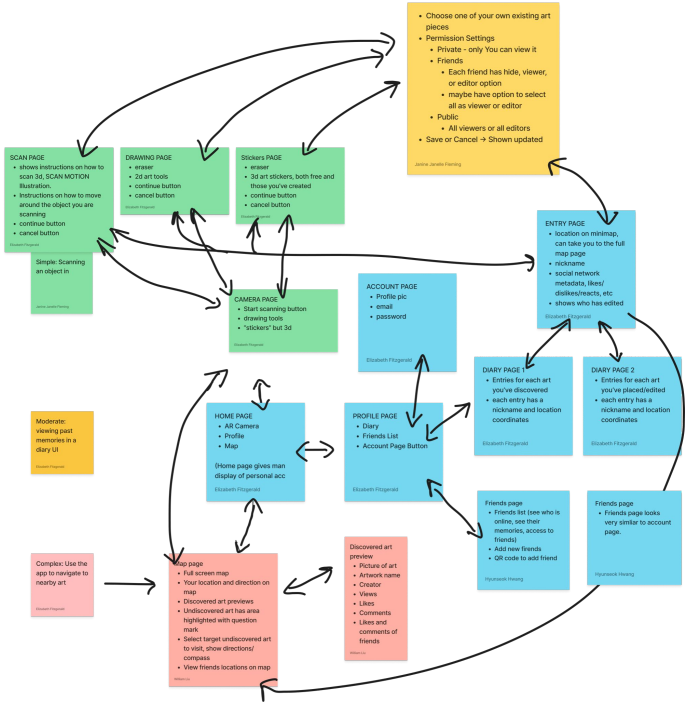


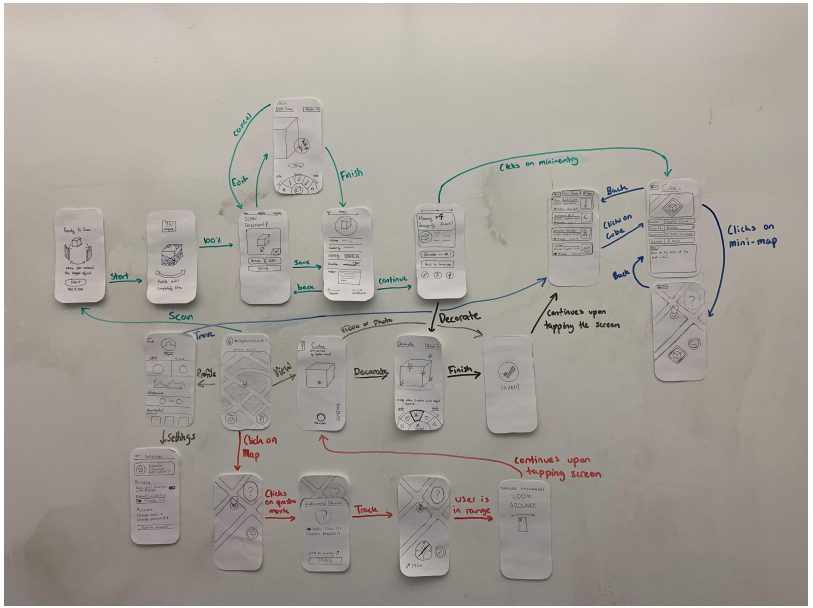
02

OUR LOW-FI PROTOTYPE

A review of it’s design and our task flows

PROTOTYPE CONSTRUCTION





FEATURES AND INTERACTIONS

Map - Shows user location and AR pieces (i.e treasures) nearby, both discovered and undiscovered

Social Network - Add your friends and access treasures they've liked or created; share location of treasures you've created with your friends

Diary (i.e Trove) - Records all of the pieces you've created or discovered. Each entry has a name, location coordinates, description, and view/edit permission settings

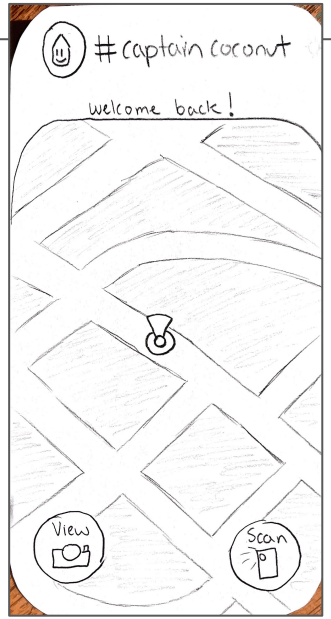
Camera/Decoration Page - Scan in objects from the real world to create your own treasure. Draw or add stickers to decorate.

TASKS

Simple: Create your own treasure via scanning in a real-world object.

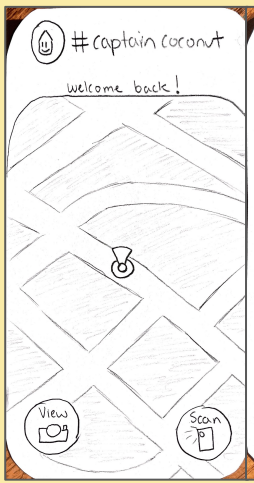
Moderate: Find a past treasure you created and edit the description.

Complex: Locate an undiscovered location nearby and save it

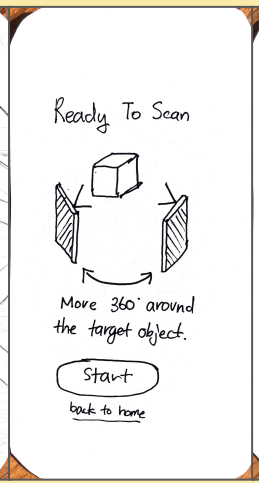


Homepage

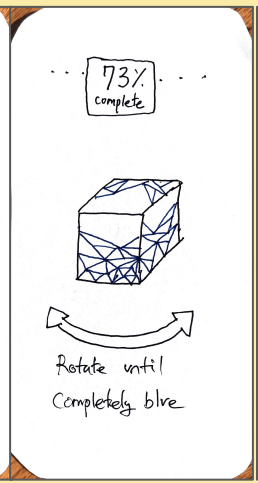
SIMPLE TASK



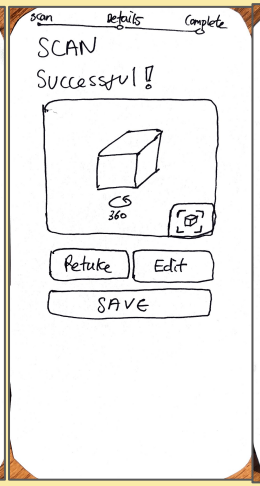
User starts at the homepage. Presses the scan button



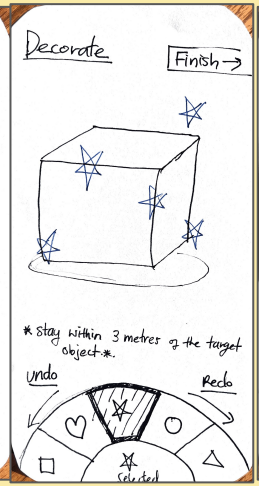
Scanning instructions + prompts user to start



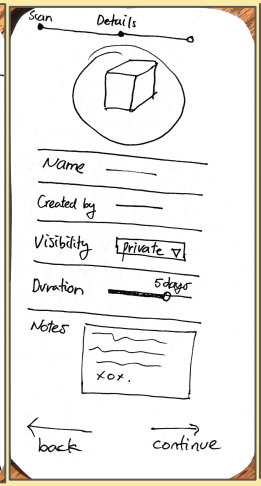
Progress bar of scanning



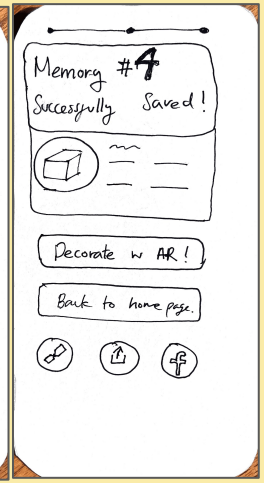
Scan is successful; Options to edit, retake or save



Decorating page where user can add stickers to scanned object

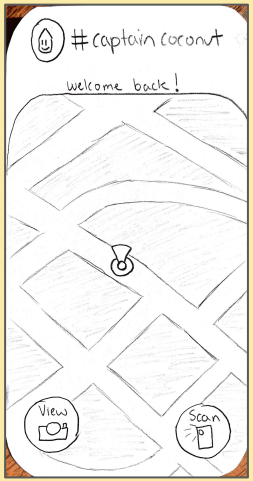


New entry log to set visibility and description

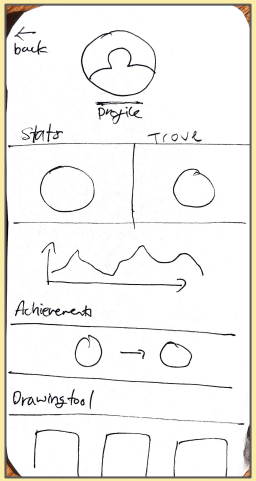


New entry saves directly into the Trove

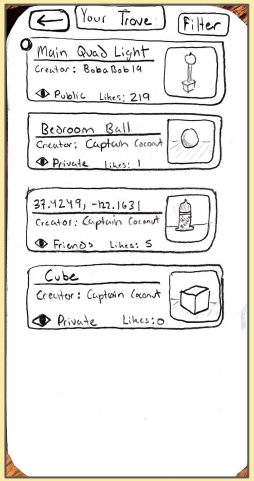
MODERATE TASK



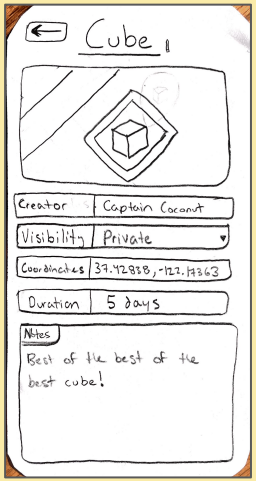
User starts at the homepage. Presses the profile page at the top.



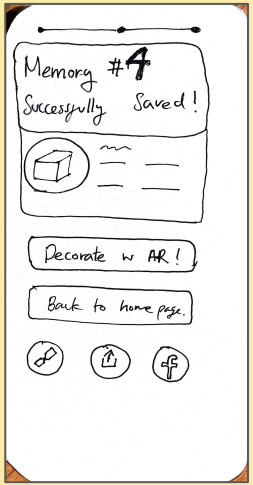
Profile appears. To access past entries, user clicks on Trove.



Log of collected treasures. Click most recent memory at bottom

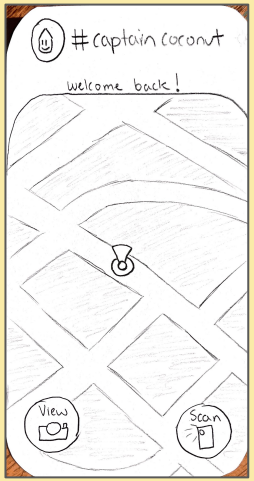


Entry details. User can edit the description.

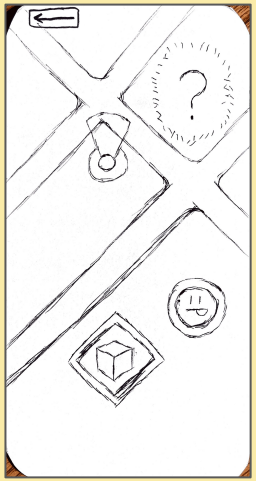


Once done editing, the treasure is saved again.

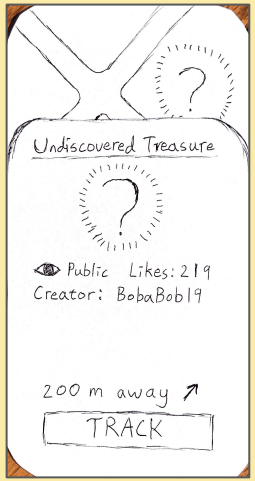
COMPLEX TASK



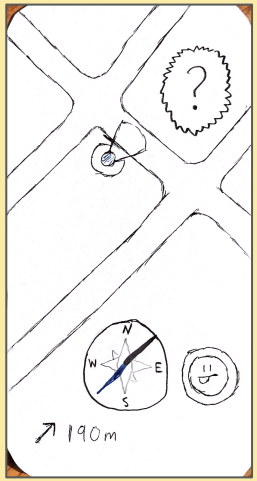
User starts at the homepage. Presses the view button.



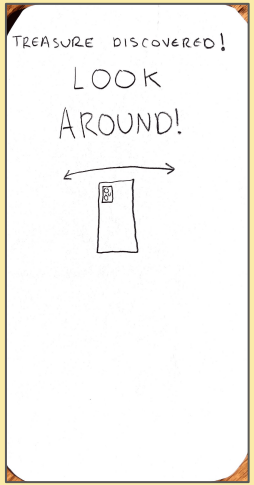
Map with nearby locations shown. Click on unknown treasure



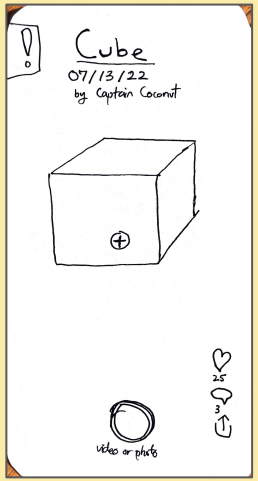
Info card of unknown treasure pops up. To locate, user presses track



Compass and distance counter leads user to location



Once near unknown treasure, wave your phone to uncover it



Object is discovered; User has option to save and edit new treasure.

03

USABILITY TESTING

Methodology and Results

TARGET AUDIENCE

1) People who are artists or interested in viewing art

2) Teens, Young Adults, and Millenials - most familiar with social media apps

Goal: Find younger participants who are engaging with art/architecture around them

PARTICIPANTS

Name: Claire

Age: Young Adult

Cantor Arts Museum visitor

Name: Alex

Age: Young Adult

Uni Student interested in Product Design

Name: Yeulige

Age: Young Adult

Tourist visiting Stanford's campus

Name: Julio

Age: Young Adult

Photographer, Heavy Snapchat user

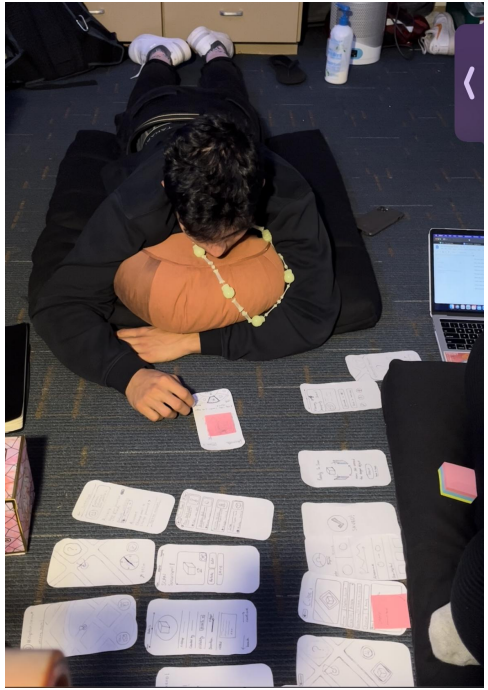
USABILITY GOALS AND KEY MEASUREMENTS

1) Efficiency - How seamless was it to navigate our tasks?

2) Pleasurable - Did the participants enjoy the experience?

Values in mind: Creativity/Creative Expression, Mobility, Safety

TESTING PROCEDURE



KEY FINDINGS - SUCCESSES

Overall, UI was simple and intuitive

Map and “treasure hunting” aspect was enjoyable

Customization of your created treasures made it more personable

KEY FINDINGS - FAILURES

Confusion on the purpose of our application

UI of Decoration Page was difficult to use

Accessing the Trove felt too cumbersome

Some critical UI icons didn’t make sense (ex: Profile icon, Compass)

Mistakes in scanning in an object

04

DISCUSSION

Implications and What’s Next

THANKS FOR LISTENING!

Any Questions?

APPENDIX

Pros and Cons List here

Script for Testing here

Log of Critical Incidents here

Sketching Report here

Consent Forms here

Icons created by Freepik from Flaticon