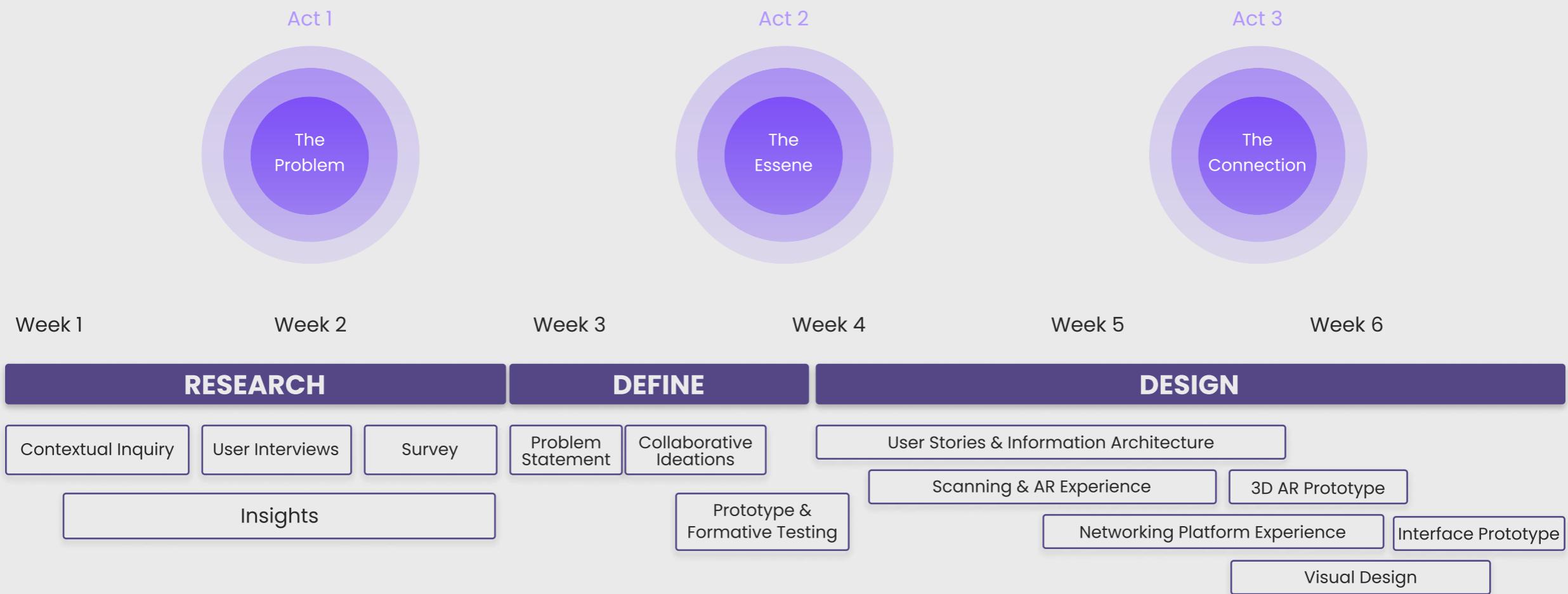


Detailed Case Study

Design Process

Structure of this case study

Over the six-week period, we immersed ourselves in different aspects of product design. This experience inspired us to structure the case study into a three-part narrative:



Act 1 : The Problem

Our story begins with understanding the challenges faced by Sculpture Art Community

Research & Insights

The sculpture art community is a dynamic collective encompassing diverse individuals. Our explorative research was aimed to decipher this intricate community and pinpoint challenges with potential interventions.

From the results of our primary research, we derived the following insights :

1. Importance of Networking within community

- **Sculpture Artist Responsibilities:** Beyond artistic growth, sculptors manage multifaceted roles including studio oversight, team coordination, project handling, inventory control, tools management, and financial planning.
- **Connection Building:** Artists need to foster relationships with skilled team members, managers, suppliers, buyers, clients, galleries, and more to thrive in their career.

2. Reliance on traditional networking

- **Networking Approaches:** Sculpture artists often rely on word of mouth, public events, and art society memberships, leading to isolated network clusters that hinder new connections.
- **Digital Outreach Challenges:** Many sculpture artists are uncertain about effective social media marketing techniques.

But what prevents sculpture artists from networking effectively on online platforms?

With more in-depth inquiry, we identified that

66 *The primary challenge is the 2D nature of existing social networking platforms.* 99

- **Representation Challenge:** 3D sculpture art loses its essence when presented on 2D screens.

- **Engagement Issue:** This diminished experience leads to fewer genuine interactions on social media platforms.

User Persona, meet the characters in our storyboards

**Satish**

The established artist

Age : 43

Profession: Professional Sculptor with 21 years of experience

About :

With 20+ years in sculpture, Satish frequents major exhibitions and operates a studio visited by art lovers. His deep art community ties open numerous opportunities.

Personality and Qualities :

Even as a master in the realm of sculpting, he continuously seeks novel inspirations and materials to innovate in his craft.

**Aditya**

The emerging artist

Age : 23

Profession: Art School Graduate

About :

Aditya is an art student at MITID Pune. While his passion shines through his remarkable creations, he hasn't showcased them extensively. Currently in the early phase of networking, he's keen on collaborating with established artists to elevate his work.

Personality and Qualities :

He embraces an experimental approach in her creations, and is eager to acquire new artistic skills.

**Darshita**

The art enthusiast

Age : 31

Profession: Hotel Manager

About :

Darshita is an avid art collector, frequently visiting exhibitions and scouting for fresh talent. Her hotel displays local art, and she tries to melds modern design with classic artistry in its ambiance.

Personality and Qualities :

Inquisitive nature, constantly explores varied artistic expressions. Deeply appreciates creativity, integrates art into everyday experiences.

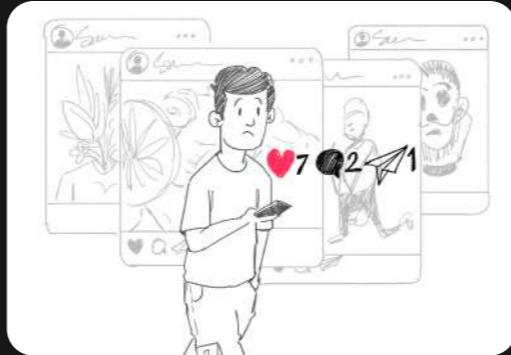
Storyboard

Act 1: The Problem

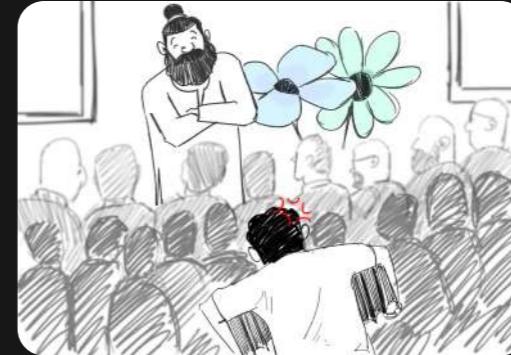
Aditya



1. Freshly graduated, Aditya aims to collaborate with top artists but lacks community ties and networking knowledge.



2. He posts his portfolio on social media, yet feels his work remains unnoticed.



3. At busy art events, Aditya finds it hard to show his work and connect with leading artists.

Satish



1. With years of sculpting behind him, Satish feels creatively unfulfilled and struggles to find fresh ideas.



2. He searches online for new talent but rarely feels inspired.

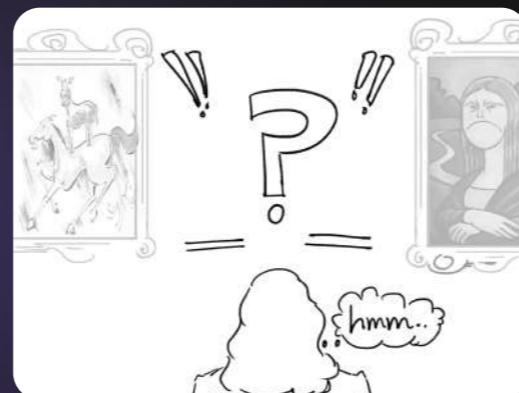


3. At art events, he generally finds works he's already seen.



4. He only gets meets artists he already knows, missing out on emerging talent.

Darshita



1. Darshita is troubled by the vacant area in her hotel lobby.

Act 2 : The Essence

Upon pinpointing the issue, we employ design methods to seek innovative interventions.

Ideations & Usability Testing

Based on research insights, we redefined the design goal to

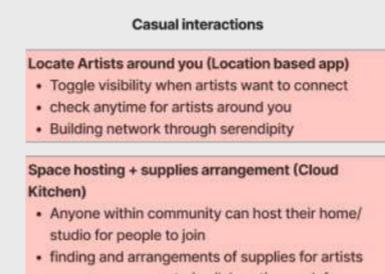
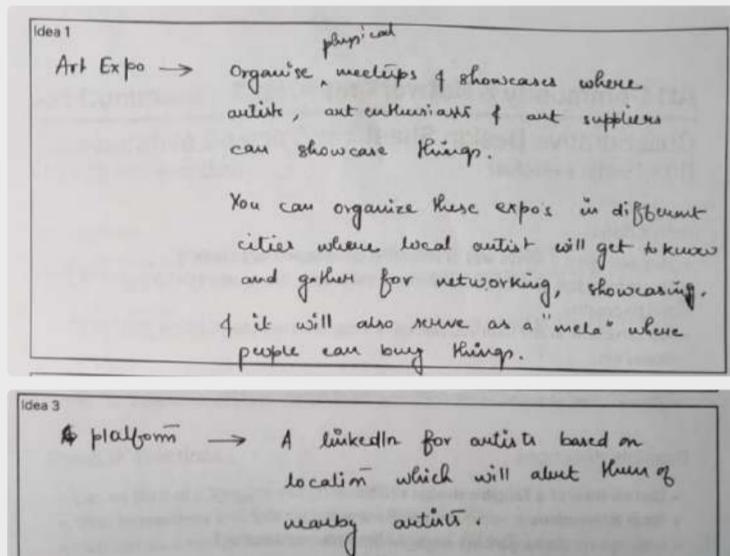
66 How can we help Sculpture Artists build Genuine Connections through internet based social networks?

99

Collaborative Ideation Activity to generate a pool of ideas

- Through collaborative brainstorming with artists and designers, we gathered a wide range of ideas for our solution.

- After sifting through and blending many perspectives, and integrating our insights, we identified a handful of foundational ideas for our solution.



An Augmented reality based social networking platform to share 3D feeling of experiencing sculpture art

- Artist can scan their sculptures
- Post 3d artworks on the network
- Others can see the work from their living rooms
- If interested, they can connect with the artist
- Create more engaging and genuine connections

Final Idea

Formative Usability Testing

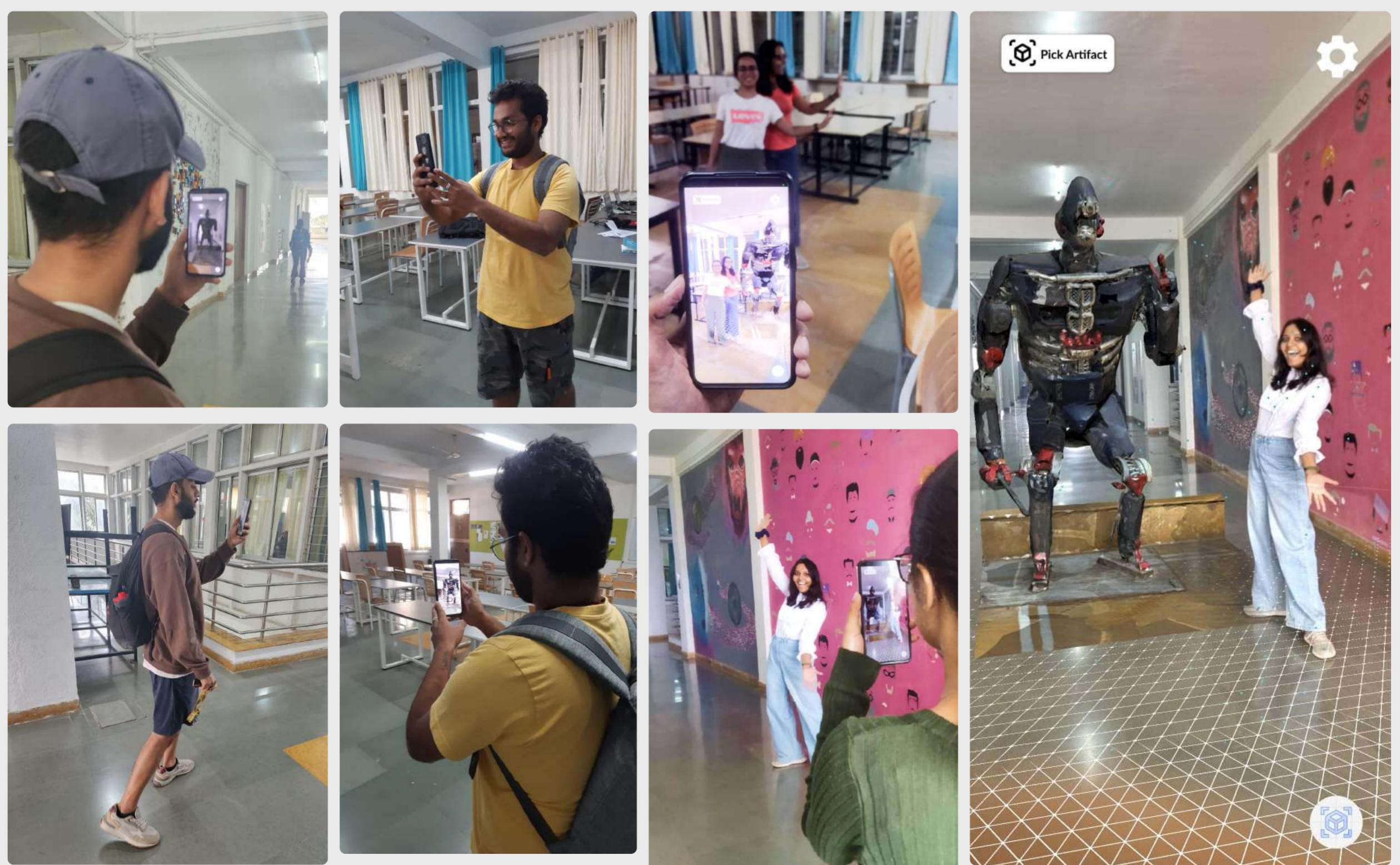
In order to verify our hypothesis '**the experience of sculpture art varies significantly between 2D images and 3D AR environments**', developed a prototype, 3D scanned a sculpture and carried out an experiment.

Method :

- Participants were split into two groups.
- The first group initially viewed the sculpture in 2D, followed by 3D AR, while the second group experienced the opposite order.
- Feedback was gathered for Understandability, Impressiveness, Memorability, Engagement & Overall Rating Likert Scales of 1 – 10

Conclusion :

Through the results of Wilcoxon Signed-Rank Test, we can conclude that there is a significant difference in experience of sculpture art between 2D screen and 3D AR space.



Moving forward, our design process splits into 3 parallel design paths

Scanning & AR Experience

Networking Platform Experience

Visual Design & Prototyping

In Act 2, we will present Spatial Design for Scanning & AR Experience

Scanning Artwork & AR Experience Design

Defining Constraints :

User Constraints :

- Have mid to high tech savviness with mobile devices
- Age : 20 - 60 years
- Need assistance with capturing proper 360 video data

Sculpture Scale:

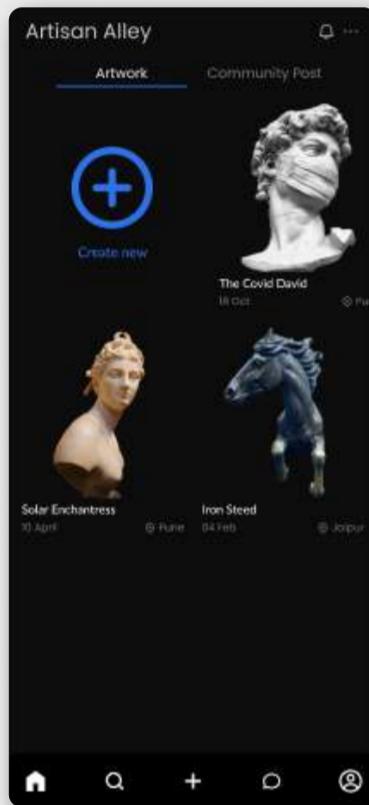
- Smallest : 5 cm, based on normal focal length of smartphone cameras
- Largest : 200 cm (6.5 feet), based on average human arm reach

'Neuralanglo', video to 3D algorithm :

- Requires moderately stable footage
- Requires top, mid and low angles to generate good 3D model

Onboarding and Education

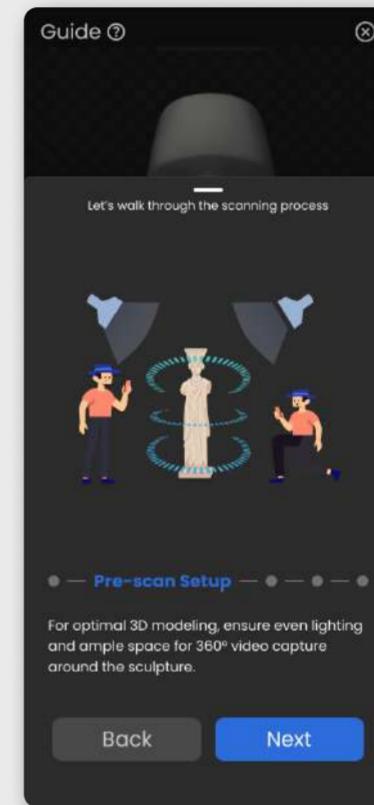
When users scan for the first time, they encounter the following beginner walkthroughs.



Create Screen



Walkthrough 1



Walkthrough 2

- This screen allows artists to create new artifact
- Users can preview and manage earlier scanned artifacts

- Introducing the 'Digital Molding' mental model
- Sculpture artists are well-acquainted with the traditional molding process used for duplicating sculptures.

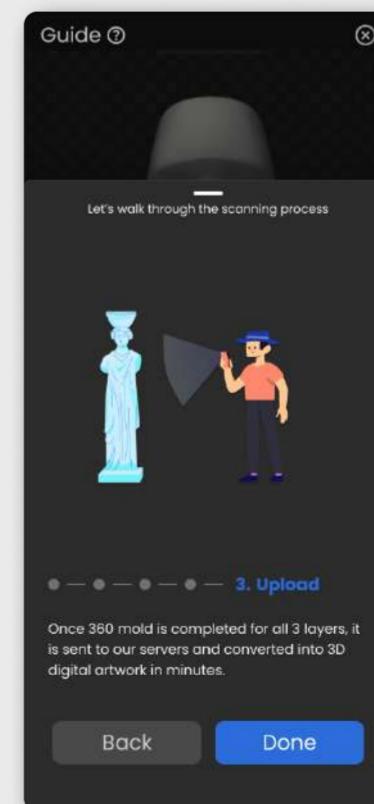
- Pre-scan Setup Instructions
- A good Scan requires decent lighting and enough space to take a 360 video.



- Scanning Step 1
- To assist users in capturing a 360° video of the sculpture, we require a preliminary boundary around it for overlaying guidance in subsequent stages.
- We employ the user familiar mental model of 'Scaffolding' to surround the sculptures.



- Scanning Step 2
- Primary user action.
- AR visual overlays guide through three scan layers: top, mid, and low.
- Completion of each scan part provides visual and haptic feedback.
- Feedback signifies the formation of a 'Digital Mold'.



- Scanning Completion:
- Post-scanning, 360 video is uploaded to the platform server.
- 3D artifact generation begins.
- Utilizes advanced algorithms, such as 'Neuralanglo', where process completes within minutes.

Walkthrough 3

Walkthrough 4

Walkthrough 5

3D AR Prototype : Scanning Process

We developed a 3D scanning process prototype using 'Bezel', accessible [here](#).

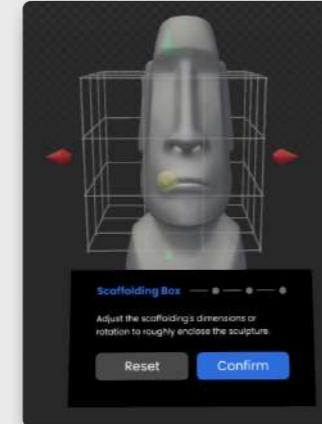
Alternatively, view screen recording [\[here\]](#)



Scan to view in AR on mobile.
(On AR supported mobile browsers)



1. User prompted to scan environment till scaffolding box appears



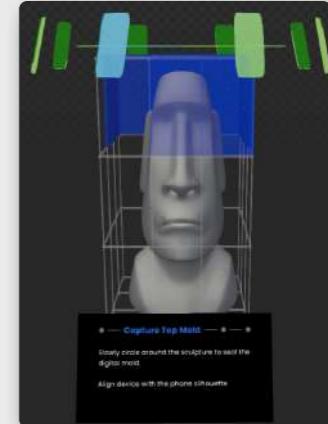
2. Enclose sculpture in scaffolding box



3. Adjust scaffolding box size & confirms



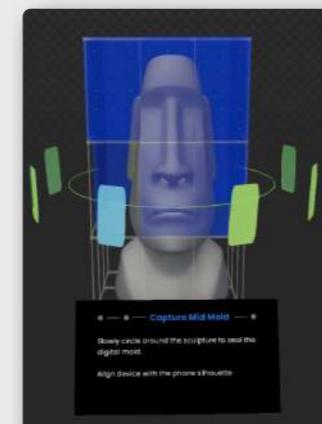
4. Scanning guides appear for top layer with first angle highlighted



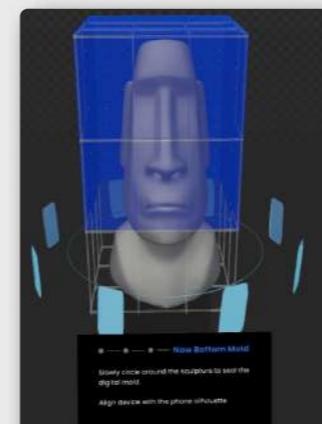
5. Digital mold appears as user captures sculpture



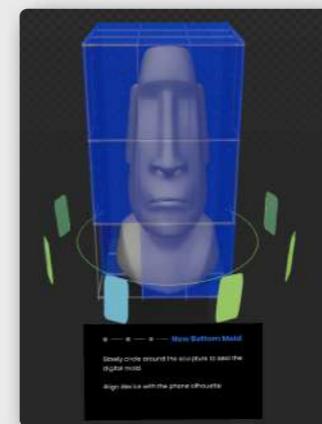
6. Middle mold guides appears on completion



7. User captures middle mold



8. Bottom mold guides appears on completion



9. User captures bottom mold



10. User prompted to upload mold on completion

Storyboard

Act 1: The Essence

Aditya



Aditya spots an Artisan Alley ad, downloads it out of curiosity, and is captivated by what he finds.



He finds the scanning process impressively user-friendly and promptly begins digitizing all his creations.



Within days of uploading his projects, Aditya starts receiving likes and comments.

Satish



Satish spots the ad in a gallery and, feeling uninterested in everything else, opts to explore it



He's fascinated by the multitude of AR ideas he can experience right in his living room.

Darshita



As Darshita sips her morning coffee, she spots a poster for the app through the cafe's window and decides to give it a go



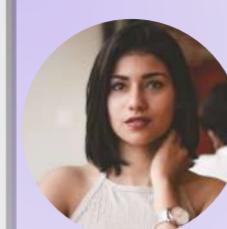
She's immediately captivated by the app's features and dedicates hours to exploring it

Act 3 : The Connection

At the heart of it, it's about forging bonds with others. We aim to design a seamless experience to foster these bonds.

Networking Platform Design

Needs and pain points of User Groups

 <p>Name : Satish Age : 43 Profession : Professional Sculptor with 21 years of experience Technology : iPhone 13</p> <p>With 20+ years in sculpture, Satish frequents major exhibitions and operates a studio visited by art lovers. His deep art community ties open numerous opportunities.</p> <p>Goals & Needs :</p> <ul style="list-style-type: none">• Desires increased recognition as an established artist.• Wants to connect with galleries and potential buyers.• Seeks exposure to new talent and fresh ideas. <p>Pain Points :</p> <ol style="list-style-type: none">1. Feels conventional social media fails to capture the true essence of his work.2. Believes current networking methods stifle fresh ideas.3. Aggravated by time-consuming online platforms lacking genuine engagement. <p>Personality and Qualities :</p> <ul style="list-style-type: none">• A master in the realm of sculpting.• Continuously seeks novel inspirations and materials to innovate in his craft. <p>Technological Proficiency :</p> <ul style="list-style-type: none">• Comfortable with basic mobile operations but not advanced computer tasks.• Preferred Device: Mobile	 <p>Name : Aditya Age : 23 Profession : Art Graduate Technology : OnePlus 9 Pro</p> <p>Aditya is an art student at MITD Pune. While his passion shines through his remarkable creations, he hasn't showcased them extensively. Currently in the early phase of networking, he's keen on collaborating with established artists to elevate his work.</p> <p>Goals & Needs :</p> <ol style="list-style-type: none">1. Seeks connections with established artists for learning.2. Aims for a broader platform to display his work.3. Open to mentorships, partnerships, and exhibition chances. <p>Pain Points :</p> <ol style="list-style-type: none">1. Believes limited connections keep her work unnoticed.2. Worries about establishing credibility without strong ties in the art realm. <p>Personality and Qualities :</p> <ul style="list-style-type: none">• Eager to acquire new artistic skills.• Embraces an experimental approach in her creations. <p>Technological Proficiency :</p> <ul style="list-style-type: none">• Tech-savvy, comfortable with both mobile and desktop platforms.• Preferred Device: Mobile	 <p>Name : Darshita Age : 35 Profession : Hotel Manager Technology : iPhone 14 Pro</p> <p>Darshita is an avid art collector, frequently visiting exhibitions and scouting for fresh talent. Her hotel displays local art, and she tries to melds modern design with classic artistry in its ambience.</p> <p>Goals & Needs :</p> <ol style="list-style-type: none">1. Seeks a platform for discover with both emerging and renowned artists.2. Aims to both engage directly with artists, and quietly admire their work. <p>Pain Points :</p> <ul style="list-style-type: none">• Finds current art platforms time-consuming without rewarding outcomes.• Struggles to discover new art and artists amidst the noise of existing platforms. <p>Personality and Qualities :</p> <ol style="list-style-type: none">1. Deeply appreciates creativity, integrates art into everyday experiences.2. Inquisitive nature, constantly explores varied artistic expressions. <p>Technological Proficiency :</p> <ul style="list-style-type: none">• Comfortable with both mobile and desktop platforms.• Preferred Device: Mobile
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Networking Needs the three user groups

Established Artist

1. Reputation & Recognition
2. Market Outreach: buyers directly & galleries
3. Mentoring & Teaching
4. Collaborations
5. Peer Engagement

Upcoming Artist

1. Guidance from experienced artists
2. Visibility of work
3. Collaborations
4. Build personal network
5. Sales & Earnings

Art Enthusiast

1. Discovery & Acquisition of artworks
2. Learning & Appreciation of the art form
3. Personalized Recommendations
4. Interactions & Discussions with other enthusiast and artists
5. Events discovery and Participation

User Stories : (Sample)

Based on user needs & goals, we created user stories to steer our design. Here we present only one sample story for each use case type here, as the complete version is extensive.

1. Profile Creation & Management

- As Established Artist, I want to create a comprehensive artist profile showcasing my past works so that visitors understand my artistic journey and caliber.

2. Showcase Artworks

- As Established Artist, I want to add description and add collaborators, so that viewers get more context about my work.

3. Discover Artworks

- As Established Artist, I want to discover and connect with emerging artists to expose myself to new ideas and potentially mentor them.

4. Networking & Engagement with community

- Personal Network :
 - As Established Artist, I want to directly communicate with artists, galleries and potential buyers so that I can discuss collaboration, exhibition opportunities and sales.
- Community Engagement :
 - As an Established Artist, I want to share my thoughts, life updates and discovered artworks, so that I can engage with the art community.

5. Platform Navigation & User Experience

- As Established Artist, I want an intuitive platform interface optimized for mobile use, allowing me to easily navigate, upload, and engage without the need for advanced computer skills.

1. Profile Creation & Management

- As Emerging Artist, I want to set up a captivating artist profile, emphasizing my potential and recent works, so that viewers recognize my passion and talent.

2. Showcase Artworks

- As Emerging Artist, I want to add description and add collaborators, so that viewers get more context about my artistic thought process.

3. Discover Artworks

- As Emerging Artist, I want to be informed of novel or unique art projects and collaborations so that I can be inspired and learn.

4. Networking & Engagement with community

- Community Engagement
 - As Emerging Artist, I want feedback and comments on my artworks from peers, mentors, and enthusiasts, allowing me to hone my skills further.
- Personal Network :
 - As an Emerging Artist, I want to initiate conversations with art enthusiasts and potential buyers to understand their preferences and market needs.

5. Platform Navigation & User Experience

- As an Emerging Artist, I want customization options for notifications, so I remain informed about critical events, opportunities, or messages without feeling overwhelmed.

1. Profile Creation & Management

- As an Art Enthusiast, I want to share information such as bio and location about me, so that I can share my personality with community.

2. Discover Artworks

- As an Art Enthusiast, I want to effortlessly search and explore various artists and their sculptures, so I can discover new pieces that align with my aesthetic sense.

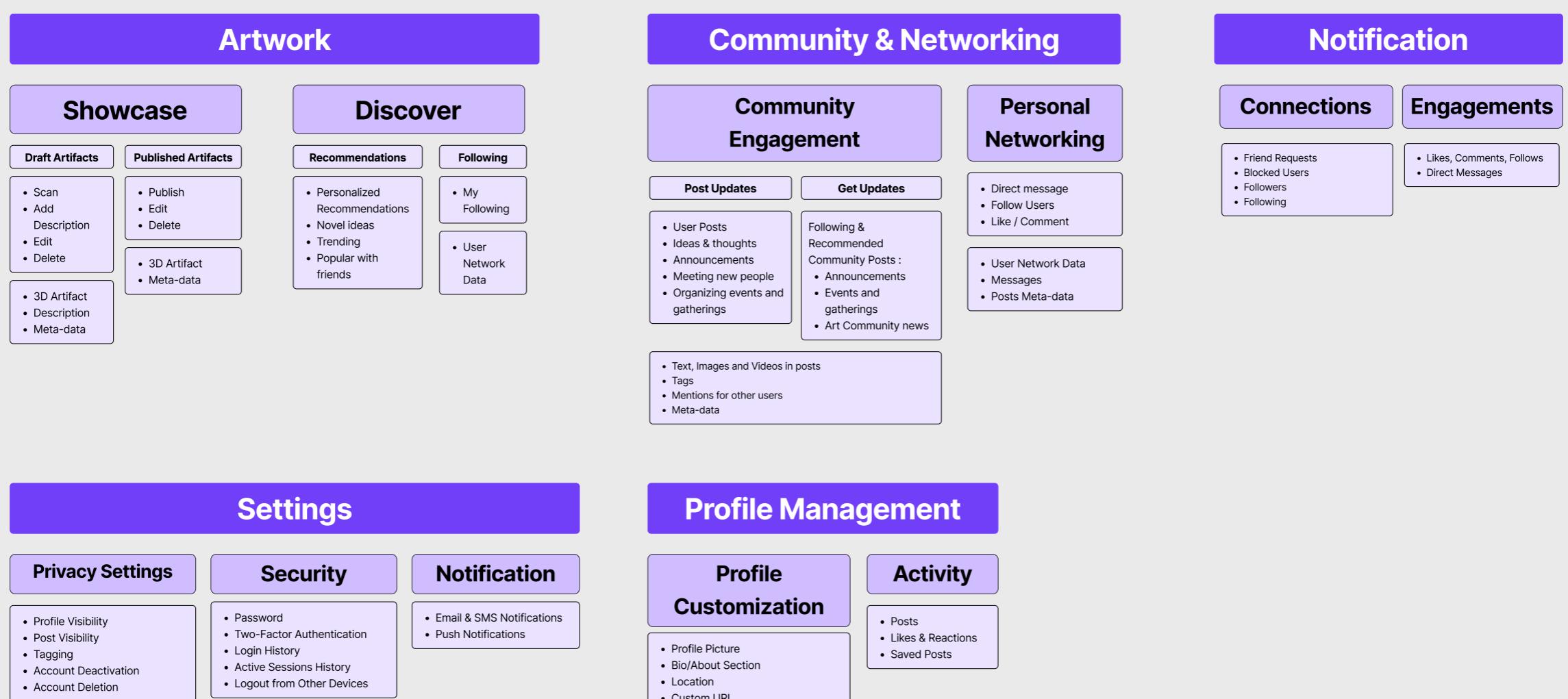
3. Networking & Engagement with community

- Community Engagement
 - As an Art Enthusiast, I want to join art discussions or forums to interact with other enthusiasts and broaden my understanding of the art scene.
- Personal Network :
 - As an Art Enthusiast, I want to directly connect with both established and emerging artists, allowing me to discuss potential acquisitions.

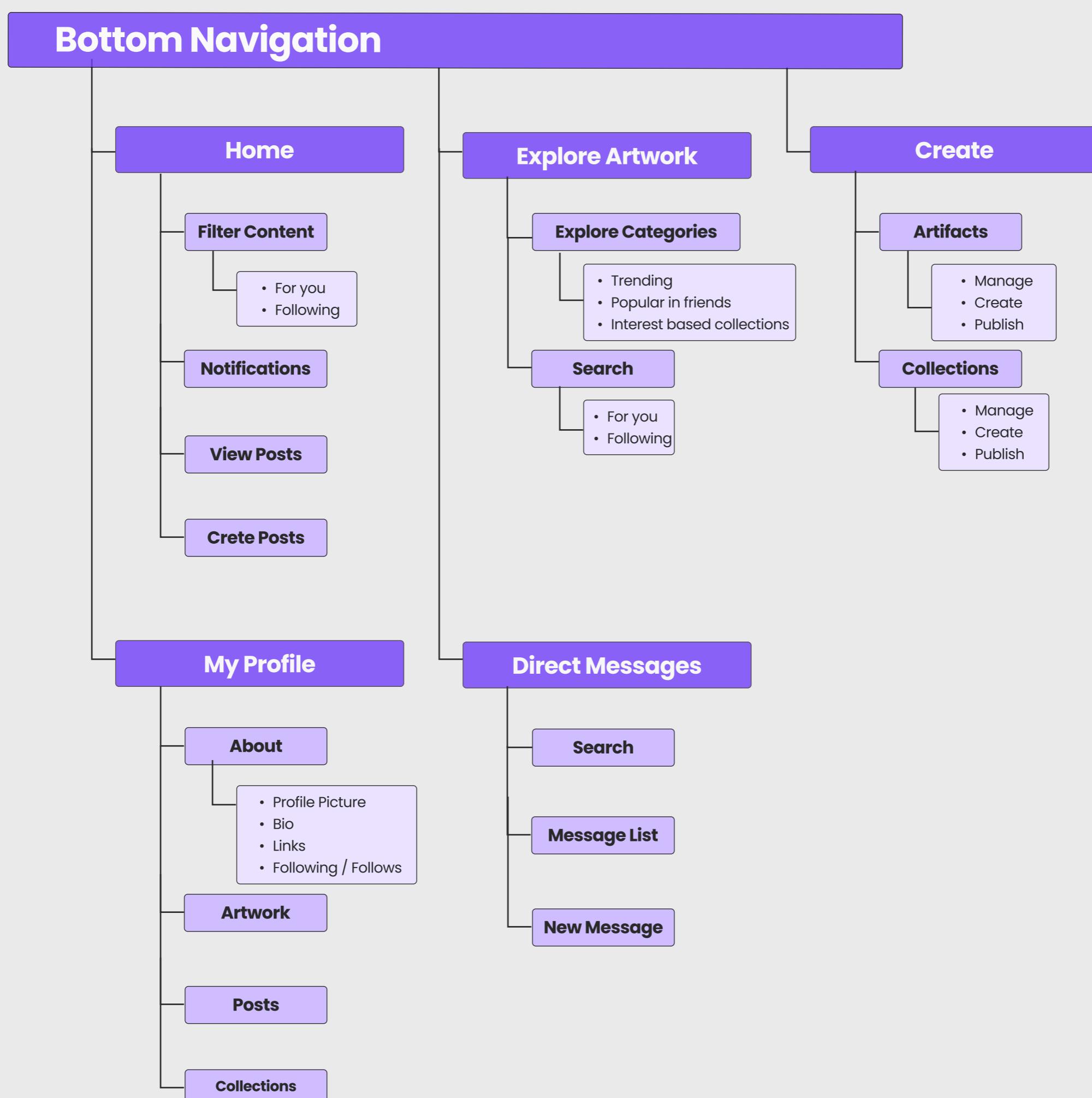
4. Platform Navigation & User Experience

- As an Art Enthusiast, I want an intuitive platform interface optimized for mobile use, letting me explore, network, and transact with ease during my busy schedule.

Content Inventory

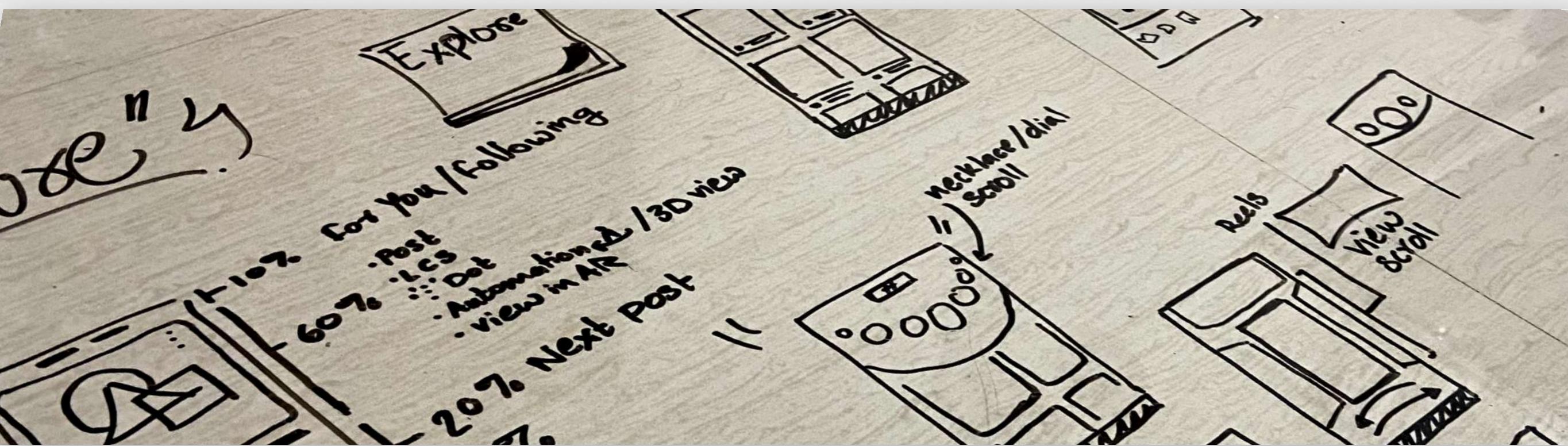


Information Architecture

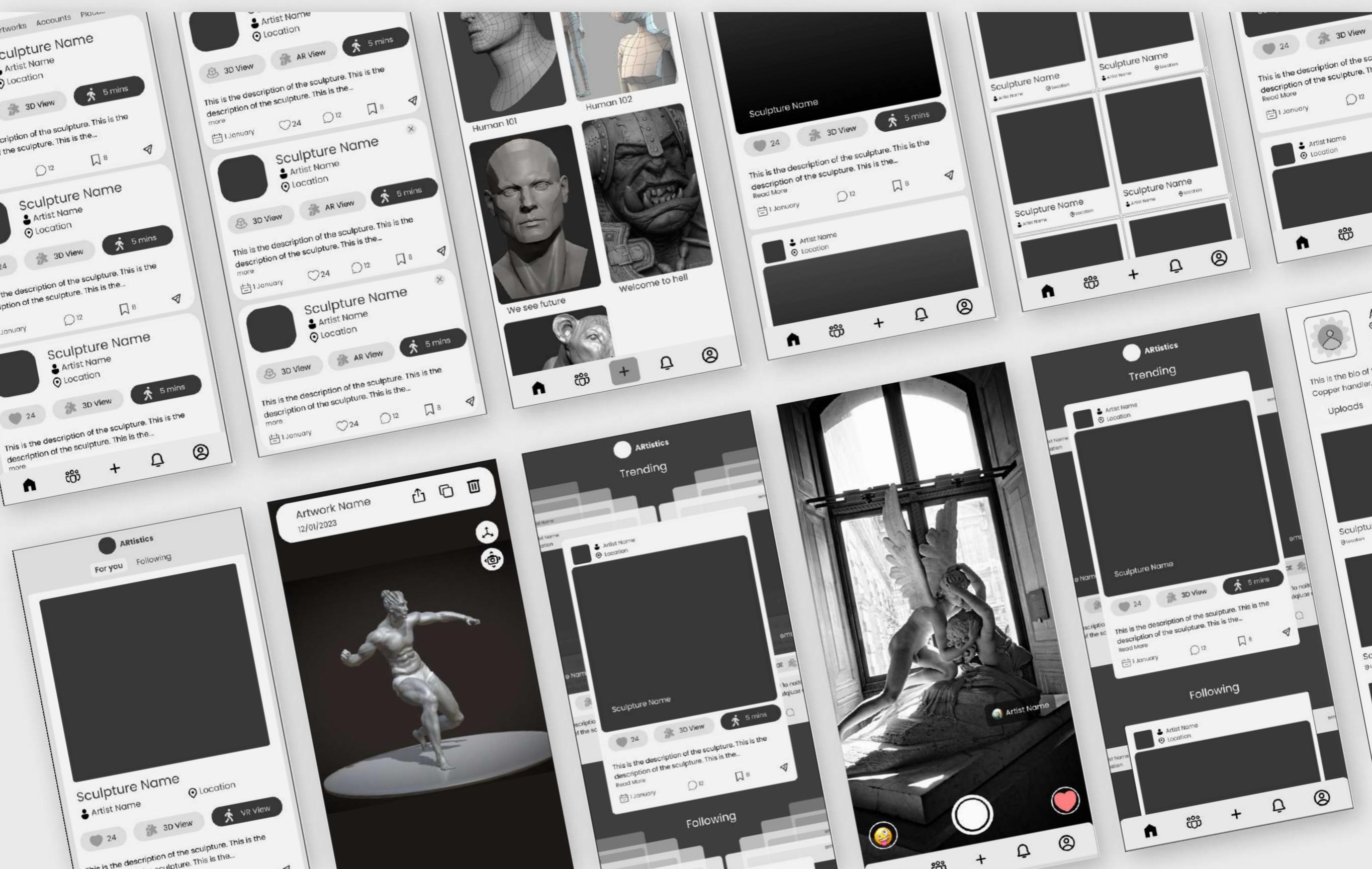


Interface Design

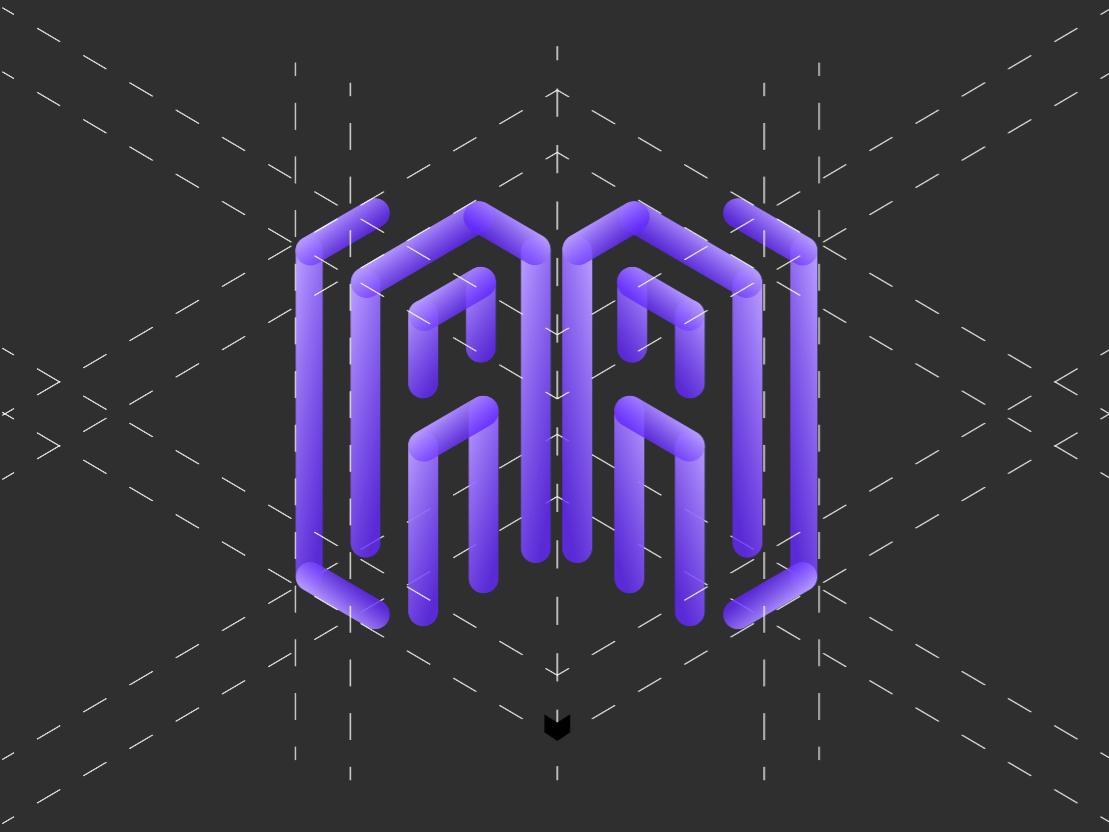
Sketching wireframe



To Figma wireframes



Visual Design

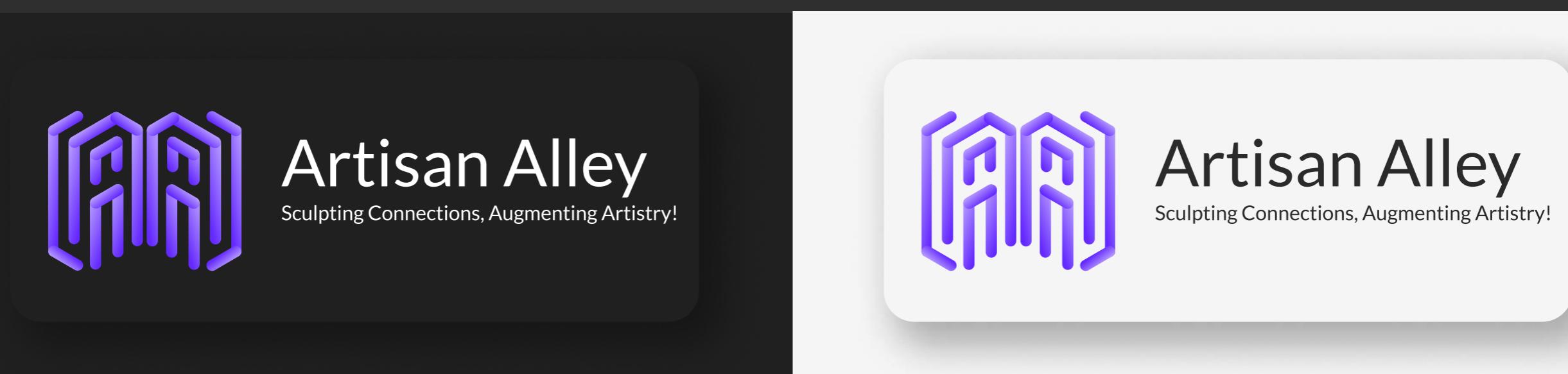
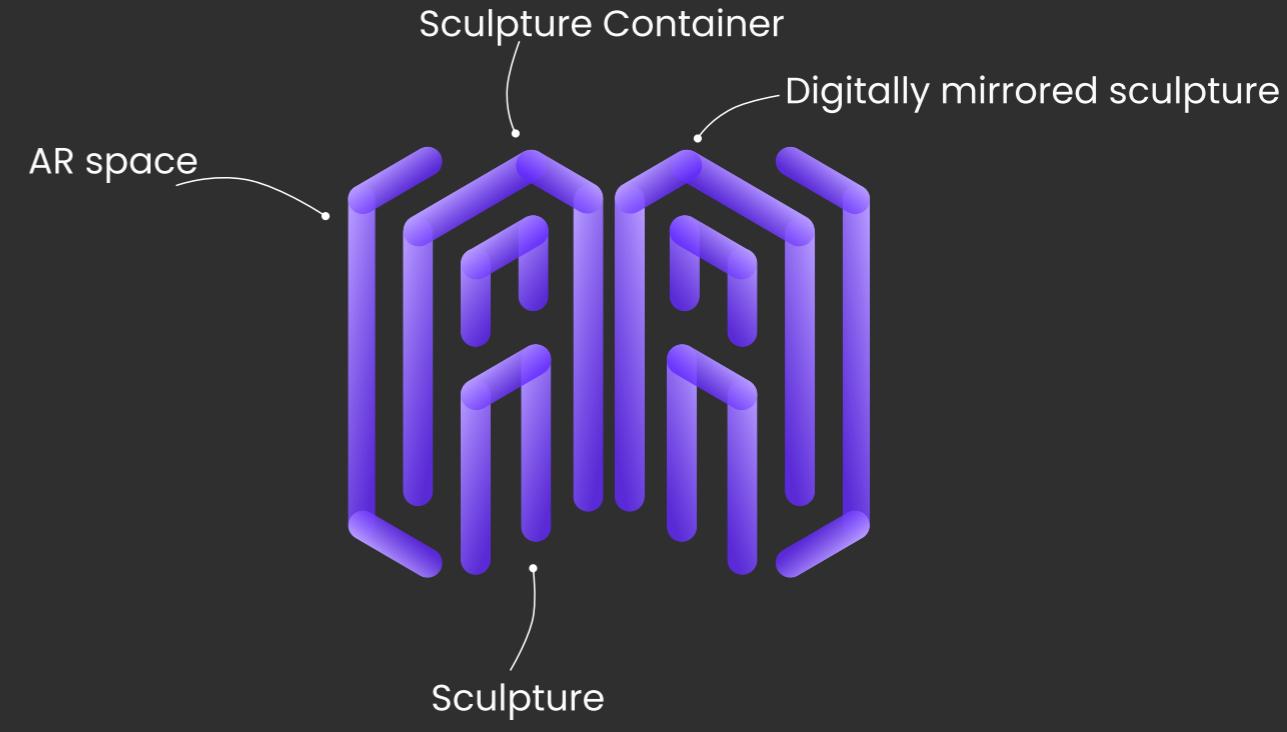


Concept

The logo embodies the seamless fusion of augmented reality (AR) space and the artistic essence of sculpture, all elegantly contained within a symbolic vessel. It stands as a beacon of innovation, creativity, and the harmonious convergence of the digital and physical dimensions.

Layout and structure

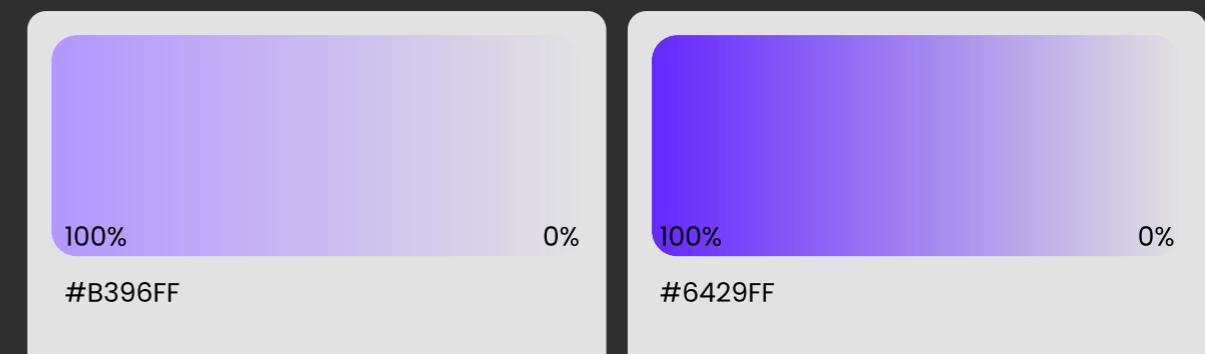
We've employed a 3D perspective with a cube as the foundational element to convey depth and three-dimensionality. This approach adds a dynamic and immersive aspect to the logo, enhancing its modern and innovative character.



Primary Colours



Primary Gradient



Typography

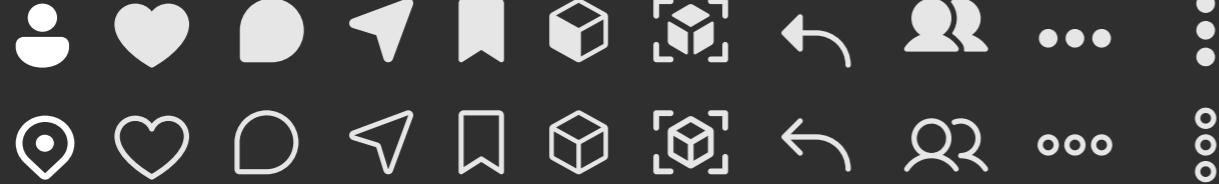
Lato UI Display

Aa Bb Cc Dd Ee Ff Gg Hh Ii Jj Kk Ll
Mm Nn Oo Pp Qq Rr Ss Tt Uu Vv
Ww Xx Yy Zz
0123456789

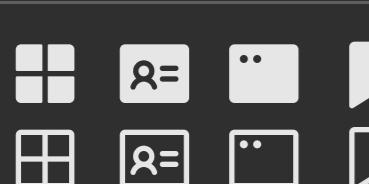
Heading 1 28px Bold
Heading 2
Heading 3
Heading 4

Aa

Post reactions



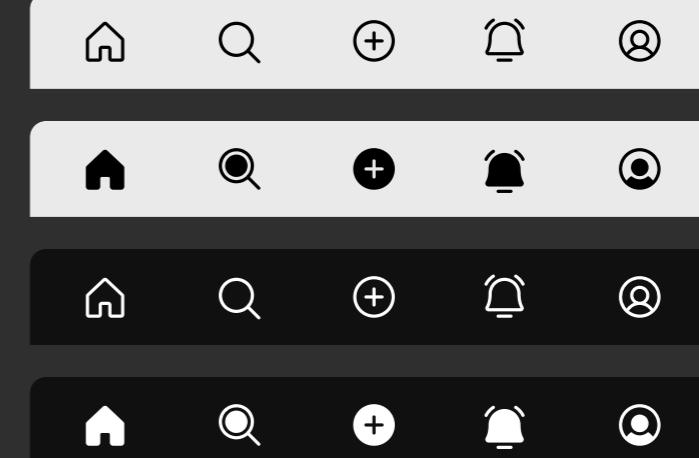
Profile feed



Editing icons

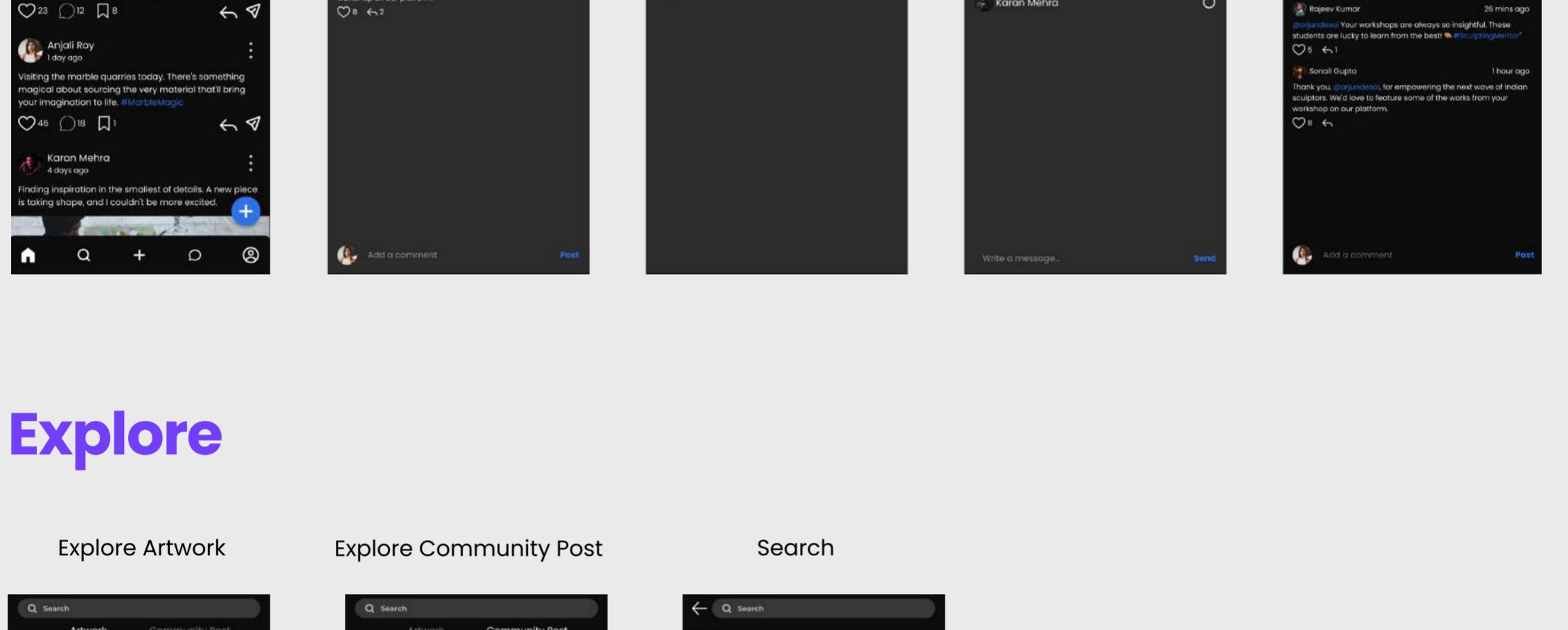
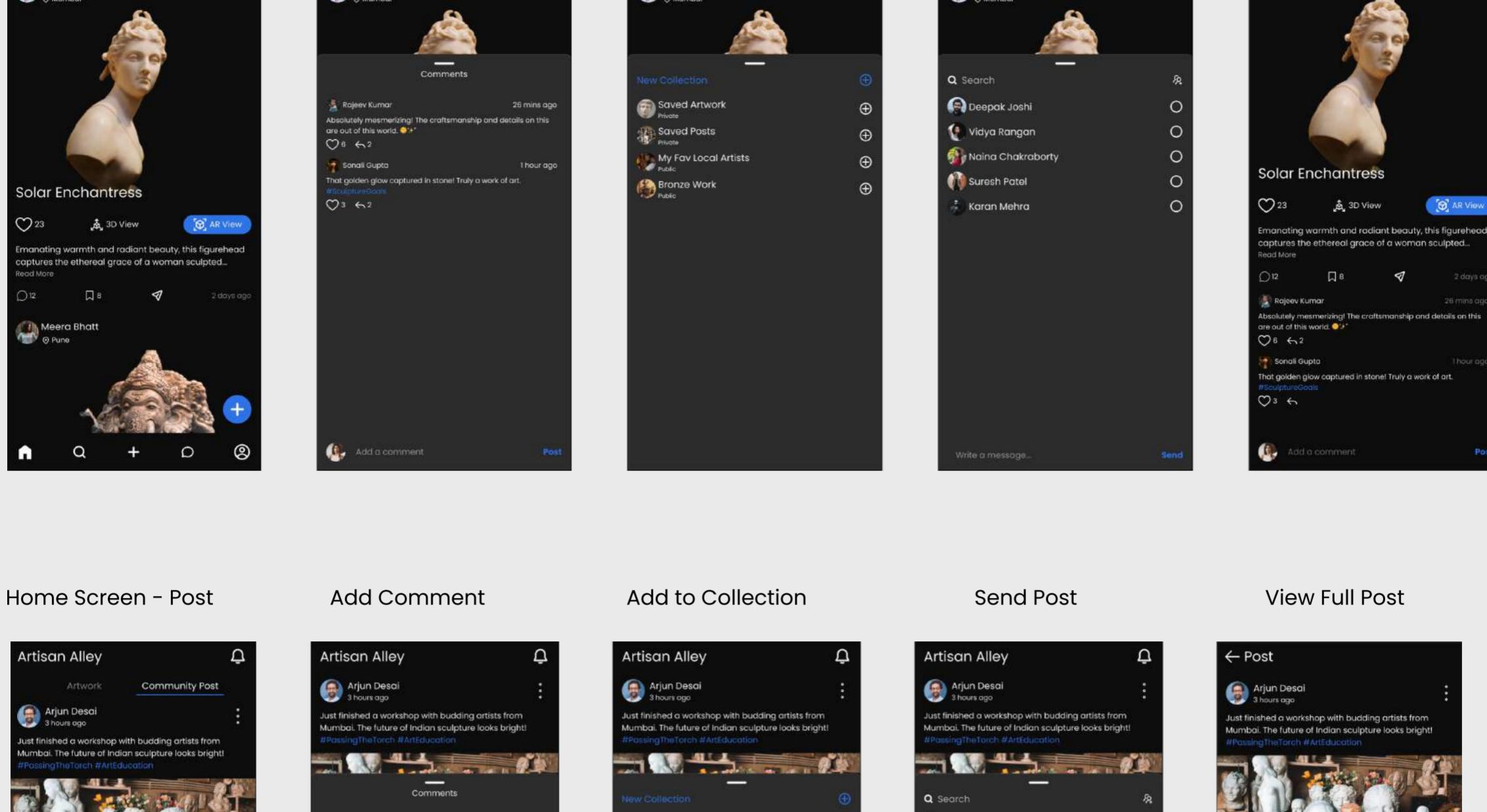


Navigation bars

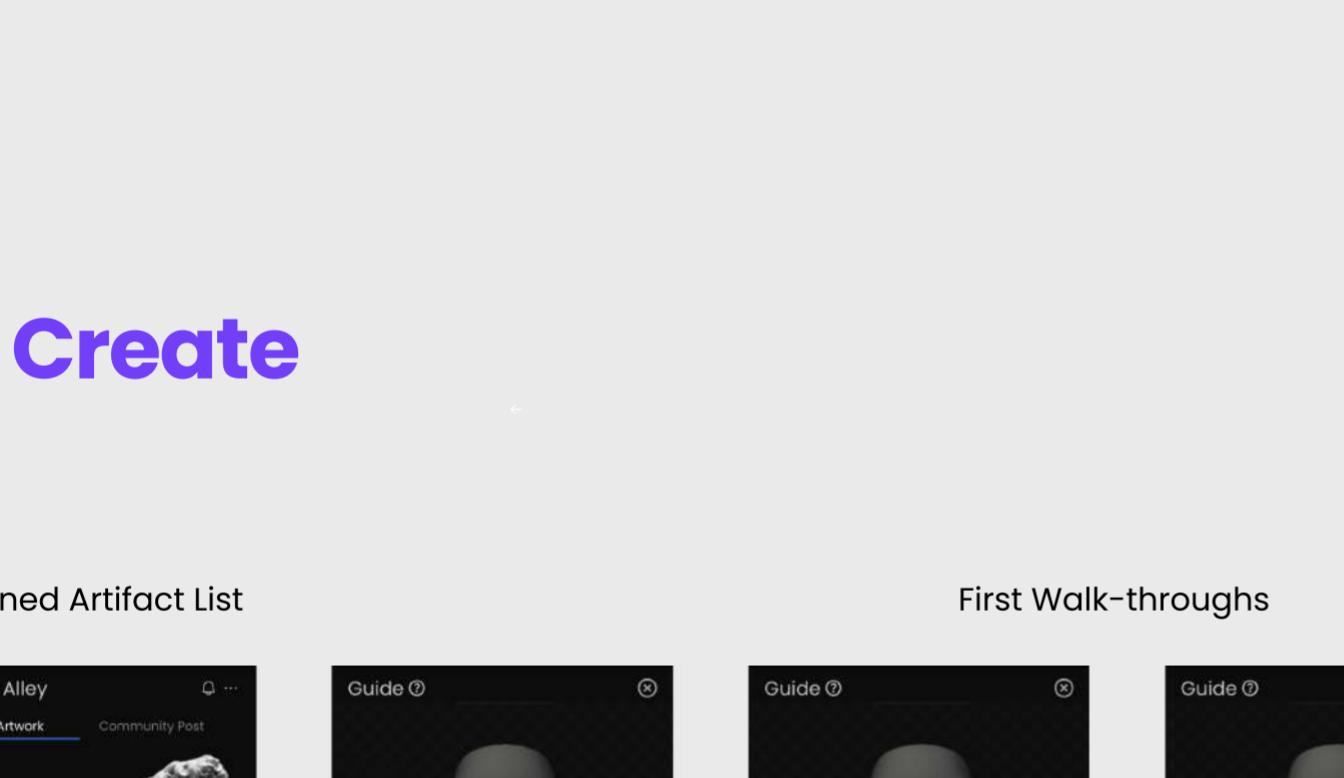


Final Screens

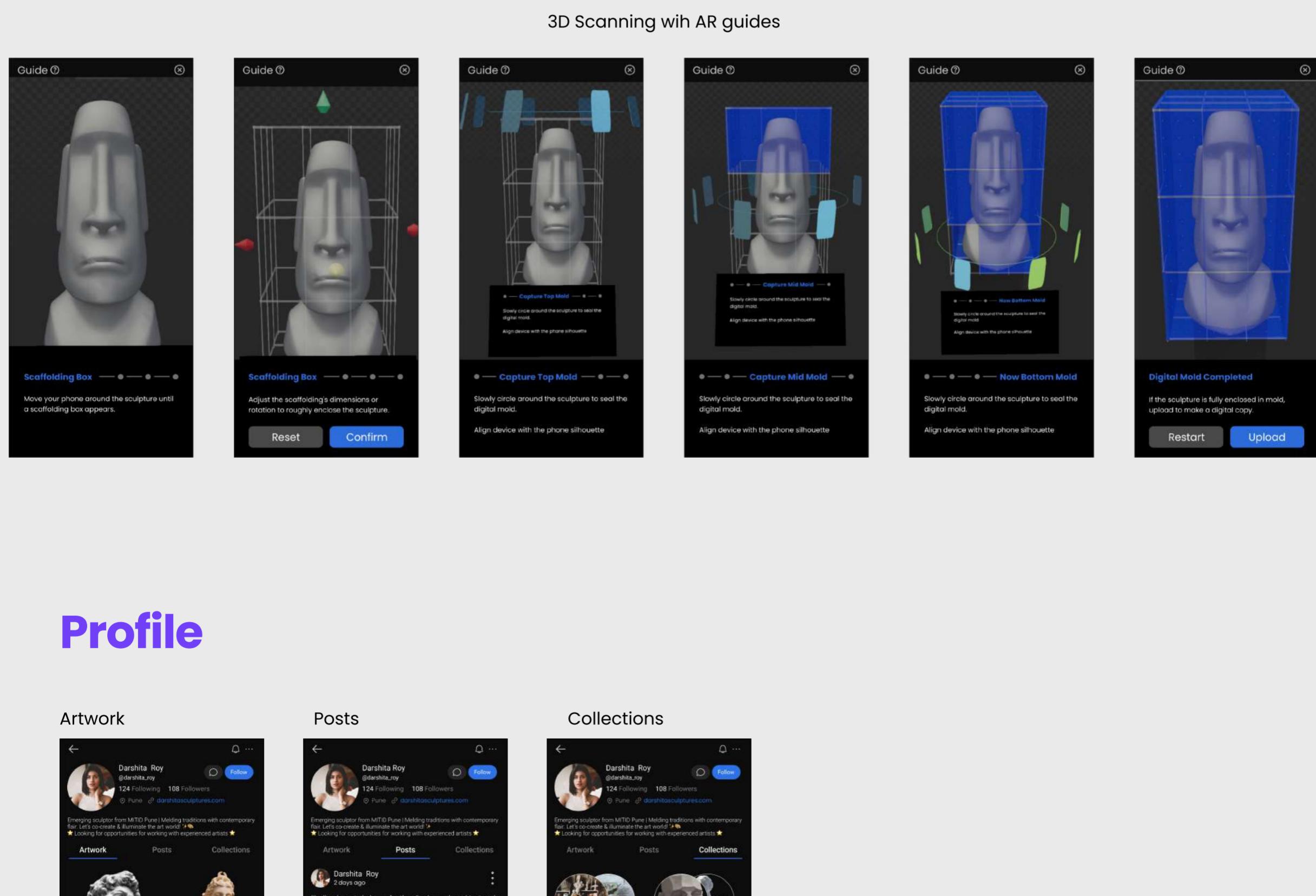
Home



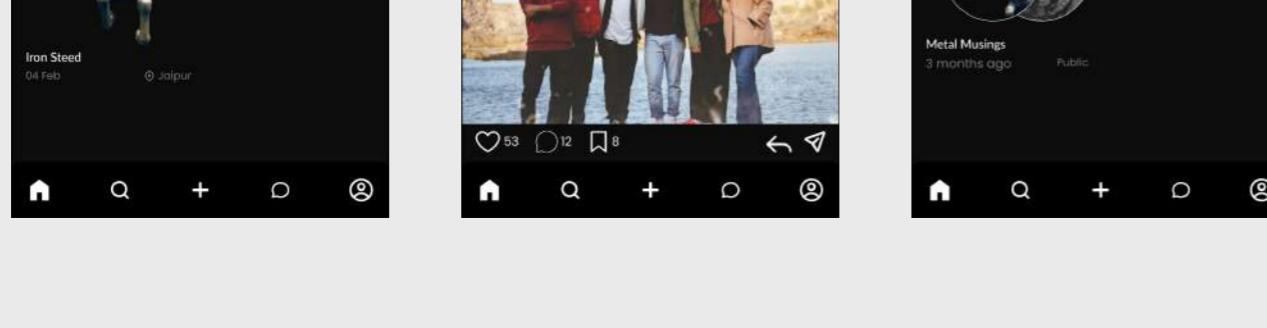
Explore



Create



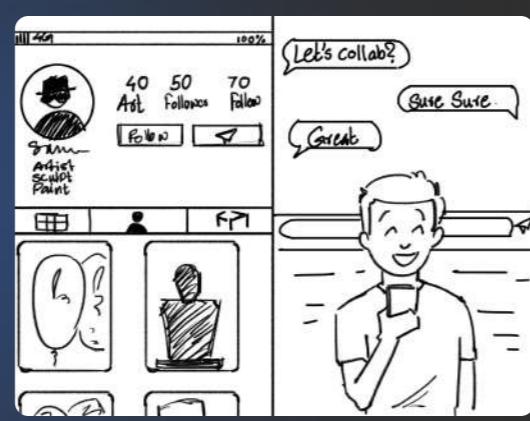
Profile



Storyboard

Act 1: The Essence

Aditya



Aditya directly messages Satish for mentorship. He gets excited when he gets the response.



Satish finds Aditya's work interesting, he agrees for mentorship for his new project.



Finally they meet in person, create amazing new artwork and post it on Artisan Alley.

Darshita



Darshita finds Aditya & Satish's new project. She projects in empty space of lobby to see how it might look.



She loves it and immediately texts Aditya & Satish.



Three of them celebrate installation of the new artwork in Darshita's hotel.

Thank You