reddot winner 2022

For the STARved

- 별고픈 이들을 위하여 -

An online astrophotography exhibition
for whom are starved to see stars

Web   Mobile   UX/UI   3D

Period   2021. 08 - 2021.11
Roles   Project lead, Research, Logo design,
               UX/UI design, Ux writing, 3D Modelling
               and texturing, Sound design
Tools   Figma, Photoshop, Blender

BACKGROUND

Exhibitions In the Pandemic Era

More than
80%
of museums worldwide
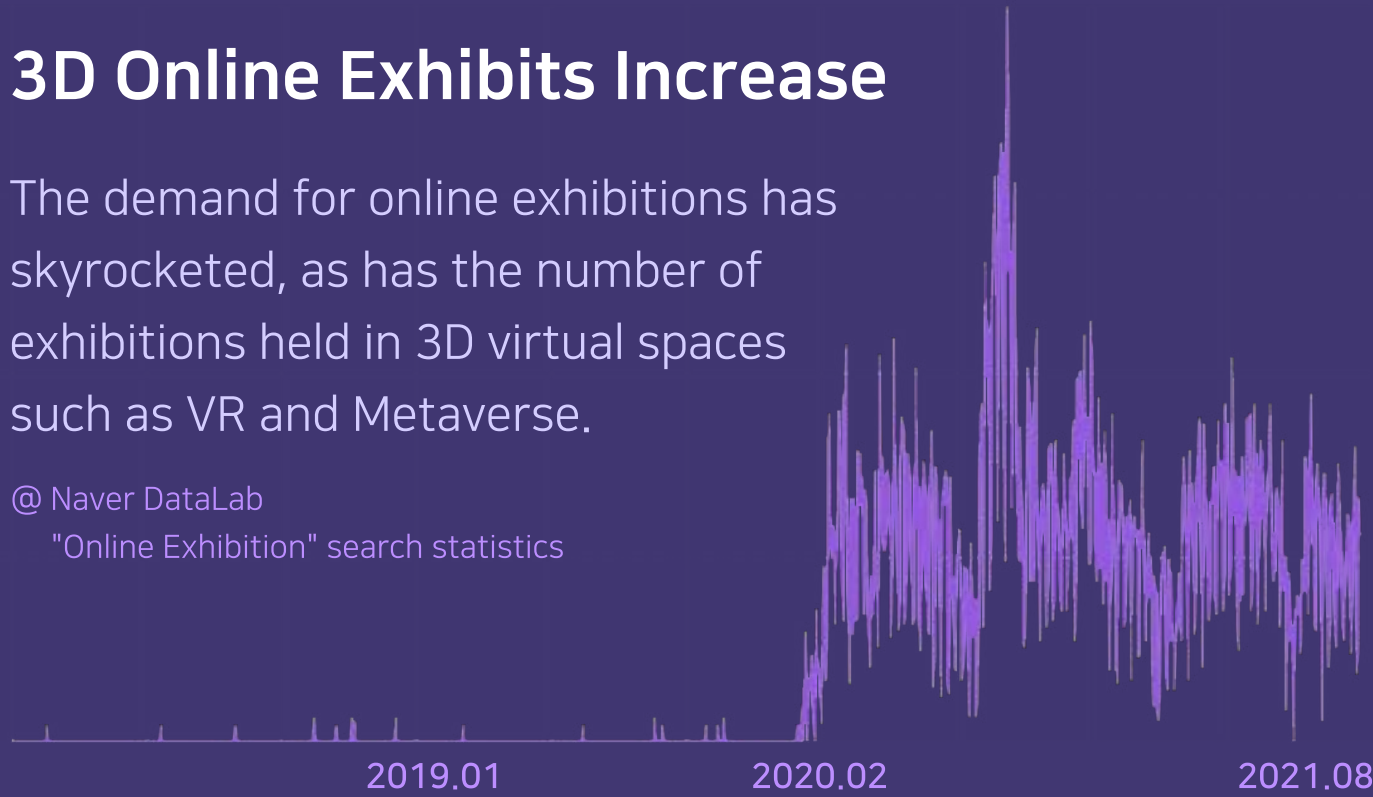**closed**
for at 1 month to 1 year

@ UNESCO survey

Visitor numbers
dropped
by **70%**
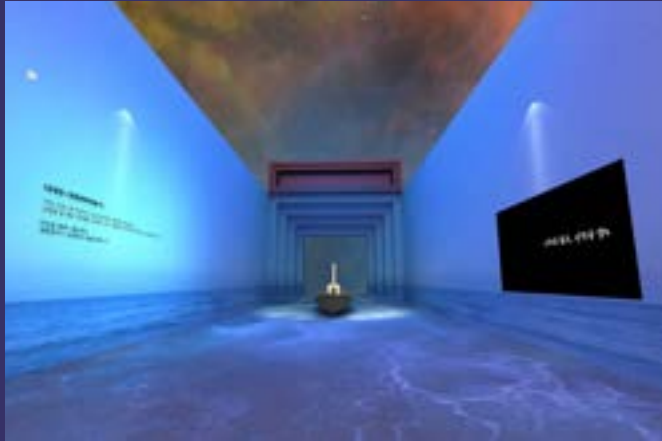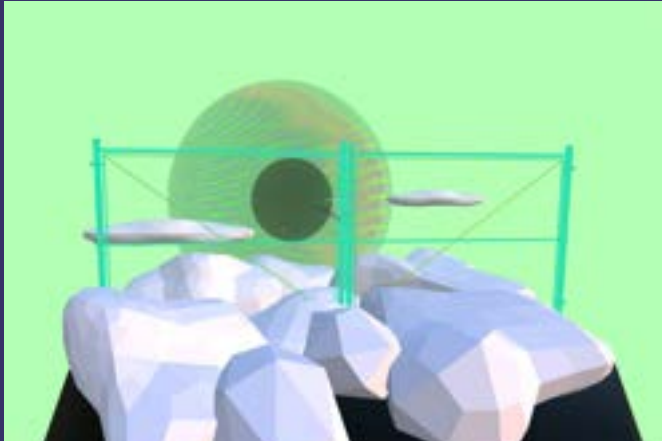in 2020

@ Arko Museum Museum Statistics

3D Online Exhibits Increase

The demand for online exhibitions has skyrocketed, as has the number of exhibitions held in 3D virtual spaces such as VR and Metaverse.

@ Naver DataLab
"Online Exhibition" search statistics

2019.01   2020.02   2021.08

COMPETITIVE ANALYSIS

Matterport	MEUM	VOICE	i kiss : Great your Great friends
Matterport 3D scan-based	UNITY-based	VENTAVR technology-based	three.js + self-build
Scanning real-world spaces and rendering them in VR	Online exhibit customization services	Exhibitions viewable with VR devices	Contemporary art exhibit in surreal space

+	Feels like viewing a real-world exhibition hall Enable native functionality of Matterport (e.g., **Move** by clicking the floor)	Real-time interaction with other visitors Provides a 3D exhibit template : easy to implement	Space design **reflecting each artist's characteristics** Fast **loading** Real-time interaction with other visitors	**Unique and memorable** space Creates mood with **sound** Free **movement**
−	Requires physical exhibition space to scan Costs are significantly high	**Hard to customize** space design Very slow **loading** No **mobile** access	VR device required to utilize VR features **Poor mobile optimization**	Very slow **loading** No **mobile** access

INSIGHTS & SOLUTION

Insight

Similar Format to Real Exhibition

There is little differentiation between online and offline since the virtual spaces are designed by scanning or mimicking the real-world exhibition hall.

Abandonment Due to Loading Delays

It takes a long time to load 3D objects, so users frequently churn before loading completion. Even after loading, movements usually stutter unnaturally.

Computer-Only Access

It is hard to engage mobile users since most 3D web exhibitions are optimized for computer access only.

Solution

Exhibit Concept Based Space Design

By focusing on the infinity of virtual space, we have created exhibition halls for astrophotography in the virtual universe, which is impossible in the real world.

Providing Optimized Experiences

To optimize 3D object capacity, we textured light and shade. We also provided the exhibition's story that users can read while waiting for loading.

Mobile Compatibility

We built the site using Three.js to be compatible with a wide range of mobile devices and browsers.

DESIGN CONCEPT

Intro

In 2021,
a severe plague threatened the world,
people missed a tranquil routine.
Among them, there is one
who is especially starved to seeing stars...

I'm STARved..

Main Hall

Reference

Sketch

3D Modeling

별
대양계
가이드
토성
점심
수모

MVP polling station
Vote for your favorite photo

Solar System

Deep Sky

Star Trails

Click on the light above the door to enter the showroom.

Constellation

Observatory
Link to the club introduction site.

Exhibition Room

Reference

Whole structucre of showroom

Sketch

Reference

Book and desk
A book with a description of each showroom (photography skills) is on a goblet-shaped desk

Photo
Instead of hanging on the wall, the photos float in the sky like stars.
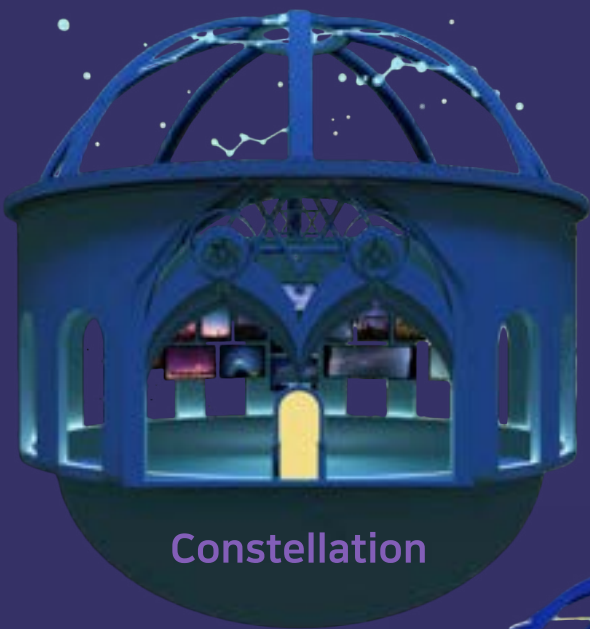
Constellation
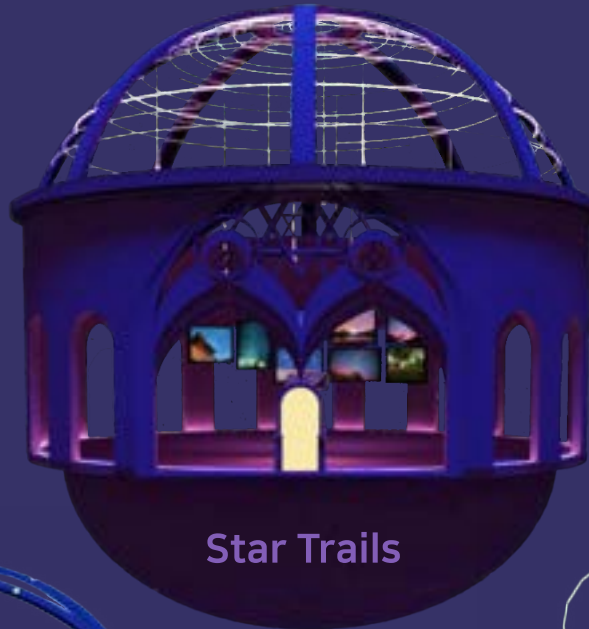
Star Trails

3D Modeling
Different photography skills produce different results, so we designed each showroom differently.

Deep Sky
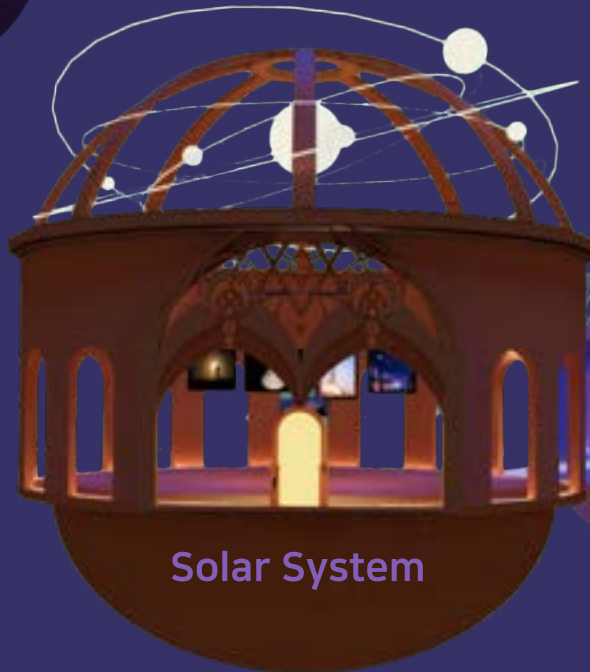
Solar System

OB

OPTIMIZATION

To avoid annoying users with long loading times, we optimized the capacity of 3D objects and texturized light and shade to address frame rate drops caused by light computations. As a result, users with less powerful mobile devices could enjoy the 3D exhibit without any issues.

Light Baking

The light information was rendered as an object surface texture in a planar figure and mapped to the 3D model, which helped reduce the load of real-time lighting rendering on the web.
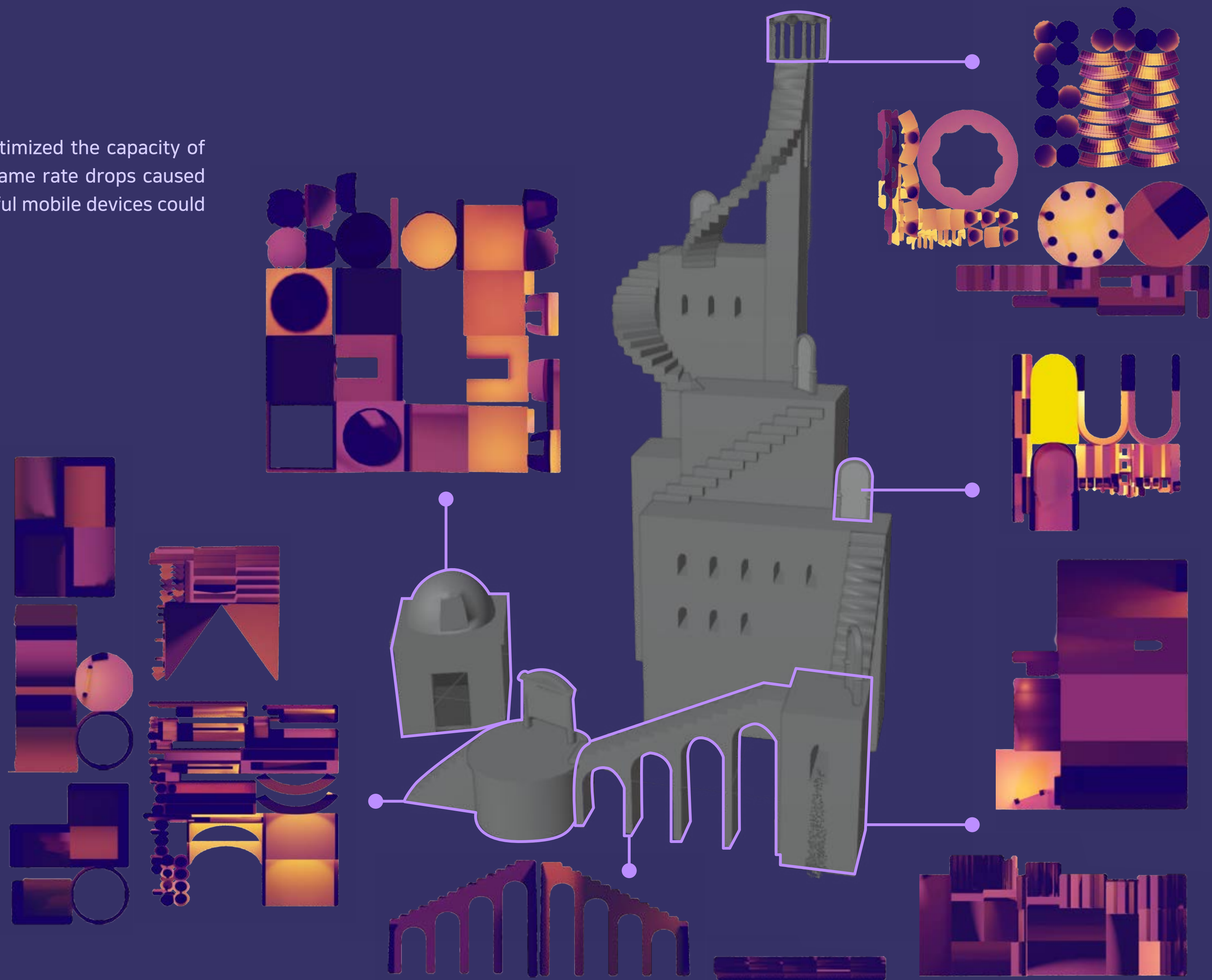
MOBILE UI DESIGN

Tool Tip

A simple tool tip pops up on first-time access to help users unfamiliar with visiting 3D exhibitions.

Vertical and Horizontal

We designed both landscape and portrait UI so users can view the exhibit in their comfortable way.

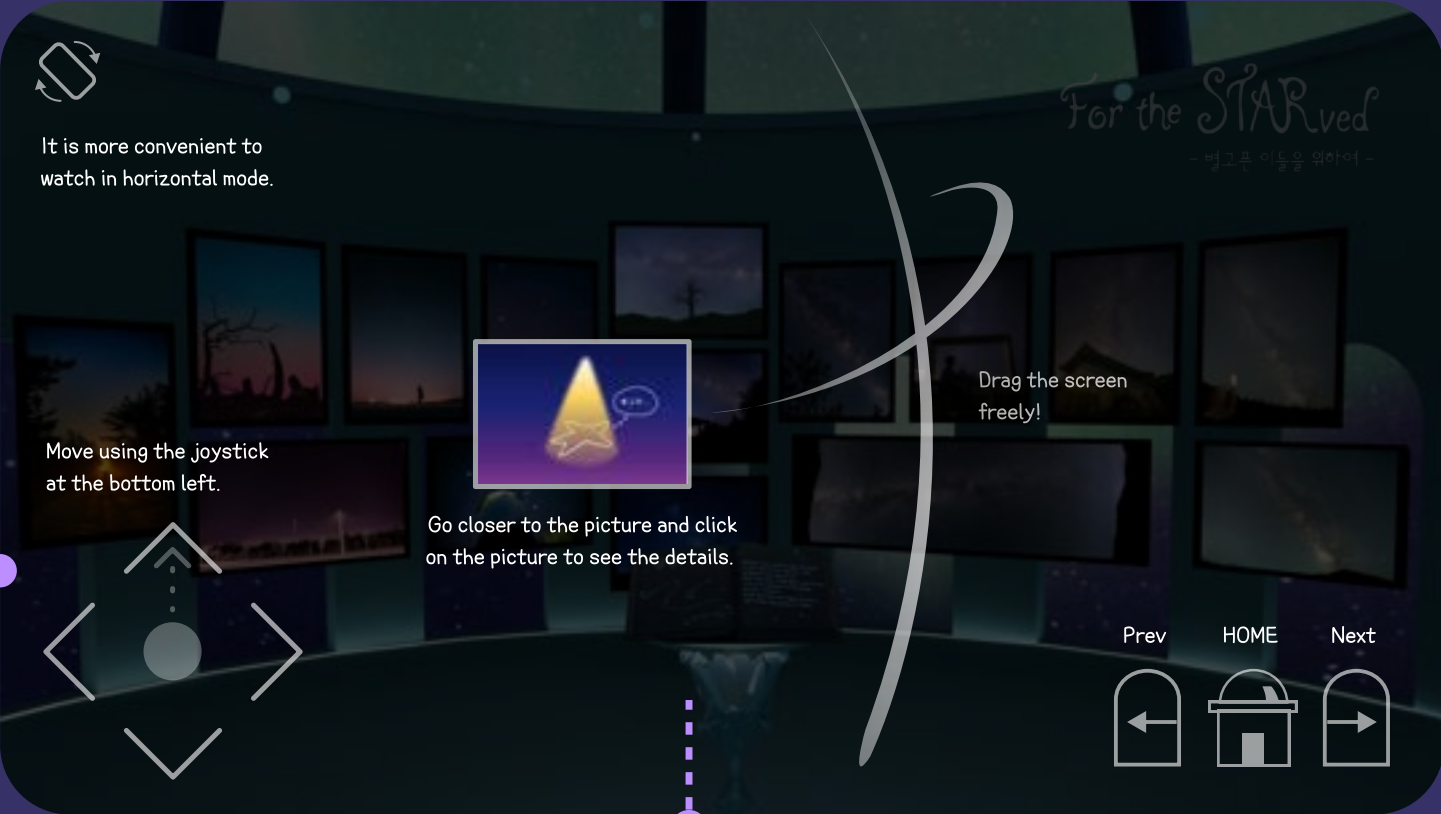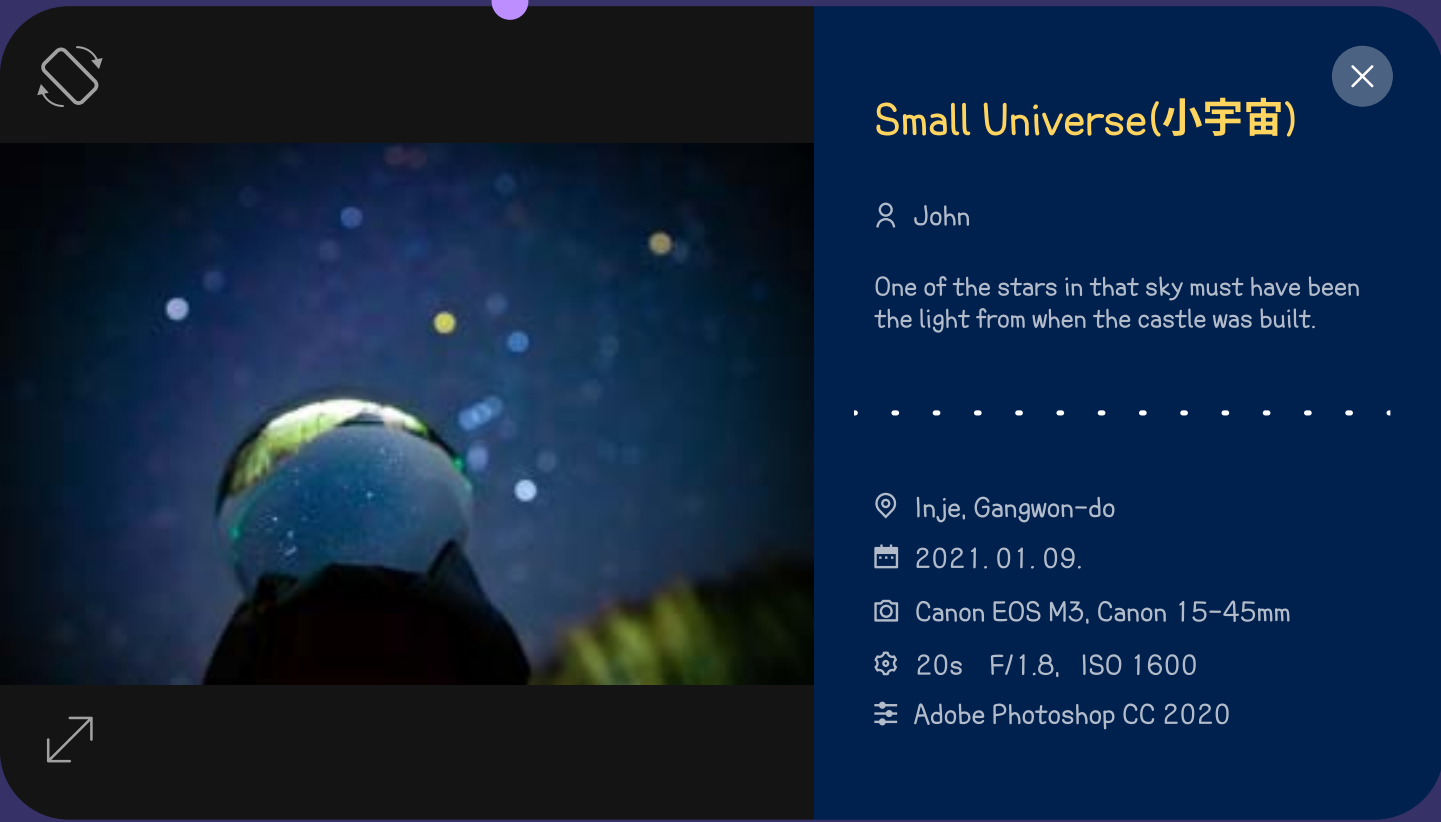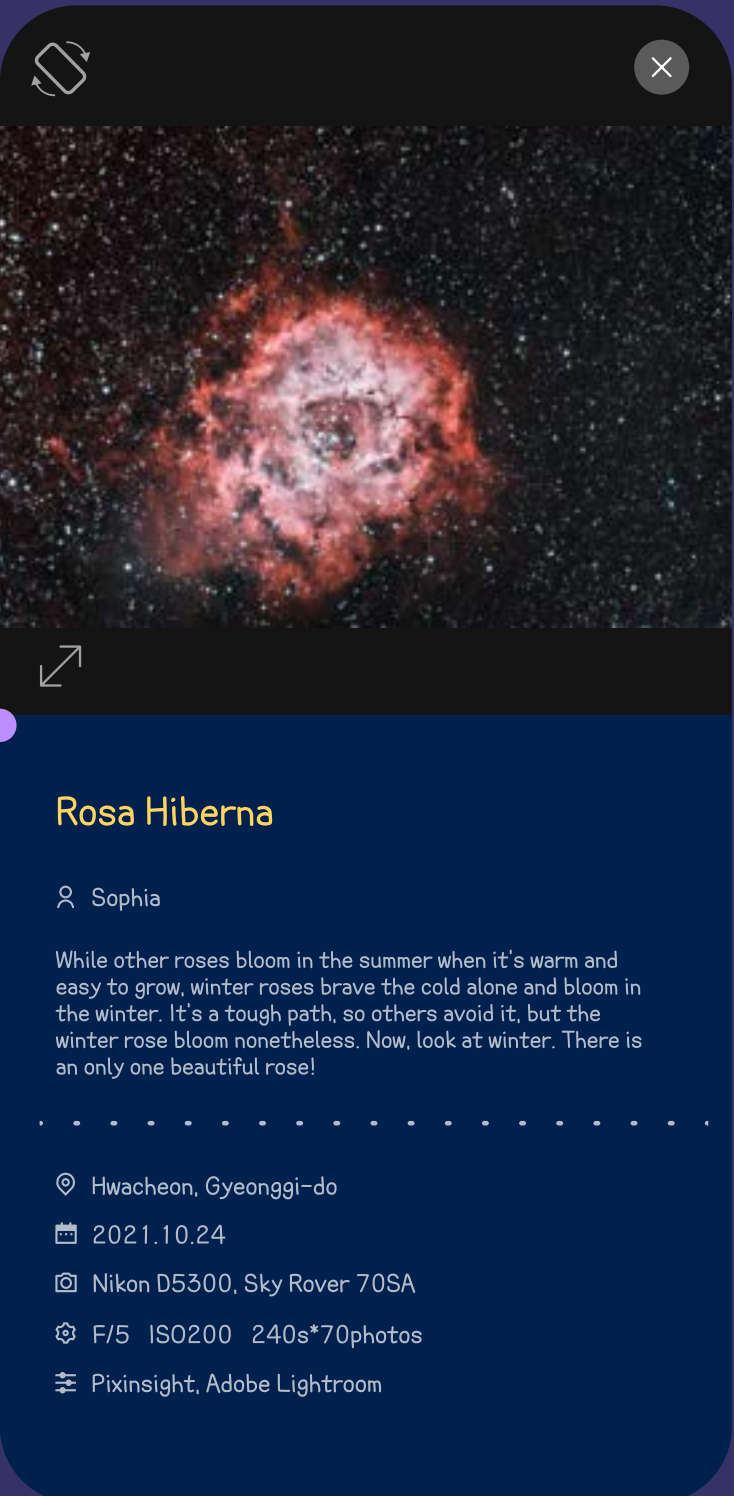It is more convenient to watch in horizontal mode.

Drag the screen freely!

Move using the joystick at the bottom left.

Go closer to the picture and click on the picture to see the details.

Prev   HOME   Next

For the STARved
- 별그픈 이들을 위하여 -

Deep Sky

Constellation

Rosa Hiberna

Sophia

While other roses bloom in the summer when it's warm and easy to grow, winter roses brave the cold alone and bloom in the winter. It's a tough path, so others avoid it, but the winter rose bloom nonetheless. Now, look at winter. There is an only one beautiful rose!

Hwacheon, Gyeonggi-do
2021.10.24
Nikon D5300, Sky Rover 70SA
F/5 ISO200 240s*70photos
Pixinsight, Adobe Lightroom

Small Universe(小宇宙)

John

One of the stars in that sky must have been the light from when the castle was built.

Inje, Gangwon-do
2021. 01. 09.
Canon EOS M3, Canon 15-45mm
20s F/1.8, ISO 1600
Adobe Photoshop CC 2020

RESULTS

A total of
1201
people visited during the two weeks of the exhibition

@ Google Analytics and Access Logs
2021.12.1 ~ 2021.12.14

won
Red Dot Award
Red Dot Design Award 2022

Brands & Communication
Design : Digital Solutions

🔗 For the STARved : red-dot

Positive feedback from visitors

It is a unique experience only in virtual world, not in real exhibits

I just happened to stumble upon it, but it was a great experience!

I love the beautiful exhibition halls and the passionate photos

I've never been so moved by an exhibition.

I feel like you maximized the strengths of online.
Music, design, and photography .. all features are really well-made

The design of the exhibition space is very impressive. I was so disappointed that we couldn't have an offline exhibition, but now I think it's really great that we were able to experience what is impossible in the real world.

@ Part of comments that visitors left in the exhibitions.