

03 FOG WINDOW

Key Words

User Experience Design

Installation Design

Media Art

When we talk about "Fixation (visual)", we know that when people's vision changes from blurry to clear, they will pay great attention to the things in front of them. I used this concept to design the "Fog Window" device for the people on both sides of the strait in Shenzhen and Hong Kong, allowing people to interact with each other through the touch of their fingers when passing by the blurred screen, from another perspective to the city landmark on the opposite side. I hope to deepen people's understanding of the opposite city and try to resolve the gap between Shenzhen and Hong Kong.



Shenzhen Bay
Vientiane City

Problem introduction

Background

In June 2021, Shenzhen University and Hong Kong Polytechnic University jointly launched a workshop on the theme of "Exploring the smart and healthy lifestyle of SZ&HK". During this period, I worked closely with Hong Kong students and found problems worthy of discussion.



Bella
SZU student
SZ native

"Before the covid 19, I often went through the customs to Hong Kong to buy duty-free things and eat delicious food. During the epidemic, when I ran along Shenzhen Bay Park, I would look at Hong Kong on the other side and think about what happened there."

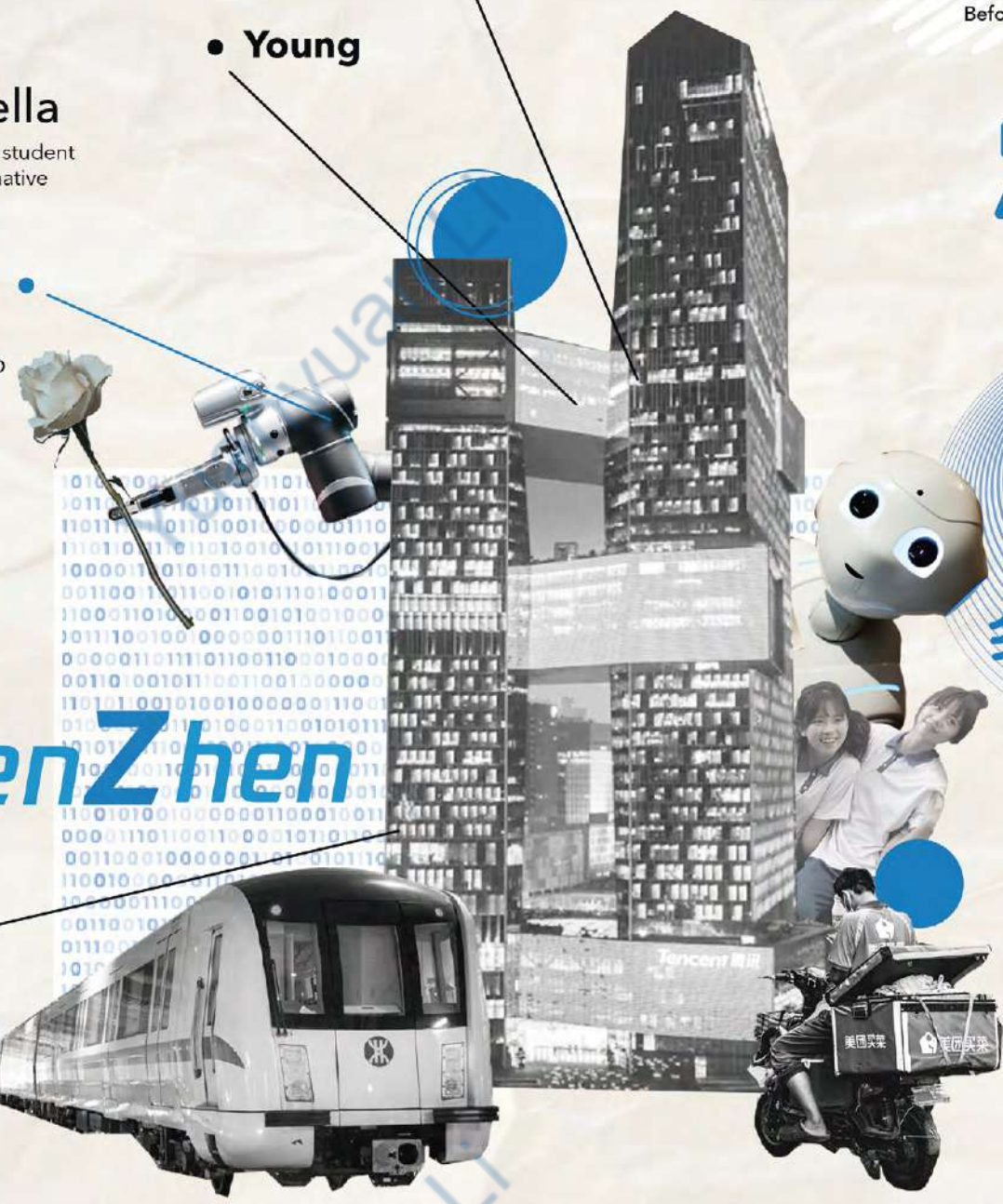
ShenZhen

Relative extroversion



• Young

• Technology



Frontier inspection



1. Long transit time

Before covid-19



Valid Exit-Entry Permit to HK



Home-return permit

Holiday
Non holiday

2-4h
1h

Estrangement

Defamiliarization of Shenzhen & Hong Kong

2. Less free time

Fast pace



High pressure



Ben
PolyU student
HK native

"I went to Shenzhen once four years ago, but I have the impression that Shenzhen has not developed very well. There are some chimneys on the house. But I haven't paid much attention to the mainland in recent years, so I don't know the current situation in Shenzhen"

• Finance

• Culture

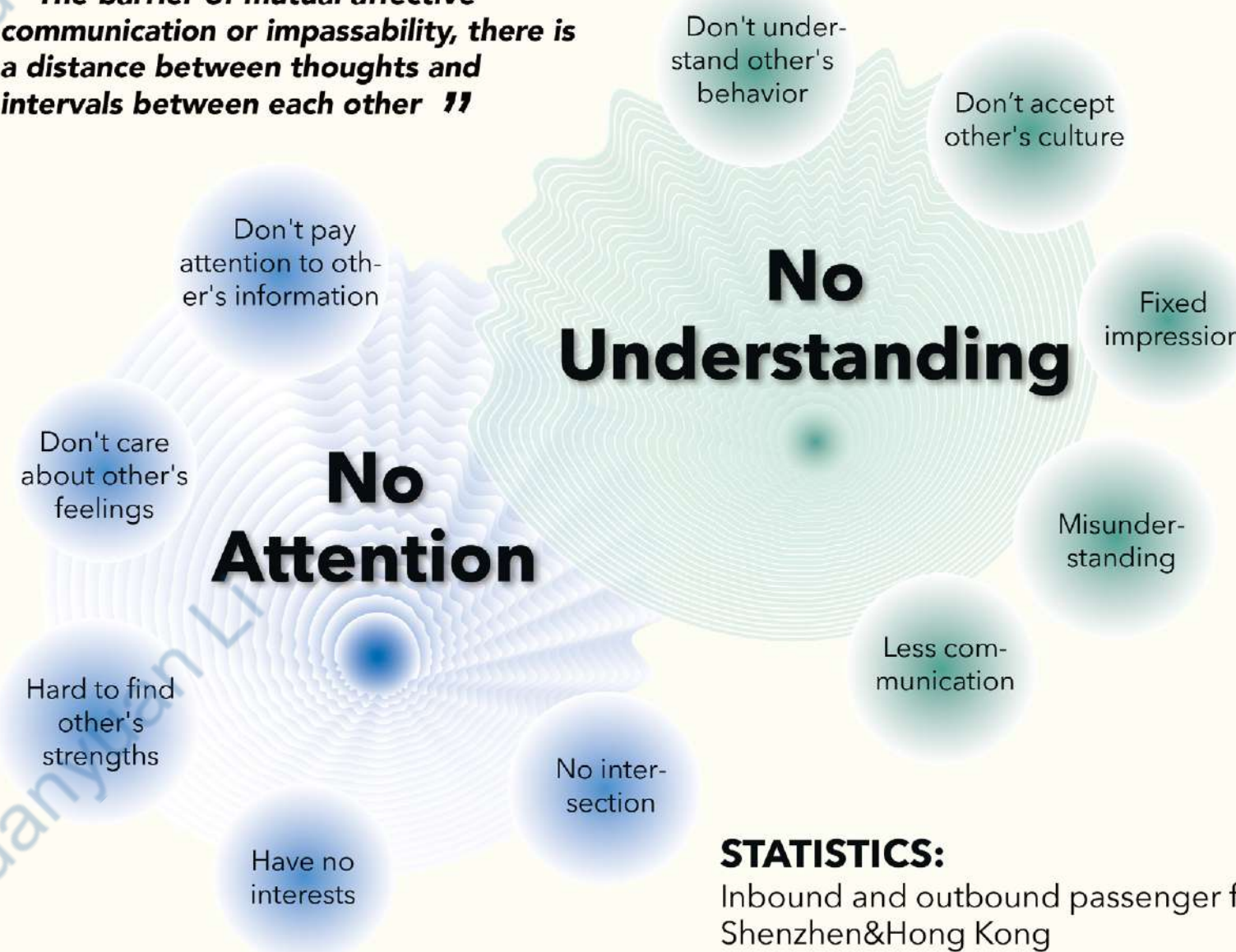
• Relatively introverted

Hong Kong



How did the estrangement come about?

“ The barrier of mutual affective communication or impassability, there is a distance between thoughts and intervals between each other ”



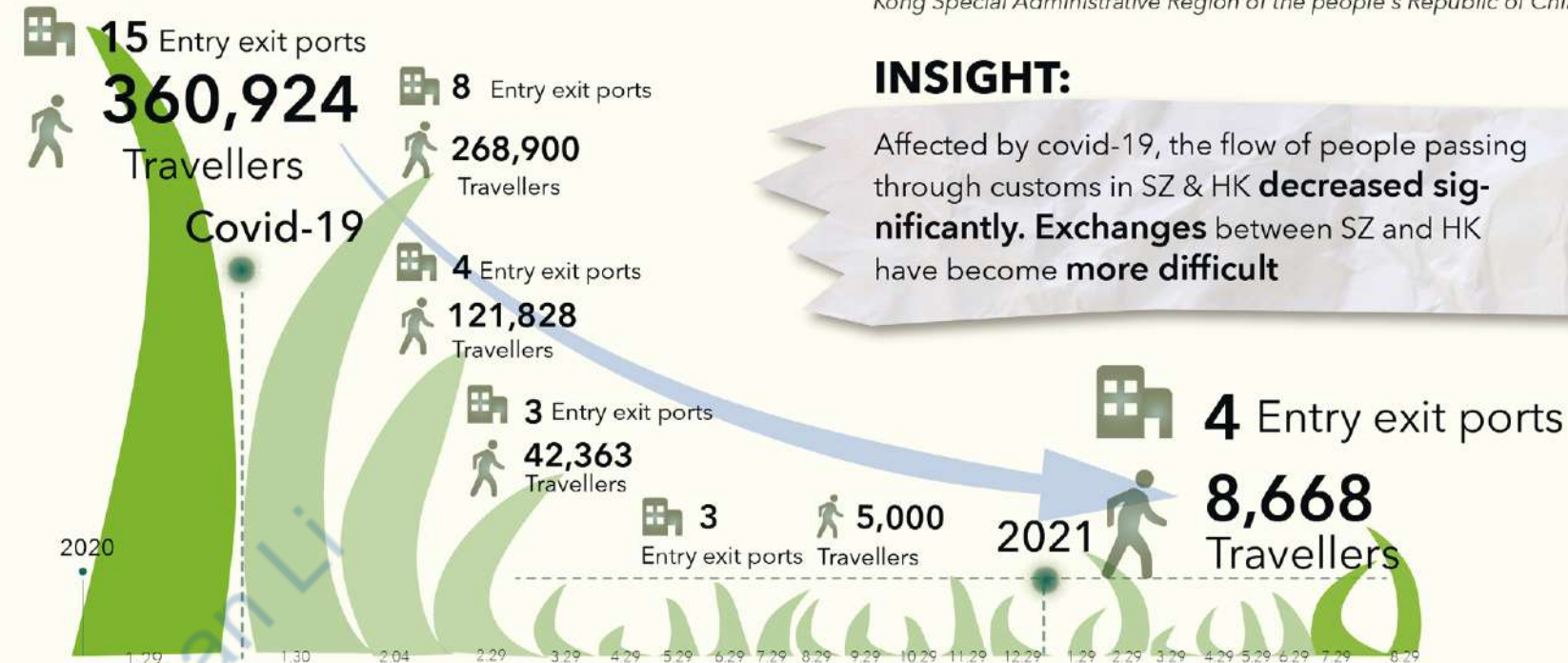
STATISTICS:

Inbound and outbound passenger flow in Shenzhen & Hong Kong

Data sources: Immigration Office of the government of the Hong Kong Special Administrative Region of the people's Republic of China

INSIGHT:

Affected by covid-19, the flow of people passing through customs in SZ & HK **decreased significantly**. Exchanges between SZ and HK have become **more difficult**



Case study

On October 11, 2021, Shenzhen Health Commission shared an article: It tells a love story of a young couple living in Shenzhen and Hong Kong. **After the covid-19, they could only meet at the border.**

1. They looked at each other with binoculars on both sides of Sha-toujiao sea

- Girl's view in Shenzhen Yantian Haibin
- Boy's view in Kupo village, northeast New Territories, Hong Kong

SHENZHEN HONGKONG

2. They found a place where they could see each other closer

- Girl's view in Shenzhen Liantang
- Boy's view in Baihu Mountain

They brought colorful balloons so that each other could see themselves

Insight:

There are many people who separate the two places like this. In addition to going to the designated place and looking at each other with a telescope, **what else can make them connect?**

Site analysis

Shenzhen and Hong Kong: Land border + Across the sea

Shenzhen

- Shenzhen Perspective
- SZ & HK boundary Separated by barbed wire
- Wedding Park Zero distance between the lawn and the sea
- Shenzhen Bay Park
- Bridge Park Photography lovers paradise Shenzhen Bay Bridge at sunset
- Deep Bay

Hong Kong

- Hongkong Perspective
- Sha Kiu village Huge tidal flats Many fishermen live here
- Lau Fau Shoreline People can stand by the coast and watch the sunset
- Lau Fau mountain

Sunrise Theatre Lovers sat on the lawn watching the sunrise

Lau Fau mountain The view here is wide People can look into the distance

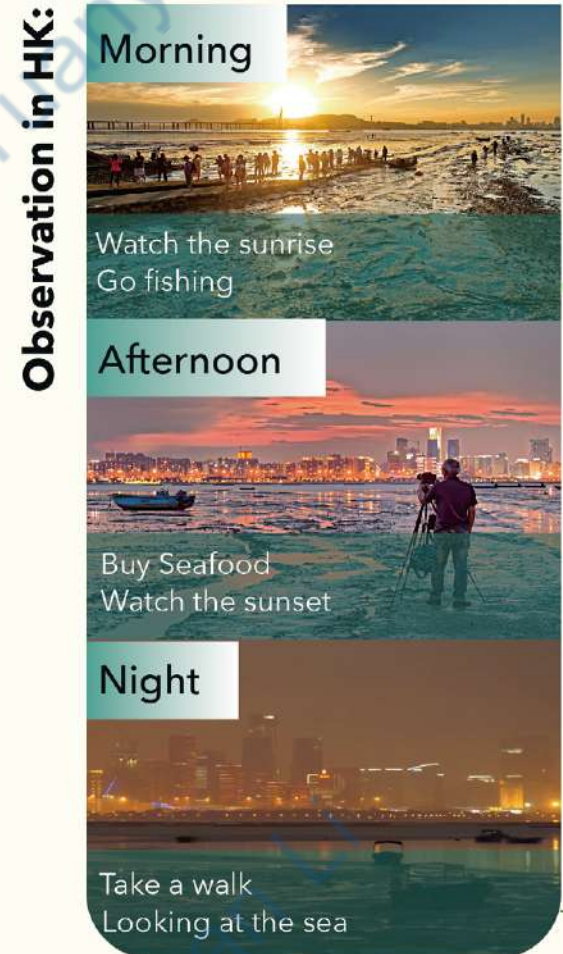
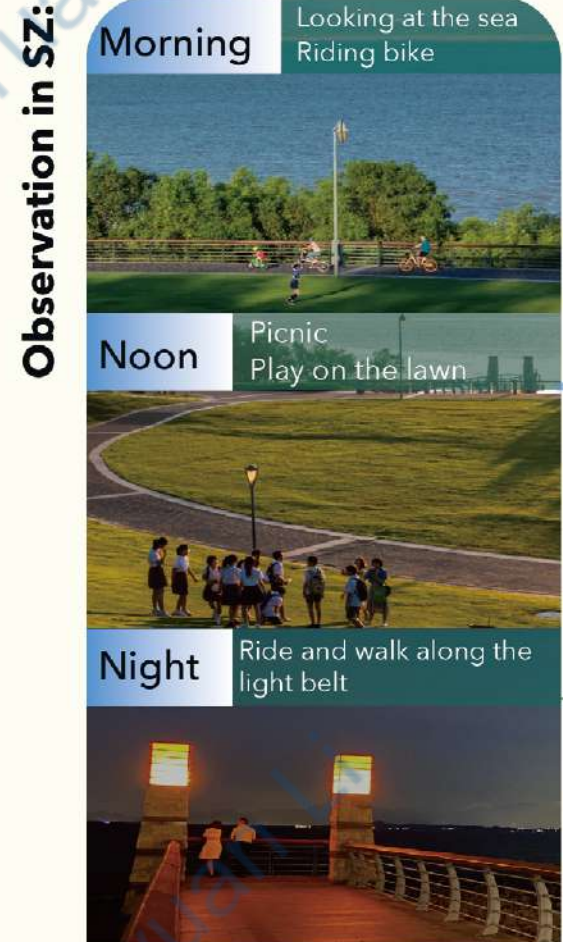
Impression

I have come to Shenzhen Bay Park many times. I don't even know that Hong Kong is opposite!

I know Hong Kong is opposite. Looking at Hong Kong across the sea, I will think of my boyfriend. We haven't seen each other for a long time.

On weekends, I will bring my family here to blow the sea breeze. Shenzhen looks very prosperous from a distance, but I don't know much about it.

Field Observation

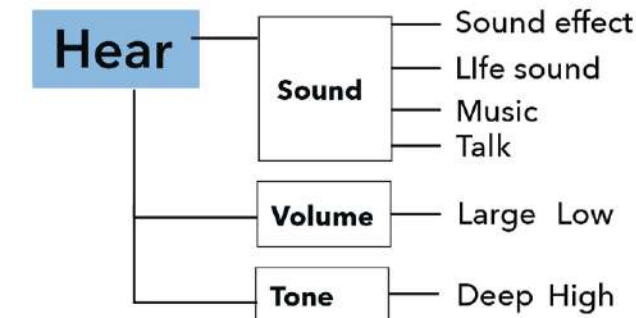
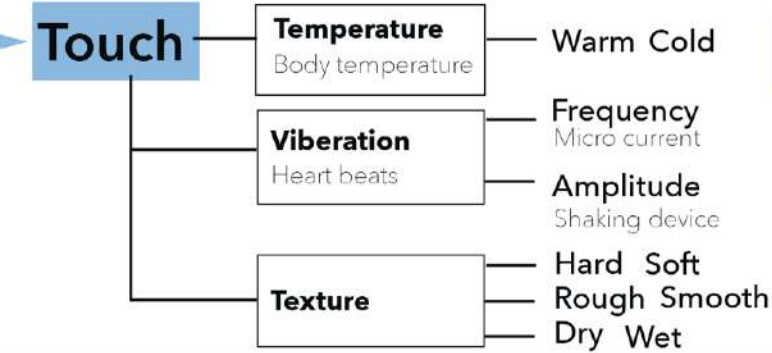
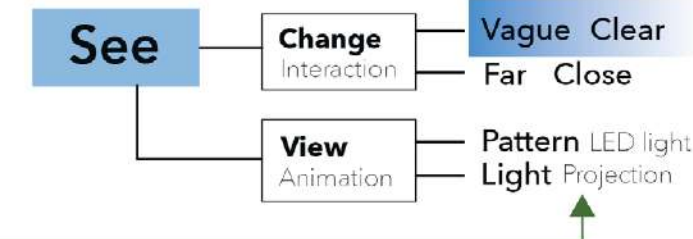


Mind map

01_ Attention

Design Touch points

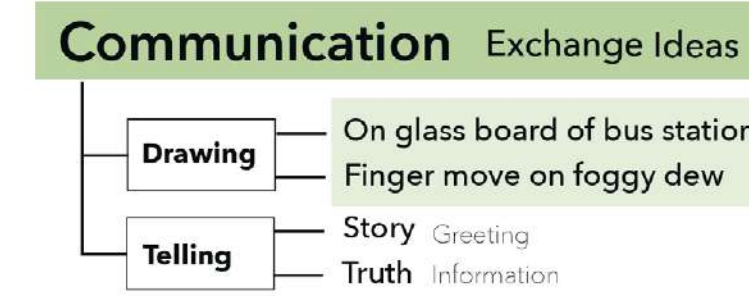
Short term



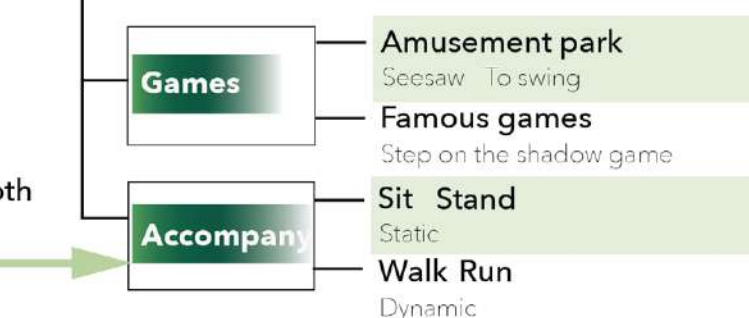
02_ Understanding

Design Process

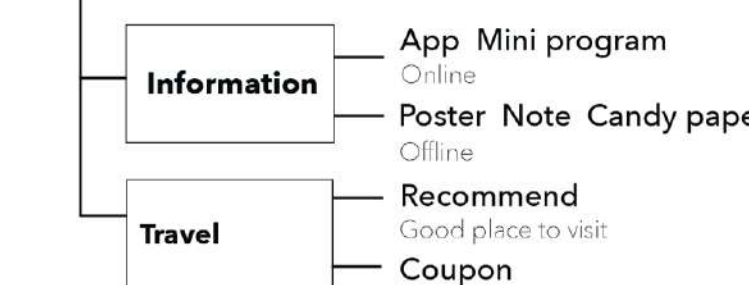
Long term



Do sth together



Feeling Deep learning



Sketches

01. Vague to clear - The Window

- When only one side of the glass is touched



It is frosted and can not clearly see the other side of the sea

- When the glass on the other side is also touched



The area touched by people will become clear, and both of them can see the clear opposite bank through that small area

02. Play together - The "Seesaw"

- When only one side is sitting



The seesaw will not change

- When both sides are sitting



The seesaw can play up and down

03. Accompany - Double seat

- When only one side is sitting



The chair at the end of the plank road has its back to the sea

- When both sides are sitting

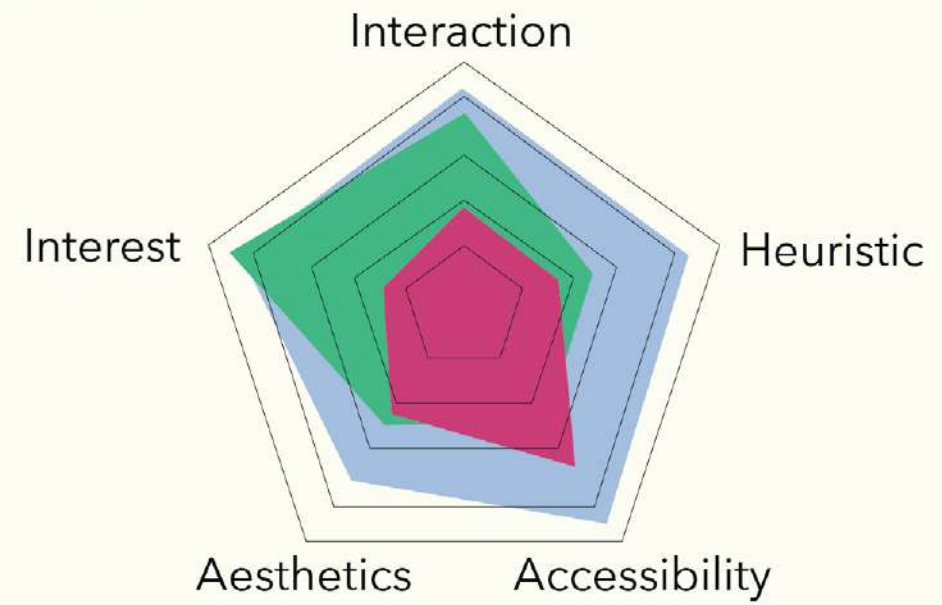


The chairs on both sides will rotate to face the sea so that people can see the other side, at the same time, it can sense the heartbeat and temperature of another person

Plan Selection

Scoring data

- 1. Vague to clear
- 2. Play together
- 3. Accompany



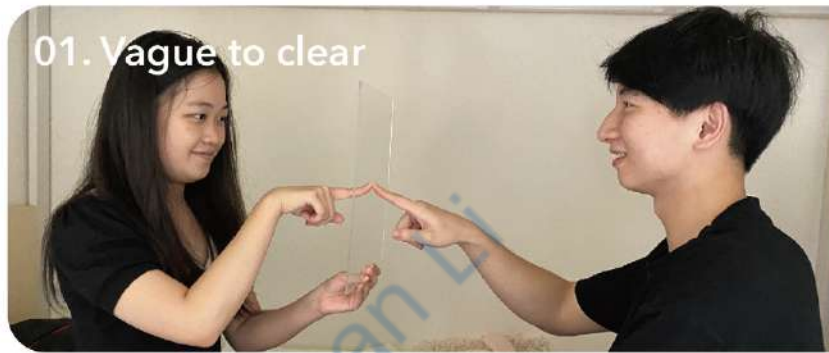
01. Vague to clear

"I like the feeling of painting on foggy glass. This interaction is very natural and interesting. The concept of making blur clear is also relevant to the theme."

02. Play together

"Compared with seesaw and seat, the first one is easier to understand, and multiple people can participate at the same time."

"The feedback of 01 is more timely and easier to perceive. Although the seesaw is fun, the media of fuzzy transparent plane can display information more flexibly."



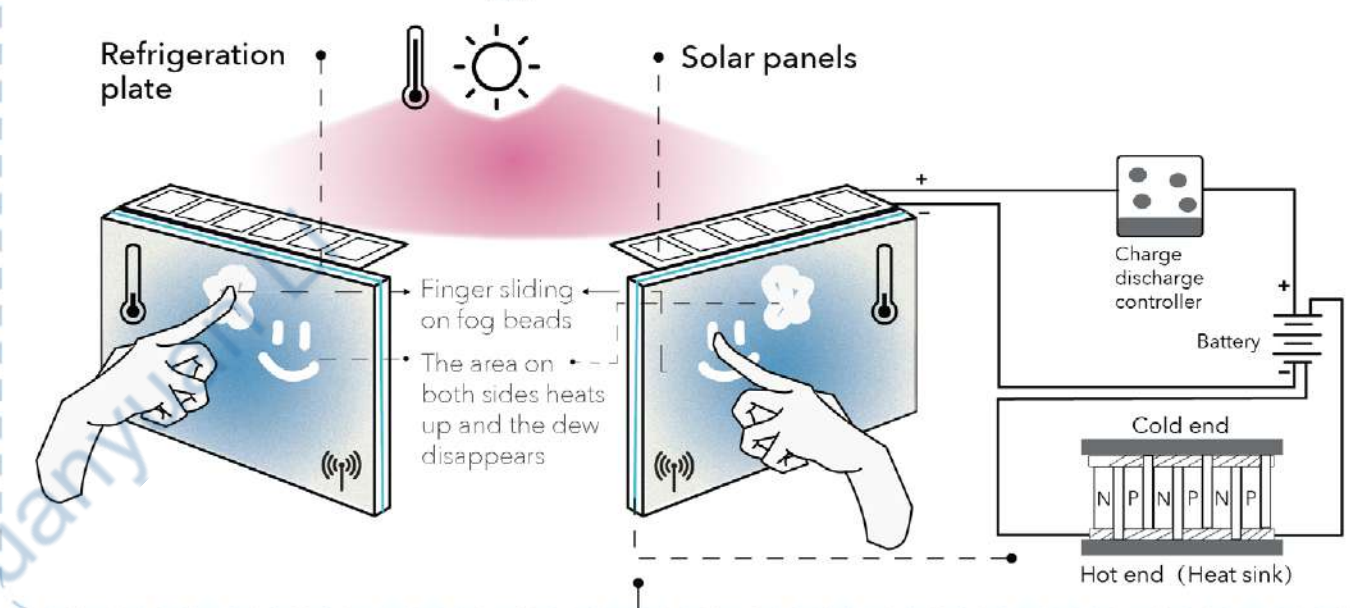
Plan deepening

Interaction mode: fingertip touch

Attempt	Turn on	Connect	Puncture	Communicate
Touching objects is the first step to understanding	Press a switch to turn on sth	Indicate the achievement of connection	Poking sth - "breaking stereotypes"	Exchange information through writing & painting

Technical exploration

1. Condensation technology

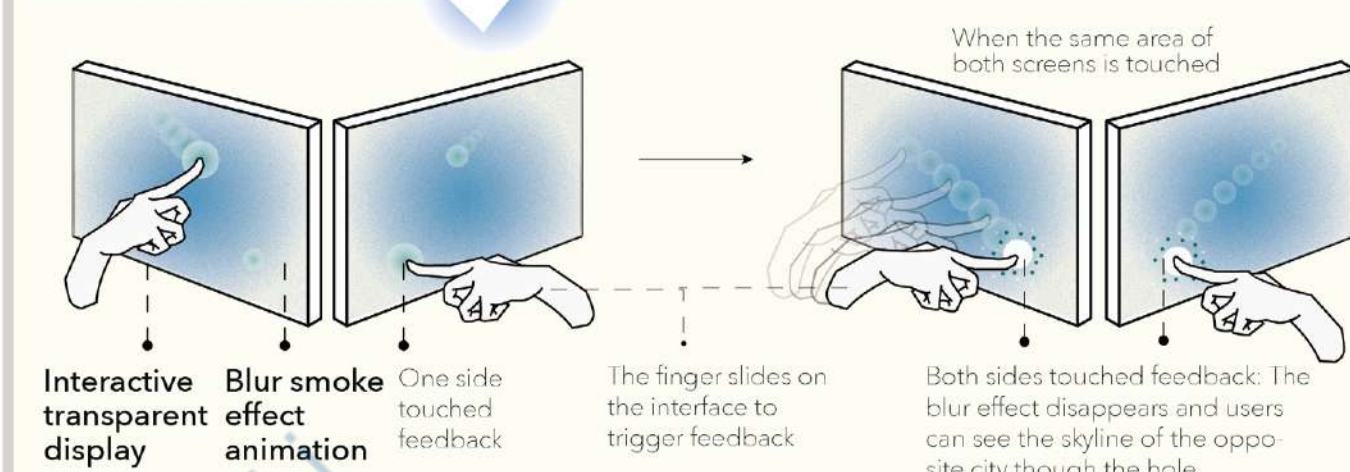


Technical evaluation

Stability	██████████
Controllability	██████████
Persistence	██████████
Material cost	██████████
Technical cost	██████████

Internet of things technology

2. Interactive media



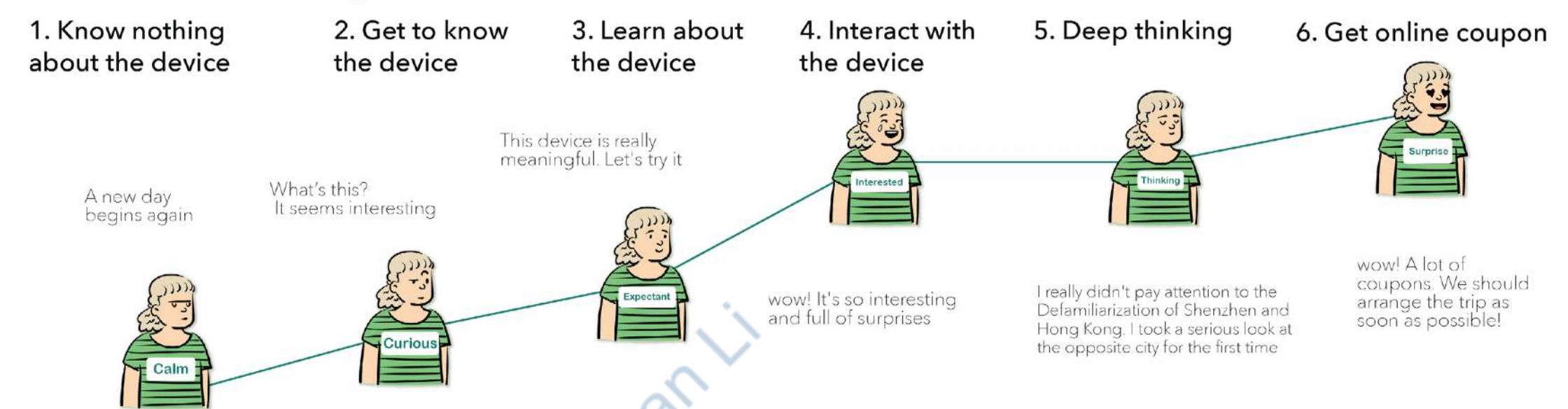
Technical evaluation

Stability	██████████
Controllability	██████████
Persistence	██████████
Material cost	██████████
Technical cost	██████████

User journey map

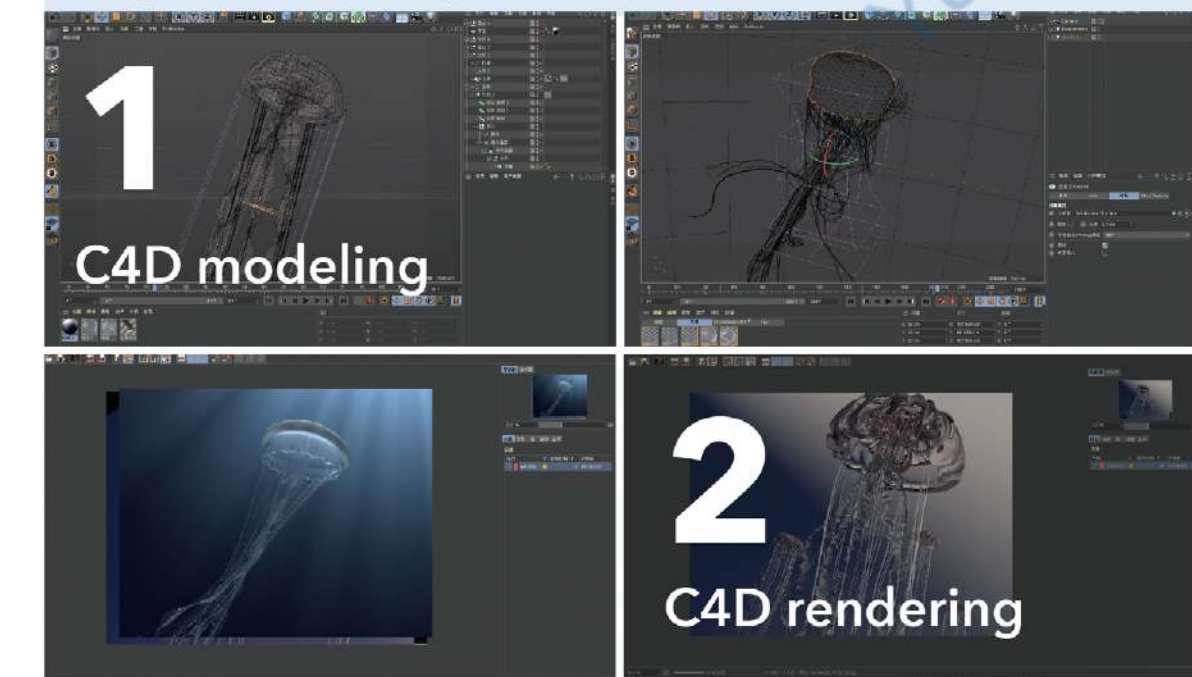


User emotional map



Technical realization

Step 1. Make Jellyfish Animation



Step 2. Touchdesigner Programming



Step 3. Coding

```

box3.innerHTML = "<img src='/${srcIndex}.png' />";
a[i].style.display = "none";
img_area.style.display = "none";
box2.style.clipPath = "circle(80px at ${x}px ${y}px)";
box3.style.left = x + "px";
box3.style.top = y + "px";
box2.style.opacity = 1;
box3.style.opacity = 1;
setTimeout(() => {
  box2.style.transition = "opacity 0";
  box2.style.opacity = 0;
  box3.style.opacity = 0;
  a[i].style.display = "block";
  arr[i].interval()
}, 3000);

```

Feedback deepening

Why Jellyfishes?

1. The art installation is located on the coast, so using a marine creature as feedback can **match the environment**
2. Jellyfish are lovely in shape and can shine at night, **giving people a wonderful and interesting feeling**



One side touched feedback

Both sides touched feedback (Jellyfishes meet)

INTERACT WITH PEOPLE ACROSS THE SEA



UNDERSTAND THE CULTURE OF THE OTHER SIDE

When you touch the screen, jellyfish will also appear on the other side. When both fingers touch the same jellyfish, the user will trigger an observation point to observe the opposite shore.

Through the observation point, the user can see the opposite shore clearly and intently. Scan the QR code below the observation point to get information about each landmark and get to know the other side better.



PROJECT DEMO



<https://vimeo.com/651082086>

