

Process journal



Regenerative design
Retrospective of the Ersilia

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Design Principle

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What is Regeneration?

Participate in impact and use design to improve the environment.

Regenerative design works by structuring and understanding the interrelationships between living systems in an integrated way.

A place-based approach is one way to achieve this understanding.

Create different regenerative cultures that elegantly adapt to the uniqueness of the local biological culture.

From a history of destruction to a dream of improvement, ecosystems and planetary health must be effectively restored.

We are no longer "masters of nature", but a story of seeing ourselves as a humble apprentice of nature. We must learn the core lesson of biomimicry: "Life creates conditions conducive to life."

Earth ecology / biological destiny community.

Fusion of design and systems thinking.

To go beyond the problems inherent in the current model and see the different systems that may arise.

Using dynamic systems requires us to give up the illusion of control and the promise of an eventual solution.

- 1 Good for environment**
- 2 Interconnected system**
- 3 Unique local feature**
- 4 Regeneration of culture**
- 5 Imitate nature to improve nature**
- 6 All creatures matter**
- 7 Mixture of new&old systems**

After reading some reference, I got my own understanding for the regeneration and the regenerative design. For me, it is more than doing good for the environment. Some of the regenerative design is for human beings' sake deeply and I strongly doubt it. In my perspective, Let go of the heroism of saving the world for your own life and health, give up being a god, and learn to truly coexist with nature is what human beings should learn. Knowing *WHERE IS THE POSITION OF HUMAN BEINGS IN THE NATURE* is much more important.

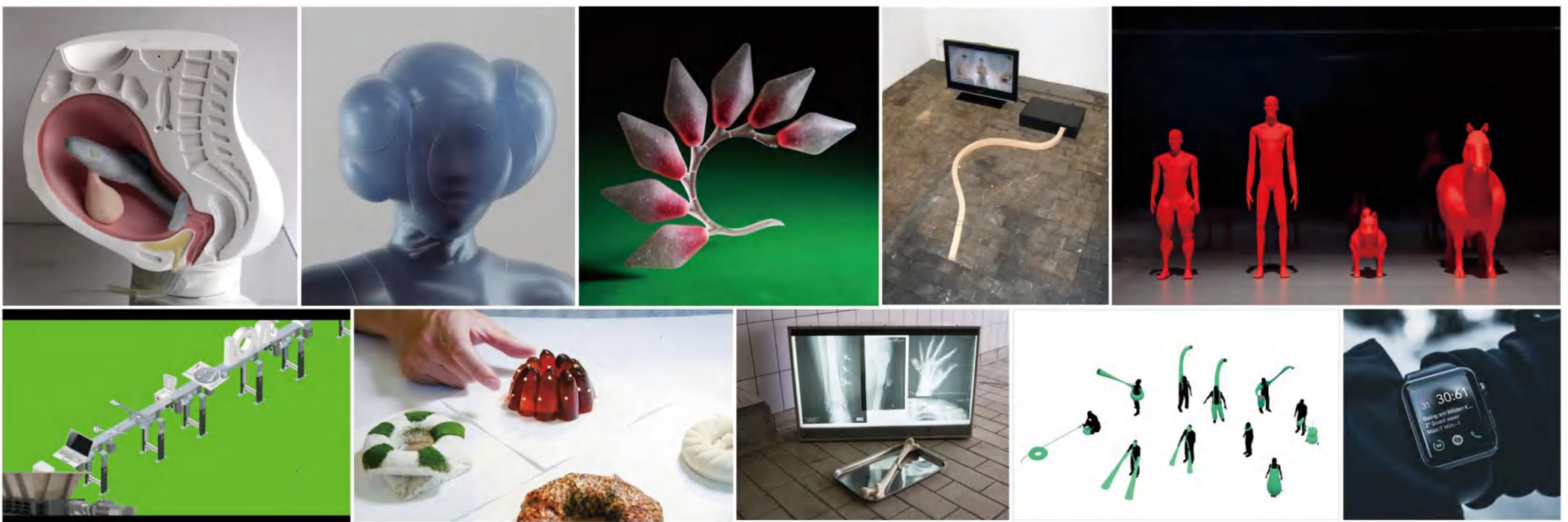
Reading reference:

Regenerative Futures From sustaining to thriving together
Indigenous regenerative economic principles
Shifting from 'sustainability' to regeneration, Bill Reed
System-shifting design, An emerging practice explored
Regenerative Design and a Science of Qualities, Dr. Daniel Christian Wahl
Beyond Net Zero - A Systemic Design Approach
Reducing foods environment impacts Science

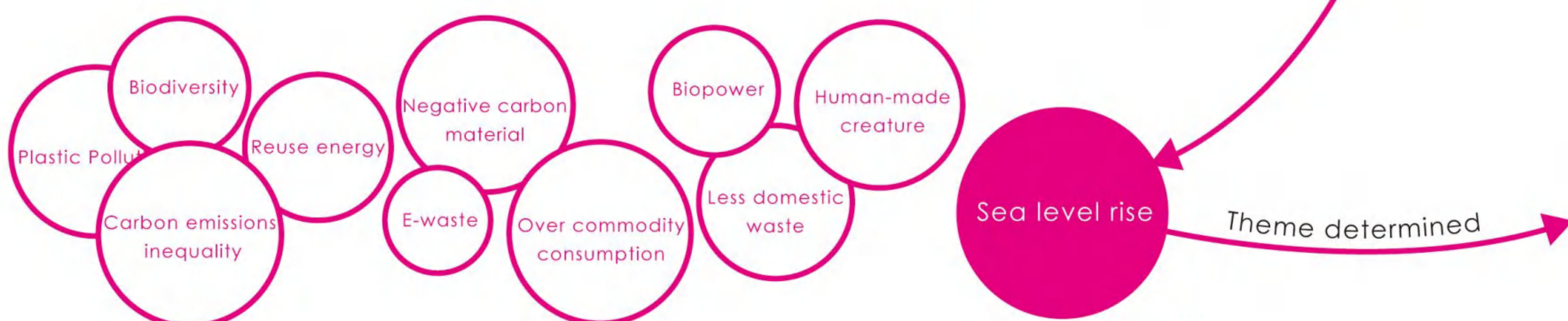
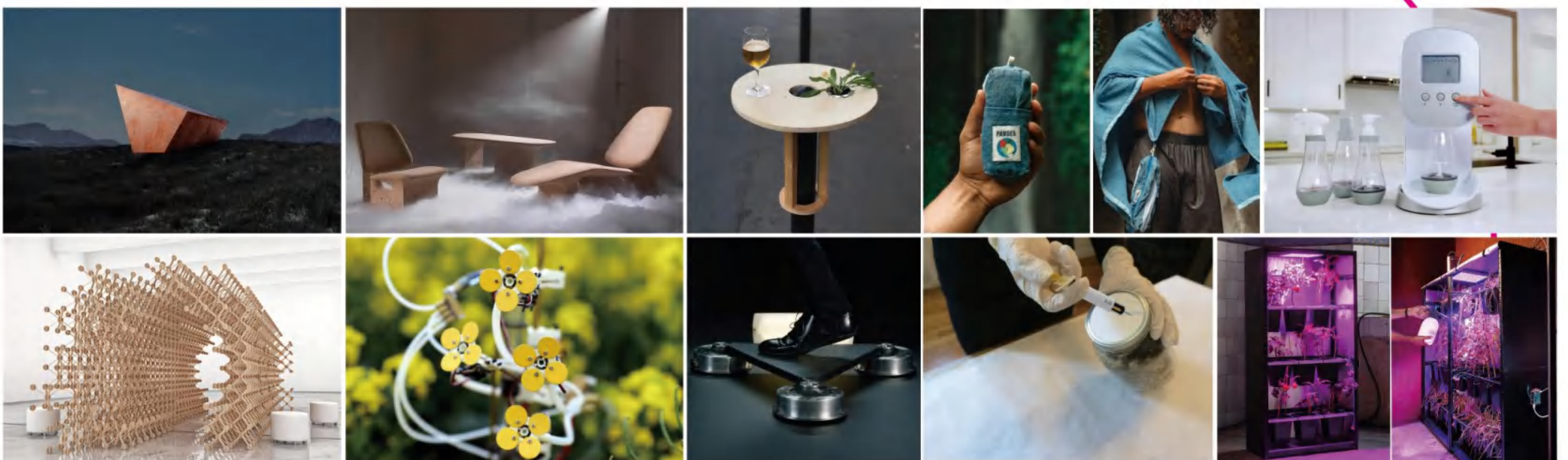
Speculative Regenerative

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I'm skeptical about the purpose of regenerative design, so I'd like to discuss what regeneration means, is it really good for the environment or is it possible for humans to live longer on earth. I am committed to combining the topics of speculative design and regeneration in this project, discussing the topic of regeneration from the perspective of raising questions.



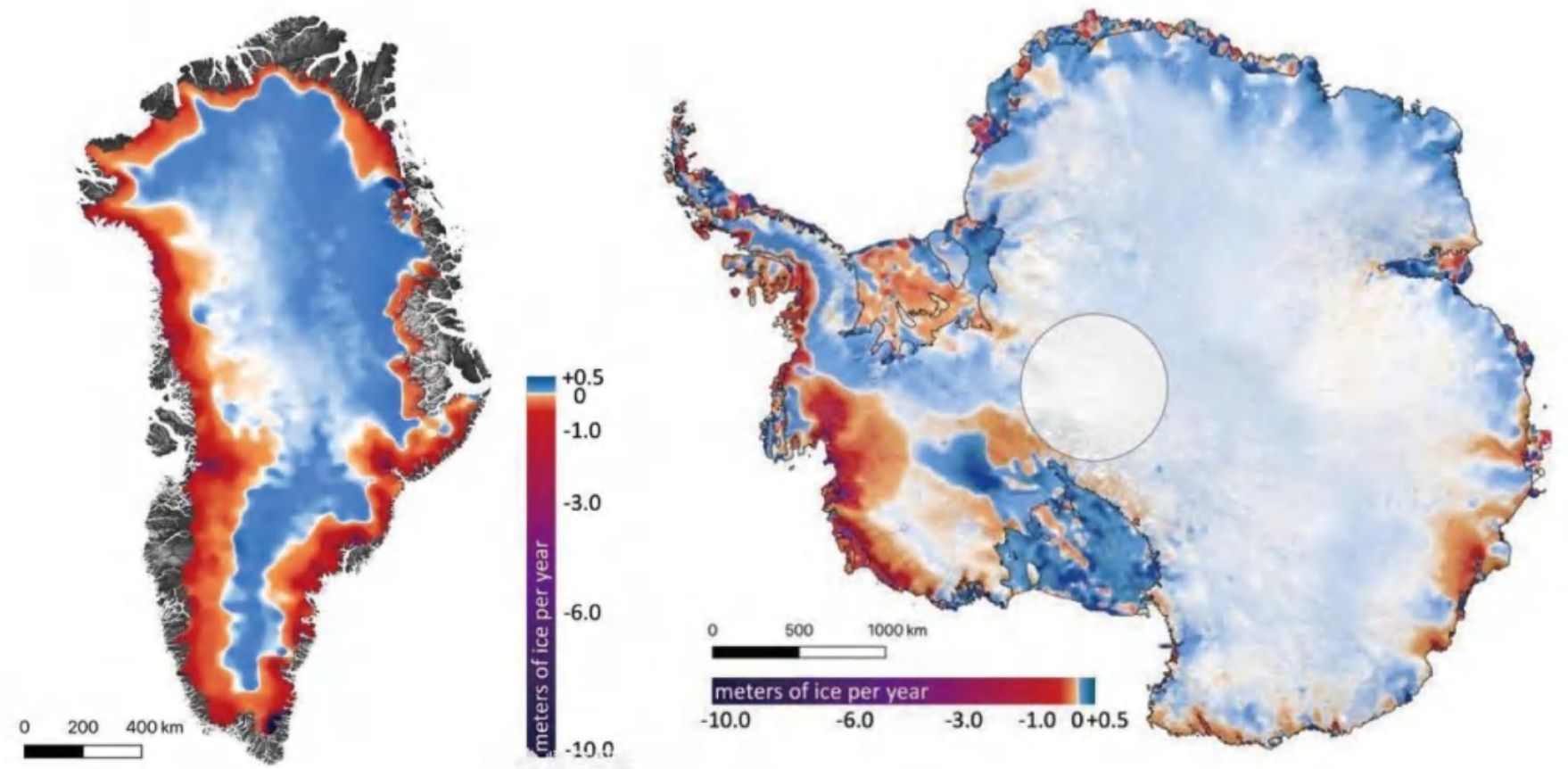
- 1 Set the context of a possible future or parallel time and space
- 2 Propose possible responses to the thesis in this context.



Sea level rise Research

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What makes sea level rise?

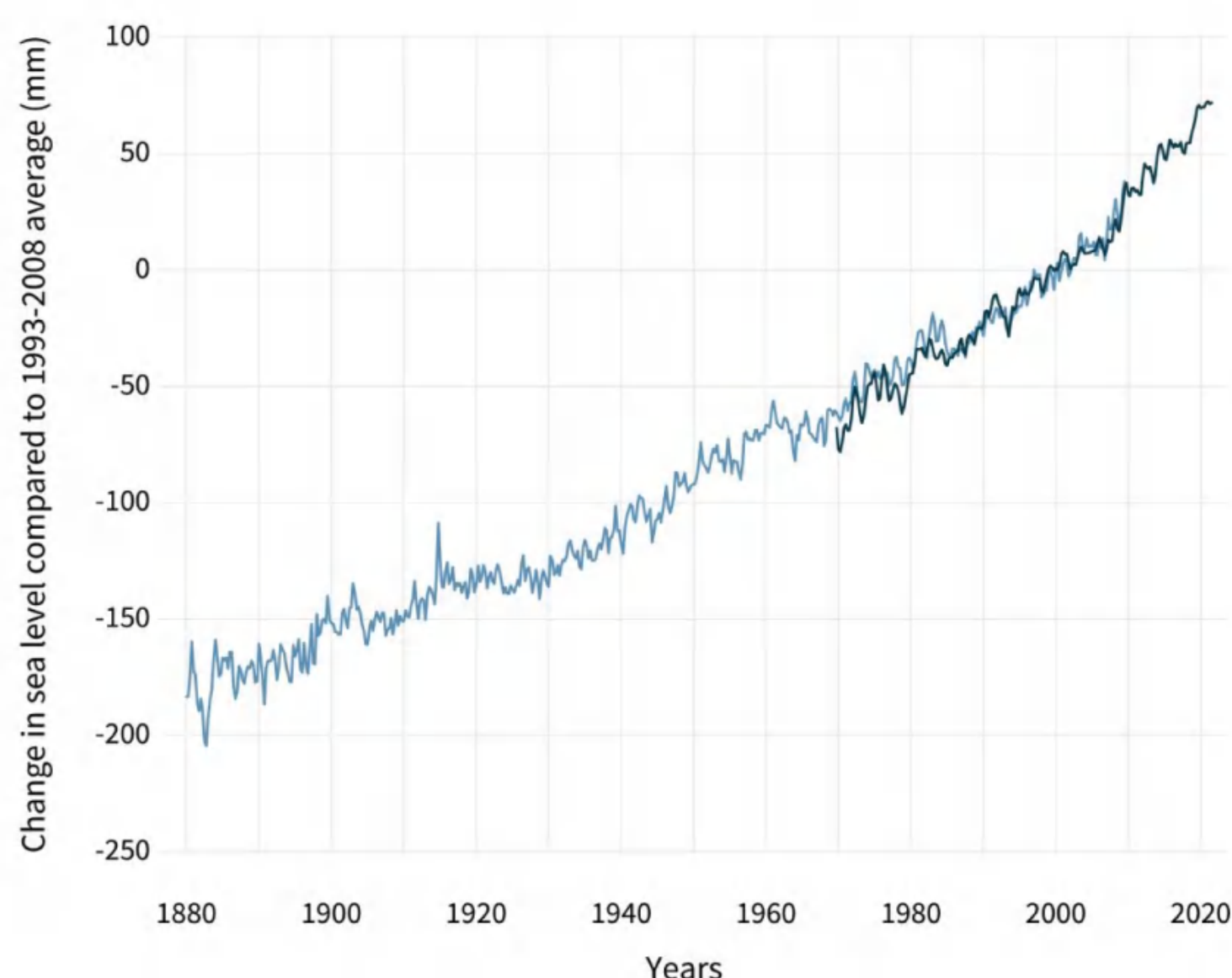


- 1 Global warming
- 2 Melting of glaciers

For human beings,
human activities
since industrial evolution
need to be blamed

There are two main reasons for the rise of sea level caused by global warming. On the one hand, it is due to the increased melting of glaciers, especially in the polar regions; Together, these two factors contribute to global sea level rise. From the beginning of the Industrial Revolution to 1950, more than 95% of the cumulative carbon dioxide emissions from the burning of fossil fuels worldwide were caused by developed countries. From 1950 to 2000, developed countries still accounted for 77%, while developing countries accounted for only 23%.

How does sea level rise?



In the first two decades of the 21st century, nearly 270 billion tonnes of ice disappear each year. Melting ice sheets and glaciers are one of the main causes of sea level rise. In the last 100 years of the 20th century, sea levels have risen by 10 to 20 centimetres worldwide. I contacted the **Professor Aidong Ruan from Hohai university**, and he said that the sea level is not linear and in some part of the planet, the land can be returned after a period of time.

- 1 Sea level rise affects coastal areas and islands first.
- 2 Sea level rise is recurrent and not linear. Some land will reappear after it has been submerged.

Sea level rise Research

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What is the influence?

By 2080, for every 1-2 degree rise in global temperature, storm surges could affect about 103 million people each year. One of the main consequences of climate change is rising sea levels, which will threaten low-lying coastal areas while making storm surges more damaging. Thousands of small islands are at risk, many of which could be submerged by the sea. If sea levels rise by 1 meter, storm surges could make island nations such as the Maldives, Marshall Islands, Kiribati, and Tuvalu uninhabitable. In addition, as the global climate warms, drought and water shortages may become more severe. Some studies predict that even assuming a minimum growth rate, a global warming of 1-2 degrees could cause 700-1.5 billion people to face water shortages. People who depend on melting glaciers for drinking water may experience serious water problems. For example, countries in the lower Himalayan-Hindu Kush mountains will face the harsh reality of increasing water scarcity, a region that is home to about 50-60 percent of the world's population.

Decrease in land area

People losing their home



Sea level first affects mainly small island nations in Southeast Asia and Oceania, which are poorer, with smaller land areas and lower elevations. Some of these smaller countries, such as Tuvalu, are at risk of submerging entire countries as sea levels rise.

For small island nations&coastal areas,



**Inability to
build defenses**



**Weak ability
to speak internationally**



**Strict
Residents immigration**

Small island nations

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Residents



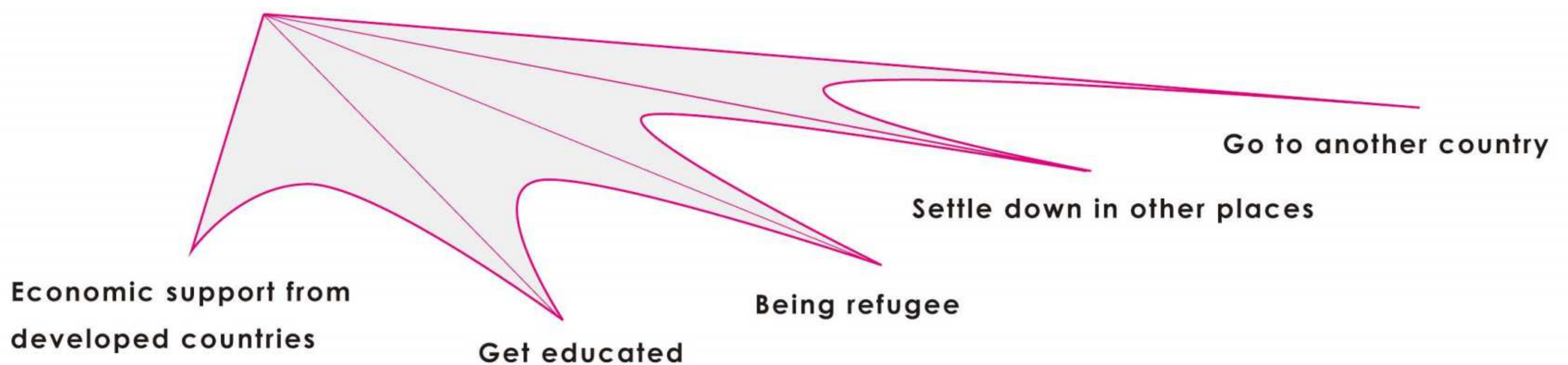
Local residents can leave through immigration before being inundated. But sadly many times their immigration is not approved by other countries. For example, Tuvalu's relocation request was rejected by Australia, while New Zealand chose an immigration quota of about 70 people per year, which is a drop in the bucket for the overall relocation of Tuvalu.

In fact, A large part of them are unwilling to leave their land, and many elderly people say that **they will not immigrate to other countries and will die here on the island**. And they are really worrying about their offsprings may forget about their background and their culture.

People from other countries

I wonder how people in other places that have not been affected so much by sea level rise imagine the lives of local people and how they can hope to help them. So I interviewed students from different countries and backgrounds.

Key words in interviews



Analysis:

People in other places think it will be easy for them to move away from their country and that's it. They usually have no idea of the hardship the residents there are facing. And home is not a place you can abandon casually. People in other place look at the residents in the position of government and they do not know what they really want. They thought what they want is just to move away and have a new life.

Small island nations

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Founding of AOSIS



A move expected to increase its international presence, Which is for dealing the sea level rise

Due to the large population and developed industry in developed countries, a large number of greenhouse gases such as carbon dioxide are emitted. However, these developed countries have not dealt with these greenhouse gases well, and some developed countries even emit greenhouse gases irresponsibly. These small island countries, as underdeveloped economies, have to bear the problem of rising sea levels, which are mostly caused by the greenhouse gases emitted by developed countries. The vast majority of developed countries have turned a blind eye to the dangers faced by these countries.

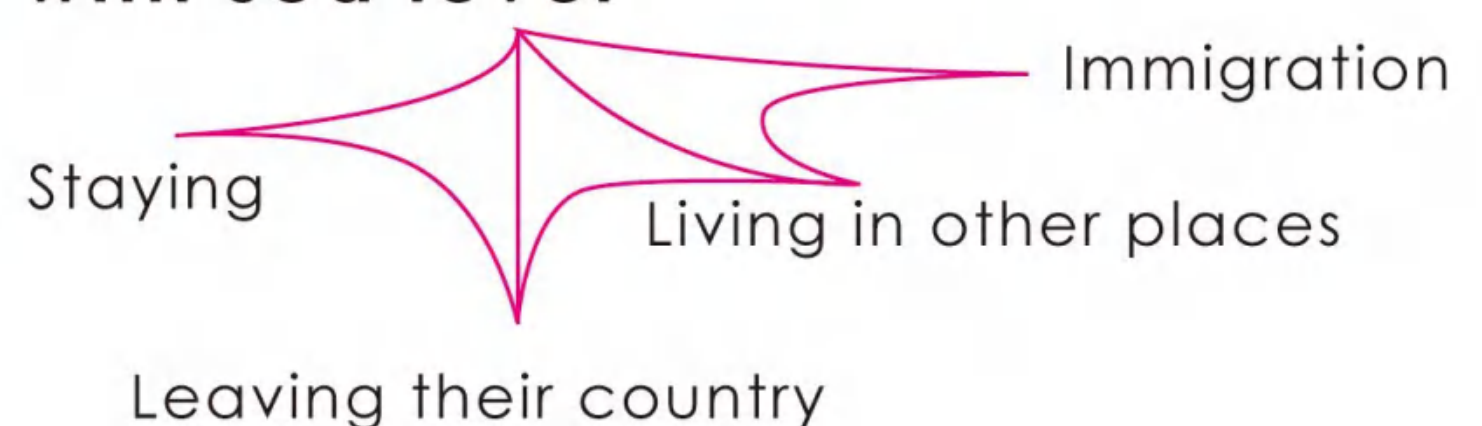
Because these island nations are so small, the Alliance of Small Island States (AOSIS) was formed to unite and speak out. AOSIS is a coalition of dozens of small island and low-altitude coastal states most at risk from global warming, and its role is to act as a lobbying group for small island developing States within the framework of the United Nations.

Main problems

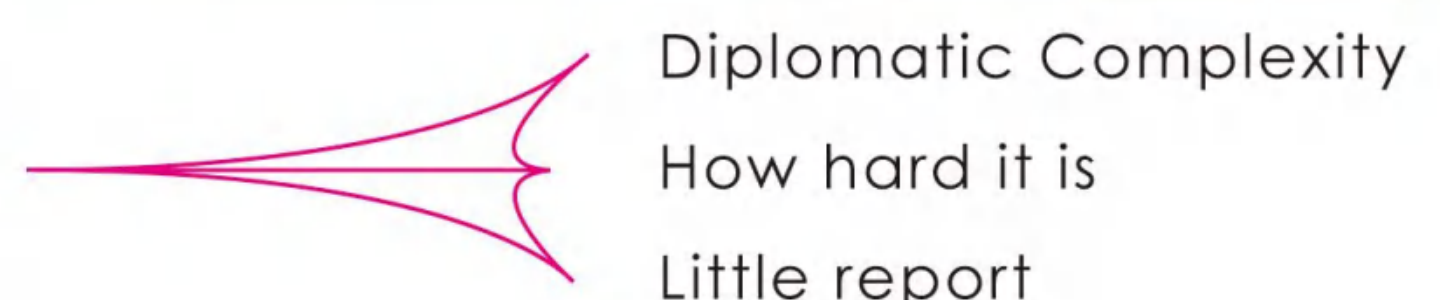
1.The disappearance of the territorial sovereignty of submerged countries



2.How local residents are coping with sea level



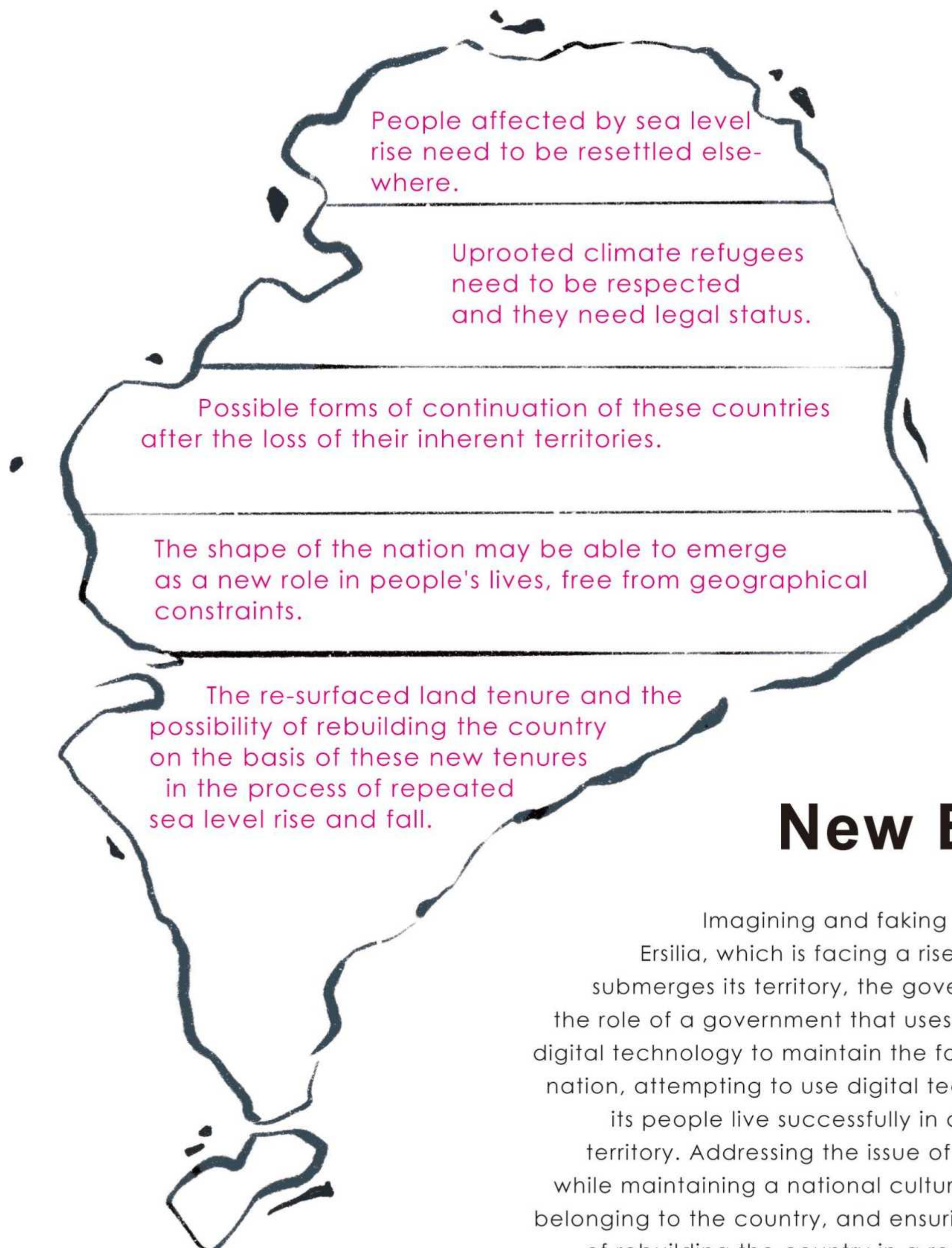
3.People in other countries do not understand the suffering they face



Design Guidance

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I expect to engage with this project from a speculative design perspective, which means that I will be hypothesising a world that could potentially be our future, where some coastal and island countries are facing more severe sea level rise and they have to start thinking about moving as a nation. Because there are countries in the world now that are also considering this, it makes the context more plausible and worthy of discussion. In this newly constructed world view, some important issues need to be addressed or discussed.



New Ersilia

Imagining and faking an island nation, Ersilia, which is facing a rise in sea level that submerges its territory, the government takes on the role of a government that uses the internet and digital technology to maintain the foundations of the nation, attempting to use digital technology to help its people live successfully in another country's territory. Addressing the issue of national identity while maintaining a national culture and a sense of belonging to the country, and ensuring the possibility of rebuilding the country in a recreated territory.

First attempt

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Case Study



The Republic of Rose Island (Esperanto: Respubliko de la Insulo de la Rozoj) was a short-lived micronation on a man-made platform in the Adriatic Sea, 11 kilometres (6.8 mi) off the coast of the province of Rimini, Italy.

It was built by the Italian engineer Giorgio Rosa, who made himself its president and declared it an independent state on 1 May 1968. However, it was never formally recognized as a sovereign state by any country of the world. Rose Island was occupied by the Italian police forces on 26 June 1968, subject to naval blockade, and eventually demolished in February 1969.



The Principality of Sealand is an unrecognized micronation that claims HM Fort Roughs (also known as Roughs Tower), an offshore platform in the North Sea approximately 12 kilometres (7.5 mi) off the coast of Suffolk, as its territory. Since 1967, the decommissioned Roughs Tower has been occupied and claimed as a sovereign state by the family and associates of Paddy Roy Bates.

Since 1987, when the United Kingdom extended its territorial waters to 12 nautical miles, the platform has been in British territory. While Sealand has been described as the world's smallest country, it is not recognized by any sovereign state.



The Aerican Empire is a micronation founded in May 1987, which has no sovereign territory of its own and has never been recognized by any other sovereign state as existing. Its name stems from the term "American Empire". In 2000 The New York Times described its website as "one of the more imaginative" micronation sites.

The Aerican Empire was founded on May 8, 1987 by Canadian-born Eric Lis and a group of his friends. For the first ten years the Empire was almost completely fictional, claiming sovereignty over a vast galaxy of feigned planets and engaging in wars against other micronations (although never resulting in physical contact).

Insight

There have been a number of micronations created for various purposes, with different forms of construction. But what they all have in common is that they were created by private individuals and are not recognised by the rest of the world.

The Erlisia that I wish to falsify is different in that it is a sovereign state that is already recognised by everyone and has to move on to another form of existence because its territory has been submerged for a certain period of time. It has a formality that other micro-states do not have, and it requires a governmental structure that needs to facilitate the integration of its people into the life of other states. It also protects the possibility of rebuilding a sovereign state on the basis of the original national territory and national culture that remains exposed after the change in sea level.

First attempt

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Ersilia

Territory submerged

Culture and country regeneration

A reminder of the country's roots

Migration to other countries

International matchmaking

Local integration

Responsibility
for expatriates

Legal status

New Ersilia

The evidence required to falsify a country includes a representation of the power held by the country and a representation of the image of the country, such as: the flag, anthem, coat of arms, currency, identity documents, stamps, etc. Also the definition of a state nowadays often requires the state to meet four characteristics, namely a permanent population, a national territory, a government and the ability to establish relations with other states. After New Ersilia was destined to lose its territory as a state in the wider sense, how could it still seek recognition as a former state. And to complete the evolution from a state in the broad sense to a post-sovereign state without territory, built on the Internet system.

Related Evidence

National flags

National capital city

Government websites

Identification documents

Passports

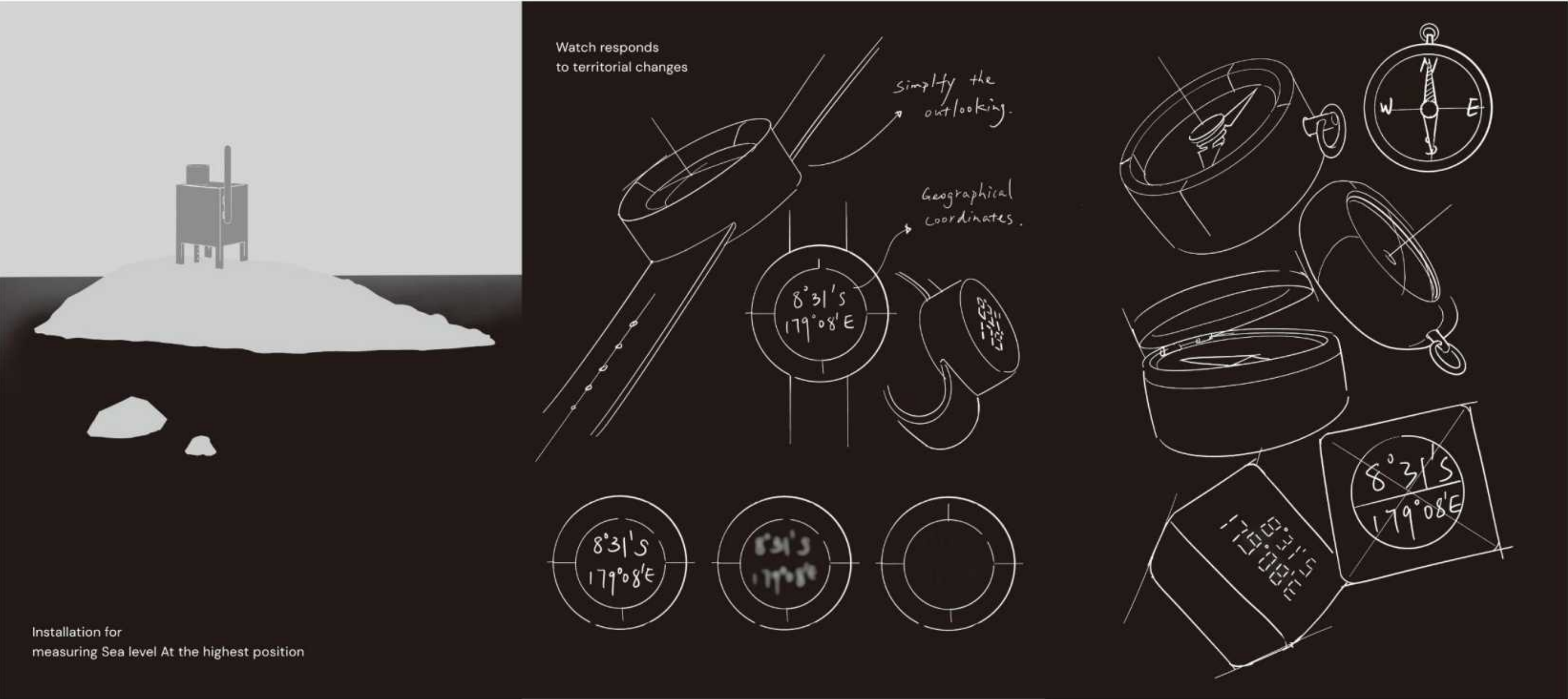
Stamps

Wikipedia entry

Devices support regeneration of territorial sovereignty

First attempt

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<div>000°00'00"</div> <div>000°00'00"</div>	008°31' S	008°31' S	008°31' S	008°31' S	008°31' S	008°31' S
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	179°08'E	179°08'E	179°08'E	179°08'E	179°08'E	179°08'E

Government website

Main page

Showcasing the territory as it is

Benefits

Births, deaths, marriages and care

Business and self-employed

Childcare and parenting

Citizenship

Crime, justice and the law

Disabled people

Driving and transport

Education and learning

Environment and territory

Money and tax

Passports, travel and living abroad

Visas and immigration

Working, jobs and pensions

History and culture

Current status of the territory

Guide for Environmental Migration

Action for repatriation: Rebuilding Ersilia

Feedback

The use of government web pages as a country's tandem is unconvincing, and the watch form cannot be circulated for tens or hundreds of years. The perspective is from the perspective of the upper government and does not care what the local people think about it. The aspirations of the locals need to be brought into the project, rather than thinking about a quick solution to their subsistence problems.

Shift of understanding

It is important that the people who live on these small islands want to stay here, and they are angry at the injustice suffered by their country and their land. And people in far-flung developed countries know very little about this, and they don't understand that these people are facing more than just subsistence difficulties. Not only did they face physical death, their country, nation and culture were also destined to disappear into history in flight.

Land submerged



Residents moving to other places

**Keep the local culture and the ethnic identity
(For rebuilding when the land returns)**

Culture beyond territory



The Jewish, Israel

- Can be expected
- Out of control

The Torah, the Jewish religious text, depicts stories of ancient prophets who were instructed by their God to return to this homeland.

Influenced by Zionism, Israel's traditional mainstream historians use a large number of official archives to construct a narrative centered on the "Jewish national homeland".

- **Inhabit a region**
- **Unique Religion**
- **Politic support**
- **Religion story about returning**

Rebuilding the connection between people and land

To create a story about the land to rebuild the connection between people and the land, make people in other places realize what this land means to this group of people who have lost their country, and learn from them that they should be responsible for climate change and they should do something now.

Second attempt

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Background and timeline

Sea level continue to rise, and Ersilians find they cannot rely on the economic aid and emissions reduction pledges made by developed industrial nations in climate agreements. The inhabitants of the island were reluctant to leave their land, so they launched a campaign to save the island. They used relatively primitive means to collect and transport the sea sand from the shoals to specific locations on the island and wanted to build up some parts of the island so that they could continue to survive here. Although this method is difficult to resist the rise of sea level and is doomed to fail, this movement has become an important national symbol and symbol of Ersilia. The strong feelings between the ersilia people and the land that continue in this movement have brought the land out of the water. The return of people to ersilia became a household prophecy of ersilia. The elements involved in the mechanism of this movement have also become important symbols of protests in cities against climate change and for the rights of the people of small island states.



In order not to misunderstand the audience, make these items more props and let people understand the whole story, I plan to blur out the era that everything seems to belong to, and only use the feeling of the object as a criterion for selection, rather than rational future technology, or present possibility, which is more like **A montage of parallel worlds**.



Archaeological collection

To describe and present this story, the best option is to stitch together historical memory with artifacts and records, just like an archaeological excavation

Design & Prototype

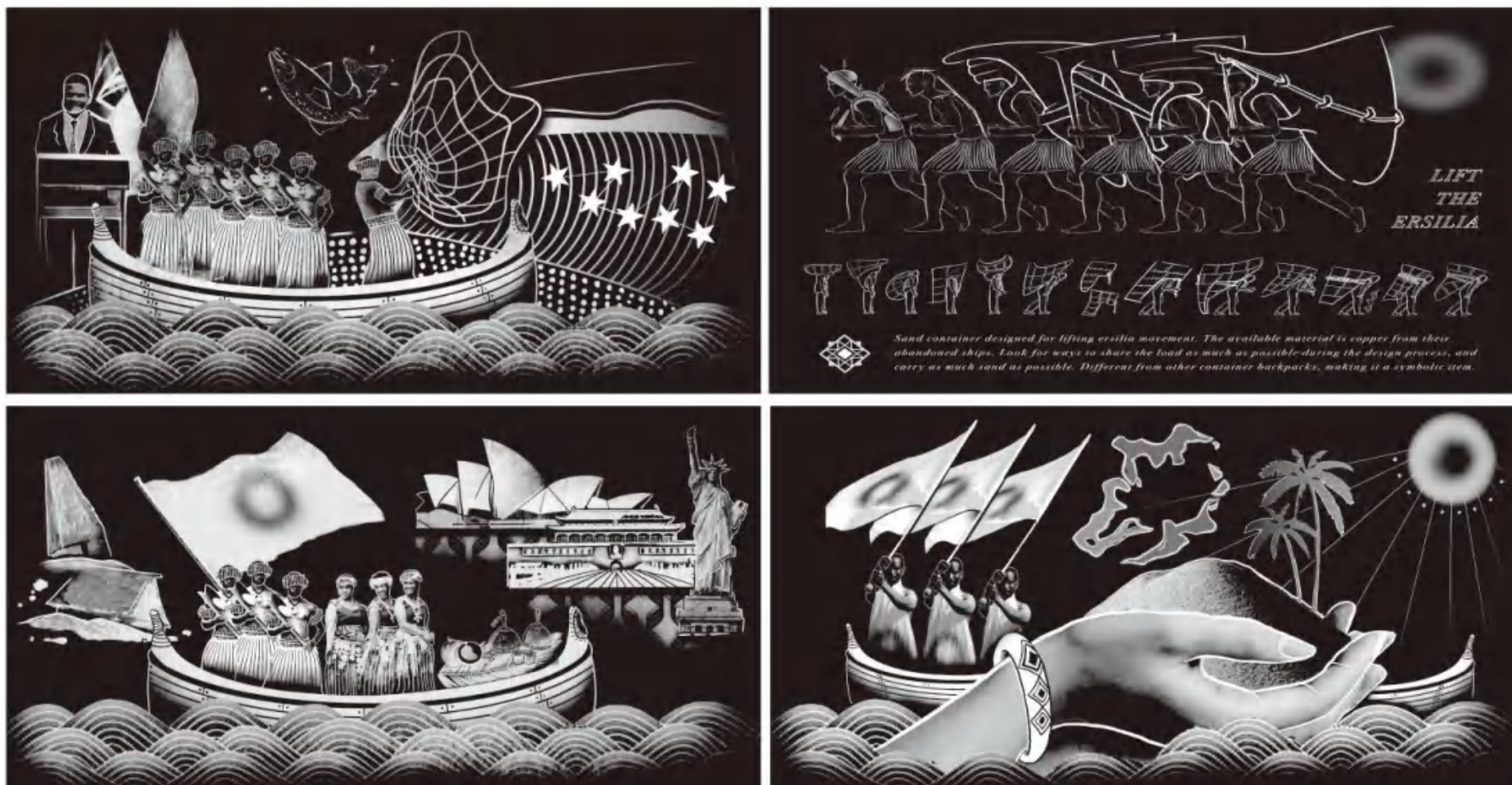
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1 Broken stone engravings

First attempt



Second attempt



The lines in the first attempt were too simple, lacking patterns and repeating elements, without the feeling of old things. Corrected on the second attempt.

Prototype



Woodcut + Plaster cast

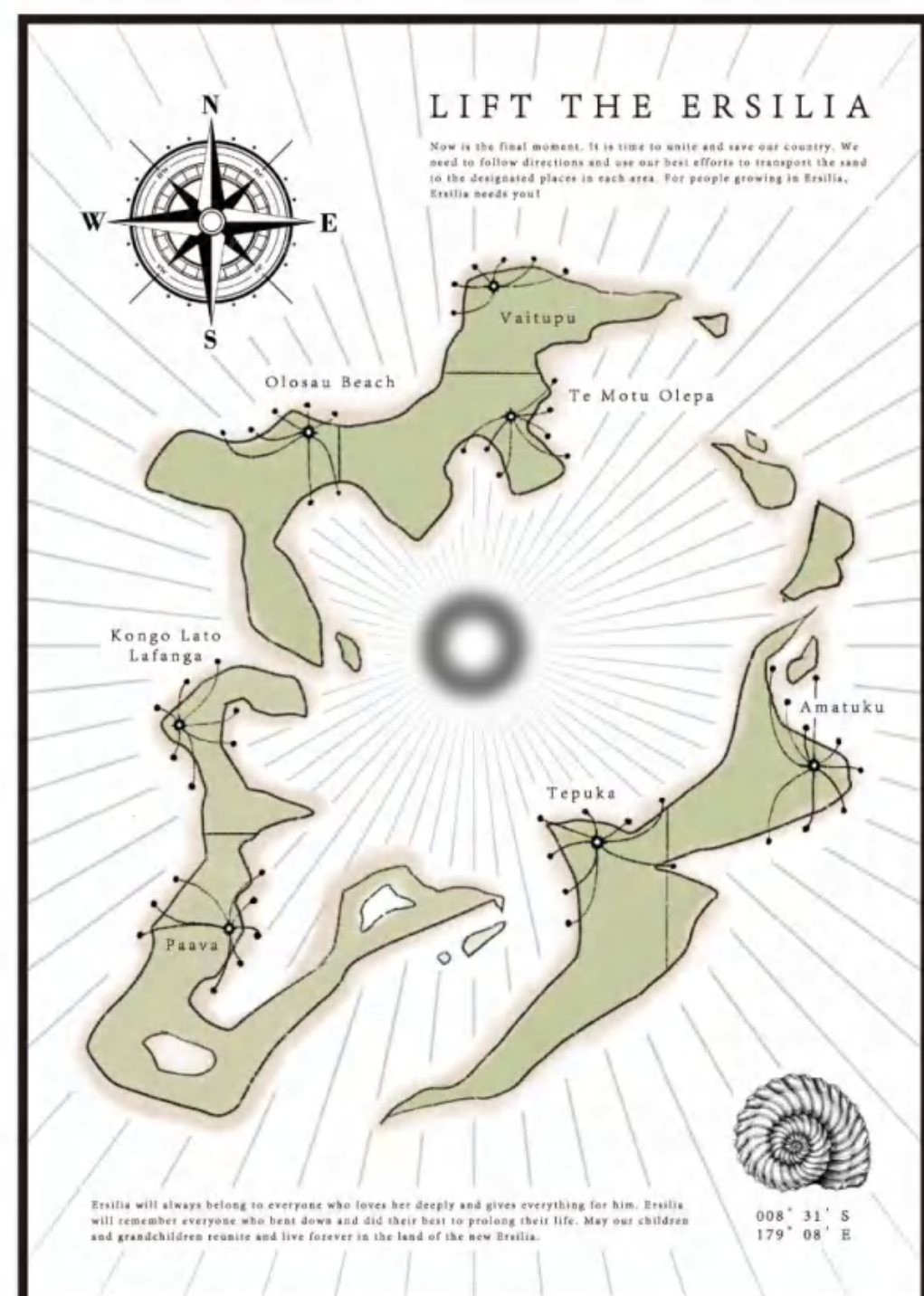
Design & Prototype

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2&3 Two documentaries

Decalarations of the movement
Sand transportation plan

Printing version



Prototype (aging)



Procedure:

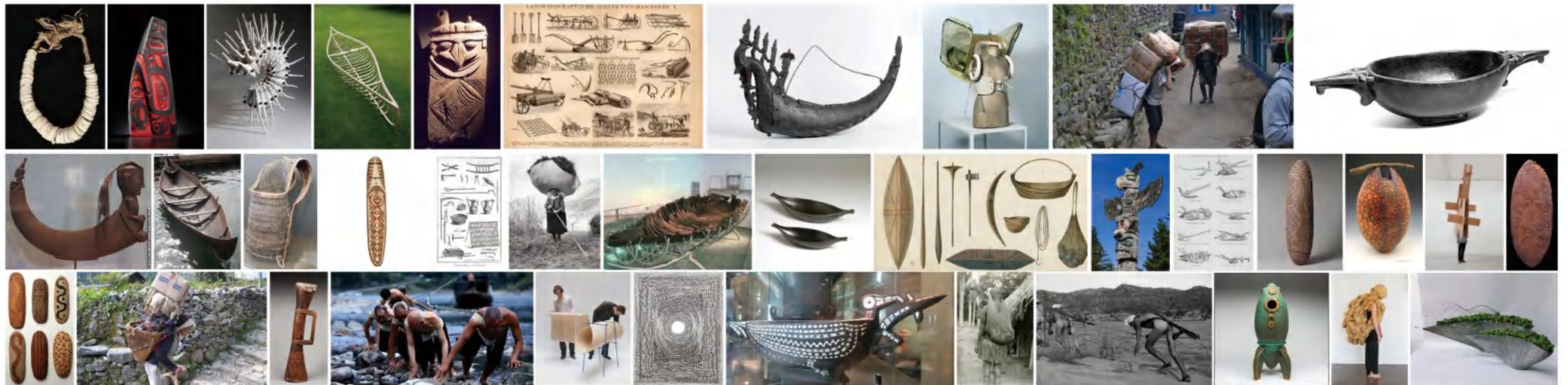
1. Crumple the paper
2. Mix well with coffee, soy sauce and water
3. Wet the paper surface with the mixed liquid with a toothbrush
4. Wait for the paper to dry before wetting it unevenly with the mixture

Design & Prototype

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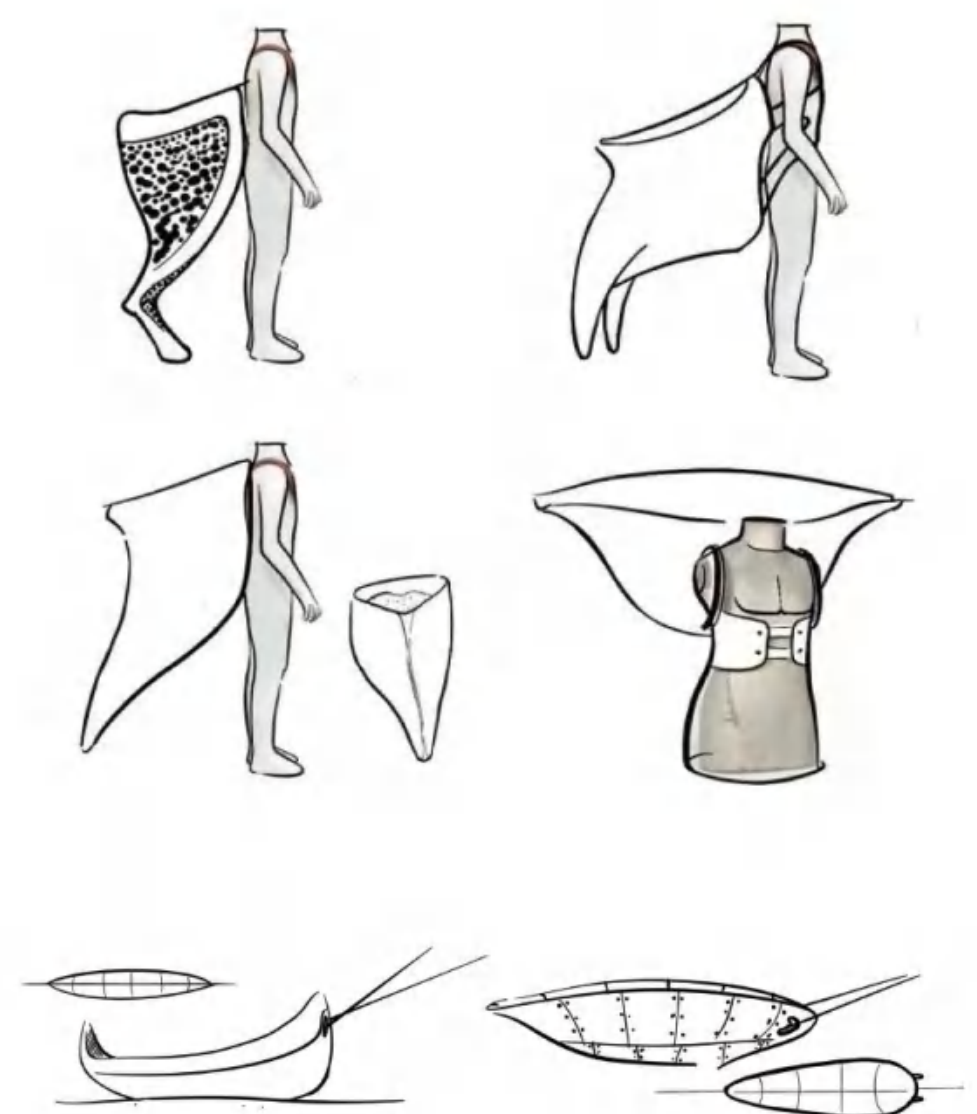
4 Sand moving tools

Mood board

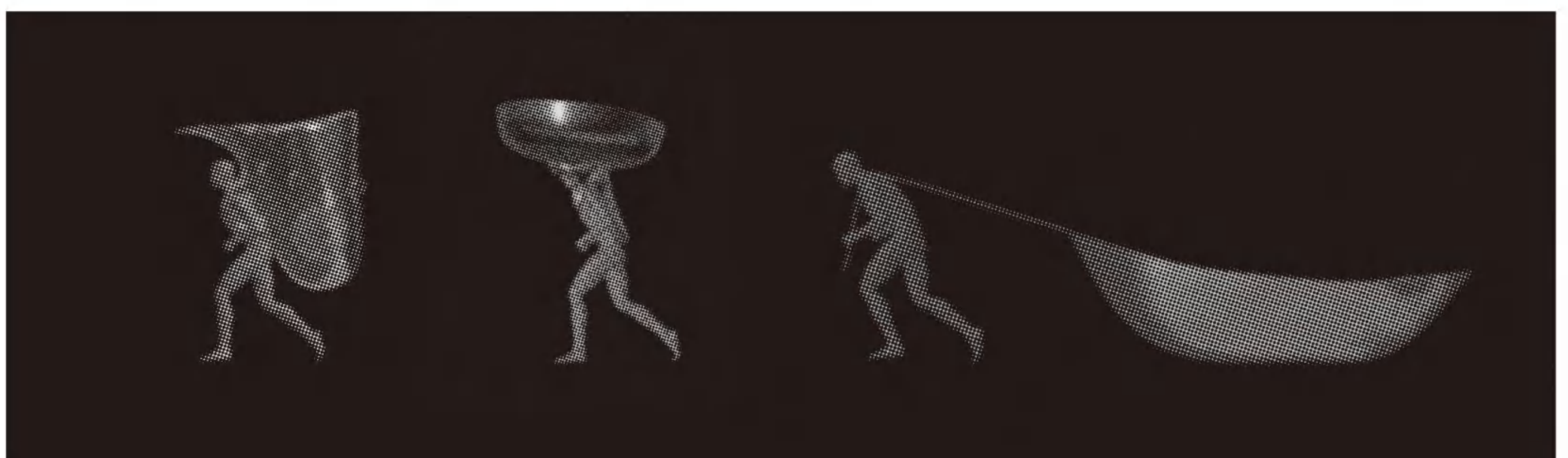


Since I wanted this tool to show the hard work of moving sand, I started the study with a person's carrying posture, and studied where people use to carry it. I found that using the back, using the head, and dragging are three more suitable methods.

Sketch



Sand container designed for lifting ersilia movement. The available material is copper from their abandoned ships. Look for ways to share the load as much as possible during the design process, and carry as much sand as possible. Different from other container backpacks, making it a symbolic item.

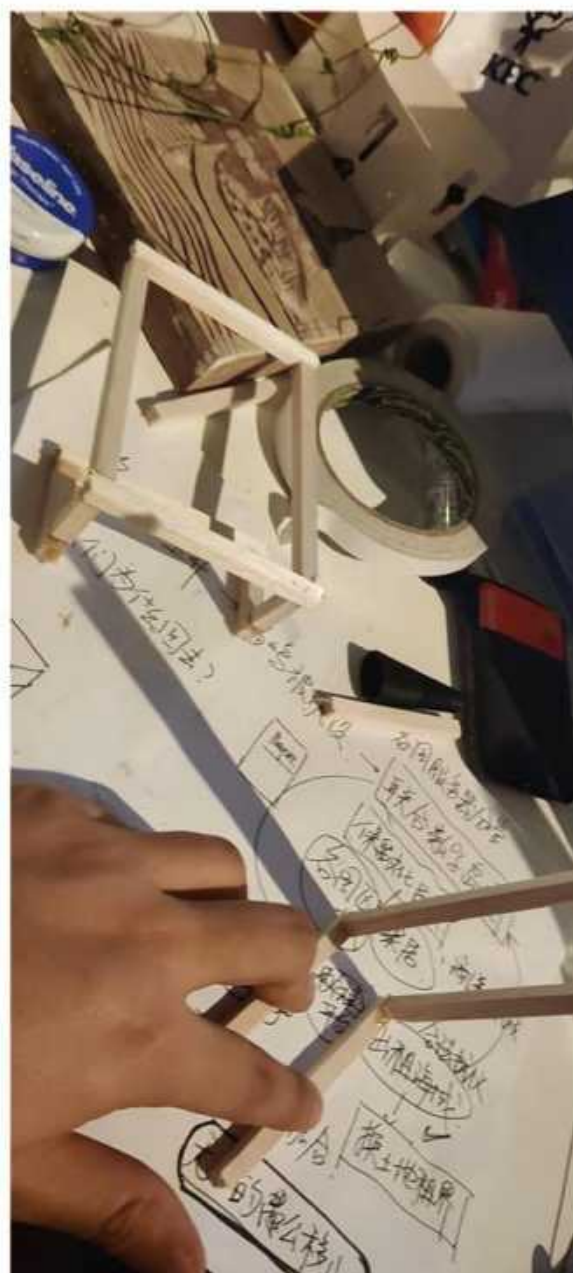


Design & Prototype

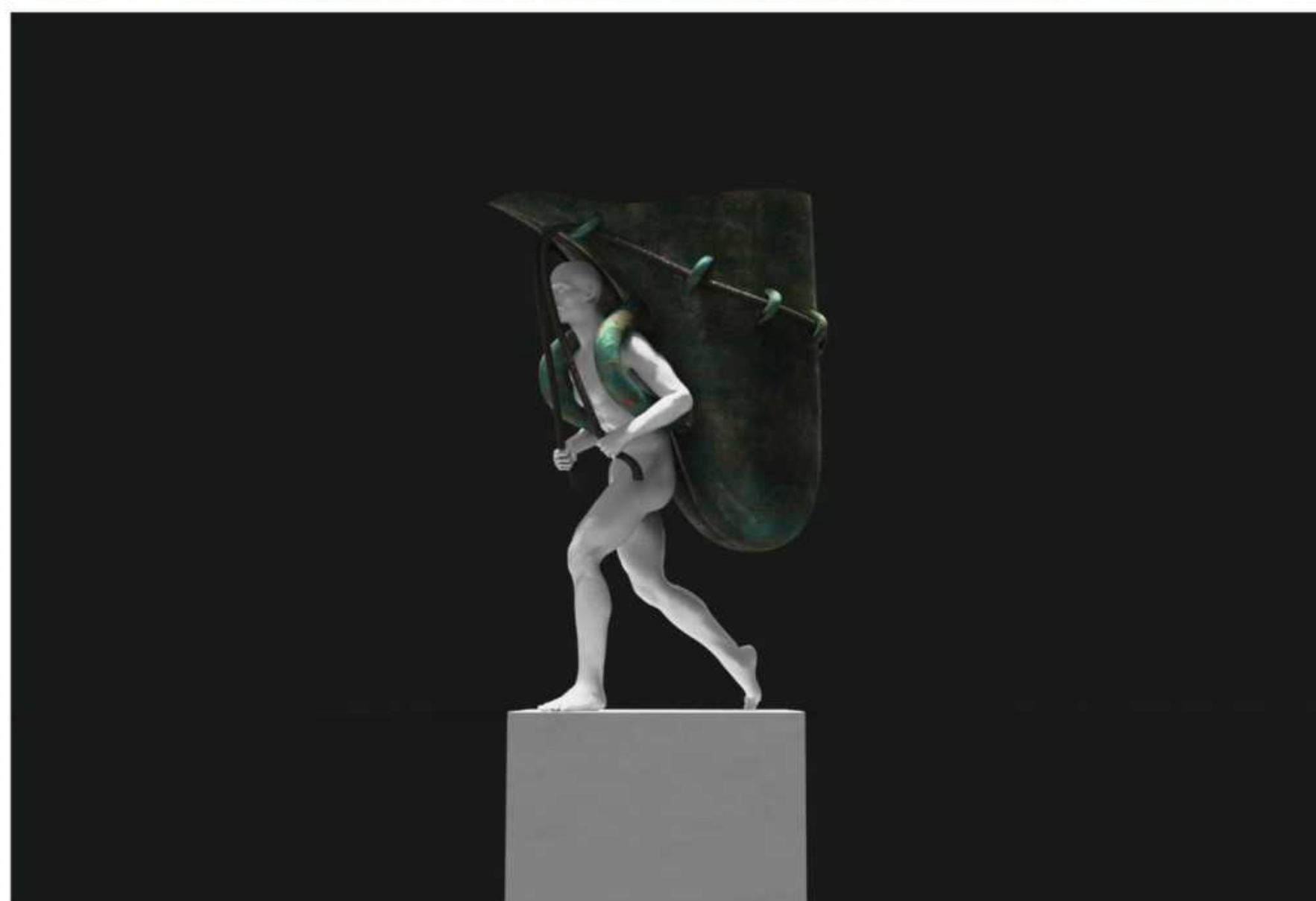
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4 Sand moving tools

Prototype&3D Modeling



The function can not fully satisfy the sand transportation, which is not convincing for people



Analysis:

- Lack of texture
- The structure is too ordinary, and lack the sense of props
- The movement of the back does not seem laborious when the container is not large enough
- Copper Containers for Backpacks Are Unconvincing

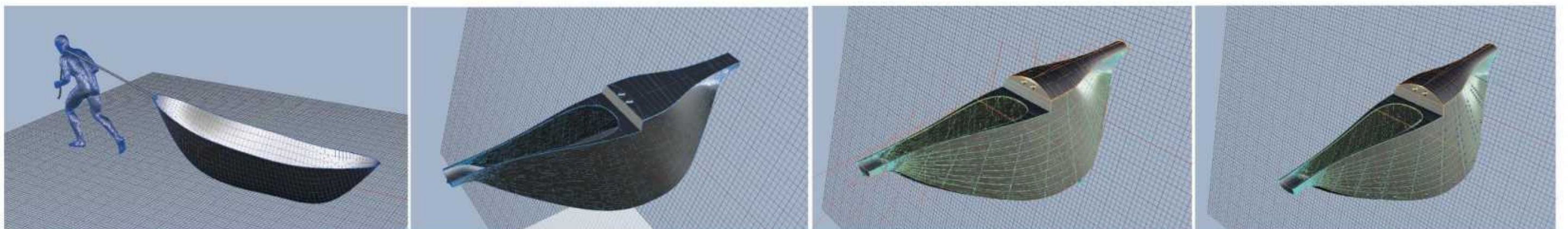
Design & Prototype

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4 Sand moving tools

Prototype&Iteration

Some elements and features were found to be overlooked when making a backpack-like model, so the solution was iterated. Since the process of sand mining needs to be completed in water, but it needs to be dragged on the sand, so the sand transport tool should preferably be a tool that can be used by both amphibious. The third category, that is, the dragging method is the most suitable. After a simple design, the production of digital models and physical models begins.



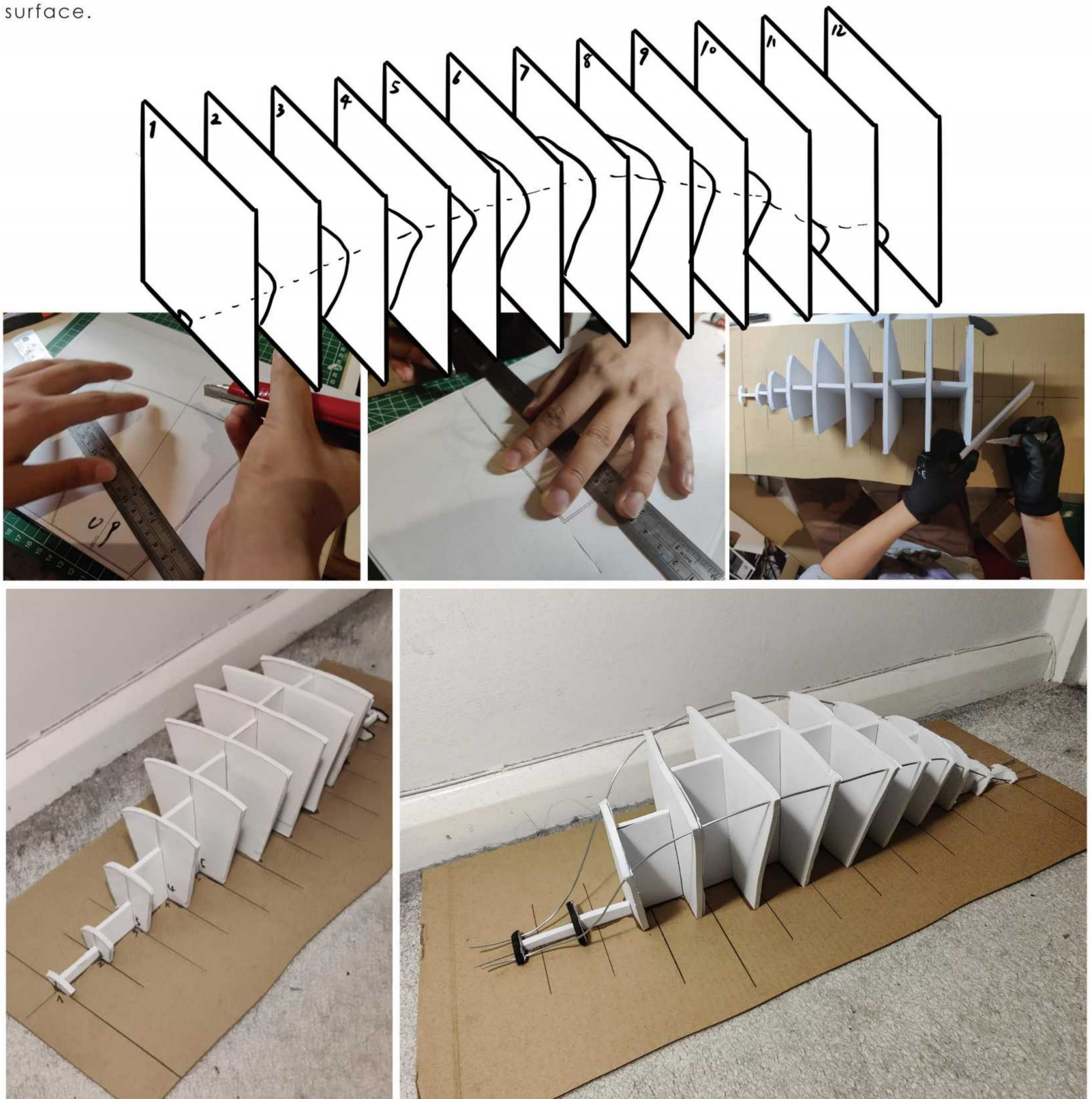
Design & Prototype

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4 Sand moving tools

Prototype

Cut into 12 cross-sections, and use the connecting lines of the inflection points of the cross-sections to determine the space curve, so as to determine the approximate position of the space surface.



Design & Prototype

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4 Sand moving tools

Prototype&Iteration



The copper sheet is heated and softened, and reacts with ammonia water, salt and white vinegar to form patina.



Overlapping riveting of metal sheets along curved surfaces.

Design Display

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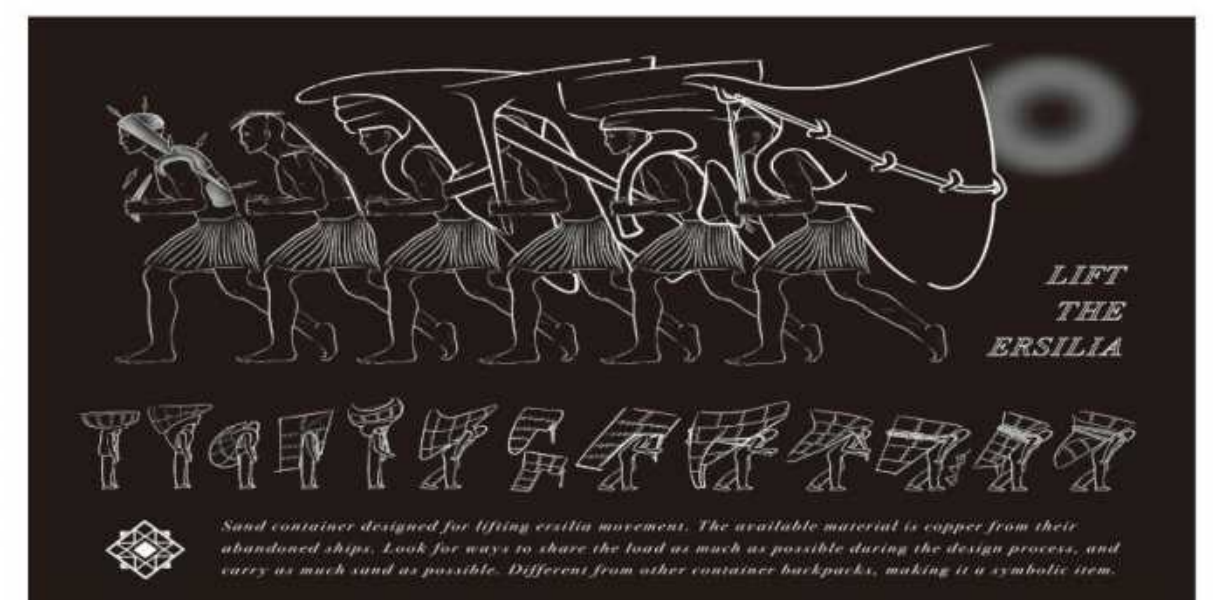
Digital display



Rise of sea level, Carvings on broken brick, by nameless residents of Ersilia, about 2047, Ersilia



Lift the Ersilia, Carvings on broken brick, by nameless residents of Ersilia, about 2047, Ersilia



Flee the Ersilia, Carvings on broken brick, by nameless residents of Ersilia, about 2054, Ersilia



Prophecy of returning to Ersilia, Carvings on broken brick, by nameless residents of Ersilia, about 2057, Ersilia

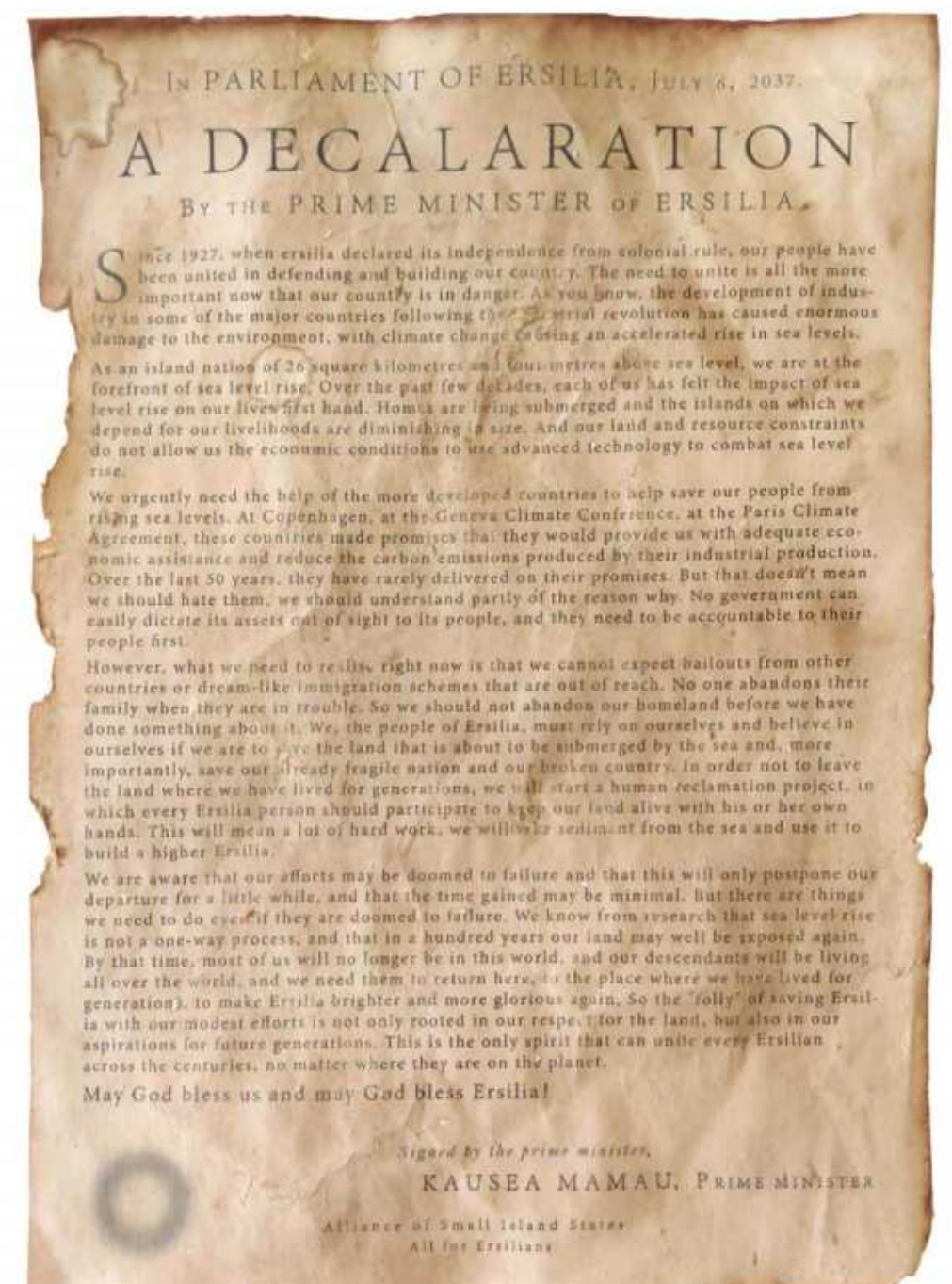


Design Display

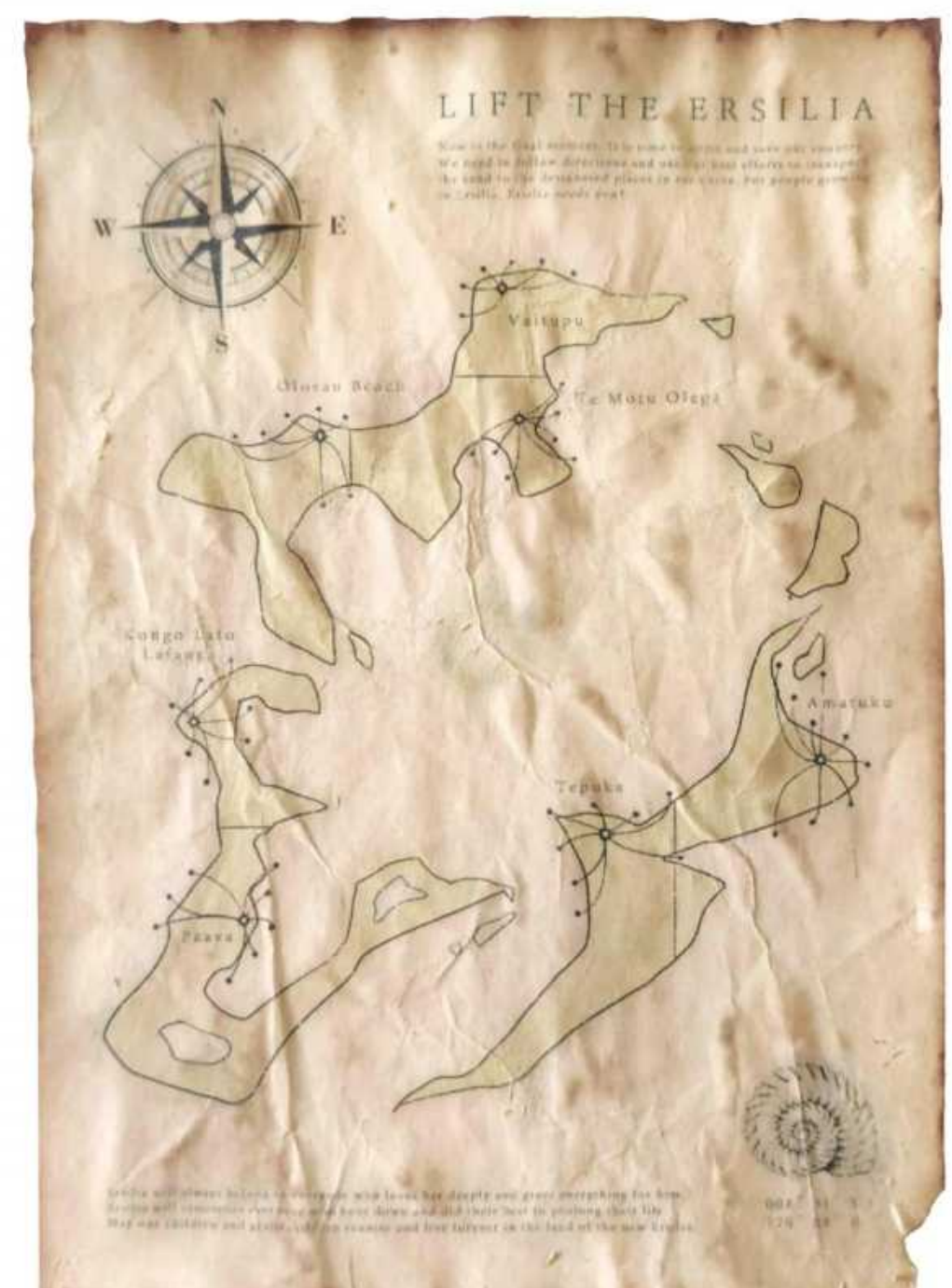
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Gypsum real object,
the Ersilia stone carvings



Declaration of the Lift Ersilia movement,
by Kausea Mamau, Ersilia



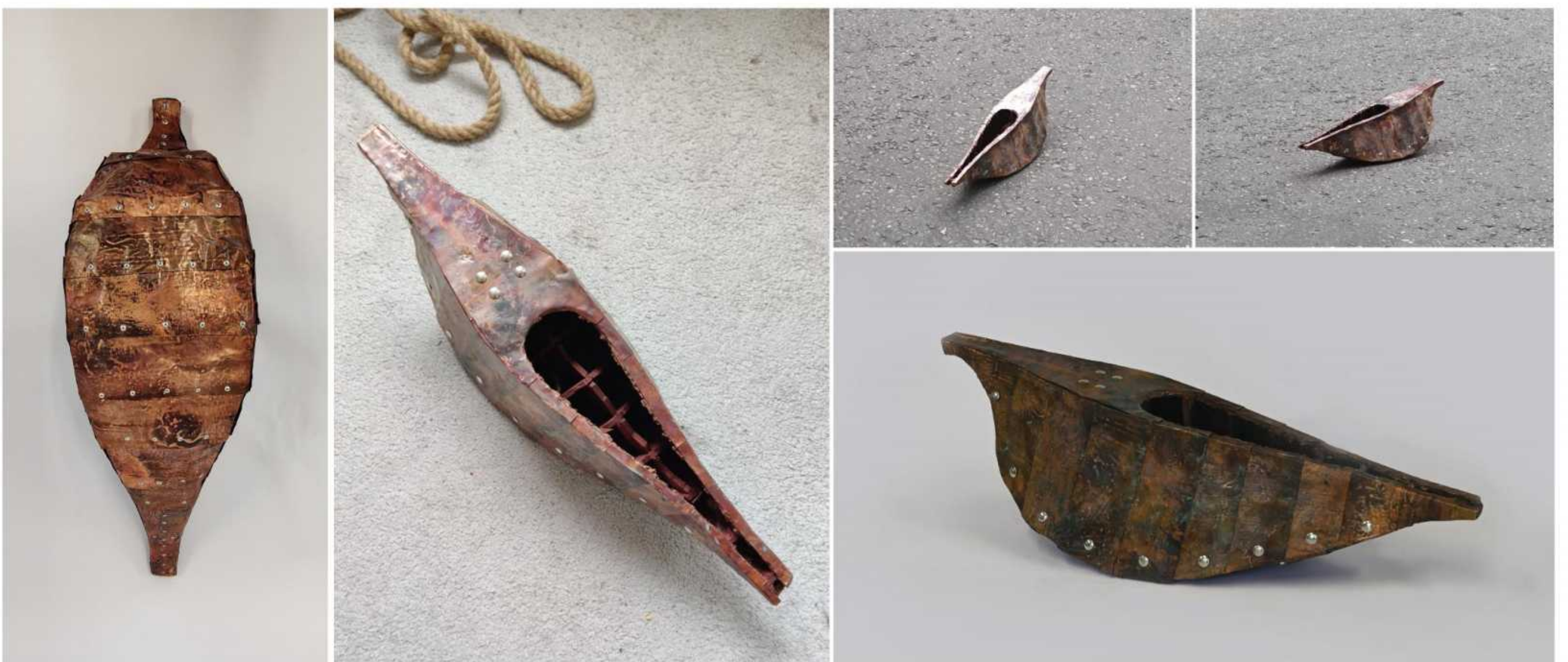
Manual sand transportation plan, by
the government of Ersilia, 2037, Ersilia

Design Display

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A sand Carrier in the Lift Ersilia movement,
by local artisan, Ersilia



Design Display

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An ersilian is bumping the collected sand into the sand carrier



Two Ersilians are dragging the sand carrier onto the beach

Design Display

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An ersilian is protesting on the beach



A boy hold the lift Ersilia flag in the protest crowd
(Ersilia flag becomes element of climate protests)



A young man wave the lift Ersilia flag in the square



People drag the sand carrier to protest in the city.