MINISTRY OF EDUCATION AND SCIENCE OF UKRAINE

KYIV NATIONAL UNIVERSITY OF TECHNOLOGIES AND DESIGN

Faculty of Design

Department of Graphic Design

BACHELOR'S THESIS
on the topic:

Development of a series of posters "Relative World"

Performed by: a student of the BED-20 group
Yonghao ZHAO
Supervisors As. Prof. Liang WANG, PhD., As. Prof.
Olga MYKHAILIUK
Reviewer Dr. Philos. Sc., Prof. Oleksandra
KOLISNYK

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Abstract

With the continuous progress of science and technology and the development of human civilization, the exploration and imagination of the unknown world has become an important source of human cultural creation. As an idea full of infinite possibilities, the parallel world provides a broad creative space for design. This graduation project aims at the profound thinking and innovative practice of the future fate of mankind under the extreme circumstances of the post-epidemic world, the world in which a large amount of nuclear wastewater is discharged and the world after nuclear war. By designing themes such as the world after the epidemic and the world after nuclear war, audiences can think deeply about social phenomena and the future of mankind. Showing these influences through illustrations and other forms can make people feel the seriousness of these events more intuitively, thus triggering their concern and reflection on social problems. The aim is to deeply think and understand the theme of the parallel world, and determine the specific conception and theme setting of the illustration. Creative ideas based on a deep understanding of the subject matter transform the concept of parallel worlds into a concrete visual image.

Keywords:epidemic,0situation,nuclear-contaminated,water ,war ,parallel world ,ruins

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INTRODUCTION

Research background The concept of parallel worlds has always been an attractive topic, spanning multiple fields such as philosophy, physics, and psychology. In the realm of illustration, the concept of parallel worlds provides rich inspiration and expression for artistic creation. Under this concept, more imaginative and profound works can be created, while also prompting audiences to contemplate and imagine the real world. In recent years, the world has been constantly challenged by global events such as pandemics, wars, and environmental crises. Through this study, we aim to highlight the various problems and challenges that crises like pandemics, nuclear contamination, and wars may bring, thereby drawing attention and prompting societal reflection. This study seeks to foster collective responses to these challenges, thereby promoting social progress and development. Furthermore, through the medium of illustration, we aim to convey positive social values and inspire people to work together towards a better future.

Research purpose The purpose of this graduation project is to conduct in-depth research and analysis on the abandoned world after epidemic, extensive nuclear wastewater discharge, and wars, in order to explore the significant crises facing human society. Through the concept of parallel worlds, the project aims to diversify artistic styles and enhance narrative elements. Specifically, it involves depicting the serious impacts of crises such as pandemics, water pollution, and wars on human society, thereby drawing attention to and prompting reflection on these issues.

Research methods and technical routes The research methodology and technical roadmap for this design project are as follows:

Background Research: Conduct in-depth research on relevant literature regarding the concept of parallel worlds to clarify the research objectives and theoretical foundation.

Survey and Data Collection: Collect and organize relevant illustrations and literature on the theme, seeking inspiration from them.

Design Method Selection: Based on the research background and objectives, select appropriate design methods to conceptualize and design illustration works.

Material Preparation and Technology Selection: Choose suitable painting methods, such as digital painting. Prepare materials and tools needed for miniature model making, including clay, pigments, and 3D printing materials.

Design Practice: Carry out illustration drawing and creation according to the design plan. During this process, continuously explore various creative possibilities and complete the production of miniature landscape models based on the illustration works.

Artwork Evaluation: After completing the artwork, conduct evaluation and feedback. Evaluate the work with the guidance of mentors and peers, and make modifications and improvements based on feedback to achieve the desired results.

Summary and Presentation: Compile the research process and outcomes, write design explanations, and prepare materials for showcasing the artwork. Present the design achievements.

SECTION 1.
THEORETICAL OVERVIEW

1.1 Overview of Painting Styles and Techniques

Illustration, as a widely used form of visual art, has the advantage of conveying information and concepts through images and symbols, making complex ideas easier to understand and remember. Illustrations typically have vivid visual effects and unique styles, attracting the audience's attention and increasing the attractiveness and impact of the artwork. By using color, lines, and atmosphere, illustrations can express emotions and establish emotional connections with the audience.

Overall, illustration serves as a versatile form of visual art, playing important roles in conveying information, attracting attention, and expressing emotions.

In this design project, a thick paint style is employed. Thick paint was originally a technique used in oil painting, emphasizing the use of thickly applied layers of paint to highlight focal points and create texture. Because oil paint dries slowly, colors can be scraped off or overlaid during the painting process. Rembrandt was one of the earliest artists to use the "thick paint" technique. In this project, however, the thick paint technique used is digital, characterized by the use of numerous layers and brush strokes in digital painting software to create texture and depth in the artwork. This style is often used to emphasize the realism and artistic qualities of the image. In digital painting software, brush size, opacity, and layer overlay can be adjusted to achieve brush strokes and texture effects similar to those in oil painting. This style is commonly used in illustration, graphic design, and game art.

1.2 Overview of Miniature Landscape Techniques

Miniature landscape refers to the technique of shrinking real-world scenes, which may already exist or have been described, to a certain proportionate scale. Through meticulous craftsmanship and creativity, these tiny scenes are presented within limited space. Different scales of miniature landscapes can evoke different visual sensations for viewers. While miniature versions of certain large-scale buildings may not possess the grandeur of their prototypes, they exude a distinct delicacy.

The key to creating miniature landscapes lies in selecting suitable materials. Artists typically utilize various materials such as wood, plastic, and paper, combining and arranging them as needed to create vibrant scenes. Moreover, size and proportion must be carefully considered during production, requiring precise control over the size and scale of each element to ensure overall harmony and unity. Attention to detail is crucial in miniature landscape creation, focusing on aspects such as the texture of buildings, the form of vegetation, and the expressions of figures, thereby enhancing the vividness and realism of the artwork.

This artistic form is often showcased in art exhibitions, effectively capturing the audience's attention. Through intricately crafted models, viewers' curiosity is piqued, prompting exploration of the miniature world. Similar to illustration, miniature landscapes can also visualize complex abstract concepts, making them more easily understandable and stimulating the audience's imagination.

Conclusions to section 1

1.Thick coating technique this style is often used to emphasize the realism and artistry of the picture. In the painting software, brush strokes and textures can be achieved by adjusting brush size, transparency and overlaying layers. This style is often used in areas such as illustration, graphic design and game art.

2.Miniature landscape techniques this art form is often used in art exhibitions to attract the attention of the audience and arouse the curiosity of the audience through small and delicate models and trigger their exploration of the tiny world. Like illustration, it can also concretize complex abstract concepts, make them easier to understand and stimulate the imagination of the audience.

SECTION 2.
DESIGN CONCEPT AND SCHEME FORMULATION

2.1Design Research and Analysis

Illustration Design Form Current Situation Survey: Analyzing the advantages and limitations of illustration design works in conveying information, expressing emotions, and the potential and challenges in expressing social issues.

Related Topic Research Survey: Studying relevant literature on topics such as pandemics, nuclear wastewater, and wars to understand their impact on human society and possible future trends. Analyzing domestic and international illustration works related to these topics to explore different artists' expressions and viewpoints.

Technical and Media Research: Investigating commonly used techniques and media in illustration design, including hand-drawn and digital illustrations, analyzing their characteristics, strengths, weaknesses, and application scopes.

Target Audience: The general public, aiming to raise awareness and provoke thoughts on social issues.

Social Value: Transmitting positive social values through artistic works to promote social harmony, stability, and development.

Design Positioning: This graduation project aims to explore the impact of crises such as pandemics, nuclear wastewater pollution, and wars on human society and possible future trends through illustration design works, raising awareness and thoughts on social issues, and conveying positive social values.

Research Conclusion: Through design research, it is recognized that illustration design, as a form of rich and powerful artistic expression, has unique advantages and potential in effectively conveying emotions. Regarding this graduation project theme, I will fully utilize the expressive power of illustration

in the design, presenting challenges faced by human society and reflections on the future through imagery, color, and emotional expression.

2.2 Formulation of Design Schemes

Topic Selection: The topic of this graduation project originates from a deep observation of the current global situation and contemplation of potential challenges in the future. In recent years, the world has been continuously troubled by various serious issues such as pandemics, nuclear wastewater, and wars. These problems have not only had a huge impact on human society but also raised concerns and reflections on the future world. Therefore, this design has chosen the theme of the deserted world after the pandemic, nuclear pollution discharge, and war, attempting to portray various problems and challenges that human society may face in these scenarios through forms such as illustrations.

Design Proposal: This design intends to depict the themes of the world after the pandemic, after the discharge of nuclear wastewater, and after the war through three illustrations. In the initial draft stage, I planned to enhance the absurdity and apocalyptic atmosphere of the images by adding cartoon elements or supernatural elements (See appendices figures 2-1 and 2-2).

Figure 2-1

Figure 2-2

However, during the subsequent drawing process, I gradually discovered issues such as the inconsistency of the images and the elements not blending well into the composition. Therefore, I gradually abandoned these elements in the later drawing process. The draft serves as the starting point of the design, determining the color tone, overall atmosphere, and design elements of the illustrations. Through the drawing and modification process of the draft, the creative direction can be clarified.

Conclusions to section 2

1.Investigate the form of illustration through design research, it is realized that illustration design, as an art form with rich form and powerful expression, has unique advantages and potential, which can effectively express emotions. Aiming at the theme of this graduation project, I will give full play to the

expressive force of illustration in the design, and present my thoughts on the challenges and future of human society through the expression of images, colors and emotions.

    2.Make a design plan the selection of this graduation project stems from the profound observation of the current global situation and the reflection on the possible challenges in the future. In recent years, the world has been plagued by various serious problems such as epidemic, nuclear sewage and war, which have not only caused a huge impact on human society, but also triggered worries and reflections on the future world. Therefore, this design chooses the abandoned world after the epidemic, after the massive discharge of nuclear pollution and after the war as the theme, and attempts to express various problems and challenges that human society may face under these circumstances through illustrations and other forms.

SECTION 3.
DESIGN PROCESS AND RESULTS

3.1Problems and Solutions in the Design Process

Complexity and Difficulty in Expressing the Theme:

Issue: This design involves extreme scenarios of human futures, such as the world after a pandemic, the release of nuclear wastewater, and post-war scenarios, whose depth and complexity may be challenging to portray intuitively.

Solution:

Extensive Research: Conduct in-depth literature reviews and analyze existing artworks to understand the specific impacts of these extreme scenarios and possible visual representation methods.

Brainstorming: Engage in discussions with others to gain different perspectives and new inspiration.

Concept Simplification: Simplify complex concepts into more concrete elements, using specific symbols (ruins, overgrown vegetation, and damaged buildings) to convey abandonment and decay.

Selection of Techniques and Media:

Issue: How to choose suitable techniques and media to depict the theme while ensuring the visual impact and emotional expression of the artwork.

Solution:

Technical Experimentation: Experiment with different drawing techniques and media, including hand-drawn and digital illustrations, to find the most suitable methods for portraying various scenarios.

Software Tools: Utilize professional image editing and drawing software (such as Photoshop) for high-quality drawing production.

Iterative Modification: Based on feedback and visual effect testing, make multiple revisions to the artwork to ensure its expressive power.

Integration of Theme and Consistent Style:

Issue: Some elements used in the initial design (such as cartoon characters like Minions) are incongruent with the overall theme and style, affecting the seriousness and coherence of the artwork.

Solution:

Style Adjustment: Abandon cartoon elements that do not fit the theme and opt for a visual style that better matches the atmosphere, such as a post-apocalyptic style with dark tones and dilapidated scenes.

Visual Element Selection: Carefully select visual elements that enhance the thematic expression, such as ruins, desolate natural landscapes, and symbols implying destruction and abandonment.

Consistent Style: Ensure all illustration works adhere to the same visual and emotional style guidelines to enhance the coherence and overall impact of the series.

3.2 Information Visualization Design

Information visualization involves presenting data and information through graphics, charts, maps, and other visual means, allowing users to understand and analyze data more intuitively. It helps people discover patterns, trends, and relationships between data through visualization, making complex data more accessible. Information visualization can be applied in various fields, including business, scientific research, and government decision-making, assisting people in making wiser decisions.

This graduation project aims to visualize the harms and impacts caused by major events such as pandemics and nuclear wastewater through information visualization.

3.2.1Visualization of COVID-19 Pandemic Information

Coronaviruses are a large family of viruses that can cause more serious illnesses such as colds, Middle East Respiratory syndrome (MERS) and severe acute respiratory syndrome (SARS). The first coronavirus was isolated from chickens in 1937, and the first human coronavirus was isolated in 1965.

So far, about 15 different coronavirus strains have been identified, seven of which can infect people, HCoV - 229 - e, HCoV - OC43 and HCoV - NL63, HCoV - HKU1, SARS - CoV (causing severe acute respiratory syndrome), the MERS - CoV (cause respiratory syndrome) in the Middle East and 2019 new coronavirus (2019 - nCoV, Causes the novel coronavirus, COVID-19).

Coronaviruses are about 80 ~ 120nm in diameter, spherical or elliptical, polymorphic, and have the largest genome among known RNA viruses. The infection caused by the virus mainly occurs in winter and early spring, and the disease caused by the virus in humans is mainly respiratory infection. Common signs of people infected with coronavirus include respiratory symptoms, fever, cough, shortness of breath and dyspnea. In more severe cases, the infection can lead to pneumonia, severe acute respiratory syndrome, kidney failure, and even death.

The 2019 novel coronavirus, first discovered in Wuhan, China, has been officially named 2019-NCoV. An infected person will have varying degrees of symptoms, the most mild being no external symptoms (known as asymptomatic infection), some just a fever or a mild cough, and some will develop pneumonia, and even death in severe cases.

The main transmission routes of the novel coronavirus are respiratory droplet transmission and contact transmission, and the transmission routes such as aerosol and fecal-oral transmission remain to be further clarified. It is mainly to do a good job of self-protection, reduce going out, avoid gathering and close contact, maintain basic hand and respiratory hygiene, wear a mask when going

out, wash hands and disinfection when going home, adhere to a safe diet, do not eat fresh meat.

At present, the novel coronavirus vaccine is under development, and there is no specific treatment for diseases caused by the novel coronavirus, mainly for the treatment of clinical symptoms of patients.

Since the beginning of the 21st century, there have been three global coronavirus epidemics in 2003, 2012 and 2019, respectively. It is expected that there will be more outbreaks from time to time in the future, which will bring major hidden dangers and serious losses to mankind and will affect globalization.

This visualization design utilizes a map of China to showcase epidemic data across different regions of the country. The intensity of colors is used to represent the number of confirmed cases, with darker shades indicating higher numbers.

Through visual graphics, the data displays common symptoms of the epidemic, transmission routes, and the timeline of the epidemic.(See appendices figure 3-1)
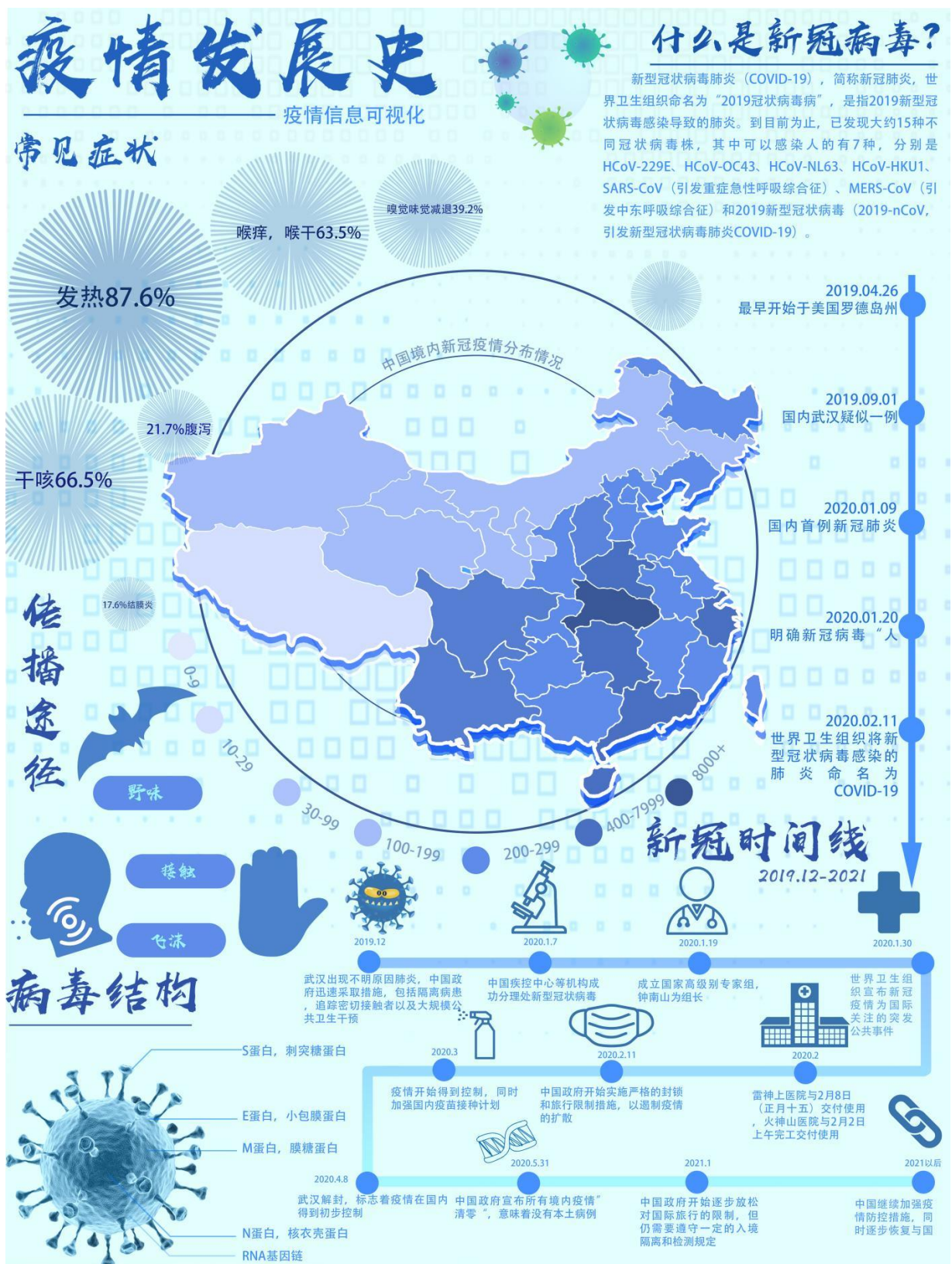
Figure 3-1

3.2.2.Visualization of Nuclear Wastewater Information

Nuclear sewage (alias: nuclear contaminated water), as the name suggests, is radioactive sewage. For example, the highly radioactive wastewater produced in the nuclear leakage accident, or the cooling water in direct contact with the nuclear fuel. Experts say that nuclear sewage is not the same as nuclear waste water. Nuclear sewage is more harmful, containing 64 kinds of nuclear radioactive substances, including tritium.

Nuclear contaminated water refers to the pollution in the case of nuclear accidents, and its high pollutant content has serious impact on the ecological environment and human health. It is very important to understand how to deal with nuclear contaminated water.

Because of its high radioactivity and high risk, nuclear contaminated water needs to be treated in a variety of ways to reduce its radioactivity intensity and volume, and to solidify or stabilize it for safe storage or disposal. The commonly used treatment methods are chemical precipitation, ion exchange, adsorption, evaporation enrichment, membrane separation technology, biological treatment, magnetic-molecular method, inert curing method and so on. Each of these methods has its advantages and disadvantages, and it is necessary to choose the appropriate method or combination according to the specific situation. The treated nuclear wastewater must comply with international standards and safety norms to avoid any possible leakage and accidents.

If the nuclear contaminated water is discharged into the environment without proper treatment, it will have a serious impact on the ecosystem and human health. Radioactive materials can be transmitted through water, soil, air, food chains, etc., resulting in increased radiation doses in living organisms, causing various diseases and genetic mutations. Therefore, the treatment and disposal of nuclear wastewater must follow strict safety standards and specifications to avoid any possible leakage and accidents.

On August 22, 2023, the Japanese government announced that it would start discharging contaminated water from the Fukushima nuclear plant into the sea on August 24. The release of contaminated water from Japan will continue for at least 30 years and will affect the entire Pacific Ocean and even global waters. Due to the large time span and wide scope of impact, the Japanese government's decision once announced has caused many objections.

On August 24, 2023, Tokyo Electric Power Company said it had taken samples of nuclear-contaminated water to be discharged into the ocean, and the concentration of tritium was "up to standard". If the weather conditions allow, Japan's nuclear contaminated water will be discharged into the ocean on the afternoon of the 24th local time, and the discharge work will start at 13 o 'clock. According to the plan, the drainage time will last at least 30 years.

At 13:00 local time on August 24, 2023, Japan's Fukushima First nuclear power plant started to discharge nuclear contaminated water into the sea.

On August 24, 2023, Takashi Takagi, chairman of the parliamentary countermeasures Committee of the Liberal Democratic Party of Japan, and Jun Azumi, chairman of the parliamentary countermeasures Committee of the Constitutional Democratic Party of Japan, held talks in the National Assembly. Azumi on the Fukushima first nuclear power plant nuclear contaminated water began to discharge into the ocean, asked the House and Senate budget committee to review during the session, and asked Japanese Prime Minister Fumio Kishida attend.

On September 28, 2023, according to the news of Japan's Fuyang Television station, the second round of discharge of contaminated water from the Fukushima First nuclear power plant began on October 5.

At around 10:30 local time on October 5, 2023, the second round of discharge of nuclear contaminated water from Tokyo Electric Power Company's Fukushima Daiichi nuclear power Plant began.

On November 20, 2023 local time, Japan's Tokyo Electric Power Company announced that the third batch of about 7800 tons of nuclear sewage at the

Fukushima nuclear power plant was discharged, and the discharge began from 2 days ago, and the discharge was the same as the previous two times, about 7800 tons. It also means that more than 23,000 tons of contaminated water have been discharged into the sea.

On February 28, 2024, Japan's Tokyo Electric Power Company began the fourth round of discharge of nuclear contaminated water from the Fukushima Daiichi nuclear power plant to the sea, with the discharge of about 7,800 tons. Tokyo Electric Power Company has discharged more than 23,300 tons of nuclear-contaminated water in the first three rounds of discharge, March 17, Japan's Tokyo Electric Power Company said that it had completed the fourth round of Fukushima nuclear contaminated water discharge on the same day.

Local time on March 28, 2024, Japan's Tokyo Electric Power Company announced at a press conference that the Fukushima First nuclear power plant in the fiscal year 2024 (April 2024 to March 2025) through seven rounds of nuclear contaminated water discharge to the sea, a total of 54,600 cubic meters of nuclear contaminated water, a total of 14 trillion becquerels of radiation. The first round of contaminated water was carried out between April and May, with a planned mass release of about 7,750 cubic meters. On the morning of April 19, Japan's Tokyo Electric Power Company started the fifth round of discharge of nuclear contaminated water from the Fukushima First nuclear power plant, that is, the first round of discharge in the fiscal year 2024 (April 2024 to March 2025). The current round of discharge is expected to last until May 7, with a total discharge of about 7,800 tons. According to information released by Tokyo Electric Power Company in January 2024, the fiscal year 2024 plans to discharge about 54,600 tons of nuclear-contaminated water in seven times.

At noon on May 7, 2024, local time, Japan's Tokyo Electric Power Company said that the first and fifth nuclear-contaminated water discharge into the sea in the 2024 fiscal year ended, and a total of about 7,800 tons of nuclear-contaminated water was discharged into the sea in 17 days. Tepco plans to carry out seven nuclear contaminated water discharge to the sea in the fiscal

year 2024, discharging a total of about 54,600 tons, 1.8 times that of the fiscal year 2023, and the next discharge may start as early as this month.

China has always attached great importance to the radioactive contamination of Japanese food exported to China as a result of the accident, and has continued to assess the risk of radioactive contamination of Japanese food and respond to it in a timely manner. In August 2023, the General Administration of Customs also mentioned that in order to prevent the import of radioactive contaminated Japanese food to China and protect the safety of imported food for Chinese consumers, the Chinese Customs banned the import of food from ten prefectures (all) including Fukushima, Japan, and strictly reviewed the food, especially aquatic products (including edible aquatic animals) from other parts of Japan, accompanied by certification documents, and strengthened supervision. Strictly implement 100% inspection, and continue to strengthen the detection and monitoring of radioactive substances. Ensure the safety of Japanese food exported to China, and strictly prevent the import of risky products.

Nuclear contaminated water contains a variety of radioactive elements, such as uranium, plutonium, cesium, strontium, iodine, cobalt, etc., some of which have a long half-life, such as the half-life of uranium 238 is 4.5 billion years, and the half-life of plutonium 239 is 24,000 years. These radioactive elements have serious harm to the human body and the environment, such as cancer, teratogenicity, mutagenicity and so on. According to different sources and situations, the concentration and proportion of various radioactive elements in nuclear sewage are also different, but usually far exceed international standards and safety limits.

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teratogenicity, mutagenicity and so on. According to different sources and situations, the concentration and proportion of various radioactive elements in nuclear sewage are also different, but usually far exceed international standards and safety limits.

If nuclear wastewater is discharged into the environment without proper treatment, it will have a serious impact on the ecosystem and human health. Radioactive materials can be transmitted through water, soil, air, food chains, etc., resulting in increased radiation doses in living organisms, causing various diseases and genetic mutations. Therefore, the treatment and disposal of nuclear wastewater must follow strict safety standards and specifications to avoid any possible leakage and accidents.

Through graphics and text, the visual design visually displays the production method of nuclear sewage, the harm to human body, the harm to the environment and the way of nuclide entering the human body.(See appendices figure 3-2)
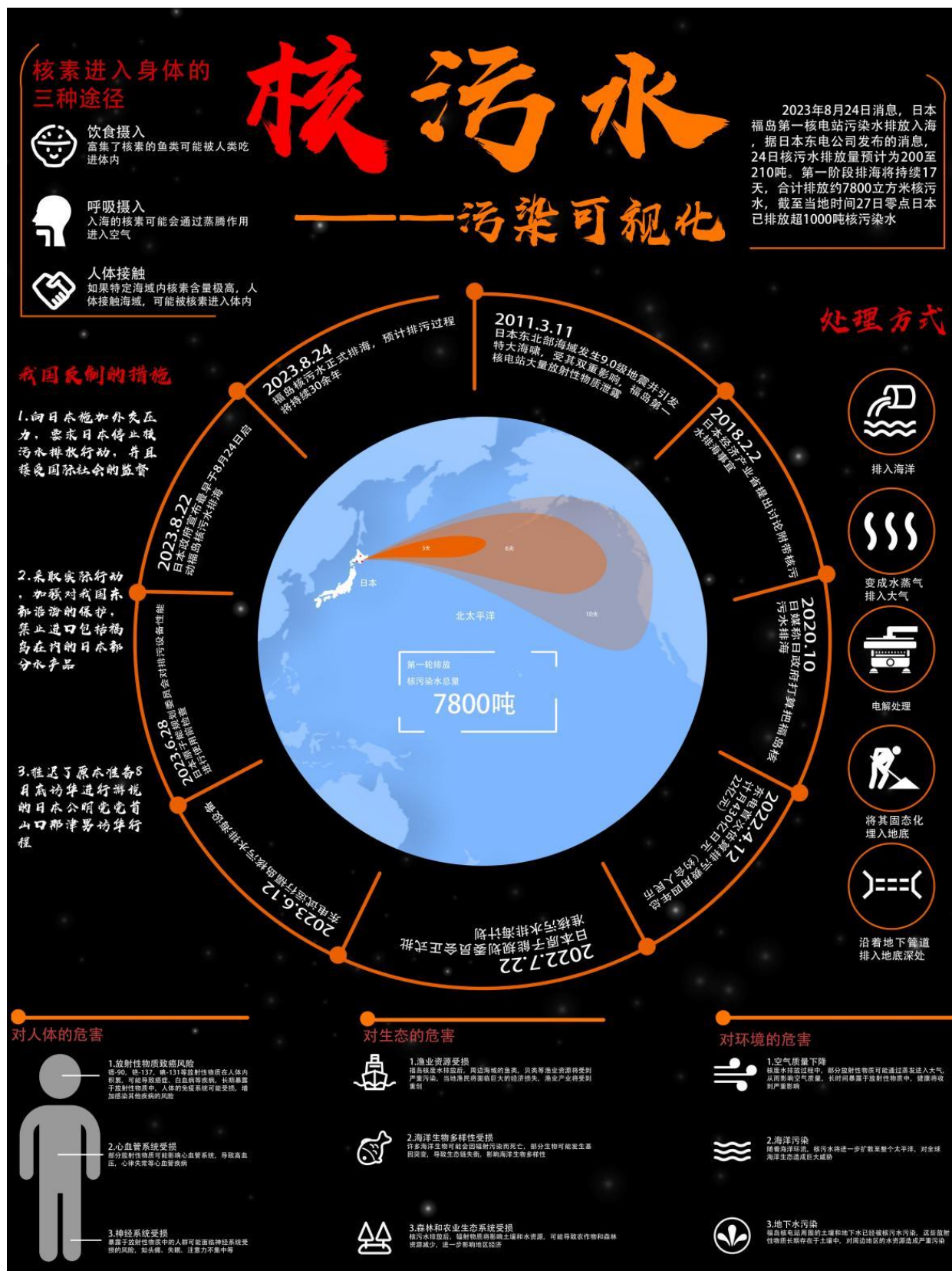
Figure 3-2

3.3. Illustration Design

3.3.1 Illustration Design 1

The first illustration depicts a scenario where, in an alternate parallel world, people have not overcome the pandemic aftermath.(See appendices figure 3-3)

Figure 3-3

Analysis of works:

Environment and atmosphere:

The city depicted in the illustration presents a scene of desolation and abandonment. There is not a single person on the streets, reflecting the serious impact of the past pandemic on human society.

The surfaces of buildings are covered with vines and moss, indicating that these places have been uninhabited for a long time. Cracks and damage on the walls further reinforce the sense of abandonment.

Distant skyscrapers blurred by the fog and a gloomy sky create a feeling of loneliness and despair, evoking a sense of apocalypse.

Color Usage:

The color scheme is primarily composed of low-saturation tones such as brown and gray, which are often associated with decay and desolation, effectively portraying the theme of abandonment.

A high-saturation yellow is used for the sunlight in the scene, adding a touch of brightness to the overall atmosphere, symbolizing the coexistence of hope and despair.

Detail depiction:

The cracks on the road surface and scattered warning signs add to the realism of the scene, also reflecting the city's past state of disorder.(See appendices figure 3-4)

Figure 3-4

The words "建设社区欢迎您（Building a Welcoming Community）" on the central sign reflect the area's past prosperity, forming a strong sense of irony.(See appendices figure 3-5)
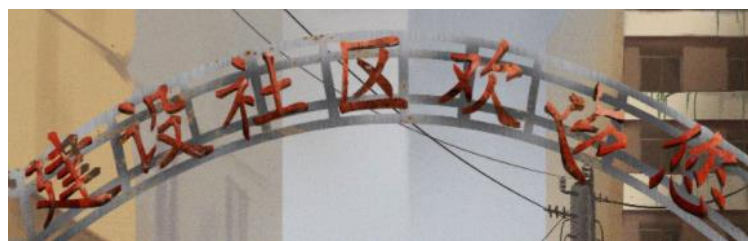

Figure 3-5

The advertisements and posters on the walls are worn out, but their content is still vaguely visible, reflecting that people at that time also made efforts to fight against the pandemic.

The extensive vines and overgrown plants also reflect the fact that the place has been unmaintained for a long time, further enhancing the sense of desolation.(See appendices figure 3-6)

Figure 3-6

Summarize：

This illustration effectively conveys the theme of a deserted city after the pandemic through meticulous attention to detail, heavy use of color, and the manipulation of visual imagery. It can provoke viewers to contemplate potential futures. This artwork is not merely a depiction of a city after the pandemic but also reflects the vulnerability of humanity in the face of disasters.

Drawing process：(See appendices figure 3-7)

Figure 3-7

3.3.2 Illustration Design 2

The second illustration depicts the imagined severe impact caused by the discharge of nuclear wastewater.（See appendices figure 3-8)

Figure 3-8

Analysis of works:

Environment and atmosphere:

The illustration utilizes a gloomy sky and chaotic clouds, with a cold color palette predominantly consisting of gray, white, and dark blue, creating a sense of oppression and unease.

This color choice contrasts sharply with the bright and optimistic tones typically used to depict the ocean.

The gloomy sky reflects ominous and unsettling emotions, hinting at natural environmental changes and existing disasters.

Detail depiction:

The turbulent waves on the sea surface not only depict the environment but also symbolize the emotional turmoil of people. The portrayal of dynamic waves enhances the sense of urgency in the scene, allowing viewers to intuitively sense the environmental crisis. The debris in the waves further suggests humanity's destruction of the marine environment.(See appendices figure 3-9)

Figure 3-9

Lighthouses typically symbolize hope and guidance. However, in this artwork , even with its presence, it seems powerless, unable to provide sufficient light and hope to combat the surrounding chaos and darkness. The isolated and unsupported lighthouse embodies a pessimistic aesthetic, suggesting that even the beacon of human civilization struggles to withstand the onslaught of environmental disasters.(See appendices figure 3-10)

Figure 3-10

The giant octopus here represents nature's response and retaliation to pollution, a direct counterattack against human activities. The octopus's red eyes increase visual impact and convey a sense of danger and threat.(See appendices figure 3-11)

Figure 3-11

The scattered nuclear waste barrels emphasize the impact of human activities on the environment. These waste barrels are haphazardly discarded into the sea, highlighting the severity and urgency of environmental pollution issues.(See appendices figure 3-12)

Figure 3-12

In the scene, the giant octopus is depicted curling around nuclear waste barrels , implying the long-term impact of radioactive pollution on the ecosystem and showcasing how organisms in nature are forced to adapt to or resist the environmental changes caused by human activities.(See appendices figure 3-13)

Figure 3-13

Summarize：

This illustration effectively conveys an important message about ecological crisis and environmental protection through its meticulous design of the environment and atmosphere. It reminds us to prioritize and take action to protect our shared natural world. The artwork has the potential to inspire environmental awareness in viewers and prompt them to engage in deeper reflections on environmental issues.

Drawing process：(See appendices figure 3-14)

Figure 3-14

3.3.3 Illustration Design 3

The third illustration explores a post-war desolate world, set in the near future where robots are deployed as military forces. The scene depicts a corner of a city severely damaged by the war.(See appendices figure 3-15)

Figure 3-15

Analysis of works:

Environment and atmosphere:

The illustration portrays a corner of a city devastated by war, with buildings in ruins and no signs of human activity, depicting a sense of desolation after the war.

Color Usage:

The entire artwork primarily utilizes shades of gray, white, black, and red. These colors not only match the visual style of urban ruins but also enhance the tragic and oppressive atmosphere of the scene.

The use of gray tones visually conveys a sense of gloom and silence, suitable for depicting the ruins and chaos after the war.

The red parts at the base of the buildings stand out visually, preventing the entire scene from being completely immersed in darkness. Red is often associated with danger, energy, and vitality, symbolizing the city's past vibrancy.

The use of red creates focal points and depth in the scene, guiding the viewer's gaze towards the center of the image.

Detail depiction:

The buildings exhibit significant traces of war or disaster, such as missing walls, partially collapsed roofs, and walls covered with climbing vines, reflecting the destructive aftermath of war and long-term abandonment.(See appendices figure 3-16)

Figure 3-16

A damaged car is buried under the rubble, its body covered with bricks and dust, highlighting the extent of environmental destruction.(See appendices figure 3-17)

Figure 3-17

The tilted utility poles and scattered wires not only add dynamism to the scene but also emphasize the destruction of infrastructure.(See appendices figure 3-18)

Figure 3-18

The robots in the scene are still carrying out tasks, whether it's searching for enemies or salvaging usable materials, highlighting the desolation and loneliness of the post-war era.(See appendices figure 3-19)

Figure 3-19

Summarize：

This illustration creates a scene of post-war ruins through detailed environmental depiction and careful color selection, conveying the devastating impact of war. The application of color not only enhances this atmosphere but also helps shape the emotional tone of the scene, making the artwork visually and emotionally impactful. It effectively prompts viewers to contemplate war, destruction, and the future of humanity.

Drawing process：（See appendices figure 3-20）

Figure 3-20

3.4. Miniature Landscape Production

3.4.1. Miniature Landscape 1

Materials and tools:

3d printing octopus model　cutter and carving tool　glue several 30cm×40cm foam board

Fine sand　several finished plastic　oil barrels　colored pigment clay

Working process：

Main Production: Use a brush to apply paint to color the main body of the octopus.(See appendices figure 3-21)

Figure 3-21

Layout Planning: Mark the overall layout on the foam board.(See appendices figure 3-22)

Figure 3-22

Environmental Simulation: Shape clay to simulate the form of waves.(See appendices figure 3-23)

Figure 3-23

Coloring: Apply paint and water-based solutions by hand for coloring.(See appendices figure 3-24)
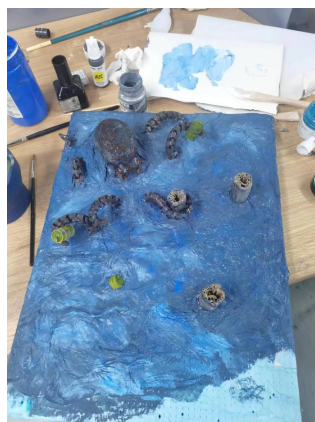
Figure 3-24

Finished product (See appendices figure 3-25)
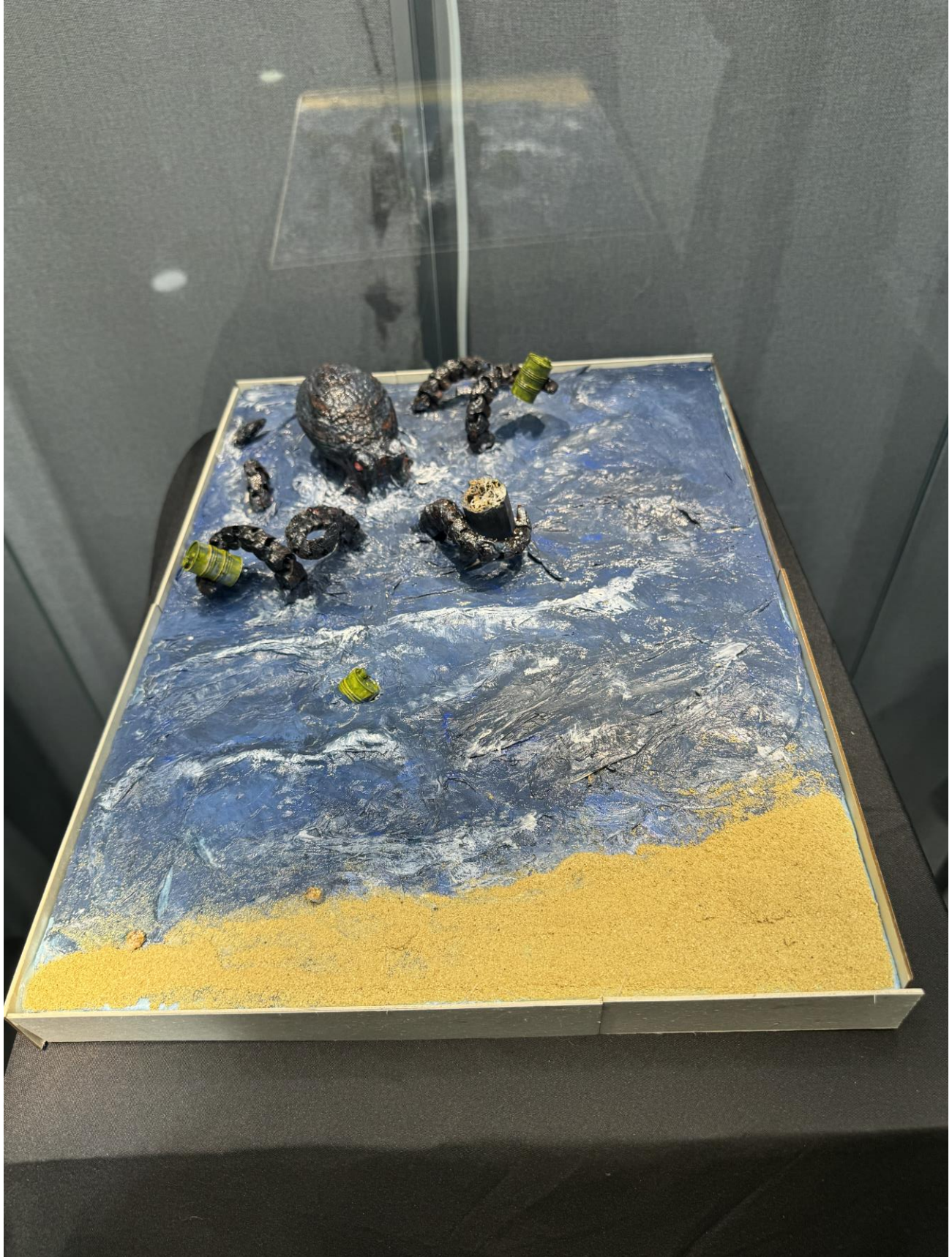
Figure 3-25

3.4.2. Miniature Landscape 2

Materials and tools:

Sheaf   knife tools and carving tools   Glue Several   30cm×40cm foam board colored pigment   clay   miniature scene model (pole, triangle cone, etc.)   3d printing robot model   Car model

Working process：

Main Construction: Cut out the main building structure using foam board.(See appendices figure 3-26)
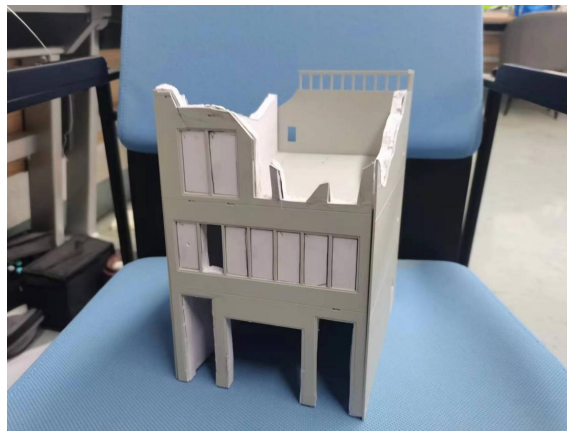
Figure 3-26

Layout Planning: Plan the overall layout and coloring.(See appendices figure 4-27)

Figure 3-27

Detail painting: Stack detail items, paint detail colors, and enhance the overall atmosphere.(See appendices figure 3-28)
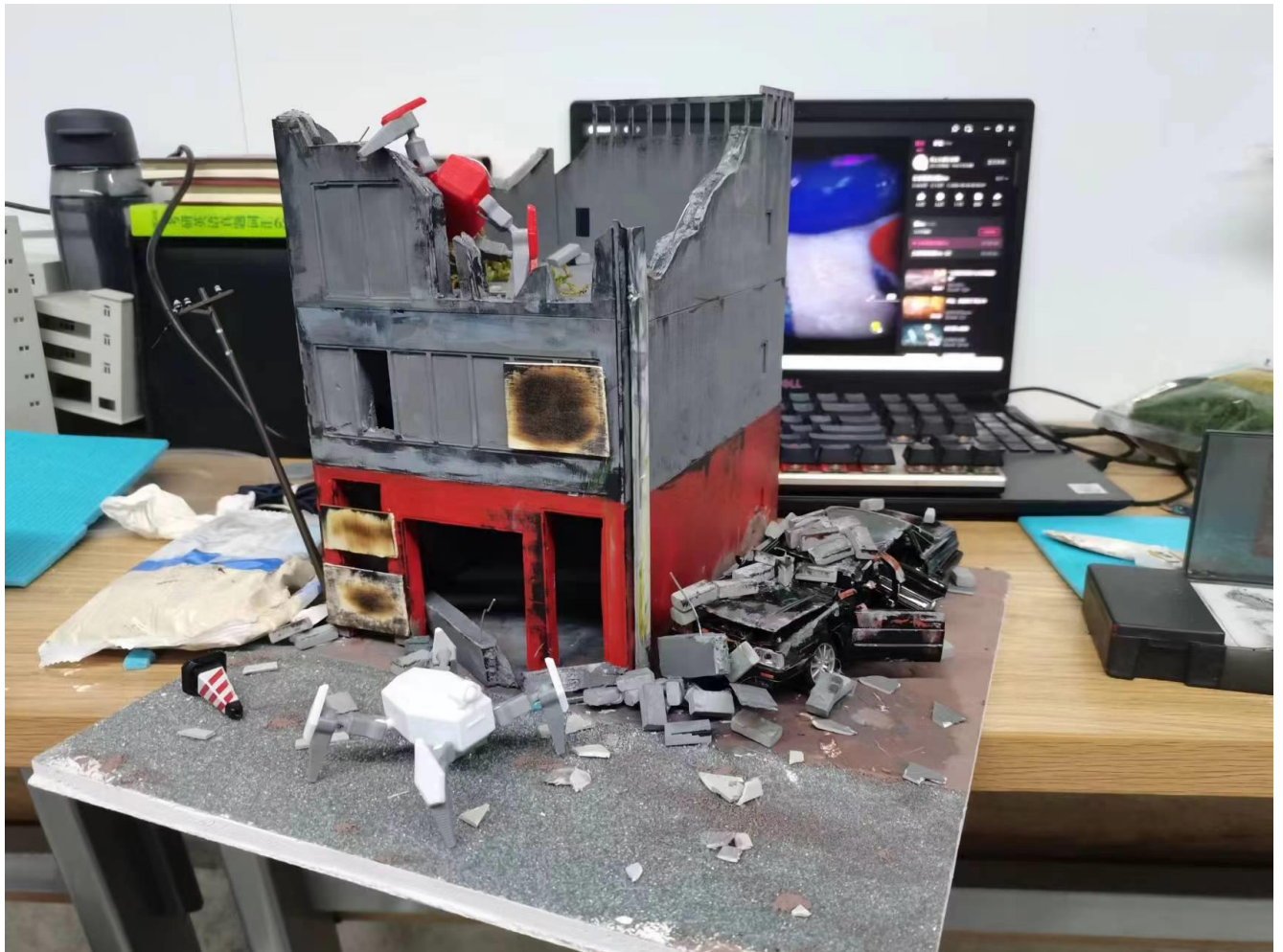
Figure 3-28

Finished product (See appendices figure 3-29)

Figure 3-29

3.5. Design evaluation and reflection

This design successfully applied the concept of parallel worlds to illustration design and scene production, greatly expanding the scope of design thinking and creativity. In the early stages of design, data collection and analysis provided clear direction for the later design process. Throughout the design process, there were continuous innovations and skill enhancements, resulting in the achievement of the design objectives to a large extent.

However, due to various factors such as time constraints and technical capabilities, many ideas were not implemented in the design. For example, various concepts from the early drafts and some craftsmanship aspects in model making were not well reflected.

Conclusions to section 3

1.Problems and Solutions in the Design Process

2.Visual information visualization information visualization is to present data and information through graphics, charts, maps and other visual means, so that users can understand and analyze data more intuitively. It helps people find patterns, trends and associations between data in a visual way, making complex data more intuitive. Information visualization can be used in a variety of fields, including business, scientific research, and more.

3.Epidemic theme illustration design through meticulous detail processing, heavy use of colors and the use of visual images, the illustration effectively expresses the theme of the abandoned city after the epidemic, which can arouse viewers' reflection on the possibility of the future. This work is not only a depiction of the city after the epidemic, but also reflects the vulnerability of human beings in the face of disaster.

4.Nuclear sewage theme illustration design and scene production Through the careful design of the environment and atmosphere, the illustration conveys an important message: ecological crisis and environmental protection. A reminder to value and take action to protect our shared natural world. The work can stimulate the audience's environmental awareness to a certain extent and prompt people to think more deeply about environmental issues.

5.War theme illustration design and scene production through the depiction of environmental details and the choice of colors, the illustration creates a picture of postwar ruins and conveys the devastating impact of war. The application of color not only enhances this atmosphere, but also helps to shape the mood of the picture, making the work visually and emotionally powerful. It can effectively provoke the viewer to ponder war, destruction and the future of humanity.

6.Miniature landscape production

7.Design evaluation and reflection this design successfully applied the concept of parallel world to illustration design and scene production, which greatly expanded the design idea and space. Through data collection and analysis in the early stage of design, the direction was clear for the later design process. In the design process, continuous innovation and improvement of skills were made, and the design goal was basically completed.

Conclusion

This graduation project, titled "Alternate Worlds," delves into the future of humanity in extreme environments, analyzing the post-pandemic, nuclear wastewater discharge, and post-war worlds. Through illustrations, posters, and miniature landscapes, this project concretizes and visualizes complex global issues, thereby increasing public awareness of these global problems.

The motivation for this topic stems from a deep concern about the current global situation, particularly those environmental and social issues that may have profound impacts on the future of humanity. The main purpose of the design is to depict the survival challenges humanity may face in extreme circumstances through visual art forms, prompting viewers to reflect on and pay attention to these issues. Furthermore, expressing these scenarios through illustrations and similar forms is more likely to stimulate broad public contemplation on future possibilities.

Throughout the design process, from concept to final artwork, each step emphasized originality and depth. For example, by continuously experimenting and selecting colors and materials that better convey a sense of desolation and apocalypse, adding various details such as cracks on walls and overgrown plants enhanced the realism and immersion of the artworks. Multiple revisions were made based on feedback to ensure that each piece accurately conveys the intended themes and emotions.

Focusing on a post-disaster world while maintaining artistic aesthetics and conveying serious content posed a significant challenge. Successfully integrating illustrations with profound themes has greatly expanded my creative boundaries, and the visual art pieces have effectively raised public awareness of major social issues, achieving the integration of art and society.

This graduation project is not only an attempt at visual art creation but also a commitment to social responsibility. Through this design practice, I deeply

understand and express the extreme futures humanity may face, demonstrating the unique power of visual art in interpreting and alerting social issues. Additionally, the design process itself has profoundly challenged and enhanced my artistic concepts and technical abilities.

Although this graduation design project is coming to an end, I believe the knowledge and experience I have gained will positively impact my future career. I hope to continue exploring the boundaries of art, constantly challenging myself, and sharing my ideas and emotions through artistic works with more people in the future.

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APPENDICES

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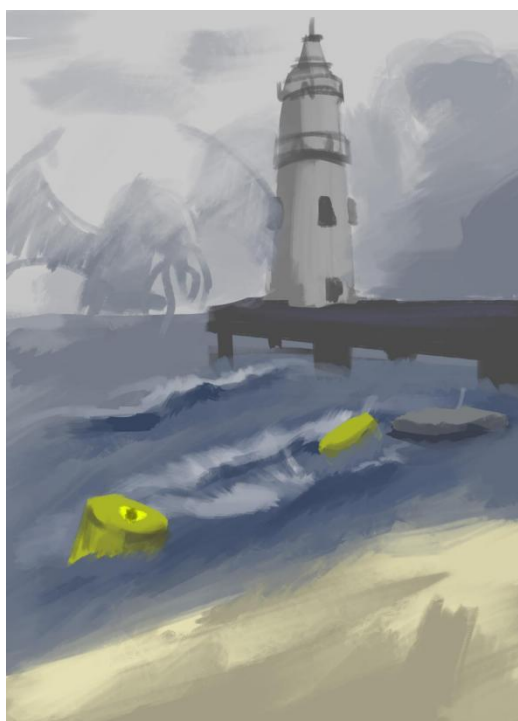
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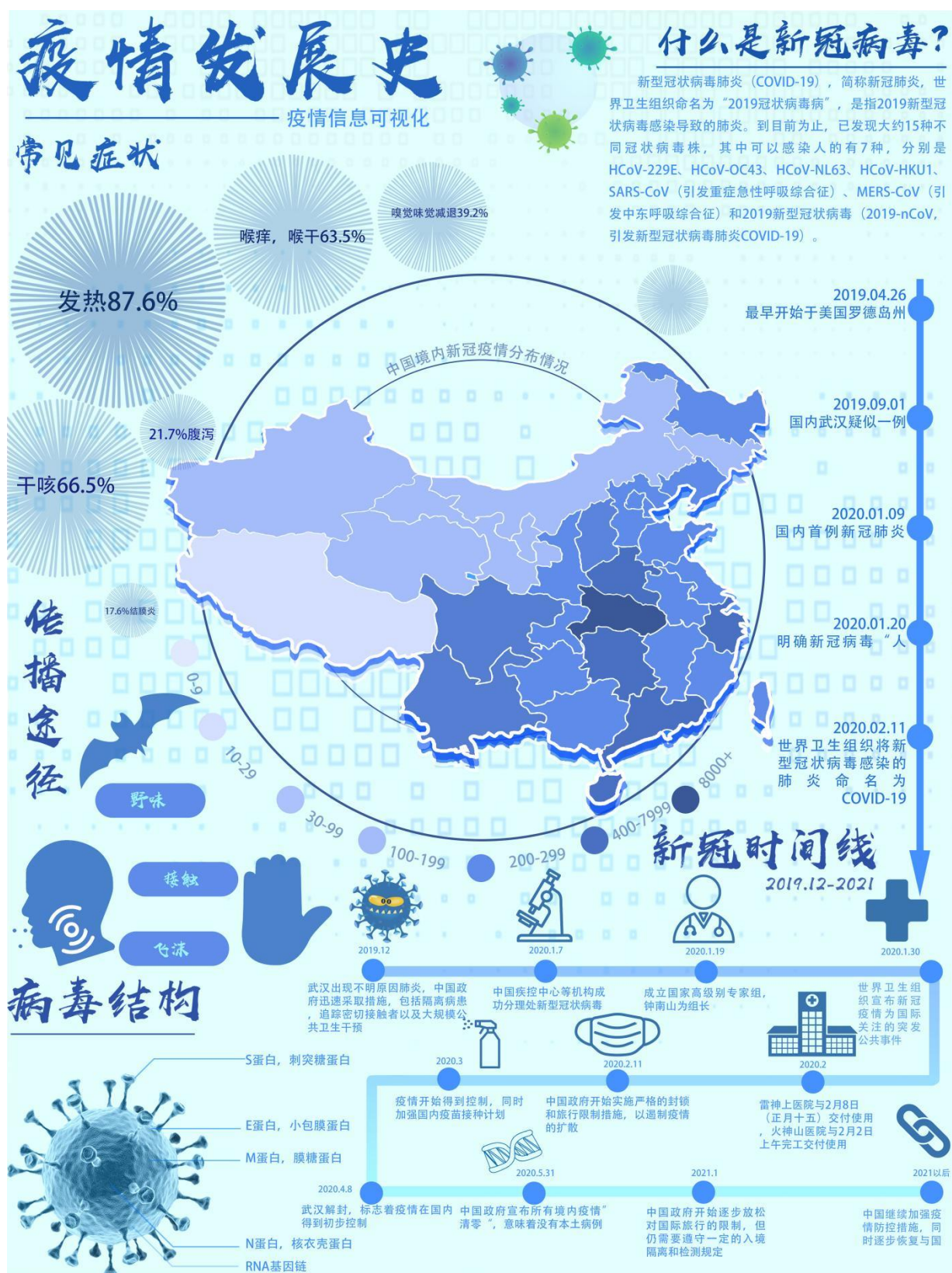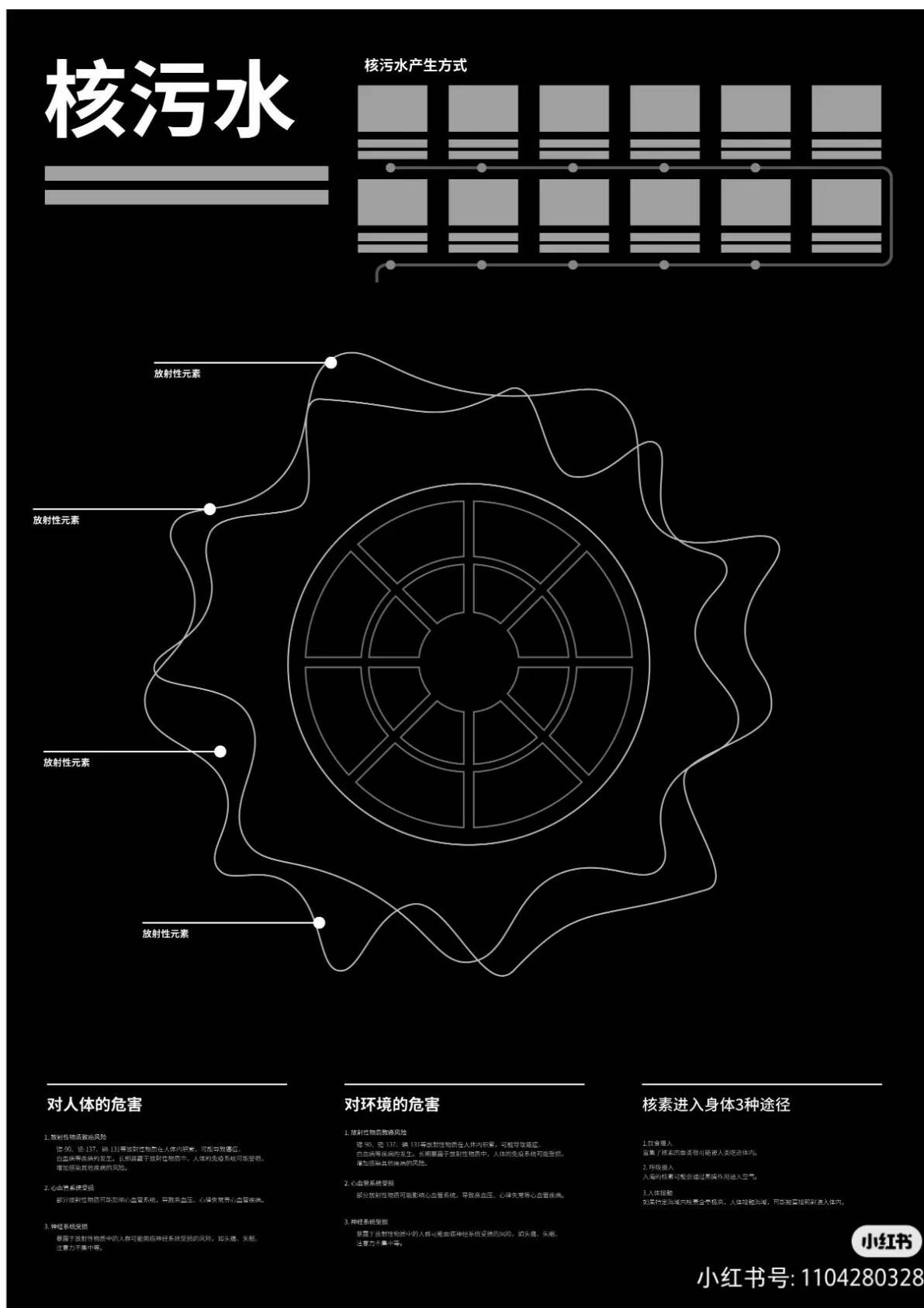
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Figure 3-2

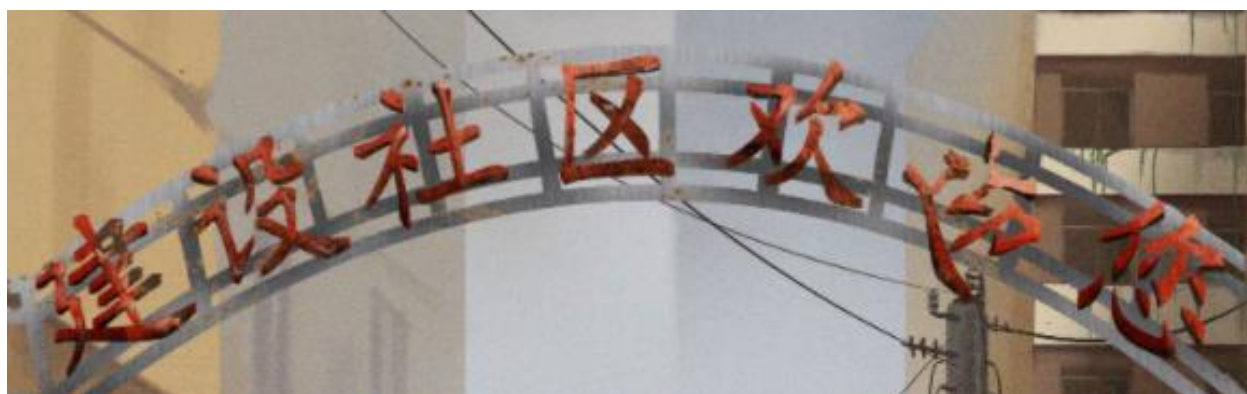Figure 3-3

Figure 3-4

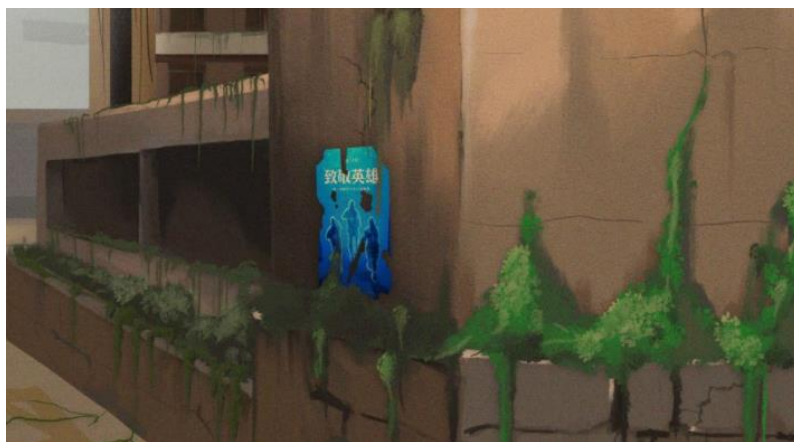Figure 3-5

Figure 3-6

Figure 3-7

Figure 3-9

Figure 3-10

Figure 3-8

Figure 3-11

Figure 3-12

Figure 3-13

Figure 3-14

Figure 3-16

Figure 3-15

Figure 3-17

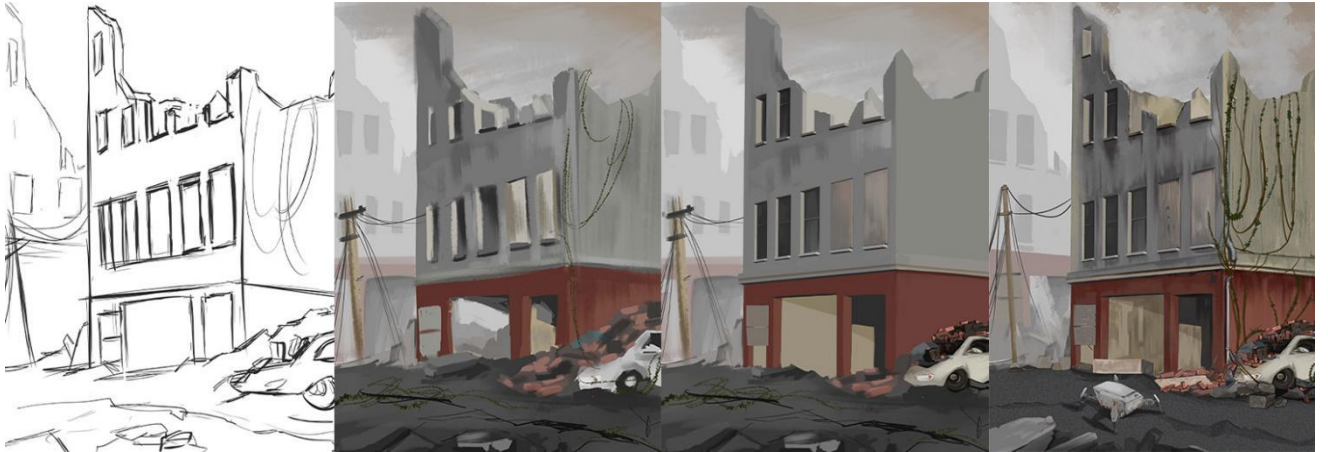Figure 3-18

Figure 3-19

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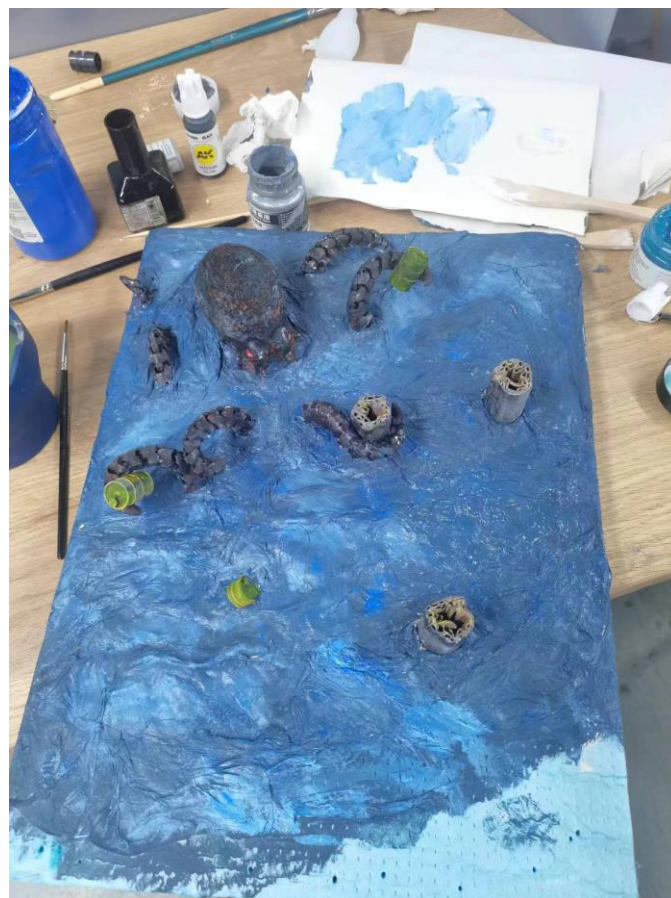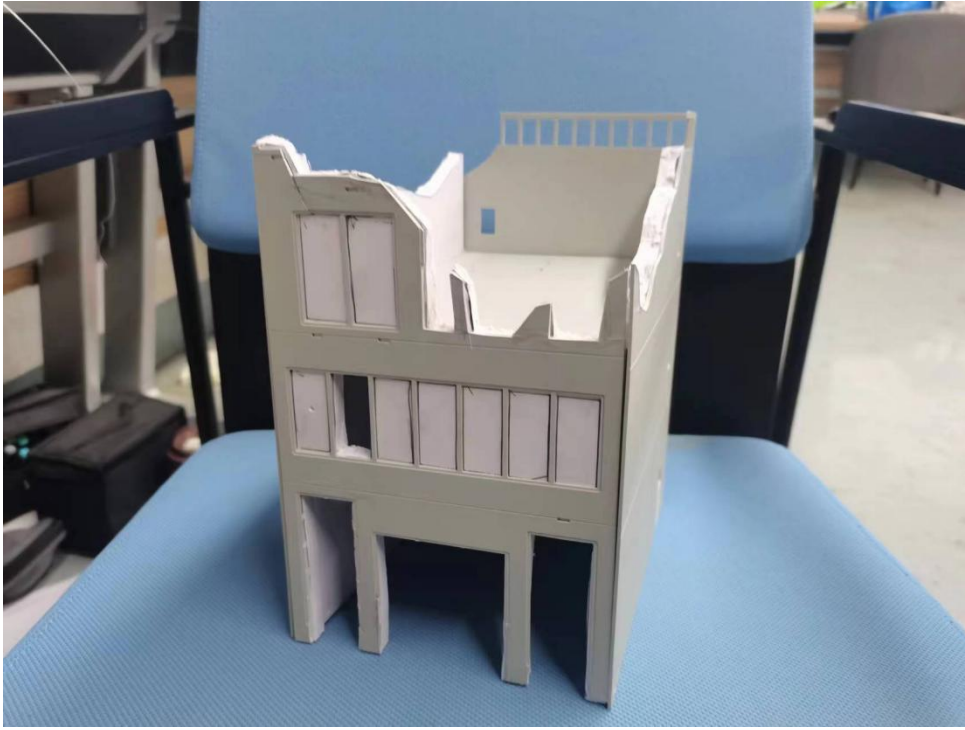
Figure 3-21

Figure 3-22

Figure 3-23

Figure 3-24

Figure 3-25

Figure 3-26

Figure 3-27

Figure 3-28

Figure 3-29