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 visual complex for protecting endangered sea turtles

Performed by: a student of the BED-20 group

Xueyan LI

Supervisors Lecturer Xixia LIU,

Dr. Philos. Sc., Prof. Oleksandra KOLISNYK

Reviewer PhD., As. Prof. Olga MYKHAILIUK

Kyiv 2024

ABSTRACT

Lao Tzu once said, "Man's law is heaven, heaven's law is Tao, and nature's law is Tao." Since ancient times, mankind has had the tradition of protecting biodiversity and harmonious development between man and nature.In addition to the activities of other creatures in the world, sea turtles, as a member of nature, are also the witnesses of time.Due to the influence of external factors, the number of sea turtles has decreased dramatically, and it is urgent to protect endangered sea turtles.The endangered status of sea turtles is a reflection of human development's connection with nature.Turtles can quietly tell the mystery of nature, "Turtle Travel" visual communication design aims at the rapid reduction of species diversity caused by the constant changes in the relationship between man and nature, and appeals to people to protect endangered turtles and protect biodiversity.The visual communication design of Turtle Safari weaves the breath of nature from the perspective of biodiversity.

"Turtle Tracks" completed the logo design, font design, IP image design of the combination of sea and sea turtles and the image poster design of seven types of sea turtles, while developing peripheral derivative products.The visual communication design direction of Turtle Travel takes biodiversity as the creation basis, extracts the characteristics of seven types of turtles, and creates the overall tone with light elegance.

Key words ： Sea turtle ， Logo Design ， IP Image Design ， Poster Design,， Font Design

CONTENTS

INTRODUCTION

Relevance of the study. The "Turtle Tracks" visual communication design project is a creative and far-reaching effort that not only focuses on the conservation of the species, but also aims to increase public awareness and engagement on environmental issues.

Project Background and objective: As an important part of Marine ecosystem, the living condition of sea turtles directly reflects the health of Marine environment. However, many turtle species are threatened with extinction due to human activities. The Turtle Trail project aims to raise public awareness of this issue through visual communication design, thereby inspiring people to protect turtles and protect the Marine environment.

The purpose of the research: Sea turtle population status analysis: Through the collection and analysis of relevant data and literature, to understand the number, distribution and main threats of the current sea turtle population.

Visual communication design creation: Combining the biological characteristics and ecological needs of sea turtles, design a series of visual works, such as posters, animations, exhibitions, etc., to convey the importance of sea turtle conservation in an intuitive and attractive way.

Research Objectives:

1. Based on endangered sea turtles as the main object, read and analyze the normative literature related to the theme of designing sea turtles.

2. The appearance and living habits of the seven types of sea turtles were analyzed according to the existing books on the seven types of sea turtles.

3. To collect the current situation and measures of protecting endangered sea turtles in China and around the world.

4. Determine the framework of the turtle theme design and the specific details of the color and shape.

5. Develop a poster design, font design, logo design, etc. for endangered sea turtles based on the research results.

The research subject (theme) It's a design that embraces the theme of endangered turtles

The object (focus) of the research Is illustration design, space layout, art aesthetics

Elements of scientific novelty. Sea turtle population status analysis: Through the collection and analysis of relevant data and literature, to understand the number, distribution and main threats of the current sea turtle population.

Case study: Study successful turtle conservation cases at home and abroad, analyze their success factors, and provide practical reference for design.
The design and creation of "Turtle Tracks" will revolve around the following core concepts: Ecological aesthetics: emphasizing the harmonious coexistence of turtles and the Marine environment, and expressing the beauty and vulnerability of turtles through art. Emotional resonance: The design works are designed to touch people's hearts and inspire compassion and a desire to protect turtles. Educational significance: Convey scientific knowledge and practical methods of turtle conservation through visual works. Cultural integration: Combining the symbolic meaning of turtles in different cultures to enhance the universal appeal and text of the design.

Practical significance. "Turtle Tracks" is not only a visual communication design project, but also a bridge connecting people and nature to promote sustainable development. Through this project, we hope to arouse more people's attention to Marine ecological protection and jointly contribute to the protection of our precious Marine biodiversity.

Structure and volume of the paper. The thesis consists of an introduction, three chapters, the conclusion of each chapter, and a general conclusion. The work consists of seven poster designs, seven information visualizations, font design and logo design. The results totaled 59 pages.

Chapter I
SOURCE OF SELECTION

1.1 Research Background

With the rapid development of science and technology, the world we live in is undergoing unprecedented changes. However, these changes are not all positive. In the area of biodiversity, we see social, environmental and anthropogenic impacts on ecosystems, which are increasingly emerging and pose a serious threat to the survival of endangered animals in particular. The sea turtle, an ancient sea creature, is facing an unprecedented crisis.

Turtles are some of the oldest creatures on Earth, having roamed the oceans for millions of years and witnessed the planet's changes. Today, however, their environment is under threat as never before. Habitat loss, overfishing, Marine pollution and climate change are all threatening the survival of sea turtles. There are seven species of sea turtles around the world, including the green, hawksbill, loggerhead, Pacific, Atlantic, olive green and Kemp's tortoises, all of which are threatened to varying degrees.

These threats result in the destruction of turtle habitats and disturbance of breeding areas. Turtles have a very long reproductive cycle, and they need specific sandy beaches to lay their eggs, but with the development of shorelines and increased human activity, these beaches are becoming less and less available. In addition, the larvae of sea turtles need to cross the beach and enter the ocean after hatching, but many of them die on the way for various reasons. The dramatic decline in turtle populations has caused global concern.

To protect these endangered sea turtles, society needs to take a series of measures. First, it is vital to protect the turtle's habitat. Protect the breeding beaches of sea turtles and avoid human disturbance to them. Secondly, reducing Marine pollution is also the key to protecting sea turtles. Plastic waste, oil spills and other pollutants in the ocean pose a serious threat to the survival of sea turtles. We

need to strengthen the management of Marine litter and reduce the discharge of pollutants.

In addition, it is also very important to raise people's awareness of turtle conservation. Through education and awareness campaigns, we can educate people about the threats sea turtles face and the importance of protecting them. Changing people's behavior and reducing the destruction of turtle habitat is also an important way to protect sea turtles.

In short, protecting endangered sea turtles requires the joint efforts of the whole society. By protecting sea turtle habitats, reducing Marine pollution, raising awareness and changing behaviour, we can effectively protect these precious Marine creatures and ensure their continued survival and reproduction on Earth. This is not only the protection of turtles, but also the protection of our common home.

1.2 Research Purpose And Significance

Each species is an important part of the ecosystem, and endangered animals are a precious and irreplaceable part of nature. The creative design of "Turtle Track" sea turtle aims to explore the protection of endangered sea turtles. Combined with the existing relevant theoretical research, it focuses on the life habits, appearance and other dimensions of sea turtles, so that people can know more about endangered sea turtles and enhance the awareness of protecting sea turtles and their natural habitat. To cause more attention, respect and understanding of sea turtles. It also encourages humans to continue to help the survival and habitat of the turtles' oldest spirits.

Sea tles can still stabilize their heart in the cruel survival crisis, so as to encourage people to keep their original mind and keep their own rhythm in the future fast-paced era. Master the ability to slowly adapt to the environment.

Sea turtles play a very important role in the Marine food chain. Sea turtles have an important role in the Marine food chain. Their survival conditions can reflect the health status and changing trends of the Marine environment, and also

make a great contribution to the Marine ecosystem. Sea turtles protect the health and stability of Marine flora, such as coral reefs and seagrass beds, and also help maintain Marine biodiversity. Secondly, sea turtles provide nutrients to the Marine ecosystem through their excrement and maintain the ecological cycle, which helps to maintain the health and balance of the Marine ecosystem. Conservation of sea turtles also plays an important role in maintaining Marine biodiversity and ecosystem balance. Marine turtles are an important part of maintaining Marine biodiversity. Conservation of endangered sea turtles affects the health and stability of Marine ecosystems at multiple levels.

According to the understanding, sea turtles have an indissoluble relationship with human beings, and the Chinese nation has a long history of worship of turtles, so the turtle culture accumulated is quite spectacular. People regard turtles as the "protective gods" of human beings, and call them, together with the dragon, phoenix and unicorn, as the "four spirits", as a symbol of good luck, good luck and longevity. Tortoises are also seen as a hub for the interconnection between Marine life and the earth's ecosystem, with special significance not only for Asian countries but also for the culture of the whole world.

1.3 The Current Situation Of Domestic And Foreign Research

1.3.1 Research Status In China

Although there is a certain gap between China's attention to endangered sea turtles and the international research level, some progress has been made in recent years. Here are some of the current state of turtle research in China:

(1) A Study on Turtle Migration Pathways and wintering grounds: A study on protecting endangered sea turtles completed by a team from the Ocean University of China. The team tracked the turtles' wintering sites and migration routes to help the public understand their living habits and efforts to protect endangered turtles.

(2) Research on genetic diversity and Population Structure of sea turtles: This is also a study of sea turtles completed by a research team from the Ocean University of China. Through the genetic analysis of sea turtles along the coast of China, the team analyzed the genetic diversity and population structure of the sea turtles, understand the evolutionary process of sea turtles and better develop sea turtle protection measures.

(3) Hainan Island Sea Turtle Protection and Breeding Project: a sea turtle protection work jointly conducted by the Hainan Provincial Department of Ocean and Fisheries and several scientific research institutions. The team set up a sea turtle reserve in Hainan province to study the growth and development rules of sea turtles, conduct artificial breeding of sea turtles and provide a very important scientific research basis for the protection measures of sea turtles.

(4) Active sea turtle protection policy promoted by Professor Ruihua Yang: Professor Ruihua Professor Yang, a Marine biologist at the Ocean University of China, has been studying endangered sea turtles for decades. In the research of Professor Yang Ruihua, it was found that the sharp decline of Chinese sea turtle population due to human activities, such as Marine pollution threat, and excessive fishing threatened the number of sea turtle population. After analyzing these problems, Professor Yang Ruihua began to promote the formulation and implementation of policies for the protection of endangered sea turtles. Professor Yang Ruihua has participated in many policies and regulations on the protection of sea turtles, including the part of the Marine Environmental Protection Law and the inclusion of sea turtles as second-class protected animals in the National List of Key Protected Wildlife. Professor Yang Ruihua's work has received the attention and support of the government, and this research work has played an important role in promoting the protection of sea turtles and raising the public awareness of sea turtle protection.

(5) Establishment of the Sea Turtle Conservation Alliance: In 2018, China established the China Sea Turtle Conservation Alliance to carry out various activities to raise public awareness of conservation. The establishment of the allianc

e marks an important step in China's turtle conservation efforts by uniting various forces to protect this rare species.

(6) Release of the Sea Turtle Conservation Action Plan (2019-2033) : The Ministry of Agriculture and Rural Affairs has issued the Sea Turtle Conservation Action Plan (2019-2033), a 15-year plan to strengthen sea turtle conservation management and effectively address new issues and challenges facing sea turtle conservation. The implementation of the plan will help unify turtle conservation and management across the country.

At the same time, there is still much room for improvement in China's sea turtle protection and research efforts, such as Marine pollution, illegal fishing and habitat destruction. Therefore, more scientific research input, policy support, and public participation are needed in the future to ensure the recovery and long-term protection of the endangered sea turtle populations.

1.3.2 Foreign Research Status

The research on endangered sea turtles abroad is relatively mature and comprehensive, mainly focusing on the conservation biology, population ecology, genetics, behavior, artificial incubation and reproduction, and conservation policy and management of sea turtles. Here is an overview of the current situation of some endangered sea turtles studies abroad:

(1) The State of the World's Sea Turtles project: This is a global sea turtle research and protection project, jointly initiated by a number of international environmental organizations. Through the global sea turtle observation network, a large number of data on the migration, reproduction and survival status of sea turtles were collected and analyzed, which played a positive role in promoting the global protection of sea turtles.

(2) turtle plastic pollution research: researchers at the university of Queensland, Australia researchers found that turtles eat plastic high proportion, the study reveals the plastic pollution caused a great threat to turtle survival, the team's re

search against the present situation of global plastic pollution, also sounded the public wake-up call for Marine environment protection.

(3) Loggerhead Marinelife Center Sea Turtle Research: It is the Sea Turtle Research Center in Florida, United States. The research team studied the breeding, growth, and disease of sea turtles, and successfully rescued many injured sea turtles, which is conducive to the protection and research of sea turtles.

(4) International Conference on Turtle Biology and Conservation: At the meeting in Loreto, Mexico, experts from more than 70 countries exchanged information on turtle biology and conservation, discussed threats to turtle resources, and proposed a variety of research methods and conservation strategies.

(5) Sea Turtles 911 International Turtle Rescue: In cooperation with the International Union for Conservation of Nature (IUCN), a turtle rescue and release event was conducted in Sanya, China, to raise public awareness of turtle conservation.

Many countries have enacted laws to protect endangered sea turtles, such as the US Endangered Species Act and China's Marine Environmental Protection Act. In addition, the Convention on Trade in Endangered Species of Wild Animals and Flora (CITES) includes sea turtles in Appendix I for protection to reduce illegal trade in endangered sea turtles. Raise public awareness of the importance of sea turtle conservation.

Research framework is an important part of research design, which provides a structured plan and direction for research. The research framework can clarify the questions the design is trying to answer and how these questions relate to the existing research on the visual communication design of Turtle Trail. It also provides a theoretical basis for design and is the choice and application of appropriate theories to guide research. The visual communication design of "Turtle Tour Footprints" uses literature research method and case study method to create.See attachment figure 1.1.

Summary Of The Chapter I

1. The number of endangered sea turtles is very small. According to incomplete statistics in China, there are about 200 endangered sea turtles of seven species in China by 2022, which belong to the national endangered species protection.

2. It determines the significance of protecting the existence of endangered sea turtles, which are one of the spirits of the earth and a part of the nature. The population of organisms should be a matter of concern to the public at all stages.

3. On the premise of data support, the preliminary research on endangered sea turtles was completed, which laid the foundation for the design of endangered sea turtles theme.

Chapter II
RESEARCH FOR THE SELECTED TOPIC

2.1. Introduction To Topic Selection

Symbiosis allows for mutual benefit between organisms, and symbiosis allows organisms to evolve new characteristics. So far, the earth is still the only home that we live on. It is because of the symbiotic relationship that the earth is full of life."Heaven and earth are born with me, and all things are unique to me."Human beings should attach importance to the symbiotic relationship with nature and maintain biodiversity.

Harmonious coexistence with nature and biodiversity is the balance always pursued by human beings. Just as General Secretary Xi Jinping said, "We need both gold and silver mountains, and clear waters and green mountains."Social symbiosis between human groups, human and animal symbiosis, human and plant symbiosis, human and microbial symbiosis and so on are all manifested by human beings, and the change of symbiotic relationship will also affect the survival and development of human beings. Man must not be above nature and any other species. Seeking common ground while shelving differences and harmonious coexistence is the only choice to build the relationship between man and nature. With the different characteristics of sea turtles as the clue, the natural and elegant style as the carrier, so as to better show the beauty of different sea turtles.

In the name "Turtle wandering", "turtle" refers to the turtles, pointing to the theme of protecting wild turtles, the turtles read the same, Song Dynasty poet Huang Jingzhai once wrote a poem: " Spring does not complain about wind and rain, no rain, no wind and spring."It means that we should not give up hope and faith, just like the belief in the coexistence of man and nature since ancient times , so is the protection of endangered sea turtles."Swimming" is the hope of sea turtles swimming in the sea, the sea spirit should be free to roam in the sea, rather than difficult, swimming is also a performance of freedom."Trace" refers to the f

ootprints of sea turtles in the long process of survival and evolution, which is also the imprint of the positive treatment of life and life. The use of "tracks" has also been an expectation in the world. Together, the word "turtle wandering track" is the expectation that endangered sea turtles can freely live in harmony with humans.

Human growth is also a step by step, and the rhythm of the turtle's attitude towards life is also a must learn. According to the sea turtle can still stabilize their heart in the cruel survival crisis, so as to encourage people to keep their original mind and rhythm in the future fast-paced era, so as to master the ability to slowly adapt to the environment.

"Turtle Journey" will use logo design, font design, IP image design combining sea and turtle, and seven types of turtle image poster design, and develop peripheral derivative products. The direction of visual communication design is based on biodiversity for creation, extracting the characteristics of seven types of sea turtles, and the overall tone is mainly elegant for creation. It reflects the belief of harmonious coexistence of human beings since ancient times, and is designed with the goal of promoting the protection of endangered sea turtles and the harmonious coexistence with biodiversity.

2.2 Relevant Data Research

Through comprehensive data and a large number of literature support, the recent data of endangered sea turtles were collected: from April 1981 to December 2022, a total of 109 records were made of endangered sea turtles in Zhejiang province, including seven types of sea turtles, and the number of sea turtles is very small.(The data source is "Sea Turtle Records and Population Status in Zhejiang Sea") There are many factors affecting the decrease of sea turtle population, Including but not limited to habitat loss: sea turtles need suitable habitat for survival, foraging and reproduction, while human construction and environmental pollution problems threaten the life of sea turtles; Climate change: Both sea level ri

ses and extreme weather caused by rising global temperatures can affect turtle living conditions; Transitions fishing: The rapid development of Marine fisheries, Lead to a large number of sea turtles being artificially made into crafts or medicine; ocean pollution; Marine pollutants such as chemical waste and oil pollution threaten the health of sea turtles; Human activities: human activities such as fishing boats, cruise ships and island development affect the living conditions of sea turtles; Natural enemy: shark, Sea birds and other sea turtles threaten the survival of sea turtles. These factors threatening the life and health of the turtles have led to a sharp decline in the turtle population.

Sea turtles are an important member of Marine life and have a unique living habits.

(1) Habitat selection: Sea turtles live in warm oceans and coastal areas, Sand beaches are often chosen as sites for reproduction and spawning, Also like to forage near coral reefs and seagrass beds

(2) Migration: sea turtles are migratory animals, They will travel long distances, Migrated back and forth from breeding grounds to foraging grounds, Some species can even cross the whole ocean

(3) Foraging habits: sea turtles mainly feed on seaweed, seaweed, mollusks and corals, Their diet varies by species

(4) Diving ability: sea turtles are good at diving animals, Ability to stay underwater for long periods of time, The deepest record is a dive to about 1,000 feet

(5) Breeding behavior: sea turtles go to the beach to lay their eggs in a certain season, Females will dig into burrows and lay bird eggs in them, And then covered with sand. After hatching, the young travel to the sea on their own

(6) resting habits: turtles rest on the bottom or on the water, sometimes exposed to the sun to help the body maintain the proper temperature

(7) Social: turtles are usually solitary animals, but they gather together during breeding season or foraging. These living habits make sea turtles an indispensable part of the Marine ecosystem, and also highlight their close connection to t

he Marine environment.

2.3 Literature Review And Data Integration

The literature review will allow me and other readers to familiarize themselves with the evolution, recent progress, and existing problems of turtle research in the field of endangered sea turtles. Therefore, by reading the literature review, it is possible to efficiently and accurately understand the past, present and future of endangered sea turtle research topics.

Lin Liu, Zhang Ting and Shi Haitao, in their article "Sea Turtles are Ideal Flagship Species for Marine Conservation", delve into the importance of sea turtles as a priority wildlife under national protection. Sea turtles are not only large Marine reptiles, but also living fossils in Marine ecosystem. Their existence plays an irreplaceable role in Marine ecological balance. However, due to human activities and changes in the natural environment, the survival of sea turtles is facing severe challenges, and many sea turtle species have been endangered. Therefore, the protection of sea turtles, especially endangered sea turtles, has become an urgent task.

The article emphasizes that strengthening the protection and publicity of endangered sea turtles is an important measure to ensure the sustainable development of sea turtle populations. By positioning the sea turtle as a flagship species, it can effectively raise public awareness of turtle conservation and spread knowledge about ecological conservation. As a symbolic species in the Marine ecosystem, the success of its protection is directly related to the health of the entire Marine ecosystem.

In order to better understand the importance of sea turtles to the ecological environment and biodiversity, extensive data collection and research have been conducted, including the study of the appearance and habits of different species of sea turtles. Through these studies, they not only increase their knowledge, but also understand new creative ideas. They combined the concept of environment

al protection, carried out an innovative summary and integration of turtle conser vation work, and explored new propaganda methods, with a view to spreading th e concept of harmonious coexistence among the public.

In the process of researching and integrating materials on the history, cultur e, art form and ecological evolution of sea turtles, I have improved my professio nal knowledge and gained a deeper understanding of the development process of sea turtles and their multiple characteris.（see figure 2.2).

2.4 Design And Positioning

As an art design to promote animal protection, the core idea of Turtle Safari is to advocate people's care for Marine life, especially the species of sea turtles. The design ideas and style of the whole project revolve around the protection of sea turtles and the harmonious coexistence of Marine ecology.

Overall design framework: The tone is mainly fresh and elegant, delivering a quiet and far-reaching ocean atmosphere. The color is blue-green, representin g the ocean, while giving a sense of calm and relaxation. The style is simple yet sophisticated, highlighting the elegance of the turtle and the vastness of the ocea n.

Logo design: The element takes the shape of the turtle as the design elemen t, simple and intuitive. The symbolic meaning is that the turtle as a symbol of lo ngevity and wisdom, conveys the continuity of life and the spirit of perseverance. In terms of cultural connotations, the turtle is often used as a symbol of success and luck in art, religion and literature, reflecting people's yearning for a better lif e.

The character setting of IP image design combines the characteristics of the sea and sea turtles to create a humanoid IP image. It is characterized by the soft colors of the sea and the tough shell of the turtle, reflecting the close connection between the sea and the turtle. Blue waves and turtle shells serve as the core acc essories, echoing the theme of the project.

The poster design focuses on the image and illustration of sea turtles, and shows the characteristics of sea turtles swimming freely through the addition of Marine elements. The visual effects form a soft and harmonious visual effect that attracts the audience's attention.

The painting style is light and elegant, and the attention to the ecological habits of turtles in detail makes the work more convincing.

Design a series of cultural and creative products related to the theme of turtle conservation, such as puzzles, MEDALS, postcards, etc. Through the dissemination of these derivatives, public awareness of turtle conservation is increased.

In today's era, cultural and creative products have become an important carrier for the dissemination of culture and ideas. As a design themed on endangered sea turtles, the development of cultural and creative derivatives around Turtle Travel can effectively raise public awareness of biodiversity conservation.

First of all, the design of the derivative can draw inspiration from the illustration of the Turtle, and present the image of the turtle and its living environment in an artistic way. For example, you can design a series of turtle themed decorations, such as pendants, ornaments, wall paintings, etc., which are not only beautiful, but also add a touch of nature as an interior decoration.

Secondly, by combining the IP image of Turtle Trail with the main vision of the poster, a series of recognizable cultural and creative products can be created. These products can include everyday items such as postcards, fans, tote bags, etc., and they are practical while also conveying the idea of protecting turtles and biodiversity.

Finally, through the promotion of these cultural and creative derivatives, the public can be subtly influenced, so that they can enjoy cultural products at the same time, but also realize the importance of biodiversity protection, so as to form a positive social fashion, and jointly contribute to the protection of our earth home. （see figure 2.1 and figure 2.3).

Summary Of Chapter II

1. The initial literature data was collected through keyword search, and then I went to the local photography exhibition for in-depth understanding.

2. Make a preliminary analysis and classification of the appearance of the seven types of turtles, and make a preliminary conception according to the determined style.

3. About the brand image logo design adhere to the simple and modern style and use auxiliary graphics for visual creation.

4. We have drawn cute images of turtles that, under a clear appearance presentation, can identify information related to the theme and meaning of the institution.

Chapter III
DESIGN PROCESS AND RESULTS

3.1 Design Plan

(1) Design inspiration and style determination

Style positioning: Based on the collected cases and the core values of the brand, the overall style of the brand is determined to be modern and elegant, which will be reflected in simple and clear design elements.

(2) Mind mapping organization design ideas

Build a mind map: Use mind map tools to visualize key elements such as the brand's core philosophy, target audience, and product features.

Combing design: Through mapping, clarify the various aspects that need to be considered in design, such as color, shape, font, etc., and explore the relationship between them.

(3) Design positioning and draft

Design orientation: The idea of protecting endangered sea turtles

According to the positioning, start to design the first draft, including a sketch of the brand identity and preliminary brand visual elements.

(4) Information collection and design expression

IP Image design: Design the brand IP image, including the logo, design fonts, auxiliary graphics, etc., to ensure that they match the Turtle Trail style and positioning.

Extension Map identification: Design IP image extension maps of the presentation package so that it can maintain consistency and recognition across different media and application scenarios.

(5) Design application expansion

Poster design: According to the elegant style, design a series of posters for advertising and marketing.

Illustration creation: Create illustrations related to the design story and product features to enhance visual appeal.

(6) Overall design and detail adjustment

Complete design: Integrate all design elements to complete the overall design scheme.Detail adjustment: A careful review of the design proposal, fine-tuning the details of color, layout, fonts, etc., to ensure the perfect presentation of the final design.

3.2 Design Process

Corporate logo and font design

As a special visual language, the logo is the carrier to show the values and unique images. The designed logo fully combines the IP image and the ocean elements, and spreads the ideas of the works through this visual language. The font design runs through it in a soft style, showing the continuous meaning of the sea turtle's life.

The initial idea of logo design is to echo the logo with several main elements of the IP image, and finally decide to make the same graphics of the sea turtle and the sea, and then add soft colors as details, so as to fully integrate the vitality of the ocean with the symbolic significance of the sea turtle. The font style is mainly based on the flowing ocean characteristics, and then combined with innovation to add more harmonious and flexible details. After the completion of the first draft, the spatial rhythm of the font design was not coordinated, so the paper tried to organize the original font design. The logo was mainly dominated by turtles, reflecting the connotation of free movement of sea turtles. The following is the first draft of the logo and font design .(see Figure 3-1 ,Figure 3-2 ,Figure 3-3 and Figure 3-6).

In the design, the shortcomings of the messy font design space are modified, and the decoration is integrated to further echo the soft, reflecting the free characteristics of the sea turtles in the ocean, deepening the meaning and

characteristics while the font is agreed to be neat. At the same time, the logo is changed to a more simple and smooth style, which can show the characteristics of the sea turtle more vividly. Since then, a set of signs and fonts has been formed. Then the first draft has become the final draft of the logo after continuous deliberation and polishing. The following is the final draft of the logo and fonts..(see ,Figure 3-4 ,Figure 3-5 and Figure 3-7).

Standard colors

In the realm of design, color is a powerful tool that can significantly influence the mood, atmosphere, and overall aesthetic of a space. The inclination towards an ink-style color application in the design process is a strategic choice that evokes a sense of tranquility and sophistication. By utilizing a palette inspired by the colors of turtles and the ocean, such as light blue, light green, and light brown, the design not only creates a serene and harmonious environment but also imbues it with deeper symbolic meanings.

Blue, a color often associated with the vastness and depth of the ocean, is used to convey a sense of intelligence, communication, trust, security, and openness.

Green, on the other hand, is a color that symbolizes harmony, balance, and growth. It brings a sense of refreshment and rest, which can be incredibly soothing in a busy or stressful environment. Green also stands for stability and reassurance, qualities that contribute to a feeling of safety and comfort. The environmental connotations of green further reinforce the idea of a space that is in tune with nature and promotes a sense of peace.

Yellow, with its connotations of optimism and happiness, adds an element of warmth and enthusiasm to the design. It is a color that exudes confidence and self-esteem, fostering an environment that encourages emotional strength and friendliness. The creativity associated with yellow can inspire innovation and a positive outlook, making it a valuable addition to any design.

The choice of light colors in the design process is deliberate, as it creates a sense of lightness and elegance. This lightness can transform a space into one th

at feels airy and refined, evoking an ambiance of understated elegance and youthful freshness. The light tones also have the effect of visually expanding the space, making it appear more open and inviting.

Moreover, with a light color palette, the process of color matching becomes more straightforward. There is no need for an overabundance of color or overly complicated designs. The simplicity and lightness of the color scheme, when combined with a firm and stable design approach, can create a peaceful aesthetic that is calming to the senses. This type of design not only appeals to the eye but also has the power to induce a sense of relaxation and tranquility in those who inhabit the space.

In summary, the application of ink-style colors in design, inspired by the hues of turtles and the ocean, is a thoughtful and intentional choice. It not only creates a visually appealing and calming environment but also imbues the space with a range of positive qualities and symbolic meanings that can enhance the overall experience and well-being of its occupants.

Auxiliary graphics

Auxiliary graphics play a pivotal role in brand communication, transcending their mere decorative appeal. These designs are not just aesthetically pleasing; they are strategically crafted to bridge the gap between the brand's core elements and the application environment, thereby enhancing the overall brand experience. The essence of auxiliary graphics lies in their ability to harmonize with other design elements and to resonate with the target audience, thus amplifying the brand's message.

The creation of auxiliary graphics is a meticulous process that involves the use of fundamental shapes such as semicircles and ellipses. By identifying the shared traits among the seven types of turtles, designers can develop a cohesive set of illustrations and logos that reflect the personality and characteristics of the brand. This approach ensures that the auxiliary graphics are not only visually appealing but also meaningful and representative of the brand's identity.

In the realm of font design, the incorporation of circular arc cut squares adds a unique touch that gives the typography a fluid and wave-like quality. This design choice is not arbitrary; it is a deliberate attempt to imbue the font with the essence of the sea, reflecting the brand's connection to marine life and the natural world. The wavy shapes are a subtle nod to the brand's commitment to the stable and sustainable growth of sea turtle populations, a cause that is both noble and resonates with the brand's ethos.

The IP design further reinforces this marine theme by incorporating wavy shapes that symbolize the brand's aspirations for a thriving sea turtle community. This visual language is consistent across the brand's collateral, ensuring that the message is clear and impactful. The illustrations are painted with marine elements, and the turtle shells are depicted in an approximately circular shape, which not only pays homage to the natural form of the turtles but also aligns with the brand's visual identity.

In today's fast-paced information age, businesses recognize the immense value of auxiliary graphics as a powerful tool for brand image building. These graphics hold a status that is almost equivalent to the primary logo, and in some cases, they may even surpass it in importance. The strategic use of auxiliary graphics can elevate a brand's visibility, create a memorable brand experience, and foster a deeper connection with the audience.

In conclusion, auxiliary graphics are a vital component of a brand's visual identity. They are not just decorative; they are purposeful, meaningful, and designed to enhance the brand's core message. By skillfully integrating these elements with the brand's core design, businesses can create a cohesive and impactful brand image that resonates with their audience and stands out in the crowded marketplace.

IP image design

IP image design is a creative process that involves developing a unique and appealing character that represents a brand or company. It's more than just a mascot; it's a visual embodiment of the company's values, personality, and mission.

Brand Personality:

The character, You, is not just a name; she's a symbol of the brand's connection to the ocean and its inhabitants.Her love for swimming represents a deep-seated passion for the marine environment, which is a core value of the brand.This connection is further emphasized by her friendship with the sea turtle, symbolizing harmony and coexistence with nature.

Character Development:

You's story is one of exploration and friendship. Her adventures in the sea, swimming alongside sea turtles。

Visual Design:

The design is visually striking yet approachable. Her hairstyle, inspired by the fluidity and freedom of the ocean waves, should be depicted in a way that it moves with the 'winds' of the sea, giving her a dynamic and lively appearance. The use of fresh blue tones in her color palette will not only make her visually appealing but also reinforce the connection to the ocean.

Key Features:

The sea turtle shell element on the top of her head is a clever touch, tying her directly to the marine theme. This could be stylized to be both recognizable and unique, distinguishing her from other IP characters. The embellishments with natural elements will add depth and detail to her design, making her visually rich and interesting.

Emotional Connection:

The goal of creating an emotional bridge between the ocean, sea turtles, and the public is a noble one. You should be designed in a way that invites people to feel a sense of kinship with her, and by extension, the marine environment. Her expressions, body language, and interactions with other characters should evoke empathy and affection.

Extended Emojis and Merchandise:

To make the IP more substantial, the design of extended emojis and other merchandise is essential. These emojis could depict You in various scenarios, s

uch as swimming, playing with sea turtles, or even educating others about the ocean. This not only adds to the character's depth but also provides a platform for the brand to engage with its audience on a more personal level.

Overall Aesthetic:

The overall design of You should aim for a balance between being relaxed and lively, dreamy yet grounded in reality, and above all, endearing. She should be a character that people can relate to and care about, which will ultimately strengthen the brand's image and recognition.

Brand Integration:

Finally, the IP image should be seamlessly integrated into the brand's identity. This means that You should be present in all brand communications, from product packaging to marketing campaigns, reinforcing the brand's commitment to marine conservation and environmental stewardship.

By following these guidelines, the IP image design of You will not only serve as a mascot but will become a meaningful ambassador for the brand's values, fostering a deeper connection between the brand and its audience.(see Figure 3-8 and Figure 3-9).

Illustration design

In the vast expanse of the ocean, there exists a creature that has traversed the ages with grace and intelligence. The sea turtle, an ancient marine dweller, is not only revered for its longevity but also for the wisdom it embodies. It is this profound symbolism that we seek to capture and communicate through our series of seven meticulously crafted illustrations.

Each illustration is designed with a deep respect for the seven distinct species of sea turtles, each with its unique characteristics and beauty. The color palette is carefully curated to reflect a tranquil elegance, with shades of soft gray, earthy brown, and natural green serving as the foundation. These colors harmonize with one another, creating a cohesive visual narrative that is both rich and understated, allowing the image of the sea turtle to take center stage.

The illustrations are designed to immerse the viewer in a serene and vivid marine environment, where the sea turtles glide effortlessly through the water. The shell of each turtle is depicted with intricate patterns that are reminiscent of the ocean's depths, symbolizing the inseparable bond between these creatures and their aquatic home. The integration of the turtle's shell with the surrounding environment is a testament to the interconnectedness of all life within the marine ecosystem.

The sea turtles themselves are portrayed with an air of elegance and strength. Their gentle yet determined eyes convey a sense of freedom and harmony, as they navigate the vast ocean with a purposeful grace. This visual representation serves as a poignant reminder of the importance of marine ecological protection and the delicate balance that must be maintained to preserve these ancient creatures and their habitats.

The application scenarios for these illustrations are vast and varied. In the realm of environmental protection publicity, they serve as powerful visual aids for marine conservation organizations. The illustrations can be used in educational materials, posters, and campaigns to raise public awareness about the critical need for marine ecological protection.

Furthermore, these illustrations are not only functional but also serve as beautiful pieces of art. They are well-suited for art decoration, whether in a home setting or a public space. The natural beauty and serene atmosphere depicted in the illustrations can add a touch of tranquility and elegance to any environment, sparking conversations and inspiring a deeper appreciation for the marine world.

In conclusion, our series of sea turtle illustrations is more than just an artistic endeavor; it is a call to action. It is a celebration of the natural beauty and wisdom of these ancient creatures, and a reminder of our collective responsibility to protect and preserve the marine ecosystems that they inhabit. By showcasing the sea turtles in such a captivating and meaningful way, we hope to inspire a greater understanding and commitment to marine conservation.(see Figure 3.10-3.16)

Information visualization design

Information visualization design is a sophisticated and specialized branch within the realm of visual communication design. It is a method that transforms complex data and information into visually accessible and understandable formats. This approach is particularly useful for conveying intricate details in a manner that is both simple and clear, allowing audiences to grasp the essence of the information quickly and effectively.

The field of information visualization design builds upon the principles of illustration design, incorporating elements such as layout, composition, and the use of visual metaphors to communicate ideas. It also leverages the power of color theory to enhance the visual appeal and clarity of the information presented. By carefully selecting a fresh and elegant color palette, designers can make the visualizations not only informative but also aesthetically pleasing.

One of the key applications of information visualization technology is in the area of environmental conservation, such as the study and protection of sea turtles. Through the use of this technology, intricate data about the population dynamics, migration patterns, and ecological environment of sea turtles can be translated into engaging and educational visual displays. This not only helps to raise public awareness about the importance of sea turtle conservation but also provides the public with a direct and intuitive understanding of these marine creatures.

Geographical distribution is one aspect where information visualization excels. By employing intuitive maps and geographic representations, the public can quickly comprehend the distribution, habitat preferences, and migratory routes of various turtle species.These visual aids can highlight the unique characteristics and behaviors of turtles, such as their nesting habits or feeding grounds, making this information accessible to a wide audience.

The use of color in information visualization design is another critical element. Different colors can be strategically used to distinguish between various turtle species, their ecological conditions, and even their conservation status. For instance, one color might represent a particular species of endangered sea turtle, while another could indicate a specific type of habitat or the turtle's feeding behavio

r. This color coding system helps to organize the information in a way that is both visually striking and easy to understand at a glance.

Furthermore, information visualization can highlight the unique aspects of different species, such as the feeding and migratory habits of seven types of endangered sea turtles. By presenting this information in a visually engaging format, the public can gain a deeper appreciation for the diversity and complexity of these species, and the challenges they face in the wild.

In summary, information visualization design is a powerful tool for transforming complex data into easily digestible visual content. It plays a crucial role in education, awareness-raising, and conservation efforts, particularly in the context of environmental issues like sea turtle protection.By using clear graphics, intuitive maps, and thoughtful color schemes, designers can make a significant impact on how the public perceives and engages with important environmental topics. (see Figure 3-17,Figure 3-18,Figure 3-19,Figure 3-20,Figure 3-21,Figure 3-22 and Figure 3-23).

Creative derivative design

Creative derivatives, also known as creative products, are an innovative way to promote and engage the public with the theme of biodiversity, particularly focusing on the protection of endangered sea turtles. These products are designed to capture the essence of the turtle's image, character, and other distinctive features, transforming them into a variety of artistic forms and mediums.

The process begins with a deep dive into the world of sea turtles, I gather a wealth of data and literature on these creatures. This research phase is crucial as it provides the foundation for the creative transformation that follows. The goal is to understand not only the physical attributes of sea turtles but also their behavior, habitat, and the challenges they face in the wild.

Artistic processing involves taking the raw information and transforming it into visually appealing and meaningful designs.This can include creating illustrations, The designs are then used as the basis for artistic creation, where they are further developed into a range of products.

Publicity channels play a vital role in disseminating the message of biodiversity and the importance of protecting sea turtles.These channels can include social media, exhibitions, and educational programs. Through these platforms, the creative derivatives reach a wide audience, raising awareness and fostering a sense of responsibility towards the environment.

The creative products themselves are diverse and can range from decorative items like throw pillows and cards to functional items like stamps and bookmarks. Each product is designed to be both beautiful and meaningful, serving as a constant reminder of the sea turtle's plight and the need for conservation efforts.

Peripheral products are an extension of the creative derivatives, focusing on the integration of the sea turtle's image and related elements such as the ocean.

These products are designed to be both functional and aesthetically pleasing, with the aim of slowly integrating the concept of sea turtle protection into everyday life. By using these products in their daily routines, people are subtly reminded of the importance of conservation and the role they can play in protecting endangered species.

In the practical promotion of turtle conservation, creative derivatives play a significant role. They serve as a bridge between the scientific community and the general public, making the issue of biodiversity and the plight of sea turtles more relatable and accessible. By engaging the public through art and design, these products help to raise awareness and inspire action towards the protection of these magnificent creatures.

In summary, creative derivatives based on the turtle design theme are a powerful tool for promoting biodiversity and the protection of endangered sea turtles. Through artistic processing, creative transformation, and the use of various publicity channels, these products not only raise awareness but also inspire a deeper connection to the natural world and a commitment to conservation efforts.(see Figure 3.24-3.26)

3.3 Design Problems And Solutions

At the beginning of a design project, we often fall into a mistake, that is, to pay too much attention to the idea and ignore the importance of expression. We may have a very unique and profound theme, but if it is not communicated to the audience through the proper visual language, then the design will not achieve the desired effect. So when we realize this, we start looking for the right form of representation, hoping to present our ideas in an appealing way.

However, finding a good representation does not mean that the problem is solved. We may find that while the new representation is attractive, it is not fully compatible with our original first draft of the design. This caused us to have a hard time trying to merge the two, our design rhythm was disrupted and our progress slowed down.

Faced with this situation, we began to do a lot of research and search, hoping to get inspiration from other excellent design works. We looked through a variety of styles and genres of design, and eventually, we were drawn to one style of ink painting. This style, with its simplicity, fluency and expressiveness, gives us a whole new perspective. We realized that this style would not only be a good expression of our design philosophy, but would also blend with our first draft in an elegant way.

After determining the design style, we set about improving our IP identity design. In the early days, we encountered the problem of improper color, which made the IP image look not harmonious and unattractive. However, after we applied more design elements and color theory to the IP image design, we found that the color matching became more harmonious, and the overall effect was significantly improved.

Through this series of exploration and improvement, we not only solved the problems encountered in the design process, but also improved our design ability. We learned how to be creative while also focusing on the usefulness and beauty of the design. While the process was challenging, it also gave us a deeper understanding of the nature of design and how to find our place in an ever-changin

g design environment.

In the field of visual design, improving one's vision and aesthetic ability is an ongoing process. This not only requires the accumulation of theoretical know ledge, but also needs to be continuously honed and improved through practice. Color matching, as one of the core elements of visual design, can significantly af fect the overall feeling and emotional expression of a work. By learning and app lying color theory, such as the composition of the color wheel, color contrast an d harmony principles, you can choose and match colors more accurately and cre ate designs that are both beautiful and have a strong visual impact.

Build harmonious and hierarchical color combinations in color matching. C omplementary colors can produce strong visual contrast, suitable for attracting a ttention; Similar colors can create a soft, unified atmosphere, suitable for the uni ty of the background or theme.

In addition to color matching, text layout is also a part of visual design that cannot be ignored. The right font choice can enhance the theme and style of the design, and the appropriate adjustment of size, line spacing and paragraph spaci ng can improve the readability and beauty of the design. I tried different typesett ing methods and found the most suitable typesetting style for my work.

In the process of accumulating aesthetic and design experience, practice is crucial. Dare to try, constantly practice, through the actual operation to test and i mprove their own design concept. At the same time, it is also necessary to const antly sum up experience and learn and grow from every design practice.

When encountering the bottleneck of design ideas, it is very helpful to com municate with tutors and classmates in time to seek inspiration and suggestions. Communication with others broadens horizons and inspires new ideas. At the sa me time, you can also get inspiration by observing the surrounding environment and friends' suggestions, ask more, think more, try more, these are effective way s to improve the design ability.

In short, through continuous learning, practice and communication, I can gr adually improve my vision, enrich my design language, and create more excelle

nt visual works.

Summary Of Chapter III

1. According to the simple logo design, you can intuitively feel that the brand information is about the theme of endangered sea turtles, according to the shape of the semicircle. The communication of brand information can enter the public's vision more accurately and intuitively.

2. The visual system with visual impact is the original intention of our pursuit and design, so as to make information service and public. The strong unity of the brand visual image is very important.

3. The design style is light, but there is no lack of visual focus, through the design to raise public awareness of the protection of endangered sea turtles.

CONCLUSION

This article will delve into the conservation of endangered sea turtles with t he aim of increasing public awareness and understanding of this important ecolo gical issue. This paper starts with the basic knowledge of endangered sea turtles, introduces their biological characteristics, living habits and the main threats the y face. Sea turtles are an important part of Marine ecosystem, and their existence plays an irreplaceable role in maintaining Marine ecological balance. However, due to factors such as habitat destruction, Marine pollution, illegal fishing and cl imate change, many turtle species are facing serious threats to their survival.

In the course of research, this paper introduces the concept of multimedia i nteraction effect. Multimedia interaction refers to the use of a variety of media f orms, such as images, sound, video and interactive elements, to enhance the tran smission and reception of information. Through multimedia interaction, the livin g status of sea turtles and various problems in the protection process can be displ ayed more vividly and intuitively, so as to improve the audience's understanding of the importance of sea turtle protection. Specifically, this paper adopts the vis ual display strategy to realize the interactive effect of multimedia

Through high-definition pictures and videos, the natural beauty of sea turtle s and their activities in the ocean are displayed, so that the audience can intuitive ly feel the charm of sea turtles.

Interactive content, design booth seals and other small activities, so that the audience in the participation to learn turtle conservation knowledge, enhance m emory and understanding.

Use charts and data visualizations to clearly show trends in turtle populatio ns and the effects of conservation measures to help audiences understand the sev erity of the problem of endangered sea turtles and the progress of conservation e fforts. Through the application of the above multimedia interactive strategies, it i s expected to effectively enhance the public's awareness of endangered sea turtle protection and inspire more people to participate in turtle protection actions. So

far, the problem of the number of endangered sea turtles in China should be paid public attention, and the key to protect sea turtles is to raise the public's attention to the endangered sea turtles. The visual communication design of the creative design of sea turtles can popularize the knowledge about the protection of endangered sea turtles and guide the public's awareness of the protection of endangered sea turtles. The presence of sea turtles helps to maintain the balance of the marine ecology. Because human behaviors such as sea turtle hunting and habitat destruction are the focus of Marine environment and animal population conservation. The migration routes, life dynamics and habits of the turtles provide the research information to study biological species. Conservation and research of endangered sea turtles can raise public awareness of environmental issues and populations. The health status and number of sea turtles can be used as a measure of the health status of the marine environment. Sea turtles also often appear in art works and literary works, serving as a source of creative inspiration.

In the context of the increasing awareness of global ecological protection, the protection of endangered sea turtles is not only an ecological issue, but also a social issue, which requires the joint efforts and participation of the whole society. Extensive literature research was conducted to collect information on the biology, ecology and conservation status of sea turtles. To clarify the connotation of turtle conservation, including ecological balance, biodiversity conservation and cultural inheritance, and to study the classification of seven types of sea turtles, including green sea turtle, hawksbill Sea turtle, loggerhead sea turtle, flat-back sea turtle, Atlantic Sea turtle, Pacific Sea turtle and Kemp's sea turtle. The morphological characteristics, living habits and reproductive behavior of each type of turtle are analyzed to ensure that the design can accurately reflect its characteristics.

Creative ideas Based on a deep understanding of the characteristics of sea turtles, creative ideas to design illustrations with educational significance and artistic value. Using the form of illustration, the life scenes and behavioral characteristics of sea turtles are vividly displayed to enhance the public's understanding a

nd protection awareness of sea turtles. The product development of cultural and creative product design is based on turtle illustration to develop a series of cultural and creative products, such as puzzles, environmental bags, toys, stamps, etc. The cultural concept of turtle protection is integrated into the product design, so that it is not only a commodity, but also a carrier to spread the awareness of turtle protection. Promote the importance of turtle conservation through public exhibitions and educational activities. Through design and activities, we inspire the public to think about the relationship between people and nature and promote a sustainable way of life. We are not only able to raise public awareness about the conservation of endangered sea turtles, but we are also able to contribute to turtle conservation through innovative design practices that translate the concept of turtle conservation into concrete action.

ACKNOWLEDGEMENT

When the paper wrote this, the heart of infinite emotion, the time of the university seems to really come to an end, the prologue begins in the autumn of 2020, and finally in the summer of 2024. Even if you know clearly that the road of life must always move forward, you will feel a little sad for losing the title of "classmate".

Looking back on the four years of college life, I would like to thank my advisor for her warm care and careful guidance. During the writing process, she devoted a lot of time and energy, and always gave me careful guidance and unremitting support from the selection and design of the topic to the final completion, which promoted the smooth completion of my thesis.

Secondly, I would like to thank my family for their careful care of me for more than 20 years, so that I can grow up carefree, without worry about food and clothing, happy and healthy growth without the company and support of my family, and they also support me and trust me in my future road.

Moreover, I would like to thank my friends, grateful to meet, my lovely roommates, friends, your existence makes me not boring these four years, grateful friends, we work together, progress together, although we will eventually be far apart, but I hope you can have a bright future, to dream as a horse, live up to your youth. Friends who can accompany me, I hope that no matter where you live and work later, we may be difficult to meet, but only love.

Finally, I would like to thank all the teachers in the school, especially the classmates and roommates who helped me a lot during the design and thesis. Thanks to their encouragement and help, I was able to overcome various difficulties and finish the thesis successfully.

Life sea, mountains and rivers.

This ask over the mountains, do not ask for the future is the bright moon breeze, magnanity

All the way only willing to regardless of suffering, indomitable, the original heart does not change

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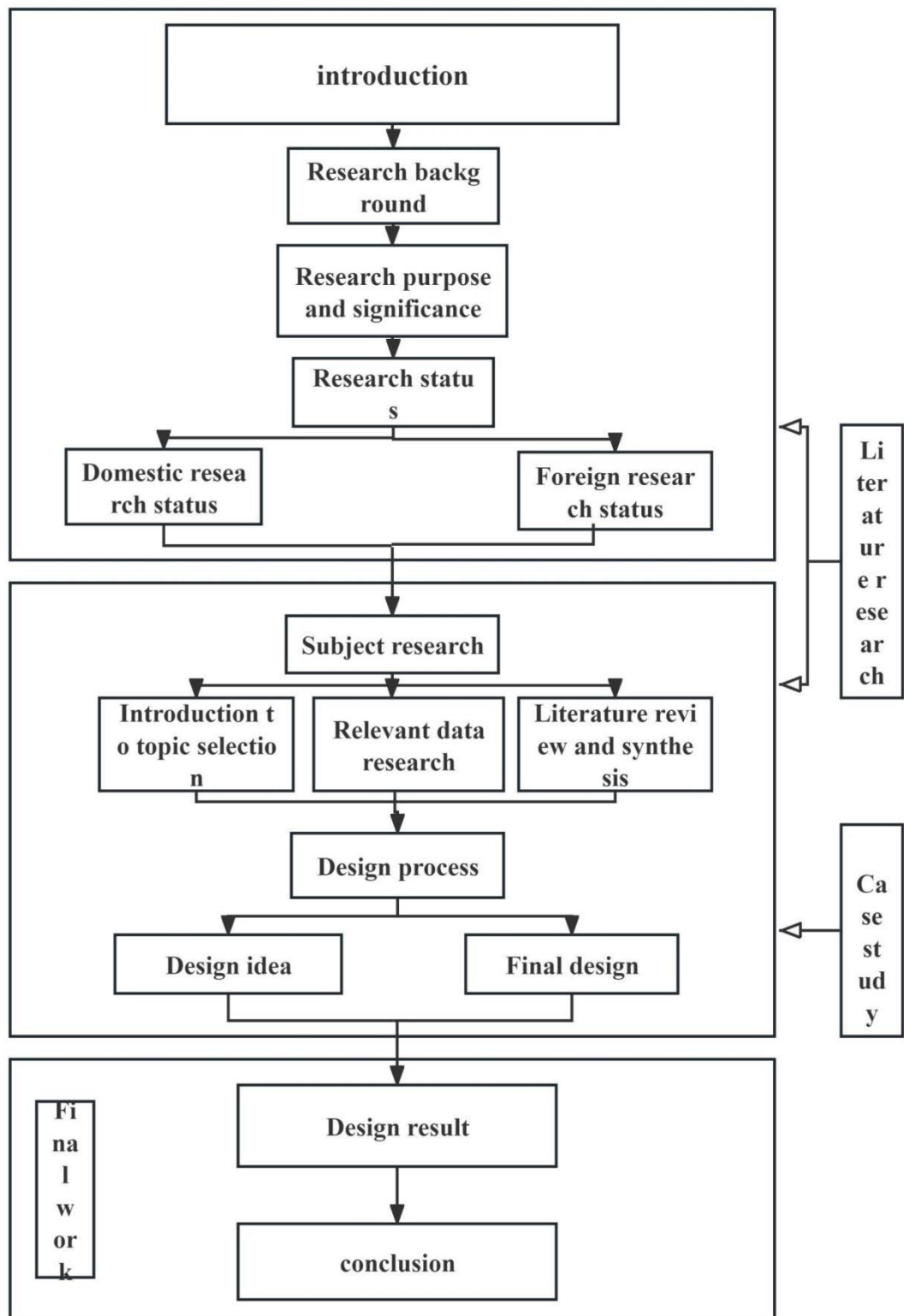niplatform=NZKPT&language=CHS

ANNEX

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│              ┌──────────────────────────┐                      │
│              │      introduction        │                      │
│              └──────────────────────────┘                      │
│                        │                                       │
│                 ┌──────────────────┐                           │
│                 │ Research backg   │                           │
│                 │ round            │                           │
│                 └──────────────────┘                           │
│                        │                                       │
│                 ┌──────────────────┐                           │
│                 │ Research purpose │                           │
│                 │ and significance │                           │
│                 └──────────────────┘                           │
│                        │                                       │
│                 ┌──────────────────┐                           │
│                 │ Research status  │                           │
│                 └──────────────────┘                           │
│        ┌─────────────┴──────────────┐                          │
│  ┌──────────────┐           ┌──────────────┐                   │
│  │ Domestic     │           │ Foreign      │        Literature │
│  │ research     │           │ research     │        research   │
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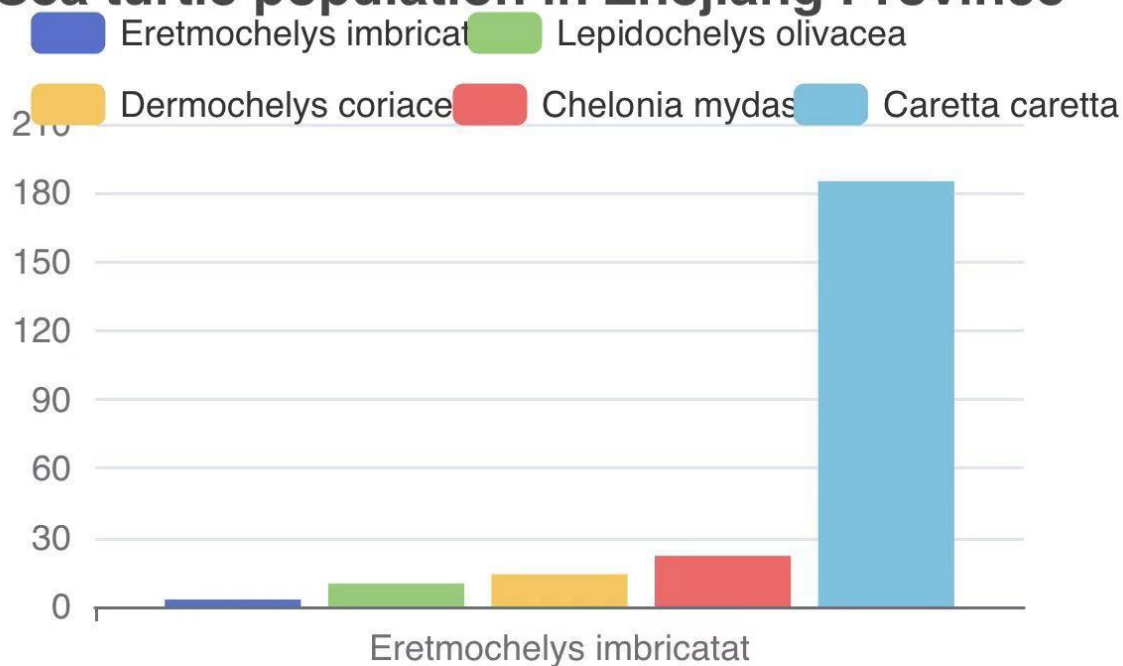
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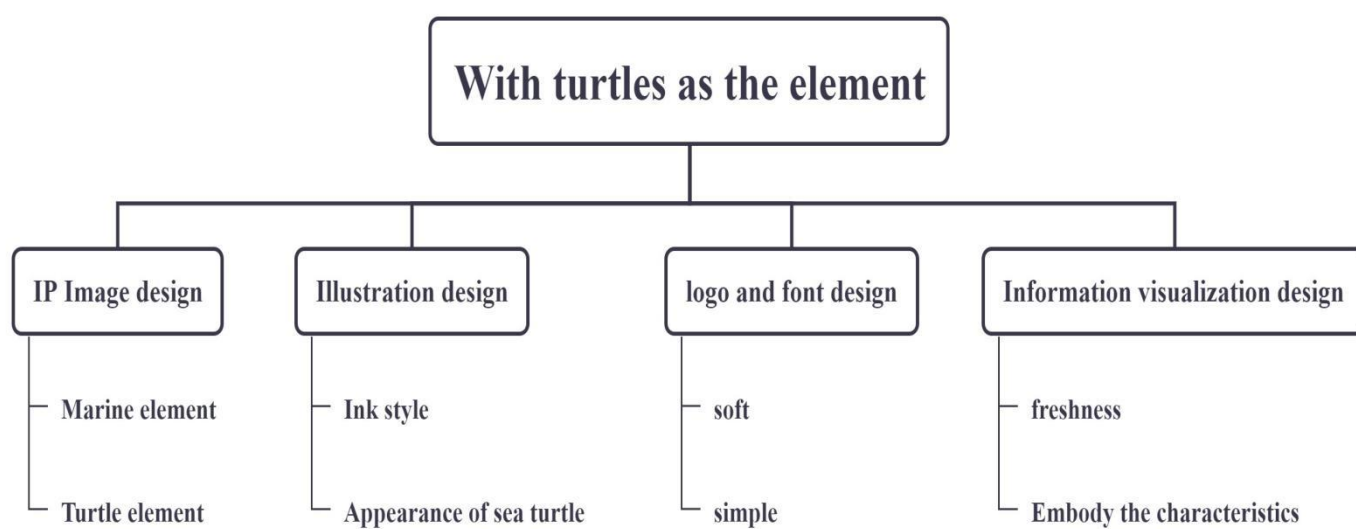
figure 2.2Chinese sea turtle data

figure 2.3Mind map
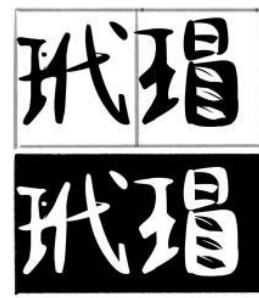
figure 3.1 Font design figure 3.2 Font design figure 3.3 Font design

figure 3.4Font design

figure 3.5 Font design

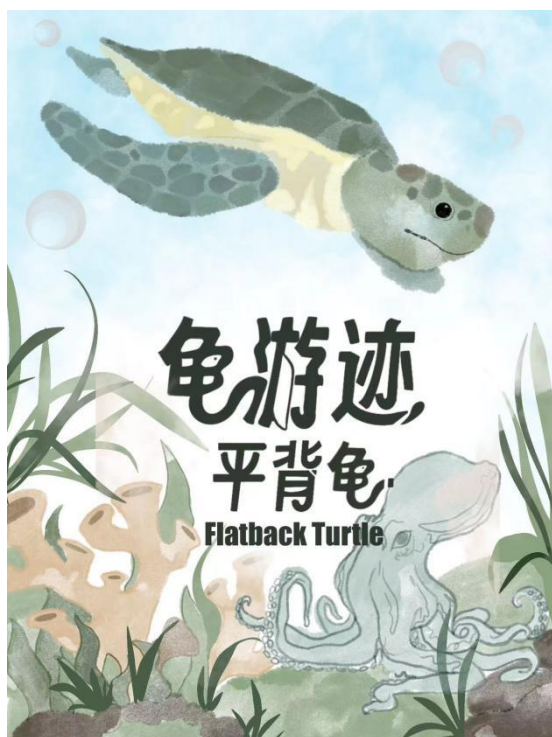figure 3.6 logo design   figure 3.7 logo design

figure 3.8 IP design

撒花　着急　耶嘿　什么！　哭哭　啦啦

困　生气　着急　好饿　偷看　比心

发呆　秀　压力山大

比耶　开心　摸鱼

figure 3.9 IP design

figure 3.10 Illustration design

figure 3.11 Illustration design

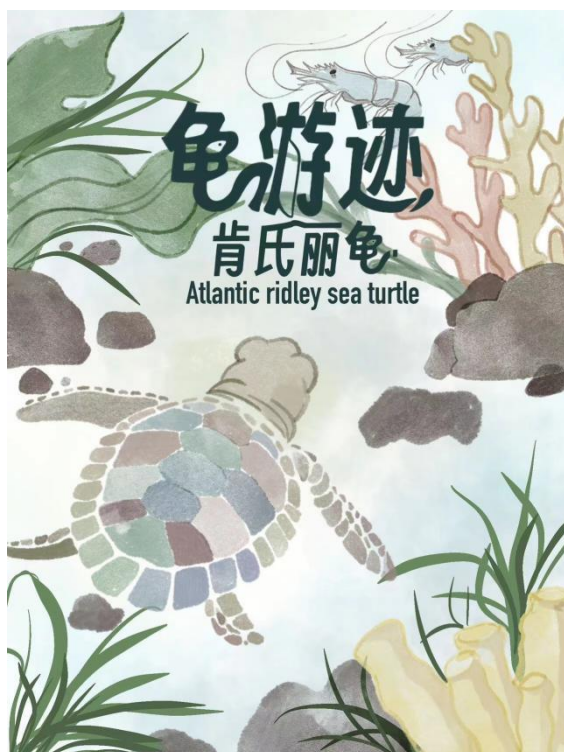figure 3.12 Illustration design

figure 3.13 Illustration design
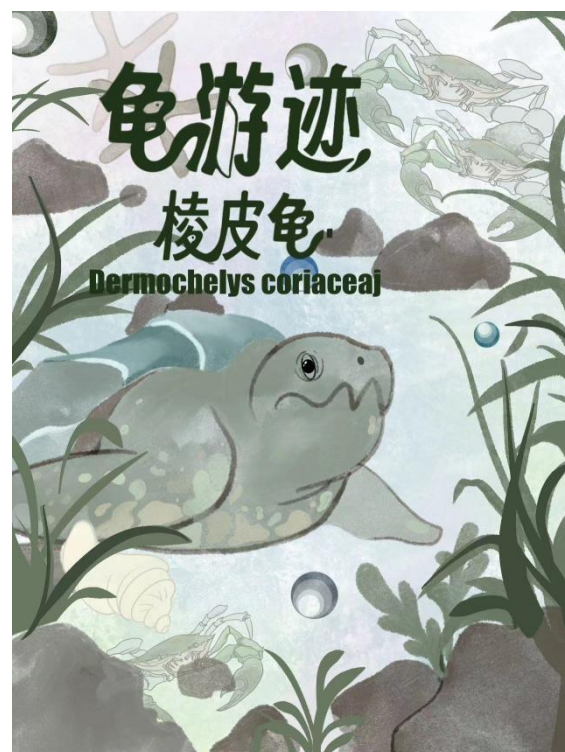
figure 3.14 Illustration design

figure 3.15 Illustration design

figure 3.16 Illustration design

figure 3.17 Illustration design

figure 3.18 Information visualization

figure 3.19 Information visualization

figure 3.20 Information visualization

figure 3.21Information visualization

figure 3.22 Information visualization　figure 3.23 Information visualization

figure 3.24 derivative

figure 3.25 derivative

figure 3.26 derivative