

MINISTRY OF EDUCATION AND SCIENCE OF UKRAINE
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Faculty of Design
Department of Graphic Design

BACHELOR'S THESIS

on the topic:

Design and illustration of the book "Chinese Space Dream"

Performed by: a student of the BED-20 group

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Abstract

In today's world, the development of space technology is an important manifestation of a country's comprehensive national strength. Since the founding of New China, China has been vigorously developing space technology and stepping step by step into the deeper universe. Birds yearn to fly out of the sky, humans yearn to fly out of the earth. From the fairy tale of Chang 'e flying to the moon to the forefront of China's space technology today, countless people yearn for flying out of the sky like birds, thus forming China's unique flying dream. Flying dream is an important part of Chinese culture, but also an important part of the dream of power. Chinese traditional culture is the crystallization of Chinese people's wisdom. The combination of picture books and traditional culture can better promote Chinese traditional culture. Among the types of science popularization related to the development of China's space industry, the number of picture books is small, and the types are not rich enough. Due to the late start of Chinese picture books, the development of picture books is not perfect, and the number of original picture books is small, which still cannot meet the needs of the market.

This graduation project is based on the Chinese flying Dream, combining the development of China's space with the elements of China's flying dream and Chinese mythology, showing the inheritance and development of China's space dream in the form of picture books, focusing on reproducing the charm of China's flying dream for readers, showing the connection between the past and the future of China's space dream, inheriting from the past and looking forward to the future.

The content of the picture book is designed around the development of China's space industry, and at the same time, the brand logo, character images, posters and peripheral products are designed in line with the overall tone. The book is divided into two chapters in ancient and modern order: "From the past -

Their Stories"; "Looking to the Future - Our Story". It tells eight flying stories from Mozi making wood kite to "Zhurong" landing on Mars.

Key words: Chinese flying Dream, China Aerospace, Popular science picture book, Chinese traditional culture, Book binding design

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Introduction

"Birds fly because they want to fly." The Chinese flying dream has been deeply rooted in the hearts of the Chinese people since ancient times, which can be seen in the beautiful flying murals of Dunhuang caves and the fairy tales of Chang 'e flying to the moon. From the wooden kite invented by Mozi in the Spring and Autumn Period and the Warring States Period to the world's leading aerospace technology in contemporary China, there are constantly people invested in the cause of exploring the universe and contributing to the realization of China's flying dream.

This project is based on the graphic illustration form favored by young people, based on the traditional culture of flying dream, and uses picture books as the carrier to popularize China's space industry, breaking the cognitive and ideological barriers of children's thinking. The main theme of the picture book is "From the past and looking forward to the future", which adds Chinese traditional elements and mythic elements, and integrates traditional and modern elements to connect the past and future of China's space dream, showing the space spirit inherited from ancient times in China, depicting the great spirit of Chinese aerospace personnel dedicated to the space industry, and presenting China's space development under the Chinese traditional aesthetics.

The picture book is divided into two parts: one is "From the past - Their Story", which tells three ancient flying stories; The second is "Looking Forward to the Future - Our Story", which tells five stories about the development of China's space industry from New China to the present. At the same time, in order to reflect the modern sense of science and technology, the screen has added dot particles, stars and stars elements, with high saturation to show the strange feeling of tradition and technology, modern and future.

The purpose of the research: To study the development of China's space industry and China's flying dream, create a picture book of China's space science

popularization based on the research results, and show the inheritance and development of China's space dream in the form of a picture book.

Research Objectives:

1. Consult relevant materials of China's space industry according to the subject matter and research direction;
2. Study the creation of popular science picture books in China and other countries;
3. To investigate China's secondary artistic creations related to space;
4. Determine the story outline of the picture book and the main style of illustration;
5. Determine the relevant poster design style;
6. Determine the design of peripheral products related to the book design.

The research subject (theme) is Chinese space science picture book

The object (focus) of the research is the combination of Chinese aerospace, Chinese flying Dream and Chinese traditional elements

Research methods:

1. Literature research method

Read a large number of relevant literature through various channels such as CNKI, Wanfang and VIP, understand how to organically combine China's space dream with picture books, and find relevant design works. Through the research of existing literature, we can understand the current situation of combining cultural content with picture books, collect pictures and videos about space equipment and space exploration, and summarize, sort, classify and analyze the materials.

2. Comparative analysis

Organize and compare all kinds of picture books at home and abroad, comprehensively understand the design concept, and select more suitable picture book types and narrative and composition methods.

3. Comprehensive research method

Browse relevant websites online, consult information, and visit the Space Museum and planetarium offline to understand China's space development and space spirit, and understand the status quo of space exploration, so as to accurately position the design.

4. Discuss the law

Through discussions with teachers and classmates, I deepened my understanding of my graduation design works, analyzed the shortcomings of my current progress and the areas that need to be improved, and then came up with a better modification plan.

Elements of scientific novelty. This project is based on the graphic illustration form favored by young people, based on the traditional culture of flying dream, and uses picture books as the carrier to popularize China's space industry, breaking the cognitive and ideological barriers of children's thinking.

Practical significance. This topic can be used to publicize China's aerospace and China's flying dream.

Structure and volume of the thesis. The bachelor's thesis consists of an introduction and four chapters, each with a chapter summary and a summary of the entire thesis at the end. The work consists of a 24-page picture book, six posters, and a series of related accessories.

Chapter I

ANALYSIS OF SELECTED TOPICS

1.1 Purpose and significance of the selected topic

With the continuous development of China's aviation technology, the ability to explore the universe is also increasing, and flying out of the earth and exploring outer space is no longer an unreachable dream. At the same time, China's comprehensive strength continues to develop, the international influence continues to increase, but the image development of Chinese aviation has stayed in the ancient fantasy, science fiction is also more Western style than Chinese style. Therefore, The Dream of Heaven aims to combine Chinese aviation with traditional Chinese elements and Chinese mythology, and show the Chinese flying dream to teenagers in the form of picture books.

In today's world, the development of space technology is an important manifestation of a country's comprehensive national strength. Since the founding of New China, China began to vigorously develop the aerospace industry, and achieved the great success of "two bombs and one star"; After the reform and opening up, the CPC Central Committee and The State Council reviewed and approved the Outline of the High-tech Research and Development Plan in 1986, which listed large carrier rockets, round-trip transportation systems, manned space systems and applications as important contents for the development of the national space industry in the 21st century.

Under the incentive of a number of policies, China's space technology continues to improve, the space exploration capability is also constantly enhanced, and the space industry has also ranked among the world's advanced ranks. Since 2016, China has made rapid progress in space technology, gradually promoted the construction of space infrastructure, fully completed the Beidou Global Navigation Satellite System, and basically completed the

high-resolution Earth observation system. The communication and broadcasting functions of satellites have been steadily enhanced. The "three-step" lunar exploration program dedicated to lunar exploration has been successfully concluded, and the construction of China's space station has been fully launched. "Tianxin-1" has achieved the goal of interstellar exploration, and China's space industry has made dazzling achievements that shocked the world.

1.2 Purpose and significance of the topic

1.2.1 Purpose of topic selection

With the continuous development of China's aviation technology, the ability to explore the universe is also increasing, and flying out of the earth and exploring outer space is no longer an unreachable dream. At the same time, China's comprehensive strength continues to develop, the international influence continues to increase, but the image development of Chinese aviation has stayed in the ancient fantasy, science fiction is also more Western style than Chinese style. Therefore, this project aims to combine Chinese aviation with Chinese traditional elements and Chinese mythology, and show the Chinese flying dream to teenagers in the form of picture books.

1.2.2 Significance of topic selection

The spirit of space originates from China's space industry under the overall leadership of the Party, and continues to be inherited and carried forward along with the development of the space industry. Exploring the vast space, developing the space industry, and building a space power are our unrelenting pursuit of the space dream. China's space industry began in 1956, and the flying dream of the Chinese nation, with the "Shenzhou" lift-off into reality, the Chinese people have taken a solid step on the journey of the sea of stars.

From a small sprout in an ancient fairy tale to a towering tree in modern times, this dream has lasted for thousands of years to achieve China's space dream. This project uses picture book form as the carrier to convey the Chinese space dream and the development of China's space, combines the sense of science and technology with Chinese style, and combines cultural content with picture book form to let everyone understand the Chinese space dream under traditional Chinese aesthetics, shows the connection between the past and the future of China's space dream, inherits from the past and looks forward to the future.

1.3 Research status at home and abroad

1.3.1 Domestic research status

Hou Shuhui and Wang Yiqi mentioned in their Discussion on the Cultural Functions of Chinese Farming Themed Picture Books from the Perspective of Cultural Ecological Changes from the Perspective of Cultural Ecological Change that with the advent of the 21st century, picture books have become one of the most avant-garde reading methods for children in the world. Chinese picture books have entered the fast lane of rapid development, and constantly explore Chinese expressions in the process of hot development, becoming an important medium for cultural acquisition and cultural transmission, as well as a suitable carrier for contemporary interpretation of farming culture. Therefore, a large number of Chinese farming themed picture books have emerged with picture books as the carrier. This paper proposes that picture books have the function of cultural orientation and cross-cultural orientation, which can subtly influence readers' aesthetic and cultural concepts.

As mentioned in Research on Picture Book Design Based on Traditional Cultural Themes -- Taking the Silk Road as an example, as a carrier of cultural inheritance, picture books with traditional cultural themes not only reflect the beauty of their images, but also have the responsibility of transmitting traditional

cultural values, so they can be combined with existing scientific and technological means to broaden their reading scenes and increase interaction methods.

As mentioned in the Analysis of Innovative Development Ideas of Popular Science Picture Books, local popular science picture books are not rich in content, and there are few high-quality picture books, which cannot adapt to the situation of increasing attention to early reading, lack of scientific rigor and simplification, lack of interest and interaction, and fail to stimulate readers' interest in science. Unable to meet the needs of the market and readers is the problem that our original popular science picture books must solve at present. However, as mentioned in the Research on the Creation of Children's popular Science picture Books in Museums, in recent years, all kinds of museums in China have begun to consciously develop original picture books, mainly introducing the translated museum theme picture books, and beginning to explore and try to publish popular science picture books that meet their own characteristics.

In the Creation of picture Books on the Theme of Chinese Traditional Culture, it is mentioned that the current cultural theme in China is to carry forward Chinese traditional culture generously, and it is the best development direction to explore the theme of picture books that can be created from Chinese traditional culture. Research on the Inheritance and Development of Chinese Traditional Culture in the Design of Children's picture Books mentions that China has a long history and has built a rich and splendid traditional culture in this process. Culture is the foundation of the survival of the nation, and children born in the new era should be the inheritors of traditional culture, so children's picture books should shoulder the historical responsibility of inheriting traditional Chinese culture.

As mentioned in the Practical Exploration of Carrying out Children's deep Reading Relying on Folk Custom picture Books -- taking the picture book Tiger's Head Hat as an example, picture books are an important carrier for

kindergarten teaching activities, and the combination of pictures and images enables children to achieve comprehensive development in cognitive, emotional and social aspects. Therefore, Research on the Inheritance and Development of Traditional Chinese Culture in the Design of Children's picture Books mentions that China has a long history and has built a rich and splendid traditional culture in the process. Culture is the foundation of the survival of the nation, and children born in the new era should be the inheritors of traditional culture. Therefore, children's picture books shoulder the historical responsibility of inheriting traditional Chinese culture. The visual, easy to read and interesting advantages of picture books can effectively stimulate children's interest in reading. Inheritance and Development of Traditional Chinese Culture in Picture Book Design also mentions that picture books, as the main way for children to know things and explore the world, integrate traditional Chinese culture into children's picture books, which plays an important role in cultivating children's cultural awareness and strengthening children's sense of identity with traditional Chinese culture.

As mentioned in the Development and Evolution of Children's picture Books and Subject Matter Selection from the Perspective of Traditional Culture, the subject matter of picture books can be combined with traditional festivals, myths and legends and folk stories, and traditional operas. It is also mentioned in "Exploring the Development of children's picture books guided by Chinese traditional Culture" that at present, China's fairy tales, traditional customs, pen and ink paintings, paper-cut illustrations, etc., are the main contents of children's picture books.

As mentioned in "Reflections on the Innovation and Development of picture books of Chinese Traditional Culture", based on the characteristics of traditional culture, the themes of picture books of Chinese traditional culture mainly focus on traditional festivals, folk stories, myths and legends, humanistic history, etc. However, with the development of The Times, the changes of audience needs and aesthetic concepts, the impact of imported picture books and

the innovation of traditional culture in the book are insufficient. The excessive pursuit of traditional cultural elements and content formalization, without expressing cultural connotations in a unique way, makes traditional Chinese culture unable to resonate with children in real life, thus failing to play the historical significance and cultural value of traditional culture.

As mentioned in "Let the Spark of Critical Thinking Bloom in the Integration of Traditional Culture and picture book Culture", there is a close intersection between traditional culture and picture book culture in some aspects, which not only reflects the inheritance of traditional culture, but also shows the innovation of picture book culture. First of all, traditional culture, as a long-established cultural system, contains rich history, values, folk customs and other elements. These elements provide rich creative materials and inspiration for picture book culture. Picture books often take traditional folk stories, myths and legends, festivals and other themes as subjects, and show them through pictures and illustrations, integrating the essence of traditional culture into them. Secondly, picture book culture is innovative in terms of expression. Through the combination of pictures and words, picture books tell stories in a vivid and intuitive form, triggering readers' imagination and emotional resonance. Through the innovative practice of diverse cooperation and cross-border communication, traditional culture and picture book culture can realize more extensive exchanges and integration, and bring more rich and diversified cultural experience to the society.

As mentioned in Research on the Application of Ceramic Modeling Culture of Ming and Qing Dynasties in Popular Science Picture Books for Children, traditional Chinese ceramic culture has a long history, and its intellectual charm and spiritual connotation should be accepted by children in the new era in the process of inheritance. Childhood is the best period for children to accept new things; picture books, as an important reading material for children in early education, are also a high-quality carrier for cognition of traditional culture. By studying Piaget's theory of cognitive development, this paper analyzes the

cognitive characteristics of children aged 3 to 6 from the aspects of color scheduling, content distribution, media interaction, etc. It also starts from the ceramic modeling culture of Ming and Qing Dynasties to explore the feasibility of the display of ceramic modeling culture of Ming and Qing Dynasties in popular science picture books for children. At the end of the article, starting from Piaget's theory, the content creation of ceramic popular science picture books is carried out in a way that is easy for children to understand, which provides a new form for carrying forward the traditional ceramic modeling culture of Ming and Qing Dynasties, and provides reference for the future of the combination of Chinese traditional culture and children's picture book design.

It is mentioned in "Research on Design of popular science picture books of Yunnan Lichen" that popular science picture books, as a kind of unique popular science books, have attracted much attention. It conveys boring scientific knowledge to readers of all ages through vivid and interesting graphic forms. Popular science picture books can help readers better understand and master related scientific knowledge and improve readers' artistic aesthetic ability. However, there are still many problems in popular science picture books: serious homogeneity of topic selection, simple expression style and so on. These problems have seriously hindered the development of popular science picture books to play its real value, so there is still a lot of room for improvement in the development of domestic popular science picture books. Popular science picture book is the combination of picture book design and popular science work, and is the integration of cross-professional display. Since the country vigorously recommended popular science books in 2010, the science field has set off a wave of popular science. Popular science picture books soon occupy a place among many picture books because of their unique science and artistry, and are deeply loved by the public, especially children. Popular science picture books are not only conducive to the development of children's curiosity, the cultivation of scientific literacy, but also conducive to the dissemination of scientific knowledge.

Research on Spatial Narrative in the Design of Children's Popular Science picture Books mentioned that there are shortcomings in the current design of children's popular science picture books, which are mainly reflected in the simple combination of pictures and images, lack of aesthetic sense, and can not lead children to expand spatial imagination. In addition, there is a tendency to emphasize theory, mainly static and flat space images, and the combination of time and space in images is not close. It is difficult to give children a different reading experience, and it will have a negative impact on their understanding and comprehension. Spatial narrative is a narrative mode with its own characteristics, which mainly consists of two parts, one is text logic, and the other is image space. Spatial narration in the design of children's popular science picture books can promote the overall narrative process better through spatial structure and time. Such popular science picture books are more in line with children's cognitive characteristics, which will greatly enhance their reading interest, and also benefit them in reading. Based on the design of popular science picture books, we should fully grasp the theory and method of spatial narrative, and carry out spatial narrative reasonably according to the design objectives and requirements.

1.3.2 Foreign research status

After years of development, the categories of foreign picture books are very perfect, with a variety of styles, and the themes involve all aspects of life, study, work and science. As mentioned in "Using Folk Culture to Promote the New Development of Children's picture Books", the creation of children's picture books can be traced back to Europe in the late 17th century. After years of development, the categories of foreign picture books are very perfect, with a variety of styles, and the themes involve all aspects of life, study, work and science.

As mentioned in the Current Situation, Characteristics and Inspiration of the creation and publication of British children's popular science picture books, the best-selling popular science picture books in Britain emphasize the combination of science, literature and art. The boundary between natural science and literature is no longer important in the creation of British popular science picture books, and the imagination in literature can add color to popular science picture books. The plot can bring the reader closer to the text. Whether it is to praise nature, or to describe mechanical objects, or to tell scientific knowledge in the form of fairy tales, or even to use literary style such as poetry, it is not surprising in popular science picture books. Brian Floca's *Land, Sea and Air* trilogies-*Locomotive*, *Moonshot* and *Lightship*, for example, all used anthropomorphic and poetic descriptions of scientific events to make their stories catchy. In addition, artistry is also an indispensable factor in popular science picture books. Popular science picture books in the UK attach great importance to the cover design and the use of pictures, and will not peak at a low artistic level because the content is popular science and the reader is children. Galda Lee, Berice cuinan, and Lawrence Sipe all emphasize that popular science picture books are a delightful art form that must be beautiful and well-made enough to excite the reader and provide enjoyment, enlightenment, and wonder. In terms of design, it should be attractive enough to match the aesthetic preferences of the target audience. Some people think that children prefer fictional stories to non-fictional popular science books, but Penny Kuman points out that this prejudice needs to be dispelled first, and there are some empirical studies that show that both boys and girls prefer non-fictional books to non-fictional stories. Publishers have also realized that children like to see the real world manifested in a straightforward way. Many popular science picture books in the UK have broken this prejudice and changed the dull impression given by traditional popular science books, and there are many relevant ways. First, by exaggeration, humor, cartoon way to show fun and children. Humor is a shortcut to reach children, and popular science books can

also make good use of it. For example, the "Funny Butt, Strange Mouth" mentioned above, as well as the "Terrible Science" series, Scholastic Press's "Dead Famous" series, etc., are used to explain scientific knowledge in a humorous way. The second is to use rich forms (sticker books, flip books, pop-up books, e-books and light AIDS, etc.) as media. Popular science picture books in the UK are exploratory and cutting-edge. Especially with the development of information technology, popular science picture books have more possibilities. Popular science picture books can present more complex narrative skills by using the characteristics of graphics, layout space, sound, light and other media. Shen Hong proposed that popular science picture books can use space to narrate, break the stereotypical style and experiment and explore new possibilities. The narrative mode of paper books as media is mostly linear narrative. The Internet platform can expand a variety of narrative modes, make use of a variety of listening media, and combine multiple platforms, such as 3D view, VR/AR books, supporting activity manuals, social media, etc. Creators should constantly update their ideas and skills, stand at the forefront of science, and use appropriate methods to narrow the distance between children and science. Interactive popular science picture books can encourage children to ask questions and question, and this learning process is truly meaningful learning. Some popular science picture books and activity books encourage children to get their hands dirty.

As mentioned in the Expression of the Connotation of French Humanities and Arts in French Picture Books, French picture books are popular on the one hand because of the rich humanistic feelings and delicate emotions presented in the books, which make it easy for children to acquire new knowledge and get emotional resonance while reading, and experience different French customs and customs; On the other side, because of the strong artistry it shows, it also cultivates children's aesthetic and divergent thinking virtually.

In The Development of Russian Children's Picture Books, it is mentioned that the first Russian "picture book" was Karion Istomin's famous Introduction

to Illustration, which was carved on a copper plate and was born in Moscow in 1692. The current concept of "picture books" did not exist at that time. In the middle of the eighteenth century, there appeared a large number of works of a didactic nature. The concept of "children's books" did not appear until the middle of the 18th century. During this period, Russian "picture books" were in their infancy and usually had a didactic meaning. Against the background of the formation of book printing, "children's picture books" were exploring their direction in text and illustration.

Transadapting Western Picture Books Into the Arabic Culture: The Finnish Snow Queen and the Qatari Desert Queen discusses a project that aimed at providing a visual and verbal transadaptation of the Western classic fairytale, The Snow Queen, into the Arabic Qatari culture. The illustrations were creatively transadapted to provide Qatari-specific imagery, and the verbal text was translated from English into Modern Standard Arabic while using the Qatari dialect for direct speech to make the text Qatari-specific.

In *A Brief Analysis of the Expressive Art of Foreign children's picture Books and Its Inspiration* to the editing of original picture books, it is pointed out that the pictures of original picture books are often reduced to text illustrations, and the picture is displayed whatever the text describes, and the editor often ignores the narrative function of the picture. The pictures in the picture book are not appendages of the text, but have a narrative nature of their own, which can show different perspectives from the text. As a tool to convey culture and emotions, picture books should emphasize the internal relationship between pictures and words to express specific themes and emotions. Pictures and words play an important role in storytelling.

As mentioned in *A Survey of the Development Status of Children's picture Books in China and Japan*, the success of picture books is inevitably related to the quality of illustrations. In children's picture books in Japan, there are aesthetic illustrations everywhere, and illustrations are attached to picture books and tell stories together with words. Picture books are a whole, and good words

and illustrations are essential to good picture books. Moreover, in Japan, a kind of picture-book therapy is popular. It is mentioned in "Readers of Japanese picture-book Therapy" and its Representative Works "that picture books are literary works, and" picture-book therapy "is an important branch of" reading therapy ", which is suitable for children and adults of all ages. Integrating "picture book therapy" into daily life can help people relax, manage stress, eliminate fatigue, and let people naturally enter a state of relaxation.

According to the Interpretation and Creation Inspiration of Foreign Picture Books on World Famous Paintings, among the picture books of artistic cultivation, there is a kind of picture books aimed at letting children understand world famous paintings, enabling them to understand the beauty and significance of images, and promoting the in-depth development of children's observation, understanding, creativity and aesthetic appreciation. Exploring Multicultural Picturebooks With Social - Emotional Themes mentions that multicultural picturebooks with social - emotional themes enable children to gain more understanding of themselves and others through exploring the life, reality and experience of characters in the text. In the development of the story, the author cleverly uses the chameleon role of the protagonist to gradually show the portrait of Mona Lisa painted by Da Vinci, which represents the traditional painting method. Mitsuya Anno's "Journey Picture Book" presents Europe with a childlike spirit from an Oriental perspective and aesthetic appreciation.

As mentioned in Research on the Application of Narrative Illustration in Popular Science children's picture books, children's picture books are usually multi-picture narratives composed of dozens or even dozens of pages. Unlike the narrative of a single picture, such a large number of illustrations cannot exist independently in the picture book, but should convey the plot coherently like telling a story, so that the story can be narrated "naturally". Popular science children's picture books also need to pay attention to the coherence of the story plot. If the jumping amplitude of the picture is too large, the obscure popular science knowledge cannot be effectively connected, which will bring obstacles

to children's understanding when reading. Narrative illustration conveys the feature of coherent story plot, which can bring children immersive reading feelings and stimulate their interest in independent learning of scientific knowledge. Therefore, it is particularly important to set the story plot in children's picture books of science and technology, which is not only a carrier of coherent scientific knowledge, but also a carrier of spiritual resonance. There should be coherence between each narrative illustration in a popular science children's picture book. In addition to maintaining the extension of the picture plot, the main character should also be consistent and cooperate with the creator of the picture book to add key clues of story information, so that children can follow the character clues into the story situation. If the scattered clues can not be connected together, children will fumble along the clueless story line, and will lose the direction of acquiring scientific knowledge, thus failing to achieve the effect of popular science missionary.

1.4 Subject research

Picture books, as a kind of books with paintings and a few words, are naturally suitable to become the carrier of popular science knowledge. Picture books originated in Europe and the United States in the second half of the 19th century. Foreign picture books developed earlier and had a long history of development, and foreign countries paid more attention to picture books than domestic ones. The first picture book in the modern sense was the *Story of Peter Rabbit* published by Miss Potter, the "first sister of picture books", in 1902. By combining science with language and art, popular science picture books can vividly express and display scientific concepts and knowledge, and play an imperceptible educational role in promoting the healthy development of students' physical and mental health and improving their cognitive level.

Picture books are books that use a group of pictures to express a story or a theme, and they are also one of the important ways for children to know the

world. Popular science picture books refer to the science knowledge throughout the picture books, so that children can learn and receive relevant knowledge in the process of reading picture books. We are currently in the era of picture reading, clear and beautiful pictures can stimulate people's visual senses and make people feel happy. Therefore, images play an important role in people's access to information and understanding of the world. Compared with words, pictures are more intuitive and easy to understand, which is more suitable for children's cognitive system, and can attract children's attention, so as to be interested in the knowledge in the book, so as to cultivate children's interest in exploring the world. For many years, China has attached great importance to popular science education, so it is an appropriate and effective way to use popular science picture books to help children understand the world initially. Popular science picture books for children should not only convey accurate scientific knowledge, but also cover the correct way of scientific thinking. The purpose of popular science picture books is to popularize scientific knowledge to children, so that children can establish scientific cognition. Children's understanding of the real world is vague, so in order to let children better adapt to the rules of the real world, we need a suitable way to popularize some scientific knowledge for children. The picture-oriented feature of popular science picture books is consistent with children's understanding and cognitive system, and they can have a general understanding of things through reading pictures. This knowledge is not necessarily very complex, but it must be objective and accurate, which is a door for children to open the world, but also the basis for them to know the world, affecting children's first impression of the world, but also affecting their entire cognitive system, and playing an important role in children's future learning and life. Science is a theory that correctly reflects the nature and laws of the world, so it must be based on true and reliable information when creating. For example, the sun rises in the east and sets in the west, humans are mammals, etc., and these knowledge needs to be accurately communicated to children by creators. In addition, creators need to take into

account the audience's cognitive level and language ability, and consider how to express and elaborate scientific knowledge from the perspective of children when creating, so as to cultivate children's role in establishing scientific thinking. As an important cultural embodiment, intangible cultural heritage should also pay attention to the scientific expression of knowledge, so that children can accurately understand the relevant knowledge when reading, and give them correct guidance.

The content of popular science picture books is all-encompassing, covering a wide range of disciplines, and integrating a variety of scientific elements, which is an important way for children to understand the unknown world. The beautiful picture of picture books has obvious advantages in guiding education, and the visual sense can most intuitively attract children's eyes. Popular science picture books make complex abstract scientific knowledge easy to understand by narrative illustration, shorten the distance of children's scientific cognition, and become an important medium for communication and education.

In recent years, the variety of picture books in China has become increasingly rich, and the subject matter and content have become increasingly colorful. However, the theme of picture books is not complete, which cannot fully meet the market demand and still needs to be improved. Therefore, there is also a lack of picture books on aerospace development and science. This topic combines picture books with Chinese flying Dream and presents it in the form of science picture books.

The title of this topic is: "Design and illustration of the book 'Chinese Space Dream'". "Tiangong" comes from ancient Chinese myths and legends, meaning the palace where the Emperor of Heaven lived in ancient Chinese myths and legends, and the Chinese space Station is also named Tiangong Space Station; "Tracing" means looking back, recalling why we want to fly to the sky, recalling the origin of the flying dream; "Dream" is the Chinese flying dream. This topic combines the development of China's space industry with the elements of China's flying dream and Chinese mythology, and presents the

inheritance and development of China's space dream in the form of picture books, so as to reproduce the charm of China's flying dream for readers.

Summary of the chapter I

1.This paper briefly describes the development of Chinese flying dream from ancient times to modern times, the significance of contemporary space flight, and the development of Chinese space flight.

2.This paper expounds the purpose and significance of the topic. The purpose of this topic is to combine Chinese aviation with Chinese traditional elements and Chinese mythology, and show the Chinese flying dream to young people in the form of picture books.

3.To study the research and development status of picture books at home and abroad, and understand the development and excellent works of picture books at home and abroad.

Chapter II

RESEARCH ON TOPIC SELECTION

2.1 Research on children's picture books in China

In the annual report of the 2023 book retail market, the year-on-year growth rate of the national book retail market in 2023 changed from negative to positive, an increase of 4.72%. From the perspective of the composition of all kinds of books in 2023, children's category is the category with the largest proportion of foreign code, with a proportion of 27.21%, but it is also the category with the largest proportion of foreign code. In the domestic market, most of the best-selling books in the past two years are foreign popular science picture books, whose humorous content has changed the Chinese people's cognition of traditional popular science picture books. Today, the variety of picture books on the market is becoming increasingly rich, the subject matter and content are also colorful, but the variety is not perfect enough to meet the needs of the market, and the domestic original popular science picture books are extremely scarce, and there is a lack of excellent picture book creators.

Popular science picture books are an indispensable category of picture books, but different from traditional picture books, which integrate popular science content and scientific elements into traditional picture books, involving astronomy, geography, biology, history, architecture and many other fields. They are a category of picture books that combine knowledge, science, era, inspiration, interactivity, entertainment and artistry. It has a unique educational advantage. With the development of science and technology, children are full of curiosity about the world, and popular science picture books are a door to satisfy children's curiosity desire. Complex, boring, boring and difficult to understand scientific knowledge is integrated into traditional picture books, and simple and interesting language and expression methods close to children's psychology are presented, so as to improve their knowledge and science, and open the space of

children's imagination. Lead children to explore a curious world. The real meaning of popular science picture books is not to let children learn science and understand esoteric principles, but to inspire and guide children's interest in science, stimulate their curiosity and imagination, observe the world we live in detail from a rational perspective, and cultivate children's scientific thinking, good at discovering problems, raising and solving problems, and the courage to explore the spirit. In the past two years, popular science picture books are mainly imported from abroad. Their rich knowledge content and rigorous and interesting information expression have changed Chinese people's cognition of traditional popular science picture books, and they are deeply loved by readers. However, domestic original popular science picture books are extremely scarce, and excellent picture books are even less.

As early as modern times, there were scientific books with hand-drawn illustrations in China, such as "Sea Cuo Map" and "Real Map of Plant Names". With the development of the modern publishing industry, illustrated books and periodicals aimed at children appeared in the late Qing Dynasty and the early Republic of China. The combination of story telling and comic strips created a new form of story telling by drawing. After the reform and opening up, a large number of excellent picture books from Europe, America and Japan were introduced, including picture books with scientific themes, which opened up the domestic picture book market. At the same time, China is also studying and researching picture books introduced from abroad to develop original picture books in China. After more than ten years of development, the creation and publication of original scientific picture books in China have gradually started and achieved certain results.

As mentioned in "Analysis on Innovation and Development Ideas of Popular Science Picture Books", in order to innovate and develop Chinese popular science picture books, it is necessary to get rid of the original and old thinking mode, learn from excellent foreign popular science picture books according to children's psychological development and needs, learn the research

content and visual expression forms, break the phenomenon of dull, complex and imprecise of the original popular science picture books, and highlight the knowledge and interest of popular science. Improve the integration of science and art, and create high-quality original popular science picture books that conform to China's development and have Chinese characteristics.

As mentioned in the "Absence" and "Replacement" in the Market of Children's popular science picture Books in China, children's popular science picture books are a form of popular science books that need to be developed and have a market. No matter what kind of painting type, style and form is adopted, the core of children's popular science picture books is the scientific knowledge to be spread by the author. Only by skillfully combining the content and pictures can the essence of popular science picture books be truly achieved. It is precisely because of the high requirements of children's popular science picture books that the content of the picture book market is single, and it is also because of the lack of a market, so the development of children's popular science picture books will fill the gap in the picture book market.

As mentioned in the Innovative Research on Children's popular Science Theme picture books, popular science picture books integrate a variety of scientific elements into traditional picture books, involving astronomy, geography and many other fields. It is an important way for children to understand history and science, learn and explore the unknown world, which also provides inexhaustible motivation for the creation of story themes in popular science picture books. Popular science picture books have their own unique artistic expression in the creation of story themes. Excellent popular science picture books will creatively condense comprehensive scientific knowledge into a short story, and present a series of classic scientific exploration poems with extremely simple language and gorgeous and charming details, making science more powerful. The innovation of popular science picture books should not only pay attention to the integration of science and art, create with children's psychology and perspective, but also let children think in

the game of picture books, experience and explore scientific mysteries in children's interests.

In the Current Situation, Characteristics and Inspiration of the creation and publication of British children's popular science picture books, it is mentioned that there is still a large space and market for the creation and publication of popular science picture books in China. Although there are a large number of popular science books published in China in terms of quantity and variety, the imported books occupy a large proportion in the best sellers. The same is true of popular science picture books, and its importance is self-evident, can promote children who do not love to read. Picture books are generally written by adults for children, and popular science picture books are generally written by adults with authoritative knowledge, and many best-selling authors have doctoral titles. Popular science picture books because of this and the content of the connection, is the need for creators to think about the problem. Mallett suggested that when evaluating a popular science picture book, we should ask such a double power imbalance, which is easy to have a didactic nature, so how to consider the reader's acceptance psychology, encourage reading some questions: "Did the author take into account the target reader's existing knowledge structure and experience when creating this book?" Have you thought about providing pathways and ways to help children enter the world of this popular science children's book? Does the content in the book provide room for imagination?" Popular science picture books should not only instill knowledge and provide information, but also invite readers to think and interpret while disseminating accurate and reliable voice of relative authority, emphasizing readers' initiative. In addition, the form of picture books is pleasant and can inspire readers' curiosity. Margery Fisher makes a similar point, that authors should not only emphasize the accuracy, readability, design, and graphic content of popular science picture books, but should also encourage readers to relate to what they are reading, that is, to make them think and to engage them in the process of reading. Russell Freedman has emphasized that popular science books have "a

vivid world that informs, points to, and is willing to enter but not to leave", and that "good popular science books make readers happy to read". Popular science books can train and enlighten "these functional purposes are not enough, it also gives life to this content, creates readers can nurture readers' ability to think critically, invites young readers to explore and reflect on the content, rather than passively accept the above mentioned interesting and children's nature, leaving children's thinking and questioning space. Encouraging children to participate in interactive popular science picture books can be recognized by children and the market, and this process of acquiring knowledge is fluid and real.

As mentioned in A Brief Talk on Illustration Design in Original Popular Science picture Books, as a derivative of illustration art, picture books have developed into an independent book form, which conveys ideas and concepts to people through exquisite pictures and concise words. Picture books emphasize the internal relationship between graphic language and text. Among them, graphic language - illustration plays an important role in artistic aesthetics, and plays a major role in interpreting and assisting the expression of text. With the aim of popularizing scientific knowledge and advocating scientific methods, and guided by artistic aesthetics, popular science picture books combine science and technology with art well. As the core part of popular science picture books, how to impress readers with illustrations and what ways to present them are all questions worth thinking and exploring. With the implementation of the strategy of rejuvenating the country through science and education, the demand for popular science picture books in China is gradually increasing, and the scope of popular science books is becoming more and more extensive. However, compared with the mature market of popular science books in foreign countries, there are still some shortcomings. Among them, the quality of popular science picture books is uneven, and there is a phenomenon of illustration imitation and reference. Whether from the perspective of picture book characteristics or intellectual property protection, originality should be the basic bottom line for illustration designers. At present, China has not yet formed a complete

knowledge system and cognitive methods for popular science. Some popular science books on the market have a single design form, lack characteristics, and lack the professional spirit to trace the source and seek the truth. At the same time, the rigorous requirements for popular science have increased the difficulty of compiling and innovating such books. Therefore, the illustration designer should pay attention to understand what the reader likes and needs; We should take readability and interest as the starting point, and put the needs and feelings of readers in an important position. The primary factor that arouses people's interest in a picture book is its style, aesthetics and interest, followed by its professionalism. Therefore, the illustrations in a picture book should reflect artistry, vividness and interest. The illustration design of popular science picture books is more difficult and challenging, and the information transmission of illustrations needs to be accurate and professional while having a sense of design and interest. This requires picture book creators to transform rigorous and boring popular science knowledge into vivid and interesting visual graphic language on the basis of scientific theories and objective facts to ensure that picture book creation is different from simple illustration creation.

2.1.1 Domestic space culture derived

The rapid development of China's space industry has inspired a large number of artists to create and spawned many excellent works, with various forms and categories of art. Painter Li Hongdong teacher created a series of oil paintings such as "Sacred Mission", "Flying Song", "Flying Dream", "Chinese dream Flying Dream", "Hero of China" and "Nine times Heaven and Earth". Through the form of oil painting, it depicts the heart course of China's space development, shows the noble feelings of Chinese astronauts who are not afraid of difficulties and devote themselves to the space industry, and interprets the flying dream that belongs to China alone.

The artistic creation of the theme of Chinese flying dream in addition to the traditional painting form, there are acrobatics as the carrier performance. It was created by the Hangzhou Acrobatic troupe "Chinese Dream · Flying Dream" large-scale acrobatic magic scene drama, performed in Hangzhou Red Star Theater, the whole play from the "Preface", by "Full moon", "Thinking" and "Flying moon" three chapters. The 1.5 hour performance, with more than 60 actors on stage, took six months to create.

On April 24, 2020, the National Museum of China added a new cloud exhibition hall : "The East is Red Forever ". This is a permanent online exhibition hall opened on the occasion of the fifth "China Space Day" and the 50th anniversary of the successful launch of the "Dongfanghong-1" satellite, in order to show the great achievements of the development of China's space industry and the great space spirit despite difficulties. The exhibition hall displayed nearly 50 sets of precious space evidence from the "Dongfanghong 1" to the "Shenzhou" and "Chang 'e" series, including the silk version of the map of China carried by the "Shenzhou 7".

2.1.2 The combination of domestic picture books and traditional culture

With the progress of China's space science and technology, space science popularization is gradually known and valued by people. With the steady advancement and implementation of the manned space project and the lunar exploration project, under the frequent exposure of the news media, high-end space technology has gradually stepped down from the altar and become a hot topic of the people's dinner and dinner, which has greatly stimulated the people's scientific feelings and demonstrated the enthusiasm of "learning science and loving science". In recent years, China's space industry has developed rapidly, and social attention has been increasing. While widely publicized by the media, the consideration of popularization of science in space missions should be further strengthened, that is, the popularization of scientific knowledge in space

technology and related fields should be strengthened, and the public should be allowed to participate in space activities in various forms to acquire space-related scientific knowledge, so as to enhance the interest and hobby of young people in space science and technology. Make use of the unique huge influence of space missions in the field of science popularization to achieve double results with half the effort. In recent years, China's space industry has developed rapidly, and social attention has been increasing. While widely publicized by the media, the consideration of popularization of science in space missions should be further strengthened, that is, the popularization of scientific knowledge in space technology and related fields should be strengthened, and the public should be allowed to participate in space activities in various forms to acquire space-related scientific knowledge, so as to enhance the interest and hobby of young people in space science and technology. Make use of the unique huge influence of space missions in the field of science popularization to achieve double results with half the effort.

China's traditional culture is extensive, profound and has a long history, shining unique glory in the historical development of countless countries. In the long-term historical development, China has formed a unique cultural pattern of diversity and integration, leaving countless cultural treasures, which are the crystallization of the wisdom of the Chinese people. Chinese culture includes folk customs, opera, chess, tea ceremony, traditional Chinese Musical Instruments, literati calligraphy and painting. The Philosophical Enlightenment of Chinese Traditional Culture on Art Design mentions that Chinese designers should learn and apply traditional Chinese culture, not only from material representations, but also from Chinese design philosophy, and extract from Chinese philosophical thoughts such as Confucianism, Taoism and Legalism, which can provide ideological guidance for design. The Comparative Research and Promotion of the Cultural Characteristics of Chinese and Japanese Children's picture Books mentioned that local Chinese picture books should be

infused with the humanistic feelings of the country and carry Chinese traditional culture in the form of picture books, so that readers can root Chinese traditional culture in their hearts when reading, so that Chinese traditional culture can be inherited and carried forward.

The most typical person who combines picture books with traditional culture is Yang Yongqing. Most of his picture books are ancient Chinese myths or traditional Chinese fables, such as Red Maiden, Liu Wenxue, Liu Hulan, etc. The style of his picture books is in the form of ink painting, and the contents of the picture books are also interspersed with traditional Chinese local architecture, drama, and folk culture. So that readers can fully feel the charm of Chinese tradition.

2.2 Research on children's picture books abroad

The term "picture book" originated from Japan, and the first picture book in the modern sense was "The Story of Peter Rabbit" published by Miss Potter in 1902, which began to appear at the end of the 19th century and entered the golden period in the 1940s, and the picture book market in Europe and the United States became mature. The most critical period of the development of picture books is the development and dissemination in the United States, and then the rise of European and American countries, there are many excellent picture books. The charm of painting language conveyed by American writer Jane Dunant in "Viewing Pictures in Picture Books" proves that the expressive force and function of painting language in excellent picture books are not inferior to that of simple painting.

Japan followed suit in the 1950s and 1960s and developed its own style. The Japanese government attaches great importance to the development of the picture book industry, and has introduced and translated a large number of European and American picture books. While creating picture books, Japanese picture book writers also attach great importance to the publicity of picture

books, which makes the promotion of Japanese picture books very successful. Japanese picture books contain two characteristics: diversity and culture; The painting style is varied, but most of them are cute styles favored by Japanese people. The subject matter involved is wide, and the subject matter content is very bold, containing certain cultural connotation. In 1868, Japan did not completely abandon its traditional culture after the "restoration under the rule of the people", but integrated Western culture with Japanese traditional culture. While based on the traditional culture, it actively absorbed new elements to adapt to the impact of modern culture brought by Europe and the United States, and formed a new Japanese culture which blended various cultures.

The picture book contains a large number of pictures, which have a strong narrative when combined with words. Therefore, the pictures in the picture book can not only become the appendages of words, but the combination of pictures and words can make the picture book become a tool to convey culture and feelings. In *A Study on Cultural Authenticity of Folktale-based Chinese-American Picturebooks for Multicultural Education* It is mentioned in Education that folk stories are "repositories of cultural values", and picture books based on folk stories and involving traditional culture play an important role in promoting multi-cultural education.

As mentioned in the *Analysis of Innovative Development Ideas of Popular Science picture Books*, the important feature of popular science picture books is that they are rich in content and involve a wide range, have scientific rigor and authenticity, and are conducive to cultivating children's scientific thinking. However, science is complex, boring and difficult to understand. Taking the indoctrination of knowledge as the starting point and ignoring the artistry of picture books will not only reduce the enthusiasm of absorbing knowledge, but also reduce the enthusiasm of learning. It will also limit and affect the development of children's imagination, the desire to explore and the cultivation of artistic ability. Only the organic integration of science and art can transform obscure scientific knowledge into content understood by the public, which

contains rich scientific knowledge and has a high artistic aesthetic, leading children to discover the beauty of science. Mitsuya Anno, a master of contemporary popular science picture books in Japan, is good at using imagination and curiosity, integrating art and science with his delicate and realistic painting style. In the "Journey Picture Book" without words, it seems to tell a story about the city, integrating history and the present into each scene, arousing children's interest in this journey and exploration, understanding and identifying with important commemorative historical events and characters, and cultivating children's imagination and observation. In picture books, humanistic details such as architectural attractions, world famous paintings, literary works and movies are integrated to present the unique features of each country in a three-dimensional manner, and guide children to have a deep understanding of world geography, history, humanities and art. The perfect integration of science and artistry not only deepens the understanding of scientific knowledge, but also brings readers a visual feast of art.

Plus. It is also mentioned in the article that the education, inspiration and entertainment of popular science picture books are comprehensively reflected, focusing on the combination of popular science knowledge and fun, and taking children to learn scientific knowledge with the help of imaginative questions, so that children can take the initiative to ask questions and explore, and have fun reading and learning, so as to arouse children's scientific interest, protect and stimulate children's imagination and scientific attitude and spirit of daring to explore. For example, the American Scholastic publishing house "What if you had animal" if you had an animal... What would you do? Every time you open a page of the book, the left side is the animal and its distinctive physical characteristics, and the right side is the child's appearance after this animal characteristics, humorous and funny! You'll find this interesting animal trivia at the bottom of the page. This set of imaginative popular science picture books, the content involves biology, physics and other aspects of knowledge, and pay attention to from the perspective of children, with their most acceptable form, to

answer the most want to know the scientific questions, in a simple and interesting way to explore scientific knowledge, open children's unlimited imagination and exploration ability. Look at the "DK Children's Encyclopedia Through Time and Space" jointly created by the Encyclopedia of China Publishing House and the British DK company, is a classic set of visual surprise and fun panoramic historical popular science picture book, with time and place as the main line, tells the development history of a street, a port, a city, a river, with a delicate and realistic style. It depicts the history of the development of human society from a scientific and accurate perspective. It is a historical world specially constructed according to children's psychology, with interesting, clear and unique clues and logic to cultivate children's historical thinking. The small questions around the page can more arouse readers' interest, find answers in the paintings, and interact with important historical knowledge points. Only by effectively combining knowledge and fun, and learning in games, can science be more interesting and the ability to achieve better training.

Summary of chapter II

1. According to the investigation of the development status of domestic picture books, there are increasingly rich varieties of picture books on the market today, and the themes and contents are also colorful, but the types are not perfect enough to meet the needs of the market.
2. According to the investigation of the development status of domestic picture books, there are increasingly rich varieties of picture books on the market today, and the themes and contents are also colorful, but the types are not perfect enough to meet the needs of the market.
3. Understand the development of picture books in various countries through research, and understand the excellence of picture books in other countries.

Chapter III

DESIGN PROCESS AND RESULTS

3.1 Logo design

3.1.1 Logo design idea

In the early stage of logo design, because the main theme of the topic is the integration of traditional and modern, the sun god bird, which is the golden Wu in Chinese mythology, is added to the pattern, and the particle effect is also added to the font, trying to combine the ancient mythological image with modern aerospace technology. Another version of the draft highlights the inheritance relationship between the past and the future, ancient and modern, and the theme of "Heavenly Palace dreaming" is wrapped under the two hands, highlighting the sense of being in the universe. See attachment figure 3.1.

3.1.2 Logo design finalized

The final draft was the second version, with the upper hand reference image of the flying hand in Dunhuang, representing the past; The hand reference image below is a manipulator, representing the future; In the middle, it is crossed and connected with silk threads, representing the inheritance relationship of flying dreams, and better highlighting the theme expressed by "Heavenly Palace dreaming". In terms of font, the image of the four-pointed star instead of some strokes can also reflect the element of the universe. The overall graphic design is more in line with the atmosphere that the topic wants to express, and purple and dark blue are more likely to remind people of space. See attachment figure 3.2.

3.2 Role image design

The character image design is based on Madame Crape Myrth, the mother of all stars in ancient Chinese mythology, who is called Dou Mu Yuan Jun in Taoism. Use the image of Lady Crape Wei as a concrete manifestation of the universe. Lady Crape Wei's overall design is asymmetrical. According to research, in many ancient paintings, Lady Crape Wei is a more powerful and masculine figure, so the right sleeve of the character is narrow sleeve with the end closed, the skirt is shorter and easier to move, and the shoes are long boots with hard material. The left side is designed to fit the Mother of the Stars, with longer sleeves, longer skirts, long skirts with streamers and tails, and socks.

Behind the ring of God, in order to better fit the theme atmosphere added stars and star orbit elements, and occasionally stars appear.

The character's necklaces, shoulder edges and cuffs were decorated with octagonal stars, an ancient traditional pattern with eight sharp angles protruding outward, symbolizing ancient worship of the sun. The pattern dates back 4,000 years and has existed in several ancient cultures. Such as Majiabang culture, Songze culture, Liangzhu culture, Daxi culture, Xiaoheyuan culture, Dawenkou culture, Majiayao culture, archaeologist Feng Shi based on the traditional patterns of the southwest ethnic minorities and the relevant records in the "Zhouyi", pointed out that the prehistoric octagonal pattern is closely related to the ancient days. The use of star stripes added to the character design can increase its historical heritage, reflecting the characteristics of the combination of picture books and traditional culture in the selection of the topic. See attachment figure 3.3.

3.3 Picture book design

3.3.1 Outline of the picture book content

The story told by the picture book is mainly based on the inheritance of China's flying dream and the development of China's space industry. It is

arranged in the order of time, and the content is divided into two chapters according to ancient and modern times. The first chapter is titled "From the past" and the subtitle is "Their Story"; Chapter two is titled "Looking to the Future," subtitled "Our Story." The title of the two chapters is "past" and "future", which can directly express the inheritance and development of China's flying dream. The first chapter is divided into three ancient flying stories: the first is the wood kite invented by Mozi in the Spring and Autumn Period; The second is the Eastern Han Zhang Heng improved the wood kite, made a solo flying wood carving; The third is the Ming Dynasty using rocket propulsion flight. The second chapter tells the story of the development of China's space industry after the new China, which is divided into five parts: on April 24, 1970, the "Dongfanghong No. 1" satellite was successfully launched in Jiuquan; On October 15, 2003, China launched its first manned space flight. On October 24, 2007, China's first lunar probe Chang 'e-1 was successfully launched. On September 29, 2011, Tiangong-1 was successfully launched from Jiuquan Satellite Launch Center. On May 15, 2021, Zhurong arrived at Mars with Tianwen 1. In the end, two pages of summary pages are produced, with the purpose of pointing out the theme again: the inheritance and development of China's flying dream.

3.3.2 Picture book cover drawing

There are two figures in the middle of the cover, namely Lady Ziwei and the astronaut, to represent the past and the future, and also to represent China's space industry through the image of the astronaut, the flying hand and the robot hold up the two roles. The character color is mainly monochrome black and white, with a solid color gradient. See attachment figure 3.4.

3.3.3 Picture book content page drawing

The overall main color of the content is dark blue and dark purple, which adds a bit of fantasy and whimsical feeling, and the addition of streamers can increase the sense of fairy tale. The purpose of adding the dot element in the picture is to show the sense of science and technology, in order to make the reader can intuitively feel the elements of the universe, but also added a large number of stars, stars, rings and other elements. The illustrations in the picture book are not depicted in accordance with the realistic style, but exaggerated techniques are used, such as the wooden kite really flew into the sky and met the lady Cri Wei, in order to highlight the theme of the Chinese flying dream. See attachment figure3.5~3.12.

In terms of composition, every painting tries to show the grand and vast universe, and the existence of human beings is so small, showing that our ancestors and astronauts are not afraid of difficulties, in the face of the unknown universe launched attacks again and again.

The second chapter tells the space story after the founding of New China, and the first story in the second chapter is the successful launch of the "Dongfanghong No. 1" satellite into the universe, which is the first step of China's space, leaving a strong mark in the history of China's space, because of this, it is the perfect starting point, the composition of the use of golden spiral composition, the surrounding ribbon extends inward. The hand below holds up the satellite, like a kite full of hope sent into space by astronauts, and the ribbon and satellite are interwoven like ribbons in the domestic ribbon-cutting ceremony, symbolizing the start of China's space industry. See attachment figure3.8.

The fifth story is about China's first manned space flight. In the picture, the spaceship breaks through the curtain, symbolizing that the spaceship breaks through the atmosphere and unveils the mysterious curtain of the universe. See attachment figure3.9.

In the final summary page, memories form planets drifting deeper into space. The composition of the whole picture is to express that we should not

forget the way we came, take over the torch of our predecessors to go further into the future, and explore the deeper unknown universe. Carrying on the past and opening up, it is more in line with the overall tone of our country's development, and also conveys the idea of "not forgetting the original heart" to readers. See attachment figure 3.12.

3.3.4 Picture book chapter page drawing

As shown in the figure, the text page as a whole is dominated by solid colors. In order to conform to the tone of other pages, dot elements and star elements are added to the screen. See attachment figure 3.13.

3.4 Poster design

In the style of poster design, I learned the strong decorative style of Mucha, and framed the whole with the outer outline of the arched door to reflect the feeling of time frozen here, and also hoped to show the feeling of looking back at the past. The outline also adds stylized decorative elements, such as stars, streamers like stars, etc., focusing more on highlighting the feeling of the universe. In terms of poster content, the six posters captured six time nodes in the history of Chinese space, Mozi made wood kite, Wanhua flying sky, "Dongfanghong 1" satellite, the first successful manned space flight, "Chang'e 1" launch, and Zhu Rong arrived at Mars. In addition, in order to make the overall design of the poster more cultural heritage, ancient verses related to the star and the flying sky were added to make the viewer feel the ancient flying dream directly. See attachment figure 3.14.

3.5 Peripheral product design

The design of the peripheral products is extended by the illustration content, mainly postcards, character standing cards, badges, laser tickets. Because the colors in the picture book are relatively bright, I chose postcards and laser tickets, which can show the colors most directly. The theme of the picture book is to popularize the Chinese flying dream and China's aerospace industry. Badges and postcards are convenient for the exchange of friends and conducive to the publicity of the product.

In the design of postcards, the front picture is directly taken from the illustration of the painting book, without unnecessary modification, and the back is decorated with simple elements such as stars and planet streamers, and the front illustration with reduced opacity is used as the base. Linear and dot decorations are added to the badge, and complementary colors are used for small embellishment. See attachment figure 3.15~3.17.

The character standing card is Mrs. Crape Wei and the astronaut in the cover, the background is transparent color, and a pure black hole is added. The choice of Mrs. Crape Wei and the astronaut to do the standing card is because it can just show the relationship between the past and the future inheritance. The badge comes in two types: colored and black and white, with stylized decorations. See attachment figure 3.18.

In addition, in order to create a sense of interaction with the work, the character drawing is divided into multiple parts, and live2d software is used to make interactive dynamics, such as clicking on hair accessories, bracelets or necklaces will have corresponding feedback, and hair and eyes will swing and open and close with breathing.

In order to make the periphery of the picture book more popular with children and teenagers, we also designed a set of Q-version big head stickers to make the two characters on the cover of the picture book cute, and use high-saturation purple blue to make the overall style more lively and tense, and yellow as a complementary color of purple to increase the color richness. See attachment figure 3.19.

Summary of chapter III

1. According to the theme of the topic of the logo design, to determine the overall tone. According to the information found, to the crape Wei lady as the prototype, design the role image.
2. The content of the picture book is divided into two chapters according to ancient and modern times: the first chapter is titled "From the past - Their story"; Chapter Two is titled "Looking to the Future - Our Story". The overall main color of the content is dark blue and dark purple, and each painting tries to show the grand and vast universe in terms of composition.
3. Poster design uses strong decorative style to strengthen design, adding ancient poetry to improve cultural heritage. The design of the peripheral products is extended by the illustration content, mainly postcards, character standing cards, badges, laser tickets, and the overall design is centered around the universe and the starry sky.

Chapter IV

PROBLEM AND SOLUTION

4.1 Problems

In the drawing stage, I too pursued the beauty of composition and the magical feeling of interweaving the past and the future, but forgot that the most basic part of the picture book is narrative, and there is no clear story line, so I wasted a lot of time and made a lot of useless work in the draft stage. When the picture book enters the stage of coloring, it is constrained by the vast universe that is the background of the story, which makes the picture too dark and lacks a sense of transparency, and the attachment to complementary modifications in color matching makes the picture dirty. Clinging to make the picture can be produced in a short time, but the effect is not ideal, penny wise and pound foolish. Picture book refinement stage, composition space, too little content. The design of peripheral products should conform to the tone of the overall work and highlight the dreaminess and magic of the universe, which requires special typesetting and element design.

4.2 Solutions

After repeated revisions and the instructor's suggestions, I consulted a large number of materials to understand the development of the Chinese flying Dream and the development of China's space industry, sorted out the time line and listed a general outline, so as to conceive the story content and composition design, first ensure the narrative of the picture book, formulate a sound story context and clarify the story logic. In the color stage, adjust the black-and-white gray relationship of the picture, first pull apart the layers, and then do the distribution of pure gray tones, reduce the proportion of complementary colors,

and finally brighten the picture. In the final refinement stage, in order to make the picture not empty, dot elements and star elements were added to decorate, and high saturation streamers were added, so that the overall division increased the sense of dream and fairy tale. More decorative elements were added around the product. In addition, when designing the poster, in order to make the look and feel better, I refer to a large number of excellent illustration poster designs and learn the composition and element arrangement layout.

Summary of chapter IV

1. In the early stage, due to insufficient investigation and insufficient understanding of the subject, there were many problems, so that I wanted to give up the subject. Repeated revisions, waste a lot of time, do a lot of useless work.
2. Sort out the causes of the problems, sum up experience, carefully sort out the outline of the picture book content, adjust the overall composition, and reduce the occurrence of problems.

Conclusion

China's flying dream is an important part of the dream of a powerful country and an important part of the Chinese civilization. To explore the vast space, develop space affairs and build a space power is our unremitting pursuit of the space dream. With the rapid development of China's space industry, the pace of the Chinese people's exploration of space will be greater and further. "Birds fly because they want to fly." Why do we fly? Because we want to explore the unknown. From tens of thousands of families flying to the gradual completion of the modern Chinese space station, there are constantly people involved in it, and this fearless spirit is worth learning from. The production of this picture book is also hoping that more people can understand China's aerospace under the traditional Chinese aesthetics, understand the traditional culture of China's flying dream, and understand the unique romance and feelings of China.

In the early stage of the creation of the picture book, because there was no decision on what kind of story to tell, and the timeline was also a mess, I went through a very painful time, and the draft was revised repeatedly, but it always failed to achieve the effect I wanted. The combination of tradition and technology, and the interweaving of time and space between the past and the future were not well represented. Grit your teeth and work hard against the odds, hoping to make something that lives up to the time and effort you've put in. I learned a lot when I created the picture book. Looking up a lot of materials, I had a deeper understanding of the development of China's space industry and understood the efforts made by my ancestors. A series of illustrations, although there are various problems in the middle, but more clearly understand their shortcomings in painting skills, under the patient guidance of the instructor, gradually change the unreasonable place in the picture, such as the picture is too dirty and dark, composition space, black, white and gray distribution is

unreasonable. Watching and learning other people's excellent works, but also make their own painting skills and aesthetic level has been effectively improved. Finally, I hope to pass the unique romance and feelings of flying Dream to more people through this design.

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At the end of the article with the classic lyrics to end, "Look back suddenly like a dream, look back my heart is still, only the endless road with me....."

APPENDIX



Figure3.1



Figure3.2



Figure3.3



Figure3.4



Figure3.5

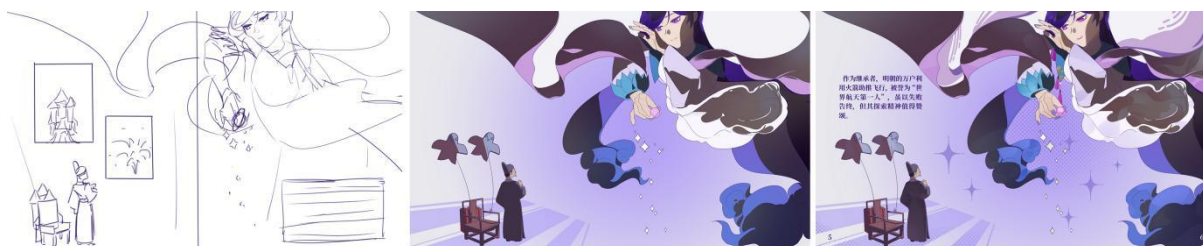


Figure 3.6

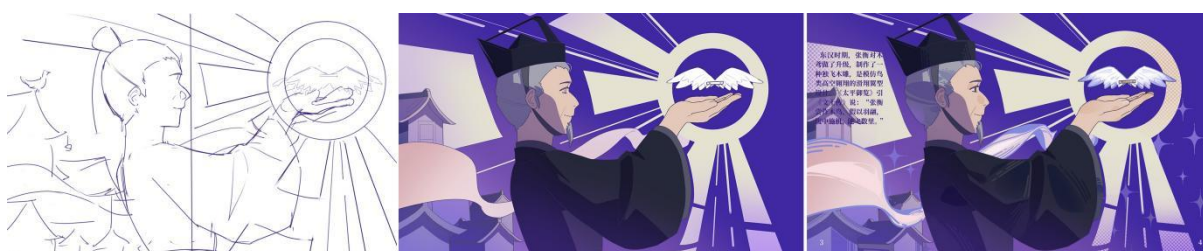


Figure3.7



Figure 3.8



Figure 3.9

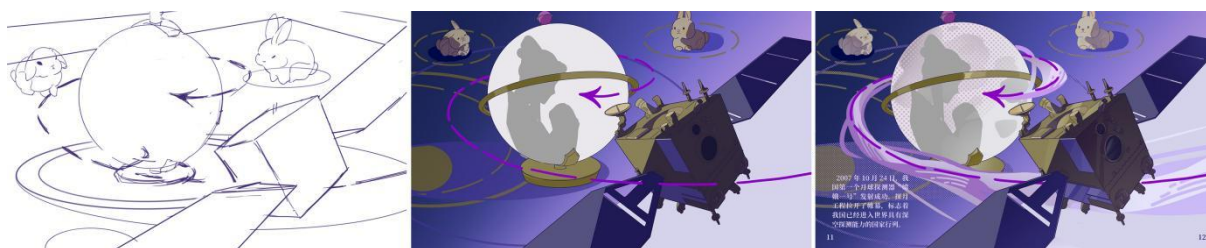


Figure3.1

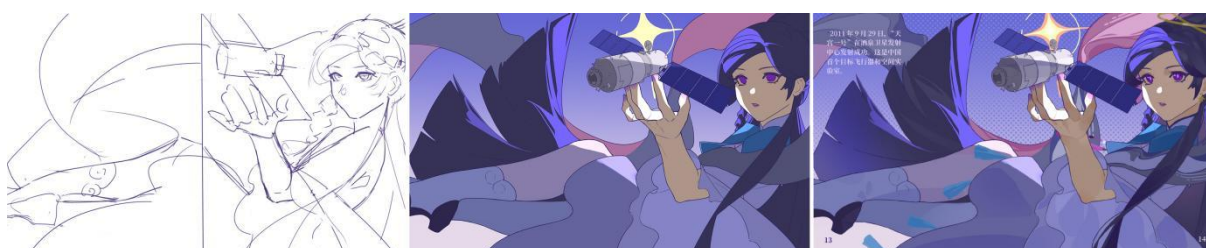


Figure3.11

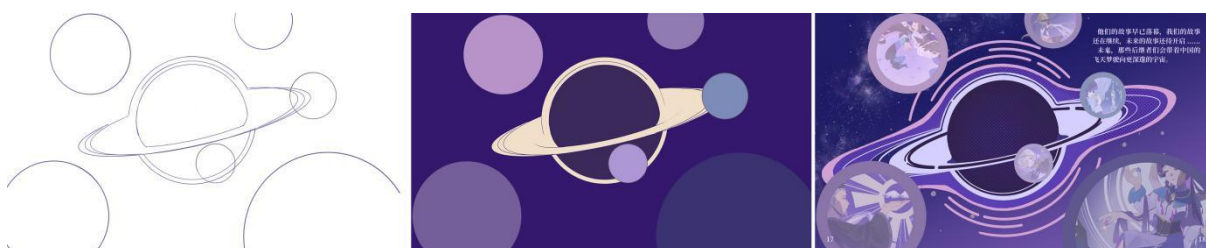


Figure3.12



Figure3.13



Figure3.14



Figure3.15



Figure3.16



Figure3.17

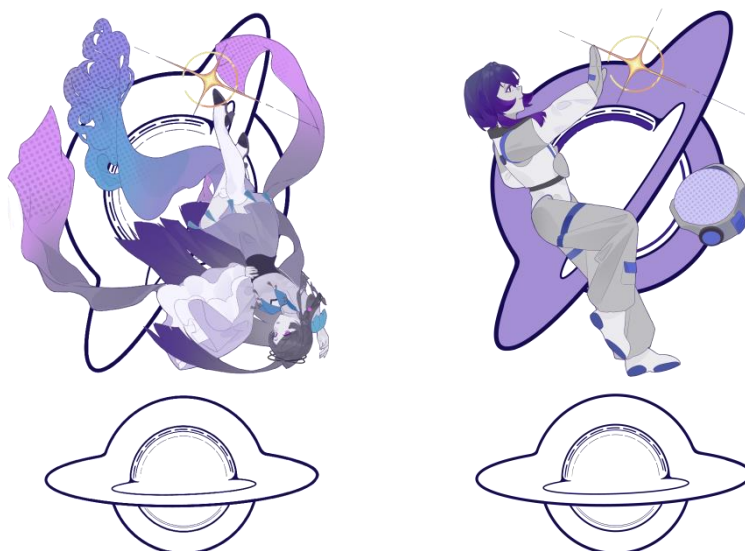


Figure3.18



Figure3.19







Figure3.20