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BACHELOR'S THESIS

on the topic:

Designing packaging showcasing innovative applications of traditional
Chinese opera helmet patterns.

Specialty 022 Design

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ABSTRACT

The helmet is the helmet worn by the opera actor in the performance, whether it is in the drama or in real life, it is the division of the identity of the characters. In the history and culture of thousands of years, the opera has been enduring, and the historical culture contained in it has a long history. "Ji Helmet Xiang Wen" is displayed on the traditional craft of the helmet, so that the practice of traditional skills can be displayed in the eyes of the public, so that more people can understand the intangible cultural heritage of the opera helmet art, and carry forward the opera helmet art, so that the traditional Chinese art will continue to continue.

The design of "Ji Helmet Xiang Wen" is to make a clear explanation of the pattern, specific structure and connotation of the traditional Chinese opera helmet, and make innovation in combination with The Times. In the original pattern pattern of the helmet, the information visualization design is carried out, so that the connotation of the helmet pattern, the parts are split, and the internal structure is clear. The display technique of dragon and phoenix on the original helmet head and the traditional pattern of cloud dragon spitting water and red phoenix Chaoyang were combined to create a poster design. As well as the physical production of the helmet, master the helmet in the production process of sample, arrowhead, yarn, thread, paste, tire, ironing, brush red soil, powder, paint, foil, point thickening, assembly and other processes of the specific operation, and record.

Key words: Helmet making, Information visualization, Video design, Graphic design, Illustration design

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INTRODUCTION

Relevance of the study.In the vast field of opera art, the study of opera helmet, a miniature stage installation bearing the role identity, dramatic mood and historical and cultural essence, is not only related to the visual aesthetics of performing art, but also deeply touches on the vein and changes of traditional Chinese culture. Opera helmet, as an important part of opera costume, is not only the decoration on the top of the actor's head, but also tells the story of the character silently through fine craft, bright colors and unique shape design, reflecting the hierarchy of ancient society, military style and even religious beliefs.

The relevance of this research is first reflected in the promotion of the inheritance and innovation of opera performing art. Through the in-depth exploration of different kinds of helmet styles, production processes and symbolic meanings, it can provide a rich source of inspiration for modern opera stage design, and help the new generation of opera actors better understand the role background and accurately grasp the subtle emotional expression in the performance, so as to enhance the artistic effect and cultural connotation of the overall performance.

The purpose of the research: Through the design and production of traditional helmet style display, so that more people understand this technique and process, so that the traditional technique is displayed in the eyes of the public, so that this excellent process to continue and more innovative practices, and integrate into today's daily life.

Research Objectives:

1. Analyze the history of opera helmet.
2. Understand the structure of opera helmet head, make plane structure map.
3. Visual design of structure information of theatre helmet head.
4. Helmet pattern illustration design.
5. Helmet making video design.
6. The poster design of opera helmet.

The research subject (theme) is The flat design of opera helmet.

The object (focus) of the research are Helmet structure, graphic style, the way of combining

Research methods. Through careful observation and hands-on production of the traditional helmet, we can not only deeply understand its intricate three-dimensional structure, but also experience the subtleties of the traditional craft. Each opera helmet is a miniature art world, they are ornate and complicated, inlaid with bright pearls and jade; Or simple and simple, revealing a calm temperament, all show the craftsman's accurate handling of space structure and aesthetic balance. In this process, the producer seems to travel through time and space, and has a silent dialogue with the ancient cultural heritage. Every time the needle is threaded and every piece of material is shaped, it is a tribute and inheritance of traditional culture. Through such practice and exploration, we can not only learn the technical knowledge of helmet making, but also feel the profound and unique charm of Chinese opera culture in the depths of our hearts..

Elements of scientific novelty. The three-dimensional theatre helmet, a traditional stage costume component with profound cultural heritage and artistic essence, is cleverly transformed into a two-dimensional graphic design, which is not only a challenge to the modern interpretation of traditional aesthetics, but also an active exploration of innovative design thinking. In this creative transformation process, the designer needs to carefully observe every bump and turn of the flow line, carefully refine the complicated and exquisite pattern elements and symbolic meanings in the drama helmet-head, and reconstruct the complicated details and dynamic beauty in the original three-dimensional space on the plane through accurate line outline and color matching.

Practical significance. The flat theatre helmet design can break through the restrictions of physical space and facilitate dissemination and popularization. It enables these exquisite artworks to be integrated into modern life in a more convenient way, providing a new platform for the integration of traditional handicraft and modern design technology. Designers can use computer-aided design software and other modern technical means to digitize and recreate the helmet..

Structure and volume of the thesis. The bachelor's thesis consists of an introduction, three chapters, conclusions to each chapter and general conclusions, a list of used sources of 32 items and appendices (12 pages). The work contains 31 drawings. The results of the research are presented on 35 pages.

Chapter I

SOURCE OF SELECTION

1.1 Reasons for the topic selection

Opera helmet has a long history, he shows the wisdom of the working people's feelings and culture, is a fine folk handicrafts, can be seen in the production of opera helmet deep cultural connotation. The helmet is the helmet worn by the opera actor in the performance, whether it is in the drama or in real life, it is the division of the identity of the characters. In the history and culture of thousands of years, the opera has been enduring, and the historical culture contained in it has a long history. The production of helmets is also displayed on the traditional craft of helmets, so that the practice of traditional skills can be displayed in the eyes of the public, so that more people can understand the intangible cultural heritage of opera helmet art, carry forward the opera helmet art, and continue the traditional Chinese art.

Opera helmet, this rich historical and cultural treasures of art, through thousands of years of time tunnel, still shines the light of the extraordinary wisdom of the working people. It is not only the gorgeous decoration on the top of the actors on the stage, but also the concrete embodiment of the long feelings and profound culture of the Chinese nation, condense the efforts and talents of generations of craftsmen, and can be called the bright pearl in the palace of folk art.

Behind each well-carved helmet, there is a thrilling story and profound cultural significance. They are not only a symbol of identity and role, in the intricate patterns, bright colors, but also contains the praise of loyalty, filial piety and integrity, reverence for heroes, and the portrayal of the world. This requires not only superb manual skills, but also a deep understanding of the character characteristics and historical background of the drama characters, so as to give life to the helmet and make it a cultural bridge between the past and the present.

With the development of The Times, the production of this intangible cultural

heritage is facing the dual challenges of inheritance and innovation. While retaining the essence of traditional skills, craftsmen continue to explore the application of new materials and new techniques, and strive to make the ancient helmet art glow with new vitality. From the strict selection of materials to the fine carving, from the ingenious inlays to the vivid painting, each process is the ultimate test of patience and ingenuity, and also allows the viewer to feel the charm of this ancient art up close.

Through various exhibitions, workshops and digital communication platforms, the art of opera helmet has gradually entered the public's vision, giving more modern people the opportunity to deeply understand the exquisite craft and rich cultural connotation behind it. This not only promoted the popularization and inheritance of traditional culture, but also paved the way for the international exchange of opera helmet art, making this unique symbol of Chinese culture recognized and appreciated worldwide.

In a word, the helmet is not only an indispensable part of the opera performance, but also a microcosm of the extensive and profound Chinese civilization. Its protection, inheritance and development are not only related to the fate of a traditional handicraft, but also an important mission to maintain the roots of national culture and promote cultural diversity. Let us work together to carry forward this precious cultural heritage, so that the art of opera helmet, like the historical story it carries, will be sung forever.

1.2 Purpose and significance of the topic

Purpose of topic selection

Display the helmet style of traditional technology, so that more people can understand this technique and process, so that the traditional technique can be displayed in the eyes of the public, so that this excellent technology can carry out more innovative practices and integrate into today's daily life.

In today's rapidly changing era, by elaborately designing and producing a series of helmet styles with profound cultural heritage for display, we can not only present a visual feast for the audience, but also open a window, so that people in modern society can glimpse those ancient and exquisite traditional crafts. Such an exhibition, like a

bridge, connects the past and the present, bringing more attention to the unique charm of this craft.

Behind each helmet, there are rich historical stories and cultural connotations. Its production process is complicated and complex, involving a variety of skills such as carving, weaving and inlaying. Each step tests the patience and wisdom of the craftsmen. Expanding the introduction, starting from the exquisite selection of materials, the selection of superior bamboo, wood, satin and even rare metals, to the auspicious elements and symbolic meanings integrated in the pattern design, all reflect the exquisite traditional skills. Through live demonstrations or detailed illustrations, visitors can closely observe how craftsmen use simple tools to transform raw materials into stunning works of art step by step through countless taps, weaves and shapes.

In order to make this excellent traditional craft not only stay at the ornamental level, it is more critical to promote its rejuvenation in contemporary society. This includes encouraging the younger generation to learn and pass on these skills, while exploring how to combine traditional helmet design concepts with modern aesthetics to create new products that retain classical charm and meet the needs of modern life. For example, the elements of the helmet are integrated into fashion accessories, home decoration or cultural exhibitions, so that it becomes a link between traditional culture and modern life, and inspires more innovation and cross-border cooperation.

In addition, through the promotion of emerging platforms such as social media and webcast, as well as the holding of workshops, cultural festivals and other activities, the public's awareness and interest in traditional crafts can be further enhanced, a good interactive atmosphere can be formed, and more people can be attracted to participate in the learning and dissemination of this craft. In this way, not only can traditional skills be effectively continued, but also promote cultural diversity and innovative development, so that this precious cultural heritage in daily life with new vitality and luster.

The significance of the topic

It can let more people understand the intangible cultural heritage of opera helmet art, so that the traditional culture becomes more life and closer to People's Daily life. At the same time, it can also make more people like the opera helmet art, carry forward the

opera helmet art, and continue the traditional Chinese art.

Through careful planning and innovative creative methods, we aim to vividly show the Chinese opera helmet art, a treasure of intangible cultural heritage, to more people's vision. This is not only a cultural exhibition, but also a touch of the soul, allowing the ancient art form to cross the gap of The Times, integrate into the blood of modern life, so that it is no longer just a distant scenery on the stage, but become an indispensable part of People's Daily aesthetic.

We hope to break the traditional boundaries of opera helmet art through a variety of communication channels, such as social media, online exhibitions, interactive workshops and cross-border cooperation. This art is not only the exclusive love of opera fans, but also attracts young people and international friends who have never had a deep understanding of opera culture. Let the story behind each exquisite helmet be told, each carefully carved craft be appreciated, and each colorful meaning be understood, so as to inspire the public to resonate and respect the beauty of this tradition.

In order to revitalize the art of Chinese opera, we encourage and support a new generation of artists and artisans to create innovative designs while retaining the essence of tradition, and to create new works that meet the modern aesthetic without losing the classical charm. Such an attempt can not only inject fresh blood into traditional culture, but also allow the art of opera to occupy a place in contemporary fashion trends and become a cultural bridge connecting the past and the future.

In addition, the seeds of love and inheritance can be planted in the hearts of the younger generation through educational programs such as courses in schools and youth experience camps. Let the children contact and understand these artistic treasures from an early age, cultivate their interest in and respect for traditional culture, and train successors for the future of opera helmet art and even the whole Chinese traditional art.

In short, our goal is to make the theater art not only a protected cultural heritage, but to make it really live, move, and become an active and beautiful element in the cultural life of modern society. In this process, we look forward to seeing more and more people love it because of their understanding, and participate in it because of their love, and work together to carry forward the art of this theatre, which carries the

wisdom and aesthetics of the Chinese nation, and ensure that the tree of China's long traditional art is evergreen and sustainable.

Summary of the chapter I

1. Opera helmet, as an indispensable part of traditional Chinese opera culture, carries profound historical and cultural heritage and artistic value. They are not only props for actors to dress up on the stage, but also the epitome of ancient Chinese military, etiquette, folklore and other diverse cultures. Through meticulous craftsmanship and rich design, they show the social style and aesthetic pursuit of different historical periods.

2. Purpose and significance of the topic, The helmet is not only a decorative ornament on the opera stage, but also a kind of inheritance and display of traditional culture. With its unique charm, it crosses the boundary of time and space, connects the past and the present, and makes the ancient art form still shining in the modern society.

Chapter II

DESIGN RESEARCH AND POSITIONING

2.1 Design Research

(1) Overview of helmet head

The term helmet, many people do not know much, or even have not heard of it, most of them think that it is the helmet worn by the general in the former battlefield. Many people also do not know what is the name of the helmet worn by the actors on the stage of Beijing Opera, but they just look wobbly, colorful and beautiful.

In popular terms, the helmet is the crown and hat props worn by actors in traditional opera performances to enhance the stage performance effect, also known as "clothing". A helmet is not a helmet. Helmet belongs to the protective equipment, in ancient times was called the armor, bow armor, is the people wear on the head protection. Modern people in traffic, roller skating or construction and other activities, can often see wearing helmets to prevent accidents. The difference between helmet and helmet is basically that the former is decorative and belongs to costume props; The latter is practical and belongs to protective equipment.

"Helmet" has a broad sense and a narrow sense, in a broad sense, helmet refers to the general name of the cap on the Peking Opera costume, that is, the general name of all the helmets worn on the actors' heads, so there are helmets in the troupe, and there are helmet shops for making helmets. In the narrow sense, the helmet refers to one of the four types of traditional helmets, such as "crown", "hat", "scarf" and "helmet". The helmet worn by the military general is a general term for all kinds of helmets worn by the military in the opera stage.

Helmet, the term may seem strange and distant to many people, it is not the well-known modern battlefield protective equipment - helmet, but a unique and bright flower in the traditional opera art. On the gorgeous and colorful stage of Peking Opera, the colorful crowns and hats on the heads of the actors are not only a visual feast, but also

artistic symbols carrying profound cultural significance. They are collectively called "helmet heads", which are Bridges connecting ancient and modern, reality and dream.

Helmet, as an indispensable part of the opera performance, its exquisite design, exquisite workmanship, each piece is a unique art. Their existence can not only enhance the identity characteristics of the characters, so that loyalty, evil, good and evil, civil and military supremacy at a clear sight, but also convey the character characteristics and plot atmosphere of the characters through different modeling and decorative details, creating an immersive dramatic effect for the audience. From the gorgeous and complicated imperial crown to the simple and elegant scholar square, each helmet tells its own story, making the ancient stage full of vitality.

(2) Related research of helmet head

In the past, the helmet was made by craftsmen, and most of the craftsmen were limited in their cultural level. In the past, there was the old saying "the apprentice of the church should starve the master to death", so the helmet making technology has been basically handed down from mouth to mouth, and it is difficult for ordinary people to get started. In Yang Yudong's book "The Production Techniques of the Helmet and the Painted Plastic Mask of Beijing Opera", from the aspects of tools, materials and structure, The production process of the helmet is introduced in a simple way, so that more Peking Opera lovers can understand the helmet and try to make the helmet themselves.

In Yang Nai's Drama Helmet: A Study on the Art of Making Skills and Helmet Case, the helmet family, helmet making skills and helmet case art are explained in detail. Yang Nai's summary of helmet art makes this blank field have a representative theoretical work, which provides an important theoretical reference for the summary and expansion of the theoretical research of opera performance.

In the past, the helmet production was responsible for the helmet group, which was the heavy army of the helmet club, concentrated the famous, Zhao Honglu, Zhou Wenmin, Yang Baotian, Zhang Liancheng, Fan World Bank, etc., they were all the directors of the helmet shop, with exquisite skills, comprehensive craftsmanship, and high esteem. They not only made some commonly used helmets for Peking Opera

celebrities, but also made new and improved helmets, and were the leaders in the production of helmets. Among the later generations, Li Jizong was the most outstanding. In 1959, in the "Big competition", he set up martial arts in the Helmet-head club, excelling in skills, and his salary was raised three levels. Now Li Jizong is over seventy years old, but the sword is not old, and he is the leading helmet maker in the capital. In 2014, Mr. Li Jizong was named the fourth batch of "Representative inheritors of intangible Cultural heritage projects" in Beijing.

2.2 Topic Selection Positioning

The design of this series of intangible cultural heritage works is mainly based on the production of graphic patterns on paper, and the design elements are derived from the combination of traditional Chinese patterns and modern design styles. Design patterns for computer drawing, and then to make a new graphic pattern, and retain its auspicious meaning in the traditional pattern. The design includes information visualization design, poster design, video design, graphic design, etc. In the production process, the graphic design of the original paper pattern is particularly important, and the subsequent series of operations are developed around the new pattern.

The design of this series of intangible cultural heritage works is ingenious in choosing paper as a creative carrier, artfully integrating the aesthetic boundary between classical and modern. The design inspiration is deeply rooted in China's long traditional patterns, which are not only the accumulation of aesthetic interest in the long history, but also the symbol of national cultural spirit. The designers have carefully excavated and refined the essence of these traditional patterns, and through the reinterpretation of modern design language, the ancient cultural symbols have gained new vitality in the contemporary context.

In the creative process, first of all, advanced computer drawing technology is used to carry out fine digital processing and innovative design of the selected traditional Chinese patterns. This process is not only a simple copy or imitation, but a deep understanding of the cultural meaning and artistic form behind each pattern, and then using modern design concepts as the warp and weft, weaving a new graphic style that

retains ancient charm and does not lose the sense of The Times. The newly generated patterns not only show a harmonious dialogue between tradition and modernity, but also pay special attention to preserving the auspicious meanings contained in the original pattern, making it a cultural bridge between the past and the future.

The design of the intangible cultural heritage works covers a wide range of forms of expression, including but not limited to information visualization design - presenting complex information in an intuitive and aesthetic way; Poster design - Condense the theme to convey the core concept with strong visual impact; Video design -- dynamic interpretation of the beauty of traditional culture, giving static patterns flowing vitality; And graphic design - see it in the details, every stroke reveals a deliberate artistic consideration. The core of the entire design project is the elaboration of the new graphic pattern, which is like a cornerstone that supports the high-rise building of all subsequent creative expression.

During the production process, the design team devoted great effort to every adjustment and optimization of the pattern graphics, striving to accurately convey the design concept in every detail, while ensuring that the application of the new pattern in different media can maintain its unique charm and deep cultural heritage. From the initial computer drawing to the final physical or digital product forming, every step of the operation is a profound exploration of the combination of tradition and innovation, aiming to bring the ancient intangible cultural heritage into the public's vision in a more diversified and vivid form through modern design techniques, and stimulate more people's interest in and respect for the excellent traditional Chinese culture.

Summary of Chapter II

1. Through the combination of modern design techniques and digital technology, the traditional opera helmet is reviewed and transformed creatively. It not only focuses on the analysis of the visual elements such as the modeling aesthetics, color matching and pattern implication of the helmet, but also discusses how to realize the clever transformation from three-dimensional entity to two-dimensional plane on the basis of

maintaining its cultural essence. This is not only a tribute to the traditional art form, but also an attempt to modernize and re-create the traditional cultural heritage.

2.The study also focuses on how to adapt to the contemporary diversified media and application scenarios while maintaining the original symbolic meaning and cultural connotation of the opera helmet. This includes but is not limited to digital media, cultural and creative product development, educational popularization materials, etc., aiming to broaden the audience scope of opera culture, so that this national essence can be inherited and carried forward in a way that is more close to modern life. In terms of design orientation, it is also necessary to take into account both academism and practicality, not only to meet the needs of the academic community for in-depth research on traditional culture, but also to take into account the acceptance and love of the market for cultural creative products, and strive to find the best balance between respecting the original appearance and innovative expression.

Chapter III

DESIGN PROCESS AND RESULTS

3.1 Visual design of helmet information

3.1.1 Design concept

For the helmet, the exquisite and gorgeous appearance is a good way to attract attention, its surface swinging pearls, zigzag patterns, shaking pompoms, atmospheric modeling, people can not help but look more, but the things inside this exquisite handicraft, but can better reflect the meaning of a helmet. In terms of expression, how can we introduce it more comprehensively? A three-dimensional thing is placed there, you can see the gorgeous surface, but you can see only the tip of the iceberg. A helmet, whether it is front or back, left or right, above or below, there are different graphic styles, but also represent different meanings, different methods of expression. The direct way to spread out a three-dimensional thing into a plane is to start when it has not yet become a three-dimensional structure. The helmet head is made of paper, at this time it is a flat structure, cut into a special structure of the paper pattern, the outline of the shell can just be combined into a suitable whole.

When digging deeply into the treasures of traditional opera culture, we carefully extracted the elements of the helmet head pattern and made innovative creation. This process is not just a simple reproduction of ancient art, but through a modern design perspective, reinterpretation of every detail, so that the charm of history and contemporary aesthetic fusion. Based on the rich and diverse patterns on the helmet head, we have launched a variety of styles of flat design exploration, each design strives to retain the original cultural essence, but also lose the sense of fashion and sense of The Times.

Through the fine selection and reorganization of patterns, we not only reproduce the classic, but also create innovative pattern combinations, these designs are not only complicated and gorgeous traditional styles, but also simple and atmospheric modern

interpretation, to meet the aesthetic needs of different audiences. In terms of color matching, we are more creative, drawing on the ancient color philosophy, integrating the modern color psychology principle, bold and harmonious color, aiming to awaken the viewer's memory and resonance of traditional culture through visual impact.

In addition, in order to achieve the design goal of a unified display form, we have built a complete visual identity system to ensure that each helmet design can be harmoniously integrated into the overall promotion plan while maintaining its personality. This not only improves the recognition of the helmet as a cultural symbol, but also lays a more modern and international road for the dissemination of traditional opera culture.

Finally, through this series of careful planning and design, we successfully introduced the helmet, a traditional opera element carrying profound cultural heritage, to a broader stage in a novel and vivid way, which not only aroused people's interest in and respect for traditional art at home, but also demonstrated the unique charm and vitality of Chinese culture in international cultural exchanges. It has injected new vitality into the inheritance and development of traditional opera culture.

3.1.2 Three-dimensional structure pattern design

(1) Pattern extraction. The pattern pattern inside the pattern is an information visualization design, and then the graphic style is matched with the gorgeous color and pompom, highlighting the character of the person wearing a helmet. Unfold the paper pattern pavement, you can intuitively understand the internal structure of the helmet, the way of assembling, and the characteristics of artistic display .

The modeling pattern and pattern on the exquisite paper pattern are deeply excavated and carefully woven through the clever technique of information visualization design, which not only shows the aesthetic value of the pattern itself, but also further improves the efficiency and charm of its information transmission. The designer's originality, these rich in cultural heritage of the graphic style, with the appearance of the gorgeous color decoration and smart pompom clever integration, each

color choice, each pompom embellishments, are designed to outline the unique character of the person wearing this helmet and extraordinary bearing, as if each helmet is tailored for its cultural symbols.

When the pattern is carefully spread, a microscopic and exquisite world comes into view, which not only intuitively reveals the scientific layout and logic of the internal structure of the helmet, but also a modern tribute to the wisdom of the traditional craft. The combination method can be clearly seen in the development diagram, and the well-arranged plate design not only reflects the rigorous concept of the craftsmen, but also loses the flexibility of artistic creation. This form of presentation, like a three-dimensional picture scroll to be solved, leads the viewer to further explore the artistic mystery of helmet making step by step, and feel the perfect blend of traditional skills and modern design concepts contained in it.

Artistic display features, but also spare no effort to pursue the ultimate. From the smooth line to the bright outline, from the contrast of materials to the use of light and shadow, every detail has been repeatedly refined, and strive to achieve visual harmony and unity, while showing the personality style. Such a design is not only a reproduction of defense equipment, but also a cultural inheritance and innovation, so that the ancient art form in the contemporary context of the new vitality, fascinating and breathtaking.(Figure 3-1-1-2 to Figure 3-1-2-4).

(2) Information visualization design.

Information visualization design, the crystallization of art and technology, plays a crucial role in presenting complex data and detailed objects. Taking the helmet design as an example, it is not only a simple description of the ancient headwear, but a careful arrangement of a visual feast, each link contains profound cultural heritage and artistic innovation.

In the pattern, the pattern inside the pattern is exaggerated and systematic, the styling style of the same type of helmet is unified, and the creation is based on the display form of the original paper pattern. In the pattern processing, the designer is ingenious, the traditional pattern pattern in the pattern is cleverly exaggerated and systematic integration. They carefully analyze the unique styling style of each type of

helmet, and through induction and refinement, achieve visual harmony and unity of the same type of helmet, while retaining and strengthening its original cultural characteristics. Based on history and beyond the traditional way of creation, so that every piece of work can glow with new vitality in the modern aesthetic.

In terms of color, although the helmet is mainly blue and gold, according to the different identities of the wearers, corresponding to the colors of different status levels, the pattern is unified according to the corresponding colors. Then the graphic style and the appearance of gorgeous colors, pompoms are matched to highlight the character of a helmet wearing the character. In terms of color use, although blue and gold are the common base tone of the helmet, the designer cleverly introduced a more refined color grading system according to the social status and role identity of the wearer. Different color combinations not only reflect the role of the humble, but also subtly reveal the character's personality characteristics and emotional world. On this basis, with gorgeous pompom and graphic style, further enhance the visual impact, so that the audience can intuitively feel the charm and aura of the character.

In the composition, the use of the central composition method, the paper pattern pavement spread around the central subject, each figure corresponds to different parts, you can intuitively understand the internal structure of the helmet, the way of integration, and the characteristics of artistic display. In the composition layout, the central composition strategy is cleverly used, just like opening a beautiful picture scroll, the paper pattern is spread out, and each graphic element accurately corresponds to the different structural parts of the helmet. Such a design is both a precise deconstruction of the internal structure of the helmet and a tribute to its exquisite craftsmanship. Viewers can easily follow the guidance of the graphics, explore the mystery of the helmet, and appreciate the artistic conception and unique charm behind it.

In the text, the name of the helmet is bolded, the title is created in calligraphy twice, and the original strokes are replaced with the helmet pattern, which is unified with the artistic characteristics of the helmet in the way of presentation. As for the text presentation, the designers also spared no effort. The name of the helmet has been bolded to appear solemn and eye-catching, directly guiding the attention of the viewer.

The title adopts the secondary creation technique of calligraphy, and integrates the representative pattern of helmet into the strokes, realizing the perfect fusion of text and image. This unique design not only enhances the overall artistic beauty, but also makes the communication of information more vivid and powerful, making every reading a cultural journey through time and space.(Figure 3-1-2-4 to Figure 3-1-2-9).

To sum up, in the performance of helmet art, information visualization design is not only a technical work, but also a cultural inheritance and innovation. With a unique perspective and delicate techniques, it injects fresh blood into the ancient tradition, making it still shining in modern society.

3.2 Poster Design

The design of the poster is mainly the publicity of the process and effect throughout the whole "Jijia Xiang Wen", including the production process of the helmet, history and culture, and the presentation of the effects of the characters' wearing.

The paper pattern and graphic outline of the helmet are displayed in the form of line draft. The main color of the helmet is adopted, with blue as the main color and gold as the auxiliary color. In terms of text, the text is introduced with boldface as the main font. Composition from top to bottom, in accordance with the production order of the process layout, from the main production tools, to auxiliary parts; From the production of paper live class to the splicing of large tire class, and finally to the assembly of molding.

The essence of the poster design is to comprehensively and artistically run through the depth and breadth of the theme of "Jigui Xiang Wen", which is not only a preview of a visual feast, but also a tribute to the exquisite craftsmanship and deep cultural heritage behind it. In the design, every step of the helmet production process is delicately captured, from the rigorous research of the selection of materials to the sculpting and molding under the craftsmen's skilled hands, every link is given life, and the paper. It is not only a record of traditional craftsmanship, but also an ode to the spirit of craftsmanship.

The charm of history and culture flows slowly on the poster, and through the clever integration of primitive patterns and symbolic elements, it shows the changes of dynasties, heroic legends and folk customs behind the helmet. The audience seems to be able to travel through time and space to feel the heavy weight of history and the immortal charm of cultural inheritance.

The presentation of the character's wearing effect is to give the static helmet to the dynamic soul. Designers carefully selected models, based on historical data to restore the ancient military or aristocratic attire, with the corresponding helmet, through the subtle use of light and color, vividly reappearance of their heroic or luxurious elegance. Such a visual narrative allows the viewer not only to appreciate the artistic beauty of the helmet, but also to deeply appreciate its unique significance as a symbol of identity and social status.

To sum up, this poster is not only a publicity medium, it is a window through which people can glimpse the whole picture of the "Jikui Xiang Wen" project - from the sweat of the craftsmen to the breath of history, to the vitality of the characters, every detail is striving to be perfect, and together weave a visual symphony about glory, skill and dream.

With fine lines and precise brushstrokes, the graphics vividly outline every detail of the helmet pattern in the art form of line manuscript. This is not only a diagram, but also a piece of art showing the beauty of traditional craftsmanship. In the use of color, the designer cleverly selected the classic main color of the helmet - deep blue as the keynote, giving the work a solemn and mysterious atmosphere. On this basis, supplemented by white and flawless Tuanlong line draft pattern, not only reflects the royal honor, but also clever and elegant, the two complement each other, creating a visual feast of history and modern interweaving.

In terms of text description, it adopts stable and clear boldface characters to ensure the professionalism and legibility of information transmission. Each step of the production process is accompanied by a concise text explanation, surrounded by graphics, as if to guide the reader through time and space clues, so that even beginners can easily understand the meaning and technique behind each fine step. This way of

combining pictures and texts not only improves the reading experience, but also respects and inherits the wisdom of ancient handicrafts.

In terms of composition and layout, the designer is ingenious, using the structure of upper and lower layers, top-down, and gradually unfold the whole picture of helmet production. At the top, it shows in detail the types and use of the main production tools. These tools are like a craftsman's magic wand, laying a solid foundation for the subsequent creation. Then, gradually transition to the introduction of auxiliary parts, each part is small, but it is an integral part of the whole. Then, in-depth discussion of the fine work of paper living parts, from folding, cutting to forming, every step is full of craftsmen's effort and wisdom. Further down, the splicing links of large-tire components leap onto the paper, showing the perfect fusion of skill and creativity. In the end, all the parts come together, and through clever assembly, each helmet comes to life, and the whole process is coherent and logical, and the ideas are expressed with amazing clarity.

Such carefully choreographed design is not only a production guide, but also a journey to pay tribute to traditional culture, so that viewers can deeply feel the charm and immortal value of traditional handicrafts in the appreciation and learning.

3.3 Illustration Design

3.3.1 Design Roadmap

The main body of illustration is to extract the animals "dragon" and "phoenix" often inside the helmet, and combine their patterns in the helmet with the traditional atlas of "cloud dragon spitting water" and "red phoenix rising sun" to create new graphics. In this ingenious illustration work, the artist cleverly extracts the essence of the sacred creatures "dragon" and "phoenix" that frequently appear in the traditional helmet decoration, giving them unprecedented vitality and artistic form. Dragon, as the supreme totem in ancient mythology, often symbolizing strength, honor and auspice, is delicately depicted circling and rising, its body twists and turns, scales flashing gold and silver glow, is deducing the classic "cloud dragon spitting water" scene, the mouth

gently reveals a clear stream of rain, as if it can nourish all things, bring endless vitality and hope.

The phoenix, the king of the feather clan, has been the embodiment of auspiciousness, peace and virtue since ancient times. In the picture, the phoenix spreads its wings leisurely in the state of "phoenix sunrise". Each feather is carefully carved and colorful, like a flower blooming in the morning sun, revealing a warm and dazzling light, and is moving toward the rising sun, implying a new beginning and infinite prosperity. The combination of the two is not only the fusion of graphics, but also the exquisite intersection of traditional cultural images and modern aesthetic concepts, creating a novel visual narrative that is not only classical but also innovative.

Through this unique artistic treatment, not only shows the profound cultural heritage of the Chinese nation, but also allows the audience to feel a cultural dialogue across time and space, as well as the yearning and pursuit of a better life. This illustration is undoubtedly a successful attempt to modernize the ancient elements. While appreciating its aesthetic value, people can also deeply appreciate the importance of cultural inheritance and innovation.

3.3.2 Design process

For the design of the dragon, the cloud dragon is displayed around the outside, and the dot dense row surface pattern of the helmet head is surrounded. The dragon body adopts the scale method in the helmet head thickening method, and the head retains the pattern of the dragon head on the helmet. The overall pattern is mainly blue and gold of silk and gold foil, and the internal auspicious cloud is left white to alleviate the fatigue of strong color contrast in the picture. In the design of the dragon, the artist cleverly integrated tradition and innovation, and the exterior was set off by the light and curling clouds, which not only outlined the magnificent scene of the cloud dragon flying in the sky, but also skillfully used the technology and techniques of the helmet point, adding a

noble and extraordinary atmosphere to the dragon flying in the clouds and mist. The scales on the dragon body, each place is carefully carved, drawing on the scaling method in the helmet point thickening technique, delicate and rich layers, making the dragon body more vivid under the light, as if it is about to take off in the air, and it is not lost in the majesty.

In the part of the head, the designer is ingenious, retaining the essence of the classic head pattern on the helmet head, while integrating the modern aesthetic, using blue silk and gold foil to complement each other, creating a deep and noble visual effect. The white space treatment of the inner Xiangyun is not only a tribute to the ancient Oriental aesthetics "white artistic conception", but also an effective balance of the color of the picture, so that the viewer's eyes can rest, to avoid visual fatigue that may be caused by long-term viewing of strong color contrast, reflecting the designer's careful consideration of the perception experience.(Figure 3-3-2-1).

The shape of Phoenix in the sunrise is taken from the pattern pattern of phoenix in the middle of the phoenix crown crossing the bridge. The original silver form is exaggerated and the graphic style is enriched to make up for the deficiency of single phoenix in the form of expression. The outer ring pattern is matched with a butterfly, which corresponds to the butterfly falling on the tail of the phoenix crown, and sets off the status of birds paying homage to the phoenix .Turning to the theme of Phoenix in the morning sun, the designer draws inspiration from the traditional pattern of the phoenix crown crossing the bridge, and chooses the side phoenix pattern as the basis, boldly exaggerating its form to make it more magnificent. The original silver tone is given new life, through rich colors and fine texture overlay, to solve the monotony that the image of Shan Feng may appear, so that it reaches a new height in artistic expression. This creative move is undoubtedly a re-interpretation of classical beauty, showing the beauty of phoenix-like rebirth.

The butterfly elements decorated in the outer ring are delicately interspersed among them. They not only echo the details of the butterfly falling on the tail of the phoenix crown, but also signify the beautiful vision of harmonious coexistence of all things in nature, further strengthening the solemnness and sanctity of the theme of

"hundred birds worship the phoenix". These butterflies fly around the phoenix and dragon, adding some vitality and vitality, so that the whole work is full of flowing vitality and infinite imagination space.(see Figure 3-3-2-2).

To sum up, this design is not only a perfect integration of profound exploration of traditional culture and modern expression, but also an active exploration of craft aesthetics. Every detail reveals the spark collision of craftsman spirit and artistic innovation, and achieves a classic work that is both inherited and surpassed.

3.4 Design and manufacture of helmet head

3.4.1 Paper design of helmet head

The helmet pattern is the structural pattern of the overall helmet, which determines the production direction of the entire helmet, the production effect, the graphic style of the later period, the ease of leaching, the consistency, and the final style. It can be said that without a pattern, all the following steps are not done. Most of the paper samples are in the hands of the helmet artists, due to the reduction of the helmet industry today, the paper samples in the hands of the helmet artists are the treasure of the treasure, generally not easily shown to outsiders. Only according to the complete helmet picture, watch its style, draw on paper, after repeated adjustments, and finally determine the complete graphics. Then the helmet style is created again, adding modern elements, and finally presenting a new paper pattern.

Helmet pattern, this seemingly simple graphic design, is actually the soul of the entire helmet production process. It is not only a pile of graphics, but a bridge carrying traditional skills and innovative thinking, carefully planning out the layout of every inch of the structure, thus determining the overall style, three-dimensional effect and precise implementation of decorative details after the helmet is formed. From the delicate outline of the powder to the clever embellishment of the dot, the simplicity of each link and the final artistic presentation all come from that seemingly ordinary but vital paper pattern.

In today's society, with the gradual decline of the traditional cultural industry, the ancient craft of helmet is also facing unprecedented challenges. The helmet-head patterns that have been passed down from generation to generation and condensed the efforts of countless craftsmen are even more precious and difficult to see as rare treasures. These patterns are often hidden in the hearts and hands of a few senior helmet-head artists, and have become the key to their protection of tradition and continuation of blood. If outsiders want to see one or two, only by looking at the existing helmet physical photos, with keen observation and profound art skills, the complex three-dimensional form is restored to the two-dimensional plane, and then after countless adjustments and corrections, can the original design essence be gradually approached.

In this process, the secondary creation of paper pattern is particularly important. Artists should not only respect the traditional basis, but also integrate modern aesthetic concepts and fashion elements, so that the ancient helmet art radiates new vitality. Whether it is the streamlined improvement of lines or the innovative application of materials, every step of the attempt is a tribute to and beyond the tradition. The finalized new pattern is not only a reinterpretation of historical memory, but also a prediction of future aesthetic trends, making the helmet not only retain the classical charm, but also lose the sense of The Times, becoming a unique art connecting the past and the future.

In short, the production and evolution of the helmet pattern is a complex process integrating technology, art and cultural inheritance. In this process, every artist involved plays a key role in connecting the past and the next, and every stroke of their pen may open a new artistic journey, so that this precious cultural heritage can bloom in the new era.

3.4.2 Tools and materials for making helmet head

(1) Helmet head making tools

Homemade tools:

The production of the whole helmet is not only a display of skills, but also a

reflection of the depth of understanding and respect for the traditional process. As the old saying goes, "If a worker wants to do a good job, he must first use his tools," and this sentence has been vividly interpreted in the field of helmet production. This work is not only an artistic creation, but also a ceremony of the ultimate pursuit of details. The choice and use of each tool contains the wisdom and effort of the craftsman.

The process of making a helmet is like drawing a fine historical picture, which requires a wide variety of tools, as many as ten kinds, each of which is an indispensable "brush". From the most basic pencil outline pattern, to the delicate use of the arrowhead knife, each step tests the patience and skill of the craftsman. The pencil lightly touches the drawing paper, the lines are smooth and accurate, laying the foundation for the subsequent process; The self-made arrowhead knife is the crystallization of the craftsman's effort, it is not only a cutting tool, but also a symbol of inheritance and innovation.

This unique arrowhead knife, handmade, is hard to find on the market similar. Its clever construction, the blade selection of high-quality steel, after repeated grinding to sharp, both to ensure the precision of carving, but also to ensure durability. The design of the handle is particularly ingenious, using a natural round stick to split into two, the steel blade is embedded in it, and then tightly tied with string or twine, which is both stable and natural beauty. This design not only makes it more comfortable to hold, but also makes it more flexible to operate.

The sharp edge part is as sharp as an eagle's beak, specially for hollow carving, whether it is a delicate pattern or a complex pattern, it can be turned into reality in the hands of the crafters, showing a breathtaking three-dimensional effect. The round blade is smooth as a mirror, which is suitable for the precise cutting of silk cloth, ensuring the flatness and smoothness of the cutting edge, and making the final product more exquisite and perfect.

Behind these tools, it is the persistence and sharpening of the craftsmen for decades, and it is a deep understanding and love of the ancient skills. The birth of each helmet is not only the combination of materials and technology, but also the emotional and spiritual sustenance of the craftsmen. They tell the story of history, carry the weight of

culture, and show the unique charm and immortal value of traditional Chinese crafts.(As shown in Figure 3-4-2-1).

Arrowhead knife is a self-made carving knife, arrowhead engraving cardboard, when thick silk cutting, can be used. The blade of the arrowhead knife is made of steel, and the handle is divided in two parts, with a sharp blade and a round blade. The sharp blade is used to hollow out carving while the round blade is used to cut thick. The handle is to cut a round stick in half, the blade is sandwiched between two sticks, and then the two sticks are tied tightly with the present, and the arrow knife is done.

Wax table is mainly the arrowhead pad under the cardboard, is also homemade, need to dry the elm bark crushed in the sifted fine powder, and butter, wrapped together to make, you can also use incense ash and wax oil a piece of production. Outside use, 20 cm, 3 cm wood surround a square, the wax table shape. The wax table made in this way can protect the cutting board, will not be damaged by the carving knife, and it is convenient to carve.

Wax table, this seemingly insignificant but plays an important role in the traditional craft tool, carrying the craftsman's ultimate pursuit of details. It is not only the obscure thing under the cardboard when the arrowhead is alive (that is, the carving activity), but also the art of clever combination of wisdom and natural materials. The process of making a wax table is itself a journey of craftsmanship.

Choose the best elm bark as the main raw material, after the gentle baking of the sun, dry it, and then fine grinding into powder, this step requires patience and meticulous, to ensure that each piece of elm bark can be converted into the most delicate powder. Afterwards, these fine dust emitting natural flavor and warm butter are slowly mixed, and the two are intertwined between the palm of the craftsman, as if an ancient ceremony, which is not only a reverence for nature, but also a respect for the inheritance of the craft. Another more primitive method is to use incense ash and pure wax oil, such a combination not only gives the wax table a unique aroma, but also adds a touch of mystery.

In order to give the wax table a stable and just right shape, the craftsmen carefully measured, selected about three centimeters high, 20 centimeters on the side of the board,

surrounded by a regular square frame. This process is not only a precise grasp of size, but also an aesthetic consideration to ensure that the wax table is both practical and beautiful. When a mixture of elm bark powder and butter or ash wax oil is filled into the wooden mold and gently pressed to set it, a wax table is created to protect the cutting board from the cutting knife and to facilitate the engraving operation.

Such a wax table is not only a work aid tool, it also reflects the craftsmen's love and respect for their work, and their adherence to traditional skills. Under its protection, every carving becomes smooth and free, reducing unnecessary damage to the cutting board, and also allowing the inspiration of the craftsman to flow freely and create more exquisite works of art. Over the years, the wax table may leave traces of use, but the dedication and love of the rival craft, like itself, is timeless and warm.

Direct purchase of tools:

Pliers, tweezers, scissors, you can buy them on the market, but get different models. Small needle-nose pliers are needed to hold the wire in place when screwing, and flat nose pliers are needed when cutting the wire. The powder cylinder is composed of powder tip, powder rod and powder bag. It is a tool used for leaching powder. The powder tip needs to be about 2.5 cm long, the thickness of the hollow ends is not the same, you need to prepare at least two kinds, you need thick lines with thick powder tips, fine lines with fine powder tips. Needles and cones are common puncture tools in life(As shown in Figure 3-4-2-2 to Figure 3-4-2-6).

(2) helmet-head production materials

Paper living materials:

In terms of production materials, there are up to 10 kinds of materials that need to be used, which can be basically divided into paper, glue, powder, gold and silver foil, satin, pigments, silk, wire, beads and so on. Paper including Yuan paper, crepe paper, kraft paper, kraft paper board, etc., each paper has a different role in different production processes, Yuan paper is mainly used to play gebei, simply said is a layer of brush paste, make it into cardboard. Although you can directly buy kraft paper board to make, but some parts, the production of kraft paper board can not reach the detailed production of gebei. Wrinkle paper is mainly used in the wire pinch, wrinkle paper is

flexible, elastic, strong color, special texture, used to wrap the wire (wrinkle paper wrapped on the wire), so that the wire can be glued to the place where the wire needs to be pinched. Kraft paper plate is mainly to carve out the main tire part, kraft paper, mainly to do the inner paper, after the main tire is done, you need to cut wire, this is the need to carve out the same kraft paper, attached to the wire on the side. Kraft paper plate is mainly to carve out the main tire part, kraft paper, mainly to do the inner paper, after the main tire is done, you need to cut wire, this is the need to carve out the same kraft paper, attached to the wire on the side. Glue is mainly used in latex, the best wood special, in the helmet production process basically every step can be used to glue. The selection and preparation of materials is a crucial first step when embarking on the creation of these exquisite works of art. There are many kinds of materials required, as many as ten kinds, and they each play an indispensable role in weaving together a piece of amazing work. These materials can be broadly classified into several categories: paper substrates, adhesives, decorative powders, metal foils, fabrics, color media, wire, wire and decorative beads.

Paper as one of the basic materials, its diversity can not be underestimated. Yuanyuan paper, with its fine texture and good pulp absorption, has become the first choice in the process of gebei

. This process involves coating multiple layers of Yuanyuan paper with paste, stacking layer by layer, and finally forming a strong and ductile cardboard, which lays a solid foundation for subsequent creation. Although there are ready-made kraft paper boards available on the market, in the production of some fine parts, the hand-made gebei shows a sense of texture and detail that can not be matched by the finished product.

Wrinkle paper, with its unique softness, elasticity and rich color choices, shines in the wire cutting process. By wrapping the corrugated paper tightly around the wire, it not only cleverly hides the cold metal texture, but also gives the work a vivid color and texture, so that each wire can accurately fit the design needs, creating a complex and delicate pattern outline.

The application of kraft paper board and ordinary kraft paper reflects the layered

sense and functionality of material use. The former, because of its hard substance and easy to carve out, is often used as the main fetal part to support the skeleton of the entire work; The latter plays more of the role of the internal liner to ensure that the surface of the wire is smooth and flawless. This step requires the craftsman to have high patience and skills, repeatedly carving out the kraft paper that perfectly matches the main tire, and then pasting and fixing it to achieve the artistic effect of both internal and external repair.

As for the choice of adhesives, latex, especially those designed for wood, plays a central role in the manufacture of helmets and other similar crafts because of its strong adhesion and good adaptability. Whether it is the stacking of layers of paper or the precise combination of various materials, latex is an indispensable "bonding ambassador", ensuring that every idea can be firmly and lasting.(As shown in Figure 3-4-2-7).

Decorative materials:

Powder is mainly stone powder, in the leaching powder, and glue mixed for leaching powder can be directly purchased online, modulated material. Soil is red soil, the jargon is called red clay, the paint shop basically have to sell, in the need to brush red clay before draining powder, conducive to hanging powder. Gold and silver foil, mainly purchased online, in the helmet production, greasy powder after a layer of gold foil, bright color, advanced sense arises. Yarn mainly refers to the iron gauze, when the helmet is made, a layer of iron gauze is added to the middle of the carved part to increase the quality and strength of the helmet. The cloth is mainly a variety of colors of cotton or silk, and the silk needs to be cut when thickened. The pigment is mainly regarded as a helmet, and the golden pigment is generally used as the base color. Silk is used to make a variety of pompoms and spring cannons. Yellow bubbles refer to the spring wound with wire. Before winding, the steel wire is wrapped with silk wire and then wound into a spring cannon. Wire needs a variety of models, helmet production process, each part needs a different type of wire, the pinch used is relatively thick, generally 16 wire, pinch some small parts, you need 20 and 22 wire. Beads need different diameters, commonly used beads are, large hollow beads, diameter 2 cm, 0.5

cm, 0.3 cm and so on(As shown in Figure 3-4-2-8 to Figure 3-4-2-12).

3.4.3 Helmet head production process

The production of helmets is mainly taken from the Research on the production skills of Traditional Chinese Opera Helmet and Helmet Case Art. The whole process of making the helmet head is mainly three parts: paper live class, large tire and live. First, the paper work for each part is distributed, and then the main parts are spliced into a large tire, and finally the parts are assembled on the large tire to form a complete helmet. Helmet-head production, this combination of exquisite craftsmanship and artistic aesthetics of the traditional skills, the whole process is delicate and complex, can be mainly subdivided into three core steps: the fine work of the paper live class, the clever structure of the large tire, and the assembly of the living stage. First of all, in the quiet studio, the craftsmen began to create paper with dexterous hands, and this step is the basis for building the helmet. They choose special paper, through cutting, folding, bonding and other meticulous operations, the flat paper into a different structure, realistic shape of the parts. Each piece of paper carries the understanding and respect of the craftsmen for the historical role, and each crease is an accurate inheritance of traditional techniques.

This is followed by the construction phase of the large tire, which is a key step in bringing together those separate paper parts. Craftsmen rely on rich experience and unique vision, the main components such as crown, forehead, mask and so on one by one splice, through the clever mortise and tenon structure or fine seam fixed, forming the basic frame of the helmet - large tire. This process not only tests the craftsman's spatial construction ability, but also an aesthetic exploration of balance and harmony, ensuring that each part is stable and clever.

The final link, survival, is the moment to assemble all the carefully prepared parts one by one onto the big tire, giving the helmet life and soul. From the bead curtains to the decorations of birds and animals, every detail is carefully treated, whether they are inlaid or hung, it is both ancient and innovative, making each helmet unique, full of

story and drama. At this stage, color is also particularly important, the craftsmen use mineral pigments to describe carefully, so that the respliance and calm black complement each other, vividly reproducing the majesty and style of the ancient generals.

In this way, after countless polishing and adjustment, a helmet bearing profound cultural heritage and exquisite craftsmanship was born, it is not only a colorful accessory on the stage of performers, but also a bright pearl in the treasure of traditional Chinese culture.

Paper living class:

(1) Type gebei. In the paper production, the beginning is to play gebei and play inside, now can be directly replaced with kraft paper, very convenient, in addition to the special parts need, play gebei again. The second is the projectile pattern, the name of the projectile pattern comes from the previous traditional method, is to wet the existing paper pattern on gebei, then dip the brush in ink, gently knock the brush hair with a knife, the ink evenly played on the paper pattern, and then take the paper pattern away, there is the same white grain on the cardboard, and the white arrowhead blade is carved down to get a new paper pattern.

(2) Arrowhead. Arrowhead life is to use the arrowhead knife to hollow out the pattern from the cardboard, which belongs to the carving process. Well, it is the most time-consuming and laborious technical work in making helmets. The arrowhead will need to process the paper pattern on the wax table, and then hollow carving (Figure 3-4-3-1). In the process of carving, the arrowhead knife tip to oneself, in the turn of life, the knife does not pull out, but with a piece of paper pattern, so that the arrowhead out of the paper pattern is very coherent. If the cardboard is not fixed firmly when combined, it is easy to get out of shape. In the process, the strength of the finger on the handle of the knife needs to be in place, and what does the lover miss? In this way, the lines of the knife are smooth and natural, and the outline of the pattern is intact. In short, it is a technical job, but also a vigorous job.

(3) Add yarn. Arrowhead completion, is to add yarn, is to add barbed wire in the middle of the paper, has a strengthening effect, the arrowhead after the cardboard is soft

and not strong, in the back of the paper, brush on a layer of glue, the size of the appropriate iron gauze pasted on, cut the shape of the iron gauze in advance, and then paste the lining paper, the same brush a layer of glue, before sticking firmly, the lining paper and the gap between the tire. Make the two fully coincide, and then pad a layer of wet cloth, with a wooden hammer or soft leather hammer to beat, the jargon is called smashing the son, the role of the cotton mat is to prevent the wood hammer directly into the lining paper, too much strength is easy to break, cotton humidification, can penetrate the water into the lining paper, easier to fit. Smash the side of the lining paper until you can clearly see the traces of barbed wire, so that the operation of the paper tire, there is no gap in the middle.

As the prototype of the paper art is gradually formed through the elaborate arrowhead, the next process is the crucial step of adding yarn. This step, like equipping the fragile boat of art with a solid keel, not only enhances the stability of the work, but also gives it lasting vitality. Adding yarn, in short, is that the delicate paper core is cleverly embedded in the barbed wire, like woven into the invisible armor, making the originally weak cardboard structure instantly strong and reliable.

After the completion of the fine arrowhead, the artists will find that despite the initial shape, the cardboard still appears soft and not tough enough. And so a ritual of fortification and beauty unfolds. First, gently brush a uniform layer of glue on the back of the paper, which is an invisible bridge connecting the yarn and the cardboard, ensuring that the two can be tightly attached. Before this, it is necessary to pre-cut the shape of the gauze that perfectly matches the outline of the paper, and each cut embodies the precision and meticulousness of the craftsman.

Then, it is covered with lining paper, which is not only decorative, but also the key to protection and strengthening. Again, start with glue and apply carefully to make sure nothing is missing. In this precious moment when the glue is not completely solidified, the craftsmen, with their keen hand feel, patiently press every inch gap between the inner paper and the paper tire, and strive to seamlessly integrate the two. This process is both a test of skill and a test of patience.

In order to make the combination more natural, the ingenious is to put a layer of

wet cotton cloth on the mat, and then supplemented by a wooden or soft hammer gently hit, known in the jargon as "hammering." This is not only an action, but also an artistic processing technique. The gentle intervention of cotton cloth seems to put a protective cover on this creation, avoiding the damage that may be caused by direct hitting of the lining paper. At the same time, the use of wet cloth lets the water slowly penetrate, promoting the formation of a more firm and smooth fit between the lining paper and the paper tire, just like a natural one.

Until finally, when the texture of the wire mesh can be clearly identified from the side with the lining paper without showing any gap, it marks that this series of complex and fine operations have achieved the desired effect. At this moment, the paper art is no longer a simple stack of paper, it carries the craftsmen's effort and wisdom, and has become a solid and full of artistic charm, waiting for the test and praise of time.

(4) Wire cutting. That is, the wrapping wire is pinched around the edge of the paper pattern and then glued to strengthen the role (Figure 3-4-3-2). According to the different position of the paper tire, use different types of wire. For example, the cap mouth is the force point, with No. 16 wire for wire cutting, such as decorative parts such as face plates, you need to use small wire to wire cutting. Before cutting the wire, cut the wrinkle paper into a strip of paper about one centimeter wide, and then wrap the wrinkle paper on the wire, if the wire is directly glued to the paper pattern, the surface of the wire is smooth and not easy to stick, wrapped in the wrinkle paper can easily stick the wire, after the wire is pinched, the same should stick the lining paper.

Large fetus:

(1) Splicing. After the paper work is done, the large fetus can be spliced. The large tire generally refers to the cap tire, which is the main body of the helmet, and the processed cap tire is spliced into a complete large tire, which is called fighting. Large tires are mainly two cases, one is split, mainly divided into the front fan and the back fan, this helmet jargon is also called live tires, is removable, such as the king hat. There is also no front and rear fan, the jargon is called stillbirth, is not removable, such as two dragon hoop. In the splicing process, pay attention to some special skills, in the splicing, you can first water humidification, the cardboard is easier to deform, and then the

splicing part is glued, waiting for drying. After the completion of the large tire, it is necessary to go through the pinch wire, that is, pinch the wire in a circle around the riser of the cap tire and stick it firmly. Because the cap is the main stress point when the actor wears it, the actor needs to cut the head when performing, which makes the cap's stress point extra large, requiring additional wire reinforcement. After the work is finished, there are not very regular places, you need to use a soldering iron to iron it into the required shape.

(2) Brush red soil. In the past, it was necessary to use blisters before the use of red soil. The red soil, bone glue and water were mixed according to a certain proportion, and after filtration, the delicate mucus was obtained. The mucus would solidify when cooled, and it needed to be heated before being used again. Apply a thin layer of blended mucus to the cap tire with a brush and leave to dry.

In that age of being treated gently by the years, the craftsmen followed the ancient traditional craft and meticulously carried out the process of brushing red soil. It is not just a skill, but a profound tribute to culture and aesthetics. Red earth, which comes from the natural treasure, its color is bright and simple, like the blood of the earth, containing endless vitality and stories.

In the preparation stage, the craftsman must first select the best red soil, which is often taken from the deep mountains and valleys, and has been baptized by wind and rain to precipitate the purest color. The precious red earth is then finely ground to ensure that each particle of dust releases its finest texture. This process is not only respect for materials, but also the ultimate pursuit of process accuracy.

Next, the art of reconciliation. Artisans slowly mix finely ground red earth with bone glue in a formula passed down from generation to generation. Bone glue, derived from the natural glue in animal bones, not only gives the mucus stronger adhesion, but also carries an ancient wisdom and ecological cycle concept. After adding water, through patient stirring, the three gradually merge into a thick liquid that is both simple and vibrant. The mixture is also carefully filtered to remove impurities, leaving behind a silky, pure red slurry that reflects the relentless pursuit of perfection.

The cooled mucus will solidify into a semi-solid shape, like time-still amber,

recording the ingenuity of the crafter. In order to use it again, the craftsman needs to place it next to a warm fire and heat it slowly until it returns to a state that is easy to apply. This process is the exquisite control of temperature and time, each heating is a rebirth, so that the red soil is revitalized.

Finally, comes the crucial step of performing the craft. With a special soft brush, the craftsman gently and evenly spreads a thin layer of warm red mucus over the surface of the cap tire to be decorated. This brush is not only the attachment of color, but also the transmission of emotion and spirit. After brushing, the hat is carefully placed in a ventilated place for natural air drying. The sun shines gently on the dry red earth through the window lattice, and at that moment, the hat tire seems to be endowed with a soul, quietly telling the story of the land, culture and craftsman spirit.

In this way, a seemingly simple red clay painting process actually contains profound cultural heritage and the emotional support of the craftsman. Each process is the exploration and practice of beauty, which makes people sigh at the charm and immortality of traditional handicrafts (Figure 3-4-3-3).

(3) Drain powder. Before the powder is washed, that is, the stone powder and bone glue are mixed in accordance with a certain proportion, and now you can directly buy a good leaching paste. Put the vertical powder paste into a plastic bag, connect the powder cylinder at the edge of the mouth can be used, drain powder along the edge of the cap tire, drain a pattern of grain, requiring uniform line thickness, smooth trend. After the leaching powder molding, it is convex and vertical, and the three-dimensional sense is very strong, which is the most test of technology (Figure 3-4-3-4).

(4) Paint and gold. After the completion of the leaching, it is necessary to wrap the glue, that is, to apply the base color on the drained fetus, brush the glue as a whole, and then dry (Figure 3-4-3-5). Apply another coat of varnish, wait until the varnish is half dry, so as not to touch the degree of the best, and then apply foil. Because the gold foil is very thin, when pasted to stick along the side, the use of cotton ball gentle, can be smoothly pasted to the cap tire, the gold and silver foil is generally covered, that is, the entire surface of the paper should be pasted, there is a hollow place for the gauze, the same in the paint with the gold and silver foil, after pasted with a brush to sweep away

the excess gold and silver foil, the jargon is called sweep gold (Figure 3-4-3-6).

(5) Point thick. After the gold is finished, it can be thickened, formerly called green, with kingfisher feathers cut into the required pattern and pasted into the gold groove of the tire cap, because the kingfisher is protected and replaced with silk cloth, this process is also changed to thicken. Because the required graphics are not square, but very distorted lines, generally need a complete point thick pattern to fit, if it is pieced together, the lack of overall beauty.

Survival:

Life is assembly, the production of all the parts assembled into a complete helmet, this process is called life. In the assembly process, it is necessary to understand the requirements of each helmet head, and can not add more parts, nor add less, and miss. A helmet, in the assembly of what parts need to be installed, the number of installed, installed in what position, there are fixed requirements.

3.5 Video Design

(1) Thinking. The video is mainly a record of the physical production of the helmet, the production process of each step is recorded, and the technical operation of the arrowhead, pinching, leaching powder, gold, thickening and so on is introduced and demonstrated in detail. Through video recording, we can have a more comprehensive and detailed understanding of the helmet production process and deepen the impression of this intangible cultural heritage technology.

This video is a visual feast that deeply explores the treasures of traditional Chinese craftsmanship. It is not only a video log recording the physical production of helmets, but also a tribute to the inheritance and innovation of ancient skills. From the initial selection and preparation to the shining appearance of the final product, each step embodies the painstaking effort and wisdom of the craftsman, and these delicate and complex processes are meticulously displayed through the capture of high-definition lenses.

"Arrowhead life", this link requires the craftsman to carve out the base frame of the

helmet with high precision, each line, each turn reveals the balance of strength and beauty; In the video, as the carving knife jumps lightly on the material, the audience seems to feel the charm of the traditional craft between the dancing wood chips. The next step, "wire cutting", is the embodiment of the ultimate pursuit of details, the craftsman uses the thin wire to outline the complex pattern outline, meticulous, every bend and every fold contains ingenuity.

The process of "leaching powder" is like the magic of giving life to the helmet, and the delicate powder flows slowly along the preset track, forming a well-structured and three-dimensional decorative effect, which makes people admire the clever integration of color and texture. The subsequent "gold" stage pushed the entire production to a brilliant climax, the thin gold foil, gently attached to the surface of the helmet under the skillful hand, under the light, the golden light, fully showing the royal style and noble temperament.

"Point thick", as the finishing brush, through the careful embellishment of details, making the helmet as a whole more vivid and full, every minute point gives out a unique artistic atmosphere. This series of technical operations have been detailed and vivid explanation and demonstration in the video, with the melodious background of ancient music, so that the viewer seems to travel through time and space, experiencing the daily creation of an ancient craftsman.

Through such a comprehensive and multi-angle video recording, the audience can not only fully understand the subtlety of the helmet production technology of intangible cultural heritage, but also deeply imprinted in the heart of the awe and pride of Chinese traditional cultural heritage. This is not only a demonstration of handicraft technology, but also a awakening of cultural memory, inspiring more people's enthusiasm and responsibility for the protection and inheritance of traditional handicrafts.

(2) Design process. The video design and shooting mainly use mobile phones, which are fixed on the stand, and the production process is filmed on the side and front of the characters. In the step-by-step display process, the fixed camera position is mainly used, and the subject object itself is displayed in 360 degrees. The post-editing software mainly uses "must cut" for post-editing production, processing effects such as

transition special effects, progress acceleration, close-up shots, post-dubbing, duration control, etc., so that the final video clip is smooth and the effect is clearly presented.

In video design and shooting, we make full use of the convenience of modern technology, mainly using high-performance smartphones as shooting equipment, cleverly combining its high-definition camera function and portability. In order to ensure the stability of the picture without shaking, a stable and flexible mobile phone holder was carefully selected and fixed in the ideal position. This setting not only simplifies the complexity of the shooting equipment, but also greatly improves the shooting efficiency.

In the shooting scene, we carefully arranged the mobile phone on the side and front of the character to capture every detail from multiple angles and in all directions. In the step-by-step display of the production process, we adopted a clever strategy - keep the mobile phone position fixed, and let the subject itself slowly rotate 360 degrees, which not only ensures the consistency and coherence of the picture, but also enables the audience to fully appreciate every inch of the product without dead corners, enhancing the immersion of visual experience.

Entering the post-production phase, we chose "Must Cut", an efficient and user-friendly video editing software, as our main tool. Through the powerful functions of the software, we have deeply processed and creatively reorganized the original material. First of all, a series of smooth and natural transition effects are used, so that the connection between different segments is not abrupt but can arouse the curiosity of the audience, and maintain the continuity of viewing. Secondly, for the detailed demonstration of some steps, we moderately applied the progress acceleration technology, which not only retained the key nodes of the operation, but also effectively controlled the overall length of the video to avoid being tedious.

In order to highlight the point and enhance the visual impact, we carefully selected and inserted a number of close-ups, which focus on the exquisite details of the process or product features, so that the audience can more intuitively feel the ingenuity of the creation. In addition, professional post-dubbing work is also indispensable. Clear narration and timely background music not only enrich the auditory level of the video,

but also further guide the audience to understand the core content and creative ideas of the video.

Finally, in terms of time control, we strictly followed the principle of "refining is essence", and through fine adjustment of each part, we ensured that the final video not only conveyed the complete information, but also lost the sense of watching rhythm. As a result, the whole video clip is smooth and free, and the expression ideas of each link are clear and clear, perfectly integrating education and entertainment, aiming to bring the audience a feast of knowledge with both audiovisual and visual.

3.6 Results Display

The final design result is a profound study on the king's hat, Hou hat, mank hat, Erlong hoop and Xiangdiao five kinds of opera helmets, and hand-made them, creating five information visualizations of the helmet structure, designing two illustrations of the original graphics, one propaganda poster and one helmet production video.

- (1) Helmet structure information visualization
- (2) Illustration
- (3) placard
- (4) Helmet making video

Summary of chapter III

1. The project will first dig deep into the types and styles of various opera helmets to ensure that every detail can be accurately presented on the virtual platform. Then, using interactive infographics, the evolution of the helmet, regional characteristics, color meanings and related drama characters' stories are linearly expanded, enabling users to travel freely on the timeline and experience a cultural journey across time and space. Through information visualization design, we aim to uncover the stories behind these gorgeous headpieces, giving the audience an intuitive and novel understanding of the design philosophy behind each helmet, the manufacturing process and its symbolic significance in the repertoire.

2. The whole illustration design, smooth lines and rich sense of rhythm, bold and harmonious color use, not only vividly reproduces the charm of traditional auspicious animals, but also gives it new life vitality through modern artistic techniques. Every detail reveals the craftsman's deep understanding and unique insight into traditional

culture, which makes the classic theme of "Cloud dragon spitting water, Phoenix rising sun" glow with more brilliant brilliance in the context of the new era, which is fascinating and breathtaking.

3. The physical production of helmets, to master the helmet in the production process of sample, arrowhead, yarn, thread, paste, tire, ironing, brush red soil, powder, paint, foil, thickening, assembly and other processes of the specific operation, and record."Ji Helmet Xiang Wen" presents the intangible cultural heritage of opera helmet in front of people, increases the public's impression of helmet culture through visual impact on people, and feels the subtlety of non-cultural heritage culture in the production process, the wisdom of the artist, the meaning of the pattern and the profound and profound opera culture.

CONCLUSION

In the production of the graduation design of "Jigui Xiangwen", from the initial conception to the search of materials and the configuration of materials, and the production of helmets, as well as information visualization design and posters, the design process allows me to apply every course I have learned in college and make substantive use of them. It was through the specific operation of the graduation design that I realized the inadequacies and progress of the courses in college, and enabled me to continue to study and explore during this period, consolidate the existing knowledge and increase new knowledge.

The production of opera helmet has always been a wish of myself. Through this opportunity, I learned about the historical process of the helmet, from the initial decorative props to the stage art, the evolution of the helmet, the rules of wearing, the number of "hundred schools of thought contend" and the inheritance of the helmet. Now I have really made it out, and I have my own helmet. In the production process, I felt the subtlety of every step of the intangible cultural heritage, the wisdom of the artist, the meaning of the pattern, and truly felt the broad and profound opera culture.

In short, this graduation project is not only a technical assessment before I really face the society, but also the last practical exercise, so that I can understand my shortcomings and shortcomings, and give myself a warning in the future life road. With this experience, I will make more efforts to make better design works in the future, and at the same time make contributions to Chinese intangible cultural heritage.

During the journey of starting the graduation design project "Jiguanxiang Wen", from the initial flash of inspiration to the in-depth data exploration, to the careful selection and deployment of production materials, every link seems to be a comprehensive review of the knowledge learned in the four years of university and actual practice. This includes not only the understanding and practice of the physical structure of the helmet, but also the clever use of information visualization design and the visual communication art in poster design. Each task has promoted my ability to

transform classroom theory into practical operation and made me deeply appreciate the substantive value of learning results.

In the process of exploring the production process of the opera helmet, my heart was filled with excitement and awe. It is not only a challenge of handicraft technology, but also a cultural journey through time and space. I have carefully studied the evolution of the helmet from ancient times to the present, from the beginning as a simple decorative prop, gradually developed into a stage art symbol carrying profound cultural heritage. Understanding the strict rules of wearing the helmet, feeling the unique flavor of "a hundred schools of thought competing" between different sizes, and exploring how the helmet production technique has been passed down from generation to generation of craftsmen, all these experiences have made me deeply aware that each piece of work in my hand is a tribute to the intangible cultural heritage.

To finish my own helmet with my own hands, the sense of achievement is indescribable. In countless sculptures and depictions, I can hear the whispers of history and feel the wisdom and ingenuity of the artists' predecessors. Every stroke and stroke of the pattern not only contains auspicious and beautiful connotations, but also epitomizes the thousand-year cultural accumulation of the Chinese nation, which makes me deeply understand the profound and infinite charm of opera culture.

This graduation project is undoubtedly the last "sand table exercise" before I enter the society. It is like a mirror, clearly reflecting my shortcomings in knowledge and skills and growth space, and ringing the alarm bell for the new chapter of my life to be opened in advance. After going through this difficult and rewarding process, I am more determined to move forward in the future. With this experience as the driving force, I will make unremitting efforts in the field of design, and strive to create more works with both aesthetic value and cultural depth. At the same time, I also hope to make contributions to the inheritance and promotion of China's intangible cultural heritage with my modest strength, so that this precious cultural heritage can glow with new glory in the new era.

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APPENDIX

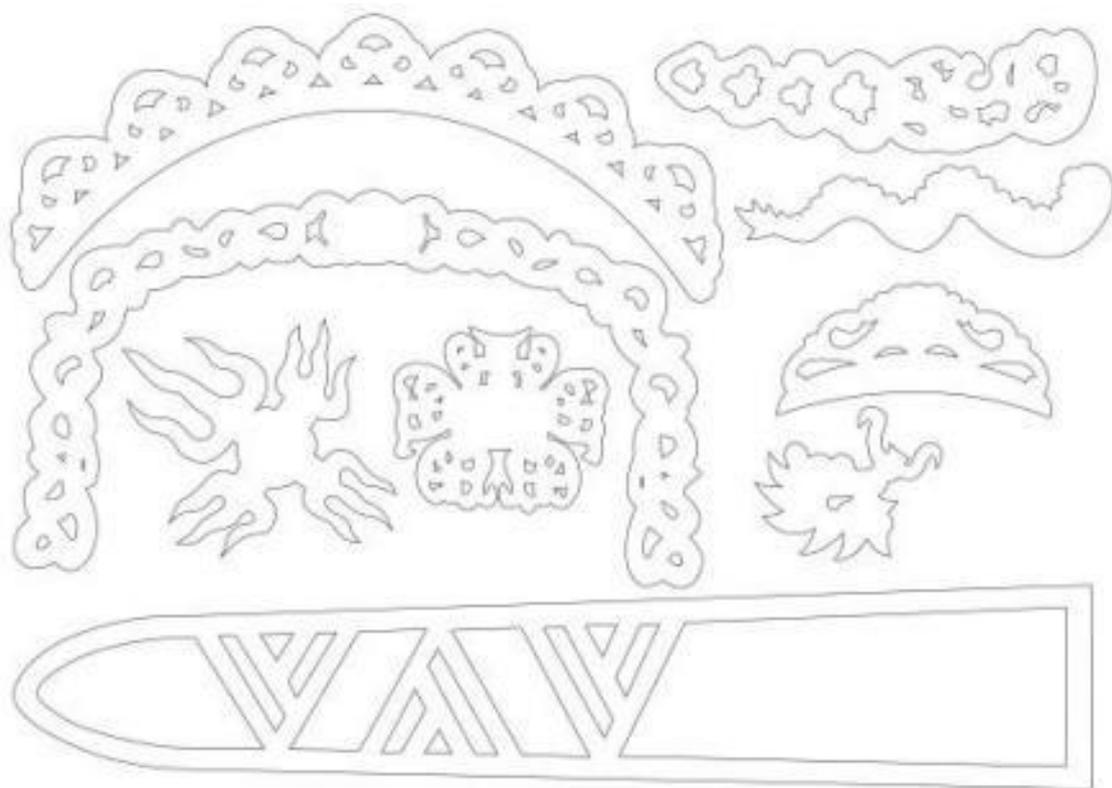


Figure3-1-2-1Carved parts

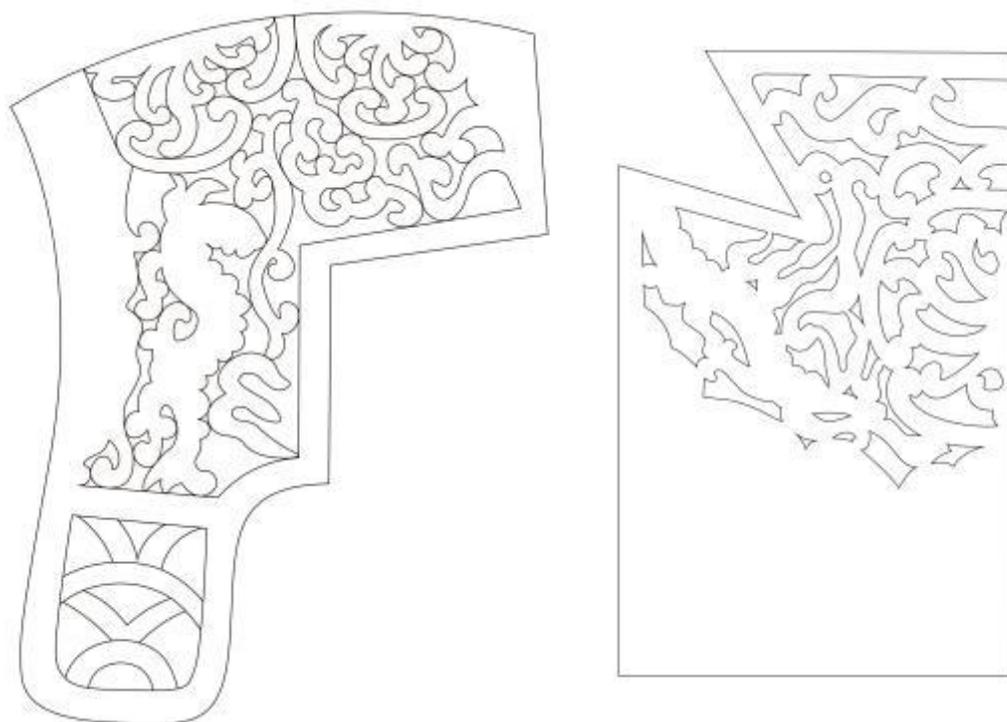


Figure3-1-2-2Facies carving subject

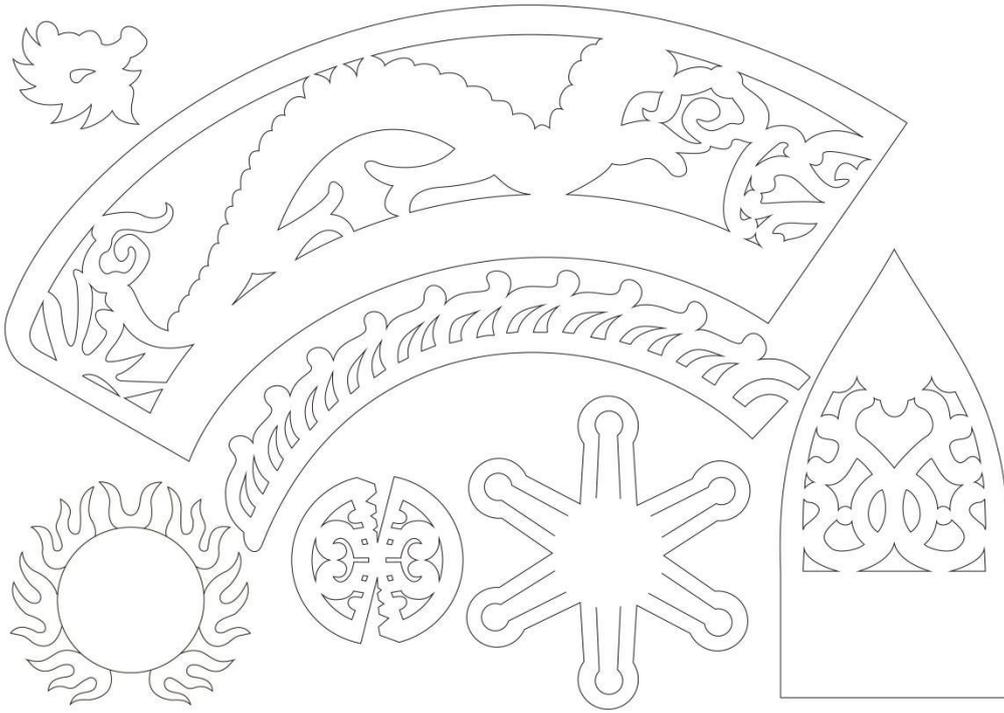


Figure3-1-2-3Mantark pattern

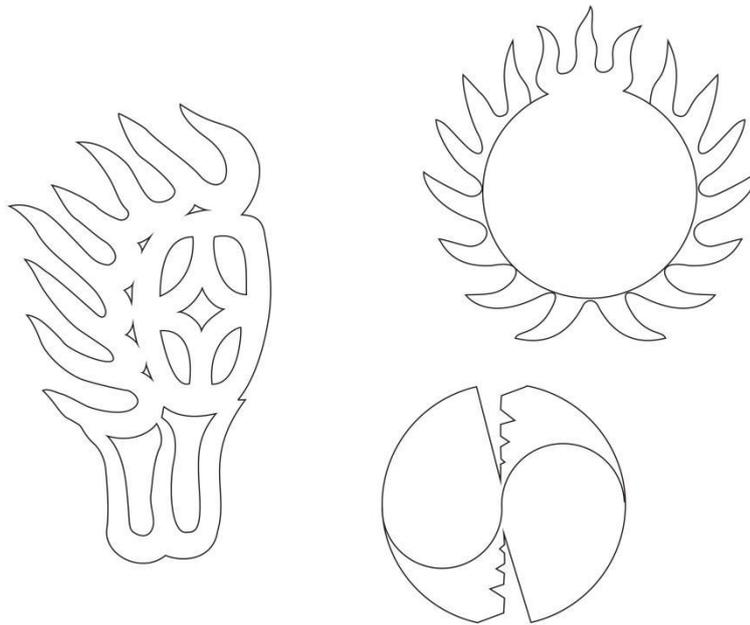


Figure3-1-2-4Two dragon hoop accessories

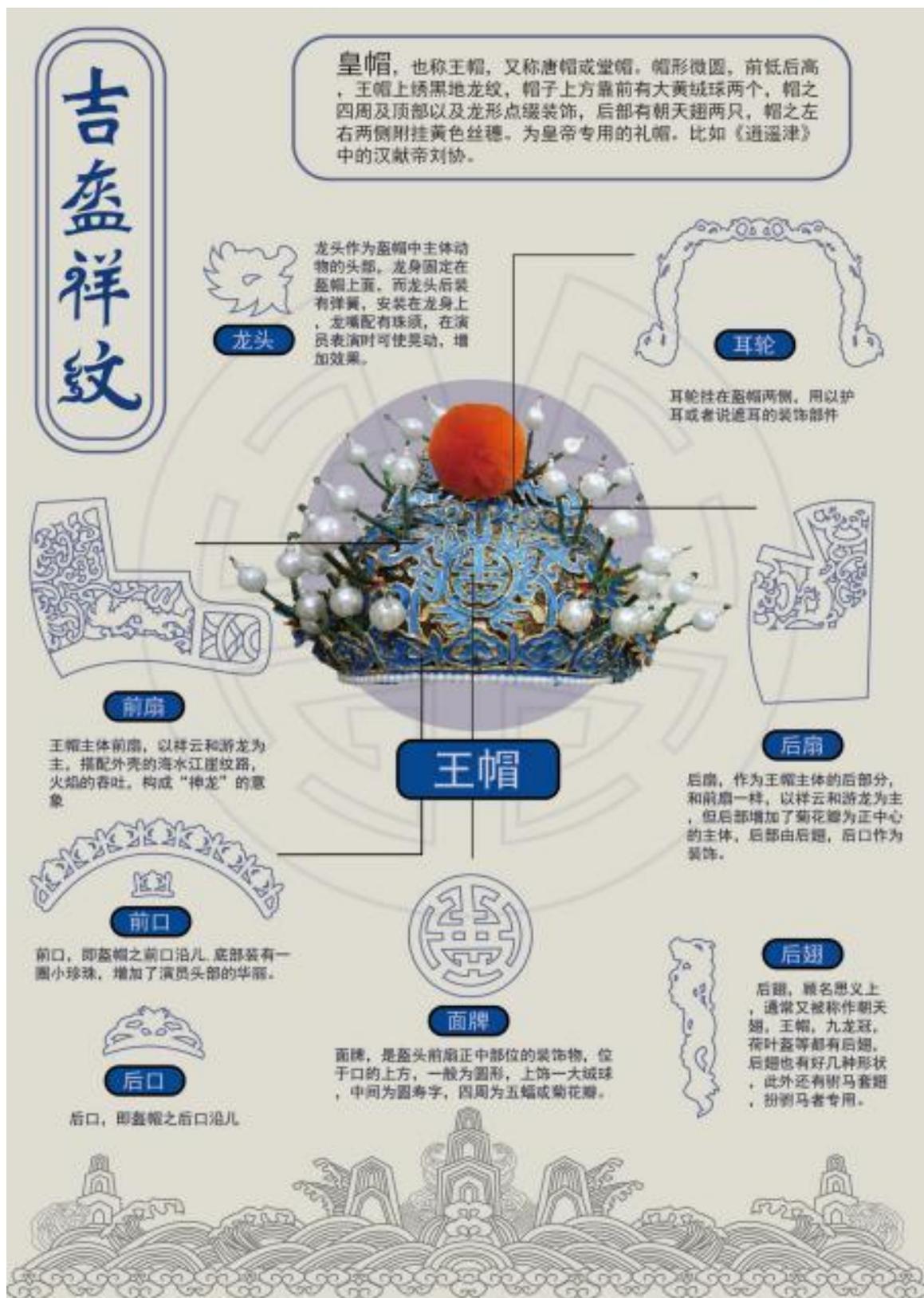


Figure 3-1-2-5kingcap

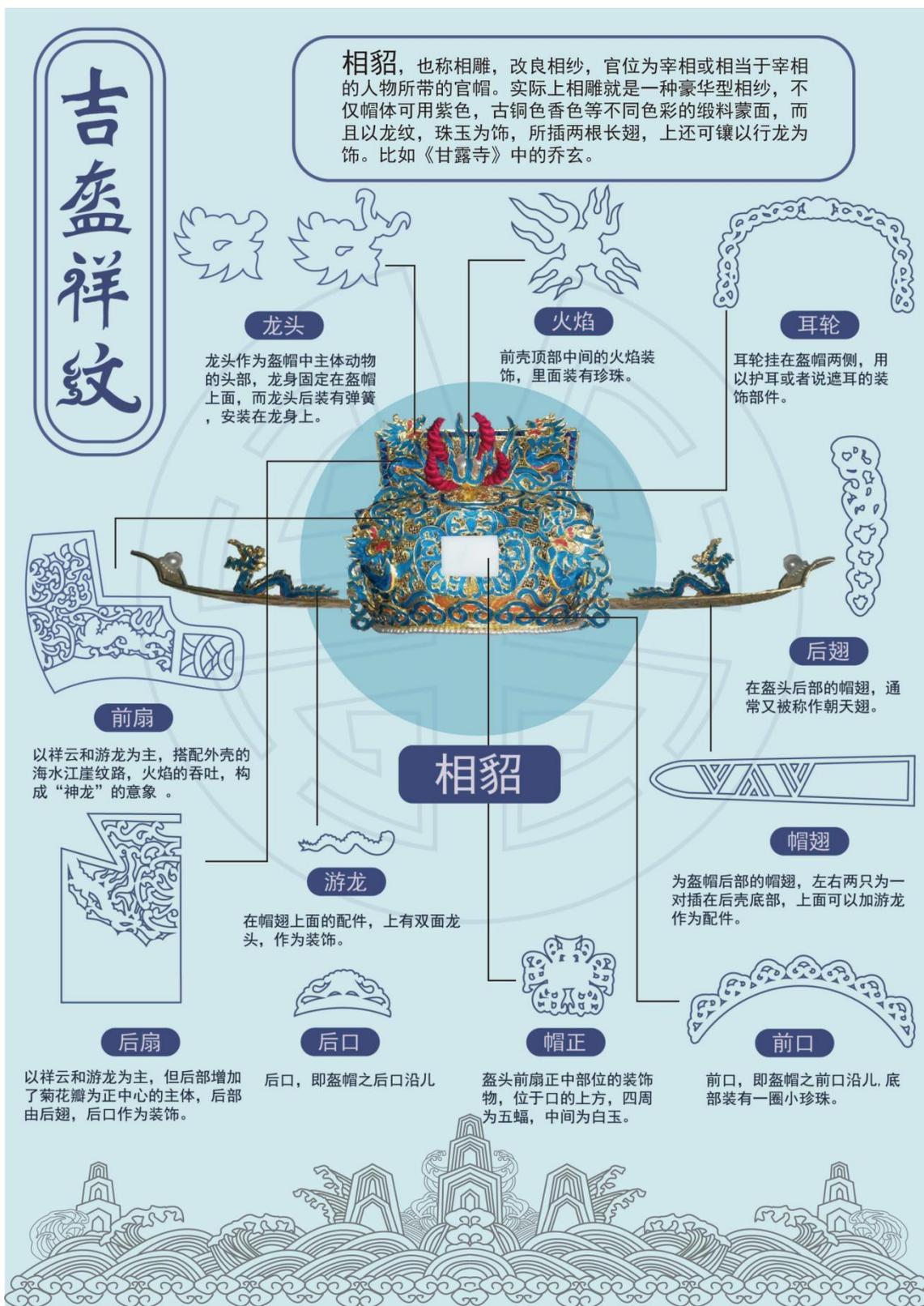


Figure 3-1-2-6physiognomy

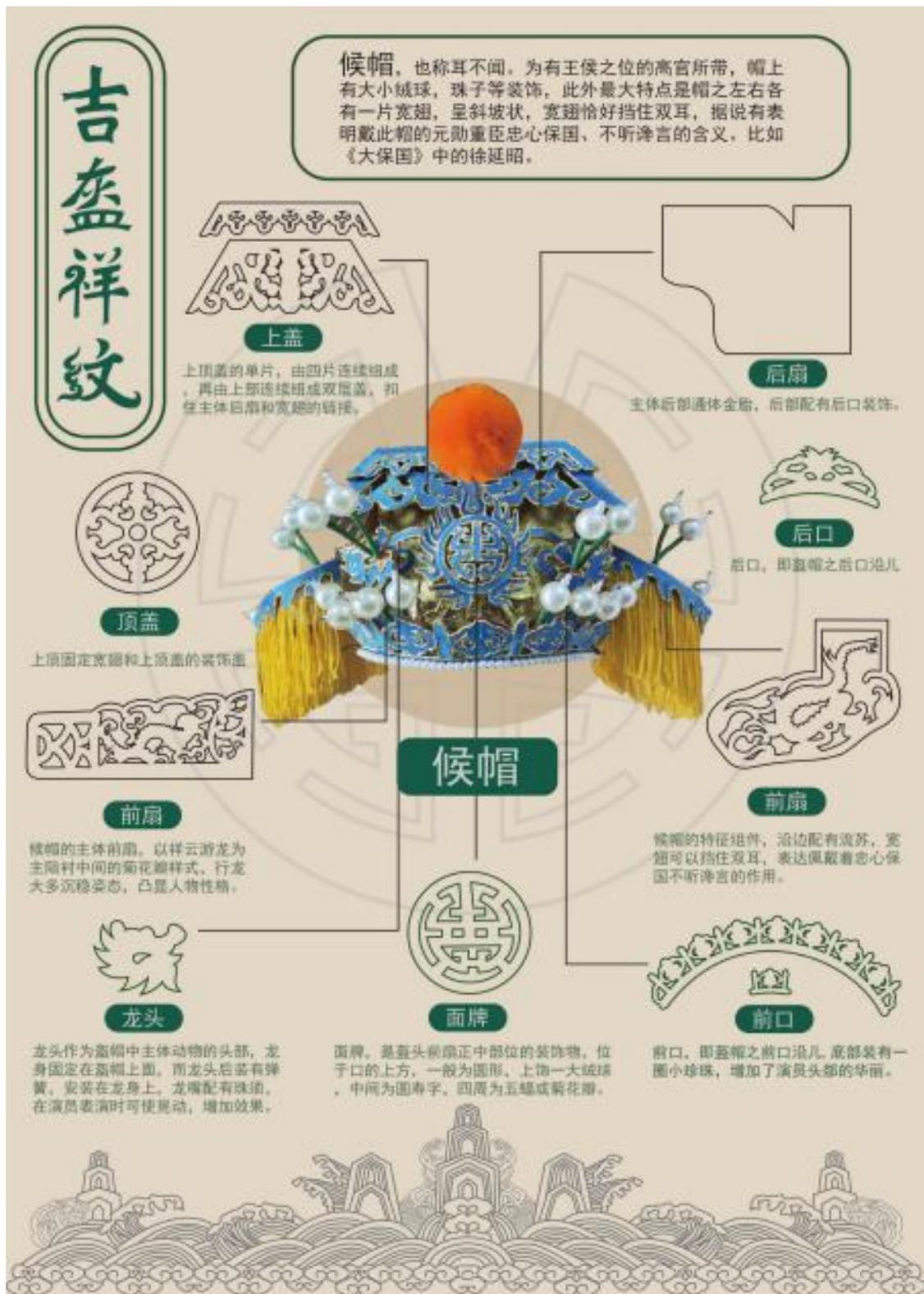


Figure 3-1-2-7Waiting cap



Figure 3-1-2-8startar

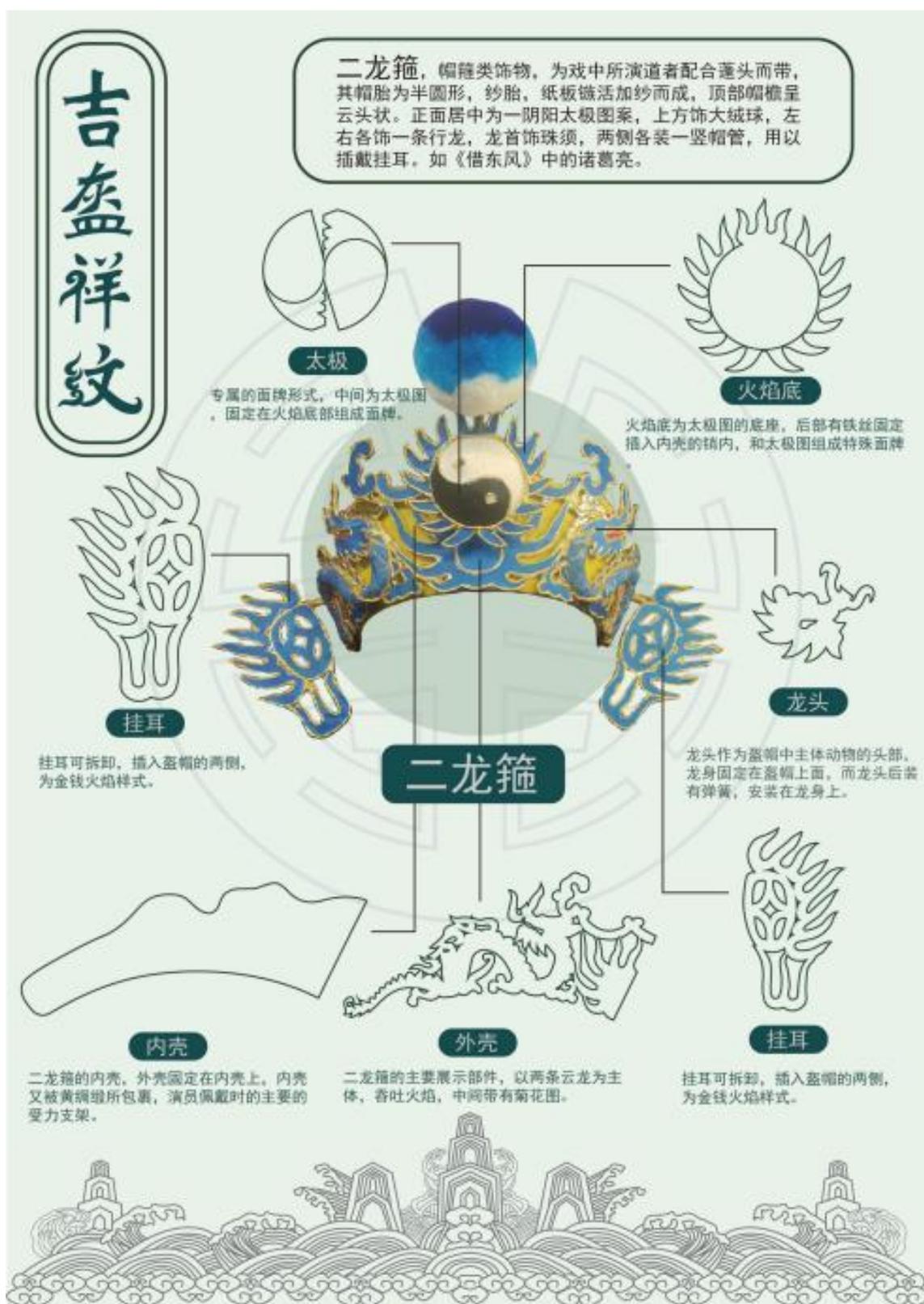


Figure 3-1-2-9 Double hoop



Figure3-3-2-1The cloud dragon spits water



Figure3-3-2-2Phoenix in the morning sun



Figure3-4-2-1 Arrow knife



Figure3-4-2-1 Leaching head



Figure3-4-2-3 hairbrush



Figure3-4-2-4 Pink bristle brush



Figure3-4-2-5 Filing stick



Figure3-4-2-6 pliers



Figure3-4-2-7 Crepe paper



Figure3-4-2-8 Cannon ball



Figure3-4-2-9Leach paste



Figure3-4-2-10Wood glue



Figure3-4-2-11Red earth



Figure3-4-2-12Gold leaf glue



Figure 3-4-3-1rowhead



Figure 3-4-3-2filigree



Figure 3-4-3-3Laterite brushing



Figure 3-4-3-4leaching



Figure 3-4-3-5overground



Figure 3-4-3-6gilding

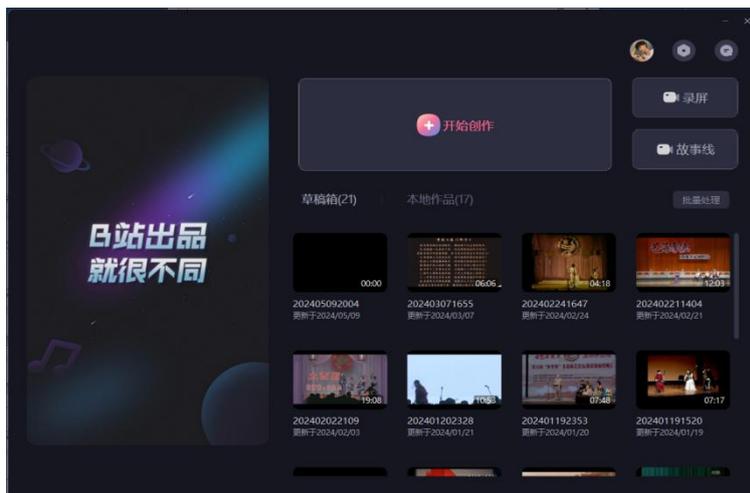


Figure 3-5-1Clip interface

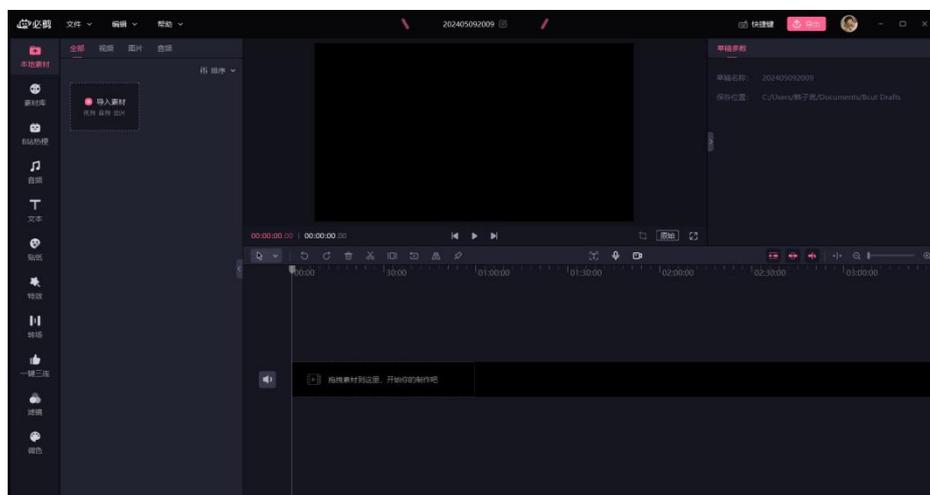


Figure 3-5-2Clipping program