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BACHELOR'S THESIS
on the topic:

Development of packaging for a Chinese brand “Time Slice”

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ABSTRACT

With the development of modern cultural creative art and design, the organic combination of photography art and cultural and creative products is particularly eye-catching. "Cyanotype" refers to the bluestone blue printing process (Cyanotype), a photographic printing technique first invented by British chemist John Herschel in 1842.

This paper focuses on the new exploration of Cyanotype photography technology, a classical technique, in the application of contemporary cultural and creative products, and analyzes its artistic charm. In the whole design, through the Cyanotype technology, the extensive value of the application of Cyanotype technology in the modern cultural and creative field is deeply explored. To show its unique advantages in enhancing the cultural connotation, aesthetic experience and personalized expression of products. The core part focuses on the practical level, and the film is designed in four stages to show different styles, so that Cyanotype technology can be revitalized in the design concept of cultural and creative products, so as to achieve the effect of inheriting classics and leading the trend. Cultural and creative products choose more fashionable and innovative products, so as to deeply integrate and innovate. Poster design is also an important part of this graduation design, not only to convey the effect of information, but also with visual impact. The main purpose of video design is to better convey the production process of Cyanotype, so that readers can have a clearer understanding of its historical connotation, so as to better innovate and inherit.

Cyanotype technology has injected new vitality and possibilities into the design and production of cultural and creative products, not only enriching the appearance and connotation of products, but also meeting the needs of modern consumers for personalization, cultural inheritance and environmental protection.

Key words: Cyanotype process; Product design of Cyanotype; Poster making

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INTRODUCTION

Relevance of the study. In today's rapidly changing era, people's perception of time and the retention of memory are undergoing unprecedented changes. With the rapid development of science and technology, the convenience of digital images has met the needs of instant recording, but it seems to gradually dilute the reality of those emotions and memories that touch the heart. The combination of the time-honored photographic process of "blue sun" and the concept of "time slice" opens a wonderful journey through time and space to explore the aesthetics of memory.

Cyanotype technology, derived from the classical photography process of the 19th century, with its unique blue color and hand-made texture, puts a mysterious and romantic veil on the art of photography. It is not only a product of physical and chemical reactions, but also a magic of time and light, which can freeze the dialogue between natural and artificial traces on the sheet of paper, giving the work the weight of time and the temperature of history. As an important concept in the field of modern art and science and technology, "time slice" aims to capture the moment in the flow of time, show the passage of time and the change of space in a continuous or contrasting way, and guide the viewer to feel the dynamic passage of time in the static picture.

The purpose of the research: Combining traditional Cyanotype processes with modern technology or material handling methods to explore new forms of artistic expression, improve production efficiency, and enhance the visual effect or adaptability of the work. Through slicing technology to achieve more fine and complex pattern design, expand the expression range of Cyanotype art

The research of Cyanotype aims to combine ancient handicrafts with modern technology, not only to preserve and promote traditional cultural heritage, but also to push the boundary between art and technology to create a new art form with historical charm and modern sense.

Research Objectives:**1. Materials Science:**

The effects of different kinds of iron salts and their mixing ratio on the Cyanotype effect were studied. Explore new coating materials to improve image sharpness, contrast, or durability. Analysis of chemical stability and its impact on the environment.

2. Process optimization:

Research optimal exposure times and conditions to ensure consistency and repeatability. Develop new exposure techniques, such as using ultraviolet lamps or other light sources instead of sunlight. Improve coating and rinsing processes to reduce waste and increase efficiency.

3. Creative Application:

Explore the new possibilities of Cyanotype in artistic creation, including combinations with other mediums. Create Cyanotype pieces with a personal style, designed through different typography. Combine digital techniques, such as computer-aided design, to create complex Cyanotype templates.

4. Historical and Cultural Studies:

Investigate the historical background of Cyanotype to learn about its origins and early applications. To study the spread and evolution of Cyanotype in different cultures around the world, and explore the protection and inheritance of Cyanotype as cultural heritage.

5. Sustainability and environmental protection:

Research on how to make the Cyanotype process more environmentally friendly and reduce the use of harmful chemicals. Explore the possibility of using renewable resources and recycled materials.

Through these research objectives, Cyanotype time Slice not only deepens our understanding of this classical technology, but also promotes its innovation and application in a modern context.

The research subject (theme) is use Cyanotype technology to present time slice design.

The object (focus) of the research Through the Cyanotype process to capture and artistically reproduce the iconic moments and emotional memories of college life, the colorful fragments of campus life solidified into a series of Cyanotype works rich in emotional value and visual beauty, presented by typography design and Cyanotype technology.

Research methods. Through literature research, this work made the entire design, including typesetting design of negatives, printing and production of film, chemical reaction principle of Cyanotype liquid and ratio of Cyanotype liquid, post-production of Cyanotype, ultraviolet lamp or sunlight irradiation, post-washing and drying. Use Photoshop software.

Elements of scientific novelty. Cyanotype science integrates novel elements such as digital technology, sustainable materials and biological art in the contemporary era, and crosses traditional boundaries to create vivid interactive, environmentally friendly and forward-looking and personalized art works, allowing classical crafts to bloom into new vitality under the catalysis of science and technology.

Practical significance. In reality, Cyanotype process not only revives the charm of traditional handicrafts, but also promotes cultural inheritance, personalized creative expression and environmental awareness through the integration with modern design and technology, providing unique values and practical cases for contemporary art creation and education.

Structure and volume of the thesis. The thesis consists of an introduction, an abstract, three chapters of text content, each chapter has conclusions and general conclusions, a summary and acknowledgements, 31 documents and appendices (28 pages). It's 78 pages long.

Chapter I

ANALYSIS OF TOPIC SELECTION

1.1 Introductory Of Topic Selection

Four years of college, like a slice of time. This period of time, not only witnessed the transformation from a young man to a mature young man, but also carried the countless challenges, gains and growth of many people's lives. Personal development and maturity is an important part of the college life, which experiences countless collisions and reflections on personality and values. As an important part of human civilization, in modern society, university time has a profound impact on individual growth, social progress and even the development of all mankind. The significance of university goes far beyond education itself; it is a beacon of knowledge, an incubator of civilization, and a catalyst for social change. In today's fast-changing world, universities play a more prominent role and responsibility. They are not only places for the transmission of knowledge, but also the backbone of human civilization and the building of a better world.

This period of time has witnessed the footprints of growth and laid a solid foundation for the future life. I hope I can always remember this wonderful time in my heart and continue to shine my own light on the road of life.

The chemical dialogue between memory and light and shadow is an art and design project that combines traditional craftsmanship with modern creativity, aiming to capture the university stage through Cyanotype, a classic photographic technique, and transform it into a work of art with unique visual and emotional value. This project is not only an exploration of individual or collective memory, but also a tribute to the aesthetics of the passage of time and an in-depth practice

of the innovative application of traditional craftsmanship in a contemporary design context.

With the rapid development of the digital age, traditional manual skills and physical recording methods seem to be gradually fading out of daily life. As a classical photographic technique that can be operated without complex equipment, the Cyanotype process refocuses the artist's eyes with its unique blue color and handmade texture. It not only carries nostalgia for the past, but also shows the trend of finding a slow craft aesthetic in the fast pace of life. These slices are like frames in a film, linked together to form a complete story line.

The Cyanotype process itself is a light-chemical interaction, with sunlight or ultraviolet light prompting a chemical reaction in the iron salt solution that leaves a blue imprint on the carrier. This is not only a physical change, but also a chemical reaction of emotion and time, transforming intangible memories into tangible artistic expressions. On the basis of the traditional Cyanotype process, we explore the application of new materials, such as environmentally friendly paper, special fiber cloth, transparent plastic, etc., and combine modern digital technology to assist design and post-processing, adding more diversified texture and expression to the work.

"Cyanotype Time slice "is not only an artistic creation, but also a practice of cultural inheritance and innovation. It records and inherits human emotions and memories through art, and promotes modern understanding and respect for traditional crafts. In the fast pace of modern life, this project reminds us to slow down and feel the flow of time in a rustic and profound way, as well as the moments that leave traces in our lives.

A unique and creative design project that aims to use Cyanotype technology to solidify life times and memories into slices of fabric, in order to present the life course and emotional experience of individuals or specific themes. Every moment in life is worth preserving and remembering. In this fast-paced era, people often overlook the beautiful things and unique

experiences around them. Therefore, the background of Cyanotype time slice selection is to record every bit of life through art, to fix those precious memories and emotions, and to integrate various scenes and emotional expressions related to the theme into the slice design.

The significance of Cyanotype time slice is that through the form of art, the good times in life are permanently fixed on the fabric, making it an eternal memory. It is not only an emotional memorial to a person's life, but also a witness to the passage of time and a treasure of good memories. At the same time, it is also the inheritance and innovation of the traditional craft, combining the ancient Cyanotype technology with modern life, giving the traditional craft a new era significance. Through the design and production of Cyanotype time slice, it aims to evoke people's memories and cherish of the good times in life, stimulate the expression of personal emotions and cultural identity, and also contribute to the inheritance and development of traditional crafts.

1.2 Purpose And Significance Of This Topic

It is of great significance to use Cyanotype process to make cultural creation. Cyanotype technology itself has a unique artistic effect. The blue tone produced by Cyanotype has a mysterious aesthetic feeling and attraction, giving unique visual charm to cultural and creative works, making them stand out visually and attracting the audience's attention. The cultural and creative works produced by Cyanotype technology show the precipitation and inheritance of history, thus arousing people's nostalgic feelings of the past time, adding the cultural thickness and emotional connotation of the works. Cyanotype technology provides inspiration space and creation possibilities for cultural and creative works, stimulating creativity and imagination. Cultural and creative works can not only pursue the quality of art, but also take into account the value of environmental protection and sustainable development.

As a photography technology with unique artistic effects and historical significance, Cyanotype has the characteristics of rich production process, rich historical and cultural connotation and environmental protection and sustainability. The Cyanotype process, with its distinctive blue color and hand-crafted texture, offers photographers and artists a creative medium different from modern digital photography. Topics are often designed to explore the beauty of nature, architecture, figures or abstract forms, expressing the artist's emotions and perspective through Cyanotype's special visual language, emphasizing the originality and artisanal texture of the art. The purpose of Cyanotype is not only to create beautiful works of art, but also to promote the learning of knowledge, the transmission of culture, the connection of emotions, and the growth and development of individuals and society.

The unique chemical imaging process of the Cyanotype process captures the changes and memories of college time over time. It focuses on using Cyanotype technology to create a series of visual works of art, each of which represents a "slice" on the timeline to connect the past, the present and the future. In the design process, we not only pay attention to the innovative application of technology and materials, but also pay more attention to the deep mining of emotions and stories, trying to stimulate the emotional resonance of the audience through this art form that is intertwined with tradition and modernity, and trigger philosophical reflection on the nature of time, memory and existence.

Precious moments and special experiences in life are permanently frozen on the fabric to record the life course and emotional experience of individuals or specific themes. Emotional memorial and memory freeze, the theme aims to record important moments and good memories in life through the form of art, so that people can forever aftertaste and treasure. Personal growth and development witness, through the selection of topics and slice design, reflect the growth process, learning experience and life stage changes of individuals in a specific period of time, witness personal growth and development. Cultural identity and

emotional expression: The topic selection can reflect an individual's identification and expression of a specific culture, tradition, group or emotion, and strengthen the connection and sense of belonging between an individual and a specific culture or group.

Artistic creativity and aesthetic experience, the topic encourages creators to use creative design techniques to create unique and artistic slice works to enhance viewers' aesthetic experience and artistic enjoyment. The significance of Cyanotype time slice is that through recording, expressing and transmitting important moments and emotional experiences in life, we can realize the commemoration of personal emotions and the fixation of cultural inheritance, emotional commemoration and memory. Every moment in life is worth being treasured and remembered. As an art form, Cyanotype time slice is a kind of art form. These beautiful moments are permanently frozen on the fabric, so that people can always feel the sincere emotion and good memories. The selection and design of topics will reflect the growth and development of individuals in a specific period of time, not only as a witness of personal growth, but also as a review and reflection of important stages in life, which will help motivate people to be positive and pursue self-improvement.

Cultural identity and emotional expression: The content of the topic can reflect the individual's identification and expression of a specific culture, tradition or emotion, strengthen the connection and sense of belonging between an individual and a specific culture or group, and help promote cultural inheritance and exchange. Artistic creativity and aesthetic experience encourage creators to give full play to imagination and creativity in design, create unique and artistic slice works, enhance viewers' aesthetic experience and artistic enjoyment, and enrich people's cultural life and spiritual world. The emotional commemoration and memory of life is not only the embodiment of personal growth and development, cultural identity and emotional expression, but also the

enhancement of artistic creativity and aesthetic experience, which has important social and cultural significance.

1.3 Design innovation points

Originally, Cyanotype is a dyeing and photography process. In ancient China, Cyanotype technology was mainly used to dye cloth, especially to produce sky blue and dark blue cloth. This traditional technique had been recorded in the Han Dynasty and reached its peak in the Tang and Song dynasties, becoming a mature dyeing craft. It not only reflects the ancient people's wisdom in utilizing natural materials, but also reflects the prosperity of handicraft industry and the pursuit of beauty. In the 19th century in the West, the Cyanotype process was given new life by the invention of British scientist Sir John Herschel in 1842, who created this photographic imaging method to reproduce his notes and other documents to produce long-lasting blue images.

In this design, different ways were used to create, tightly around the subject, and novel ways were used in the layout of negatives to make each subject image more different. Farewell to the ordinary paper, the work is displayed in different cultural creation, so that the whole design has new ideas, not only to retain the traditional technology, but also to make new breakthroughs.

Summary of The Chapter I

1. This creation uses Cyanotype technology to commemorate the precious experience of four years in college, which is a critical stage of personal growth and transformation, full of challenges, gains and growth. Cyanotype not only captures the beautiful moments of this time, but also infuses unique cultural value and emotional depth into cultural and creative products through its deep historical and cultural heritage, and inspires respect and continuation of traditions. This project is not only a collection of personal memories, but also an

active exploration of historical inheritance and cultural innovation, reflecting the perfect fusion of art and personal growth stories.

2. The application of Cyanotype technology in the field of cultural and creative works has greatly enhanced the artistic value and cultural connotation of the works. Its unique blue tone gives a unique visual charm and inspires nostalgia and cultural resonance. This technology not only promotes the inheritance and innovation of history and culture, but also inspires the imagination and environmental awareness of the creators, making the cultural and creative products achieve sustainable development while ensuring the artistry, reflecting the perfect integration of tradition and modernity.

3. This design aims to integrate tradition and innovation. Through the application of unique negative typesetting and various cultural and creative carriers, it not only retains the traditional charm of Cyanotype, but also realizes a modern breakthrough in technology and artistic expression, injecting new vitality and significance into this ancient craft.

Chapter II

DESIGN ORIENTATION

2.1 Topic Selection Positioning

Cyanotype is a creative and personalized recording method with delicate and rich layers, as if with traces of time, integrating modern design elements, injecting new vitality into the traditional art form, and showing an artistic dialogue across The Times.

The positioning of the whole style revolves around different stages and carries out different designs. The first stage is clip art style, where images and text are spliced together in a nostalgic way to create a feeling of stepping back in time. Photos of different sizes are carefully arranged and scattered in the picture, with a relaxed and free style. In the second stage, the layout is mainly digital fusion, each photo is independent, but the photos of the background board add atmosphere to the whole picture, on this basis, there are graffiti patterns for decoration, to create a lively and orderly visual effect. In the third stage, circular patterns are interwoven with photographic clips to create visual effects that are both abstract and figurative, exploring the interface between abstraction and the real world. By superimposing the photographs on top of each other, it not only adds visual depth and layering, but also makes the overall design more dynamic and creative. In the fourth stage, each photo seems to be placed in a frame, which is a creative and expressive design technique, as if each photo is telling its own story, forming a unified and interesting story wall as a whole, and more importantly, building a multi-level and in-depth visual narrative space to feel the rich emotions and stories behind it.

Given the artistry and technicality of the Cyanotype process, the topic selection should focus on exploring how this classical technique can be

integrated with modern design concepts. Consider how Cyanotype's blue tones, high contrast and hand-crafted textures can be used to create pieces that are both classically beautiful and contemporary. While Cyanotype has traditionally been used for paper and cloth, topics can explore more innovative media, such as fabrics with different textures, wood, glass or metal, and even try to combine digital technology to create mixed media, in order to challenge traditional boundaries and broaden the application of Cyanotype. Consider designing projects that engage the audience, such as workshops, public installations or interactive exhibitions, to make Cyanotype a bridge between creators and audiences, enhancing the social impact and educational value of art.

2.2 Research And Discussion

In this design, the author found that Cyanotype is not only applied to paper, but also can be created on different materials, such as cloth, wood, glass and even metal, etc. The combination of textures of different materials and Cyanotype effect can bring new visual and tactile experience . Learn from Li Danwen's point of view: Since the mid-19th century, many photographic artists have continuously practiced, explored and innovated photographic techniques, creating a wealth of photographic techniques, including Cyanotype process, Zia process, iron silver printing process, glass plate process and other printing processes. Cyanotype process is a unique photographic art formed under the background of The Times at that time. The traditional Cyanotype process, also known as cyanotype photography, was invented and created by Sir John Herschel, a famous British astronomer, chemist and photographer. Sir John Herschel also invented many influential technologies such as hyperfixing and platinum printing, and also proposed photography, positive film, negative and other photographic terms. Sir John Herschel discovered in 1841 that many iron compounds can be sensitized, and thus invented the Cyanotype process.

Cyanotype process, as a classical photographic technique, uses contact transfer technology to achieve exposure through ultraviolet irradiation. With the continuous development of the present, the design form can also break through the traditional plane limitations, try three-dimensional devices, and enhance the expression of the work^[1]. (As shown in Figure 2.1)

The Cyanotype process is an ancient and classic photographic printing technique. Through simple and poetic photochemical reactions, the image is fixed on the material, leaving an iconic blue imprint. Since the 19th century, the process has not only played an important role in the production of engineering drawings over hundreds of years, but also gradually evolved into a unique art form favored by many artists and designers.

The research activities of the application potential of Cyanotype process in the field of modern design are deeply explored to provide theoretical support and practical guidance for design innovation. Understand its development process, grasp the cultural heritage and artistic value of Cyanotype process, and inject historical depth and cultural breadth into modern design. The Cyanotype process is known for its unique blue tone, which gives the work a calm, retro aesthetic, and the research explores the material selection and post-processing to create a rich and varied visual effect.

As technology advances, the Cyanotype design continues to evolve. The research will focus on how modern technology can help Cyanotype process innovation, such as the combination of digital design and traditional Cyanotype, and will also examine the use of environmentally friendly materials, respond to sustainable trends, and explore how to achieve a green transformation of Cyanotype design without sacrificing artistic effects.

The survey reveals the application status of Cyanotype design in various fields, such as home decoration, fashion accessories, art collection, brand marketing, public art projects, etc., to meet consumers' acceptance of Cyanotype

[1] Li Danwen. The Application of traditional blue print photography Technology in modern cultural and creative products [J]. Shanghai Packaging, 2023.

design, including their aesthetic preference, cultural identity and purchase intention, and to provide data support for market positioning and product development.

The Cyanotype Design Survey looks to the future to see how the Cyanotype process can maintain its unique charm in a rapidly changing design environment, anticipating changes in technology, materials and aesthetic trends. Pay attention to identifying possible challenges, such as technology adoption, cost control, copyright protection, etc.

Cyanotype design research is a systematic and forward-looking research process, which not only deepens our understanding of the nature of Cyanotype process, but also provides a rich source of inspiration and strategic guidance for design practice, and promotes this ancient process to continue to bloom new vitality in the field of modern design.

The chemical reactions of Cyanotype include the composition of the photosensitive agent (such as iron salts), the REDOX reaction after exposure, and the resulting Prussian blue compound. Cyanotype production steps: including material preparation, coating, exposure, development, fixing and other steps. The chemical reaction principle of Cyanotype method is mainly based on a photochemical process involving two key chemicals: ferric ammonium citrate and potassium ferricyanide.

1. Chemical reagent preparation (as shown in Figure 2-1) :

Ferric ammonium citrate (usually in solution form and containing the divalent iron ion Fe^{2+}).

Potassium ferricyanide (containing the ferricyanogen ion $[\text{Fe}(\text{CN})_6]^{3-}$).

2. Mixing and coating: Mix an equal amount of ferric ammonium citrate solution with a solution of potassium ferricyanide to obtain a solution containing uncoordinated divalent iron ions and ferricyanide ions. This mixture is photosensitive and can be coated on paper, fabric or other materials as a photosensitive layer.

3. Exposure: The material coated with the mixture is exposed to ultraviolet light. In doing so, the energy of light induces the oxidation of the bivalent iron ion (Fe^{2+}) in the ferric ammonium citrate into the quality of Fe^{3+} .

4. Chemical transformation: The oxidized ferric ion reacts with the ferricyanide ion in potassium ferricyanide to form the water-insoluble, deep blue compound, ferricyanide (also called Prussian blue, chemical form $\text{Fe}_4[\text{Fe}(\text{CN})_6]_3$)

Development and fixation: After exposure, the unilluminated part remained as a mixture of ammonium ferric citrate and potassium ferricyanide, while the illuminated part turned blue due to the chemical reaction. The unreacted chemical substances can be removed by washing, leaving only the blue pattern to complete the development.

In summary, the Cyanotype method takes advantage of the catalytic effect of light on a chemical reaction, by controlling the exposure of light, the chemical composition of a specific area changes, resulting in a permanent blue image on the medium. The Cyanotype process not only carries rich historical and cultural values, but also shows strong vitality and innovative potential in contemporary society. (As shown in Figure 2.2)

Summary of Chapter II

1. According to the positioning of the topic of this paragraph, the application of Cyanotype art in modern design shows its unique charm. Through the interpretation of four creative stages, the clever integration of tradition and modernity is realized. The collage style evokes nostalgia, taking the viewer through time and space with random splicing of images and words. The digital fusion stage combines the background atmosphere and graffiti decoration with a clean and independent photo layout, showing a modern atmosphere that is both orderly and lively. The interweaving of circular patterns and photographic

fragments creates a visual wonderland where abstract and figurative coexist, enhancing the depth and movement of the work. The frame design gives each photo an independent narrative identity, builds a visual narrative space with both story and hierarchy, deeply conveys the emotion and story behind each work, and thus the overall design becomes both unified and full of changes, realizing the artistic dialogue and innovative expression across The Times.

2. By analyzing the historical evolution, process flow, artistic expression of Cyanotype technology and its innovative application in modern design, the research of Cyanotype reveals the cultural value, aesthetic significance and sustainable development potential of this traditional technology in contemporary society, and emphasizes its role as a bridge between the past and the future. Cyanotype method (Cyanotype) as a classical photographic process, its production process can be summarized as: The chemical reaction of placing an object on paper or cloth coated with a light-sensitive iron salt solution, exposing it to sunlight and rinsed it with water, thus leaving a permanent blue image on the background, has resulted in a photographic art form that is both historic and aesthetically unique.

Chapter III

DESIGN PROCESS

3.1 Design Ideas

The design idea revolves around the uniqueness of the Cyanotype process, combining this traditional process with modern design concepts to create creative works with artistic beauty and rich cultural heritage. The whole university story is told through the Cyanotype works, and the combination of images and words around a specific theme can touch the heart and arouse resonance.

In post-production, Cyanotype was used as the medium to capture and present the chapters of university life in detail, and blue reagents were blended to lay the foundation for the finished products. The photos are cleverly arranged according to the different stages and emotional colors of the four years of college, each stage has its own unique style. The photos of different stages are typesetted and then transferred to film. After the completion of the production, a series of cultural and creative products with different shapes and full of creativity came into being, not only carrying the memory of youth, but also showing the perfect integration of traditional craft and modern creativity, which engraved an eternal artistic mark for this precious time.

As an art form that combines traditional craftsmanship with modern creativity, Cyanotype's design ideas revolve around several core elements to ensure that the creation inherits the historical charm of blue Sun while incorporating contemporary aesthetic and technological innovations.

The exploration of culture and history is an important starting point for the design of Cyanotype. Draw inspiration through an in-depth study of the origin, development and application of the Cyanotype process in different cultures and historical periods. Enhance the cultural connotation of the works, so that the

viewers can feel the precipitation of time and the thick of history while appreciating the art. The integration of nature and environment is the unique advantage of Cyanotype process. The blue tones of Cyanotype harmoniously coexist with the colors of nature.

Focus on environmental issues, use Cyanotype to record changes in the natural environment and convey the awareness of ecological protection. Innovation in materials and technology is the key to modernizing Cyanotype's design. While retaining the essence of the traditional process, exploring the application of new materials (such as environmentally friendly dyes, special papers or non-traditional substrates) and technological innovations (such as digital technology-assisted design, diversification of exposure methods) can revitalize Cyanotype art. This cross-boundary attempt not only enriches the expression of the works, but also injects new vitality into the traditional skills.

The construction of emotion and narrative is the core of the soul of Lanxuan works. Personal memory design focuses on conveying deep emotions and stories behind images so that viewers can empathize with them. Use the characteristics of Cyanotype, such as its characteristic tone and texture, to create a nostalgic, dreamy or contemplative atmosphere and enhance the impact of the narrative. Interactive and experiential design adds participation and interest to Cyanotype art. Design can include workshops, interactive exhibitions, etc., learn about the charm of the craft, and even make your own works. Such design ideas not only learn Cyanotype knowledge, but also promote the emotional exchange and cultural sharing between art and the public.

The design idea of Cyanotype should comprehensively consider various factors such as culture, nature, technology, emotion and interaction, aiming to create art works with both traditional beauty and modern aesthetics and values through this classical craft, so as to find a perfect balance between inheritance and innovation.

Through innovative artistic expression techniques, we capture and show those fleeting and precious moments in college life, weaving four years of learning, growth, friendship and dreams into visual memory chapters. Rooted in the deep understanding and emotional resonance of the four years in college, through the concept of "time slice", this journey full of change and growth is broken down into a series of representative moments, each piece of "slice" carries specific emotional value and life fragments, and jointly Outlines the trajectory of personal growth. At the beginning of the design, it established the emotional tone of nostalgia without losing hope, recalling and encouraging the forward, aiming to touch the heartstrings of every participant.

In terms of visual design, Cyanotype technology is introduced as a core element, using its unique blue color and handmade texture to create a series of works with a strong sense of art and time traces. From the beginning of school to the maturity of graduation, we select representative scenes or objects every year, such as library pages, test tubes in the laboratory, running tracks in the playground, etc., and make limited-edition postcards, posters or ornaments through Cyanotype process, each piece of work becomes a unique time stamp. At the same time, combined with modern digital technology, the static Cyanotype image "comes to life", tells the story behind it, and increases the interactivity and interest.

The design emphasizes interactive experience and builds a "time corridor", which distributes the key nodes of the university four years on both sides of the corridor in the form of objects, photos, videos, etc. The audience can walk along this "time axis" and touch those frozen moments to awaken personal memories.

In material selection and production, recyclable or biodegradable materials are used to reduce the impact on the environment. The design works themselves are also seen as part of sustainability and encouraged to be recycled or transformed into art collections with long-term preservation value, making this "slice of time" a timeless witness.

Through the deep integration of creativity and emotion, the "Four Years of College" design project not only records the growth process of individuals and collectivities, but also promotes the interaction of art, technology and emotion, and builds a memory space of the university that is both memorable and rich in humanistic feelings.

3.2 Preparation Process Of Blue Tanning Solution

The preliminary preparation of Cyanotype liquid is a meticulous and critical process, which is directly related to the success of subsequent Cyanotype works. This stage mainly includes the preparation of the solution, the selection of materials and the preparation of the working environment, and each step needs to be carefully executed.

First of all, the precise proportion of Cyanotype solution is the basis for the successful creation of satisfactory literary and creative works. Cyanotype solution is usually a mixture of two chemical components, ammonium ferric citrate and potassium ferricyanide, in a certain proportion. The correct ratio is 1:1, which is to mix equal parts of a solution of ferric ammonium citrate with a solution of potassium ferricyanide. Ammonium ferric citrate is responsible for providing divalent iron ions that can be activated by light, while potassium ferricyanide provides ferricyanide ions. In order to ensure adequate reaction and clear image, the volume of both solutions must be accurately measured and operated in a darkroom environment to prevent the solution from failing due to early exposure.(As shown in Figure 3.1~3.2)

Secondly, the ideal substrate material should be white and moderate water absorption, such as watercolor paper, cotton or photo paper. Choose the right material according to the creation needs, pre-cut to the required size, and make sure that the surface is clean. Prepare brushes, gloves, masking material, clips and acrylic sheets to hold the material in place, including UV lamps are a good

tool to simulate UV exposure, and plenty of water for later development .(As shown in Figure 3.3)

The setting of the dispensing environment cannot be ignored. Choose a well-ventilated and light-controlled area to work in, especially when mixing Cyanotype liquid and coating operations need to be carried out in the absence of direct light. Prepare a flat work surface, lay a waterproof tablecloth to protect the table top, and have all the necessary tools and materials ready to facilitate the continuous operation of the process, safety measures are an integral part of the entire preparation stage. The preparatory work of Cyanotype fluid is a comprehensive and detailed process that requires a rigorous attitude and careful planning to lay a solid foundation for the following artistic creation.(As shown in Figure 3.4)

3.3 Negative plate

Collage layout design is not only a core link in visual art creation, but also a bridge connecting form and content, artists and audiences, whose far-reaching significance is reflected in multiple dimensions.

It is the architect of visual narrative. Through the position arrangement, proportion adjustment and visually oriented design of different elements, typesetting gives the narrative logic of timeliness and space to the collage. Such a design can not only guide the audience's attention flow in an orderly manner, but also tell a rich story in silence, convey delicate emotions and profound thoughts, making the viewing process a spiritual journey.

As the key to aesthetic construction, typographic design pursues the balance of harmony and impact. It is like the tuner to music, through color contrast, texture matching, blank application and other techniques, adjust the visual weight, create a unified and varied visual effect, enhance the artistic charm and appeal of the work. Good typography can make the original

independent fragments of materials merge into an organic whole, and realize the transformation from clutter to order, from ordinary to extraordinary.

Typographic design plays a crucial role in the communication of information. It effectively organizes information through hierarchical layout strategies such as emphasis, alignment, grouping, etc., so that core concepts are highlighted and auxiliary information is properly set off, ensuring that the viewer can quickly capture the main idea of the work while enjoying the fun of exploring the details. This kind of design thinking helps to improve the efficiency and depth of information transmission and make artistic expression more accurate and powerful.

Typographic design is also a direct expression of the artist's personality and creativity. On this free stage, designers can break the traditional framework, experiment with new composition rules, and show unique aesthetic perspectives and philosophical thinking through non-linear narrative, surreal combination or minimalist layout. Each typesetting choice challenges and surpasses the existing norms, reflecting the artist's inner world and unique interpretation of the spirit of The Times.

The layout design of collage is not only a technical operation, but also the soul of artistic expression. It profoundly affects the connotation and extension of works by constructing the logic of visual language, shaping aesthetic experience, optimizing information structure and demonstrating personality style, making collage art a bridge across time and space and connecting people.

3. 3.1 Brafilm Typesetting And Production

(1) The use of clip art style to make the picture full of interesting and creative art form. This style originated from the traditional craft of making scrapbooks by hand and has now become a popular means of artistic creation.

The first year is typographically lively, consisting of a collage of multiple photographs, each of which is accompanied by a text caption. The overall style of typography is mix-and-match and informal, with photos varying in size, orientation, and placement, which gives a relaxed and casual feel. The design is meant to reflect the variety and emotional richness of freshman life, telling different stories and memories through different combinations of photos and text. From the point of view of emotion and atmosphere, different moments in life are captured through typographic expression. To present a vivid and diverse visual experience, including the mundane details of daily life, showing precious memories of special moments. Together, they form a colorful visual narrative, reflecting the joys and sorrows of life and various emotional experiences.(As shown in Figure 3.5~3.14)

(2) Using the style of photography, hand-painting and digital art, the layout is relatively smooth, but through the embellishment of graffiti, more distinctive personality and creativity.

The collage display in the sophomore year is different from that in the freshman year. The combination of styles shows youthful vitality and individual expression. The colors are bright, the layout is beyond tradition, the decoration is more interesting, and the decoration is full of emotion and sense of The Times. Each collage consists of several small pictures. In addition to the actual photos, many lovely graffiti elements and emoticons are also added, making the whole collage appear very vivid and interesting. Through clever layout and element matching, experiences and emotions are integrated into the work, which is highly personalized visual expression.(As shown in Figure 3.15~3.19)

(3) The use of more regular collage, increase the sense of layer of the picture, the overall design style is simple without losing personality, each element will better combine the picture.

In the third stage, this group of typesetting uses round patterns of different sizes as embellishments to make the picture more lively and create a simple and fashionable feeling. The layout highlights the close-up of the characters, combines the characters with the environment, presents different atmosphere, full of personality and vitality, and attracts people's attention through the use of different composition skills and light and shadow effects. In the close-up photos, the eyes and expressions of the characters are incisively and vividly, making people feel strong emotional resonance and creating a mysterious and profound atmosphere.(As shown in Figure 3.20~3.24)

(4) The overall layout is relatively orderly, with many subtle changes in details. The entire layout has a clear visual level, which makes the space between the photos evenly distributed and enhances the overall sense of balance.

The fourth stage shows the beauty of rigor, formality and order, arranged in a strict grid structure. Together, they form a colorful picture of life, making people feel the diversity and beauty of life. The small photos in each grid are the same size, ensuring visual unity, making the whole picture look harmonious and orderly, presenting rich life fragments and diversity. The clear structure of the layout, strong contrast of color matching, consistent size and positive emotions conveyed are all echoed with the bright future of graduation.(As shown in Figure 3.25~3.29)

3.3.2 Film Printing

Print these typeset photographs into film, also known as negatives. Film is an integral element in traditional photography, print platemaking, and certain special manufacturing processes, where the design pattern is converted to a suitable black and white image and adjusted to the desired print size, and transparent film is printed, using a high-resolution laser or inkjet printer to print

the pattern onto the transparent film. Make sure the print surface is clear and spot free. To prepare for exposure, line up and secure the transparent film with the photosensitive film in preparation for exposure. For exposure and development, place the combined film piece into the exposure machine and set the exposure time according to the film type and thickness. After exposure, use the developer for development, and the development time is also adjusted according to the film specifications.

Film, also known as film or negative, is a traditional light-sensitive material, widely used in printing, plate making, photography and other fields. Its basic composition consists of a transparent film substrate coated with a photosensitive emulsion (drug film) that chemically changes after exposure to light to record image or graphic information. Film film can be divided into Yang film and Yin film according to the use, the drug film of Yang film is located at the bottom, often used for printing plate such as PS plate production; The film of the negative film faces upward, which is suitable for the plate making process under specific conditions, such as the production of resin plates.

In the printing industry, film is an integral part, it carries CMYK four colors (cyan, magenta, yellow, black) or spot color information, through the printing process to transfer to the printed plate, to ensure that the final print color accurate and clear pattern. Each film corresponds to a color layer, and accurate counterpoint is superimposed to form a complete color image.

It is worth noting that with the development of digital technology, although many fields have gradually adopted electronic documents and direct imaging technology to replace traditional film, but in some high-quality printing, art reproduction and specific industrial manufacturing processes, film is still retained for its unique quality and process characteristics. In addition, because the film contains precious metals such as silver, the discarded film also has the value of recycling, and precious metals can be extracted from it to achieve the recycling of resources.(As shown in Figure 3.30)

3.4 Production Of Cultural And Creative Products

Cyanotype as a classical printing technology, its application in modern cultural and creative products not only retains the charm of traditional craft, but also realizes the living heritage of culture through the combination of contemporary design concepts. This way of blending the old and the new allows the traditional culture to be displayed in a form closer to the modern aesthetic, satisfying the modern consumers' pursuit of cultural depth and artistic beauty. By incorporating Cyanotype elements, cultural and creative products can stand out among many homogenized goods and attract consumers seeking unique cultural and artistic experiences.

The design of Cyanotype cultural and creative products is an artistic practice that integrates classic technology and modern creativity. It is not only a simple reproduction of traditional Cyanotype technology, but also through innovative thinking and technical means, the imaging process originated in the 19th century is transformed into a cultural and creative quality that meets the contemporary aesthetic and functional needs.

The modern expression of cultural heritage, Cyanotype technology, with its iconic Prussian blues, bearing the traces of time and the poetry of nature, provides a rich cultural soil for cultural and creative design. Dig deep into the historical origin and cultural background of Cyanotype, integrate the whole university time into the design, and create a product with both historical depth and modern flavor. This design not only retains the unique charm of Cyanotype process, but also feels the temperature and thickness of culture in use.

It is an innovative attempt of cross-border integration. Cyanotype cultural and creative product design emphasizes cross-border and integration, and is not confined to a single material or form. Actively explore the combination of blue sun and different materials, the use of modern technology (such as digital design,

laser engraving) to enhance the expression, to create a variety of Cyanotype effects. This crossover attempt not only broadens the application field of Cyanotype, but also injects fresh vitality into the traditional process, making it shine in many fields such as fashion accessories, home decoration, office stationery and so on.

Environmental protection and sustainable practice, in today's increasing awareness of environmental protection, the design of Cyanotype cultural and creative products also actively respond to this global issue. The use of environmentally friendly materials, the promotion of recyclable production methods, and the advocacy of zero-waste packaging design have become important trends in this field. Through the Cyanotype process, it shows people the harmonious coexistence of nature and art, conveys the respect and care for the earth's ecology, and attracts more and more groups who pay attention to green consumption.

As consumers' demand for personalized products grows, Cyanotype cultural and creative product design also follows the trend and provides customized services. Whether it is a family memorial, corporate gifts or personal collection, consumers can participate in the design process, choose the desired pattern, text or even personally produced, so that each product becomes a unique emotional sustenance. This participatory experience enhances the emotional connection between users and products, and enhances the added value of cultural and creative products.

Cyanotype cultural and creative product design is a diversified design field integrating cultural inheritance, technological innovation, environmental protection concept, personalized experience and social communication. It not only gives new life to the traditional craft, but also brings unique aesthetic enjoyment and cultural value to modern life.

3.4.1 Group Fan

As a cultural creative product, Cyanotype group fan skillfully combines traditional Chinese crafts with classical Western photography techniques, showing unique artistic charm and cultural value. As a traditional Chinese handicraft, Cyanotype group fan carries profound cultural symbolic meaning and aesthetic taste, and is often regarded as a symbol of elegance and nobility. The addition of Cyanotype technology has injected new life into this traditional carrier. The collision of skills between the East and the West not only retains the classical Chinese aesthetics, but also integrates the spirit of exploration in Western art, showing the innovative results of cross-cultural communication.

Cyanotype cultural and creative design, as a wonderful combination of traditional craft and modern creativity, not only revives the elegant charm of ancient Chinese fan culture, but also gives new life and visual impact to this classical art form through the innovative application of Cyanotype technology. Group fan has been one of the symbols of Eastern culture since ancient times, carrying rich historical stories and aesthetic interest. Cyanotype technology brings new expression methods for artistic creation. The combination of the two is not only a tribute to traditional culture, but also an exploration of modern aesthetic and innovative spirit. The Cyanotype technique is adopted on the fan surface, which not only retains the traditional shape and cultural connotation of the group fan, but also integrates the simple lines, abstract patterns or personalized creative elements of modern design, making it an artistic bridge connecting ancient and modern times.

One of the highlights of Cyanotype cultural and creative design is its high degree of personalized customization. Personal stories are frozen on the fan surface by Cyanotype technology, making them into collections with special significance. With unique cultural charm and artistic value, it is not only loved by consumers at home and abroad, but also becomes an effective way to

promote Chinese traditional culture. In various cultural exhibitions, tourist attractions, art fairs and online platforms, Cyanotype cultural and creative products always attract attention and become popular souvenirs and cultural consumer goods. Its market potential is not only reflected in the field of cultural gifts, art collection, but also extended to fashion accessories, home decoration and other areas of life, showing a good cross-border integration ability and business prospects.(As shown in Figure 3.31~3.32)

3.4.2 Pebbles

Cyanotype technology is applied to the badge to create a unique work of art, a creative combination that not only shows the message, but also incorporates the unique charm of photography. Badge as a kind of decoration, the creative expression of traditional Cyanotype craft combined with badge design skillfully integrates the beauty of classical craft and the creativity of modern design, adding unique artistic value to badge collection, brand identity, souvenir design and other fields. The distinctive blue tone of Cyanotype technology is used to create a retro and elegant visual effect that complements the traditional allegorical and commemorative nature of the badge.

The Cyanotype Handmade badge, as a unique expression of creative handicrafts, cleverly combines traditional Cyanotype craftsmanship with modern badge design to create personalized ornaments that are both retro and stylish. This design field not only inherits the ancient handicraft technology, but also integrates the innovative concept of modern design, opening up a new way for cultural inheritance and artistic creation.

The process of making a hand-made Cyanotype badge usually involves the following steps: selecting cardstock suitable for dyeing, sizing it, and ensuring that it fits the badge shell properly. The prepared natural blue indigo dye is mixed with an appropriate amount of water, the Cyanotype liquid is applied on

the cut paper, dried in the darkroom, the film is placed on the paper, and the sun shines until the ideal blue depth is reached. Under certain climatic conditions, sunlight will promote the oxidation reaction of the dye, making the blue become more vivid. After drying, it needs to be rinsed to ensure lasting and stable dyeing effect. The handmade Cyanotype badge is highly regarded for its unique craftsmanship and elegant blue color. It is not only visually beautiful, but also has cultural and historical connotations. In modern times, although many industrial dyeing methods have emerged, the handmade Cyanotype badge is still loved by people because it represents a combination of traditional craftsmanship and exquisite craftsmanship.(As shown in Figure 3.33~3.34)

3.4.3 Butterfly Device

The butterfly itself has a beautiful shape and unique pattern. Combined with the Cyanotype process, it not only shows the beautiful posture of the butterfly, but also adds an artistic atmosphere. The butterfly installation combined with the blue sun design is an innovative form of artistic expression, and the light and graceful butterfly image is artfully integrated with the time-honored Cyanotype process to create a natural beauty. Installation art works full of cultural depth. Use hand kneading paper, iron wire and hot melt gun to cut out the shape of the butterfly, fix the middle with iron wire, and assemble each piece after production. Butterfly installation is designed to interact with the environment, using space, light and shadow changes to enhance the expression of the work, combined with Cyanotype use of natural light changes, so that the work in different periods of time to present different visual effects, to create a changing art experience with the passage of time.

The Cyanotype butterfly installation is made by hand, so its value is very high, so this work also gets a lot of attention. This is a good way of cultural inheritance, which can not only beautify the environment, but also pass on

culture, letting people know that Cyanotype butterfly is a very new way of cultural inheritance. Cyanotype butterfly is a kind of art in Chinese traditional culture, it is a unique art form, because of its uniqueness, so many people like it. The design of Cyanotype butterfly installation can make us better understand Chinese traditional culture, because it can make us better understand Chinese traditional culture. The purpose of the Cyanotype butterfly installation is to show people the traditional Chinese culture, and also to make people better understand the traditional Chinese culture. As an ancient dyeing process, Cyanotype technology represents the inheritance and continuation of traditional culture and technology. The butterfly, as a design element, has a modern sense and fashion. The combination of the two not only demonstrates the deep heritage of tradition, but also gives the design work a novel atmosphere of The Times. This combination is not only reminiscent of the natural blue sky, white clouds and butterflies dancing, but also gives the design work a poetic and romantic sense of art.

It is not only immersed in the beautiful visual enjoyment, but also causes people to pay attention to and think about traditional culture. This design not only has decorative and aesthetic value, but also inspires people to cherish and protect the traditional craft. The design significance of the combination of hand-made butterfly and Cyanotype technology is to create a unique art form, which not only inherits the traditional craft, but also shows the modern aesthetic and cultural connotation, bringing the double enjoyment of vision and soul to people.(As shown in Figure 3.35~3.37)

3.4.4 Postcard

A Cyanotype postcard is an emotional and cultural transmission, carrying the memory of a particular place, the footprint of a trip or the atmosphere of a particular festival. The handmade process and the background of classical craft

make Cyanotype postcards a carrier to display cultural characteristics and handicraft charm. The creative product combining traditional craft and modern emotional transmission needs is the display of visual art and the inheritance of culture and emotion, which has high artistic appreciation value and collection significance.(As shown in Figure 3.38~3.39)

3.5 Costume Production Design

According to the views of Hou Qianqian, Li Wenxi and Zhao Meihua, in recent years, Cyanotype process has gradually shown a trend of development to the field of textile and clothing, mostly by changing the type of imaging carrier, pattern elements and color adjustment, so that Cyanotype process can successfully develop imaging on natural fabrics such as cotton and linen, and realize the combination with textile fabrics. The Cyanotype process has the same simple and elegant classic blue as the traditional folk blue printing process with high aesthetic value. Many studies have modded a variety of gorgeous colors by exploring toners, but there are few studies on the dyeing performance of the fabric carrier transferred by the Cyanotype process. In order to highlight the advantages of simple operation of Cyanotype process, a new exposure method is often introduced to improve the finished product efficiency of Cyanotype process printing. On the basis of commonly used cotton fabrics and traditional patterns of water patterns, the feasibility of photocatalytic reaction meter with stable internal conditions is explored. By exploring the influence of many factors on the finished image effect during the exposure process of the new exposure method, the imaging conditions of each factor were optimized to realize the accurate and rapid transfer of Cyanotype pattern. Finally, combined with the pigment attachment, the performance test was carried out on the raw cotton fabric and the three kinds of fabrics under optimized conditions, namely plain dyeing (without pattern) and printing (with pattern), in order to provide reference for the innovative extension of Cyanotype process in the design of

finished textile and apparel products^[2]. Therefore, the cultural and creative design of cotton fabric is the combination of ancient technology and modern.

(1) Cloth bag

Cloth bag creation integrates the typographic design concept into the production, Cyanotype process gives full play to its characteristics, and combines the art form with the bag design to create products with strong artistic beauty, making ordinary cloth bags become fashion items carrying culture, art and style. The cloth bag is not only artistic, but also has very strong practical function, which makes the Cyanotype design more characteristic. (As shown in Figure 3.40~3.41)

(2) Cotton woven T-shirt

Cyanotype's cotton woven T-shirts combine the beauty of traditional craft with the practicality of modern clothing, showing a unique artistic charm and design concept. In a retro blue tone, the cotton woven T-shirt shows the precipitation of time and the elegance of art. The combination of ancient handicraft and modern clothing design is a fresh retro trend, which makes the design stand out, highlight personality and taste, and emphasize the uniqueness and unrepeatability of hand-made. (As shown in Figure 3.42~3.44)

3.6 Poster Design

Due to its unique blue color and classical craft beauty, Cyanotype poster design uses the retro characteristics of Cyanotype to design posters about the passage of time and memories. Blurred image edges and superimposed date text create an atmosphere of going back in time.

In terms of graphics, the abstract style is used to form a simple and rhythmic typeset, and the combination of points, lines and surfaces is used to form irregular geometric figures, highlighting the characteristics of Cyanotype

[2] Hou Qianqian, Li Wenxi, Zhao Meihua. Blue sun printing of cotton fabric under photocatalysis [J]. Journal of Textiles, 2022, 43 (04): 110-116. (in Chinese)

process, forming changes in depth and depth, and creating a rich sense of hierarchy and space. Cyanotype is combined with hand-painted, collage and other art forms to form multi-texture graphics, increasing the visual complexity and depth of the poster.

In the institutional layout, break the conventional symmetrical layout, through the change of size, density, color depth, create a visual dynamic balance, make the poster look more lively and interesting. Under Cyanotype's unique dark blue background, white space is cleverly used to guide the audience's sight, highlight the theme information, and make the core graphics or text more eye-catching. Through the overlap of graphics and the change of transparency, the visual space of hierarchy is constructed to increase the depth and three-dimensional sense of the poster.

The poster is a 1.5 meter *2 meter large poster, the production process is relatively complicated, Cyanotype is an ancient traditional process, through the use of blue dye on the fabric printing and dyeing, forming a unique blue pattern. Making Cyanotype posters can help pass on this traditional craft and make more people understand and value this ancient cultural heritage. Cultural exchange and dissemination, Cyanotype poster is not only a work of art, but also a carrier of culture. It can convey the values, traditional symbols and folk customs of a specific culture, and promote the exchange and understanding between different cultures.

The display of artistic aesthetics, Cyanotype poster with its unique art form and aesthetic characteristics, shows the artist's aesthetic pursuit and creative talent. Through the display of posters, people can appreciate the beauty and unique charm of Cyanotype craft, and enhance their appreciation and understanding of art. Cyanotype posters can also become a medium for education, inheriting and promoting excellent national culture. Environmental protection and sustainable development, Cyanotype posters are made of natural blue dyes and cotton materials, which are relatively environmentally friendly

and sustainable. The production and use of Cyanotype posters can promote the dissemination and promotion of environmental protection concepts and reduce the negative impact on the environment. The significance of Cyanotype poster is not only to inherit and display traditional crafts and culture, but also to reflect the aesthetic pursuit of art and social responsibility, while having the characteristics of environmental protection and sustainable development, it is a multi-functional cultural product integrating art, culture and social values.(As shown in Figure 3.45~3.49)

3.7 Poster Design

Video production is a comprehensive process that covers creative planning, scripting, and actual shooting through to post-editing.

The video is mainly the process of conveying Cyanotype technology, so as to determine the style content of the video, and the core of the video is to show the entire design process of Cyanotype. Plan the content and write the script, including the picture, dialogue, action and transition mode of each scene, which are clearly marked to ensure the narrative logic is clear and compact. Before shooting, you need to be fully prepared, camera, tripod, lighting equipment, microphone, other needed props and costumes, casing the site before shooting, arranging lighting, and ensuring that the ambient light and background are in line with the video atmosphere.

Capture a variety of camera angles and details during shooting, enrich the material, use PR for editing in the post editing, arrange the sequence of shots, add transition effects, adjust the whole video atmosphere, add appropriate letters, make the whole video clear and smooth.

Combining cultural inheritance and innovation, Cyanotype technology, as a kind of traditional Chinese craft, has a long history and profound cultural connotation. By applying Cyanotype technology to card making, it not only

continues the essence of the traditional process, but also gives the traditional process a new era significance and vitality. The process of making collages requires the creator to skillfully use a variety of materials and elements, combining them together to form a picture with beauty and meaning. The production of Cyanotype cards can not only use Cyanotype technology to create a unique blue background, but also combine collage elements with the blue background to create a unique charm of art.

Cyanotype collage cards can be personalized according to different occasions and purposes. Through hand-made methods, the cards are given a unique emotion and temperature, which can better reflect the maker's intentions and care, and increase the expression of emotions.

Hand-made Cyanotype collage cards are usually made from natural materials and traditional techniques. This method of production can also encourage the preservation and inheritance of traditional crafts, promoting cultural diversity and sustainable development. The production of collage Cyanotype cards not only has the significance of cultural inheritance and innovation, but also brings more colorful life experience and emotional communication to people through artistic expression, personalized design, emotional expression and environmental protection and sustainable development.

Summary of chapter III

1.The design idea focuses on the fusion of classical charm of Cyanotype process and modern design concept, aiming to narrate a complete chapter of university memory through this unique art form. The core of the project is to use Cyanotype technology to capture and artistically express every moment of university life, skillfully combine tradition and innovation, and create works rich in beauty and deep cultural significance. Carefully selected images and words

complement each other, and together weave fascinating stories, touch the heart and inspire resonance. In the process implementation phase, Cyanotype technology becomes a bridge between the past and the present, through the careful preparation of reagents and the magic of light, the colorful chapters of the university four years are permanently sealed in a unique blue tone. According to the characteristics and emotional changes of each stage, the layout of the photographs is flexible, and each section expresses its own unique style, forming a series of visually coherent but stylized chapters. This process is not only limited to graphic design, but also extends to film transfer, laying the foundation for the subsequent development of cultural and creative products. A series of innovative cultural and creative products came out, which are not only the material carrier of university memory, but also the witness of the integration of traditional craft and modern creativity. With its unique form and rich creativity, these works not only retain the warm memories of youth, but also give time an eternal artistic form, so that traditional crafts in contemporary design full of new vitality and vitality, and achieve a deep tribute to the past good times and artistic praise.

2.In brief, the preparation process of Cyanotype liquid is to mix the two main components - potassium ferricyanide solution and ammonium ferric citrate solution proportionally and evenly to produce a light-sensitive blue precursor liquid. After the mixture is applied to the bearing medium and dried, it is exposed by ultraviolet light, and the unshielded part is chemically transformed into a stable blue color, thus fixing the image in the subsequent washing process, completing the transition from liquid preparation to image formation.

3.Collage typography is a creative form of artistic expression that combines photography, hand-drawing and digital technology. It stems from the tradition of hand-scrapbooking and is known for its fun, creative and structured layout. Through the integration of flat narration and clever graffiti, it not only demonstrates simple personality, but also rich in details, realizes harmonious

symbiosis and visual balance between elements, and brings viewers a unique aesthetic experience of both retro and modern. Each collage style is different, showing different feelings.

4. Film printing is a traditional image output technology, which uses a photochemical reaction to expose the image directly on the film, and then produces a positive or negative film that can be enlarged by contact printing or an enlarger. This process not only preserves the fine detail and wide dynamic range of the image, but also gives the work a unique texture and warm simulated colors, which have become representative of the pursuit of extreme quality in the photographic art and advanced printing. Lay the foundation for later Cyanotype.

5. Cyanotype's cultural and creative products include group fans, badges, butterfly installations, postcards, cloth bags, T-shirts, poster making, which is not only an innovative integration of art and technology, but also a meeting point of traditional culture and modern aesthetic consciousness. With a unique blue tone, they carry retro feelings and natural beauty, and each work is like an imprint of time, telling the story of the past and the present. In the era of rapid consumption, such products give deeper emotional sustenance and collection significance, so that people can feel the influence of art in daily life, but also stimulate the cherish and inheritance of beautiful things.

CONCLUSION

The charm of Cyanotype's traditional craft lies in its unique aesthetic experience, deep historical background, and flexible application in modern creative expression. Cyanotype works are known for their signature blue hue, which is derived from the natural reaction of iron compounds, giving a peaceful, retro and yet mysterious visual pleasure. Modern design concepts are incorporated on the basis of traditional craftsmanship to create products rich in culture and in line with modern aesthetics. In the design, we pay attention to the exquisite craftsmanship and unique materials, emphasize the cultural significance behind and innovative expression, and use handicrafts to tell stories, transmit emotions and carry forward culture.

Time slice refers to capturing continuous changes in a certain period of time through continuous photos or film frames to visually show the flow of time and the transformation of the scene. Time slicing has been developed as a creative method to express time span and emotional accumulation. Different time points or memory fragments are solidified through objects, images, words and other forms to build an emotional bridge across time and space. The combination of Cyanotype process and time slicing is not only a novel creation technology, but also the finished product will become a unique emotional support for each creator.

Cyanotype design is an artistic practice that combines traditional Cyanotype craft with modern design concepts, by blending light, chemistry and creative design to create works with unique aesthetic and cultural connotations.

The core of Cyanotype's design is the use of sunlight or ultraviolet light to react with a photosensitive solution containing iron salts to produce a stable blue imprint, which not only retains the hand-made temperature of the traditional

process, but also creates a retro and natural aesthetic blue tone, adding a unique visual effect to modern design pieces.

While retaining the essence of this ancient craft, Cyanotype design integrates modern design concepts and technologies, such as digital design AIDS and the use of new materials, to realize the modern transformation and innovative expression of traditional culture and promote the living inheritance of art.

The Cyanotype process is relatively environmentally friendly, using recycled materials and relying on natural light sources, which is in line with the concept of sustainability promoted in modern design. The green nature of the Cyanotype design was further reinforced by the selection of environmentally friendly materials and the reduction of chemical use.

Rich in emotions and stories, they can be memories of the past, compliments of nature, tributes to culture or expressions of personal emotion. Through the imprint of Cyanotype, designers are able to tell unique stories and create an emotional connection with the audience.

Cyanotype design is a comprehensive art form integrating traditional craft, modern creativity, natural aesthetics and cultural values. Through its unique visual language and creative process, Cyanotype design contributes a unique artistic expression to the field of modern design.

Cyanotype University four-year time slice design is a creative and emotional project, using Cyanotype technology to depict the four years of university life on the slice, presenting a unique art work. Emotional memorial and memory tracing, Cyanotype University four-year time slice design carries deep emotions and memories, each slice is a memorial of important moments in university life. These slices are permanently frozen on the fabric through Cyanotype technology, becoming an eternal memory, so that people can feel the warmth and touch of their hearts when they look back in the future.

Four years of college is an important growth stage in one's life. Cyanotype time slice design can reflect one's growth process and personal development during this period. From the slices, you can see the changes and achievements in different stages, such as academic progress, the expansion of social circles, and the cultivation of interests and hobbies, which are witnesses and proofs of personal growth. Cultural identity and school emotion. Through the four-year time slice design of Cyanotype University, an individual's cultural identity and emotion towards the school can be displayed. The scene of participating in school activities highlights the love and belonging to the school.

Artistic expression and creative design, Cyanotype technology provides a unique artistic expression for time slice design, slice layout, pattern selection, etc., are the creative design of the creator. Each slice is a unique work of art, showing a personal aesthetic and artistic talent.

The four-year slice design of Cyanotype University is not only an emotional memorial and recall of college life, but also an expression of personal growth and school emotions, as well as an expression of artistic expression and creative design. This design project combines Cyanotype technology with personal life experiences to present unique and meaningful works of art.

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ANNEX



Figure2.1 Internet data query



Figure2.2 Cyanotype liquid feedstock



Figure3.1 Cyanotype liquid equipped Figure3.2Cyanotype liquid equipped



Figure3.3Production process



Figure3.4 Production process

光阴在不停的流逝，似乎还没有好好的再去看看这些不起眼但是很吸引我的角落他们就有的已经被匆匆的时光带走了，我也时刻提醒自己要学会接受。

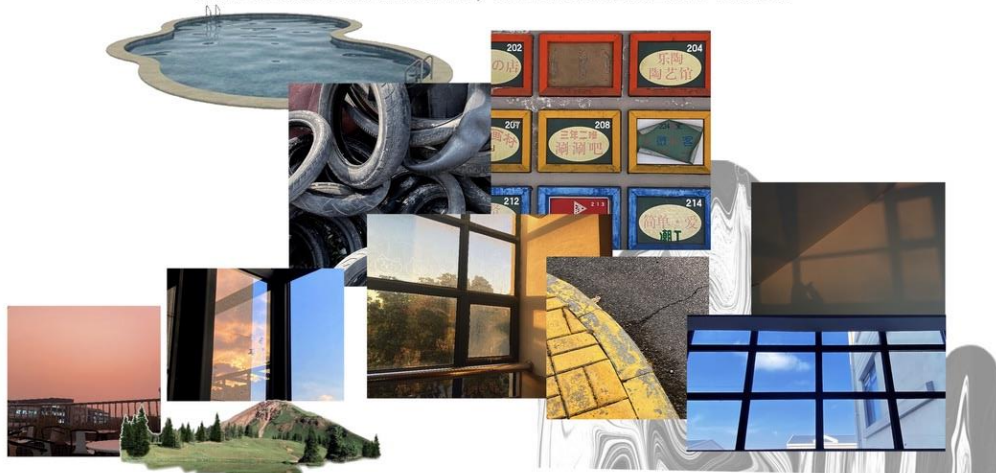


Figure3.5 Type setting

躲在屋檐的人，你们好吗，我也时常在意你们的可可爱爱，平凡而又快乐的享受着，你们爱着这个世界，这个世界也一定会给你们带来你们所憧憬的体验和奖励你们的小红花
躲在屋檐的人，你们好吗，我也时常在意你们的可可爱爱，平凡而又快乐的享受着，你们爱着这个世界，这个世界也一定会给你们带来你们所憧憬的体验和奖励你们的小红花



Figure3.6



Figure3.9



Figure3.10



Figure3.11



Figure3.12



Figure3.13



Figure3.14



Figure3.15



Figure2.16



Figure3.17



Figure3.18





Figure3.19



Figure3.20

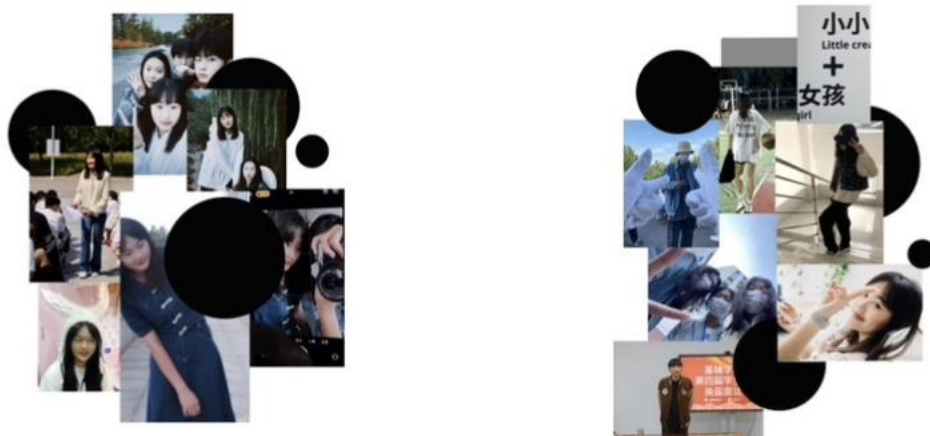


Figure3.21

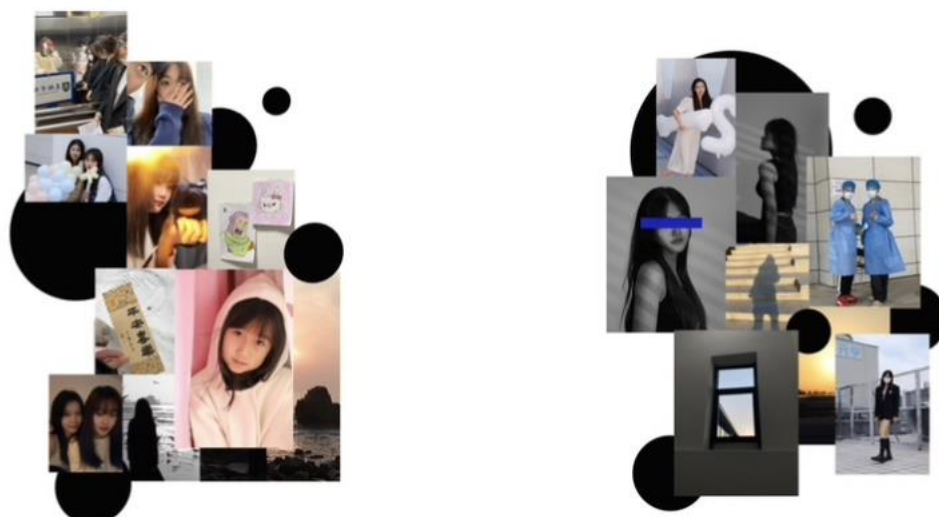


Figure3.22



Figure3.23



Figure3.24



Figure3.25

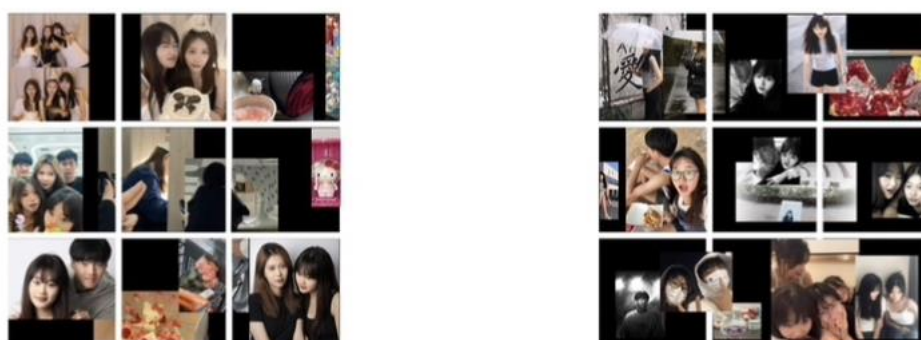


Figure3.26



Figure3.27



Figure3.28



Figure3.29



Figure3.30 film



Figure3.31 Circular fan



Figure3.32 Circular fan



Figure3.33 badge



Figure3.34 badge



Figure3.35 Butterfly wing making



Figure3.36 Drying solution



Figure3.37 Finished butterfly device



Figure3.38 postcard



Figure3.39 postcard



Figure3.40 Canvas bag



Figure3.41 Canvas bag



Figure3.42 Cotton T-shirt



Figure3.43 Cotton T-shirt



Figure3.44 Sunlight exposure

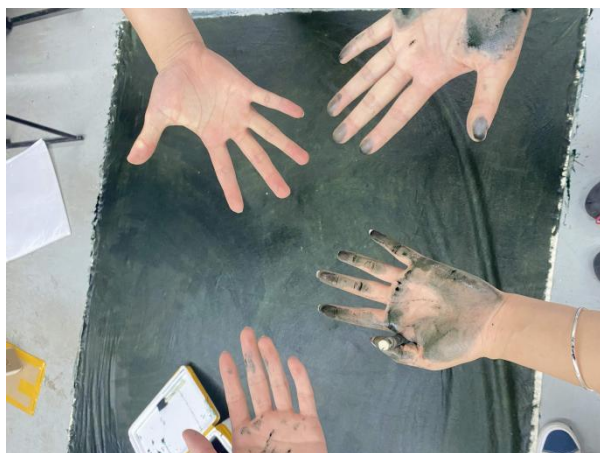


Figure3.45 Paint poster blue lotion



Figure3.46 Negative exposure



Figure3.47 Dry in the shade



Figure3.48 Poster product



Figure3.39 Poster film design



Figure3.40 Exhibition picture







