



The 12th International Arts and Design Symposium 2024

CONFERENCE PROCEEDINGS

29th April 2024
Held in Bangkok, Thailand



REVIEWERS / EXECUTIVE COMMITTEES

Symposium 2024

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PROJECT DESCRIPTION

The symposium is hosted by Council of Arts and Design Deans of Thailand (CADDT), The Association of Siamese Architects under the Royal Patronage (ASA), The Royal Photographic Society of Thailand and Thai Graphic Designers Association (ThaiGa); operated by the College of Design, Faculty of Digital Arts and the Faculty of Architecture Rangsit University.

International Arts and Design Symposium “Work in Progress” (Founded in 2012) is an international forum for scholars, designers, and artists from various fields to share their works in progress.

The Inspirational Theme for this year is ‘The devil is in the details.’ At the core of exceptional design lies a principle: ‘The devil is in the details. This profound insight, a playful inversion of ‘God is in the detail,’ attributed to the legendary German architect Ludwig Mies van der Rohe (1886–1969)

In the realm of design, the distinction between the ordinary and the extraordinary often resides in the finer details. Missteps in the design process or a lack of oversight in the execution of details can lead to undesirable outcomes, endangering the entirety of the final design. Intense oversight can unravel a project, transforming potential success into a learning experience.

The devil is in the details’ let us explore the dance of creativity and precision. Greatness in design is achieved through mastery of the small insignificant elements. Whether it’s refining a design to its purest form, ensuring functionality aligns with form, or innovating within the confines of tradition with the insights and inspiration to elevate design work beyond the ordinary. Each detail, no matter how minor it may seem, is a vital component of the whole, deserving our close attention, not just as a practice but as a philosophy.

Haste could reduce excellence. Slow down, to examine details with loving and respectful and considerate eyes. Only in this careful, deliberate process that ‘paint out the devil,’ and transforming challenges into success.



OPENING REMARKS

The 12 th International Arts and Design Symposium “Work in Progress 2024”

By the Chairman of the council of arts and design deans of Thailand

Ladies and gentlemen, esteemed guests, scholars, designers, and artists from around the globe, it is my profound honor to address the 12th International Arts and Design Symposium, “Work in Progress.” This gathering, hosted by the Council of Arts and Design Deans of Thailand, in collaboration with our esteemed partners, embodies the spirit of creativity, innovation, and scholarly exchange that defines our community.

This year, as we convene under the theme “The devil is in the details,” we pay homage to the timeless insight attributed to the legendary Ludwig Mies van der Rohe. It is a reminder that in the realm of design and art, the extraordinary emerges not from the grand gestures but from the meticulous attention to detail. It is these details that elevate our work from the ordinary to the exceptional, from the mundane to the sublime.

Our symposium serves as an international forum where the brightest minds in arts and design converge to share, and celebrate works in progress. It is a testament to our belief that the journey of creation is as significant as the destination. Here, amidst the vibrant exchange of ideas, we find the courage to explore the uncharted, to embrace the complexity of our crafts, and to acknowledge that every misstep is a step toward mastery.

As we embark on this week of intensive learning, collaboration, and inspiration, let us remember that we are not just creating art and design; we are crafting the future. A future that is more beautiful, more functional, and more humane, through our collective dedication to the details that matter.

Thank you for being part of this journey. Let us make this symposium a milestone in our quest for excellence and a beacon for the art and design community worldwide.

Thank you,

Prof. Dr. Bussakorn Bantasin

The President of the Council of arts and design deans of Thailand
Dean, Faculty of Fine and Applied Arts, Chulalongkorn University

The 12 th International Arts and Design Symposium “Work in Progress 2024”

By The Chairman of the Association of Siamese Architects
under the Royal Patronage

Ladies and gentlemen, esteemed guests, scholars, designers, and artists from around the globe, It is my profound honor to address the 12th International Arts and Design Symposium, "Work in Progress."

The symposium is hosted by Council of Arts and Design Deans of Thailand (CADDT), The Association of Siamese Architects under the Royal Patronage (ASA), Thai Graphic Designers Association (ThaiGa) and The Royal Photographic Society of Thailand; operated by the College of Design, Faculty of Digital Arts and the Faculty of Architecture Rangsit University. , in collaboration with our esteemed partners, embodies the spirit of creativity, innovation, and scholarly exchange that defines our community.

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Our symposium serves as an international forum where the brightest minds in arts and design converge to share, and celebrate works in progress. It is a testament to our belief that the journey of creation is as significant as the destination. Here, amidst the vibrant exchange of ideas, we find the courage to explore the uncharted, to embrace the complexity of our crafts, and to acknowledge that every misstep is a step toward mastery.

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Thank you for being part of this journey. Let us make this symposium a milestone in our quest for excellence and a beacon for the art and design community worldwide.

Thank you,

Mr. Ace Sooyoung

The President of the Association of Siamese Architects
under the Royal Patronage



OPENING REMARKS

Symposium 2024

The 12 th International Arts and Design Symposium

“Work in Progress 2024”

By the President of the Royal Photographic Society of Thailand (RPST)

Hello, I am highly delightful when I heard about this year's International Symposium. On the theme of Work in Progress, the devil is in the detail.

When the five main details generate the power to the overall design and path, at RPST, we are honored to be part of the International Art and Design Symposium. Help in collaboration with CADDT, ASA, Thaiga, and RPST, we are already extremely excited to see the outcome, and we hope to see the success of the project.

Toward the accuracy, at last, we are also looking forward to healing on the way forward, to be a part of keeping momentum for artists, designers, and society from the Special Symposium.

Thank you,

Mr. Tul Hirunyalawaan

The President of the Royal Photographic Society of Thailand (RPST)

The 12 th International Arts and Design Symposium **“Work in Progress 2024”**

By The President of the Thai Graphic Designers Association (Thaiga)

Hello, designers, artists, and creators. I am Akarapon Kritruenonwong, Associate Dean for Administration of the College of Design at Rangsit University and President of the Thai Graphic Designers Association, or "Thaiga." I extend my sincere thanks to all participants, including team members, committees, and contributors, who have submitted their works for the 12th International Art and Design Symposium 2024 in collaboration with four professional associations and three educational institutions.

I have observed that the detailed concepts in your designs and creations reflect your concepts, ideas, attitude, and work experiences. This underscores the importance of attention to detail in the fields of design and creativity. Despite rapid technological advancements enabling faster and more convenient design and creative work to meet current demands, it impacts professional design and educational processes for arts and design students within educational institutions.

To demonstrate the potential of professional designers and creators, we should be aware of the attention to detail in problems or challenges, the thinking process, and the work process to produce professional-level outputs that distinguish designers from the general public. This aims to provide guidance or inspiration to people in society towards future design and creative work.

In conclusion, I hope that everyone participating in the 12th International Art and Design Symposium 2024 will gain valuable experiences from all the artworks this year.

Thank you,

Mr. Akarapon Kritruenonwong

The President of the Thai Graphic Designers Association (Thaiga)



WELCOMING REMARKS

Symposium 2024

The 12 th International Arts and Design Symposium “Work in Progress 2024”

By Chairman of Working Committees
Dean of College of design Rangsit University

I am privileged to report to you our 12th International Arts and Design Symposium, "Work in Progress." This year, our theme invites us to delve into the profound yet intricate world where creativity meets precision, inspired by the theme 'The devil is in the details.'

This symposium, co-organized by the council of arts and design deans of Thailand, College of Design, Faculty of Digital Arts and Faculty of Architecture – Rangsit University alongside our esteemed partner institutions and in collaboration with prestigious associations, is more than an event. It is the empirical evidence of our commitment to fostering an international community where knowledge exchange, scholarly pursuit, and creative collaboration are not just encouraged but celebrated.

Our objective is clear: to develop an ecosystem where every artist, designer, and scholar feels empowered to explore the nuances of their creativity and research. Crafting culture that not only fosters innovation but also respects tradition.

By focusing on works in progress, we emphasize the importance of the process, the value of each step on the journey of creation, and the transformative power of paying attention to the details. It's a call to action, urging us to slow down and appreciate the intricate processes that drive our work forward.

Each session, each presentation, and each discussion shall enrich our collective understanding and appreciation of the finer aspects of our fields. I look forward to the exchange of groundbreaking ideas and the forging of new partnerships that will undoubtedly emerge from this symposium.

In closing, I extend my deepest gratitude to everyone involved in bringing this symposium to life. Thank you for your commitment to excellence and for being an integral part of this vibrant community

Thank you,

Asst. Prof. Dr. Sirada Vaiyavatjamai

Chairman of Working Committees

Dean of College of design, Rangsit University

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Graphic Design for the Psychiatric Disorder Depression SmileDepression

Xinyi Kou¹, Paijit Ingsiriwat², Sirada Vaiyavatjamai³

Abstract

Depression is a common mental disorder. With the constant progress and rapid development of the global society, people are under increasing pressure in their daily lives, work, and studies, and the prevalence of depression in the world is increasing year by year. In recent years, a relatively new type of depression has emerged. Due to the need for daily work and study, the need for etiquette between people, and the need for dignity and responsibility, most people smile in crowds and appear to be no different from normal people, but in fact this is not a true expression of the mind to express a smile. However, the number of deaths due to depression is increasing every year, and depressed people like Smile are difficult to detect in their daily lives. People do not understand depression, do not really understand depression, and care for depressed patients is very lacking. When people encounter depression in their lives, they do not know what to do and are unable to provide proactive, correct, and timely care. Today, many people are suffering from depression due to the increase of various pressures, but they may not be aware of their depression due to lack of awareness of depression.

Keyword: *Depression, Mental health, Visual graphic design, Smile depression*

1. Introduction

Depression, also known as depressive disorder, is a mental illness that leaves a person deep in a constant low mood and is one of the major mental disorders. Today, it has become the number one global public health threat. According to the World Health Organization, approximately 350 million people suffer from depression globally. In 2019, depression ranked 13th globally in terms of the burden of disease caused by depression, making it one of the highest disease burdens of all diseases (World Health Organization, 2020). Even more worrisome, recent research has found that the global prevalence of anxiety and depression rose by an astonishing 25% in the early days of the new Crown Pneumonia epidemic.

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Depression brings many harmful effects to people, and it not only seriously disrupts the patient's daily life, work and study, but also creates a huge economic burden on the family and society. People with severe depression may even develop thoughts of self-harm or suicide, making suicide a serious potential risk. Surveys have found that at least half of the global population has experienced some symptoms of depression at some point in their lives. It is hypothesized that by 2030, depression could become the second largest contributor to disease and disability globally, which would result in a potential doubling of the increased economic burden due to depression globally (World Health Organization, 2020).

In recent years, a mental health problem that has aroused public concern has emerged in society, namely "smiling depression". Many people are not familiar with this concept. According to recent studies, the so-called "smiling depression" is a rapidly emerging depression phenomenon, mainly found in urban white-collar workers, service industry workers and teenage students, and is a new form of depression. Research suggests that this "smile" does not come from a place of genuine inner emotion, but rather is a burden that in turn exacerbates low mood. When dealing with work, life and other pressures, a "habitual smile" will not resolve inner worries, but will make them more painful. Not only does "smile depression" lead to mental health problems, but it can also lead to physical and mental illnesses. If not intervened in time, this condition may evolve into severe depression, and even trigger psychological distortion or change, leading to endocrine disruption, which in turn leads to a series of physiological problems. These patients usually have suicidal tendency, however, when they finally make up their mind to commit suicide, they may show a hint of smile, because they feel "hope" and "relief". It is worth noting that some famous celebrities have also suffered from "smile depression". For example, Coco Lee, a Chinese singer, and Ko, a famous Thai DJ, both ended their lives at home because of "smiling depression". Although they are seen by the public as very sunny and positive people with happy families and many fans, the truth is that they are suffering from heavy depression inside. These tragedies are a reminder that depression should not be trivialized, but needs to be taken seriously and given due attention.

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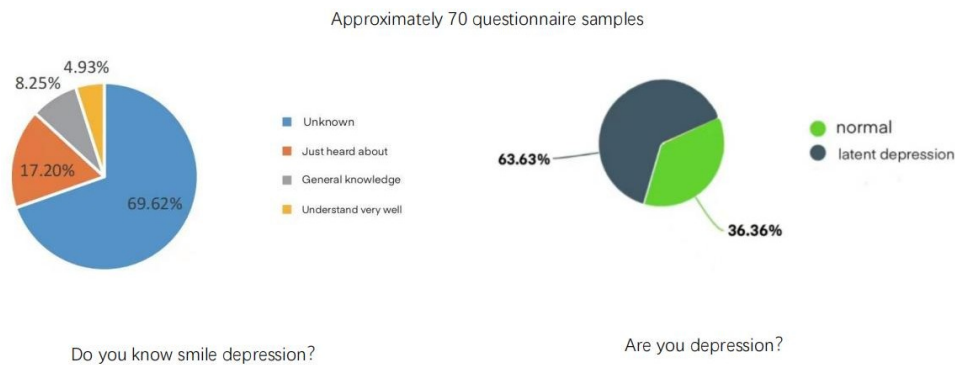


Figure 1.1: Knowledge of Depression and Potential Depression Survey,
Source: Researcher(2023)

2. Objective

The purpose of this study was to examine whether the use of visual graphic communication can make viewers aware of depression. Specifically, this study will investigate:

1. what kind of graphic design can be used to shape people's perceptions of depression
2. whether the use of visual graphic design can increase awareness of depression and motivate people to care for depression

3. Research

3.1 Depression history

In ancient times, people recognized emotional and psychological problems, but their understanding was largely based on philosophical and religious views. In Greek and Roman culture, depression was seen as punishment from the gods or a manifestation of spiritual problems. Like other mental illnesses, they were believed to be caused by demonic possession. As a result, the problem was treated by priests rather than physicians (Reynolds EH & Wilson JV, 2013). The Greek physician, Hippocrates believed that depression (initially called "melancholia") was caused by an imbalance of four body fluids called humors (yellow bile, black bile, phlegm, and blood). (Tipton CM, 2014). In general, his view was that depression was caused by an excess of black bile in the spleen. During the Middle Ages and Renaissance, depression was considered a divine experience or punishment for sin. Treatment usually consisted of religious

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rituals, prayer, and herbal remedies to relieve symptoms. In the 18th and 19th centuries, depression came to be recognized as a medical condition. People began to call it "melancholia" or "nervous breakdown" and tried to explain and treat it in a more scientific way. By the late Enlightenment, physicians began to assert that aggression was at the root of the disease (Rössler W., 2016). Gradually, therapies such as exercise, diet, music therapy, and medication were promoted for depression, along with positive communication. Benjamin Franklin is also reported to have developed an early form of electroshock therapy during this period (Bolwig TG, 2009). With the development of psychology and psychiatry in the 20th century, our understanding of depression deepened, and in the early 20th century, psychoanalysts such as Sigmund Freud began to relate depression to individual psychological dynamics and childhood experiences. Various psychotherapeutic and pharmacological treatments emerged. Today, depression is recognized as a common and serious mental health problem affecting many people worldwide. Treatment included pharmacotherapy, cognitive-behavioral therapy, psychotherapy, and lifestyle interventions. At the same time, research on depression continued to develop to better understand its causes and treatments.

3.2 Depression Pathology

Depression is a common and serious mental disorder whose physiological mechanisms involve abnormal changes in several areas. In this article, the main aspects related to the physiological mechanisms of depression are examined in detail and analyzed in light of the latest research findings.

Neurotransmitter imbalances: depressed patients usually exhibit imbalances in their neurotransmitter systems, particularly reduced serotonin levels. Serotonin is an important neurotransmitter and is crucial for mood regulation and mental health. Studies have shown that reduced serotonin levels cause abnormalities in mood regulation, stress response, and reward system function, resulting in depressive symptoms (Belmaker, R. H & Agam, G, 2008).

Neuroendocrine abnormalities: the neuroendocrine system involved in the regulation of stress and mood is also abnormally altered in depression, including the hypothalamic-pituitary-adrenal axis (HPA axis) and thyroid function. It has been found that patients with depression show abnormal hormone levels, including elevated cortisol levels, which can lead to an overreaction to stress and mental health problems (Dinan T. G, 1994).

Abnormalities in neural network connectivity and function: Depression is associated with abnormalities in connectivity and function between multiple brain regions, including emotion regulation, cognitive control, and the reward system. Activity and connectivity in brain

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regions such as the prefrontal cortex, amygdala, and hippocampus can be impaired, leading to heightened negative emotions, reduced response to rewards, and decreased coping with stress (Drevets, W. C,2000).Altered brain structure and function: Neuroimaging studies suggest that brain structure and function may be altered in depressed patients. The hippocampus and amygdala may decrease in size, and the prefrontal cortex may function poorly. These changes may be associated with abnormalities in cognition, emotion regulation, and stress coping(Videbech, P & Ravnkilde, B,2004).Inflammation and immune system activation: recent studies suggest that inflammation and immune system activation may also play a role in the development of depression. Chronic inflammation and immune system abnormalities can lead to neurotransmitter and neuroendocrine disturbances that can affect mood and cognitive function (Miller, A. H & Raison, C. L,2016)

3.3 Symptoms of depression

Depression is a common and serious mental health problem that affects many people across the globe. In addition to low mood, depression is accompanied by a range of physical and psychological symptoms that place a huge burden on the lives of those who suffer from it.Mood Symptoms: The core feature of depression is a persistent low mood. Sufferers often feel inextricable feelings of frustration, sadness, and hopelessness that may not be explained by external events. In addition, people with depression may experience mood swings ranging from extreme sadness to anger and anxiety(American Psychiatric Association,2013).Physical Symptoms: Depression is not just an emotional problem, but is often accompanied by physical symptoms. These symptoms include persistent fatigue, sleep problems (insomnia or hypersomnia), changes in appetite (loss of appetite or overeating), weight fluctuations, and physical pain or discomfort. These physical symptoms may further exacerbate the patient's depressed mood, creating a vicious cycle(Malhi, G. S., Mann, J. J & Berk, M,2018).Cognitive Symptoms: Depression can also negatively affect a patient's cognitive abilities and way of thinking. Patients may experience problems such as lack of attention and concentration, memory loss, decision-making difficulties, and negative thinking and self-blame. These cognitive symptoms further aggravate the patients' psychological burden and affect their daily lives (National Institute of Mental Health,2019).Social and Behavioral Symptoms: Depression can also affect a person's social and behavioral performance. They may become withdrawn, avoid social activities, or even lose interest in daily activities. Some patients may exhibit self-

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isolation, reticence, or rebellious and aggressive behaviors that put a damper on their relationships with family and friends (Rush, A. J., et al, 2006). Physiological Symptoms: In addition to psychological and behavioral symptoms, depression may lead to a range of physiological symptoms. For example, physical discomforts such as headache, stomach upset, and palpitations may often accompany depression. These physical symptoms may be the result of an interaction between the body and the mind, exacerbating the patient's distress (Schneider, L. S., 2013).

3.4 How to relax

In today's stressful world, depression can leave us feeling helpless and hopeless. But there are ways to find relief and regain hope. Art Therapy: Express yourself through painting, sculpture, writing, or music. Let your emotions flow without worrying about perfection. Art can bring emotional release and spiritual healing. Nature Therapy: Nature's beauty soothes the mind. Take a walk in the forest, feel the fresh air, and bask in the sunshine. Nature helps us relax and find inner peace. Exercise Therapy: Physical activity is a powerful antidepressant. Whether it's walking, running, yoga, or swimming, find an activity that suits you and incorporate it into your daily routine to release stress and tension. Social Support: Share your feelings with friends and family. Finding supportive social circles can make us feel loved and understood. Joining support groups or seeking counseling can help build a healthy support network. Psychotherapy: Therapy helps us understand our emotions and learn to cope with negative feelings. Cognitive behavioral therapy, psychodynamic therapy, and emotional focus therapy can help restore inner balance and harmony.

3.5 Target group and Media

The primary target group of this study is office workers between the ages of 25-40 years old, the secondary group is students between the ages of 20-25 years old on college campuses, and the primary target audience youth and females. This is because the study found that the high prevalence of depression is among adolescents and females, adolescents mainly due to study pressure and family

relationships; females mainly due to social factors, physiological factors, emotional factors, etc.

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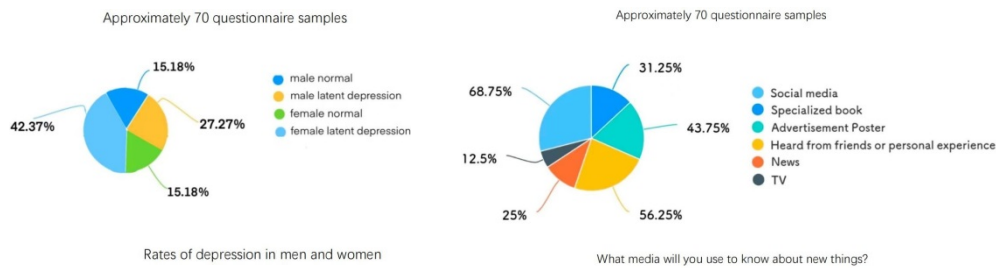


Figure 3.1: Survey of Gender and Ways of Understanding New Things in Depression, Source: Researcher(2023)

Regarding the media, this research mainly applies both xiab shang and offline models. Offline is mainly print media, think posters books stickers etc.; online is mainly through social media, social apps like ins

4. Method

4.1 Visual information communicate

In today's digital age, visual design serves as a universal language, communicating through images, colors, and typography. However, this communication isn't static; it must be tailored to the target audience. Understanding their characteristics and preferences is essential. Younger audiences may prefer bright and innovative designs, while older ones may favor simplicity. Designers must conduct thorough research to create appealing and effective designs. Good design resonates emotionally with the audience, inspiring a connection. By using color, form, and composition effectively, designers can evoke emotions and enhance user experience, improving brand image and product promotion. Visual design should meet the needs of the target audience, accurately conveying intentions and product characteristics. For web interfaces, it's crucial to consider user habits to maximize convenience. Continued learning and exploration are vital for designers to stay relevant and creative, creating works that meet user needs and contribute value to society.

4.2 Color

Colors have profound effects on our emotions, psychology, and even physical health. Color therapy, an ancient yet effective treatment method, is gaining traction. Let's explore the positive impacts of red, yellow, orange, green, blue, and purple on

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our well-being. Red symbolizes vitality and enthusiasm, stimulating motivation and enhancing life force. It increases blood circulation, boosts energy levels, and aids digestion, acting as an appetite stimulant. Yellow represents sunshine and happiness, improving focus, concentration, and memory. Warm shades of yellow alleviate tension and anxiety, promoting relaxation and happiness. Orange stimulates creativity and imagination, enhancing social skills and mood. It's often used in treating depression and seasonal affective disorder. Green symbolizes nature, offering stress relief and calmness. Dark green aids in regaining energy and improving sleep quality. Blue induces tranquility, lowering blood pressure and heart rate, and enhancing cognitive functions like thinking and productivity. It's beneficial for work and study environments. Purple stimulates creativity and intuition, balancing the mind and body for overall well-being..

4.3 Anthropomorphic Mascot

In the business and entertainment world, anthropomorphic mascots have become an important tool for brand communication and marketing. These cute and funny characters not only represent the brand image, but also create an emotional connection with consumers and enhance brand recognition and affinity. Anthropomorphic mascots are images that give non-living objects or abstract concepts human characteristics, such as animals, plants or fictional characters. They often have unique appearances, personalities, and storylines that attract attention and trigger empathy and emotional resonance. Anthropomorphic mascots can give personality and emotion to a brand. By creating a vivid character for a brand, consumers can more easily establish an emotional connection with the brand. This emotional connection translates into consumer loyalty and brand recognition, which in turn promotes sales and performance growth. Anthropomorphic mascots can enhance brand visibility and awareness. These unique and interesting images often attract attention and generate buzz in advertisements, events and social media. By interacting with an anthropomorphic mascot, consumers are more likely to remember the brand, creating brand word-of-mouth and communication. Anthropomorphic mascots can also convey a brand's core values and cultural philosophy. Through the behavior and words of mascots, brands can convey positive messages and values to consumers, shaping brand image and reputation. This emotional connection helps consumers trust and recognize

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the brand.

5. Design development

5.1 Case study



Figure 5.1:Depression Activity Title

Source:Wong, H. (2020, May 21). Mental Health Awareness: how the design industry is marking the week. Design Week.

[HTTP://www.designweek.co.uk/issues/18-24-may-2020/mental-health-awareness/](http://www.designweek.co.uk/issues/18-24-may-2020/mental-health-awareness/)

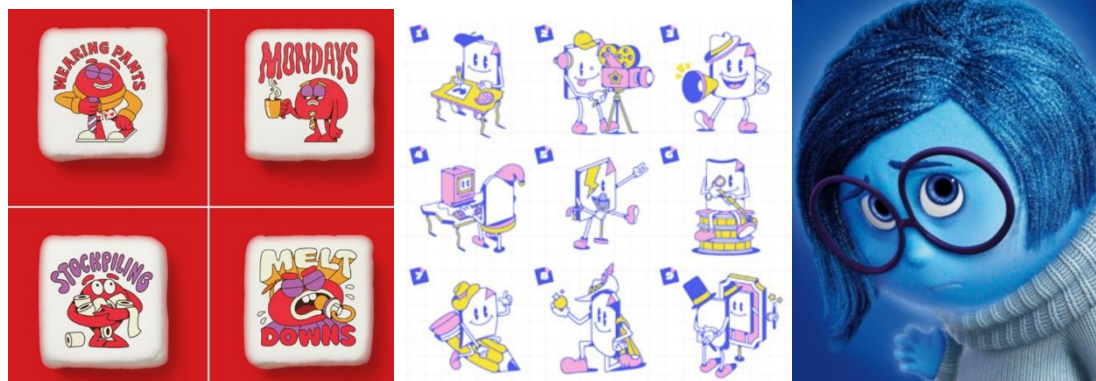


Figure 5.2:Behavioral and emotional expression

Source:WBehance.(n.d.-b).https://www.behance.net/gallery/157007091/Not-just-tired-for-Sleep-Disorder-Awareness?tracking_source=search_projects|mental+health+awareness&l=55 & Inside out

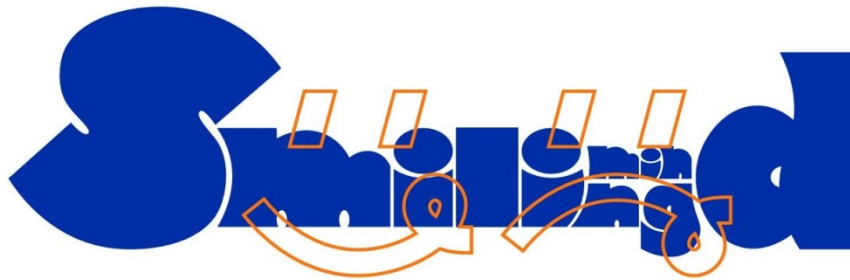
Before the design started, I found some design examples related to my research to study. First of all, there is the headline aspect, which needs a catchy title to be remembered. About expression

for smile depression focuses on smile and sadness and some behavioral expressions to learn

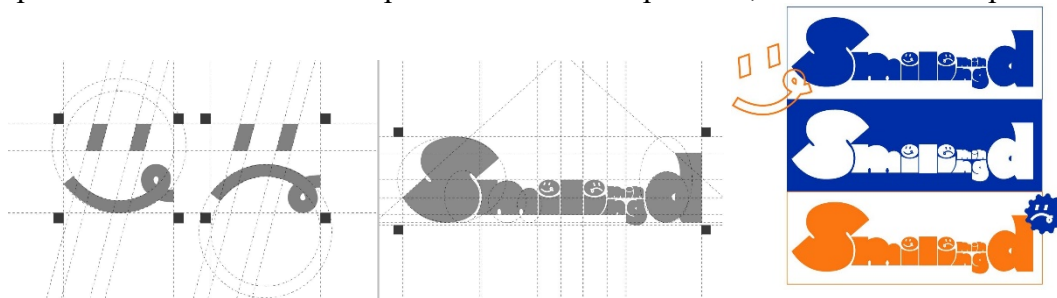
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5.2 Design development

Before starting the design again I did some interviews aimed at people with depression and people under today's society. Depressed people usually try to stay as normal as possible in their day to day life, whether it's going to work or studying, and in society, once they get home at night they start to feel very helpless and



lonely, they don't have much interest in doing anything else they don't feel safe and they have insomnia. Nowadays, due to the increase of social pressure, we all want to have some new and interesting ways to understand a brand new thing. In today's society, depression has become a widespread mental health problem, and traditional depression



posters often present a dull and depressing atmosphere, failing to effectively attract people's attention and concern. In order to innovate the form of the depression poster and to bring more attention and understanding to this issue, combining elements of pop art could be a creative direction. Pop art is a vibrant and fun art form characterized by bright colors, exaggerated forms and pop culture elements. Combining pop style with depression posters can breathe new life and vitality into traditional posters and attract more people's attention. As a global depression campaign, it needs a theme/slogan to go by so that as soon as people see the name of the theme, they know what I'm doing with this campaign. And I used smilingmind as the name of the campaign. To give people a glimpse into the hearts of people with smilingmind depression.

Figure 5.3:Headline Typography by smilingmind Source:Researcher(2024)

When it comes to depression, the first thing that comes to mind is the damage it can do

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to people. Not only does depression affect our mental health, but it can also cause serious damage to our brains. Therefore, I would like to link depression to the heart and the brain, and show people the dangers of depression and its effects on patients by showing heavy psychological burdens and impaired cognitive functions, in order to raise awareness of depression.

Personalities: An unhappy heart and an uninspired brain. Anthropomorphize the heart and brain, use cartoon style to show depression, more affinity and vitality, vivid expression, action anthropomorphism, not only can reflect the depression, but also better pull into the distance with the target group.

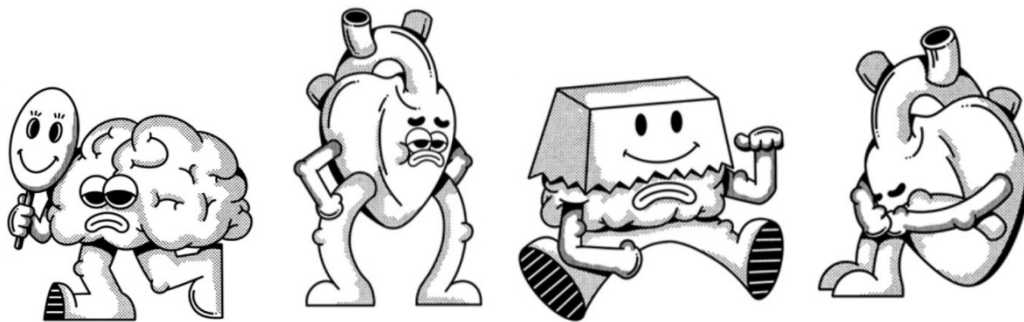


Figure 5.4: Illustration Sketch Design Source: Researcher(2024)

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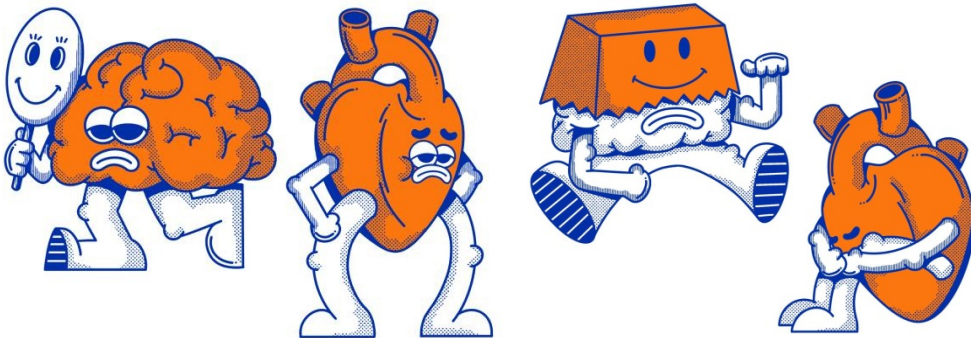


Figure 5.5: Illustration Final Design Source: Researcher(2024)

Apply my theme name font design and mascot design to various support media to let people know about Smile Depression!

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Figure 5.6: Illustration Posters Source: Researcher(2024)



Figure 5.7: Supported media applications Source: Researcher(2024)

6. Conclusion

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Through the program I designed, most of the people learned about smile depression, and the first reaction was very cute and achieved a relaxed way to learn about smile depression. And the main color also achieves to bring positive influence to people with less negative impact. It promotes people's concern and attention to the issue of depression.

7. Reference

- World Health Organization. (2020). Depression. Retrieved from <https://www.who.int/news-room/fact-sheets/detail/depression>
- World Health Organization. (2020). Global Health Estimates 2019: Deaths by Cause, Age, Sex, by Country and by Region, 2000-2019. Retrieved from <https://www.who.int/data/global-health-estimates>
- Reynolds EH, & Wilson JV. (2013). Depression and anxiety in Babylon. *J R Soc Med.* 106(12):478-481. doi:10.1177/0141076813486262
- Tipton CM. (2014). The history of "Exercise Is Medicine" in ancient civilizations. *Adv Physiol Educ.* 38(2):109–117. doi:10.1152/advan.00136.2013
- Rössler W. (2016). The stigma of mental disorders: A millennia-long history of social exclusion and prejudices. *EMBO Rep*;17(9):1250-1253. doi:10.15252/embr.201643041
- Bolwig TG. (2009). Fink M. Electrotherapy for melancholia: The pioneering contributions of Benjamin Franklin and Giovanni Aldini. *J ECT*;25(1):15-8. doi:
- Belmaker, R. H., & Agam, G. (2008). Major depressive disorder. *New England Journal of Medicine*, 358(1), 55-68.
- Dinan, T. G. (1994). Glucocorticoids and the genesis of depressive illness: a psychobiological model. *British Journal of Psychiatry*, 164(3), 365-371.
- Drevets, W. C. (2000). Neuroimaging and neuropathological studies of depression: implications for the cognitive-emotional features of mood disorders. *Current Opinion in Neurobiology*, 10(2), 240-249.
- Videbech, P., & Ravnkilde, B. (2004). Hippocampal volume and depression: a meta-analysis of MRI studies. *American Journal of Psychiatry*, 161(11), 1957-1966.
- Miller, A. H., & Raison, C. L. (2016). The role of inflammation in depression: from evolutionary imperative to modern treatment target. *Nature Reviews Immunology*, 16(1), 22-34.
- American Psychiatric Association. (2013). *Diagnostic and statistical manual of mental disorders* (5th ed.). Arlington, VA: American Psychiatric



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Publishing.

Malhi, G. S., Mann, J. J., & Berk, M. (2018). *The Science and Practice of Lithium Therapy*. Springer.

National Institute of Mental Health. (2019). Depression. Retrieved

from: <https://www.nimh.nih.gov/health/topics/depression/index.shtml>

Rush, A. J., et al. (2006). Acute and longer-term outcomes in depressed outpatients requiring one or several treatment steps: A STAR*D report. *The American Journal of Psychiatry*, 163(11), 1905-1917.

Schneider, L. S. (2013). Diagnosis and management of late-life depression. *JAMA*, 2(6), 562-571.

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The Influence of Experimental Images on Suicidal Ideation among College students

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Abstract

Experimental image technology is a kind of art form that combines image, audio, computer program and other elements, and it has been more and more widely used in artistic creation. This paper discusses the experimental image technology, on the basis, combined with the characteristics of experimental image technology, further analyzes the influence of experimental image technology on artistic creation and enlightenment, finally discusses the experimental image technology application in the field of contemporary art, help to promote the experimental image technology and the depth of the artistic creation fusion, and promote the innovation and development of artistic creation. To explore the dynamic variation characteristics of thwarted belongingness, perceived burdensomeness, hopelessness proposed by the interpersonal theory and suicidal ideation over a short time among college students, as well as test the predictive effectiveness on suicidal ideation and its variation.

Keywords: *experimental images; art creation; influence; suicide ideation; dynamics characteristic; risk factors; ecological momentary assessment*

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1. Introduction

The World Health Organization reports that more than 700,000 people die from suicide every year worldwide, with an average of one life lost every 40 seconds. Globally, suicide is the fourth leading cause of death among people aged 15 to 29 (World Health Organization., 2021), and almost all college students are in this age group. In China, suicide deaths account for 47.2% of abnormal deaths among college students, making it the leading cause of death among college students (Yang, 2015). A 2018 survey by Wu Caizhi and others on the suicide rate of college students in my country showed that although the suicide rate of college students in my country is on a downward trend, the risk of suicide is still high (Wu, 2018). Suicidal ideation refers to the idea of passively dying or the idea of actively killing oneself, but without preparatory behavior (Posner K, 2007) & (Oquendo M A, 2007) & (Gould M, 2007). Both the behavioral framework of suicidal ideation and the interpersonal theory of suicide point out that generating suicidal ideation is the first step in suicidal behavior, and that suicidal ideation is an important condition for individuals to commit suicide (Klonsky E, 2018)&(Saffer B, 2018)&(Bryan C,2018)&(Van Orden KA,2010)&(Witte TK,2010)&(Cukrowicz KC,2010), suicidal ideation can significantly predict the occurrence of suicidal behavior(Franklin J,2017)&(Ribeiro J,2017) & (Fox K, 2017). A meta-analysis covering 41 studies included and analyzed data from 160,339 Chinese college students. The results showed that the incidence rate of suicidal ideation among Chinese college students was 1.24% ~ 26.00%, and the overall incidence rate was 10.72% (Li ZZ, 2014) &(Lei XY,2014), this rate is much higher than the incidence of suicide attempts(Yang LS,2015)&(Zhang ZH,2015)&(Sun L,2015). Without timely intervention, suicidal ideation may evolve into suicide planning, preparation or rehearsal, or even execution. In order to better carry out intervention work, it is necessary to understand the characteristics of college students' suicidal ideation and carry out targeted intervention work according to their characteristics.

2. Research Objectives

Study the techniques and media of experimental video art, analyze the themes and styles of experimental video art, and examine the display and dissemination of experimental video art.. Based on the interpersonal theory of suicide, this study explored the dynamic characteristics of belonging frustration and tested the predictive validity of belonging frustration, perceived shame, and hopelessness on suicide ideation and its changes.

3. Research Methodology

3.1 Anticipatory thinking

In fact, thinking is a psychological simulation of "possible things". Its core is about the conditional propositions that may be connected between the mobility and the results in the future. "The cause and effect between the behavior results does not include the belief that the behavior will really happen, that is, the behavior of expected thinking does not necessarily occur. This is just an assumption (EpStude K, 2016) & (Scholl A, 2016) (Reese NJ, 2016). Only by distinguishing suicide, we can clearly know what the inner goal when individuals decide to hurt ourselves

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(Michel K, 1997) & (Valach L, 1997). The willingness to recall the moment before the incident occurred, and self-reported the motivation to suicide the motivation/survival. At present, there is no measurement tool to integrate the two. Healthy behavior. SOSUSI for undergraduates (SOSUSI) for suicide ideas (SOSUSI) is used to measure the expected thinking of university students when they have suicide thoughts.

Items

I can be free
I can't do anything
My problem will be
solved can end my
meaningless life
Will bring dirty laundry to the
family

Will completely cut off their own back road, lost the possible
turnaround Dealing with the aftermath will cause problems for
those around you They leave their loved ones and partners
unattended

I can avoid the problems I may encounter in the
future I will lose everything and become nothing
Will cause great harm to family and friends, causing
them pain I can start over

Will no longer be able to know what will happen to the
world Others will think badly of me

I will be able to understand the world after death
Then I could freeze my youth and be young

forever

Then others will understand how miserable and hopeless I really am

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I will never experience the rest of my life
again I will be laughed at or scolded
The family will receive some financial
compensation Roommates or people in the scene
will be scared
I won't have to suffer so much
anymore I wouldn't be so tired
Can teach someone a lesson or punish
them Things will not get worse
I will be judged and become a topic of
conversation I will go to hell or be punished in
some way
My dreams or ambitions will not be
fulfilled I don't have to do things I don't
like
Can lead to blame or incrimination for those
around you I'll never see the people I care about
again
I can stop thinking
Can have a bad effect on those around you
I don't have to face things I don't want to face anymore
Thus will my unfinished work be put aside, and become an eternal
regret I can see my dead relatives/people I want to see
If he had not died and become disabled, he would have suffered more than he
does now People around me will be better off
I wouldn't have to face this horrible self

3.2 A survey of specific methods and data for anticipatory thinking

College students from 18 universities in 6 regions across the country (Central China, Southwest China, East China, North China, Northwest China, and South China) were selected for the test. According to the sample size calculation method, the sample size required for confirmatory factor analysis should be more than 5 times the number of items, and the minimum total sample size is more than 10 times the number of items (Michael Furr R, 2011).

Due to the particularity and ethical considerations of suicide research, this recall-type assessment method is more common in suicide research. For example, the measurement of suicide-related thoughts in the Suicide Rumination Scale (SRS) requires subjects to pass recall. Answer in the following manner (Rogers ML, 2022) & (Law KC, 2022) & (Houtsma C, 2022). In order to reduce the impact of multiple exposures on the subjects, the conditional word "suicide" for each outcome expectation was separately proposed as a general question "If I commit suicide, then. and each item was retained only "Result" expressions, such as "My problem will be solved." In terms of response style, research in the field of outcome expectations has found that likelihood

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ratings are more predictive of behavior than acceptance ratings. Therefore, a 10-point “possibility” rating was used based on previous research [0(completely unlikely)~9 (completely impossible) Possible)](Myers MG,2003)&(McCarthy DM,2003)&(Macpherson L,2003), the higher the score, the more likely the subject expects the suicide outcome to occur.

3.3 Survey of specific methods and data for ecological momentary assessment

This study used convenience sampling to recruit visitors who were receiving psychological counseling from various university mental health centers in Tianjin as subjects. The inclusion criteria for subjects were: (1) Suicidal ideation within the past month; (2) Normal cognitive level; (3) Over 18 years old. A total of 35 people who were interested in participating in the study were recruited, and 3 of them were not invited to participate in the study because they did not meet the inclusion criteria of the study. Among the 32 subjects who met the inclusion criteria, one subject dropped out of the study midway, leaving 31 valid subjects in the end. The average age of the subjects was 19.83 years old (SD=1.86 years old, range 19-26 years old). The demographic information of the participants is shown in Table 1.

trait	category	Number of people
sex	male	8
	female	23
Suicide attempt	There is no	9
	1 time	5
	2 times	14
	More than twice	3
Medication history	There is no	17
	Be taking	9
	Have taken	5
Local area	city	24
	village	7
	The Han nationality	28
	other	3
Educational level	Undergraduate course	29
	master	1
	Learned scholar	1
diagnosis	There is no	17
	depression	4
	Anxiety disorder	3
	Obsessive-compulsive	
	disorder	1

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Bipolar disorder	5
Eating disorder	1

4. Design process and materials

4.1 Emotional needs in experimental video art

The inspiration of artistic creation of experimental imaging technology for artistic creation: Explore unknown areas, break through traditional boundaries, create freely, and diverse thinking. Experimental imaging technology is widely used in the field of contemporary art.

It is reflected in: video art, new media art, digital art, public art.



Chad Knight Works-Origin Digital Sculpture

4.1 Emotional needs in experimental video art

Now we are in the age of information, shadow, shadow. Due to the strong interaction of installation art and video art, it is more suitable for displaying in public spaces. The works of the artist also

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have more sensory interactions with the audience, including physical movements, sound and images. As a psychological interaction, the audience can only transform from the past to direct participants and can use their own Psychological and subjective judgments have a direct impact on the effect of the work.



"Aquarium" Pierik Sora Lan

4.2 Material



Sludge

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Foam



Line regiment



Ultra light clay

4.3 Final Design

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Today's network development is rapid and rapid, the trend of the times, and the new circulation of the Internet. Parents or teachers and classmates will always use it subconsciously and label to judge others, but should we live in the label? One thousand people have a thousand people. Everyone is an independent individual, and everyone's life should be chosen by themselves.

In college, we are often faced with the choice of major and the problem of future employment, so there are always people telling us what we should do and what we should not do, how you should

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be, how you should not be, trapped by too many labels and stereotypes.

5. Conclusion

The impact and revelation of experimental imaging technology on artistic creation are significant. Experimental imaging art devices combine images and devices, which can make people's physical fit and emotional considering and deep thoughts. The results of the study show that despair, cumbersome perception, and attribution can effectively identify the current suicide ideas of the individual, but show different effects in predicting suicide ideas. This prompts that the different time interval may be one of the reasons why each variable's prediction of suicide ideas is different. In the future, it is necessary to further explore the predictive effects of various variables in different time intervals on suicide ideas and their changes.

6. Reference

World Health Organization. Suicide worldwide in 2019: Global health estimates. Geneva:World Health Organization. Retrieved from <https://www.who.int/publications/i/item/9789240026643>. Accessed July 27, 2021

Yang Zhenbin, Li Yan. (2015) Analysis of abnormal death among college students. *Psychological and Behavioral Research*, 2015, 13(5): 698-701

Wu Caizhi, Jiang Guangrong, Duan Wenting. (2018) Research on the current situation and countermeasures of suicide among college students in my country. *Heilongjiang Higher Education Research*, 2018, 36(5): 95-99

Posner K, Oquendo M A, Gould M, et al. (2007) Columbia classification algorithm of suicide assessment (C-CASA): Classification of suicidal events in the FDA's pediatric suicidal risk analysis of antidepressants. *American Journal of Psychiatry*, 2007, 164(7): 1035-1043

Klonsky E, Saffer B, Bryan C. (2018) Ideation-to-action theories of suicide: A conceptual and empirical update. *Current Opinion in Psychology*, 2018, 22: 38-43

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Van Orden KA, Witte TK, Cukrowicz KC, et al.(2010) The inter- personal theory of suicide. *Psychological Review*, 2010, 117 (2): 575-600

Czyz EK, Yap JRT, King CA, et al(2021). Using intensive longitu- dinal data to identify early predictors of suicide-related out-comes in high- risk adolescents: *Practical and conceptual considerations. Assessment*, 2021, 28(8): 1949-1959

Franklin J, Ribeiro J, Fox K, et al.(2017) Risk factors for suicidal thoughts and behaviors: A meta- analysis of 50 years of research. *Psychological Bulletin*, 2017, 143(2): 187-U121

Li ZZ, Li YM, Lei XY, et al.(2014) *Prevalence of suicidal ideation in Chinese college students: A meta- analysis. Plos One*, 2014, 9(10): e104368

Yang LS, Zhang ZH, Sun L, et al.(2015) Prevalence of suicide attempts among college students in China: A meta-analysis. *Plos One*, 2015. 10

Epstude K, Scholl A, Roese NJ.(2016) Prefactual thoughts: mental simula- tions about what might happen [J]. *Rev Gen Psychol*, 2016, 20 (1):48-56.

Michel K, Valach L.(1997) Suicide as goal-directed action[J]. *Arch Sui-cideRes*, 1997, 3(3):213-221.

Rogers ML, Law KC, Houtsma C, et al.(2022) Development and initial validation of a scale assessing suicide-specific rumination: the Sui- cide Rumination Scale [J] . *Assessment*, 2022, 29 (8) : 1777 -1794.

Li Jinxiu.(2022) Translation of the subject and form of digital imaging art creation of "simulacra-image-virtual image" [J]. *Art and Design (Theory)*, 2022, 2(12):91-94.

Myers MG, Mccarthy DM, Macpherson L, et al.(2003) Constructing a short form of the Smoking Consequences Questionnaire with ado- lescent sand young adults[J]. *Psychol Assess*, 2003, 15(2):163-172.

McConnell AR, Niedermeier KE, Leibold JM, et al. (2000) What if I find it cheaper someplace else?: role of prefactual thinking and anticipated regret in consumer behavior[J]. *Psychol Mark*, 2000, 17(4) : 281 - 298.

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Expressing local identity through textile

Camilo Andres Marheden¹, Pisrapai Sarasalin², Patipat Chaiwitesh³

Abstract

Using textile artistry as a vehicle for expressing local identity, this study explores the cross-cultural exchange between Buriram and Sweden. This study looks at how textiles can be used as a platform for cross-cultural communication and expression by combining the vivid patterns and traditional themes of Buriram with the minimalist design aesthetics of Sweden. The aim is to create designs that are appealing to a wide range of consumers by creating cross-cultural concepts that skillfully combine Buriram textiles with modern design elements. By combining modern, Scandinavian design elements with Buriram textiles, the goal is to help increase the textile's current use area and help the artisans' skill and beauty reach their full potential. Methodology to collect information has been mostly researching online and reading previous thesis about textile and expressing culture and history, reading articles and information about Buriram textile and Swedish textile to get a better understanding about differences, similarities, current usage, colors, patterns and materials used. Also site visit to silk production community in Buriram where I first hand could see the process of making textile and its motifs. Online survey to better understand people's current understanding, preferences and knowledge about their local textile heritage. After conducting the survey I got a better insight in what people prefer and products that can be suitable - homeware. Certain elements were considered more symbols for Buriram than others, which is important when they are going to be used to communicate the local culture. The red topper and header, which is part of the Buriram famous Si N Teen Daeng, was mentioned several times as something that should be part of the final design.

Keywords: *Identity expression, Cross cultural design, Fabric artistry, Textile fusion*

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1. INTRODUCTION

The study of cultural identity and expression through textile was aimed at fully realizing the beauty and potential of Buriram textiles by integrating them with contemporary Scandinavian design styles. The study examined how this integration enhanced the aesthetic qualities of Buriram textiles while expanding their usage area and target audience. The goal was to explore new possibilities for beauty, functionality and cultural layers by examining the similarities and differences between the two established textile cultures found both in Buriram and Sweden, and how it can be used as a colorful canvas for cultural and personal expression.

Over millennia, patterns and colours have played a significant role in visually identifying individuals (Schneider, Jane “The Anthropology of Cloth”. Annual review of Anthropology 16 (1987): 409-48). The mix of these two very different artistic styles and cultures was expected to produce new, unique and original patterns combining the sophisticated innovation of Scandinavian design with the rich legacy of Buriram’s textile craftsmanship. The main objective was to understand how this imaginative fusion could result in a new visual language where threads serve as speakers of cultural identity, resonating with the spirit of a peaceful cross-cultural exchange.

Both Buriram and Sweden have established textile industries and traditions although they have taken slightly different paths. While Buriram still creates textiles and motifs by hand, often using religious symbols or inspiration for temples, Swedish textiles have evolved to adapt to modern times, used in furniture, homeware and fashion brands. The combination of traditional and contemporary aesthetics provided an interesting base for a unique, playful exploration.

It’s crucial to recognize that the patterns and motifs must pay respect to each culture to avoid disrespect or misinterpretation. The motifs in Buriram textiles are often inspired by religious sites, beliefs, and natural elements, capturing and representing the local culture, history and heritage.

The significance of the problem lies in expanding the usage area of Buriram textiles beyond ceremonial and religious contexts to reach a wider audience, in particular the younger generation. By diversifying products and incorporating modern touches into patterns and motifs, the study aimed to support weavers and artisans, providing them with more income opportunities as well as preserving their cultural heritage.

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Textiles have long been a reflection of cultural identity, and the blending of Buriram and Swedish elements brings forth a unique fusion of tradition and innovation. Let's take a closer look at the intricate patterns and rich colors that define this cross-cultural exchange in textile art. From the bold motifs of Buriram to the minimalist sophistication of Swedish design, each piece tells a story of heritage and belonging, weaving together the fabric of two distinct cultures, expressing a shared identity that transcends borders. Textiles serve as a canvas for cultural expression, they are a language through which cultures speak and tell their stories, and nowhere is this more evident than in the melding of the two very different cultures that is Buriram and Sweden.

As we delve into this captivating fusion, we discover how the bold motifs of Buriram textiles seamlessly merge with the clean lines and muted tones of Swedish design.

Established textile industry with history and traditions can be found both in Buriram and Sweden, but they have taken slightly different routes in modern time, Buriram is much more with taking various religious and cultural aspects into the motifs in the textile and using it mostly for ceremonial usage, while Sweden has more gone towards a modern, contemporary route, with its fabrics being used in many various products such as fashion, interior decoration, and homeware. By combining Buriram and Swedish elements and applying them to homewear, it would expand both target group and the usage area for Buriram, and the beauty and skills from its artisans and designs could reach its full potential.

2. OBJECTIVE

1. To develop cross-cultural design concepts that seamlessly integrate Buriram textiles with contemporary design elements, ensuring products that appeal to a diverse demographic.
2. Expand the current usage area of Buriram textile, in an effort to help the beauty and the talent of its textile and artisans reach its full potential through combination of Scandinavian contemporary design elements.

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3. LITERATURE REVIEW

3.1 “Semiotics theory”

“The Study of signs and sign language. The study of "the life of signs within society" is how Swiss linguist Ferdinand de Saussure, one of its founders, defined it. The concept of semiotics as an interdisciplinary field of study first appeared in the late 19th and early 20th centuries with the independent work of Saussure and the American philosopher Charles Sanders Peirce, despite the fact that the English philosopher John Locke first used the word in this sense in the 17th century. (www.britannica.com/science/semiotics)

Semiotics, investigates how meaning is created, conveyed, and interpreted through various sign systems. A sign consists of a physical form (signifier) and the associated mental concept or meaning (signified). The relationship between signifier and signified, along with concepts like denotation and connotation, forms the foundation of semiotic analysis. Pioneered by figures like Ferdinand de Saussure and Charles Sanders Peirce, semiotics offers insights into the construction of meaning in language, culture, and communication. It helps dissect how signs influence perceptions, convey cultural messages, and shape various aspects of human expression.

Three primary concepts comprise the semiotics model. Signage is the first idea. A signifier is the shape a sign takes in physical reality, and the signified is the way the signifier is understood or perceived by the observer, according to De Saussure (1916). Both are necessary for a sign to exist; according to Saussure (1983), a sign is an integrated whole that is created when the signifier and it are combined. Body language, sounds, and smells are just a few examples of how a sign might appear. Setting is the second idea. As per Bowcher's (2018) explanation, context in semiotics pertains to the facets of a discourse or interaction that offer distinctive and pertinent significance to the specific exchange taking place. This helps the person on the receiving end of the conversation to understand the exchange and interpret it as intended. Significance is the last and third idea. Zlatev (2018) suggests in cognitive semiotics that meaning is the connection between the person receiving a sign and their individual perception of the environment. This indicates that when the recipient connects and engages with their environment, meaning is generated. (José J. Riera, <https://opentext.wsu.edu/theoreticalmodelsforteachingandresearch/chapter/semiotic-theory/>).

3.2 “Constructing cultural identity through weaving among Ri-Bhoi women weavers: a symbolic interactionist approach”

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By examining weavers' experiences through shifting currents of modernization in the local hand loom industry, the interpretive study aimed to comprehend how weaving as an activity contributed to constructing women hand loom weavers' cultural identity in the Ri-Bhoi district of Meghalaya, India. In order to examine how interactions within the Ri-Bhoi cultural context contributed to meanings about the women's weaving activities and their cultural identities, they adopted a lens of symbolic interaction. To gather pertinent data, an ethnographic approach was used in conjunction with participant observation, field notes/journaling, and formal and informal interviews.

Four themes emerged from the analyses, reflecting the importance that Ri-Bhoi women weavers placed on different facets of their weaving tradition and how those elements supported their cultural identities: (a) preserving the tradition through knowledge acquisition and exchange; (b) obtaining social support from family and community; (c) preserving the tradition through the production of textiles that represent tribe and culture; and (d) feeling fulfilled. Subsequent investigation showed that women's involvement in weaving and their desire to uphold their tradition grew as a result of the modernization of the Ri-Bhoi hand loom industry, further strengthening their bond with weaving.

A complex system of values, beliefs, customs, and other practices that individuals learn and share within a particular community is referred to as culture (Ennaji 2005). Culture shapes people's perceptions of the world, themselves, and their place in it as they acquire it, which eventually aids in the formation of individual and collective identities (Ennaji 2005). Cultural identity refers to the aspect of one's self or personal identity that embodies the common core values of the society to which one belongs (Tajfel 1978). Therefore, cultural identity is defined as the meanings that people acquire as they engage in society, adopting various roles and statuses; it includes the values, beliefs, and worldviews that members of a particular cultural group share (Dressler 2017; Gleason 1983; Weaver 2001). Cultural identity is not fixed; rather, it is shaped by social, political, and economic developments over time (Ston, 1962). This enables people to create various identities, or sub-identities, which contribute to the formation of the self (Forney and Rabolt 1986; Stone 1962; Weigert et al. (2007). Gender, social class, and status are just a few of the roles that handwoven textiles have been shown to visually communicate (Eriksen 2005; Forney and Rabolt 1986; Schofeld-Tomschin and Littrell 2001). The myths, ceremonies, festivals, rituals, and natural world are all reflected in the handwoven textiles known as NERI, which symbolize tribal culture.

Through this study, the researchers aimed to comprehend the cultural identities connected to weaving among Ri-Bhoi women weavers. Symbolic interactionism can be defined as the mutual relationship that is established between individuals and their social surroundings in order to give meaning and order to society (Aksan et al. 2009; Fuller & Carter, 2015). Dress, according to

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Roach-Higgins and Eicher (1992), serves as a medium of communication during social interactions and can influence and establish one's own identity in addition to helping one locate the identities of others. In other words, during social interactions, one's attire and appearance can reflect their social status as an observer and wearer in an intersectional context, strengthening and enhancing their sense of self (Roach-Higgins and Eicher 1992).

In the current Ri-Bhoi cultural setting, participants talked about how traditional handwoven fabrics served as badges of identity, symbolically representing different facets of self-serving. They explained how the colors and motifs woven into their traditional clothing represented the tribe and the area to which they belonged. During weddings, funerals, religious rites, and other special occasions, certain textiles were worn. Handwoven textiles with a long history were used not only as visual symbols of tribe and culture but also as presents and badges of respect. Craftswomen gave their close friends and relatives traditional textiles they woven. Handwoven fabrics were regarded as priceless gifts when they were given. Some of these textile traditions are being actively preserved by women weavers today, who are teaching others the art of weaving thanks to government intervention and the active involvement of women in the community. Along with emphasizing the value of passing on the craft to the next generation, weavers from every village in the Ri-Bhoi community highlighted the necessity of doing so to ensure the weaving tradition's expansion and preservation.

Women weavers in the Ri-Bhoi community are contributing a tangible good that represents the culture and identity of the people who weave for a living by guaranteeing the continuation and preservation of weaving traditions. According to Stone's (1962) theory, appearance can occasionally trump discourse-based communication in establishing identity during social interactions. Additionally, clothing can "announce social position of wearer to both wearer and observer within a particular interaction situation" (Roach-Higgins and Eicher 1992, p. 29) and so communicate identity. 5. Therefore, Ri-Bhoi women weavers successfully convey their tribe and culture to themselves and others through the creation of traditional textiles, thereby establishing a sense of identity. Furthermore, the process of creating traditional textiles that represent the visual markers of Ri-Bhoi culture, which is associated with women's identity, has expanded to encompass the preservation of both the Ri-Bhoi culture and the art of weaving itself. By ensuring the continuity and preservation of weaving practices in Ri-Bhoi, women weavers are providing a physical product that symbolizes Ri-Bhoi peoples' culture and identity.

Stone (1962) proposed that appearance may sometimes take priority over communication via discourse to establish identity during social interaction. Moreover, dress has the ability to communicate identity as it can "announce social position of wearer to both wearer and observer within a particular interaction situation" (Roach-Higgins and Eicher 1992, p. 5). As such, through the creation of traditional textiles, Ri-Bhoi women weavers successfully communicate their tribe and culture to themselves and others, thereby establishing a sense of identity.

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Additionally, the act of weaving traditional textiles that serve as visual markers of Ri-Bhoi culture, which is linked to women's identity, has evolved to include the act of preserving the craft of weaving, and more broadly, the Ri-Bhoi culture.

4. METHODOLOGY

For this study the chosen Methodology has been to study already existing works/thesis studies dealing with researching textile, expressing identity through it. Some examples of the works I have read are the following: (name a couple of works here).

They show that the practice of using textile, patterns and symbols as a way of displaying and expressing identity, traditions and culture are not exclusive to a certain country, group of people or culture, but is part of every life. What is different between them is how they use symbols and colours in various ways to express different messages/things.

Also the designs of the textile can be vastly different between separate (find better word) cultures and areas. One example is my chosen area which is Sweden and Buriram, Thailand.

I visited various fabric shops In the Buriram area, looked at the different textiles, talked with the sales people and asked various questions such as; if they know the meaning of the different symbols, if certain textiles are supposed to be used for certain things (a specific ceremony or event) or if it can be used to anything in our daily life.

After visiting several shops and asking these questions I analyzed all the answers to get a fuller picture and better understanding of the fabric and the customers from the shop's point of view. In general the buyer is a Thai woman of middle age or up, who is buying for a ceremony - religious or other such as wedding, funeral, work etc. It can be either a wrap around skirt or a dress. If the event is seen as something very important the purchase is usually in silk, but if it's seen as less important cotton is often the material.

Foreign buyers are more often going for the products made out of cotton, because it's more soft and feels lighter. If foreign buyers purchase silk it's usually a scarf as a souvenir.

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Accessory products such as bags with traditional patterns or fabric can be good for gifts/presents. Some shops also offer clothes with no pattern or designs on, just plain and simple in one colour and in cotton. They are usually bought by tourists or a bit younger audience than products with traditional patterns.

The colouring technique these days is often artificial because it's quicker, gives stronger colour and is easier. The natural dye does still exist among some villages that use natural elements such as bark, flowers, volcanic soil etc to give certain colours to the fabric.

Some of the sales people I talked with expressed that they wished more younger people would come and buy. Appreciate and support their local culture and history, but they also understand that the designs are seen as non modern and not trendy among younger people. Updated designs that perhaps fits into the modern society better could be a way to attract younger customers. Some more contemporary designs are being made but it's still in small scale and not too much of big sellers, because most people associate the local fabric with a certain look and style, so many young people don't even come and look probably because of that.

Another part of the methodology that I have done to try to understand the fabric, the culture, people and the usage better is by conducting an anonymous online survey with people both in Thailand and in Sweden. The main target group for the survey has been people from the Buriram area and people in Sweden with a connection to the Buriram area in some way. People from other parts of the country have participated as well, and people from Sweden with connections to other parts of the country, usually the Bangkok area have also participated.

The survey was separated into a couple of different categories with a couple of questions in each. Some just have a yes or no option while others have open answers to give the people a chance to better express their opinions and for me to better get an understanding as well. The answers have also given me a starting point of what the more updated and modern Buriram textile could look like

As mentioned before I wanted to try to give the Buriram textile a more updated look and feeling, in an effort to make it look more contemporary and modern and attract a younger audience, and also apply it to a new usage area - homeware. Products such as homeware have a bigger potential to attract a more diverse target group than the current one.

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The different materials that are being used in the various pieces (silk, cotton, silk cotton), if they are exclusively handmade or if certain things are being done by machine or a mixture of both, the colouring technique - if it's artificial or if it's natural fabric dyed.

Since Buriram is mostly famous for its silk textile industry that's the main material, they do however also make pieces out of cotton and a mix of silk cotton. The silk pieces are seen as more exclusive and are considerably more expensive than the cotton ones. The silk textiles are used a lot for wrap around skirts using the for the area distinguished Sin Teen Daeng, which is famous for its red top and bottom part. Also scarves are being made out of silk. The designs for these pieces are usually very traditional with elements relating to religious symbols, royal family symbols or architectural structures found in the area, such as a part of a temple.

5. DESIGN CONCEPTS

After interviews and surveys were finished, I looked more deeply into the products already existing on the market, and analyzed the answers I had received from my shop visits and surveys. This to get a better understanding of what people already knows about it, think about it, expects, likes, dislikes and what I would like to do and what I can do to mix Buriram with a more contemporary Swedish touch to create a form of more updated and newer look to already established and respected industries.

I researched and thought a lot for myself about what could be good ways to mix the two cultures which are vastly different in numerous ways. What started as mostly working with Buriram and Thai elements quickly turned into also including Swedish elements to have a more interesting and unique new design .

In Sweden a lot of people spend a lot of time and money on making their homes cozy, look good, express who they are and what they like with various interior pieces such as kitchenware, furniture, carpets, paintings, lightning, vases, decorative pieces etc. From my understanding this is something that is not as established in the Thai community yet compared to Sweden and many Western countries, which is a reason I thought it could be an interesting way to try and mix the two cultures in this up and coming trend in Thailand.

Table runners and table decorations are items that are very popular in Sweden, both used as decorative pieces but also more functional such as protecting the table from hot

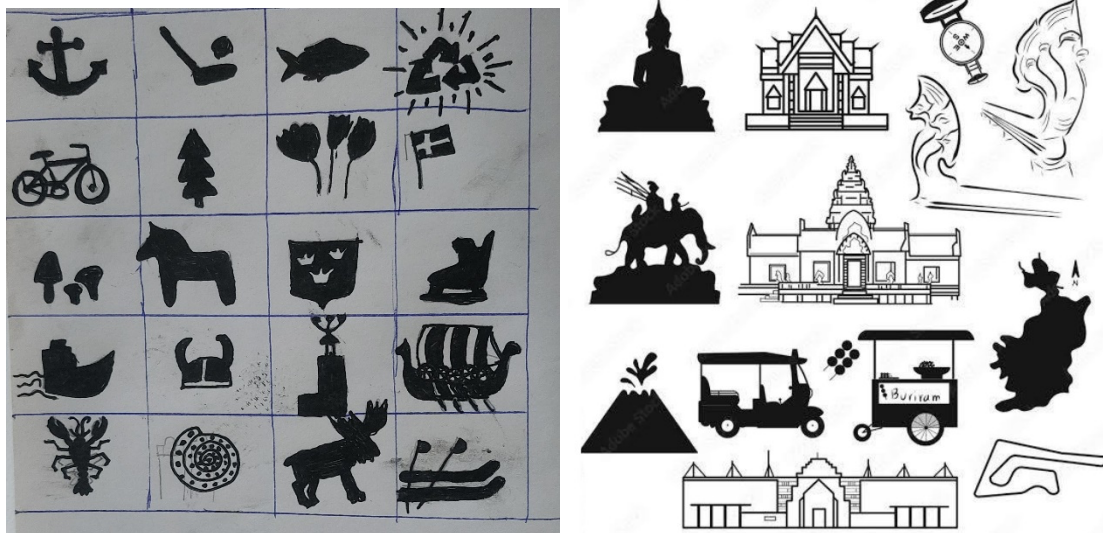
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pots, pans, plates and liquid, which is why I thought it could be a good item to work with for my study. Same thing for wall art, which is also something that reflects and showcases what you like and who you are in a sense.

I somehow wanted to use colours, symbols and shapes and create a new unique pattern that can be used not only for table runners, but in various places in the house or even outside the home. The Buriram textiles are usually more traditional with their designs, colours and a more heavy overall feeling, while the Swedish ones are more modern, contemporary, playing with shapes, elements and designs and more overall light feeling. Trying to combine these two very different ones felt like it could be a big challenge which is why it took me a long time to feel like the designs and overall feeling was finally going in the right direction and I felt somehow more content and excited with where it was going.

One thing that I wanted to keep was the usage of the red colour on the edges which is a signature for what is called *Sin Teen Daeng* and is a signature for Buriram and its textile. Buriram is also further called *The Blue City* which is a reason to incorporate the colour in some way. But it's also one of the main colours in the Swedish flag.

I started to research and look into if there's certain elements that function as symbols/representation to Buriram and Sweden and which ones would be best to use and combine for the new pattern.



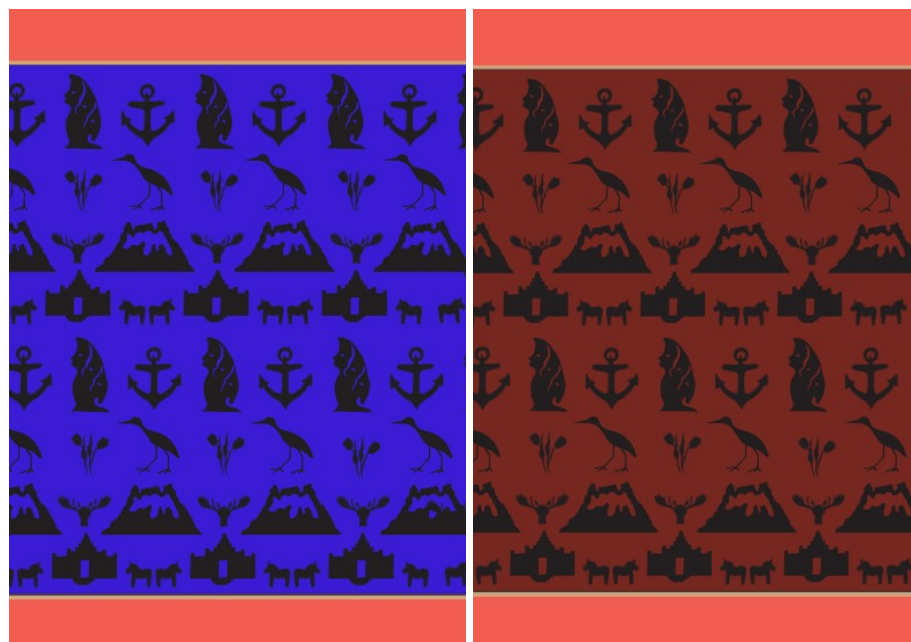
After this I scaled it down to have 4 symbols representing Sweden (antlers of a moose, tulips, anchor and Dalahäst) and 4 representing Buriram (Naga, Volcano, Temple gate and Sarus Crane).

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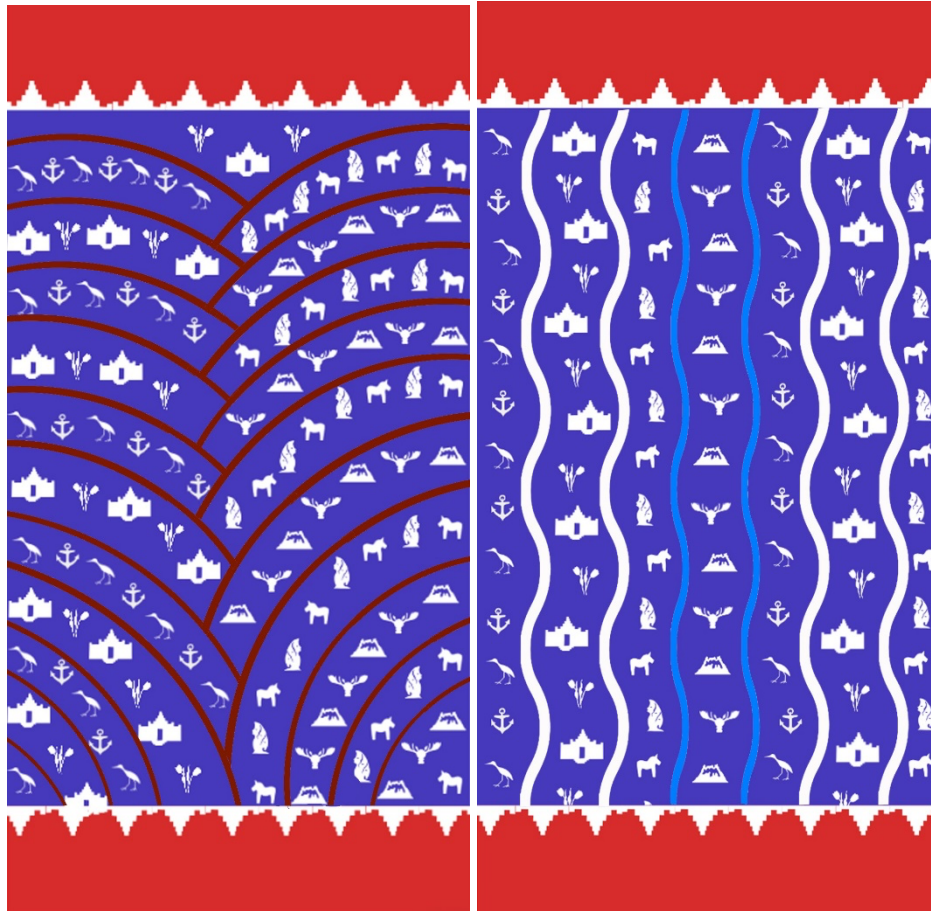
Then the process of trying to come up with different design elements started and playing with colours, shapes and combinations of the symbols to come up with something that could represent both cultures and styles in a good and appropriate way.



Early stage of ideas how a potential design could look like mixing different elements.



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With the above two designs I tried to make one that feels perhaps more close to original Buriram overall feeling and aesthetics (left one) which feels a bit more heavy, a bit more older and is perhaps feeling a bit more familiar to an older audience and people who want something more closer to typical design.

With the one to the right I tried to create a more contemporary design that has the potential to feel more appealing for a younger and different target group than the current one. The white lines are taking inspiration from the silk threads that are used in many traditional Buriram textile designs. The blue lines in the middle are to make a contrast to the white as well as being references to both the Swedish flag and Buriram being called *The Blue City*, which is also a reason for blue being used as a background colour. The symbols being vertically is to create a different feeling and approach to the design compared to being horizontally as it usually is. It creates a more easy flow in the design and more lightness.

However, after taking the designs to different studios to ask for them to produce for me, they all told me it's not possible to do using hand weaving techniques, but it must be

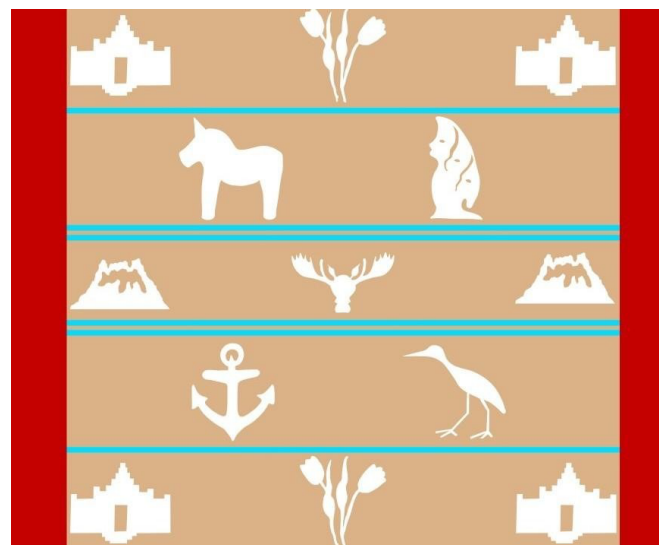
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done with a machine. If I wished to continue with it I would have to change it and make it less complex, and have the design be horizontally and not vertically.



This ended up being the design I went back with but once again I was told I needed to make some changes such as the blue lines and the red part at the top and bottom, if I wanted it done by hand. It blends and mixes the symbols together with a contemporary feeling in an easy flowing way.

6. PROTOTYPE



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This became the final design after discussion with the chosen studio of what they can do with hand weaving technique. While this final design is not what I was expecting, I still felt happy to finally be able to start seeing the result of my work and the new unique pattern design mixing Swedish and Buriram elements.

To create an even more distinguished and unique feeling to the design and final result I chose to mix different materials in the textile; for the blue lines: silk, which is perhaps the one material most linked with Buriram. The symbols will be made in wool which is a material not normally used in Thailand but is one of the main materials in Swedish textile, which creates a nice contrast and makes the symbols stand out even more.

The rest of the textile will be made in cotton which is a material used widely both in Thai and Swedish textile. So in conclusion there will be a mix of different materials from both cultures, as well as material used in both so it will be a bit of new and old mixed together.

This design hopefully can appeal to a diverse audience, and can be applied to a wide range of products and items and not just one specific one. Even if it's not exactly how I was expecting the end design to be, I still like it and feel proud of it and it still represents both cultures and blends them together in a new good way.



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7. DISCUSSION

This textile design is meant to be a way of combining two very different cultures and let them show that they can work together. The more traditional way meets a more contemporary style, and together creates unique new patterns. This pattern can be used on various products such as towels, blankets, table mats, wall art and pillow cover to name a couple. However it is important to remain respectful that different symbols or designs can mean different things for different cultures, so you don't end up creating something disrespectful and offending people. Using different materials is also a good way of expressing identity and culture because it can be very different from place to place, just like certain colours can be.

8. CONCLUSION

In conclusion, the exploration of how textile can be used as a tool to express identity and culture is a very interesting and enriching topic to dive into. However it's also so vast, therefore it can be easy to feel a bit lost and overwhelmed when reading materials and trying to figure out properly which direction to go. It's also very important to remember that it's not just symbols and designs in many cases, it's peoples and cultures history and heritage and it means a lot to them, so it's very important to remember to keep in mind that you need to be sensitive and appreciate what's already existing. It's also however important for these traditions to adapt and incorporate newer trends and techniques if they want to continue surviving in our ever evolving society, where many younger people chase the newest and latest. Textile however remains as an important tool for humans to express who we are, where we come from, what we like, support etc regardless if it's used in fashion, accessories, homeaware or anywhere else. One can easily spend months and months reading more into meanings of symbols, colours, patterns and try to create new and unique designs. There's not one final correct design that is the only good one.

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REFERENCES

Roach-Higgins, M. E., & Eicher, J. B. (1992). "Dress and identity." *Clothing and Textiles Research Journal*, 10(4), 1-8.

Roach-Higgins, M. E., & Eicher, J. B. (1992). "Dress and identity: A symbolic interactionist perspective." *Clothing and Textiles Research Journal*, 10(4), 1-8.

Chudasri, D., Walker, S. and Evans, M. (2012) "An overview of the issues facing the craft industry and the potential for design: with a case study in upper northern Thailand".

Schofield-Tomschin, S., & Littrell, M. A. (2001). "Handwoven fabrics: Their role in the expression of culture and identity." *Clothing and Textiles Research Journal*, 19(1), 23-32.

Pacharaporn Lueraj, Wanlaya Namtham (2022). *Ethnic Identity through Textile: The Case Study of Tai Lue of Phayao Province, Thailand and Tai Aiton of Assam, India*

Narong Jenjai and Kornchanok Sanitwong (2022) *Identity of Isan Textile In Ban Wang Pha and Ban Wang Sila, San Makha sub district, Pa Daet district, Chiang Rai Province*

C. Tangtawornsirikul (1998). "สัญลักษณ์ผ้าลาวเวียงจันทร์ [Symbolism of Lao Textile]". Thammasart University

V. Phanichphant (2004). "ผ้าและสิ่ง ถักทอไท [Tai clothes and Tai textile]".

Saussure, F. de. (1916). *Course in General Linguistics*. (C. Bally & A. Sechehaye, Eds.; W. Baskin, Trans.). New York, NY: McGraw-Hill.

Bowcher, W. L. (2018). The semiotic sense of context vs. the material sense of context. *Functional Linguist*, 5(5), 1-19.

The 12th International Arts and Design Symposium 2024 | Conference Proceedings

Forney, J. C., & Rabolt, N. J. (1986). Ethnic identity: Its relationship to ethnic and contemporary dress. *Clothing and Textiles Research Journal*, 4(2), 1–8.

Silpakorn University. (2000). Local woven fabrics in the Isan region. Project to develop local fabrics in every province of the country.

<http://www.aworldconnect.com/index.php/checkin/165-sinteendang>

https://www.sacit.or.th/uploads/items/attachments/8a20d7c7b4ca634d08739cf614e6063c/_a23c59b65ba836502f27bfd41f018b77.pdf

https://buriram.mots.go.th/news_view.php?nid=472 (Buriram Provincial Tourism and Sports Office.)

Forney, J. C., & Rabolt, N. J. (1986). Ethnic identity: Its relationship to ethnic and contemporary dress. *Clothing and Textiles Research Journal*, 4(2), 1–8.

Silpakorn University. (2000). Local woven fabrics in the Isan region. Project to develop local fabrics in every province of the country.

<http://www.aworldconnect.com/index.php/checkin/165-sinteendang>

https://www.sacit.or.th/uploads/items/attachments/8a20d7c7b4ca634d08739cf614e6063c/_a23c59b65ba836502f27bfd41f018b77.pdf

https://buriram.mots.go.th/news_view.php?nid=472 (Buriram Provincial Tourism and Sports Office.)

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Sex Trade in Thailand

Futan Bai¹, Pakorn Prohmvitak², Sammiti Sukbunhong³,

Abstract

This dissertation delves into the complex issue of sex trafficking in Thailand, a country renowned for its cultural richness and natural allure, which paradoxically masks the grim reality of sexual exploitation. The research traces the historical and economic roots of Thailand's emergence as a hub for sex tourism, revealing the associated human rights abuses and health crises. Despite increased documentary scrutiny and evolving societal and legal frameworks, significant gaps in understanding persist. The study's purpose is to craft a documentary film that offers a nuanced examination of Thai sex workers' lives within the sex trade milieu, aiming to illuminate obscured facets of the issue and instigate societal dialogue and reform. Methodologically, the research employs a blend of narrative analysis and interviews with affected individuals to construct a vivid portrayal of the sex workers' experiences. The resulting film not only provides a platform for the voices of the marginalized but also serves as a catalyst for advocacy and policy change. The findings underscore the urgent need for comprehensive strategies to address sex trafficking, advocating for the protection of sex workers' rights and the eradication of this exploitative practice. The documentary stands as a testament to the power of visual storytelling in bridging theoretical research and practical intervention, contributing to the broader discourse on human trafficking and the quest for social justice.

Keywords: *Sex trafficking, sex tourism, sex workers' rights, Thailand, documentary film, social justice*

1. Introduction

1.1 Research background

Thailand's enchanting cultural and natural landscapes have long been a magnet for global tourism, yet beneath this facade lies the troubling issue of sex trafficking. Historically linked to the nation's economic trajectory, sex work has become an integral yet controversial element of Thailand's tourism sector. Despite the attention from international entities and the proliferation of documentaries exposing the plight of sex workers, comprehensive understanding and public discourse on the matter remain limited. Recent shifts in global norms and Thai legislation signal a move towards more stringent measures against sex tourism and a commitment to safeguarding the vulnerable. This research, through the lens of a documentary film, seeks to deepen the exploration of sex trafficking in Thailand, aiming to foster greater societal comprehension and formulate effective counter-strategies. The film aspires to be a conduit for change, amplifying the voices of those affected and spurring action towards resolving this complex social dilemma.

The study's objective is to produce a documentary film that critically examines the lives and conditions of Thai sex workers within the sex trade. This film aims to reveal the intricate realities of sex workers' experiences and the broader implications of sex trafficking on both society and the individual. It is designed to foster public discourse, advocate for sex workers' rights, and prompt action against sex trafficking. Theoretically, the film provides an in-depth analysis of sex trafficking's economic, social, cultural, and legal dimensions, enhancing our understanding of this complex issue. Practically, the documentary serves as an educational resource, a catalyst for public debate, and a support mechanism for sex worker rights initiatives. Ultimately, the film seeks to influence public opinion, policy, and social practices, contributing significantly to the fight against sex

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trafficking in Thailand.

The research methodology for the study on sex trafficking in Thailand encompasses a multifaceted approach aimed at providing a holistic understanding of the issue as depicted in a documentary film. It includes a literature review of scholarly works on sex trafficking and related disciplines, a historical analysis of the sex industry's evolution in Thailand, and a comprehensive analysis of documentaries focusing on Thai sex workers. A comparative analysis will be conducted to discern patterns and discrepancies in various sources, while interviews and surveys with stakeholders will offer firsthand perspectives. Additionally, a legislative analysis will evaluate Thai and international laws pertaining to sex trafficking and sex workers' rights. These methods collectively aim to construct an in-depth portrayal of sex trafficking in Thailand for the documentary film.

2. Objectives

1. The study aims to produce a documentary film that critically examines the lives and conditions of Thai sex workers within the sex trade, revealing the complex realities of their experiences and the broader implications of sex trafficking on society and individuals.
2. The film is intended to stimulate public discourse, advocate for sex workers' rights, and encourage actions against sex trafficking, serving as an educational resource and a catalyst for public debate.
3. The research methodology includes a literature review, historical analysis of the sex industry in Thailand, comprehensive analysis of documentaries, comparative analysis of various sources, interviews and surveys with stakeholders, and legislative analysis of laws related to sex trafficking and sex workers' rights.

3. Details

3.1 Overview of Sex Work and Sex Workers

Sex work refers to the exchange of money or goods for consensual sexual services or performances, acknowledging it as a form of employment. While historically associated with deviant behavior, the term "sex worker" is preferred by those engaged in the industry due to its less stigmatizing connotations. This shift is crucial as it promotes inclusivity in health, legal, and social services. Traditionally, women were primarily viewed as prostitutes, with men seen as their clients. However, contemporary perspectives recognize diverse forms of sex work, including female, male, and transgender, reflecting varying societal demands for sexual services.

3.2 Historical Context of Sex Work

Sex work has been prevalent across cultures throughout history, adapting to social and economic changes. From ancient civilizations to modern societies, various forms of sex work have existed, ranging from informal arrangements to regulated brothels. In some cases, governmental intervention aimed to control and regulate the industry, often in response to public health concerns such as sexually transmitted infections.

3.3 International Approaches to Regulating Sex Work

Countries around the world employ diverse approaches to regulating sex work, ranging from legalization and regulation to criminalization and prohibition. These approaches reflect cultural norms, public health priorities, and governmental policies regarding sex work.

3.4 The Historical Development of Thailand's Sex Industry

The sex industry in Thailand encompasses various establishments, including hotels, brothels, nightclubs, and escort services. Estimating the number of sex workers in Thailand has proven challenging, but it is estimated to be between 150,000 and 300,000. Several factors contribute to the prosperity of Thailand's sex industry:

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3.4.1 Traditional Thai culture, which places women in a subordinate position to men, has influenced societal attitudes toward prostitution. Buddhism, the predominant religion, while not explicitly condoning prostitution, is relatively tolerant of it, particularly if sex workers engage in meritorious acts such as supporting their families or donating to temples.

3.4.2 Economic pressures, particularly in rural areas, often drive women to enter the sex industry to support themselves and their families. In regions like northern Thailand, where daughters inherit property and are responsible for supporting their parents, many women turn to sex work out of financial necessity.

3.4.3 Historical factors, such as polygamy and the impact of the Vietnam War, have also contributed to the growth of Thailand's sex industry. The presence of American soldiers during the Vietnam War led to the development of a thriving sex industry catering to foreign clientele.

3.5 Definition of Sex Worker Documentaries

Documentaries on sex work provide a platform for exploring the lives, challenges, and experiences of individuals involved in the sex industry. Poetic documentaries, a subgenre of documentary filmmaking, prioritize evoking emotions and moods over traditional narrative structures.

These documentaries focus on visual rhythm, lack traditional narratives, and offer subjective interpretations of their subjects. They aim to humanize sex workers, challenge stereotypes, and foster empathy and understanding. By foregrounding the voices of sex workers and adopting participatory approaches to filmmaking, these documentaries empower sex workers to reclaim their narratives and advocate for their rights.

3.6 Development Trends of Sex Worker Documentaries in the 21st Century

In the 21st century, sex work documentaries have evolved to present more empowering narratives that humanize sex workers and challenge stereotypes. They prioritize the agency and autonomy of sex workers, celebrate their resilience, and explore the intersectional dynamics of race, gender, and socioeconomic status within the industry.

Contemporary documentaries also engage in advocacy and activism, advocating for policy reforms and challenging societal stigma and discrimination against sex workers. The rise of online streaming platforms and digital distribution channels has democratized access to these documentaries, enabling filmmakers to reach broader audiences and facilitate discussions about sex work and related issues on a global scale.

4. Results

4.1 Target Audience Analysis

The author first determined the age, gender, interests and viewing habits of the target audience in order to better design the film content and publicity strategy. This step is crucial to ensure that the film reaches the right audience.

4.1.1 Age and Gender Composition

1) *Adult audience*

The film explores mature themes and is suitable for audiences over the age of 20. The content may particularly appeal to young and middle-aged groups, who have a higher sensitivity and awareness of social issues.

2) *Gender inclusion*

While women may relate more directly to the female lead's experiences, the film also challenges male audiences' perceptions and stances on the sex industry, promoting conversations about gender equality.content.

4.1.2 Types of Viewing Groups

1) *Documentary amateurs*

Viewers interested in true stories and in-depth reporting, who tend to seek thought-

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provoking

2) *Cinematographers*

An audience with a deep interest in filmmaking techniques, narrative style, and visual representation.

3) *Social participants*

Audiences who actively participate in discussions and activities on social issues, and who may gain new perspectives and knowledge through watching movies.

4.1.3 Psychological Characteristics of Viewers

1) *Empathy and empathy*

Audiences who have a deep empathy for marginalized groups in society and may use film to deepen their understanding of the lives of these groups.

2) *Psychological and emotional exploration*

An audience interested in the psychological state and emotional depth of characters, who seek to find emotional resonance and psychological insight in the film.

4.1.4 Viewing Motivation

1) *Educate and enlighten*

Audiences who wish to learn and enlighten themselves through film may look for such content in educational institutions or public lectures.

2) *Appreciation of artistic expression*

Audiences interested in artistic creation and expression in film, who may explore such work in art schools or film workshops.

4.2 Storyboarding

After gaining an in-depth understanding of the main girl's family and life background, the author created storyboards to plan the visual effects and transitions of each scene, ensuring that the narrative flows smoothly and meets the creative intent. Using the form of a poetic documentary to show her inner world from multiple angles, it aims to draw the audience's attention to the group she represents and have a positive social impact.

Act 1: The Silent Entrance

Visual effects: The heroine walks to the teddy bear expressionless, with a slow and heavy step.

Transition: Slowly advancing the shot, focusing on the heroine's face and teddy bear, symbolizing her inner world.

Act 2: The Hint of Pattaya

Visual effects: Showcases Pattaya's iconic sights, followed by neon lights at night. Pattaya in the shot is full of contrasts, the bustle of the day and the silence of the night interwoven, reflecting the conflict and loneliness in the heroine's heart.

Transition: Through quick clips, the transition from everyday life to the streets of the night suggests the existence of the sex industry.

Act 3: Black and White Memories

Visual effects: Memories shot in black and white, showing fragments of the heroine's past life. The scene in the memory beats like an old movie, each picture is like a fragment in the heroine's memory, both vague and profound.

Transition: Use the dissolving transition effect to represent the passage of time and the blurring of memories.

Act 4: The Bondage of Pure White

Visual effects: The pure white dress is particularly abrupt on the heroine, which is

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both a symbol of purity and an irony of the reality of her life.

Transition: The camera moves slowly to capture subtle changes in her expression, reflecting her inner state.

Act 5 The Call of the Ocean

Visual effect: The heroine stands on the beach with the waves brushing her feet. The sound of the waves was particularly loud at night, and the figure of the heroine appeared both strong and fragile in the moonlight.

Transition: Through the sound of the waves and the expression of the heroine, convey her struggle and fear.

Act 6: Behind the Laughter Visual effects: The heroine's smile shines in the light, but the emptiness in her eyes cannot be concealed, and the contrast makes people feel sad.

Transition: A quick clip showing the contrast between her work and personal life. Act 7: Signs of Life

Visual effects: The colorful lights of the tattoo shop and the cold light of the pharmacy are in stark contrast, symbolizing the dilemma of the heroine's life and an indispensable element of her life.

Transition: Through the heroine's interaction in these places, show her life status. Act 8: Protection and Persistence

Visual effect: The heroine hugging the teddy bear is full of desperation and determination, and her eyes reveal the determination not to give up.

Transition: Show her dual role by contrasting her exhaustion at work with her determination to protect the teddy bear.

Act 9: The Power of Contrast

Visual effects: The transition from tired to sexy is emphasized by the focus of the camera and the change of light, highlighting the inner play of the heroine.

Transition: Through editing techniques, strengthen the audience's cognition of her life. Act 10: Helpless Expectation

Visual effect: The heroine's eyes are full of the desire to help, and her helplessness makes the audience unable to stop paying attention to her inner world.

Transition: Convey her inner state through her eyes and body language. Act 11: The Turning Wall

Visual effects: The heroine's eyes quickly change from asking for help to smiling at work, and the camera closely follows her facial expression.

Transition: Through quick clips, she shows her inner conflict and social role transformation. Act 12: Treasure and Sacrifice

Visual effects: The heroine's every breath is filled with exhaustion, but her tight hug to the teddy bear reveals something unshakable in birth.

Transition: Show her protection of what she holds dear. Act 13: The Power of Persistence

Visual effects: Even when she falls down, the heroine's hand is still gripping the teddy bear, and her persistence is particularly moving in the camera.

Transition: Through her actions, she shows her attachment to "home (cherished things)". Act 14: Hope and Confusion

Visual effects: The heroine looks expectantly into the distance, but seems lost. In the eyes of the heroine, there is both the desire for the future and the helplessness of reality, which makes the audience think deeply.

Transition: Through her expressions and body language, convey her desire and uncertainty for the

future.

e. Act 15: Deep Thinking

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Visual effects: The heroine turns to the audience, her eyes full of help and thinking. The moment the heroine looks straight into the camera, time seems to stand still, and her eyes become the focus and soul of the entire film.

Transition: Through direct eye contact, the audience is invited to enter her inner world and trigger deep thinking.

4.3 Shooting

Technology

4.3.1 Use of Light

The author explores how subtle changes in a girl's emotions can be expressed through changes in light, or certain key moments can be highlighted to convey the subject matter authentically and profoundly.

Act 1: Use natural light gradients, from bright to dim, to reflect the heroine's mood from calm to heavy.

Act 2: The flickering of neon lights and the interleaving of shadows at night create the duality of Pattaya's nightlife.

Act 3: In black and white memories, the dappled light shows the passage of time and the uncertainty of memory.

Act 4: The pure white dress stands out even more in the strong light, symbolizing the contrast between purity and bondage.

Act 5: The moonlight interacts with the waves to create the atmosphere of the heroine's inner struggle.

Act 6: The bright light at work contrasts with the dim light in private life, highlighting the heroine's inner conflict.

Act 7: The different light color temperatures of the tattoo shop and the drug store represent temptation and security respectively.

Acts 8-15: In these acts, light is used to emphasize the heroine's emotional state, such as the soft light when hugging the teddy bear, and the distant light when looking forward.

4.3.2 Lens Language

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The author uses techniques such as close-ups, long shots or hand-held photography to enhance the immersion and urgency of the story. Covert photography and non-interventional interviews were also used to capture the true emotions and reactions that were inadvertently revealed.

Close-up: Used to capture subtle changes in the expression of the heroine, such as the close-up of her face and the teddy bear in the first act and the close-up of her helpless eyes in the tenth act.

Long shot: Used to show the heroine's living environment and her loneliness in it, such as the long shot of Pattaya in Act 2.

Handheld photography: Used to add realism and urgency, such as the scene in which the heroine is on the beach in Act 5 and when she collapses in Act 12.

Covert photography: Used to capture the heroine's true reactions without her knowledge, such as her natural interaction at the drugstore in Act 7.

Non-intervention interview: used to record the real feelings and thinking of the heroine, such as the profound expression of her looking directly at the camera in Act 15.

4.4 Narrative Structure

4.4.1 Timeline

The researchers considered using non-linear storytelling to create suspense in the narrative and stimulate the audience's curiosity and involvement in the story. Through the way of memory and future anticipation, the heroine's fears, dreams and hopes are revealed, providing the audience with a richer emotional experience. By interspersing the heroine's past, present and future, the audience can experience her life at different points in time, so as to understand her inner world more fully.

4.4.2 Role Development

In this film, we can witness how the heroine grows up in the face of adversity, and her personal changes not only affect her, but also reflect the current situation of the sex worker community as a whole. The narrative structure is tightly structured around her daily life, and through her perspective, the audience is led to feel her hopes, dreams, and challenges, which can awaken the audience to a new perspective on sex work, understanding the challenges this community faces, and their hopes and dreams. Such storytelling reinforces the resonance of the story and promotes a deeper understanding and respect for sex work.

4.5 Description of the Minutes

(1) Act 1: *The Silent Entrance*

The scene in the picture uses cool colors and soft light to show the heroine walking toward the teddy bear with a blank face. This picture conveys the atmosphere of loneliness and introspection, and also reflects the heroine's helpless and indifferent attitude towards the world. The teddy bear here symbolizes someone or something she has to take care of, and although the surroundings appear dark, the light on the bear seems to represent hope or innocence. The entire composition emphasizes the emotional state of the main character and sets the tone for the further development of the story. Such visual narrative techniques not only enhance the artistic depth of the film, but also provide the audience with a window into the inner world of the characters.

(2) Act 2: *The Suggestion of Pattaya*

The city skyline at night, with its bright lights contrasting with the dark sky, shows the energy and mystery of Pattaya. The contrast of warm and cold tones adds visual depth,

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while also reflecting the multifaceted nature of urban life. The shining of the lights not only represents hope and human activity, but also hints at the hidden stories and untold truths of the city. This scene, through the clever use of visual elements, provides the audience with an in-depth exploration of Pattaya's nightlife, while also adding context and depth to the heroine's story.

(3) Act 3: Black and White Memories

The black and white memories of the third act skillfully convey the heroine's past and her inner world through its tone and visual effects. The choice of black and white tones not only gives the picture a sense of The Times, but also symbolizes the distance and fuzziness of memory. The effects of old movies in the scene deepen the audience's perception of the heroine's past experiences. In addition, the introduction of black and white memories further strengthens the theme of the film around the topic of the sex industry, providing the audience with a deep exploration of the heroine's past and inner world, while also adding depth to the theme and emotional level of the film. This treatment not only contrasts the memories with the rest of the film, but also sets the tone for the further development of the story.

(4) Act 4: The Bondage of Pure White

This scene deeply reflects the helplessness and persistence of the heroine through slow camera movement and the capture of subtle changes in her expression. In the picture, the heroine stands by the sea, with the white hemline contrasting with the waves, symbolizing her purity and strength in the turbulent waters of life. The text 'Never had the chance to choose' reflects the emotions she failed to express and her silent struggle.

(5) Act 5: The Call of the Ocean

In the fifth act, the idea of the heroine trying to go to the ocean many times reflects her deep despair and helplessness to the real life. However, her inner ties, such as caring for family, friends and other important things, prevent her from taking extreme actions. This inner conflict, through the call of the sea at night and the figure of the heroine, forms a strong visual and emotional contrast. The sea at night and the figure in the moonlight reveal both her strength and her vulnerability.

(6) Act 6: Behind the Laughter

The sixth act, by contrasting the heroine's smile in the light with the emptiness in her eyes, shows the state in which she must force a smile at work, effectively conveying the heroine's complex emotions and social role in the sex industry (Figure 4.6). This contrast not only reveals her inner loneliness and helplessness, but also reflects the true feelings of sex trade workers.

(7) Act 7: Signs of Life

In the seventh act, the complex emotions and choices of the heroine in life and work are conveyed through the visual contrast between the tattoo shop and the pharmacy. The tattoo represents the glamour and sexual tension she needs to project in order to work, while the pharmacy symbolizes the drugs she must rely on to stay healthy. The treatment of this scene adds more depth and subtlety to the film's thematic and emotional layers. This use of visual narrative is a profound display of the heroine's story, but also a sensitive and powerful discussion of the sex industry topic.

(8) Act 8: Protection and Persistence

By contrasting the heroine's exhaustion at work with her determination in protecting the teddy bear, Act 8 shows her persistence in protecting what she holds dear. The action of the heroine hugging the teddy bear shows her desperation and determination, but her eyes reveal the determination not to give up, and it is also very touching.

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(9) Act 9: The Power of Contrast

The ninth act shows her double life through the heroine's transformation from tired to sexy, using camera focus and light changes to emphasize her inner drama. The heroine stands in front of an active city backdrop filled with neon lights, a contrast that highlights the relationship between the individual and the busy urban environment, adding visual impact and emotional resonance. This shift fuels the viewer's desire to explore her story.

(10) Act 10: Helpless Expectation

In the tenth act, the heroine's helpless eyes and body language convey her deep expectation and help. The visual effects of this scene, through her expressions and movements, let the audience feel her emotional state in non-working state, as well as her desire for the outside world and her psychology of seeking help.

(11) Act 11: The Turning Wall

In the eleventh act, the heroine's eyes quickly change from asking for help to smiling at work, showing her inner conflict and changing social roles. Wearing a shiny red top, she stands in front of peeling paint and graffiti walls, creating a strong and dramatic atmosphere.

(12) Act 12: Treasure and Sacrifice

In the twelfth act, the heroine holds the teddy bear tightly, showing that she is wasting her youth and life while protecting what she values.

(13) Act 13: The Power of Persistence

In the thirteenth act, the heroine falls down and sits up again, conveying her persistence and perseverance to 'home (cherished things)', and her determination not to give up hope even in extreme exhaustion and difficulties.

(14) Act 14: Hope and Confusion

Through the eyes and body language of the heroine, Act 14 shows her longing for the future and her helplessness to the reality. The 'Hope' next to the light source symbolizes her hope for the future and her confusion at present. The scene underscores the inner drama of the heroine, who, while eager to change the status quo, is not sure exactly what to expect.

(15) Act 15: Deep Thinking

In the final act, the eyes of the heroine turning to the audience are full of help and thinking, and the moment of staring into the camera seems to make time stand still. Her expression in one's eyes becomes the focus and soul of the whole film.

5. Conclusion

5.1 Project Reflection

The creative process of this film is not only a profound journey of self-exploration, but also a challenge of social concepts. Through an in-depth look at the lives of sex workers, the film reveals the complex emotional and social challenges faced by this group, as well as society's diverse views and inherent prejudices about sex work. In the process, the author's self-awareness has been enhanced, and his empathy for sex workers has also been strengthened.

5.2 Impact Assessment

Based on initial feedback, the film has been successful in drawing viewers' attention to the situation of sex workers and promoting public discussion on the decriminalization and de-stigmatization of sex work. By showing the daily life and inner world of sex workers, the film challenges audiences' traditional conceptions and provokes in-depth thinking about the social status and human rights issues of sex work.

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5.3 Conclusion

The creation and presentation of this film not only documents the real life of sex workers, but also challenges the existing conceptions and prejudices of society. By artistically presenting the everyday lives of sex workers, the film reveals the struggles they face, the hope they maintain, and the resilience they demonstrate. At the same time, it also reflects society's misunderstanding of this group. The purpose of the film is to arouse empathy in the audience, promote understanding and acceptance of sex workers, and promote the discussion and process of destigmatizing sex work in society (Doe, 2023). It is hoped that this work will be a force for social change and cognitive renewal.

5.4 Suggestions for future work

Given the diversity and complexity of the sex work field, the authors suggest that future researchers and filmmakers continue to explore the subject, especially the personal stories and social contexts of sex workers (Smith, 2023). In addition, the authors call on policy makers to consider the rights of sex workers and provide them with more support and protection, including legal safeguards, health services, and social acceptance (Zhang & Wang, 2023). Through these efforts, the quality of life of sex workers can be further improved and society can be more inclusive and inclusive.

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7. References

- Abbot, A. D. (1982). *The system of professions: An essay on the division of expert labor*. Chicago: University of Chicago Press.
- Abrams, L. S. (2000). Guardians of virtue: The social reformers and the "Girl Problem," 1890-1920. *Social Service Review*, 74 (3), 436-452.
- Abrams, L. S., Curran, L. (2000). Wayward girls and virtuous women: Social workers and female juvenile delinquency in the progressive era. *Affilia*, 15(1), 49-64.
- Addams, J. (1912). *A new conscience and an ancient evil*. New York: The Macmillan Company
- Alexander, P. (1987). Prostitution: A difficult issue for feminists. In Delacoste, E, Alexander, P. (Eds.), *Sex Work: Writings by women in the sex industry*. Pitts

The 12th International Arts and Design Symposium 2024 | Conference Proceedings

- burgh: Cleis Press.
- Barry, K. (1979). *Female sexual slavery*. Englewood-Cliffs: Prentice-Hall, Inc. Bell, L. (1987). *Good girls/bad girls*. Seattle: Seal Press.
- Bell, S. (1994). *Reading, writing & rewriting the prostitute body*. Bloomington: Indiana University Press.
- Boyer, D. K., Chapman, L., & Marshall, B. K. (1993). *Survival sex in King County: Helping women out*. [Report submitted to King County Women's Advisory Board]. Seattle: Washington.
- Boyer, P. (1978). *Urban masses and moral order in America, 1820-1920*. Cambridge: Harvard University Press.
- Bullough, V., & Bullough, B. (1987). *Women and prostitution: A social history*. Buffalo, NY: Prometheus Books.
- Caprio, F. (1954). *Female homosexuality; a psychodynamic study of Lesbianism*. New York: Citadel Press.
- Delacoste, B. F., & Alexander, P. (1987). *Sex work: Writings by women in the sex industry*. Pittsburgh, PA: Cleis Press.
- Chapkis, W. (1997). *Live sex acts: Women performing erotic labor*. New York: Routledge.
- Connelly, M. T. (1980). *The response to prostitution in the progressive era*. Chapel Hill: The University of North Carolina Press.
- Cree, V. E. (1995). *From public streets to private lives: The changing task of social work*. Sydney: Avebury.
- Doe, J. (2023). *The Life of Sex Workers: A Documentary Reflection*. *Journal of Social Perspectives*, 12(3), 45-60.
- Emily St Denny. (2020). *Why French sex workers seeking support from government are unlikely to receive funding, 2020*, from <https://theconversation.com/coronavirus-why-french-sex-workers- seeking-support-from-government-are-unlikely-to-receive-funding-136589>
- Ramanya Gayathri M.(2023). *A STRIDE TOWARDS NEW ERA 'SEX WORK AS LABOUR'*, 2023, from [a-stride-towards-new-era-sex-work-as-labour.pdf](#)
- Smith, A. (2023). *Public Perception of Sex Work: The Impact of Media*. *Media Studies Journal*, 15(2), 112-130.
- Zhang, L., & Wang, Y. (2023). *Policy and Protection: The Rights of Sex Workers in Modern Society*. *Journal of Human Rights*, 8(1), 75-90.

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Oriental Aesthetic Design of Chinese Films

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Abstract

This study will provide a new perspective for understanding and evaluating Chinese cinema. Through in-depth analysis of the embodiment of oriental aesthetics in Chinese films, we will not only be able to better understand the cultural connotations and artistic characteristics of Chinese cinema, but also be able to evaluate its position and contribution in global cinematic art. The researchers will also select three highly representative Chinese classic films with oriental aesthetic designs as research objects, and apply the oriental aesthetic designs of the studied Chinese films to five design projects, including posters, bookmarks, postcards, film tickets and paper bags. More people will be exposed to and understand the oriental aesthetic designs of Chinese films, appreciate them with the right vision, and let the results of academic research inspire film creation. In conclusion, by delving into the oriental aesthetic design in Chinese films in this study, we can better understand how film as an art form interacts with specific cultural contexts. More people will be able to access and understand the oriental aesthetic design of Chinese films and appreciate it with the right perspective.

Keywords: *Oriental Aesthetic, Chinese Films, Product design, Visual Design*

1. Introduction

Since its inception, the art of Chinese film has incorporated a deep oriental cultural heritage and unique aesthetic pursuits. The incorporation of traditional Chinese culture and aesthetics into film production entered the period after the founding of New China, while continuing to carry forward traditional aesthetics, it also began to explore the combination of socialist realism and traditional Chinese aesthetics. Film productions focused more on reflecting social reality, while also borrowing production styles from Soviet and Eastern European film. However, even under these circumstances, the influence of Eastern aesthetics remained deeply rooted,

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as reflected in the delicate portrayal of natural harmony, social order, and the emotions of the characters.

After the reform and opening up, Chinese film ushered in a new stage of development. The gradual opening up of the film market has given Chinese films the opportunity to come into contact with more diversified international film styles, and at the same time, they are faced with the challenge of the convergence and fusion of traditional and modern, oriental and western aesthetics. Contemporary Chinese film, while absorbing Western filmic techniques and narrative approaches, still strives to maintain the characteristics of Eastern aesthetics. This unique aesthetic style is not only reflected in the visual expression, but also profoundly influences the choice of theme, narrative structure and characterization of the film.(History of Chinese film, 2006; Li, Shao Bai.)

The evolution of Chinese film is not only a transformation of technology, but also a reflection of Chinese culture and social concepts. From silent to sound, from black-and-white to color, it records the changes in Chinese culture and the far-reaching influence of oriental aesthetics.

The development of Chinese films is an important part of China's cultural and artistic development. Since the introduction of the first film after the founding of New China in 1949, Chinese films have experienced the transformation from silent films to sound films, and from black-and-white to color, and at the same time witnessed the profound changes in Chinese society and culture. In this process, Oriental aesthetics, as an important part of Chinese culture, has had a profound influence on Chinese films.(History of Chinese film, 2006; Li, Shao Bai.)

Oriental aesthetics originated from ancient Chinese philosophical thinking and artistic traditions, emphasizing natural harmony, far-reaching moods, and emotional introspection. This unique concept of aesthetics is not only reflected in the narrative style and choice of themes, but also profoundly influences the visual language and aesthetic expression of films. With the advancement of globalization and the development of cultural pluralism, Chinese films are facing the challenge of how to innovate and internationalize while inheriting traditional aesthetics.

Not only should we extract the cultural connotation, emotional expression and aesthetic concepts that only belong to the Orient from the Oriental aesthetic design of Chinese films, but also use the product design to express the Oriental aesthetics of the Oriental aesthetics in a deeper and richer way to show the Oriental aesthetics of the design of the Oriental aesthetics of Chinese films. Convey the unique charm of oriental aesthetics, enhance the artistic value and market competitiveness of the product. Apply the researched oriental aesthetic design of Chinese films to product design projects. Although the target group of product design is film lovers who love the oriental aesthetics of Chinese films, but more let more people get in touch with and understand the oriental aesthetic design of Chinese films, appreciate it with the right vision, and let the results of academic research inspire film creation.

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2. Research Objectives

- 1) To study oriental aesthetic in modern Chinese films (1990-2023)
- 2) To design the film products which applied oriental aesthetics in modern Chinese film (1990-2023)

3.Details

3.1 Research Theory

In the history of Chinese film, there have been many excellent films, in which the Chinese elements and oriental aesthetic mood presented occupy an important position in film and television, whether it is the intuitive experience of color or the kernel of cultural mood, it is an audio-visual feast of oriental aesthetics that has been praised by everyone. Image as a carrier of cultural symbols, the artistic reproduction of cultural roots is also one of the inspirations for creation.

3.1.1 Confucianism

Drawing on Confucianism's Middle Way, which emphasizes balance and harmony, the balance of visual, narrative and emotional aspects is pursued in Chinese films to avoid over-expression.

3.1.2 Chinese Landscape

Influenced by Chinese landscape painting, it emphasizes the layering, spatiality and combination of dynamic and static in the picture to create the visual aesthetics of the film.

3.1.3 Contextual expression

Context is the core of classical Chinese aesthetics, which emphasizes conveying deep emotions and meanings through hints, symbols and associations rather than direct depiction.

3.1.4 Zen aesthetics

Emphasizing ethereality, serenity and subtlety, Chinese films often employ these elements to create a profound atmosphere that transcends reality.

3.1.5 Aesthetic Independence

As an independent art form, films have to have their own unique aesthetic standards and styles, thus forming many directors' own styles.

3.1.6 Modern aesthetics

On the basis of traditional aesthetics, modern design, color theory, and photography technology are incorporated to make traditional elements presented in a modern form and form a new film language.

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3.2 Methodology

With the deepening of global cultural exchanges, Chinese film, as a unique form of cultural expression, has occupied an increasingly important position on the world stage. This study aims to explore in depth the elements of oriental aesthetics in Chinese film, revealing how these elements affect the expressive power and cultural connotation of the film. In this process, the use of methodology is crucial, which not only helps us to understand Chinese film in a more systematic and in-depth way, but also promotes a comprehensive understanding of oriental aesthetics.

3.2.1 Identification and Analysis of Oriental Aesthetic Elements

To explore and identify the core elements of Oriental aesthetics in depth. This includes a systematic compilation of aesthetic concepts in traditional Chinese culture, art and philosophy, as well as an analysis of how these concepts have been incorporated into the storytelling, visual representation and characterization of modern Chinese cinema. Through case studies of classic and contemporary Chinese film works, this study aims to reveal the specific forms of expression and ways of application of oriental aesthetics in modern Chinese cinema.

3.2.2 Research on the Relationship between Oriental Aesthetics and film Audience Acceptance

To explore how the application of Oriental aesthetic elements in modern Chinese films affects audience acceptance. An in-depth study of the audience's film-going experience, emotional response and evaluation criteria. Through questionnaires, audience interviews and case studies, this study will assess how the application of oriental aesthetics in films appeals to different audience groups and how these aesthetic elements affect the audience's overall evaluation and acceptance of the films.

3.2.3 Challenges and Opportunities of Oriental Aesthetics in Modern Chinese Film Creation

Against the background of globalization and technological innovation, this study will also explore the challenges and opportunities of Oriental aesthetics in modern Chinese film creation. This includes analyzing how to maintain the essence of traditional aesthetics while integrating modern film technology and internationalized narratives with it, as well as how to effectively present and disseminate the oriental aesthetic features of Chinese films in the international market.

3.2.4 Implications for the film industry and cultural dissemination

To put forward suggestions for the development of the Chinese film industry and international cultural dissemination strategies. This includes exploring how to better disseminate Chinese culture through film productions and how to effectively promote Chinese films with oriental aesthetic features in the international

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film market in order to enhance their international influence and market competitiveness.

3.3 Research methods and materials

3.3.1 Specific analysis of aesthetic design in representative films

Chinese film works of different periods and styles will be selected as case studies for in-depth analysis. Focus on the visual elements (e.g., photography, colors, sets), narrative styles, themes and symbols in the films. Analyze how the elements of oriental aesthetics are integrated into film narrative and visual design, and understand their practical use and expression in modern films.

3.3.2 Film Criticism and Analysis

Analyzing the works of famous Chinese film directors such as Zhang Yimou, Chen Kaige, Wang Jiawei, Li An, Jackie Chan, Zhou Xingchi, etc., and analyzing how they use oriental aesthetics.

3.3.3 Internet Resources

"Chinese Film Database", "Film Literature" professional websites and online journals, articles and forums on Chinese film aesthetics. Proceedings of international film research conferences or symposiums on Chinese film studies often contain the latest research results. Analyze film reviews to understand the views of different critics on film aesthetics.

3.3.4 Data Analysis

To assess the audience's acceptance and interpretation of oriental aesthetics. Use questionnaires, interviews, focus groups, and social media analysis to collect audience perceptions and reactions to Chinese films from different backgrounds. How do audiences understand and feel the elements of oriental aesthetics in films, and how do these elements affect their viewing experience and evaluation.

4. Results

4.1 Conclusion

Through an in-depth analysis of a series of Chinese film works, including the picture composition, color matching and music selection in the films, in order

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to clarify the design principles and expressive characteristics of oriental aesthetics in Chinese films.

Interpretation of cultural elements in film works, in-depth excavation of the cultural connotations contained in Chinese films. These include traditional values, expressions of history and culture, and reflections of social concepts, so that people can better understand the cultural heritage of Chinese films.

Studying the application of oriental aesthetics in Chinese film is promoting a more internationalized study of Chinese film. This involves combining the unique aesthetic language of Chinese film with the acceptance standards of international audiences, and providing theoretical support for the performance and recognition of Chinese film in global cultural exchanges. It is also hoped to provide practical creative guidance for film creators. This will help to improve the artistic quality of film works, as well as provide useful lessons for Chinese films to win more recognition in the international market.

Project	Content
Research purposes	Cross-cultural comparisons are made within the theoretical framework of Eastern aesthetics to explore the uniqueness of Chinese film, especially in comparison with Western aesthetics.
Method	In-depth interviews with directors and design teams of film productions, qualitative and quantitative data analysis, audience feedback collection, comprehensive analysis of academic reviews, combined with director interviews and other information.
Main Content	<ul style="list-style-type: none"> - The intentions, challenges and creative process of the behind-the-scenes creators in utilizing Eastern aesthetics. - The effect, influence and potential challenges of oriental aesthetics in Chinese films. - The current situation and problems in the process of Chinese film industrialization. - The operation and thinking at the level of film creation. - Opportunities and challenges of Chinese cinema, and the direction of future development.
Result	Comprehensive analysis of the data reveals the effect and influence of the application of oriental aesthetics in Chinese cinema, as well as the problems and development trends in the industrialization process.
Conclusion	Chinese films should continue to innovate and develop in the process of internationalization, adapt to audience needs, and continue to produce high-quality works to play a greater role.

Overall, the purpose of this study is to explore the cultural heritage and artistic qualities of Chinese films in depth while focusing on the specific use of oriental aesthetics in them, with a view to providing strong theoretical support for the creation, research and promotion of Chinese films. The study will enable people to understand the uniqueness of Chinese film more comprehensively and

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promote its development in the international arena.

4.2 Research Design

Choose the oriental aesthetics of classic Chinese films for product design: Farewell My Concubine (1993), Crouching Tiger, Hidden Dragon (2000), Shadow (2018).

Reasons for choosing these three films for the Eastern aesthetic design of Chinese film:

Director's influence:

Chen Kaige, Li An and Zhang Yimou are important representatives of the Chinese film industry, so much so that they are loud and clear in the global film industry, and their works enjoy a high reputation internationally.

Film success and international market recognition:

"Farewell My Concubine", "Crouching Tiger, Hidden Dragon" and "Shadow" are all film works that have achieved great success in the international arena. They have not only achieved excellent results at the box office, but also won many international film awards.

Visual style and aesthetic expression of oriental aesthetic elements:

All three films fully demonstrate the oriental aesthetic characteristics of Chinese cinema.

Historical and Cultural Background:

All three films are deeply rooted in traditional Chinese culture and historical background.

The use of cultural symbols and imagery:

Such as the Peking Opera elements in Farewell My Concubine, the martial arts imagery in Crouching Tiger, Hidden Dragon, and the Tai Chi and Eight Trigrams in the film. Product design can draw on these cultural symbols and imagery to attract the target audience and highlight the unique charm of oriental aesthetics.

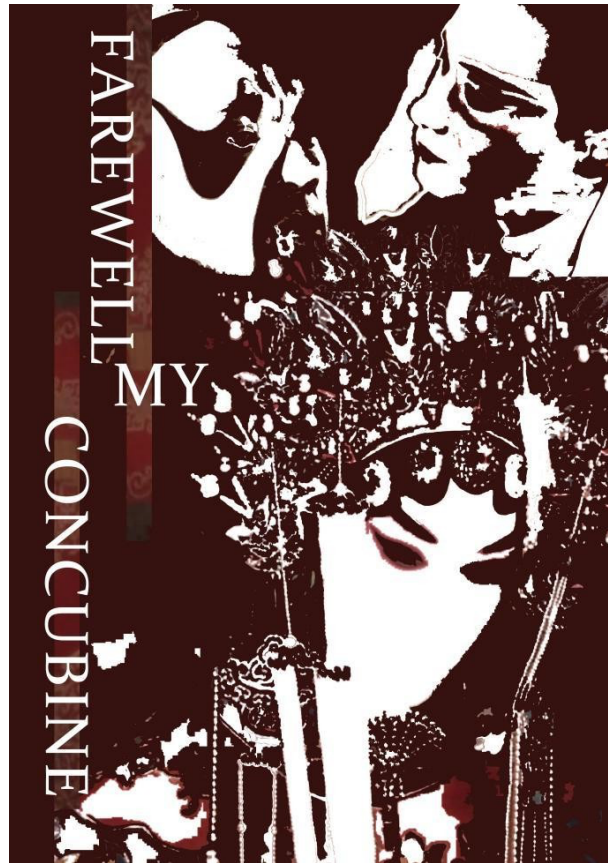
Apply the researched oriental aesthetic design of Chinese films to five design projects. Let more people get in touch with and understand the oriental aesthetic design of Chinese films, appreciate it with the right vision, and let the results of academic research inspire film creation.

Poster: Shows the core theme and visual style of the film.

Bookmarks, postcards, film tickets: Distill iconic scenes or symbols from films.

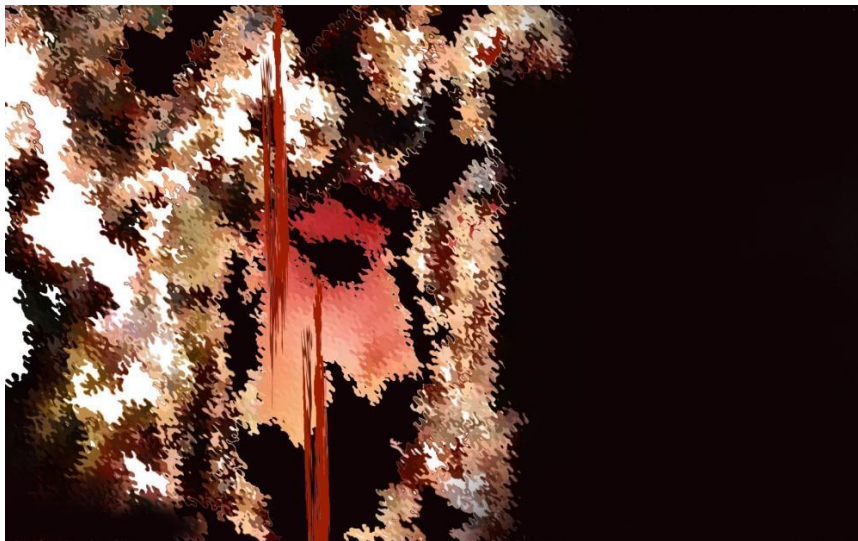
Paper bag: Present film elements in the form of small works of art.

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In Farewell My Concubine, we drew on the Peking Opera as an important design element. Underneath the beautiful costumes and heavy makeup is the tragic core of the Chinese aesthetic classic.

The composition and use of color inspired by the duet and the make-up, presents a grand and magnificent artistic atmosphere. The ornate costumes and choreographed sets on the Liyuan theater stage reflect the intersection and fusion of theater and reality.



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In the film, the killing scenes of that era of reform and change not only highlight the unique charm and elegance of Chinese Peking Opera, but also present the suppressed confrontational emotions within the characters through the dark other side.

The slow-motion and gentle rhythm of the plot creates a dreamlike visual experience and shows the aesthetics of traditional Chinese culture.

From the rich cultural connotations, emotional expressions and aesthetic concepts of the three films Farewell My Concubine, Crouching Tiger, Hidden Dragon and Shadow, we can show the oriental aesthetic design in Chinese films in a deeper and richer way. Convey the unique charm of oriental aesthetics and enhance the artistic value and market competitiveness of our products.

5. Acknowledgements

Thanks to my thesis advisor, Aj.Sammiti has a rigorous teaching attitude and extensive knowledge of the subject to help me, very responsible to help me how to revise my thesis and suggest directions.

Thanks to myself, and my strong willpower.

6. References

Dai Jinhua. (2004). Film Criticism [M]. Beijing:Peking University Press.

Ding, Xiaoping. (2011). The Age of the Big film: The Variety of Hot Films and Television [J]. Beijing:Culture and Art Publishing House.

Li, Shao Bai. (2006). History of Chinese Cinema [J]. Beijing:Higher Education Press.

Li Daoxin. (2005). A Cultural History of Chinese Cinema 1905-2004 [M]. Beijing:Peking University Press.

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Design Meets Entrepreneurship: Mobile Tools for New Entrepreneurs

Luhao Yin, Pakorn Prohmvitak, Danu Phumalee

Abstract

In the digital age, mobile apps have become an important tool for young entrepreneurs. This study aims to design and develop a start-up mobile app for young people to support their entrepreneurial journey. Through in-depth market analysis and user research, we identified the key challenges and needs faced by young entrepreneurs. This paper details the functional design of the app, including innovative business planning tools, network building platforms, and resource sharing systems. We have developed an intuitive and easy-to-use user interface using a user-centric design approach. In addition, we explore the technical and commercial feasibility of the app, which has the potential to improve the efficiency and success rate of users' entrepreneurship. This study not only provides a valuable tool for young entrepreneurs, but also provides a new perspective on the application of mobile apps in the field of entrepreneurship education.

Keywords: Entrepreneurship, Mobile Apps, Youth Entrepreneurship, UI Design, Market Analysis, Feature Development, Innovative Technologies, Business Models

1. Introduction

1.1 Research background

The State Council pointed out in a policy document released in February 2023: Innovation is the first driving force for development and the strategic support for the construction of a modern economic system. In the policy document released by the Ministry of Education in July 2023, the specific responsibilities of various types of colleges and universities in the educational practice of innovation and entrepreneurship are further clarified, as well as the main role they play in the implementation and management of the country's innovation plans. The introduction of various policies shows the importance the country attaches to "mass entrepreneurship and innovation", and the establishment of innovation and entrepreneurship practice platforms has also been strongly supported and promoted by various policies.

Regarding the concept of innovation and entrepreneurship education, the concept of "design industrialization + entrepreneurship education" has become an inevitable trend in the development of the times. The top-level strategy of design-driven industries and industry-empowering entrepreneurship plays an extremely critical role. It is of great significance and value to promote innovation and entrepreneurship among college students and to break through from the design and technology dimensions to product managers and entrepreneurs.

Recently, entrepreneurship education in Chinese universities still focuses on theoretical teaching and neglects practical entrepreneurial projects. How to use platforms to improve the practical entrepreneurial capabilities of university students has become an urgent problem. Therefore, further understanding the actual needs and scenarios of innovation and entrepreneurship among college students and proposing adaptive methods are of great value to the future strategic development of entrepreneurship training in colleges and universities in my country.

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Against the background of the development of the times and the social environment, the continuous development of the Internet and its increasing penetration into people's lives have also provided new methods and new environments for the establishment of innovation and entrepreneurship platforms. As a carrier, the Internet can effectively help college students practice better. With the help of the "Internet +" thinking model, combined with innovative and entrepreneurial platforms, and building an effective resource sharing platform, the Internet will be able to effectively build bridges between university teachers, students and enterprises.

According to Max's "2023 China College Student Employment Report", the proportion of undergraduate graduates participating in entrepreneurship in 2022 will be 1.6%, while the proportion of graduates from vocational colleges who will start their own businesses will be 3.4%. Looking back at the past, the proportion of college students who started their own entrepreneurial path ranged from 1.0% to 3.0%. Based on the above data analysis, the current effectiveness of entrepreneurship education in colleges and universities is average, and few college students choose independent innovation and entrepreneurship after graduation. After analyzing relevant literature and relevant data, the current status and problems of innovation and entrepreneurship in colleges and universities can be briefly summarized as the following four points:

The innovative consciousness of college students is weak. At present, college students focus more on employment, have insufficient interest in innovation and entrepreneurship education, and lack innovative thinking and awareness.

There is a genetic defect in the entrepreneurial spirit of college students. The innovative and entrepreneurial abilities of college students are weak. my country's entrepreneurship education courses are mainly theoretical, and a large part of the resources are not effectively integrated with subject and professional resources. College students are hindered to a certain extent.

There is a disconnect between the theory and practice of entrepreneurship education. Nowadays, in entrepreneurship education in colleges and universities, courses such as theoretical books are increasing, while the importance of practical projects is ignored. Although competitions such as "Internet +" and "Challenge Cup" have been established in recent years, more students participate in the competition only on the surface of the project without thinking about the actual implementation.

Insufficient resource allocation for high-quality projects. Innovation and entrepreneurship are inseparable from specific practical projects. However, the cooperation between enterprises and universities in industry, academia and research is not deep, and it is difficult for students to have access to high-quality enterprise project resources and practical projects in universities. High-quality entrepreneurial project platforms should become a bridge between universities, students and enterprises.

Based on the above current situation and problems, the necessity of building a practical platform for innovation and entrepreneurship projects can be summarized into the following three points:

Make up for the lack of theoretical teaching. Building an entrepreneurial project platform allows students participating in entrepreneurship courses and students with entrepreneurial needs to truly participate in actual entrepreneurial projects, providing more opportunities for students to practice.

Reduce the difficulty of obtaining resources. The establishment of an entrepreneurial project platform allows students to use smartphones to quickly obtain entrepreneurial

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project resources for independent participation in practice, laying a foundation for future entrepreneurial efforts.

Achieve effective resource allocation. The establishment of an entrepreneurial project platform not only allows college entrepreneurship seekers to more conveniently carry out entrepreneurial training, but also enables resource integration and sharing and the creation of a mobile entrepreneurial practice community. The convenience and dissemination of communication software allow entrepreneurs and business mentors to easily follow and share resources, thereby maximizing the organic integration and sharing of entrepreneurial project resources.

2. Objectives

The ultimate goal of this dissertation is to research, analyze and provide recommendations on the use of mobile tools for aspiring entrepreneurs. In particular, the dissertation seeks to:

Analyze existing theories and concepts related to mobile applications for entrepreneurs to identify key aspects of their design and functionality.

Explore the process of developing and designing mobile applications for entrepreneurial projects, with particular attention to industry history, business value analysis, and user needs research.

Conduct research on the launch of entrepreneurial projects using mobile applications, including market analysis, product positioning and identification of user needs.

Present the product and highlight suggestions for its improvement based on the analysis and research. Meaning:

1) Social significance - Promote the development of entrepreneurship education. It can make up for the shortcomings of entrepreneurship theoretical education in colleges and universities and enable students to participate in entrepreneurship training more effectively. At present, some colleges and universities have professional entrepreneurship theory and practical courses, but they are still unable to meet the psychological needs of college entrepreneurship and the effect of mass entrepreneurship and innovation in colleges and universities. On the other hand, with the continuous development of the Internet, college students are making more use of the Internet to carry out learning practice. The establishment of an entrepreneurial project platform allows students to use smartphones to easily and quickly obtain entrepreneurial project resources for practice, laying a solid foundation for future entrepreneurial efforts. Therefore, the establishment of an entrepreneurial project platform is the cornerstone of the development of entrepreneurial training in colleges and universities and is of great significance and value.

2) Economic significance - to achieve effective allocation of resources. The establishment of an entrepreneurial project platform not only allows those in need of entrepreneurship in colleges and universities to more conveniently carry out entrepreneurial practical training, but also enables resource integration and sharing and the creation of a mobile entrepreneurial practical training community. With the convenience and ease of dissemination of communication software, entrepreneurs and entrepreneurs can be facilitated to guide, pay attention to and share resources, maximize the organic integration and sharing of high-quality project resources, maximize and rationalize resource allocation, and make full use of resources.

3) Strategic significance - Promote the development of related fields. The strategic

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theory of the entrepreneurial project platform comes from the value concept of "design industrialization + entrepreneurship education", which is in line with the development trend of entrepreneurship education in colleges and universities, and also conforms to the development trend of design disciplines.

3. Details

3.1 Research content and methods

This study will start from the current policy environment and social background to clarify the inevitability of innovation and entrepreneurship in colleges and universities. Combining the current status of relevant research at home and abroad, this paper conducts research on theories and cases, and summarizes the design methods of entrepreneurial APPs. Specifically covering the following content:

- 1) Research topic, proposal and value: Through the research background and current situation at home and abroad, the purpose, significance, content and methods of the research topic are summarized, and the ideas and overall structure of the research topic are clarified.
- 2) Theoretical research: Through literature and related data research, systematically sort out the theories related to entrepreneurial projects and WeChat APP and extract the core content. Provide theoretical foundation support for subsequent method induction.
- 3) Case analysis and principle summary: Summarize design experience through actual case analysis and comparison of entrepreneurial project APPs. Establish the design principles of entrepreneurial APPs and provide theoretical basis for the design of entrepreneurial APPs.
- 4) Design and development process proposed: Based on the theory and principle summary, by analyzing the design and development methods of mobile APP, the entrepreneurial APP development process is summarized.
- 5) Case practice: practice entrepreneurship APP by proposing principles and processes. This will verify whether the proposed design method is accurate and provide practical cases for related research fields.
- 6) Work display and improvement suggestions: Display research results and provide suggestions for improvement.

3.2 Method: multi-method research induction + demonstration

This study uses literature analysis, case study, interdisciplinary method, experience summarization, survey research and practical demonstration methods to explore the principles and methods of entrepreneurial APPs and apply the research results to cases.

- 1) Literature research method: This research involves the construction of university entrepreneurship project platforms. This field is relatively new, so there are few targeted literatures. Through the preliminary literature survey, collection and arrangement of relevant keywords, the relevant knowledge context was sorted out to serve the subsequent research on this topic.
- 2) Case study method: Conduct research and analysis on APP cases similar to this topic to explore the characteristics and formation process of the cases. Through existing APP analysis, comparative analysis, summary analysis and other dimensions, study the development direction and design methods of entrepreneurial project APPs.
- 3) Interdisciplinary method: The research direction of this topic is the study of

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entrepreneurial APP design methods. It is necessary to integrate design principles and methods, user research, interaction design, psychology, pedagogy, management and other theories for cross-research and exploration.

4) Experience summary method: summarize literature and cases, summarize the principles and design methods of APPs, explore existing problems in entrepreneurial project APPs, and practice practical application cases.

5) Survey research method: Based on the specific content of practical research, research objects are studied through questionnaires, user interviews and user portraits. After investigation, the research results are analyzed and compared and conclusions are drawn. This method has the advantages of high efficiency, low cost and easy control.

6) Practical demonstration method: Carry out entrepreneurial APP practice based on the proposed theoretical method to demonstrate the feasibility of the principle method.

4 Theoretical basis of entrepreneurial APP design

Entrepreneurship project APP refers to an APP platform that provides a variety of different entrepreneurship projects, entrepreneurship consulting, entrepreneurship courses, etc. Entrepreneurship service is a service method that provides entrepreneurs with relevant entrepreneurial guidance, entrepreneurial consulting and entrepreneurial assistance. The service provider provides entrepreneurs with the services they need by integrating and using different resources and promotes their continuous development and benefits.

Search "entrepreneurship project" in Baidu and conduct systematic research, sorting and classification of such APPs. Entrepreneurship project APPs can be divided into project guidance, entrepreneurship consulting, brand introduction and franchising, intermediary platform and other categories.

These different types of entrepreneurial project APPs all have different product models. We will define, summarize and organize the models for the three largest categories.

Entrepreneurship project intermediate platform APP. This type of APP is aimed at entrepreneurs, providing more types of entrepreneurial projects, entrepreneurial consulting services and entrepreneurial courses, and helping entrepreneurs to grow quickly and obtain projects in a series of ways as comprehensively as possible. For the demand side of enterprises, it provides more opportunities for project display and brand promotion and introduces more high-quality talents who are willing to start businesses and actively participate in project practice to enterprises.

Entrepreneurship project consulting APP: This type of APP serves young entrepreneurs who are confused and confused, and provides them with entrepreneurial direction and guidance. Based on this service model, it mainly adopts the form of information and course content, and its commercial characteristics lie in the consultation fee and registration course mechanism. At present, you can see that the functional content is different, such as consulting services, course services and information services.

Entrepreneurship project guidance category: Part of this type of APP is an APP platform independently developed by universities, and the other part provides targeted guidance services and other content. The university R&D platform is mainly a customized APP established between universities and students to help students carry out practical entrepreneurial projects and provide information guidance. Another kind of guidance service mainly covers different functions such as skills, Q&A, and contacting tutors.

4.1 Entrepreneurship APP case analysis

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In the process of researching the design principles and design methods of entrepreneurial project APPs, case study and analysis are an extremely important link. Our clear goals for case analysis are:

First, through the analysis of many entrepreneurial project APPs, the principle of entrepreneurial project APPs is obtained using the method of summary and induction, and the principle basis is established for the proposal of design methodology;

The second is to analyze many cases and compare the positioning, functions, design and operation methods of existing such APPs to avoid the emergence of homogeneous APPs as much as possible;

The third is based on our need to carry out entrepreneurial project APP design practice, and discover the existing advantages and disadvantages by analyzing similar APPs, so as to learn from the advantages and avoid existing disadvantages, so as to serve better subsequent practice.

We selected several APPs for qualitative analysis and research. Among them, 6 APPs are selected as intermediate platform for entrepreneurship projects, 4 APPs are selected for consulting APPs for entrepreneurship projects, and 5 APPs are selected for guidance of entrepreneurship projects.

The study found that the core functions of APPs related to entrepreneurial projects revolve around seven dimensional functions: entrepreneurial projects, entrepreneurial information, entrepreneurial courses, entrepreneurial consulting, entrepreneurial communities, entrepreneurial services and personal centers.

By comparing and sorting out the core functions of 15 cases, it is not difficult to find that different module functions of different entrepreneurial project APPs have different emphasis.

Combined with the characteristics of the entrepreneurial project APP itself, the functional analysis is roughly summarized as follows:

Entrepreneurship projects: The core function is to provide users with high-quality entrepreneurial projects and an entrance to apply to join the project. The essence of the entrepreneurial project function is to serve as an intermediate platform to link the user and the project source. The project source enters relevant content information and project details on the platform, and the user views the relevant content on the APP. Based on the essential situation, this core function usually revolves around sub-functions such as project classification, project details, and project registration.

Entrepreneurship content information: The core function is to provide users with relevant information content under various categories. The content is often policies, related services, requirements, applications, etc. that are of interest to start-up users. The basic content comes from the platform operators who collect and organize it and then upload it to the platform for users to view. In terms of sub-functions, entrepreneurial information function modules often revolve around information label classification, detail lists, sharing collections, user interaction, etc.

Consulting services: The core function of consulting services is to provide doubt-solving related services for users who are looking for a business direction and are starting a business. Its specific manifestations vary on different APPs, such as consultation with tutors, customer service consultation, project consultation, etc. Users can conduct detailed communication and exchanges with relevant consulting parties for free or for a fee.

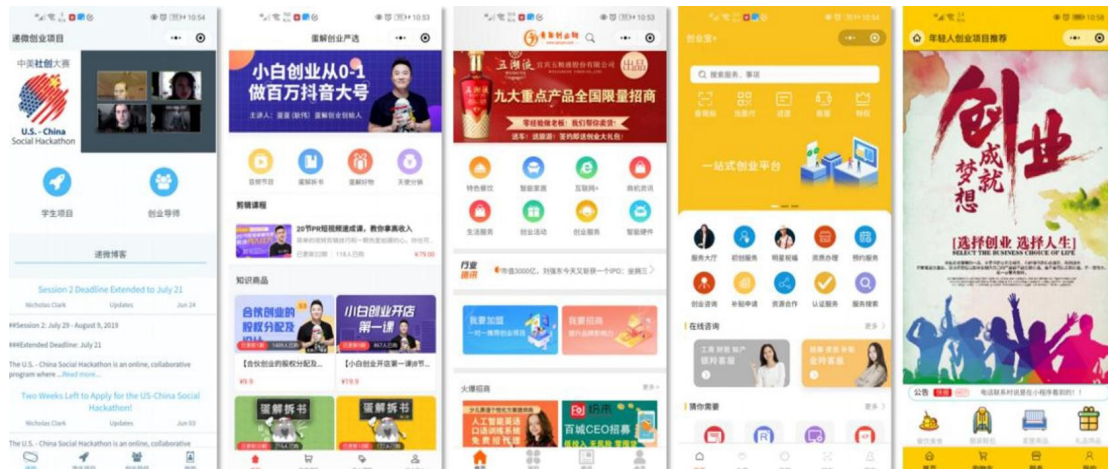
Next, we selected five entrepreneurial project APPs with clear and precise positioning for detailed case studies and analysis (Figure 2-1). Among them are Diwei

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Entrepreneurship Project APP, Danjie Entrepreneurship Selection APP, Youth Entrepreneurship Network APP, Chuangye Bao+ APP, and Young Entrepreneurship Project Recommendation APP. Through detailed comparison and research on product positioning and architecture, interface design and operation methods, the advantages and disadvantages of this type of APP are summarized. Use the method of summary and induction to derive the construction principles of entrepreneurial project APPs to assist in the proposal of design methods and specific design practices later.

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4-1 Five entrepreneurial project APPs



4.2 Product and user positioning analysis

Based on five entrepreneurial project-type WeChat APPs, a targeted analysis of the product core was conducted from the APP's product positioning, user positioning and its core functions (Table 2-1). The core positioning and functions of each APP are biased. Through the analysis of product and user positioning, we can better understand the core value points of the five APPs as a whole.



Table 2.1 Analysis of APP positioning for entrepreneurial projects

APP Logo	APP name	APP positioning	User positioning	Core functions
	Micro-entrepreneurship project	International entrepreneurship project platform for universities; providing project and entrepreneurship mentor resources for university students	The core user group is high school students who have participated in entrepreneurial projects and are looking for entrepreneurial mentors.	Student projects Entrepreneurship Mentor

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	<p>Danjie Entrepreneurship Selection</p>	<p>A platform that provide s project selection and entrepreneuria l project courses</p>	<p>Entrepreneuri al groups who want to find high- quality entrepreneurial projects User grou ps who want to learn entrepreneurship- related courses and improve their entrepreneurial skills</p>	<p>Preferred items Online courses Membership service</p>
			<p>through courses</p>	
	<p>Youth Entrepreneurship Network</p>	<p>An intermediate platform betwe en entrepreneurs and project providers</p>	<p>Entrepreneuri al user group who want to find high-quality entrepreneurial projects, join the franchise and learn about entrepreneurial information Corporate stakeholders wh o want to publish their own brands to attract investment</p>	<p>Preferred items Entrepreneurs hip information Project release</p>

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	Chuangyeba o+	A one-stop entrepreneurial platform that provides entrepreneurial services and consulting services	Users who want to know the answers to a series of questions related to starting a business and establishing a company. Entrepreneur s who are looking for a one-stop solution for registration, trademark application and other services in the early stages of starting a business	Online consultation Start-up services Entrepreneur ship information membership service
	Recommended entrepreneurial projects for young people	Provide a platform for high- quality entrepreneurial projects for young entrepreneurs	Users who want to find entrepreneurial projects and provide entrepreneurial consultation	Venture Project Entrepreneurs hip News Entrepreneurs hip consulting

4.3 Comparative analysis of interface design

In interface design, attention should be paid to the use of color and layout to bring corresponding psychological effects to users. It needs to highlight its functional importance through different color layering, and ensure that the text and important primary colors are clear and easy to understand. It also needs to display expressive brand colors to create a sense of brand style. Next, we will further conduct a comparative analysis of the interface design of the five APPs. The interface effect of Diwei Entrepreneurship Project APP (Figure 2-2) is decorated with blue, and light blue is used as the background color. The overall design is simple, with the theme color being light blue, the auxiliary color being white, and the key color being blue. Since the Diwei Entrepreneurship Project APP is overall lightweight and the project direction is international in nature, the combination of light blue and blue looks clear and has a certain

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international feel. The overall interface uses a matrix list to display projects and instructors, and the information is clearly presented visually.



Figure 2-2 Visual interface of Diwei Entrepreneurship APP



Figure 2-3 Danjie Entrepreneurship Carefully Selected APP visual interface

The overall interface of Danjie Entrepreneurship Strictly Selected APP has many selected colors (Figure 2-3). The theme color is white, the accent color is blue-purple, and the auxiliary color is light red. The overall visual effect is relatively novel, trendy and energetic. It can be roughly inferred that Danjie Entrepreneurship's carefully selected users are basically relatively young, and it is not difficult to find from its functions. They are basically course-based. The overall interface adopts the form of list and matrix list to display the core content. The visual effect allows users to see the core functions and content parts at a glance. The Youth Entrepreneurship Network APP is different in the selection

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of accent colors and auxiliary colors (Figure 2-4). Among them, white and gray are the main colors, orange is the accent color, and blue is the auxiliary color. Highlight the core content of your information architecture through the complementary nature of blue and orange. However, the Youth Entrepreneurship Network is slightly lacking in visual design, illustrations and style. The icon element design is not clear, so the user experience is poor. On the whole, the visual pictures are relatively blurry, the overall design is messy, and the overall design is weak.



Figure 2-4 Youth Entrepreneurship Network APP visual interface

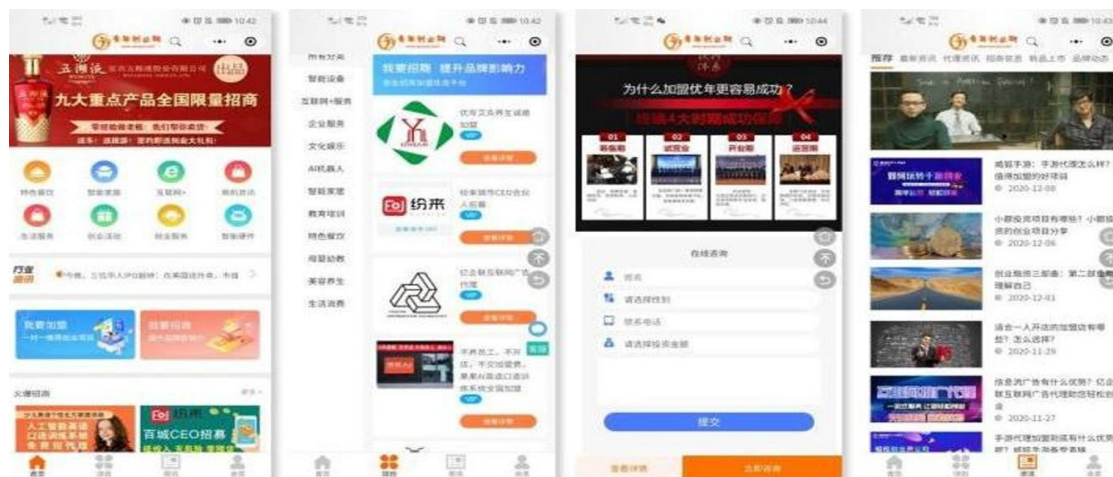


Figure 2-5 Chuangyebao + APP visual interface and color matching

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The Chuangyebao+ APP and the Youth Entrepreneurship Project Recommendation APP are basically the same in color (Figure 2-5, Figure 2-6). The overall frame color selection and style are basically the same, with the main color being white, the accent color being yellow, and the auxiliary color being gray. Except for the different positioning directions, the two products are very similar in the overall frame and tab area design. The overall combination of yellow, black, and white makes people look very innovative, making the

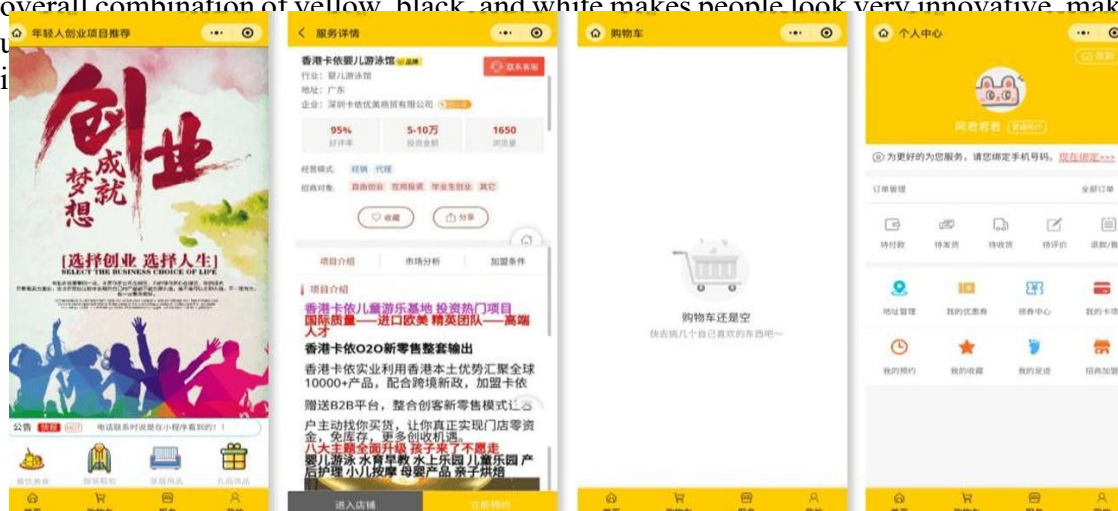


Figure 2-6 Recommended visual interface for young people's entrepreneurial projects Entrepreneurship project APPs are essentially the transmission of information content. Therefore, when designing the interface style and color matching, more consideration needs to be given to how to quickly transmit information. Through a comparison of the interface designs of the five APPs, Diwei Entrepreneurship Project Chinese style uses large pictures with title information to transmit information. Danjie Entrepreneurship Strict Selection uses a grid-style waterfall information with a list format to display, which is more conducive to displaying key points in terms of visual communication. The different project display methods of the Youth Entrepreneurship Network come from its essentially classified and labeled navigation design of the project list to help users find relevant project content faster, but it lacks in visual effects. The overall design of Chuangye Bao+ takes the flat icon entrance as the core design direction, and the information waterfall is used to carry consultation content. The visual effect is better among the five APPs. Recommended Entrepreneurship Projects for Young People In comparison, the design is rough and lacking among the five models. Overall, Danjie Entrepreneurship Carefully Selected is the best among these five apps in terms of design style and expression of content information delivery. It uses a formalized distribution of different module lists when displaying core content, and the illustration effect is relatively integrated, making it easier for users to clearly find the relevant content they are looking for.

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4.4 Analysis of ecological operation methods

Table 2-2 Comparison of operation methods of five entrepreneurial APPs

APP		Mode of Operation
Micro-entrepreneurship project	User operation	Guide users' payment behavior through user registration and contact by phone or WeChat.
Danjie Entrepreneurship Selection	Channel operation	Drain traffic through two different WeChat entrance channels, WeChat official account and WeChat video account; other self-media covers Zhihu, Douyin and other media, relying on content for channel operations; promote by inviting celebrities with a certain status in related fields.
	Content	Through official channels, it covers public accounts and video accounts, and produces relevant content in a

	operation	targeted manner. The content maintains a consistent style and creates a sense of brand awareness for users.
	Event operation	Rewards for logging in to the APP for the first time at product events stimulate users to purchase courses.
	User operation	After the user registers for the course, the user will be invited to enter the relevant course community, and community operations such as answering course questions will be conducted for the user in a targeted manner.
Youth Entrepreneurship Network	Channel operation	Drain traffic through two different WeChat entrance channels, WeChat official account and WeChat video account; other self-media covers Zhihu, Douyin and other media, relying on content for channel operations; publish relevant news and information through the media.
	Content operation	Through official channels, it covers public accounts and video accounts, and regularly produces relevant content.
	User operation	After submitting an application to participate in the project, we will have a one-on-one phone call with the user to communicate and determine their needs.

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Chuangye Bao +	Channel operation	Drain traffic through two different WeChat entrance channels, WeChat official account and WeChat video account; release relevant news and information through the media.
	Content operation	Through official channels, it covers public accounts and video accounts, and regularly produces relevant content.
	Event operation	Log in to the APP for the first time to receive red envelope rewards to stimulate user consumption behavior.
Recommended entrepreneurial projects for young people	User operation	Users join project-related communities after learning about the project, and operators guide and transform behaviors within the community.

By analyzing the detailed operation methods of the five APPs, we found that the three APPs, Danjie Entrepreneurship Yanxuan, Youth Entrepreneurship Network and Chuangye Bao+, are more comprehensive in terms of overall operation methods and cover a wider range.

Through the early analysis and research on two aspects of the five APPs, it is not difficult to find that among these five core research cases, Danjie Entrepreneurship Strict Selection and Chuangye Bao+ are better than the other three APPs in all aspects. Based on the research and analysis of this type of APP, the advantages and problems existing in it are finally summarized, and the design principles are proposed. Also in the subsequent design practice process, you can refer to the entire design, layout and functional architecture of these two apps.

Generally speaking, the advantages of existing entrepreneurial project APPs can be summarized as follows:

The product structure is simple. Most entrepreneurial project APPs have adopted the lightweight nature of WeChat APP itself and focused on the provision of core functions and resources in designing product functional structures. There are few levels on the page, so users can quickly reach the final page where they want to view the content.

The list layout is clearly designed. Among the high-quality entrepreneurial project APPs we currently survey, you can see that a matrix plus list layout design is used when designing specific project or course information, so that the content is clear and users can quickly view the content of interest.

WeChat's ecological operations are highly relevant. At present, high-quality entrepreneurial project APPs are basically associated with public accounts and video accounts, and arouse users' awareness of their brands by pushing articles on public accounts and regularly updating content on video accounts. Maintain the same design style and layout of content to better awaken users and introduce new users. Its existing problems can be summarized as follows:

Product life cycle is short. Due to the lightweight nature of entrepreneurial APPs, most entrepreneurial project APPs are "dead", that is, they have no substantive content and later maintenance. However, if project resources and course content are not updated in a timely manner, it will easily lead to user loss.

Severe user churn. At present, after APP provides project resources, it requires users to fill in an information application and a series of other actions before waiting for feedback

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from the platform. However, it is extremely easy for users to give up in this path. Entrepreneurship project APPs can essentially be positioned as tool-type products, used to help users quickly find target projects and participate in projects. Therefore, this path of existing types of APPs still needs to be optimized and improved.

The interface design is rough. Since most entrepreneurial project APP development companies are basically entrepreneurial teams, the interface design is too rough and simple, ignoring the visual effects on the user experience.

5 Market research

In the context of the rapid development of the Internet industry and the continuous evolution of the information technology field, China's mobile network platforms have gained a huge market. This has also led to the popularization of smart terminals such as mobile phones and tablets, allowing China's mobile APP software development market to rise. It has become a trend to join the ranks of mobile APP application software development. Just because mobile Internet has become a reality, many traditional business models have been subverted. More and more daily life, business and other content are being transferred to mobile terminals. Users can complete many things without leaving home, which has also profoundly changed consumers' behavioral habits. In order to better provide more complete services to mobile consumers, mobile APP design and research and development has become a rapidly developing field. This has also attracted a large number of students and flexible workers to enter this field.

In China, the entrepreneurial APP market has shown a booming trend, attracting the attention of a large number of users and investors. The following is an introduction to the current situation of this type of APP market in China:

Lawyer assistance APP: With the rise of entrepreneurship, entrepreneurs' demand for legal assistance is increasing. There are already some apps on the market that provide lawyer assistance services. These apps provide online legal consultation, contract review, intellectual property protection and other services, providing entrepreneurs with legal support and protection.

"New Regulations Express" APP is an APP launched by the Law Library. The "New Regulations Express" APP was launched relatively early. The installation package is 70MB and only contains laws and regulations. The introduction advertises that it contains 30,000 offline regulations, but it actually contains 25,000. The "New Regulations Express" APP is divided into two parts: local database and online database9 query. It only has a keyword query function and does not include search conditions such as level, classification, and release date by regulatory effectiveness. The search method is relatively simple. The format of the text of the regulations is not standardized, and there is information such as invalid status. The text content cannot be searched and located. The "New Regulations Express" APP can create favorites to collect regulations. The offline data query of the "New Regulations Express" APP is a major feature of this

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APP, but the 25,000 offline data is small, and online query requires payment, and the total



number of laws and regulations 9 is small.

5.1. Screenshot of "New Regulations Express" APP

APP for matching investors and entrepreneurial partners: Entrepreneurs need financial support and help from partners in the process of starting a business. Therefore, some apps provide matching services between investors and entrepreneurs, helping entrepreneurs find suitable investors and partners to promote the development and realization of projects.

Aihehe APP is an application software focused on helping entrepreneurs find partners. The application uses intelligent matching algorithms to connect individuals or teams with similar or complementary entrepreneurial intentions to promote the development and success of entrepreneurial projects. Aihehe APP uses intelligent matching algorithms to provide users with suitable recommendations for entrepreneurial partners through the information filled in by users about their entrepreneurial intentions, project needs and other information. These matches are based on the user's skills, interests, experience and other factors to ensure that both parties can effectively complement each other and jointly promote the development of the project. Users can create their own entrepreneurial projects on the Aihehe APP and fill in relevant information, such as project description, target market, expected revenue, etc. This information will help the matching system find suitable partners more accurately. Once a match is successful, users can communicate with potential partners through the built-in instant chat function of the Aihehe APP. This way, they can more easily discuss project details, make plans, and even collaborate remotely. Aihehe APP provides some project management tools to help users better manage and track project progress. Users can set task lists, make plans, share files, etc. to improve team collaboration efficiency. The application also provides a wealth of entrepreneurial resources, such as entrepreneurial guides, industry reports, expert sharing, etc.

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5.2. Screenshot of Aihehe APP

Entrepreneurship video course APP: Entrepreneurs need to constantly learn and improve their entrepreneurial skills, so a large number of APPs that provide entrepreneurship-related video courses have emerged on the market. These courses cover all aspects of entrepreneurship, including business models, marketing, team building, etc., providing entrepreneurs with rich learning resources.

MOOC APP is committed to providing entrepreneurs with colorful, professional and authoritative entrepreneurial video courses to help them continue to grow and succeed on the road to entrepreneurship. MOOC APP brings together many high-quality entrepreneurial video courses, covering all aspects of entrepreneurship, including but not limited to business models, marketing, innovative thinking, financing and investment, etc. Whether you are a newbie or a seasoned entrepreneur, you can find learning content that suits you here. The MOOC APP invites well-known domestic and foreign entrepreneurial experts, successful entrepreneurs, investors, etc. as lecturers to provide users with authoritative and practical entrepreneurial experience sharing. These lecturers have rich practical experience and professional knowledge and can point out the direction and provide guidance to entrepreneurs. Entrepreneurs can choose the appropriate learning method according to their own time and location, watch video courses anytime and anywhere, and arrange their own learning plans. Whether you are on your way to work, in your spare time, or in your home office, you can obtain the required entrepreneurial knowledge through the MOOC APP. In addition to video courses, MOOC APP also provides a wealth of entrepreneurial tools and resources, such as business plan templates, market research reports, entrepreneurial case analyses, etc. These practical tools and resources can help entrepreneurs better understand and apply the knowledge they have learned, and improve their practical entrepreneurial capabilities.

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5.3. Screenshot of MOOC APP

Entrepreneurship information apps: Entrepreneurs need to keep abreast of market dynamics, industry trends and sharing of entrepreneurial experience, so some apps that provide entrepreneurial information are very popular. These apps help entrepreneurs keep pace with the times and increase their chances of success by pushing content such as industry news, expert opinions, and successful cases.

As a comprehensive information APP, Tencent News provides entrepreneurs with rich and colorful information content to help them achieve greater success on the road to entrepreneurship. Tencent News brings together news reporting teams from around the world to provide comprehensive and timely entrepreneurial information reporting. Users can learn about the latest entrepreneurial trends, industry trends, policies and regulations and other information through this application, and always keep up with market changes. Tencent News invites many well-known entrepreneurial experts, industry leaders, investors, etc. to serve as special writers to provide users with authoritative and in-depth entrepreneurial opinions and analysis. The opinions of these experts can provide guidance and inspiration to entrepreneurs, helping them better grasp entrepreneurial opportunities and challenges. The app also regularly publishes case sharing from successful entrepreneurs, allowing users to learn experiences and lessons from actual cases. These cases cover various industries and various entrepreneurial models, providing valuable reference and inspiration for entrepreneurs. Tencent News provides personalized information push services based on users' preferences and interests. Users can subscribe to different information channels according to their own needs to ensure that they get the most suitable entrepreneurial information content.

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5.3. Screenshot of Tencent News APP

In general, China's entrepreneurial APP market has huge potential. Various entrepreneurial APPs provide entrepreneurs with rich services and resources, and provide strong support for their development. However, due to fierce market competition, entrepreneurial APPs need to continuously innovate and optimize, and improve user experience, in order to stand out in the market and achieve sustainable development.

5.1 Questionnaire

Purpose of the survey: To understand the types and functional characteristics of mobile smartphone APPs used by technical students in their daily study and daily life, which will help us understand the usage requirements of target customers. Research and analyze the behavioral characteristics of customers to help us better understand the functional details, steps and characteristics of the product.

Survey form: Using online survey questionnaires, targeted survey questionnaires are delivered through social applications, and finally, through statistical information application tools, relevant data and statistical information are collected and used in research.

Number of questionnaires: A total of 405 questionnaires were collected through the Internet, and 402 were valid questionnaires.

Findings:

1. **Survey analysis of target objects and dispersion:** The ratio of male to female target objects in this survey questionnaire analysis is close to 2:1, and there are significantly more male target objects. This may be due to the very small number of questionnaires distributed and strict restrictions on the distribution channels:

Among the target targets of the survey and analysis, there are more sophomore and junior students, accounting for about 56% of the total number of people surveyed and analyzed. A small number of master's students also participated in the survey questionnaire.

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2. Functional requirements: According to the survey and analysis, most of the APP types commonly used by customers in schools are social communication, accounting for 86%. The second is that comprehensive daily life services and learning application tools account for about half. After that are the data and information sharing category, audio-visual image category and entertainment consumption game category, accounting for nearly 50%. After studying and analyzing its actual situation, it can be learned that even though mobile smartphones have gradually developed into a necessary item in the lives of students, their core basic characteristics and attributes have not changed, that is, they are used for communication, which is their rigid need. Moreover, most of the time that student users spend in school is related to daily life study, so it is not surprising that they often use learning application tools and comprehensive daily life service products. Among them, what we require the core to pay full attention to is how they use the relevant APP in their daily life and study, which is closely related to the comprehensive design of this product.

3. User needs: Customers' general requirements for entrepreneurial APPs are that they are easy to use, have diverse connotations, fast payment and cash withdrawals, and fast iterative updates of data are important factors that influence their choice of a type of APP. In addition, they hope that the functions of the APP can help them increase their circle of friends, extend their learning channels, and facilitate their work.

4. Usage time: The time period during which college students use mobile smartphones is relatively fragmented and varies greatly from morning to night. But most people will use it fully during the period after going to the dormitory after class in the evening. And the effective duration of their mobile smartphone network applications is generally within 1-4 hours a day.

5. After-school life: Most of the after-school life of the surveyed and analyzed people is concentrated in reading, sports and love and making friends. Compared with participating in student clubs and part-time internships, they are more willing to choose a leisurely and relaxing after-school life style.

6. Views on the entrepreneurial team: Most of the target subjects of the survey and analysis have very little understanding of the APP for comprehensive management of the team of start-ups.

5.2 Product Positioning

With the rapid development of smartphone APPs in recent years, compared with general APPs, the StartupSpark APP we are involved in is committed to becoming an all-round partner for entrepreneurs and providing them with one-stop entrepreneurial solutions. The following is an introduction to the product positioning and core functions of StartupSpark APP:

StartupSpark APP is positioned to become the first choice tool for entrepreneurs, aiming to provide diverse support and resources to help entrepreneurs overcome challenges and achieve success in the entrepreneurial process. The APP is committed to building a comprehensive platform that integrates lawyer assistance, investor matching, entrepreneurial partner matching, entrepreneurial video courses and entrepreneurial information to provide entrepreneurs with a full range of services and support.

Core functions of StartupSpark APP:

Lawyer assistance: StartupSpark APP provides online lawyer assistance services. Entrepreneurs can use the platform to provide real-time consultation and legal services with professional lawyers to resolve legal issues encountered during the entrepreneurial process

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and ensure entrepreneurial compliance and protection of rights and interests.

Matching investors: This APP uses intelligent matching algorithms to help entrepreneurs find suitable investors, provide financial support and resource docking, and promote the development and realization of projects.

Matching entrepreneurial partners: StartupSpark APP provides entrepreneurial partner matching services to help entrepreneurs find partners that are consistent with their projects and jointly build projects.

Entrepreneurship video courses: This APP brings together a wealth of entrepreneurship video course resources, covering all aspects of entrepreneurship. Including business models, marketing, team building, etc., providing entrepreneurs with flexible learning methods and rich knowledge content.

Entrepreneurship information: StartupSpark APP updates entrepreneurial information every day, including industry trends, successful cases, expert opinions, etc. StartupSpark APP helps entrepreneurs keep abreast of market changes and industry trends, and provides a reference for entrepreneurial decision-making.

Through the above core functions, StartupSpark APP aims to provide entrepreneurs with comprehensive support and services to help them realize their entrepreneurial dreams and promote the development and prosperity of the entrepreneurial ecosystem.

6 Display of design results

LOGO design for StartupSpark APP. The brand tone positioning of StartupSpark APP mainly focuses on the emotional experience of professionalism, rigor and security. Therefore, in the theme color selection, we choose blue as the main color and orange as the accent color to highlight the vividness. The theme color blue is used in the logo design, and



the circle is used as the core logo display, aiming to create a sense of brand and being remembered (Figure 6-1).

Figure 6-1. StartupSpark APP logo design

Core functions of StartupSpark APP.

Legal aid function: In the process of starting a business, it is inevitable to face various legal issues. StartupSpark APP provides online lawyer assistance services for entrepreneurs. This feature is of great and far-reaching significance. The online lawyer

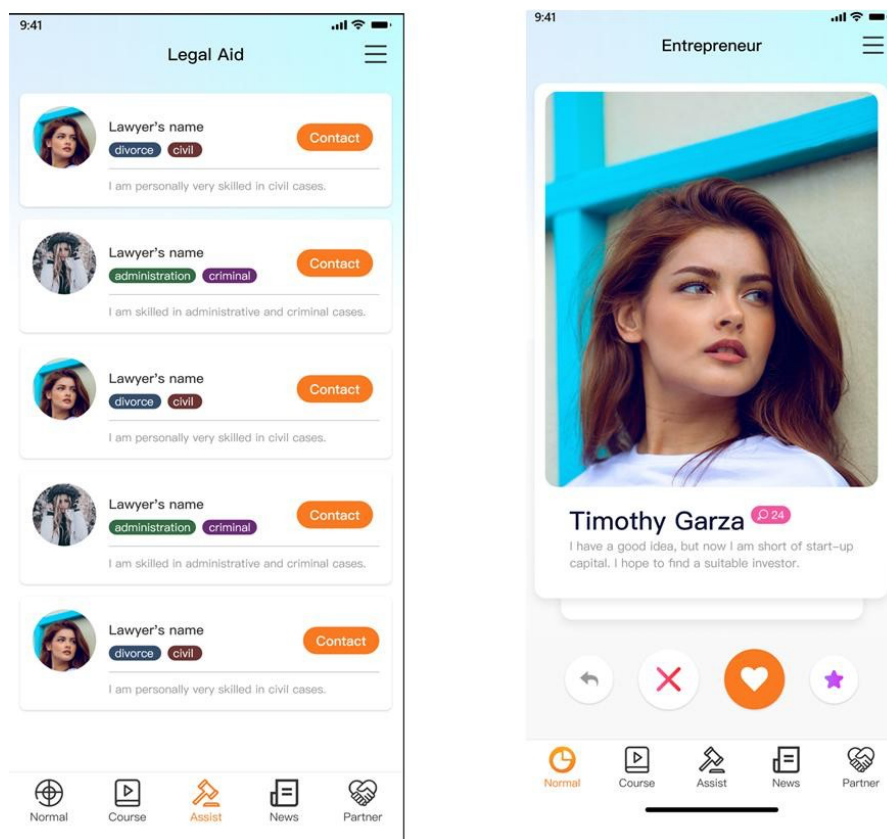
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assistance service provided by StartupSpark APP provides entrepreneurs with instant and convenient legal consultation channels. Entrepreneurs no longer need to go to law firms in person, which is time-consuming and laborious. They can use the StartupSpark APP to consult with professional lawyers online at anytime and anywhere through their mobile phones or computers to solve legal problems, saving valuable time and energy. The online lawyer assistance service provided by StartupSpark APP helps entrepreneurs ensure startup compliance. Entrepreneurs may be involved in many legal matters such as company registration, contract signing, and intellectual property protection during the process of starting a business, and the handling of these matters needs to follow corresponding laws and regulations. By consulting with professional lawyers, entrepreneurs can understand relevant legal requirements in a timely manner, ensure that their entrepreneurial activities comply with legal regulations, and avoid possible legal risks and disputes. Most importantly, the online lawyer assistance service provided by StartupSpark APP provides important support for entrepreneurs to protect their rights and interests. During the entrepreneurial process, entrepreneurs may face contract disputes, intellectual property infringement and other issues, and these issues may have a significant impact on the development and survival of entrepreneurial projects. By consulting with professional lawyers, entrepreneurs can understand their rights and obligations in a timely manner, take reasonable legal measures to protect their legitimate rights and interests, and ensure the smooth progress of their entrepreneurial projects. To sum up, the online lawyer assistance service provided by StartupSpark APP not only solves legal problems for entrepreneurs, but also ensures entrepreneurial compliance. It also provides strong support for the protection of their rights and interests and is an important tool and guarantee in the entrepreneurial process.

Matching investors: Matching investors is an important feature of StartupSpark APP.

Through intelligent matching algorithms, this application can help entrepreneurs find the most suitable investors, thereby providing financial support and resource docking for their entrepreneurial projects and promoting the development and realization of the projects. StartupSpark APP has established a huge database by collecting and analyzing data on entrepreneurs' project information, needs, investors' preferences and funding status. Then, using advanced intelligent matching algorithms, the application can quickly and accurately screen out investors that best match the needs of entrepreneurs and provide them with appropriate financial support. StartupSpark APP is not just a simple information matching platform, it also provides resource docking services. Once an investor is successfully matched, the application will build a communication bridge between entrepreneurs and investors, promoting communication and cooperation between the two parties. Entrepreneurs can communicate with investors through this platform and show them their project concepts, business plans and development prospects, further ensuring investors' recognition and support for the project. By connecting with investors, StartupSpark APP provides entrepreneurs with broader development space and opportunities. Investors can not only provide financial support, but also provide entrepreneurs with industry experience, network resources, and market channel assistance to accelerate the development and realization of projects.

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6.2. StartupSpark APP-Legal Aid and Matching Investors Screenshot

Matching entrepreneurial partners: The entrepreneurial partner matching service provided by StartupSpark APP is one of its key functions. It is designed to help entrepreneurs find partners that are consistent with their projects and jointly build projects. StartupSpark APP has established a comprehensive and accurate database of entrepreneurs by collecting their project information, needs, skills and other data. At the same time, the application also collects partners' personal information, skills and expertise, experience and background. Through this data, StartupSpark APP can accurately identify the needs of entrepreneurs and match them with suitable partners. StartupSpark APP uses advanced matching algorithms to intelligently match entrepreneurs and partners. Based on the project needs, skill matching, hobbies and other factors of both parties, the application can quickly select the most suitable partners and provide strong support to entrepreneurs. StartupSpark APP establishes a communication platform between entrepreneurs and partners. Once matched, entrepreneurs and partners can communicate instantly through the app to discuss project details, make plans, and solve problems together. This convenient communication method can effectively improve team collaboration efficiency and accelerate project advancement.

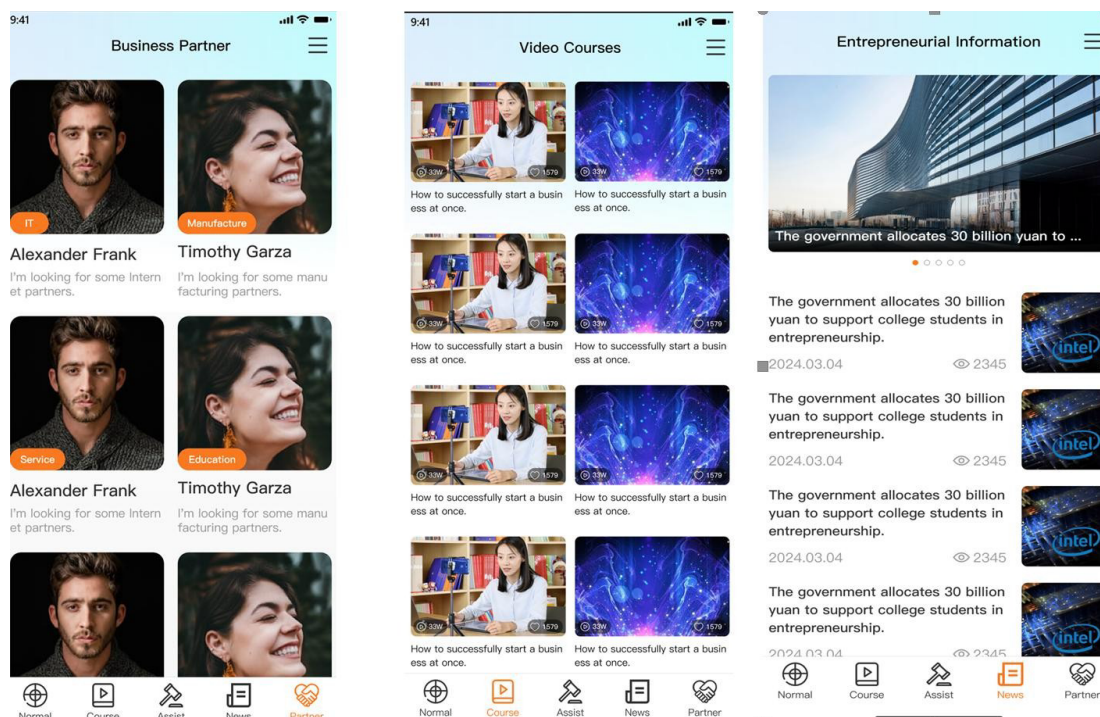
Entrepreneurship video courses: StartupSpark APP brings together a wealth of entrepreneurial video course resources, providing entrepreneurs with flexible learning methods and rich knowledge content. These video courses cover all aspects of entrepreneurship, including but not limited to business models, marketing, team building and other important areas. StartupSpark APP's entrepreneurial video course resources cover a wide range of topics and can meet the learning needs of different entrepreneurs. Whether you are just starting out or an experienced entrepreneur, you can find course content that suits you here. For example, entrepreneurs can learn how to formulate business plans,

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assess market demand, carry out marketing, manage teams, etc., to better cope with various challenges in the entrepreneurial process. StartupSpark APP provides a flexible learning method, allowing entrepreneurs to freely choose to learn according to their own watch video courses and learn anytime and anywhere on their mobile phones, tablets, or computers. This flexible learning method greatly improves the convenience and efficiency of learning, allowing entrepreneurs to better use fragmented time to learn and improve. The entrepreneurial video courses provided by StartupSpark APP are rich in content and authoritative. These courses are lectured by well-known entrepreneurial experts, successful entrepreneurs, and industry leaders in the industry, with rich practical experience and professional knowledge. Entrepreneurs can learn the latest entrepreneurial concepts and practical skills through these video courses and provide effective guidance and support for their entrepreneurial journey.

Entrepreneurship information: StartupSpark APP updates entrepreneurial information every day, covering industry trends, successful cases, expert opinions, etc. StartupSpark APP provides entrepreneurs with timely and comprehensive information services, helping them understand market changes and industry trends, and providing reference for entrepreneurial decision-making. StartupSpark APP brings together a wealth of industry dynamic information, including market changes, policies and regulations, technology trends, etc. This information can help entrepreneurs keep abreast of the latest trends in the industry, understand market demand and competition, and provide important reference for adjusting strategies and optimizing products. This application provides a large number of successful case sharing and introduces the successful experiences and stories of entrepreneurs from all walks of life. These cases can not only inspire entrepreneurs to be bold in innovation and enterprising, but also provide them with valuable inspiration and reference, helping them avoid detours on the road to entrepreneurship and achieve success faster. StartupSpark APP also invites many experts, scholars, entrepreneurs, etc. in the field of entrepreneurship to serve as special writers to share their professional views and insights. These expert opinions involve market analysis, entrepreneurial strategies, management practices and other aspects. They can provide entrepreneurs with high-quality ideas and suggestions and help them make more informed entrepreneurial decisions.

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6.3. StartupSpark APP-matching entrepreneurial partners, entrepreneurial video courses, entrepreneurial consulting screenshots

Through these core functions, StartupSpark APP is committed to creating a comprehensive entrepreneurial service platform for entrepreneurs to help them overcome difficulties, seize opportunities, and realize their entrepreneurial dreams. At the same time, this will also help promote the development and prosperity of the entrepreneurial ecosystem, encourage more entrepreneurs to participate in innovation and entrepreneurship, and inject new vitality and power into social and economic development.

6.2 Improvement suggestions

In the bustling landscape of entrepreneurship, having the right tools and resources at your disposal can make all the difference between success and stagnation. Enter StartupSpark, an innovative app designed to provide aspiring entrepreneurs with the support they need to thrive in the competitive world of business.

But in today's rapidly evolving digital age, even the most cutting-edge platforms must continually evolve to meet the ever-changing needs of their users. With that in mind, let's explore some key enhancements that can take StartupSpark to the next level and further empower its entrepreneurial community.

1. Community Building: Fostering Collaboration and Interaction One of the cornerstones of StartupSpark's success lies in its ability to foster a sense of community among its users. By integrating community-building features such as discussion forums, networking opportunities, and platforms for sharing user-generated content, StartupSpark can create a vibrant ecosystem where entrepreneurs can connect, collaborate, and learn from one another.

2. Interactive Learning Resources: Engaging and Effective Education While video courses serve as a valuable learning tool, StartupSpark can elevate its educational offerings by incorporating interactive resources such as quizzes, case studies, and interactive

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workshops. This interactive approach not only makes learning more engaging but also ensures that users can apply their newfound knowledge in real-world scenarios.

3. Personalized Recommendations: Tailoring Learning Experiences

Understanding that every entrepreneur's journey is unique, StartupSpark can leverage data analytics and machine learning algorithms to provide personalized recommendations to its users. By analyzing users' interests, skill levels, and learning progress, the app can deliver tailored content that resonates with each individual, ultimately enhancing the overall learning experience.

4. Expert Q&A Sessions: Access to Industry Insights Imagine having the opportunity to pick the brains of industry experts, successful entrepreneurs, and legal professionals. By organizing live Q&A sessions or webinars, StartupSpark can provide its users with invaluable insights, guidance, and mentoring opportunities, enriching their entrepreneurial journey and helping them navigate the complexities of business.

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5. Integration with Professional Services: Expanding Value Proposition By forging partnerships with law firms, investment firms, and other professional service providers, StartupSpark can offer exclusive discounts or access to specialized services for its users. This integration not only enhances the value proposition of the app but also attracts more users seeking comprehensive support for their entrepreneurial endeavors.

6. Feedback Mechanism: Listening and Responding to Users A feedback mechanism within the app allows StartupSpark to collect suggestions, comments, and ratings from its users. By actively listening to user feedback and incorporating valuable suggestions into future updates, the app can continuously improve its user experience and stay ahead of the curve.

7. Localized Content: Catering to Diverse Markets Recognizing the diverse needs of its user base, StartupSpark can offer localized content and resources tailored to specific regions or industries. This localized approach ensures that the app remains relevant and valuable to users operating in different markets or sectors.

8. Elements of Gamification: Making Learning Fun and Rewarding Introducing gamification elements such as badges, achievements, and progress tracking can motivate users and encourage further engagement with the app. By gamifying the learning process, StartupSpark makes entrepreneurship education more enjoyable and incentivizes users to continue their journey of growth and development.

In conclusion, by implementing these improvement suggestions, StartupSpark can further solidify its position as a leading platform for learning and entrepreneurship support. By fostering collaboration, personalizing learning experiences, and providing access to expert insights, StartupSpark empowers entrepreneurs to turn their dreams into reality and navigate the challenges of business with confidence. Together, let's embark on a journey of innovation and empowerment with StartupSpark.

References

- Readinggraphics.(2020). <https://readinggraphics.com/book-summary-the-lean-startup/>, 2023, from <https://readinggraphics.com/book-summary-the-lean-startup/>
- Long Wei. (2020). Measuring and Improving User Experience Through Artificial Intelligence-Aided Design, 2020, from <https://www.frontiersin.org/journals/psychology/articles/10.3389/fpsyg.2020.595374/full>
- Wang Yiqi. (2024). User experience five elements, 2023, from <https://yeah366.com/2022/07/User-experience-five-elements/>
- Chen Si. (2021). Comparison of WeChat applet development methods. Computer knowledge and technology, (16), 12-21. doi: CNKI: SUN: PGZZ.0.2021-13-34
- Zhang Ni. (2021). Research on the design and development of APP-based mobile learning platform. Scientific research management, (4), 32-41. doi: CNKI: SUN: PGZZ.0.2021-13-411
- Chen Hairu. (2023). Design and development of APP-based information platform. Computer knowledge and technology, (12), 149-161. doi: CNKI: SUN: PGZZ.0.2023-12-44
- Zhang Xiaoyan. (2022). System implementation and prospects for entrepreneurial APP development. Higher education in china, (3), 49-67. doi: CNKI: SUN: PGZZ.0.2022-31-44

The 12th International Arts and Design Symposium 2024 | Conference Proceedings

He Yu. (2023). Prospects for promotion of entrepreneurial APPs. Computer knowledge and technology, (4), 90-182. doi: CNKI: SUN: PGZZ.0.2023-10-68

Yang Qi. (2023). Zhang Liping. Looking at the development of entrepreneurial APPs from the perspective of Internet ecology. Scientific research management, (14), 116-121. doi: CNKI: SUN: PGZZ.0.2023-12-835

Lu Peihua. (2022). Analysis of the communication effect of entrepreneurial APPs. Computer knowledge and technology, (76), 142-145. doi: CNKI: SUN: PGZZ.0.2022-13-55

Wang Xinmei. (2023). Research on the development process and stage characteristics of innovation and entrepreneurship education for Chinese college students. Computer knowledge and technology, (1), 11-15. doi: CNKI: SUN: PGZZ.0.2023-52-87

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Developing Mural Arts For Children's Creativity: A Study On Colors and Creativity Development in Early Childhood Kindergarten, Central Thailand

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ABSTRACT

Colors can be used very effectively to promote human well-being because they have positive physiological and psychological effects. Individual perceptions of creativity influence people's ideas and actions when they participate in creative endeavors. In addition, childhood is the first phase of life in which kids explore, discover, and have fun. A significant educational issue facing 15-year-olds in Thailand is that over half of them struggle to apply fundamental science and math concepts to real-world situations because they lack creativity. Many schools embrace "play," with "toys" playing a major role in planning these kinds of activities to support these kids in discovering their creative voices. The goal of this study is to provide guidance for the design of products and tools that support early childhood development while also fostering imagination and creativity. Pre- and post-assessments of the development of creativity are conducted using qualitative methods in two case studies: the Color-Emotion Association Survey (CEAS) and the Torrance Tests of Creative Thinking (TTCT). Research findings were integrated into the design process to produce a mural painting set featuring five child development objectives. The design process incorporated research findings to create a mural painting set with 5 child development domain functions. Before the age of six, colorful mural expressions can be an engaging way to foster creativity and teamwork while also strengthening problem-solving abilities through divergent thinking.

Keywords: mural art, colors, creativity, interactive, design, child development

1. Introduction

The background of this research centered on exploring the psychological effects of color and creativity in early childhood. Over centuries of research, from Isaac Newton's groundbreaking findings to the present, color theory has clarified the significant impact of colors on human emotions and behaviors. However, empirical research on color's psychological effects had remained scarce, indicating a gap in our knowledge of this phenomenon despite color's pervasiveness. Simultaneously, discussion surrounding creativity in education—especially considering East-West dynamics—highlighted the need to accept a variety of viewpoints and approaches to successfully foster creativity. Since a lack of creativity made it difficult for more than half of Thai students to apply basic concepts to real-life situations, it was critical to address this problem. Through the integration of these two fields, the study sought to advance our understanding of color psychology while also suggesting creative pedagogical approaches to improve creativity and rectify Thailand's educational deficiencies, opening the door for extensive

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educational reforms. More than half of 15-year-olds in Thailand faced challenges applying math and science concepts to daily situations due to low levels of creativity. The deficiency in Thailand's education system, particularly in the application of knowledge to real-life scenarios, stemmed from an outdated curriculum that had seen minimal changes over the past two decades. To enhance students' capabilities and nurture comprehensive competencies, the education system should have prioritized the development of a well-rounded combination of knowledge, skills, attitudes, and values, rather than solely focusing on one aspect. (Permjit, 2023). Additionally, the introduction of new laws, according to a Chula academic, might have inadvertently constrained children's curiosity and freedom. The legislation mandated that students aged 6 to 12 learned about their rights and duties, national pride, religion, monarchy, constitutional monarchy, the Sufficiency Economy Philosophy, future planning, and proficiency in various subjects including math, science, technology, computers, languages, culture, and history. It also expected them to start exploring career choices at this early age. This issue suggested a critical gap in the current educational approach, emphasizing the need to explore innovative teaching strategies and interventions that foster creativity. (Blauw, 2021)

As existed then, color theory was the result of concepts that many scientists and artists had been working on for centuries. Isaac Newton, who discovered the color spectrum in 1666 by passing sunlight through a prism, was a significant figure in its development. The first color wheel was then made by him by arranging these colors in a closed loop. This was subsequently developed by Johann Wolfgang von Goethe, who examined the psychological effects of color in his book "Theory of Colors" published in 1810. On the other hand, Color psychology was the study of how distinct colors affected human mood and behavior. However, color psychology was the study of how distinct colors affected human mood and behavior. Researchers Andrew Elliot and Markus Maier found that even though colors were everywhere, there wasn't much scientific study on how they affected our minds. They discovered that most of the research done on color psychology was driven by practical needs rather than thorough scientific investigation. This highlighted a gap in our understanding of how colors influenced our thoughts and feelings. (Mellentine, 2023). In a study from 2020, researchers discovered that people often linked specific emotions to certain colors. The study involved 4,598 participants from 30 different countries. Warm colors like red, orange, and yellow, found in the red part of the color spectrum, were associated with feelings of coziness and warmth, as well as enmity and rage. On the other hand, cool colors like blue, purple, and green, found on the blue end of the spectrum, were linked to calmness, but they could also be connected to feelings of sadness or apathy. The researchers suggested that these color-emotion connections might have universal traits, which could help communication by sharing common meanings. (Cherry, 2024). A lot of research has investigated the differences in creative education between the East and the West. Some studies compared creativity education features from a Western perspective, while others identified an Asian concept of creativity that was similar to the Western one. Yet, interpretations of the concept of creativity education might have differed depending on the social painting setting (Reilly, 2011). While the widely acknowledged interpretation of creativity was rooted in Western values and concepts, it could have undergone modification or constraints within distinct cultural contexts (Cheng, 2011; Craft, 2003; Niu & Kaufman, 2013). In Asian countries, which exhibited cultural distinctions from the West, creativity was likely to have been comprehended and applied in ways that deviated from Western

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perspectives (Kwang, 2004; Wu, 2010). However, these studies often viewed the East and West as opposing extremes and did not fully show the diverse and complex ways the Western idea of creativity had been integrated into Asian culture. As a result of globalization, many countries had come to share a common language for articulating educational perspectives, problems, and

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solutions through international discourses (Hartley, 2003). In line with this trend, education reforms aimed at fostering creativity had prevailed globally; cultivating creativity had become a dominant discourse for education reforms in many countries. As a result, creativity could have been perceived as a universally applicable concept, regardless of diverse social and cultural backgrounds. However, educators in the East might not have been able to provide enough opportunities for those students in need of developing abilities in creativity since they might not have been exposed to new methodologies.

2. Objective

1. To study color therapy & mural art properties to enhance and develop creative expressions for young children aged 3 to 5
2. To develop a mural painting set using therapeutic colors that help boost creativity in young children aged 3 to 5

3. Literature Review

3.1 Color as Therapy

Based on the theory of how colors can be used for people's benefit, color therapy must be included. Color therapy is based on the idea that colors create an electrical impulse in our brain, which stimulates hormonal and biochemical processes in our body. These processes either stimulate or calm us (Azeemi, 2005). Color and the sensitivities of sensible designs are closely related; this is supported by color manifestations in a wide range of fields, including image consulting, color therapy, and color meditation, in addition to product, interior, and marketing design. Due to each color's distinct wavelength, it not only highlights the appearance's psychological attractiveness but also stimulates the body and mind. As a result, human emotions are highly sensitive and respond most strongly to color variations. Similar studies on the connections between color and other elements and human emotions have been conducted extensively. Human emotions are more subjective, according to the findings, and Cacioppo and Gardner state that "the measurement of emotions is a very bustling research field." (Wills, 2013). Nonetheless, this is a complementary therapy that dates back a few years and is practiced in China, Egypt, and India. The therapy specifically uses different wavelengths and energies to treat different parts of the body, including any abnormalities. In addition to correcting bodily part imbalances, the therapy aids in the rebalancing of the seven chakras (Gupta, 2021). Peterson has quoted "Color has a great impact on us. Color plays a major role in setting up a particular mode of mind. Colors are wavelengths of electromagnetic energy, are part of the visible spectrum, and are reflected by or from a certain object. Color is a part of our everyday life. The color is everywhere around us. If everything is there on the earth, there must be some reasons. So, color is no exception" (Peterson, 2006).

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3.2 Walls with Colors

A large space lets the mind expand and allows building more creative fluency. (Fischer 2005, Katja 2017) In terms of huge spaces filled with colors, concept and category of murals are also known as decorative wall paintings. It is a circle formed on the natural or artificial wall surface by color painting, sculpture, and other modeling techniques, focusing on the decorative building's interior surface. Murals often cover large surfaces, providing artists with an expansive canvas to express their ideas. The scale allows for impactful visuals that can transform and energize public spaces. Traditionally murals were intended primarily to beautify public or private spaces. However, murals have also become a medium to express themselves freely and to paint out their imaginations as a community. Large-scale artworks are created directly on walls or other permanent surfaces as a form of visual expression is also known as mural art. (Sahabuddin, 2024) Large murals that frequently cover entire walls or building facades are what define them and because of their large size, artists can produce visually striking and immersive experiences that are impossible with smaller canvases (Sahabuddin, 2024). Murals are frequently used as public art forms for both pragmatic and strategic reasons, but the main draw for doing so is that the art not only gets displayed in the city but also becomes an integral part of the city (Gillette, 2010). They can be found everywhere, including multi-story buildings, subways, and under bridges. These are all places that are already a part of the city's identity, but now they are distinguished by their artistic beauty. (Gillette, 2010) According to Michael Benson, effective community-based art never stops developing in the mind because it gives real voices a platform, makes real communities' struggles and dignity palpable, and fosters genuine conversations across racial and class divides. Mural art is one of the uncommon types of art that can be incorporated into practically any structure or space that can be used as a canvas. (Benson, 1995). By utilizing the characteristics of murals, a combination of research-based therapeutic colors to enhance creativity will be more productive compared to normal painting processes.

3.3 Color-Emotion Case Study

In Marcel R. Zenter (2001) research, in kindergartens and early elementary classrooms, manipulative materials (such as Cuisenaire Rods and Pattern Rollers) play a significant role in children's learning, enabling children to explore mathematical and scientific concepts (such as numbers, shapes, and sizes) through direct manipulation of physical objects. Human color vision is essential for more than just differentiating objects; it permits the perception of fine details and gives chromatic stimuli significance and importance. Although the main purpose of this sensory ability may be to differentiate between various objects, it also allows us to attach emotional meaning to colors. (Zentner, 2001) The fact that people consistently assign emotional qualities to colors in addition to exhibiting particular color preferences is a prime example. school age onwards (Guilford, 1959; Karp 1988; Whitfield, 1990; Boyatzis 1975, Valdez, 1994, Meerum 1995) Remarkably little is known, nevertheless, regarding the early formation of perceptual attractiveness and the emotional meanings associated with colors, apart from research on color discrimination in infancy (Bornstein, 1975; Werner 1979; Adams, 1987). Research on young children's comprehension of metaphors provides more proof. Since "anger is like red" and "sadness is like blue" share the characteristic of a metaphor, which is a "similarity between objects

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and events that violate children's conventional categories," one could classify analogies like these as metaphors (Vosniadou, 1987). That being said, it is widely accepted that young children can understand metaphors (Gardner, 1986, Vosniadou, 1987). Additionally, it has been discovered that this capacity is brittle, particularly regarding metaphors that explain psychological concepts like emotions. (Winner, 1976). But more research indicates that even young toddlers may have a basic intuitive understanding of emotional metaphors (Waggoner 1989). Finally, studies have

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demonstrated that preschoolers are quite skilled at accurately and consistently projecting their emotions onto inanimate stimuli like music (Zentner, 1999) or museum art (Callaghan, 1997). Long acknowledged (Werner, 1967), that children's comparisons of psychological traits to inanimate objects were frequently explained away as unintentional classification errors or the product of their imagination. A preoperational child's animosity in thought (Piaget, 1962; Chukovsky, 1968) Still, animism and magical thinking do not account for the consistency of the results, even though they may make it easier to extract emotional information from inanimate stimuli. People arranged their sensory information according to certain fundamental dimensions starting in their early years (Osgood, 1957). In more detail, both modality-specific processing would be part of the perception of an event, as well as on a more fundamental amodal dimension (like possessing a specific color or emotion). (For example, varying in intensity or pleasantness). The key to understanding why, even in the case of very young children, analogies between perceptually and/or categorically dissimilar phenomena can occasionally be drawn with a striking degree of consistency lies in this view, which proposes that some translation of modality-specific input into an amodal code is occurring (Gardener, 1974; Gardner, 1986; Marks, 1987; Smith, 1992; Collier 1996). Since colors can be described using a set of similar abstract dimensions, they make an interesting variable for the investigation of this hypothesis. To the fundamental characteristics that characterize emotions (Osgood, 1957; Russell, 1980). Parallel to this explanatory framework (Meerum, 1995), a hypothesis was subsequently put forth and partially supported: color and emotions could be related to one another because of the preference (valence) each is accorded within its own domain. Apart from theoretical concerns, there is also a practical interest in how young children respond emotionally to different colors. Gender stereotypes, like 'pink is for girls, blue is for boys,' are commonly used by advisors and parents. Clinicians claim to understand the emotional importance of colors for young children, but there is limited knowledge of how they feel about them. Additionally, experimental studies with toddlers and preschoolers often use color stimuli such as toys and animals, without considering the potential impact of different colors on young children's attention and behavior. In this experiment, they conducted a case study on kindergarten with a color-emotion test resulted in 68.1% manifested in bright preference according to table 1.2. In contrast to the developmental consistencies in the emotional connotations of blue and yellow, differences emerge for black and red. Having demonstrated that young children can detect consistent relationships between colors and facial expressions of emotions. This determines how we can survey kindergartens' color-emotion preferences to develop a color palette that can not only be therapeutic but can develop creativity by using these colors.

3.4 Creativity in Early Childhood

Most children are born creative geniuses, but our education system often contributes to suppressing that genius with time. NASA worked with Dr. George Land to develop a test that could measure the creative potential of NASA's scientists and engineers. The test focused on identifying divergent thinking capabilities—in other words, the ability to look at a particular problem and suggest multiple solutions. The test required participants to come up with as many ideas as possible to solve a problem, and it was remarkably effective for NASA's purposes. The same researchers then decided to give the same test to 1600 children between the ages of 4 and 5. What emerged is quite interesting: 98% of the children fell into the genius category of imagination!

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This led to a longitudinal study that followed the same children years later to redo the same test. When those same kids turned 10, only 30% were considered creative geniuses. When they turned 15, that number dropped to 12%. When the same test was conducted for adults, it showed that only 2% qualified as geniuses. This study proves that the most creative age is at kindergarten where the

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brain is fresh and full of ideas. Also, if we have a way to use this as an opportunity, any kid can be trained as geniuses. In creativity analysis, the term creativity is primarily examined from three angles: person-oriented, process-oriented, and product-oriented. The product-oriented approach defines innovation as a special product that needs to be timely, connected to a social context. Process-oriented researchers view innovation as a sequence of discrete actions or mental processes (Pürgstaller, 2021). Person-centered approach proponents object to restricting imagination to a material or to just divergent reasoning. They contend that the ability to imagine is a special gift that every child has and that both internal and external factors can foster or inhibit the development of imagination (Steinberg, 2016). Given the conversations surrounding the growth of children's imaginations, it is especially critical to raise awareness of children's creativity. There are primarily two topics covered. First, the authors assert that, especially in the domains of sport, dance, and creative movement education, children express their ideas and thoughts in a kinesthetic rather than a cognitive way. According to Cleland and Gallahue (1993), creativity can therefore be understood as a particular type of creativity that is body-bound and movement-based, known as motor creativity, rather than just cognitive ability. Similar to how imagination is recognized as a domain-general cognitive skill (Kuhn and Holling, 2009), motor creativity is viewed as a collection of skills and features as opposed to a singular skill. Studies have discovered a strong correlation between fluency (number of responses), versatility (number of theme changes), and originality (uniqueness of response), even though facets hypotheses differ (Runco & Acar, 2012). Artists can communicate in many ways, such as through language, music, and painting (Saracho, 2002). In a sample of three to five-year-olds, innovation is defined as a method, substance, or personal attributes in an individual's interpersonal and intrapersonal process where the generated goods have originality, high quality, and intrinsic value. Young children ought to be inspired to use their imaginations persistently (i.e., generating and generating original ideas), as this forms the basis of their creative capacity. The children are inspired to make new suggestions when their suggestions are accepted (Saracho, 2002). In the context of evaluating creativity, Runco (2003) makes a distinction between subjective and analytical creativity and implies that a child's imagination can be personal. Four levels of creativity are distinguished by Kaufman and Beghetto (2009): mini-c creativity, which is creativity that is subjectively recognized; little-c creativity, which is creativity that is recognized as such by another person; and pro-c creativity, which is creativity that is classified as a new a by an expert in the field.

3.5 Characteristics and Process of Creativity

There are four primary areas of study in 'creativity' research: the creative individual, the creative environment, the creative process, and the creative object. After synthesizing the research, Craft (2000) put together a list of the most frequently mentioned creative traits. These characteristics include intense passion, a lot of questions, a wide range of desires, a desire for sophistication, a high regard for artistic values in experience, judgment freedom, high energy, originality, and intuition. Hong Kong teachers scored highly on the characteristics of being "innovative, observant, artistic, changeable, curious, and agile," according to Rudowicz and Hui's (2000) investigation into the characteristics of a creative person. Many reports state that teachers can help foster young children's imagination by providing open-ended answers, exhibiting critical thinking and behavior, encouraging experimentation, and rewarding students for unexpected

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answers (Anna Craft, 2005). In ten European nations, Jeffrey (2006) conducted a survey and found a few key elements that supported students' ability to think creatively. Examples of this included situations where: 1) students worked in groups; 2) they were challenged and enjoyed learning; and 3) students were given some prior knowledge before being asked to finish the creative tasks.

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According to (Lucas, 2001), some strategies for stimulating a person's imagination include encouraging social learning as opposed to private learning, placing more emphasis on active learning than passive learning, focusing on the needs of the individual rather than the curriculum, engaging multiple learning types, asking open-ended questions, and presenting a variety of patterns as opposed to a standardized format. According to research, Dr. Mitchel Resnick (2007) synthesizes a creative process for learning called Creative Learning Spiral, which in this process consists of Imagine, Create, Play, Share, Reflect, then back to Imagine. The creative process or creative process also occurs naturally during children's play. Whether attempting to create a more elaborate castle, narrate original tales, or design exquisitely. Next, illustrate the people inside the castle. The inside and outside of the castle are decorated with various details. With oil, powder, rollers, wood, paper, and other materials they find nearby, kids will construct a castle. Kids will engage in play, exploration, and testing of variously constructed objects. Attempting to construct a taller castle, narrating fresh tales, or creating exquisite décor. When kids come over to play together, share. The modernization and stories are even more varied. Consider the time the castle was constructed and its collapse. If your parents, teachers, or other family members assisted you, consider the idea and determine the cause of the collapse. Imagine from experience gained how a new building could increase the stability of the castle and enable kids to attempt to construct a stronger castle than ever before using their solutions. Youngsters will begin to use their imagination in new ways. (Resnick, 2007)

3.6 Creative Play-Based Activities

In the Western perspective, play holds a significant role in children's learning, as it allows them to unleash their imaginations to their fullest potential. Craft (2007) highlights the importance of a playful approach in the early years, asserting that it fosters innovation due to its creative and flexible nature. Research conducted in Western societies demonstrates the positive correlation between play and creativity, indicating that children who engage in free play exhibit more creative thinking compared to those involved in structured activities (Russ, 2012). Moreover, creativity research advocates for the development of instructional programs aimed at enhancing creativity in children, emphasizing the role of educators in creating environments that stimulate creative thinking (Saracho, 2002). Play not only nurtures creativity but also plays a crucial role in the formation of children's social skills, fostering qualities such as acceptance, friendliness, and inclusion (Leff, 2004). Understanding children's play-related attitudes and interactions with peers is essential for promoting constructive social behaviors and mitigating negative peer relationships (Schwartz, 2000). The connection between play and imagination is central to children's development, with play serving as a platform for the expression and exploration of imagination. Studies have shown that play engagement correlates negatively with creativity, while imagination correlates positively with certain aspects of creativity such as play interruption and disconnection (Karaca, 2020). Cooperative-creative play programs have been found to significantly enhance children's verbal imagination, emphasizing the importance of low-systemic cooperative practices in fostering creativity (Garaigordobil & Berruero, 2011). Play provides children with opportunities to express themselves and engage their imaginations, contributing to the development of creativity (Karaca, 2020). However, the balance between structured play and imaginative exploration is crucial, as excessive structuring may hinder creativity while unstructured play may lead to

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disruptions. Educators and parents play vital roles in supporting children's motor creativity through play, emphasizing activities that encourage fluency and originality (Karaca, 2020). Artistic expression, particularly through activities like finger painting, offers children a sensory-rich

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experience that stimulates creativity and emotional expression. Finger painting has been recognized for its therapeutic benefits, particularly for children dealing with behavioral issues, as it allows them to express emotions and explore creativity in a non-verbal manner (Arlow, 1946; Mayar, 2022). Through finger painting, children not only learn about colors, lines, and textures but also develop problem-solving skills and artistic competencies (Suryawan, 2022). Educators play a crucial role in facilitating creative activities like finger painting, providing guidance and support to help children explore their artistic potential (Sundari, 2021). Ultimately, fostering imagination and creativity in children through play and artistic expression lays the groundwork for their cognitive and emotional development, preparing them to navigate the challenges of an ever-changing world (Keun, 2006; Craft, 2000).

3.7 Techniques and Methods of Stimulating Creativity

The Brainstorming technique finds ways to group ideas together so that none are rejected as unsuitable. The approach is based on the idea that every suggestion has the potential to inspire someone else to consider an even better solution, ensuring that every input is treated with decency and candor. SWOT analyses can be used to generate ideas, and they can also be approached in reverse, whereby participants consider potential causes of problems rather than solving them. In doing so, they attempt to address questions like who, what, where, when, why, and how, while also encouraging participation from all participants. (Bucur, 2023) The Delphi method offers a novel approach to forecast future events. Using lists of carefully considered questions, the method makes it easier to access alternative viewpoints on topics like how science will advance, how technology will affect the next several years, or how certain changes will be received by society. With this method, the participants do not communicate with one another; instead, they only learn about each other's perspectives after they have all finished and responded to the questions. (Bucur, 2023) A synoptic approach to the creative idea is presented by the Philips method. This approach sets up a mental sprint for the participants, who will work hard and try to come up with the best ideas in the minute allotted, instead of wasting time on idle chatter. The duration is exactly right for everyone to feel inspired, and there is just the right number of people involved to make it seem unprofessional. (Bucur, 2023). The approach of these methods presented through play allows the socialization of children at different ages, at the same time it develops creativity, and the generation of ideas for a rigorous analysis of the proposed concept (Beghetto, 2017; Zenden, 2020). Obviously, by going through the transitional stages, also through play, the practical skills are fixed and with the advancement in age of the youngest children, in time they will succeed in associating ideas, and creative solutions intended for new projects that require such a creative, innovative structure (Plucker, 2020; Plucker, 2018). Stimulating children's interest through play also defines solving through exploration regarding the accumulation of new essential information for knowing values and other useful information, by stimulating curiosity, creativity as well as discovering new resources that generate creative ideas, allowing the acquisition of practical skills (Bucur, 2022; Plucker, 2017). All these aspects orient and define the premises for the harmonious development of children towards a new existential stage (Sternburg, 1996). Thus, considering these aspects will have future effects on self-confidence, work strategies, school results, as well as the desire to study and store and organize the information received.

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3.8 Related Studies of Designing for Children

Catherine Fishel, a design-focused editor, wrote her own book about designing for kids and solicited advice from other designers. According to Fishel, design respects and educates children while also going beyond traditional educational goals by assisting them in determining their place in the wider world. Good design doesn't have to be cute because kids want to appear older than they are, and it can't be based only on the experiences of the designers' own or other people's kids (Fishel, 2001). Though these observations may not apply to every culture, children in Japan, for example, find "cute" to be appealing. Both adults and children adore products that are made to look cute, like those from the Hello Kitty brand. Thus, it could be referred to as a cross-generational product line. Japan has a cutesy culture known as "Kawaii." One well-known company that makes goods for the Hello Kitty brand is Sanrio. Girls and women in Japan are fond of this. Masubuchi (1994) identified seven essential elements of Kawaii, which are: small, innocent, impressionable, reliant, round, pastel-colored, and possessing animal characteristics (Goldstein, 1994). Given the longevity of the Hello Kitty brand, it is hypothesized that adult consumers continue to enjoy kawaii products due to nostalgia (Goldstein, 2004). Parham Santana oversaw reinventing the Barbie brand for Mattel; to do this, they needed to have a solid grasp of what the \$16 billion (about \$49 per person in the US) (about \$49 per person in the US) (about \$49 per person in the US) product line's customers (parents and kids) enjoyed about it and what they could do to increase its popularity. By speaking with parents in focus groups, they were able to identify design opportunities for kids. They learned about this by interacting with the parents while presenting the product and its packaging. Focus groups allowed the designers to see that while Barbie pink was popular with kids, it was less popular with parents. Rather than just listening to the kids, the designers made the decision to make concessions for the parents and reduce the amount of pink in favor of complementary colors. The parents were now drawn to the brand. The project's designer, Santana, believed that through talking to the customers, they could see that the kids were far more intelligent than some designers gave them credit for. The project's designers, Marchi and John, inform Fishel that they believe the brand's emotional connection to be significant. These are items that enable children to act out adult lives (Fishel, 2001). Because the Barbie dolls did not appeal to all girls, Mattel's former senior designer decided to start a new business and create the "Get Real Girl," a competitor to Barbie that celebrated the uniqueness of the girl. The designer discovered a market niche and inspiration by speaking with her friends. All her friends were passionate about sports as kids, and they remained so as adults. Their lives as adults were significantly impacted by the things they did as children. The Get Real Doll's inventor, Chavez, saw that not all girls were represented by the dolls that were on the market. Their origins were not genuinely distinct cultures or ways of life. She persisted with her idea and made the dolls despite encountering opposition from industry. The designer was inspired by her adult friends at the time, and this gave her the opportunity to pursue the product line (Fishel, 2001). Swearingin, the art director for C3 designers, had to carefully examine children's dreams when developing a new Sonic toy for a children's meal program because the toy was free, and the child alone could decide whether it was successful. According to him, children always aspire to emulate the lifestyle of an older child, which is why the Sonic toys were designed with that in mind. According to Swearingin, Sonic is designed for children aged 3 to 8, but only for the 8-year-old because younger children constantly aspire to be like their older peers. Fishel and Reynolds, the creative director, discuss the shortcomings of design in the field. The child gains a sense of

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ownership when they are empowered and involved. Youngsters want a sense of ownership, empowerment from a product, and involvement in everything that is going on around them. Although the Sonic Meal toy was inexpensive, the designer insisted that it had a high-quality design since, in contrast to adults, kids will not tolerate subpar design, even if it is given to them for free (Fishel, 2001). Aibo is among the best-selling toys that Sony has produced. One instance of clever technology being used to create a clever toy is Aibo. Aibo is a robotic dog designed to mimic a real dog's movements, behaviors, and emotions as closely as possible. The motivation behind developing a much more realistic product came from the emotional responses that earlier electronic pets, like the Tamagotchi, provided. For Aibo to succeed, the designers were primarily concerned with the emotional bond that formed between the product and the user. This was the beginning for the designers of Aibo, but as the product progressed through a series of prototypes, the designers were able to refine the design and produce a product that was as nearly as possible a replica of a real dog. The designer found inspiration in the technology. The designers of this toy studied pets to create something they knew kids would love, but parents are hesitant to purchase. This was the ideal pairing for these two buyers. The designers did not try to give the robot a more endearing appearance; instead, they trusted the toy's features to capture the buyer's interest. Aibo has advanced to the point where it now has a built-in camera for taking pictures (Gringer, Theyms). They imbued the robot with a memory to facilitate the emotional bond between the consumer and the toy. One toy that spans generations is Aibo. According to MacPherson's (2000) report, children were involved in the design process when new concepts were coming from a combination of engineers, scientists, and university lectures at the University of Maryland in America. Together, they produced extremely engaging toys enabled by technology. In contrast to the limited speech preprogrammed toys that the talking Arthur had, these toys include soft toy robots that can mimic emotions and read the stories that children have created. MacPherson claims that because the kids did not fear failing, they were able to challenge adults' beliefs and inspire the development of more original ideas. As a result of this project, toys have been created that empower kids to master the toy and take charge of it, rather than letting the limitations imposed by the designer (MacPherson, 2000). Tveskov started working as a designer at Lego at 17, not too far from when he was a child. Throughout his career, Tveskov was constrained by a budget of Lego bricks, each of which had a unique price, and he was given briefs centered around titles. Lego's designers used parent focus groups to evaluate the suitability of the models they produced. Rather than the companies consulting the children, the parents were the ones who mentioned the concerns about the suitability of the suggested product models. Through market research, they also knew that as they evolved as designers and produced more intricate designs, they needed to make sure that the designs were appropriate for a wider age range than what was indicated on the packaging (Johnson, 2008).

New Lego models seem inspired by the designers' own childhood and their observation of children of different ages playing together and wanting to build the same Lego models. Hasbro is another big player in the toy industry. In February of this year, I conducted an online interview with Bradley, a freelance designer who worked full-time on Hasbro's Transformer lines. Bradley gave me insight into the strategies used by a profitable toy company. Bradley believes that creating toys should be enjoyable, and his passion for Hasbro stemmed from his admiration for their boy's action figures.

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His fondness was sparked by his early favorites, Mason, and his five-year-old love of dinosaurs, which filled him with enthusiasm and inspiration. "Perfecting the bodily skills of manipulation, muscle coordination, balance, strength, and endurance" is what children do when they play (Newson, 1979). It appears that by making toys that promote the growth of these important abilities, the designer can have a significant impact. Our childhood toys can impact the skills we carry into adulthood as we age. People's memories of "their childhood toys" can help to paint a more accurate and convincing picture of the issues with the toy. The respondent's response is more animated and detailed when the toys are simpler. The childhood desire to be the master of their own play was the primary motivator behind Lego bricks' enormous popularity. They wanted to be the creators of anything they wanted, and they were not so concerned with making the toy that was conventionally suggested. The toy was not there to dictate to them. The study has shown how important it is for designers to learn about child development to guarantee that further developments in toy design are headed in a fruitful and fulfilling direction.

4. Methodology

This research outlines the methodology employed to investigate the development of children's creativity through a conceptual mural set. The primary research question centers on designing a tool that aids children's creativity before the age of 6, emphasizing emotional involvement and growth needs. The methodology involves conducting a Color-Emotion Association Survey (CEAS) to determine children's color-emotion preferences in central Thailand and utilizing the Torrance Tests of Creative Thinking (TTCT) to assess creativity development. The aim is to provide practical guidance for educators, toy makers, and policymakers to enhance children's overall well-being and development. For the CEAS, a qualitative research approach is employed to investigate the color-emotion preferences of children aged 3 to 5 years in central Thailand. Convenience sampling is utilized, selecting 150 students from two kindergarten schools in central Thailand. Data collection involves providing participants with test papers depicting characters with various facial expressions and a set of coloring pencils. Open-ended questioning is used to elicit emotional associations with colors, and data analysis focuses on identifying the most positively perceived colors to create an emotion-based color palette. The TTCT is utilized to conduct pre- and post-assessments to validate creativity development in early childhood. The Figural Test of TTCT is chosen for kindergarten students, consisting of subtests such as Picture Construction, Picture Completion, and Parallel Lines. Data collection involves assessing fluency, flexibility, originality, and elaboration through various problem-solving tasks. Separate and composite assessments of creativity are conducted, and data analysis includes scoring based on originality, elaboration, fluency, and flexibility to calculate overall creativity scores. The design process encompasses conceptual design, design development, materials selection, and design implementation of the conceptual mural set. Overall, the methodology combines qualitative and quantitative approaches to investigate children's color-emotion preferences and creativity development. By integrating these methods, the research aims to provide insights and tools to foster creativity and emotional engagement in young children, contributing to their holistic development.

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5. Design Concept

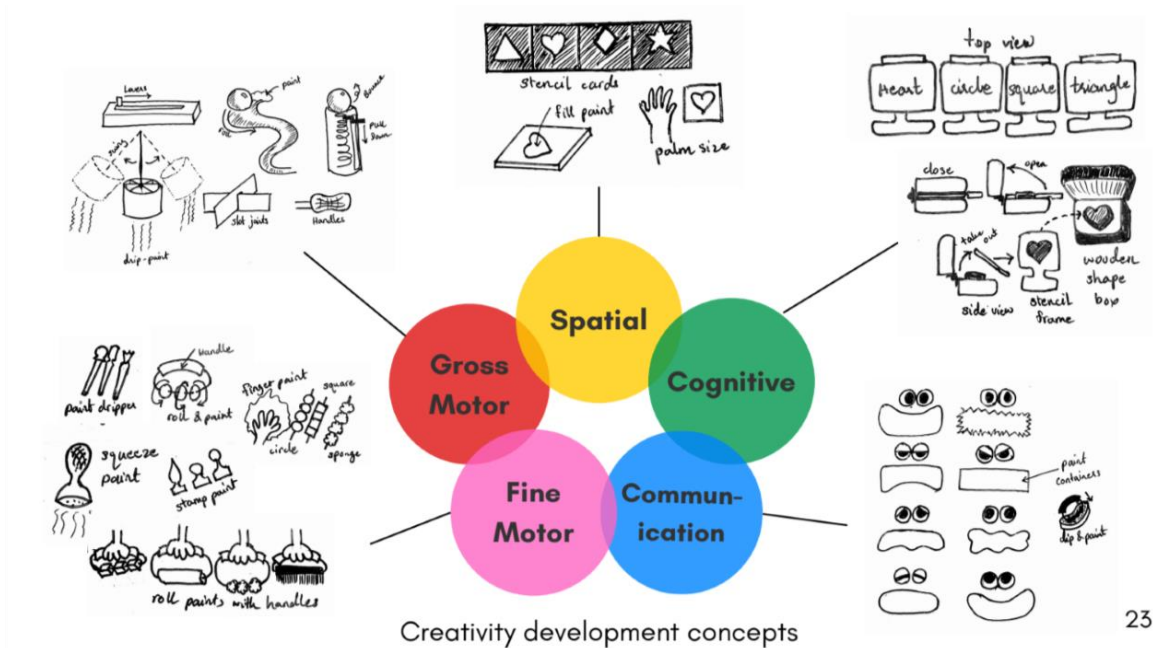


Figure 1: Creativity Developmental Concepts
Source: Researcher, 2024

After observational studies and interviews were finished, a thorough market survey was carried out to determine whether toys designed to help with developmental delays were readily available. Specialty toy stores, general toy outlets, and internet retailers were among the many sources that were included in this survey. The survey's results were arranged and presented, classifying market toys according to how closely their themes aligned. The toys purchased from the market were carefully arranged into themes and then examined to determine if they would be appropriate for the specific developmental domains. The market research results indicated several critical design gaps, or areas where the toys already on the market were deficient: the toys' preponderance of plastic materials, which could be dangerous for children's safety. Insufficient options for sorting activities and sensory toys may prevent children from exploring their senses and developing cognitively. limited selection of block forms and shapes, which limits opportunities to improve fine motor skills and spatial awareness. There is a limited assortment of toys designed for word recognition, and the most common thing to find is flashcards. Individual toys' inadequate attention to several developmental target areas points to a lack of comprehensive developmental support in the available products. These results showed how important it is to create new and varied toy designs that put the needs of children first, provide a wider variety of sensory experiences and cognitive challenges, and cover a wide range of developmental domains.

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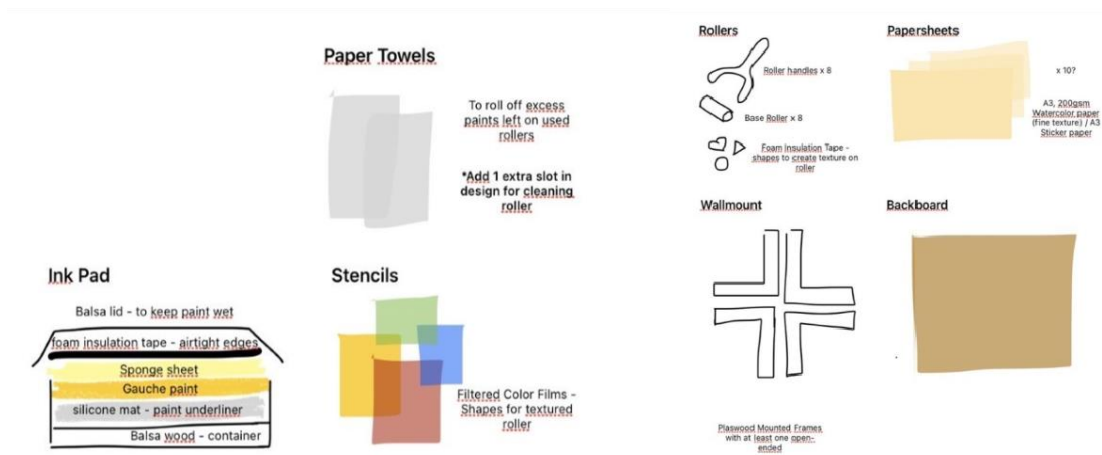


Figure 2: Mural Painting Set Product Design Concepts
Source: Researcher, 2024

The five main themes that guided the design exploration process were spatial awareness, fine motor skills, gross motor skills, cognitive development, and communication enhancement. Different toys were conceptualized and categorized in accordance with these thematic targets by using findings and insights from in-depth market research. Stamping rollers, fitting stencils, soft sensory paints with airtight lids, mounting frames, backboard, mural paper, and other interactive functions including pinewood container design along with manual book were among the many items that made up the final toy set.

6. Prototype & Testing

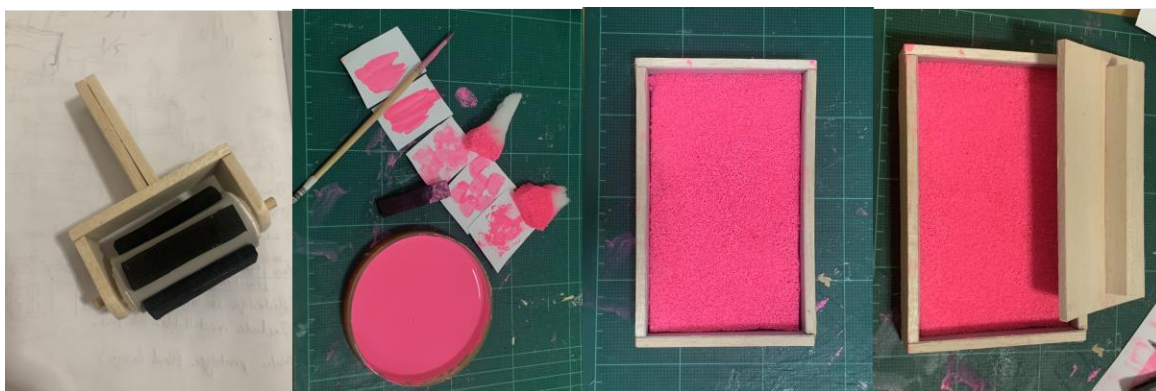


Figure 3: Prototype Making Process by Researcher
Source: Researcher, 2024

The choice of materials used in the creation of ink has a major impact on the functionality and quality of the finished product. These supplies include glycerin, water, sponges, and gouache paint, each of which has a specific function in the creation of ink. Glycerin plays an essential role



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in keeping the paint wet, which keeps it from drying on the ink pad surface too quickly and prolongs its useful life. Conversely, water is a versatile agent that makes it easier to dilute gouache paint to the right consistency for easy application and maximum pigment dispersion. The sponge, which is frequently disregarded but essential, provides a stable and absorbent surface for the ink mixture, acting as the base upon which the ink pad is constructed. The methodical part entails

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carefully combining gouache paint with measured amounts of glycerin and water until the right texture is achieved. This mixture is then completely soaked into the sponge, making sure that it is evenly distributed throughout its porous structure. The impregnated sponge then goes through an important step called drying, which solidifies it into a useful ink pad that is prepared for artistic expression. This methodical process guarantees the production of a dependable tool that embodies the practicality and craftsmanship for creatives.

7. Conclusions

In conclusion, the exploration of colors and creativity holds immense potential in promoting human well-being, particularly during childhood, a phase characterized by discovery and fun. However, educational challenges persist, with creativity being pivotal in applying fundamental concepts to real-world situations. To address this, user testing and research integration were employed to develop a reliable and safe mural painting set tailored for early childhood. George Land's findings further underscore the importance of nurturing creativity during the formative years, suggesting a peak between ages three and five. By incorporating research insights, the mural painting set aims to support children's developmental education, fostering imagination and creativity. Through qualitative assessments and domain-specific functions, the design not only encourages artistic expression but also cultivates problem-solving skills through divergent thinking. By embracing play and incorporating educational objectives, this study endeavors to contribute to both the toy industry and children's developmental education, laying a foundation for future creative endeavors and holistic growth.

8. Discussions

To finalize the product, it must keep tested along with post-assessment whether the mural painting set can boost creativity after playing with it. Replacement of ink pads once the colors are out also necessary to have the design as dismantlable container. Replacement of papers once is out also considerable. The design can play from one child to 8 children. It is more encouraged to paint with fingers as it stimulates cognitive development in early childhood. Long-term uses will propose problems of the prototype and reveal certain things that need to be replaced or adjusted. For example, sizing, material, durance, etc. However, it is a research-based concept design created for 3 to 5 years old to express themselves with fellow playmates in kindergarten to develop creativity is proven to be valid.

Acknowledgement

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References

- Azeemi, S. T. (2005). *The Spiritual Healing of Traditional Islamic Medicine: A Review of the Unani Approach to Medicine*. New York: Spiritual Medicine Research Centre.
- Benson, M. (1995). *The Power of the Artistic Voice: A Handbook for Art Therapy Professionals*. New York: Routledge.
- Craft, A. (2000). *Creativity Across the Primary Curriculum: Framing and Developing Practice*. London: Routledge.
- Fishel, C. (2001). *Designing for Kids*. New York: Rockport Publishers.
- Gillette, H. (2010). *City: Rediscovering the Center*. New York: W. W. Norton & Company.
- Gupta, R. (2021). *The Healing Power of Colors: An Ancient Practice for Modern Times*. New Delhi: Partridge Publishing India.
- Karaca, E. (2020). *Play and Creativity in Children's Learning*. New York: Routledge.
- Sahabuddin, M. (2024). *The Art of Expression: Murals in Urban Spaces*. Berlin: Springer.
- Wills, E. (2013). *Exploring Color Psychology: How Colors Impact Our Emotions and Behaviors*. New York: Routledge.
- Russ, S. W. (2012). *Play and Creativity: Developmental Issues*. Academic Press.
- Saracho, O. N. (2002). *Contemporary Perspectives on Social Learning in Early Childhood Education*. Information Age Publishing.
- Leff, S. S. (2004). *Handbook of School Violence and School Safety: International Research and Practice*. Psychology Press.
- Schwartz, D. (2000). *Peer Relationships and Peer-led Interventions. New Directions for Child and Adolescent Development*.
- Karaca, F. (2020). *The Relationship Between Play and Motor Creativity in Children. Early Child Development and Care*.

The 12th International Arts and Design Symposium 2024 | Conference Proceedings

- Garaigordobil, M., & Berrueco, L. (2011). *Effects of a Cooperative-creative Play Programme on Preschoolers' Imagination. Early Child Development and Care.*
- Hoffmann, J. (2016). *Play and Imagination in Children. Routledge.*
- Dewi, M. (2021). *Understanding the Importance of Imagination in Children's Play. Early Years Education Journal.*
- Arlow, J. A. (1946). *The Psychoanalytic Quarterly.*
- Mayar, S. (2022). *Finger Painting and Emotional Expression in Children: A Therapeutic Approach. Journal of Child Psychology and Psychiatry.*
- Suryawan, I. G. A. P. (2022). *Exploring the Educational Benefits of Finger Painting in Early Childhood International Journal of Early Childhood Education.*
- Sundari, A. A. K. (2021). *Promoting Creativity Through Finger Painting: A Guide for Educators. Early Childhood Education Journal.*
- Keun, K. S. (2006). *The Role of Imagination in Children's Cognitive Development. Journal of Educational Psychology.*
- Torrance E. P (1966). *Torrance Tests of Creative Thinking. Interpretive Manual Journal.*
- Permjit N (2023). *Making Education Keep Up with Change.*
- Blauw, T. N. (2021). *New Thai education law will kill kids' creativity, warn critics.*
- Mellentine, J. (2023). *Newton's Color Wheel: Overview, History & Later Additions.*
- Cherry, K. (2024). *Color Psychology: Does It Affect How You Feel? How color impacts moods, feelings, and behaviors.*

The Fusion of Culture and Product Design: Design Experience of Combining Portable Tea Set with Zhuang Culture

Guixiang Mo¹, Pisrapai Sarasalin², Patipat Chaiwitesh³

Abstract

China's tea culture has a long history of over 2500 years and has become a part of modern people's daily lives. Zhuang culture is the second largest ethnic minority culture in China, with a history of over a thousand years. Portable tea sets are the most commonly used tea making utensils nowadays. Integrating Zhuang cultural elements into the design of portable tea sets can help more people understand Zhuang culture. Objectives: 1) Resolve some of the current issues with portable tea sets. 2) Extract essence from Zhuang culture and use it in the design of portable tea sets. Including tea cups, teapots, tea towels, and portable tea set packaging boxes. 3) Combining two traditional Chinese cultures to design portable tea sets that better meet the demands of modern people. 4) Brand design of portable tea sets. The methodology for conducting research includes: 1) Research on Chinese Tea Culture and Zhuang Culture. 2) Theoretical research on material texture and color psychology. 3) Conduct product feasibility analysis through user research, material Study, case studies, and market positioning.

Research results includes: 1) Extraction and redesign of Zhuang ethnic elements. 2) Portable tea set design, including teapots, cups, tea towels, and portable tea set bags. 3) Tea set brand design. Through this research, the brand and product design have been completed. If the follow-up channels, such as finding product manufacturers, the product can be put into the market for sale, which can quickly generate economic benefits.

Keywords: *Portable tea set, Tea set brand, Chinese tea culture, Zhuang culture*

1. Introduction

In today's fast-paced life, the main labor force in China, the general working population, is facing the dual pressure of work and family. In terms of work, most of the working hours are from nine to nine, especially in first tier cities such as Beijing, Shanghai, Guangzhou, and Shenzhen, where work pressure is greater. In terms of family, these ordinary people are all born in the 1980s and 1990s, many of whom are only children. If only children marry only children, it means they need to support four parents and one to three children, and most of them also need to pay off their mortgage and car loans every month. The economic pressure is enormous. This has led to the development of some unhealthy lifestyle habits. This can lead to insomnia and depression.

Drinking tea has been popular in ancient China since 2500 years ago, and it is now widely recognized as a way to maintain health. In this paper, I will use tea set design and brand promotion to encourage everyone to drink more tea, promote health, refresh, and relieve stress through drinking tea. Portable tea sets are also a very popular type of tea set nowadays. It is different from traditional kung fu tea sets. Because Kung Fu tea sets contain a wide range of content, they do not match the simple and fast-paced lifestyle of modern people. So portable tea sets have become everyone's new favorite.

The Zhuang ethnic group is a minority in southern China and the second largest ethnic group in China. Zhuang culture, like tea culture, has a long history. The bronze drum, Zhuang brocade, rock paintings, and clay pottery in Zhuang culture all have rich ethnic

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cultural characteristics. We need to inherit and promote this culture, so that more people can understand it.

With this idea in mind, in my thesis, I will combine these two long-standing Chinese cultures and apply the characteristics of Zhuang culture to the design of portable tea sets. Enable the inheritance of ethnic culture and enable more people to understand these cultures. And through portable tea sets and brand design, modern people can slow down the pace and feel the relaxed feeling brought by traditional Chinese culture in fast-paced and high-intensity life. Release stress in daily life. Because “True wealth is the smile on your face.”

2. Objectives

1. Resolve some of the current issues with portable tea sets.
2. Extract essence from Zhuang culture and use it in the design of portable tea sets. Including tea cups, teapots, tea towels, and portable tea set packaging boxes.
3. Combining two traditional Chinese cultures to design portable tea sets that better meet the demands of modern people.
4. Brand design of portable tea sets.

3. Literature Review and Research Methodology

3.1 Research Questions

Firstly, it is necessary to study what portable tea sets are. What are the characteristics of portable tea sets. Are there any functional defects in the portable tea sets currently available on the market. What is the user group. What are the usage scenarios. What materials are needed for portable tea sets to better meet the user's needs.

Furthermore, in addition to meeting the basic functional requirements, portable tea sets need to be endowed with spiritual value. Through the study of feeling of texture, color psychology, and the use of feeling of texture and color that create a sense of happiness, the essence of Zhuang culture is extracted through the study of Zhuang culture, combined with portable tea sets to increase the value of tea sets.

Finally, through brand promotion, the value of portable tea sets can be increased, enabling people to understand tea culture and Zhuang culture, truly achieving the goal of helping young people in China release work and life pressure, or relax both physically and mentally, through daily activities.

3.2 Research Framework

The research framework of this paper is shown in Figure 1.1, which includes three parts: Literature Review, Theories, and Research Methodology.

Table 1 Research Framwork

Literature Review	Research Methodology
Chinese Tea Culture	User Research
Zhuang Culture	Material Studies
Feeling of Texture	Case Studies
Color Psychology	Market Positioning

3.3 Literature Review

3.3.1) Chinese Tea Culture

Chinese tea culture can be traced back to 2500 years ago. It can also be said that

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Chinese tea culture starting from the Han Dynasty, rising in the Tang Dynasty, prosperous during the Song Dynasty. According to the famous lyricist Wang Bao of the Eastern Han Dynasty in his book "僮约(Tong Yue)", it is recorded that the term "烹茶尽具 (Cooking tea with utensils)" refers to tea utensils. Tea sets go from shared to specialized, from rough to exquisite.

Nowadays, traditional kung fu tea sets are too complex for young people because they usually including cover bowl, tea cup, teapot, fair cup, tea needle, tea knife, tea spoon, tea shovel, tea clip, tea clipper, tea bowl, tea barrel, etc (Figure 1). For modern fast-paced life, people tend to prefer portable tea sets that are simple, convenient to carry, and can be used whenever they want. Portable tea sets usually only have 1-4 tea cups, a teapot or lid, tea towels, and packaging boxes. The biggest feature of portable tea sets is that they can be stacked together, making the storage of tea sets smaller and more convenient. This design is more in line with the modern pursuit of simplicity (Figure 2).



Figure 1 Traditional kung fu tea sets From *1688.com*



Figure 2 Portable tea sets From *1688.com*

Is there any problem with portable tea sets? The answer is yes. Through my use, I have found that whether it is a Kung Fu tea set or a portable tea set, if there is water at the bottom of the cup during use, the cup is very easy to slip over the edge of the table and break.

3.3.2) Zhuang Culture

The Zhuang ethnic group is mainly distributed in the southern border of China, According to the China Statistical Yearbook-2021, the population of the Zhuang ethnic group in China is 19568546. It is the second largest ethnic group in China and the most populous ethnic minority. The Zhuang population of Guangxi Zhuang Autonomous Region accounts for about 32.4% of the total population of the region.

Zhuang culture includes Bronze drum culture(Figure 3), Zhuang brocade culture(Figure 4), Household appliances, Huashan Rock Painting , etc.

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Figure 3 Bronze drum From Author (Filmed at Guangxi Natural History Museum in 2024)

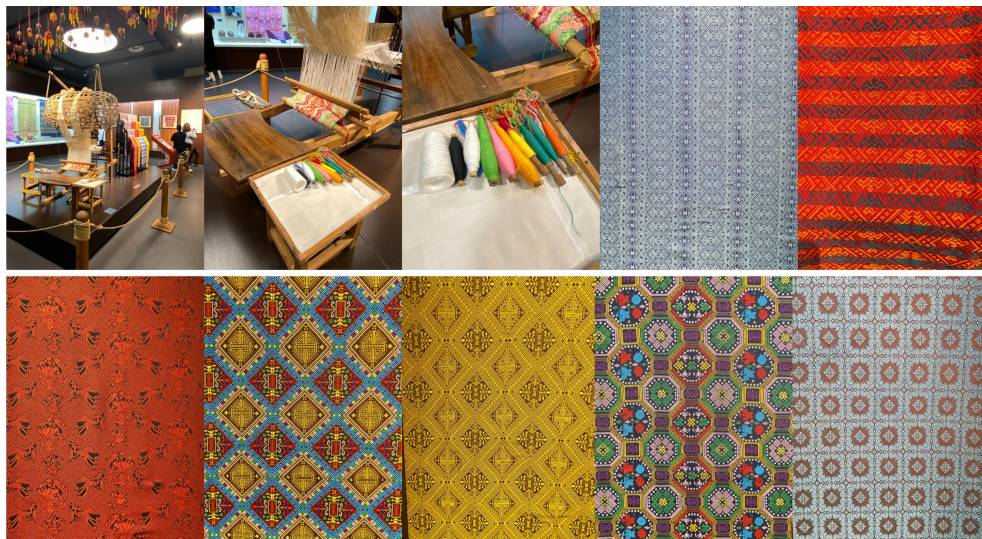


Figure 4 Zhuang brocade From Author (Filmed at Guangxi Natural History Museum in 2024)

Due to the Zhuang culture's reverence for nature, some plant and animal patterns are commonly seen in bronze drums. The color and pattern design of Zhuang brocade also have strong ethnic characteristics. The scene recording, character and animal pattern design on Huashan Rock paintings are also very interesting. There are also daily household appliances, from stone tools to pottery, from rough pottery to finely carved clay pottery, all reflecting the rich and interesting Zhuang culture.

3.3.3) Feeling of Textures

Touching different material surfaces can trigger different emotional reactions. This conclusion was confirmed by Benjamin A. Richardson in a recent study. So, which materials will make people feel happy? Iosifyan, M., & Korolkova, O.'s Emotions associated

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with different textures during touch published in 2019 *Conscientiousness and Cognition*, 71, 79-85. Through experiments, 108 invited individuals (aged 18 to 47) were asked to associate the surfaces of 21 materials with six emotions: Happiness, Surprise, Anger, Fear, Disagree, and Sadness. This experiment proves that “Soft surfaces are generally associated with pleasant emotions, Rough surfaces - with unpleasant feelings. However, this is not always true. For instance, Plasticine is soft, but is associated with disgust. Glass pebbles might be hard, they are actually associated with happiness. Each of the textures offered to the respondents was usually associated with several emotions. The kitchen sponge was associated fear, disgust, and anger. Almost all of surfaces were perceived with a feeling surprise.”

Through the above experimental research, it can be seen that the material surfaces related to happiness include Velvet, Natural Silk, Rabbit fur, Leather, Rubber, Toy slime, Polished wood, Polished marble, Tile, Glass, Clay, Glass pebbles (smooth), Glass seashells (textured). Not all materials are suitable for portable tea set design, so when selecting materials and surfaces in the future, the corresponding materials will be selected based on this experimental conclusion.

3.3.4) Color Psychology

K. Cherry (2022) stated in his article "Color Psychology: Does It Affect How You Feel?": “Color psychology is the study of how different colors affect human mood and behavior. It explores how colors can influence emotional responses, as well as how responses to color are affected by factors such as age and cultural background.”

From the definition of color psychology, it can be seen that color can affect people's emotions. People can have the same or different emotional reactions to color based on factors such as their age or cultural background.

A survey was conducted as early as 2020, involving 4598 volunteers from 30 different countries and regions. Study the association between 10 colors and 7 emotions in Figure 2.18. These 10 colors include black, white, red, blue, green, yellow, purple, brown, orange, and pink. These 7 emotions include sadness, relief, love, content, joy, pleasure, and doubt. The research results are shown in Figure 2.18 (K. Cherry 2022). It can be seen that red and pink are associated with love; White and blue are associated with relief; Yellow and orange are associated with joy; Black is associated with sadness; Green is associated with contentment; Purple is associated with pleasure; Brown is associated with disgust.

So in the color selection, it is necessary to choose colors with positive emotions, such as white, red, blue, yellow, purple, orange, pink. Instead of choosing brown and black.

On the surface of color psychology, various tones can have various effects, which can affect our emotions and even trigger anxiety. Of course, colors can also make people feel happy and relaxed. From a business perspective, color can influence consumer purchasing desire, leading to purchasing behavior and resulting in better product sales. Of course, color preferences are also influenced by age, gender, and cultural differences. Therefore, after confirming the consumer audience, it is necessary to study consumer preferences, age, gender, regional culture, and so on. Figure 18 shows the conventional effects of color on humans based on the theory of color psychology (K. Cherry 2022).

From Figure 2.19, it can be seen that white/yellow/blue/red can be well suited for the design of portable tea sets that conform to Chinese culture. Bright colors can also attract the attention of consumers very well.

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3.4 Research Methodology

3.4.1) User Research

3.4.1.1) Questionnaire Survey

In November 2023, the author conducted a survey on the market demand for Chinese tea and tea sets. A total of 62 people participated, with males accounting for 55.74% and females accounting for 44.26%. The majority of people were aged between 23 and 45 years old, with over 70% drinking tea every week. The reason for drinking tea is mostly for refreshing, health preservation, relaxation, and enjoyment. 67.35% of people spend less than 100 yuan per month on tea related expenses, while 2.02% exceed 300 yuan per month. 32.65% of people use kung fu tea sets to make tea, and nearly 70% use portable or other simple tea sets. Their favorite tea set materials include Porcelain accounting for 44.9%, Pottery accounting for 40.82%, Glass accounting for 32.65%, Purple clay accounting for 30.61%, and Stainless steel accounting for 10.2%. Nearly 90% of people travel short distances every week. Nearly 70% of them have long-term travel every year. Their purpose of appearance is Commuting accounting for 63.27%, Go to the park accounting for 30.61%, Business trip accounting for 26.53%, Long distance travel accounting for 16.33%, and Camping accounting for 12.24% .

3.4.1.2) Usage Scenarios

There are three usage scenarios, the first being on transportation vehicles such as airplanes/trains/high-speed trains; The second type is in the office or at home; The third type is in the park or outdoors. Carrying portable tea sets during travel is simpler and more convenient. It is more convenient to use when there are only oneself or a few people at home or in the office. In parks or outdoors, using portable tea sets is more lightweight. Sitting down to drink tea and enjoy the scenery is also a relaxed way of life.

3.4.1.3) Target group

There are three target user groups. They are travelers, workers, and campers. And the age is between 23 and 45 years old. Their demand for portable tea sets should not only include functional needs, but also spiritual needs.

These functional requirements are: easy to store, convenient to carry, with protective layer, not fragile, high temperature resistance, non-toxic, light, can see the color of the tea, the bottom of the teacup is anti-slip. These spiritual needs are: decompression, happiness, personality, positive energy.

3.4.2) Material Study

Traditional tea sets in China are divided into 8 types based on their different materials, namely Porcelain tea set, Purple sand tea set, Muyu Jade tea set, Lacquerware tea set, Bamboo and wood tea set, Glass tea set, Enamel tea set, and Clay tea set. The performance, manufacturing process, and price of these materials vary. Based on multiple sources, the author collected and compared the Waterproof, High temperature resistance, Non toxic, Odour, Weight, Fragile, Heat preservation, Comfort level, and Price of these materials, as shown in Table 2.

Table 2 Comparison of different Materials

	Porcelain	Purple sand	Muyu Jade	Lacquerware	Bamboo	Wood	Glass	Enamel	Clay
Waterproof	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●

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f									
High	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●○○	●●●○○	●●●○○	●●●●●
tempe									
rature									
resist									
ance									
Non-toxic	NON	NON	NON	NON	NON	NON	NON	NON	NON
Odour	NO	NO	NO	NO	YES	YES	NO	NO	NO
Weight	●●●○○	●●●○○	●●●●●	●●●●●	●○○○○	●○○○○	●○○○○	●●●●●	●●●●●
Fragile	●●●●●	●●●●●	●●●○○	●●●●●	●○○○○	●○○○○	●●●●●	●●●●●	●●●●●
Heat	●●○○○	●●○○○	●●○○○	●●●○○	●●●●●	●●●●●	●●●○○	●●●○○	●●●●●
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Comfort	●●●○○	●●●○○	●●●○○	●●●○○	●●○○○	●●○○○	●●○○○	●●○○○	●●○○○
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Price	●●●○○	●●●○○	●●●●●	●●●●●	●●○○○	●●○○○	●○○○○	●●●●●	●○○○○

Besides traditional materials, what other materials can be used for portable tea set design?

After extensive research by the author, it was found that the following materials (Table 3) can also be used for tea set design. For example, 304/316 Stainless Steel, Silicone, food grade Melamine, PP, PLA, Corn stalk, Coffee grounds, and so on. I have also summarized the various properties of these materials in Table 3.

Table 3 Comparison of different Materials

	Stainless steel	Silicone	Melamine	PP	PLA	Corn stalk	Coffee grounds
Waterproof	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●
High	●●●●●	●●●○○	●○○○○	●○○○○	●○○○○	●○○○○	●○○○○
tempe							
rature							
resist							
ance							
Non-toxic	NON	NON	--	NON	NON	NON	NON
Odour	NO	NO	NO	NO	NO	NO	NO
Weight	●●○○○	●●○○○	●○○○○	●○○○○	●○○○○	●●○○○	●●○○○
Fragile	●●○○○	●○○○○	●●○○○	●○○○○	●○○○○	●●○○○	●●○○○
Heat	●●○○○	●●●●●	●●●○○	●●○○○	●●○○○	●●●○○	●●●○○
preser							
vation							
Comfort level	●●●○○	●●●●●	●●●○○	●●●○○	●●●○○	●●●○○	●●●○○
Price	●●○○○	●●○○○	●●○○○	●●○○○	●●●●●	●●○○○	●●○○○

3.4.3) Case Studies

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"sanxun"_Light-drink Travel kit_One pot and three cups, ¥128(Figure 5). Material: High borosilicate glass, white porcelain, bamboo. Capacity: 300ml. Process: Manual blowing, oxidation firing, underglaze hand painting. Firing temperature: 1320 °C. Glaze color: Transparent glaze. Features: integrated design of pot filter and cup, pot surface anti scalding bamboo mat, wrapped in walnut wood, underglaze color hand-painted, unique, filter design for easy control of the concentration of a cup of tea, v-shaped nozzle for smooth water flow, paired with a small tea towel, it is soft and delicate, firm and absorbent, shockproof carrying bag with easy zipper closure.



Figure 5 "sanxun"_Light-drink Travel kit from *jd.com* (2023)

3.4.4) Market Positioning

Here, I have selected four popular brands currently on the market as my competitors for analysis. Their main sales channels are all e-commerce. Such as JD, Tmall, etc. Table 4 is a comparison chart of these four brands, including their materials, prices, target market, user evaluations, advantages and disadvantages.

Table 4 Competitive Analysis Comparison Chart

Brand	Material	Price	Target Market	User Evaluate	Advantage	Disadvantage
叁旬	Pottery	¥88-	LOW	• Sales average	• Material safety	• The design of tea
SUNXUN	Porcelain Glass	258	• MID • HIGH	• Packaging is average • Good quality • Consumer satisfaction	• Good quality and high cost-effectiveness • Multiple design themes	towels and packaging bags is not exquisite enough to highlight the brand's characteristics.
万仟堂 Edenus	Pottery Porcelain	¥258- 698	• LOW • MID • HIGH	• High sales • Exquisite packaging • Good quality	• From tea sets to accessories, everything is exquisitely designed with	• There are too many design elements and the theme is not clear.

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				<ul style="list-style-type: none"> • Favored by consumers 	Chinese classical elements.	
唐丰	Porcelain	¥138-	o LOW	<ul style="list-style-type: none"> • Sales average 	consumer evaluation.	• There are few
TANGFENG	(Ru Ware)	268	• MID o HIGH	<ul style="list-style-type: none"> • Packaging is average • Good quality • Consumers are relatively satisfied 	<ul style="list-style-type: none"> • Starting from the design elements of the Tang and Song dynasties in China, there is a professional design team. • Good quality, there are many designs for Kung Fu tea sets. 	types of portable tea sets, and the design is not exquisite enough.
东道汝窑	Porcelain	¥1000-	o LOW	• Sales average		• Design Master
Level	• High price					
DONGDAO RU WARE	(Ru Ware)	2500 MID	o • HIGH	<ul style="list-style-type: none"> • Exquisite packaging • The quality is very good • Consumer satisfaction 	Collection and use coexist	
					<ul style="list-style-type: none"> • Focusing on the production process of Ru wareTianqing color 	

From the case studies, competitor analysis, and market positioning analysis above, it can be seen that my product advantages are as follows: 1) Moderate price; 2) Focusing on Zhuang ethnic element themes; 3) Emphasize design details; 4) Catering to modern aesthetics; 5) Emphasize brand effect.

4. Results

Table 5 The research Results

TARGET AUDIENCE	23-45	years	old
			Travelers Workers

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	Camp ers
MATERAIL	Porcelain / Glass / Silicone Cotton and Linen fibers Zhuang brocade (cotton yarn and colored silk)
COLOR	Pink / Blue / Yellow / White
PORTABLE TEA SETS	Tea cups Teapot Tea towel
PACKAGE	Portable tea set bags
PRICE	¥ 200-500
BRAND	TeaTime
PATTERN	From Zhuang culture
SLOGAN	True wealth is the smile on your face

4.1 Brand Design

4.1.1 Brand Keywords

Based on the research topic and direction, the keywords of the brand are as follows: tea, tea sets, traditional Chinese culture, relaxation, relaxing your mind, lighting up, happiness, and releasing stress.

4.1.2 Brand Name

According to the keywords of the brand, "Teatime" will be used as the brand name. "Teatime" directly emphasizes the time of tea, creating a relaxed, warm, and enjoyable atmosphere. Give people a clear and intuitive impression, while maintaining simplicity and ease of memory.

4.1.3 Brand Color

According to Figure 6, the brand colors will be selected from four color schemes: pink, blue, yellow, and white. In order to highlight traditional Chinese culture, the brand colors will be selected based on the color card of "Traditional Chinese Colors: Aesthetics of Colors in the Forbidden City" (H.Guo, J.Li 2020), with four colors selected: pink, blue, yellow, and white. Due to the fact that this book is based on the 24 solar terms and 72 phenology, 96 pieces of the Palace Museum cultural relics that are suitable for the festival were selected from several hundred thousand and pieces, and traditional colors were extracted from the cultural relics. Therefore, I will choose a pink color in spring, a blue color in summer, a yellow color in autumn, and a white color in winter. Four colors match four seasons, with the meaning of happiness and joy every day.

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Figure 6 Brand Color

4.1.4 Logo Design

The principles for logo design comes from the following: 1)Transformation based on brand name” Teatime”. 2)Simple deformation recognition with high accuracy.3) Meets modern aesthetic standards: round, cute, and comfortable. 4)The embodiment of brand culture, which includes comfort, stress relief, and a sense of happiness.

According to the brand color, define blue (C85 M50 Y20 K10; R16 G104 B152; # 106898) as the primary color. Pink (C0 M35 Y10 K0; R246 G190 B200; # F6BEC8), yellow (C15 M50 Y85 K0; R218 G146 B51; # DA9233), white (C5 M0 Y15 K0; R246 G249 B228; # F6F9E4) as



secondary colors . Add brand color to the brand logo as shown in Figure 7.

Figure 7 Colored brand logo

4.2 Extration of Zhuang Culture Elements

In this section, patterns are extracted from Zhuang brocade, Huashan rock paintings, and bronze drum sun patterns. And separate them into small elements and redesign these elements.

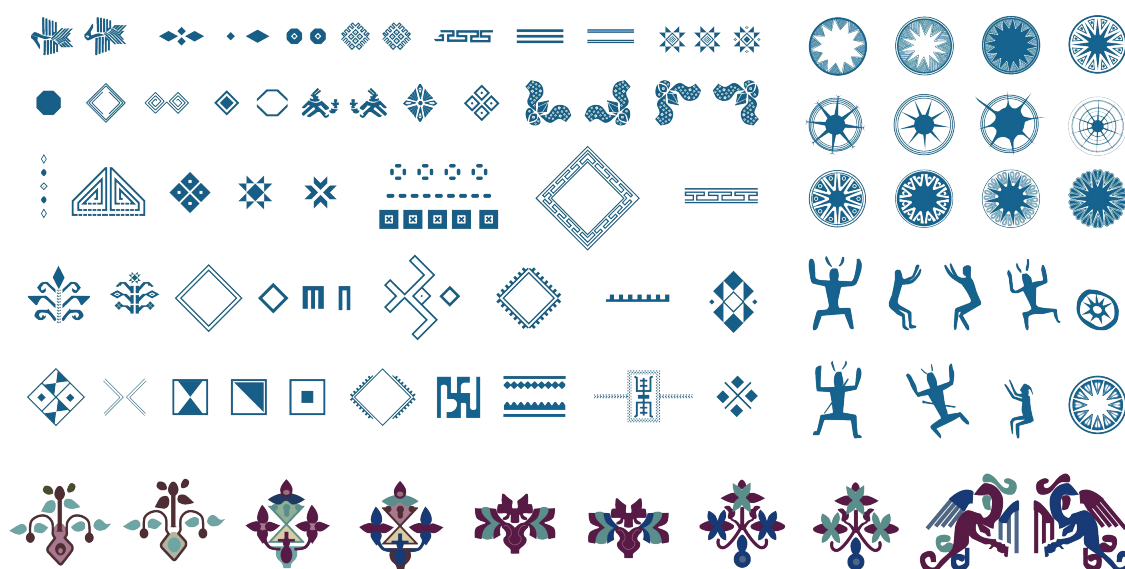


Figure 8 Zhuang elements

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The design principles of the previous brand logo are also used for the redesign of Zhuang elements. These principles include: simple, round, cute, and comfortable. Using these keywords and brand colors, redesign and classify Zhuang elements into five categories: geometry, birds, humans, flowers, and the sun. All the redesigned Zhuang elements are shown in Figure 9.

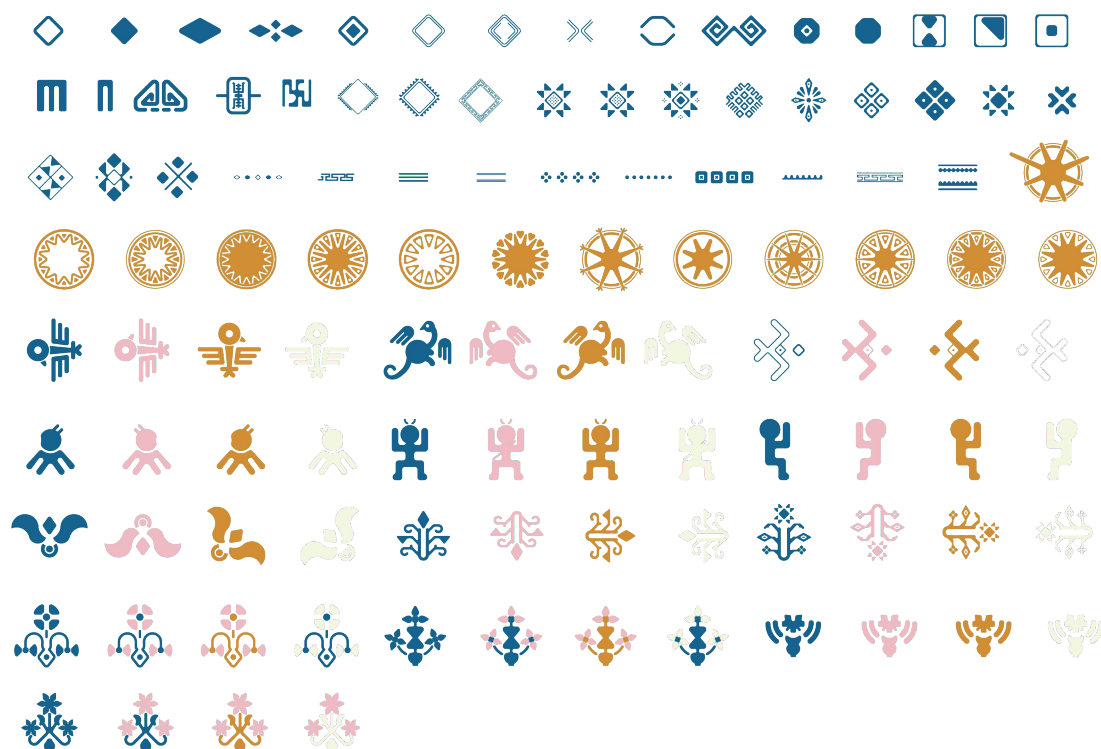


Figure 9 Redesign of Zhuang elements

4.3 Portable tea set design

Based on the previous research findings, some new ideas and design principles are proposed for the design of portable tea sets, including tea sets, tea towels, and portable tea set bags.

1) Tea Set

- Using pottery and glass as materials.
- Based on the redesigned Zhuang elements, design portable tea sets.
- Add silicone pads at the bottom of the teacup and teapot to prevent slipping.
- The tea cup can be placed inside the teapot and stacked for storage.

2) Tea Towel

- Cotton and Linen fibers with strong water absorption are used as materials.
- Using redesigned Zhuang elements, redesign and combine the patterns into a tea towel.
- Add the brand logo and color.

3) Portable Tea Set Bag

- The design of the portable tea set bag adopts Zhuang brocade fabric and uses Zhuang redesign elements as the pattern foundation for redesign.

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- The middle layer of the tea set bag is filled with cotton for protection.
- Adopting an adjustable length long shoulder strap, it can be carried across the shoulder.
- Add the brand logo and color.

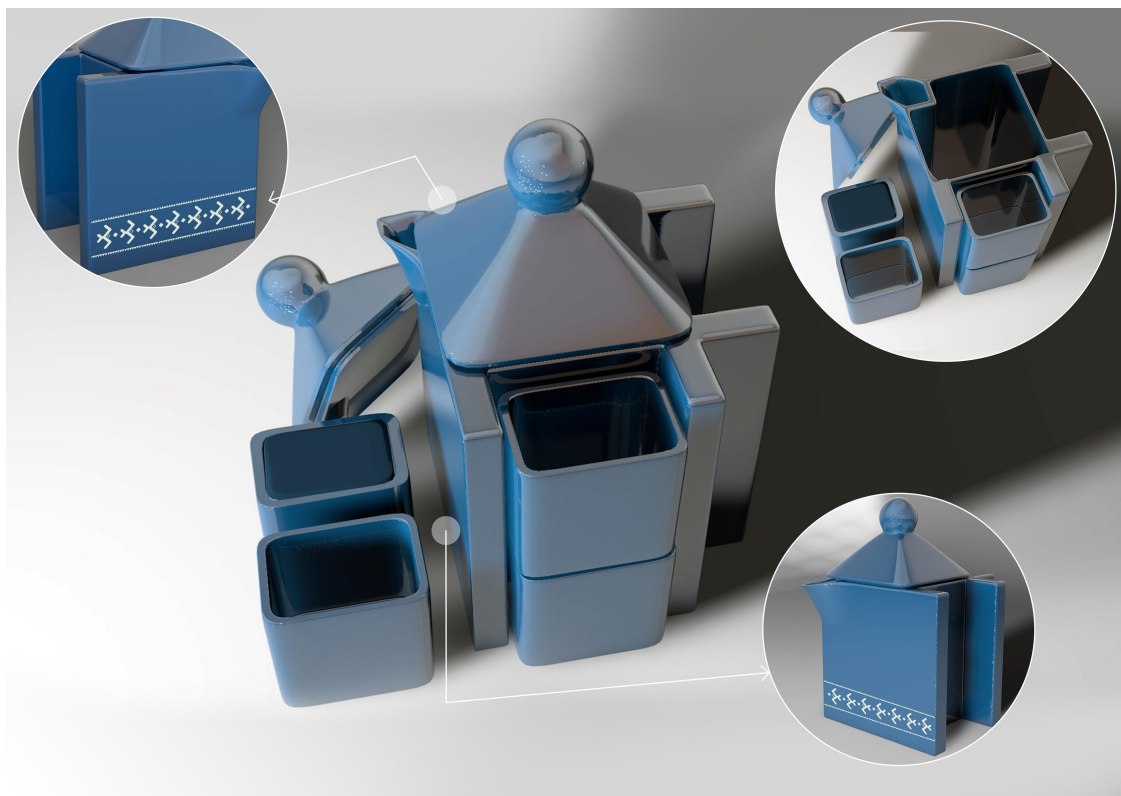


Figure 10 Portable tea set



Figure 11 Tea Towel

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Figure 12 Portable Tea Set Bag

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6. References

- iiMedia Research. (2023). 2022-2023 年中国茶叶产业发展及消费者洞察行业报告(*Industry Report on the Development and Consumer Insight of China's Tea Industry from 2022 to 2023*). Retrieved Oct. 28, 2023, from <https://report.iiimedia.cn/repo7-0/43262.html>
- Soho. (2022). 2021 年喝茶习惯周研分析: 真正的高频消费? 超53.1%的用户每天都在喝茶(*2021 Tea Drinking Habit Survey and Analysis: Real High Frequency Consumption? More than 53.1% of users drink tea every day*). Retrieved Oct. 28, 2023, from https://www.sohu.com/a/529734502_120205287
- 予言茶事. (2021). 中国人喝茶的4大理由, 生活习惯排第二, 年轻人真不喜欢喝茶吗? (*The top four reasons why Chinese people drink tea are their lifestyle habits. Do young people really dislike drinking tea?*). Retrieved Oct. 28, 2023, from <https://zhuanlan.zhihu.com/p/361626705>
- 道雅陶瓷. (2018). 便携式旅行茶具的设计(*Design of Portable Travel Tea Set*). Retrieved Oct. 28, 2023, from <https://www.yadao8.com/chajuzhishi/3843.html>
- Losifyan M. (2019). *Emotions associated with different textures during touch*. Retrieved Oct. 29, 2023, from <https://www.sciencedirect.com/science/article/abs/pii/S1053810018304720?via%3Dihub>
- Richardson B. A. , Vardar Y. , Wallraven C. and Kuchenbecker K. J. , (2022). *Learning to Feel Textures: Predicting Perceptual Similarities From Unconstrained Finger-Surface Interactions*. Retrieved Oct. 29, 2023, from <https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=9913733&isnumber=9991904>
- Romm C. (2016). *The People Who Store Their Emotions in Their Fingertips*. Retrieved Oct. 29, 2023, from <https://www.thecut.com/2016/05/the-people-who-store-their-emotions-in-their-fingertips.html>
- Oliver R. (2020). *The Power Of Touch: How Do Textures Affect Our Emotions?* Retrieved Oct. 29, 2023, from <https://trulyexperiences.com/blog/textures-emotions/>
- CHINA TEA SPIRIT. (2022). *6 Types of Chinese Tea* Retrieved Oct. 30, 2023, from <https://www.cnteaspirit.com/six-types-of-chinese-tea/>
- Wickham R. (2023). *Types of Chinese Tea*. Retrieved Oct. 30, 2023, from <https://www.chinaeducationaltours.com/guide/culture-chinese-tea-types.htm>

The 12th International Arts and Design Symposium 2024 | Conference Proceedings

- 中国新闻网. (2023). 中国六大茶类分类体系国际标准发布(Publication of International Standards for the Classification System of Six Major Tea Categories in China). Retrieved Oct. 30, 2023, from <https://www.chinanews.com.cn/cj/2023/04-18/9992249.shtml>
- Mandarin T. (2022). *Chinese Liquor: 7 Popular Types from Mijiu to Baijiu*. Retrieved Oct. 30, 2023, from <https://www.thatsmandarin.com/chinese-culture/7-types-of-chinese-liquor/#>
- Amboro J. L. (2022). *The characteristics of teapots made of plastic and clay: what are their designs, functions, and impacts on the environment?* Retrieved Nov. 1, 2023, from <https://iopscience.iop.org/article/10.1088/1755-1315/1114/1/012110/pdf>
- Bowler E. (2022). *23 Things to Know About Tea Sets: A Comprehensive Guide*. Retrieved Nov. 1, 2023, from <https://acacuss.com/blogs/news/23-things-to-know-about-tea-sets-a-comprehensive-guide>
- Faster Capital. (2023). *Tea set: Tea for Two: Unveiling the Beauty of Traditional Tea Sets*. Retrieved Nov. 1, 2023, from <https://fastercapital.com/content/Tea-set--Tea-for-Two--Unveiling-the-Beauty-of-Traditional-Tea-Sets.html>
- Ztgjmy. (2021). 中国古代茶具的历史: 由单一功能到多重功能的演变(The History of Ancient Chinese Tea Set: Evolution from Single Function to Multiple Functions). Retrieved Nov. 3, 2023, from <http://www.ztgjmy.cn/?c=index&a=show&id=461>
- Chen Q. (2005). *The Historic Information of Chinese Ancient Tea Sets*. Retrieved Nov. 3, 2023, from <https://www.cglhub.com/auto/db/detail.aspx?db=950008&rid=643367&agfi=0&cls=0&uni=False&cid=0&showgp=False&prec=False&md=93&pd=6&msd=93&psd=6&mdd=93&pdd=6&count=10&reds=formation%3Bartistic%3Bcolours%3Bof>
- Li H.(2022). 中国古代茶具发展史浅议(A Brief Discussion on the Development History of Ancient Chinese Tea Set). Retrieved Nov. 3, 2023, from <https://zhuanlan.zhihu.com/p/488539673>
- HO D. (2021). *The Evolution of Chinese Tea Culture*. Retrieved Nov. 3, 2023, from <https://www.sothebys.com/en/articles/the-evolution-of-chinese-tea-culture>
- Chinadaily. (2015). *Elegant Chinese ancient tea sets*. Retrieved Nov. 3, 2023, from http://en.chinaculture.org/2015-12/23/content_639391.htm
- Chetioui N. (2022). *Discover Chinese Tea Culture and History*. Retrieved Nov. 3, 2023, from <https://www.europeanguanxi.com/post/discover-chinese-tea-culture-and-history>
24. Wang L.(2005) Tea and Chinese Culture Access on 3rd Nov.2023 From: https://books.google.fr/books?id=y6ODcqMEUTcC&lpg=PP15&ots=bexbSnZrK_&dq=chinese+tea+history&lr&pg=PP15&hl=zh-CN&pli=1#v=onepage&q=chinese%20tea%20history&f=false
- Tsai R. , Jones S.R. (2010). 中英文茶学术语Chinese-English Tea Studies Terminology. (2010, ISBN978- 957-9690-06-5) Retrieved Nov. 10, 2023, from https://drive.google.com/file/d/1q_BQrmiOwE2JZ1CA_onMRW2hsT30vXxD/view
- Xie R. (2023). *Frothy Song Dynasty art of whisking tea*. Retrieved Nov. 10, 2023, from <http://en.people.cn/n3/2023/0607/c90000-20028820.html>

The 12th International Arts and Design Symposium 2024 | Conference Proceedings

- Xu X. (2017). 《茶艺从入门到精通》 (*Tea Art from Beginner to Proficient*). China: The Chinese Overseas Publishing House ISBN:978-7-5113-6922-2
- Kalia S., Avérus L. (2016). *Biodegradable and Biobased Polymers for Environmental and Biomedical Applications*. Retrieved Nov. 12, 2023, from https://books.google.co.th/books?hl=sl&lr=&id=cP2OCwAAQBAJ&oi=fnd&pg=PA171&dq=Characteristics+of+PLA&ots=O_awJWW5IK&sig=1uXE30qDJ7YMsAbOVQz5rtBdSec&redir_esc=y#v=onepage&q=Characteristics%20of%20PLA&f=false
- Rogers K. (2023). *melamine*. Retrieved Nov. 10, 2023, from <https://www.britannica.com/science/thiazine>
- Cherry K. (2022). *Color Psychology: Does It Affect How You Feel?* Retrieved Nov. 14, 2023, from <https://www.verywellmind.com/color-psychology-2795824>
- Stanton K. (2023). *Colors and emotions: how colors make you feel*. Retrieved Nov. 14, 2023, from <https://99designs.com/blog/tips/how-color-impacts-emotions-and-behaviors/>
- People Data. (2022). 《现代都市人生活与健康方式研究报告》 (*Research Report on the Lifestyle and Health of Modern Urban People*). Retrieved Nov. 27, 2023, from http://health.china.com.cn/2022-12/15/content_42205747.htm
- Guo H. , Li J. (2020). *Chinese traditional colors: The Aesthetics of Color in the Forbidden City*. Beijing: CITIC Publishing Group ISBN: 9787521716054. Retrieved Dec. 9, 2023, from <https://www.figma.com/community/file/932547561953107053>

Exploring Illustration for Children Mental Health

Jiao Li¹, Pisrapai Sarasalin², Patipat Chaiwitesh³

Abstract

In today's society, both adults and children have their own troubles, which affect their mental health issues. Such as psychological problems, which refer to psychological factors, and common mental health problems include anxiety, depression, autism, etc. These psychological problems are often accompanied by characteristics such as loneliness, insomnia, unhappiness, and stress. This research focuses on studying children's mental health and designing picture book illustrations. This research adopts a combination of a questionnaire survey and a literature review to conduct. In this research of children's mental health issues, specifically focus on emotional aspects, mostly related to art therapy, rather than the medical field. The purpose is to prevent and improve children's mental health problems through the art form of "healing" picture books. By using Erikson's theory and book age classification, the focus of the study was determined to be on the left-behind children with mental health issues in grades 4-6 and ages 10–12 in primary school. Researcher has also found that picture books that combine reading and painting are more popular among children and have better effects.

Keywords: *children, Mental health, Illustration, Exploring*

1. Introduction

1.1 Background and Significance of the Problem

Nowadays, the number of left-behind children has reached 66.93 million, with the majority being in primary school (UNICEF, 2020). The psychological problems of left behind children have also been a key topic of social concern in recent years. Due to the lack of parents and guardians, left behind children face many challenges in their mental health, such as loneliness, inferiority, anxiety, unhappiness, insomnia, etc. (Yu-Ming et al., 2020; Jia & Tian, 2010). These issues not only affect the personal growth and development of left behind children, but also pose potential threats to social harmony and stability.

It is of great significance to pay attention to and improve the psychological problems of left behind children. On the one hand, left behind children are the future and hope of a country, and their mental health is related to the country's human capital and social progress. On the other hand, left behind children are a vulnerable group in society, and they need more care and support to ensure their basic rights and welfare.

Solving the psychological problems of left behind children is a long and complex process that requires effective measures from various levels. Currently, resources for treating mental health problems are also relatively scarce (Zhou, Wang, & Ma, 2020), and children are young. Long term reliance on medication for treatment can inevitably cause harm to the body. Art therapy can prevent and improve these problems in the early stages. Therefore, through the form of picture books that children enjoy and are familiar with, they can feel warmth and happiness in reading and painting, thereby improving their emotions and preventing mental health problems.

1.2 Objectives

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- 1) To study left-behind children mental health for exploring illustration.
- 2) To design illustrations for left-behind children picture books that establish correct mental health and provide assistance to children with psychological problems.

1.3 Research Questions

- 1) What psychological health problems do left-behind children have, and what types of illustrations can have a therapeutic effect?
- 2) How to design picture books that are helpful for children's psychological problems?

2. Research Theory

2.1 Concepts and symptoms of mental health

Mental health: refers to a person's good mental, emotional, and conscious state, able to actively respond to challenges in life and overcome difficulties. It includes self-awareness, self motivation ability, and emotional management ability. There are different theories and perspectives on the standards of mental health, but generally speaking, individuals with mental health should possess the following characteristics:

Normal intelligence, able to effectively acquire, process, and apply information, solve problems, and create new knowledge.

Emotionally healthy, able to understand and express one's emotions reasonably, control and regulate negative emotions, and maintain a positive and optimistic attitude.

Strong willpower, able to set clear and reasonable goals, consciously and autonomously achieve goals, overcome difficulties, and persevere.

Behavioral coordination, able to make appropriate behavioral choices based on environmental and social norms, avoiding impulsive and excessive behavior.

Adaptation to interpersonal relationships, able to respect and understand others, establish and maintain good communication and cooperation, handle interpersonal conflicts well, and obtain social support. Moderate response, able to make appropriate responses according to different situations and stimuli, but sensitive or slow, without excessive or no response.

Psychological characteristics are in line with age and can reflect psychological characteristics that are suitable for one's own age, without entering a certain stage of psychological development too early or too late.

Symptoms: To determine if there are mental health issues, one can use self observation and self-evaluation, as well as professional psychological testing and counseling to identify one's psychological strengths and weaknesses, and promptly identify and solve psychological problems. If you feel that your psychological state continues to be poor, affecting your studies, work, and life, or have extreme thoughts and behaviors such as self harm and suicide, you should seek professional psychological help in a timely manner to protect your mental health.

2.2 Common mental health issues among left behind children

Left-behind children, due to their parents or guardians being away for a long time, lack intimacy and a sense of security and are prone to psychological problems. According to research, most left-behind children will have the following psychological problems:

- 1) Loneliness: Due to the lack of parental companionship and care, left-behind children often live alone and may feel lonely and neglected. (Yu-Ming et al., 2020; Zhou, Wang, & Ma, 2020)

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2) Depression (unhappy emotions): A long-term lack of family affection may make left-behind children feel insecure, develop resentment and unhappiness towards their parents, and thus easily suffer from depression. (Jia & Tian, 2010)

3) Insomnia: Left-behind children may worry about their parents or guardians leaving them, lack self-regulation ability, and be unable to effectively cope with various challenges and difficulties in life. In addition, parents may not have time to discipline them, and may develop some bad habits, such as staying up late at night, watching TV, etc. These factors can affect their sleep quality.

4) Social disorders (anxiety and stress): Left-behind children may have social barriers that are related to their academic performance, lifestyle, and psychological status.

2.3 Erikson's Theory

Erikson's personality development theory is a psychological and social development theory that combines an individual's inner life with social tasks. It divides a person's life into eight stages, each with a specific developmental task and a psychological and social crisis. If individuals can successfully resolve these crises, they can develop good personality traits, while conversely, it can lead to negative personality traits.

The impact and role of Erikson's personality development theory on children's mental health are mainly reflected in the following aspects:

Erikson's theory of personality development emphasizes the importance of early experience in personality development, particularly in the first three stages (infancy, early childhood, and early school age), which involve the formation of personality traits such as basic trust, autonomy, and initiative (Dingyu, 2018). If children can receive appropriate care, support, and encouragement during these stages, they can establish a sense of trust, confidence, and positivity towards themselves and the world, thereby promoting their mental health and social adaptation.

Erikson's personality development theory points out the psychological characteristics and developmental needs of children of different age groups, providing theoretical guidance and practical suggestions for family and school education. Parents are advised to adopt different parenting styles based on the developmental stage of their children. Emphasizing the sustainability and plasticity of personality development, it is believed that personality is not static, but constantly developing and changing throughout one's life. This means that children's psychological problems are not irreversible, but can be improved and adjusted through subsequent experiences and interventions. Meanwhile, this also means that children's mental health needs continuous attention and protection to avoid crises and difficulties in the later stages. Therefore, according to the research needs of this paper, school-age children will be studied as representatives.

2.4 Art Therapy Theory

Art therapy is a psychological therapy method that utilises artistic creation and expression to promote physical and mental health. It can help people release emotions, enhance self-identity, resolve internal conflicts, and improve their quality of life. Art therapy can be applied to people of different ages and backgrounds, including children, adolescents, adults, and the elderly, as well as those with special needs or those who have experienced trauma. And currently, resources for treating mental health problems are also relatively scarce (Zhou, Wang, & Ma, 2020), and children are young. Long-term dependence on medication for treatment can inevitably cause harm to the body. Art

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therapy can prevent and improve these problems in their early stages. Therefore, art therapy is more friendly, effective, and safe for preventing and assisting children's mental health problems. (Bosgraaf et al., 2020)

The principle of art therapy is based on the ability of artistic creation and expression to stimulate people's subconscious, enabling them to better understand their psychological state and needs. Art therapy can also provide a safe and supportive environment, allowing people to establish trust and communication relationships with therapists and other participants. It can also promote the integration of people's senses, cognition, and emotions, enhancing their creativity and self-efficacy.

The future development trend of art therapy is to become more diversified and innovative. Notonly does it include traditional forms of painting, reading, music, dance, etc., but it can also be combined with emerging media and technologies such as movies, digital art, virtual reality, etc. Art therapy can also be combined with other psychotherapy methods, such as cognitive-behavioral therapy, psychoanalytic therapy, mindfulness therapy, etc. Art therapy can also be applied to a wider range of fields and scenarios, such as education, healthcare, community, post disaster, etc. (Utami, 2014) . Therefore, this article chooses to use painting and reading to create picture book content.

Table 1 Research Framework Table

Framework			
Research Objectives	Research Questions	Research Methodology	Research Outcomes
To study children mental health for exploring illustration.	What psychological health problems do left-behind children have, and what types of illustrations can have a therapeutic effect?	Literature review (Mental health concept, Erikson's theory, Art therapy theory, Illustration related content)	1) Left behind Children often have problems such as loneliness, unhappiness, insomnia, and stress. 2) The use of art therapy is more beneficial for children. 3) The healing style in commercial illustrations has a healing effect.
To design illustrations for children's picture books that establish correct	How to design picture books that are helpful for children's psychological	Case analysis, Questionnaire survey, Actual design	Design a picture book that combines reading and painting.

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mental health and provide assistance to children with psychological problems.	problems?		
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Source: Researcher (2024)

3. Research Methodology

3.1 Population analysis

1) Age

According to 2020 data, the number of left-behind children has reached 66.93 million, with primary schools accounting for the largest proportion (UNCF, 2020) (Table 2). The probability of suffering from mental health problems is higher, and they need to receive more attention. So, my main research object is left-behind children in primary school.

Table 2 Distribution data of the total number of left-behind children in China, 2020

Stage	Population (Unit: Million)	Percentage
Infancy	11.67	17%
Preschool	12.76	19%
Primary School	25.25	25.25%
Middle School	10.57	10.57%
High School	6.68	10%

Source: Researcher (2023)

There are two forms of division for primary school (grades 1-6) in China's compulsory education: low stage and high stage.

According to the Lanshi Reading Classification, the Lexile 150L to 300L levels correspond to the upper stage of Chinese primary schools, belonging to the 4-6 grade stage and children aged 10-12.

Therefore, based on Erikson's theory, the development of compulsory education in China, and the Lexile graded reading system, the research target population was ultimately determined to be children aged 10-12 in grades 4-6 of primary school.

2) Left-behind children Feature (Xiaozhao, Min, & Can, 2013)

- Reading time is limited
- Lack of parental companionship
- Prone to mental health problems
- Read more at home and school
- Reading resources are limited
- Eager to read

3.2 Product Analysis

3.2.1 The role of books and market demand

1) Role: Books have a long history and cannot be replaced by other electronic devices. Electronic devices can make children addicted, affect daily life, and cause more

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mental health problems. However, reading can nurture one's character, protect the eyes, and be beneficial to children.

2) Demand: As shown in Table 3, the children's book market still has high demand and economic value (Porter Anderson, 2019). Therefore, choose the medium of books.

Table 3 Children's Book is Still the Largest Sector in terms of Market Share by Sales Revenue

Types of Books	Sci-Tech	Children	Language	Literature
Sales Ratio (%)	16%	53%	10%	21%

Source: Researcher (2023)

3.22 Children's picture book illustration concept

Children's picture book: It is a "drawn book", referring to a book that mainly centres on painting and has a small amount of text.

Illustration: As a definition of a book illustration, it refers to a picture inserted in a book that serves as a helpful explanation or artistic appreciation of the content (Fang, 1996). Illustration is an art form. Is not a unified subject but a comprehensive category where every writer can have their own style.

3.23 Healing picture book concept

Nowadays, the healing style has become a popular picture book style in recent years, so I will study this painting style more. "The word "healing" first appeared in Japan, meaning relaxing and soothing the mood, providing a lasting sense of bodily and mental comfort, and being able to heal people's psychological trauma and bring positive power. The "Healing" picture book covers a wide range of readers, from children to adults. Picture books convey information more intuitively than regular storybooks. More easily accepted by children.

Picture books are deeply loved by children. It can not only tell stories and help children learn knowledge but also comprehensively help them construct their spiritual world.

3.24 Case Study

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Figure 3.1 Coloring book and Reading picture book

Source: Amazon (2023) <https://www.amazon.com/LOgre-du-chemin-Ga%C3%ABlle-Perret/dp/B0BNKK3ZC8>

1) Coloring book (Figure 3.1)

Advantage: Relaxing and soothing emotions have a healing effect.

Disadvantage: Colour only, no complete storyline, not very interesting, visual tired.

2) Reading picture books (Figure 3.1)

Advantage: The warm and interesting storyline and soft and vivid colour pictures make people feel relaxed and happy.

Disadvantage: Pure reading lacks interactivity.

3.25 Materia、Size、Colour

According to the characteristics of left behind children, books should not be too expensive, lightweight, or easy to carry. Therefore, paperback books can be preferred. According to the content of the picture book, light paper is more suitable. Based on the features of children's small arms with a length of about 20cm, sizes of 16k, 20k, and 24k can be considered.

Red represents passion, strength, love, and vitality, yellow represents creativity, warmth, and encouragement, green represents nature, healing, freshness, and quality, and blue represents trust, peace, loyalty, and ability. Different colors have different healing abilities. For example, red can treat sadness and lack of confidence, yellow can treat loneliness and lack of creativity, green can treat insomnia and stress, and blue can treat anxiety and stress (Figure 3.2).

Red, yellow, blue, and green are colours that can heal emotions, with blue being the most popular (Sembian & Kodi, 2016; Katz & Breed, 1922) (Figure 3.2). When creating picture books, the proportion of these colours used will be considered.

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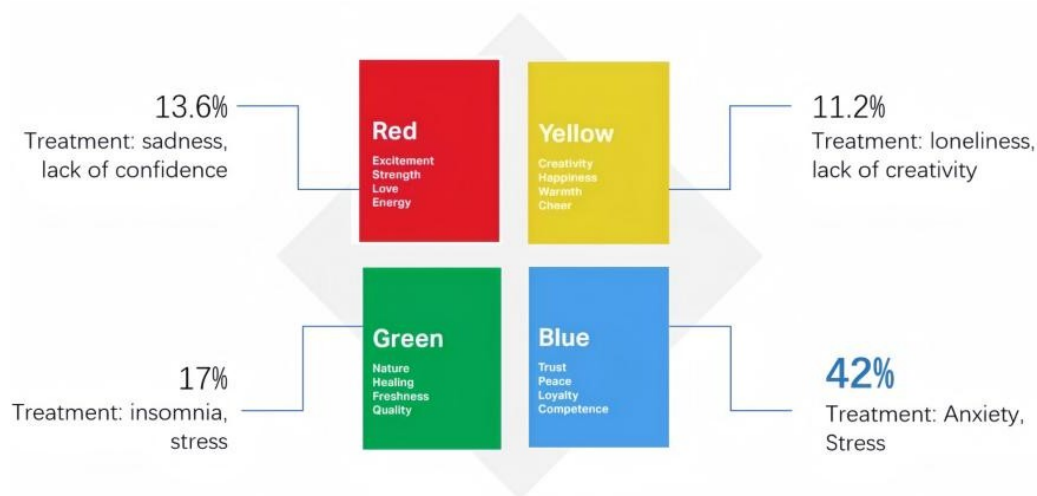


Figure 3.2 Different emotions represented by colors, Source: Researcher (2023-2024)

3.26 questionnaire investigation

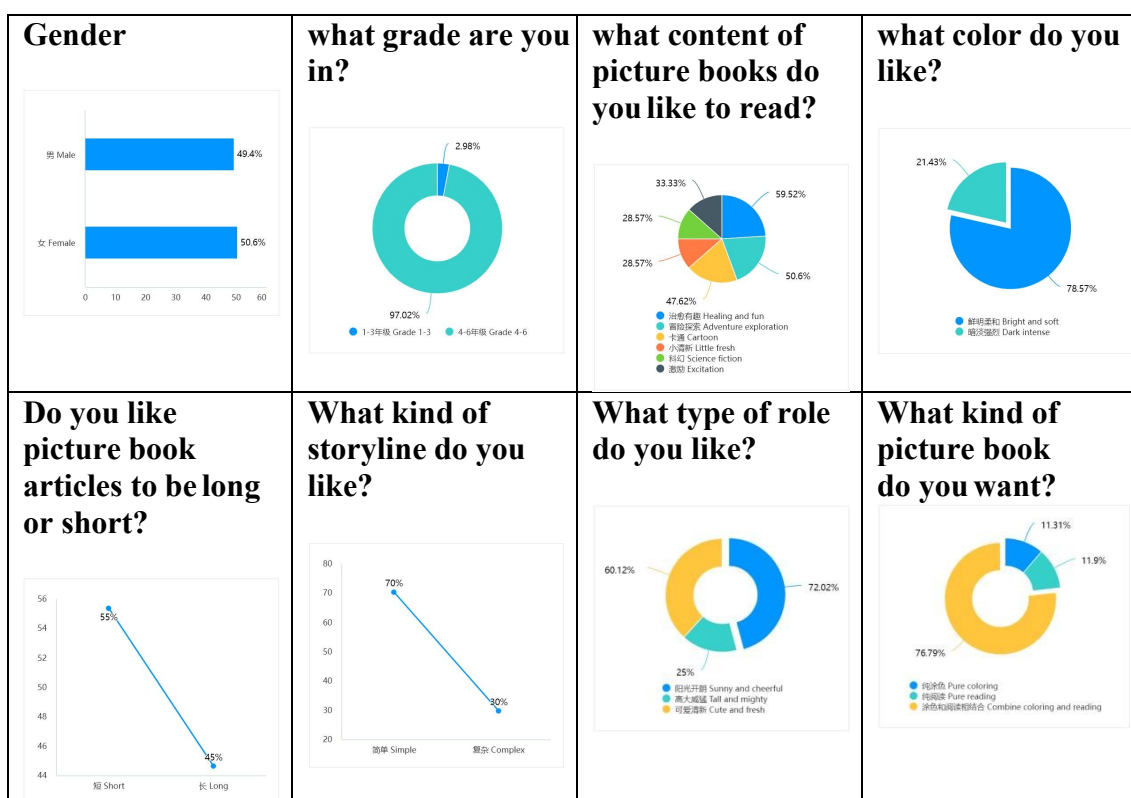


Figure 3.3 Questionnaire survey , Source: Researcher (2023)

The data shows that the gender share of left-behind children is similar. People who enjoy healing, fun, adventure, cartoons, and bright and soft colours are the majority. Most people enjoy short articles and simple storylines. People prefer characters who are

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sunny, cheerful, cute, and fresh in appearance. They would like a picture book that combines reading and painting. (Figure 3.3)

Based on case analysis and a survey of children's picture books, I will finally choose a combination of drawing and reading to create picture books. The combination of the two will have a better effect.

4. Picture Book Creation

4.1 Creative Background and Significance

1) Background: Creating story content around the characteristics of left-behind children's mental health problems, mainly describing a series of stories about lucky stars seeking happiness for left-behind children.

2) Meaning: This story tells children not to feel lonely and unhappy because their parents are working outside. They can use their own strength to find happiness with friends and feel the beauty of nature. At the same time, it also tells parents to pay more attention to their children's inner world and try their best to provide them with a safe and happy living environment. In this way, the children's world will be filled with warmth and happiness.

4.2 Sources of inspiration

Most left-behind children live in rural areas, and nature is a common landscape for them. Creating visual scenes using familiar environments can provide a more immersive experience. Stars are things that we can see when we look up; they can warm us and will always exist, so anthropomorphizing stars is the main character in picture book stories.

4.3 Creative process

4.3.1 Story Text

This article revolves around the protagonist, Lucky Star, who solves psychological problems such as loneliness, insomnia, and unhappiness for left-behind children and unfolds a series of short stories about finding the secret to happiness.

《Lucky Star》

Long ago, in a remote and peaceful little village, there lived a Lucky Star. The children in the village are all left-behind children. Because both parents work in the city, they often feel lonely, have insomnia, and are unhappy. Lucky Star decided to help children find happiness. It embarked on a journey to find the secret to happiness. It arrived at a dreamy garden, where flowers of various colors bloomed like rainbows falling to the ground. It touched a pink flower. Suddenly, it felt a sense of calm in its heart, and loneliness left it. Lucky Star shared this secret with the children in the village. Every day, the children come to the garden, quietly touching the flowers, and their loneliness slowly disappears. Then, Lucky Star arrived in a lush forest. These trees are all smart; they can talk. Lucky Star confided his sadness to the Wisdom Tree, who gently told it, "Lucky Star, happiness is shared with friends." Lucky Star listened to the words of the Wisdom Tree and returned to the village, inviting children to play and learn together. They slowly defeated sadness, and happiness filled the whole village. Finally, Lucky Star arrived at a high mountain with magnificent scenery on top. Lucky Star saw a group of soaring eagles flying happily in the sky. It asked the eagle, "What is the secret to your happiness?" The eagles replied, "Happiness is enjoying life freely." Bring this secret back to the village; Lucky Star encouraged the kids to enjoy nature's beauty. Playing in fields, rivers, and forests, their happiness became purer. With the help of Lucky Stars, children slowly get rid of loneliness, insomnia, unhappiness, and stress. They learn to seek happiness by

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sharing with friends and experiencing the beauty of nature with their hearts. After that, Lucky Star has always been with children, often casting magic to change them into star costumes, playing, learning, and exploring this beautiful world together. Happiness forever resides in their hearts.

4.32 Characters

Because the gender ratio of left-behind children is similar, I want to create a neutral character that can represent both. So we chose the second neutral character as the protagonist, Lucky Star, while the other character images were the ones of left-behind children who finally changed into star costumes. The protagonist's colours mainly use yellow and green to represent warmth and hope.

Character Sketches 1.0

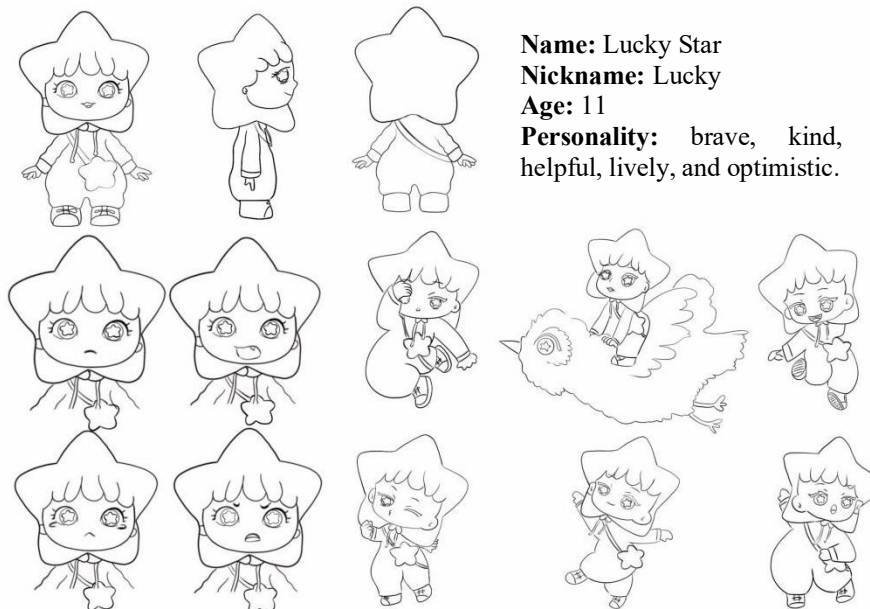


Figure 4.2 Sketches of the protagonist's lucky star, Source: Researcher (2023)

Character Image Color Draft 2.0

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Figure 4.3 Protagonist lucky star color draft, Source: Researcher (2023)

4.33 Scene Design

Represented by natural scenes such as gardens, forests, and mountains, the colours correspond to red, green, and blue, respectively. Creating images using familiar environments for left-behind children can provide a more immersive experience.

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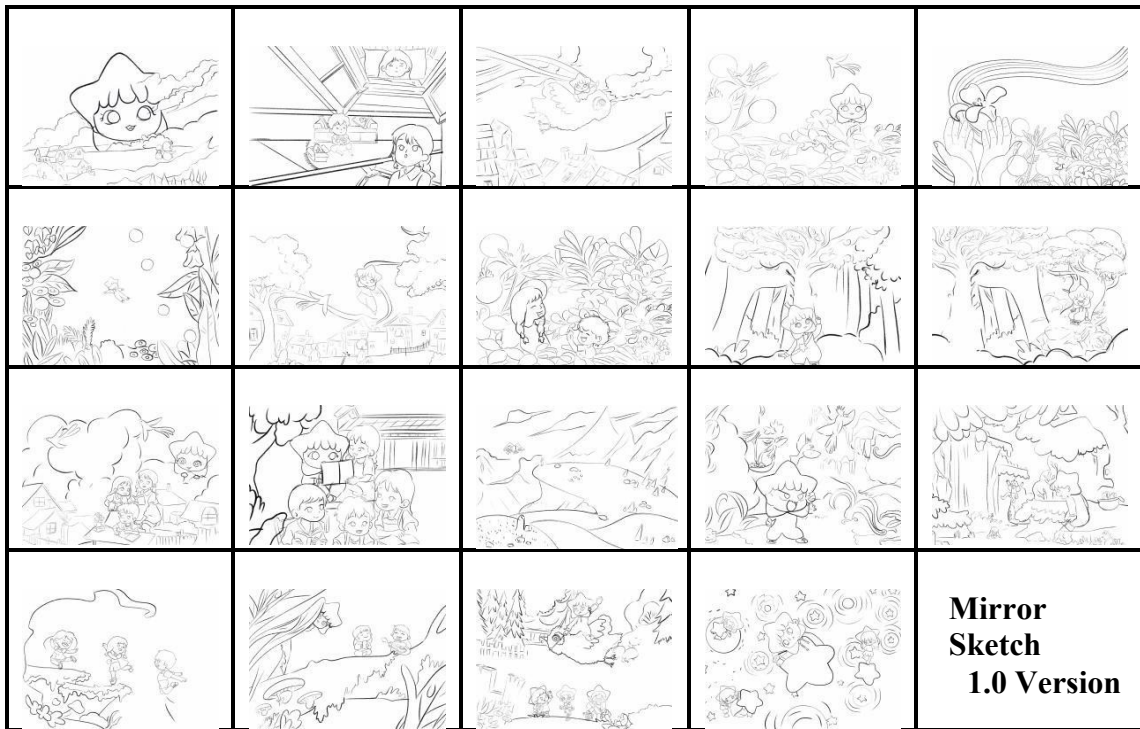


Figure 4.4 Mirror Sketch 1.0, Source: Researcher (2023)

4.4 Final Design

- 1) Book size: 285mm wide * 210mm high
- 2) Cover and Back Cover+Personal Information

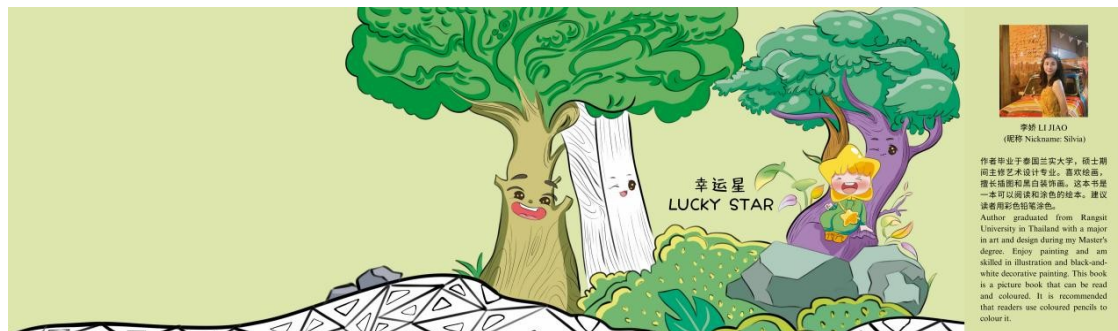


Figure 4.5 Cover and Back Cover Information Page, Source: Researcher (2024)

3) Story Content



Figure 4.6 Background Introduction Scene, Source: Researcher (2024)

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Figure 4.7 Garden Scene, Source: Researcher (2024)



Figure 4.8 Forest Scene, Source: Researcher (2024)

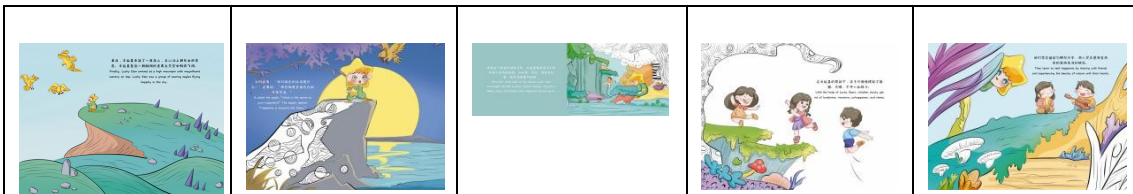


Figure 4.9 High Mountain Scene, Source: Researcher (2024)



Figure 4.10 End Scene, Source: Researcher (2024)

4.5 Material Object

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Figure 4.11 Picture books and postcards, Source: Researcher (2024)

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Figure 4.12 The scene of students coloring, Source: Researcher (2024)

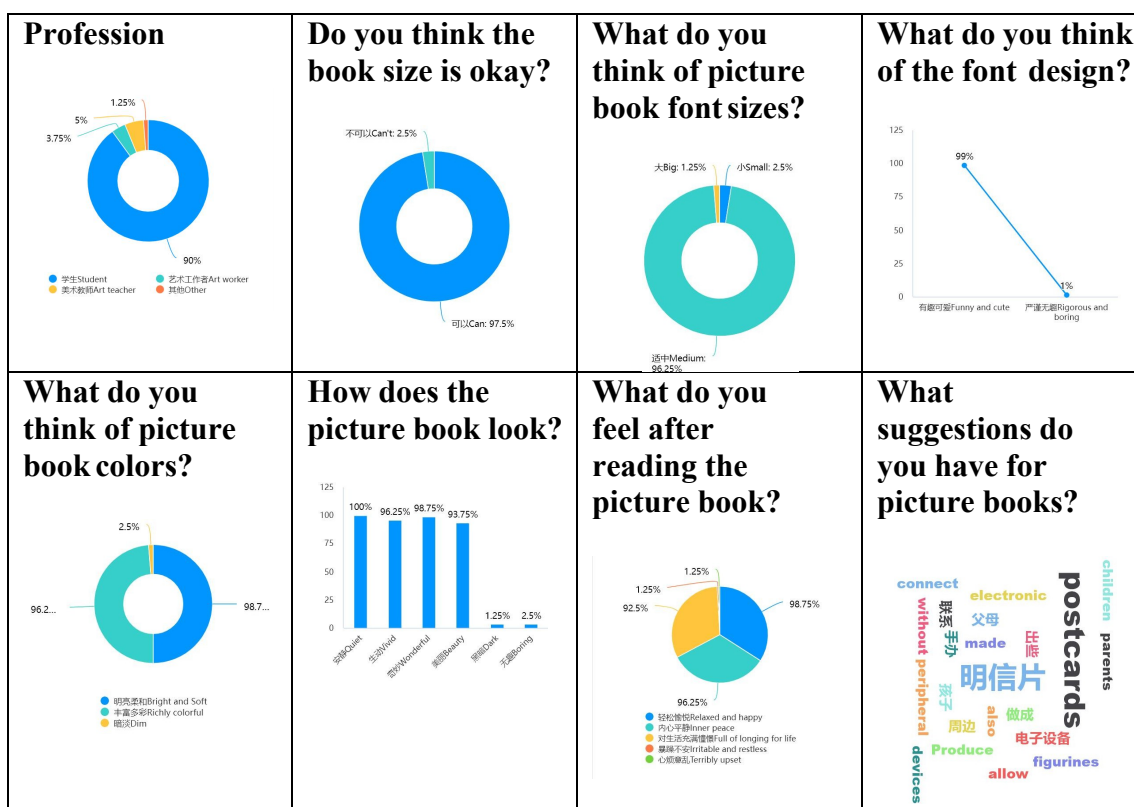


Figure 4.13 Reader feedback, Source: Researcher (2024)

1) According to the questionnaire survey and practical evaluations by students, feedback was given that the font size in the books is appropriate, and the color effect of the images is comfortable and pleasant. The overall feeling of the books is: beautiful, vivid, wonderful, quiet, with a sense of longing.

2) Suggestion: can turn the images in books into postcards, so that children can maintain some contact with their parents without electronic devices. Can also write down what want to say to parents in postcards and send them to express longing.

5. Conclusion

Based on various research and practice in the paper, it has been proven that picture books that combine reading and painting are more popular and effective for children. Books can help children calm down, and through art therapy, children can experience beautiful things in art, thereby preventing and improving negative emotional states, and have beautiful expectations and aspirations for life.

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References

- United Nations Children's Fund, Facts and Data on the Population Situation of Children in China in 2020.
- Yu-Ming, Z., Chun-Xia, Z., Yan-Jie, Q., Fan, H., Xiao-Na, H., Xiao-Bo, T., Jing, S., Yi, Z., Emotional and Behavioral Problems of Left-Behind Children in Impoverished Rural China: A Comparative Cross-Sectional Study of Fourth-Grade Children, *Journal of Adolescent Health*, Volume 67, Issue 5, Supplement, 2020, Pages S48-S54, ISSN 1054-139X, <https://doi.org/10.1016/j.jadohealth.2020.06.016>.
- Jia, Z., Tian, W. (2010), Loneliness of left-behind children: a cross-sectional survey in a sample of rural China. *Child: Care, Health and Development*, 36: 812-817. <https://doi.org/10.1111/j.1365-2214.2010.01110.x>
- Dingyu, C. (2018). The Eight Stages of Psychosocial Protective Development: Developmental Psychology, *Journal of Behavioral and Brain Science*, Vol.8 No.6, 2018. https://www.scirp.org/html/4-3900690_85207.htm
- Bosgraaf, L., Spreen, M., Pattiselanno, K., & van Hooren, S. (2020). Art Therapy for Psychosocial Problems in Children and Adolescents: A Systematic Narrative Review on Art Therapeutic Means and Forms of Expression, *Therapist Behavior*, and Supposed Mechanisms of Change. *Frontiers in psychology*, 11, 584685. <https://doi.org/10.3389/fpsyg.2020.584685>
- Utami, Dian. (2014). Children art therapy through writing and drawing: Case study in Indonesia. 10.13140/RG.2.2.22564.07046.
- Xiaozhao, D., Min, Z., Can, L. (2013). Study on the Reading Environment of Rural Left-behind Children—Taking Chongqing for Example[J]. *LIS*, 2013, 57(05): 50-55, 37. <https://www.lis.ac.cn/CN/10.7536/j.issn.0252-3116.2013.05.009>
- Porter Anderson. (2019) China's Book Market in the First Half of 2019: Up 10.82 Percent. <https://publishingperspectives.com/2019/08/china-book-market-first-half-2019-up-10-82-percent/>
- Fang, Z. (1996). Illustrations, Text, and the Child Reader: What are Pictures in Children's Storybooks for?. *Reading Horizons: A Journal of Literacy and Language Arts*, 37 (2). Retrieved from https://scholarworks.wmich.edu/reading_horizons/vol37/iss2/3
- Sembian, Naavendhan & Kodi S, Malar. (2016). Chromo Therapy: Healing Power of Colors. *i-manager's Journal on Nursing*. 5. 6-12. 10.26634/jnur.5.4.4811. https://www.researchgate.net/publication/325137846_Chromo_Therapy_Healing_Power_of_Colors
- Katz, S. E., & Breed, F. S. (1922). The Color Preferences of Children. *Journal of Applied Psychology*, 6(3), 255–266. <https://doi.org/10.1037/h0075274>
- Zhou, Ry., Wang, Jj. & Ma, Bx. The mental and psychological problems in left-behind children in China. *Pediatr Res* 87, 802–803 (2020). <https://doi.org/10.1038/s41390-019-0449-x>

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The Development of Visual Identity System Design Guideline for Thais Creative Industry

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Abstract

The Development of Visual Identity System Design Guideline for Thais Creative Industry aims 1) to analyze and study the concept of the project between OTOP and OVOP 2) to create guideline ideas to be use as guidelines for design development. In Thailand, we have the One Tambon Project One Product (OTOP). It is a project aimed at stimulating local businesses, which originates from the One Village, One Product concept (OVOP) of Oita City in Japan. This involves the selection of products from communities across various areas in Thailand using the same selection format and system. Therefore, the products do not differ or show variations in their origins. Upon researching, it was found that the OTOP project functions like a brand, bringing together products from various provinces under the same selection system from across the country. This research aims to apply knowledge about design communication, recognizing that each area is unique. The researcher believes that different areas should utilize communication formats with distinct identities to support diversity while maintaining a unified direction. Consequently, this research applies a communication model to identity design, aiming to enhance communication strategies.

Keywords: OTOP, OVOP, Visual Identity, Visual Communication

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1. Introduction

The researcher has searched for information about the OTOP and OVOP projects and found that OVOP and OTOP will operate for similar purposes. But there are still some differences in implementation. The concept of OVOP is the process of mobilizing local people and local material resources to create value-creating goods and services. The aim of Oita's OVOP campaign is to revitalize and develop local communities during Japan's industrial revolution in the country's economic development. In order to solve the problems of the community with emphasis on human resources. Nguyen Thi Anh reports Oita government is fully aware of the double mission of developing physical products and enhancing people's skills and knowledge. Oita local government has a plan to develop entrepreneurship for local people in each community so that some trainees can become future leaders in their communities. It was done by establishing training schools named "Toyo no Kuni Development School" (Pitchayapisut, 2008). The characteristics of the schools depend on the local demand of learning, including Agricultural Training School, a Commerce School, and a Tourism School. The local residents come to class to learn from experienced business owners, or experts in the fields of their products to learn how to create a product, deal with finance, and manage operational activities effectively (Pitchayapisut, 2008). With the same aim of human resources development (Nguyen Thi Anh, 2019).

The OTOP project, Watunyu (2019) reported that it was caused by national economic problems caused by economic crises. The Impact on Thailand in 1997 (Sukhothai Thammathirat University, 2012). OTOP, under the supervision of the Thai Rak Thai party government, focuses on developing tangible products or giving value to the development of tangible products above development in other areas. This can be seen from the Thai Rak Thai Party government implementing the OTOP policy under the idea that it focuses on producing and selling products of the sub-district or community, which is a policy that is directed from the central government to the regional and local levels by a steering committee. One Product District will determine various guidelines. Regardless of whether it is at the provincial level, it will be responsible for organizing Ranking of products from the district and allocate the budget received from the central government to the district. The district level is responsible for ranking products from various sub-districts in the district and allocate the budget received from the district. Central to the sub-district and at the sub-district level where outstanding products must be selected within the sub-district (Community development department, 2011). Watunyu's (2019) report that most people know that OTOP is a product or product produced within the community. 87.8% of people know that government promotion has made many people aware that OTOP is a product or product, rather than human resource development. Up to 79.2%.

One of Thailand's creative industries is OTOP. The background of this study begins from the researcher's own doubts about what OTOP is, because the researcher is familiar with and understands that OTOP is a highlight product of the province. It can be used in activities related to OTOP, as well as in tourism related places using product stalls belonging to OTOP. From the researcher's understanding, OTOP is like a brand that brings together various products from all over the country under the OTOP symbol. Centrally supervised, which is the state, is the one who determines the concepts and policies for selecting all various products. Therefore, the researcher would like to propose ideas and guidelines for presenting various products without going through a central system. But it is the presentation of products from the province itself within the branding design of the province, which helps promote the image of the product and distinguish products from different areas. that can be easily remembered without the need to

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offer products under OTOP. Visual communication can create awareness, understanding and remembering through visual communication by Using Bangkok's visual identity design as a design guide.

Objectives

- 1) To analyze and study the concept of the project between OTOP
- 2) To create guideline ideas to be used as guidelines for design development. In Thailand

2. Literature review

In researching The Development of Visual Identity System Design Guideline for Thais Creative Industry, the researcher studied the document. and related research as follows

- a) SMCR Model of Communication
- b) Concept of visual communication
- c) One Tambon one product (OTOP)
- b) One village one product (OVOP)

2.1 SMCR Model of Communication

The Communication Model by David K. Berlo, or the SMCR Model of Communication, illustrates the communication process in the simplest form, consisting of Sender, Message, Channel, and Receiver. Berlo's SMCR communication model (1960) explains the various components that make up the fundamental process of communication. As this communication tool emphasizes encoding and decoding of information, it can be used more effectively for communication purposes.

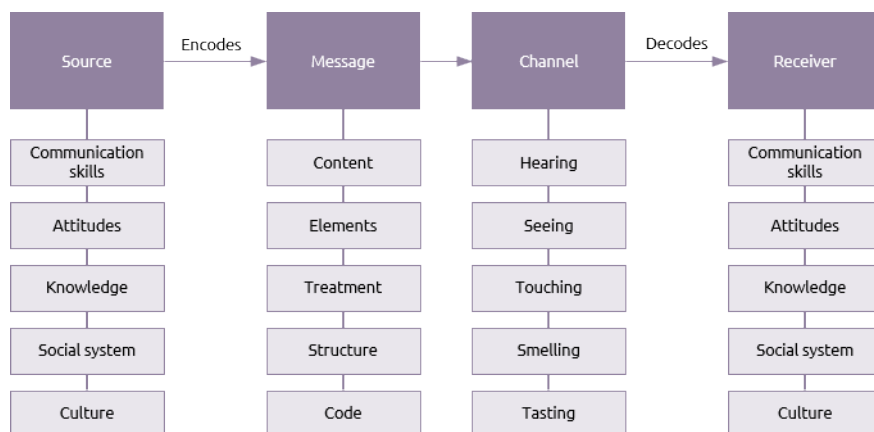


Figure 1: Berlo Model of Communication Source: Praxis Framework Limited, 2023

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1. **Source** - Must be a person with good communication skills. With the ability to encode News content have a good attitude towards the recipient for results in communication, have good knowledge of the information to be transmitted. and should have the ability to adjust the level of that information to be appropriate and easy for the knowledge level of the recipient

2. **Message** - Relevant in terms of content, symbols, and methods of sending

3. **Channel** - Refers to the transmission channel by which the receiver receives news or information through all 5 senses or just any part of them, namely hearing, seeing, touching, tasting, or smelling.

4. **Receiver** - The receiver must have good communication and decoding skills, attitude, knowledge level, and social background. Culture, being the same or similar to a messenger, can effectively convey meaning or communicate.

2.2 Concept of visual communication

Visual communication has a long and rich history that dates back to prehistoric times when cave paintings were used to convey information and tell stories. The ancient Egyptians used hieroglyphs to communicate, while the Greeks developed a system of symbols that became the foundation of the modern alphabet. The printing press, invented by Johannes Gutenberg in the 15th century, revolutionized the way information was disseminated, allowing for the mass production of books and other printed materials. (ITM of Institutions, 2024)

At present Visual communication is storytelling it's how we communicate information and create experiences across a range of visual mediums. It can be found within design, illustration, photography, art and advertising; it could be an image, a quote, a campaign, a film or an animation. At present Visual communication has the power to evoke emotions, enhance storytelling and create memorable experiences. It is the process of conveying information and ideas through visual elements such as images, symbols, typography and color. It is a powerful means of communication that transcends language barriers and engages viewers in a visually compelling manner. Visual content attracts and retains attention more effectively than text alone. It helps in conveying messages quickly, making it ideal for social media platforms, websites, and digital advertisements. (Omer Fayaz, 2022).

Patchara Vanichvasin (2020) report that visual communication is the delivery of information to the receiver through the use of visual elements that can be read, looked upon (Alfi, 2011; Basker, 2009; Freeman, 2019) and get connected to information (Smiciklas, 2012).

It relies on eye sight and on a brain that transmits, processes, interprets all the sensory information received (Sless, 1981; Lester, 2012; Eisenberg, 2014). It can include signs, typography, drawing, graphic design, infographics, illustration, industrial design, advertising, animation, color, diagrams, sketches, charts, photographs, video, objects, models, maps, slide presentation, animation and electronic resources (Alfi, 2011; Smith, 2005; Wilmot Li & Berthouzoz, 2011).

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In conclusion, visual communication It has been around for many eras. Through development according to the development of technology, which visual communication That helps create awareness through various communication channels with appropriate application.

Element of art

Element of art it is an artistic element that can be perceived visually. It is the basic component of each element. which helps in communicating from the abstract to the concrete.

7 Elements of

- Art 1) Line
- 2) Shape
- 3) Form
- 4) Space
- 5) Texture
- 6) Value
- 7) Color

General principles of visual design

Visual communication is an effective way to convey information through visual elements such as pictures, symbols, and graphics. Understanding the principles of visual communication, visual language, and visual perception is critical to delivering effective messages. which consists of

- 1) Unity
- 2) Gestalt
- 3) Hierarchy
- 4) Balance
- 5) Contrast
- 6) Scale
- 7) Dominance

2.3 One tambon one product (OTOP)

One Tambon, One Product (OTOP) is one way to build strength. To the community to be able to improve the living status of the people in the community. By producing or managing local resources into quality and distinctive products It's its uniqueness. Consistent with the culture in each locality, it Can be sold in both domestic and international markets. It's about building a career. Generate income from products produced in the village or sub-district. By supporting and promoting local people to be able to create products. There are activities to invent and develop products for marketing, production, and management. and the application of production technology to have a quality that is acceptable and needs the international market with Energy, Creativity, and Desire to use resources found locally as the main focus. To create jobs, generate income, and lead to the goal of eating well, living well, and having a good quality of life for the people. Seeking the important foundation of the country is also a way to continue the good culture of the local area. Creating pride for future generations and laying the important foundation of the country and Thai society the good things of the local area will continue to exist. Creating pride for future generations and laying the important foundation of the country and Thai society.

OTOP Objective

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- 1) Create jobs and increase income for the community.
- 2) Strengthen the community to be able to think for itself. Do it yourself in local development
- 3) Promote the use of local wisdom
- 4) Promote human resource development
- 5) Promote community creativity in product development in accordance with the local way of life and culture

2.4 One village one product (OVOP)

The One Village One Product (OVOP) movement was initiated in 1961 by local residents in Oyama town, Oita prefecture, Japan (Igusa, K. nd). Oyama, located in hilly town, is the poorest town in Oita Prefecture. Because rice planting is not a sustainable livelihood, the challenge for Oyama was the migration of the young people who had to be woodcutters or seasonal migrant laborers for higher income in cities. The villagers were aware that the hilly geography was not suitable for mass cultivation of rice (Wahlin and Natsuda, 2008). They decided not to follow the rural development policy of the Japanese Government, which relies on subsidies and rice cultivation. In order to deal with local depopulation, Mr. Yahara, the mayor of Oyama Town, the president of the Oyama agricultural cooperative decided to be self-reliant by utilizing social capital and local knowledge for community development (Pitchayapisut, 2008). He launched a New Plum and Chestnut (NPC) strategy which aimed at transforming local agricultural production from rice into more promising plums and chestnuts. They were convinced that the investment in chestnut will allow them to lighten their workload, and work on other tasks to complement income from harvesting. The movement which then was transformed into Neo Personality Combination in 1965 and New Paradise Community in 1969 contributed to improve the quality of life and decrease youth from leaving the town of Oyama. Subsequently, the OVOP movement was launched across prefecture by Governor Dr. Morihiro Hiramatsu in 1979. OVOP Movement has spread to other rural Japanese areas that fall behind in its economic development and face the problem of out-migration and an aging population. (Nguyen Thi Anh Thu, 2013)

Principles of OVOP: According to Hiramatsu (2008)

- 1) Think Globally, Act Locally: Local residents are expected to create global products that embody cultural richness and natural resources. Such local flavor adds value to local products while the use of local human makes economic activities sustainable.
- 2) Self-reliance and creativity: local people play a central role in selecting products to develop, raising capital being accountable for the production process, and improving individual creativity.
- 3) Capacity building for human-resource: In this sense, local people are to re-value and re-invent their local resources and cultural craftsmanship to cultivate a distinctive product in agriculture, tourism, trading, etc. The expected products are not only physical products but also entrepreneurs with leadership in some fields.

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2.5 Research scope

Research on the development of visual identity guideline for creative thais industry, the researcher has defined related concepts and theories using important concepts including 1) Berlo's communication theory 2) Visual communication idea 3) studied the origins of OTOP and OVOP which from the aforementioned literaturereview the researcher has brought the data to form a research concept. As the following picture .

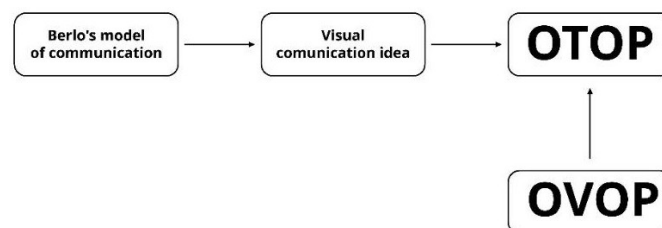


Figure 2: Research framework
Source: Researcher, 2024

3. Methodology

The research on topic “The Development of Visual Identity System Design Guideline for Thais Creative Industry” using the method creative research by using the concept of visual identity design as a communication medium in order to present the idea of presenting OTOP products in Thailand by using the design method from selecting Bangkok province as an example in visual identity design

4.1) Design concept framework

Researcher's design method uses 4 stages of Berlo communication, to apply for design and themain giving the main key of the message using visuals as a medium for communication, where visuals can be used in various channels through key elements. Different things are suitable for designing visualidentity.

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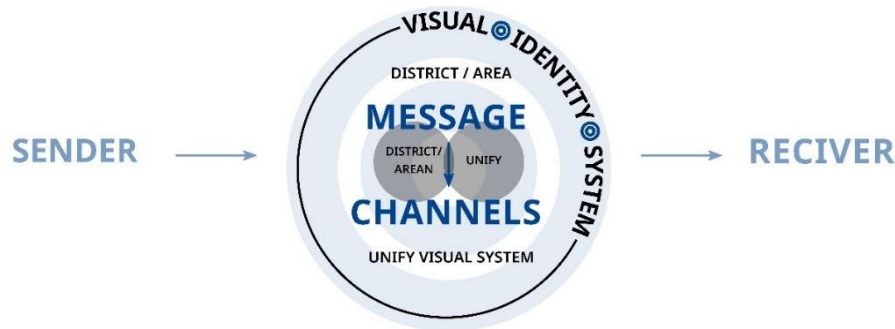


Figure 3: Design concept framework Source: Researcher, 2024

4.2) Design process by used data information of Bangkok city, Thailand

The researcher has searched for information about Bangkok to use in designing a Visual Graphic element concept that can be used in communication. The researcher has searched for information on Bangkok and found that there are 50 districts in the province, which are divided into 6 zones for the Bangkok Metropolitan Council. It is a parliamentary organization in Bangkok. has a duty to control Inspect and supervise the administration of Bangkok by the executive branch, which is headed by the Governor of Bangkok. (Figure 4, Figure 5)

4.3) Design concept idea

After discovering that Bangkok's flooring was divided into six areas, researchers proposed the concept idea of using a grid system for design. The grid lines were arranged into grids to determine the boundaries of the planar design. From graphic elements to decorative types combined with visual identity. (Figure 6)



Figure 4: 50 districts in Bangkok which are divided into 6 zones Source: Researcher, 2024

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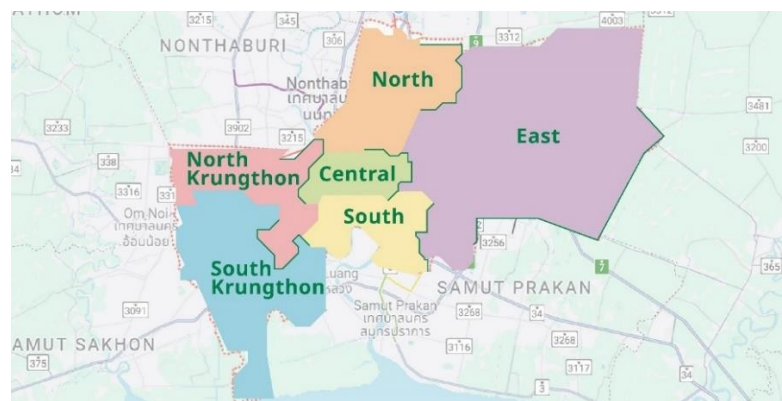


Figure 5: The 6 zones are divided into names according to the direction and the old capital, including: Central Bangkok, North Bangkok, East Bangkok, South Bangkok, North Krungthorn and South Krungthorn
Source: adapted from google map

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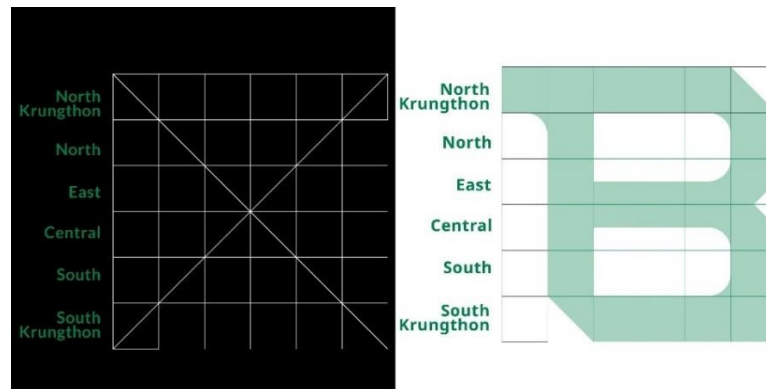


Figure 6: Grid system that to designSource: Researcher, 2024

4. Design result: Bangkok visual graphic identity

4.1) Logotype

A logotype using the abbreviation of Bangkok (BKK) that is intended to directly refer to Bangkok. The researcher has designed a grid system for use in communication and easy recognition. It communicates through the image of Bangkok as a metropolis with many tall buildings and uses the original colors of the seal of Bangkok based on the colors of Indra (Figure 8).



Figure 7: Logo for Bangkok “BKK”Source: Researcher, 2024



Figure 8: Seal of Bangkok

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Source: [en.m.wikipedia.org/wiki/File: Seal
Bangkok_Metropolitan_Admin_2015.svg](https://en.m.wikipedia.org/wiki/File:Seal_of_Bangkok_Metropolitan_Administration_2015.svg)

the researchers used this information to design a logo using the Grid system. Color is emerald green that choose from Seal of Bangkok. Seal of Bangkok It is a picture of Lord Indra riding an Erawan elephant. lightning in his hand This emblem was designed by the Fine Arts Department using the hand-painted paintings of His Royal Highness Prince Narisara Nuvadtivongse as a model. It began to be used in 1973 as announced by the Office of the Prime Minister. According to the Official Marks Act, B.E. 2482, Issue No. 60, dated May 31, B.E. 2516

4.2) Logo Variations

BKK Logo's main logo design includes different formats to make the logo flexible and able to be displayed clearly and consistently in different positions. While still being able to communicate with Bangkok,

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BKK Logo has designed a unique logo for use on multiple platforms that are multi-purpose in identity and reinforce the overall identity (Figure 9).



Figure 9: BKK logo
Variations Source:
Researcher, 2024

The result of logo design depends largely on the use of a grid system, which is a type of logo that can be read by BKK (Bangkok) and used as a symbol to convey semantics.

4.3) Decorative Typeface

This type of face design is used for signage, titles, or printing project names that need to be highlighted. And it is sturdy and unique, and can be used to communicate with visual graphic elements on multiple platforms.

กรุงเทพ รนบุรีเหนือ
มหานคร
เดินทาง โครงสร้าง สุขภาพ
เศรษฐกิจ เรียง สร้างสรรค์
สิ่งแวดล้อม บริหารจัดการ พลอดภัย

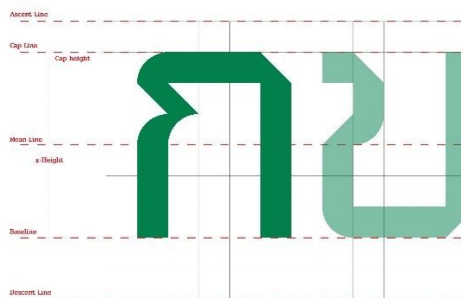


Figure 10: Thai typography
test Source: Researcher,
2024

BANKOK
LAK SI
SATHON
NORTH CENTRAL
SOUTH DUSIT

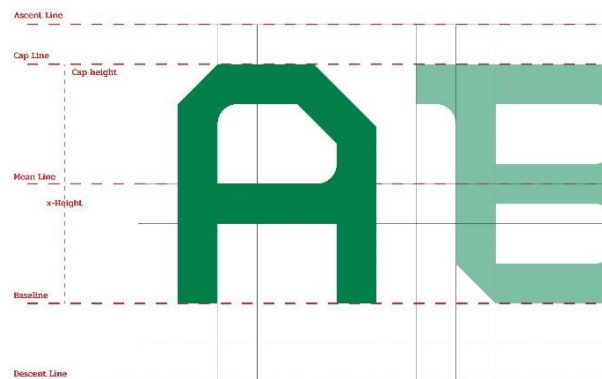


Figure 11: Alphabet typography
test Source: Researcher, 2024

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A B C D E F
G H I J K L M N O
P Q R S T U V W
X Y Z

Figure 13: Alphabet typography Source: Researcher, 2024

4.4) Graphic Element

From figure 15-15 the use of graphic elements is arranged using the Grid system used in logo design so that the graphics are presented in the same direction. By bringing in colors to help distinguish graphic elements that are communicated through visual elements



Figure 14: Responsive type symbol identify6 zone of Bangkok Source: Researcher, 2024

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Figure 15: Graphic element 2
Source: Researcher, 2024

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4.4) Visual identity application



Figure 16: example of visual identity that used to communicate in media Source: Researcher, 2024

5. Conclusion and Discussion

In conclusion, this research uses visual identity design ideas to mediate various cognitive processes in determining typeface, graphic elements, and colors for easy understanding of identity communication. Provinces can be used as various media for advertising that go in the same direction through graphic elements.

According to this study, the researchers believe that the process centered on OTOP determines stereotypes and development, and may not dominate or be able to develop communities or clearly convey the importance of different identities in each region. Therefore, researchers believe that various processes should start from the province itself to achieve development without having to pass the same requirements.

6. Suggestion

From this study, the researcher still has some shortcomings regarding the design, such as the results of the questionnaire being useful to the researcher and still not being able to prove completeness. The researcher has not yet presented the design results to collect opinions and suggestions for improvement, including suggestions for using visual identity design ideas to be used as a communication medium for the province.

For researchers who need to make suggestions in the same direction, the design results should be tested and submitted to someone with design knowledge or a questionnaire survey to provide suggestions for development and design improvement.



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References

Watunyu Jaiborisudhi, (2019) OTOP and OVOP: An Analysis of Placing a Value on Development. *International Journal of East Asian Studies*, 23(1) (2019), 148-167.

Nguyen Thi Anh (2013). *Journal of Social and Development Sciences*. Retrieved 2023.
From
https://www.researchgate.net/publication/338872004_One_Village_One_Product_OVOP_in_Japan_to_One_Tambon_One_Product_OTOP_in_Thailand_Lessons_for_Grass_Root_Development_in_Developing_Countries

ReliefWeb (2017). One Village One Product: How a Japanese Idea is Changing Lives and Helping Rural Communities - Afghanistan. Retrieved 2023,
From https://reliefweb.int/report/afghanistan/one-village-one-product-how-japanese-idea-changing-lives-and-helping-rural?gclid=CjwKCAjw9-6oBhBaEiwAHv1QvH4NYyro-lTeBfY4ZXljsjp5IP8jDlnKsk-oVIVYCd2pJ2JyN2fLChoCGWwQAvD_BwE

MIYAZAKI Masayuki. JICA Economic Development Department; OVOP (One Village, One Product Movement) expanding over the world - Aiming for community revitalization -. Retrieved 2023,
From
https://www.jica.go.jp/Resource/english/our_work/types_of_assistance/tech/projects/activities/activities_36.html

Janse, B. (2018). Berlo's SMCR Model of Communication. Retrieved [insert date] from Toolshero: <https://www.toolshero.com/communication-methods/berlos-smcr-model-of-communication/>

State Enterprise Policy Office (SEPO) One Tambon One Product (OTOP), Retrieved 2023 from
<https://cep.cdd.go.th/%E0%B9%80%E0%B8%81%E0%B8%B5%E0%B9%88%E0%B8%A2%E0%B8%A7%E0%B8%81%E0%B8%B1%E0%B8%9A-otop/%E0%B8%82%E0%B9%89%E0%B8%AD%E0%B8%A1%E0%B8%B9%E0%B8%A5%E0%B8%97%E0%B8%B1%E0%B9%88%E0%B8%A7%E0%B9%84%E0%B8%9Botop>

Patchara Vanichvasin (2020). Effects of Visual Communication on Memory Enhancement of Thai Undergraduate Students, Kasetsart University. *Higher Education Studies*; Vol. 11, No. 1; 2021,
From
https://www.researchgate.net/publication/347374381_Effects_of_Visual_Communication_on_Memory_Enhancement_of_Thai_Undergraduate_Students_Kasetsart_University#fullTextFileContent

Chatri Prakitnonthakan(2009). www.silpa-mag.com. form https://www.silpa-mag.com/history/article_25056.

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Retrieved 2024, from https://www.silpa-mag.com/history/article_25056

www.thairath.co.th (2014). Divide Bangkok into 6 regions for management. Retrieved 2024, from <https://www.thairath.co.th/news/local/bangkok/461318>

K.baskar (2009). how visualization is important in day today life 2009. Retrieved 2024 from <https://www.slideshare.net/basssk/visual-communication-2028375>

ITM Group of Institutions (2024). The Evolution of Visual Communication: A Look into the History and Future of the Field 2024. Retrieved 2024 from <https://www.itm.edu/blog/idm-the-evolution-of-visual-communication-a-look-into-the-history-and-future-of-the-field#>

Shelley Esaak (2019). The 7 Elements of Art and Why Knowing Them Is Important 2019. Retrieved 2024 from <https://www.thoughtco.com/what-are-the-elements-of-art-182704>

district.bangkok.go.th. Overview of 50 districts. Retrieved 2023. From <https://district.bangkok.go.th/SEDPortal/50-map-overview/>

The Application OF Chinese Classical Literature in Modern Children's Theme Park

Guangxiang Liao¹, Pajjit Ingsiriwat², Sridhar Ryalie³

Abstract

Since the late 1980s, theme parks in China have experienced rapid development. However, due to the absence of a comprehensive planning and construction system in the early stages, many theme parks are now facing management difficulties due to issues such as improper site selection, inconvenient transportation, and incomplete supporting facilities, leading to significant resource waste. This research introduces a children's park themed around the classic Chinese novel 'Journey to the West', designed to overcome these challenges by integrating the allure of oriental culture. Through market research and analysis of international parks, the author explores the integration of traditional culture, distills reasonable design principles, emphasizes the feasibility of children's theme parks, and seeks to understand the characteristics of children's psychology. The research results in a park that combines modern amenities with traditional Chinese elements, providing visitors with an enchanting visual experience, reigniting their interest in cultural heritage, and offering educational value through entertainment.

Keywords: *Children's theme park design, Journey to the West, oriental culture, cultural heritage, educational value*

1. Introduction

1.1 Background and Significance of the Problem

In developing and constructing traditional culture theme parks, suitable material carriers for traditional culture are necessary. These carriers can transform intangible traditional cultural heritage into tourism resources and provide diversified tourist services.

Attempts to combine the protection of traditional and entertainment functions of theme parks is a challenge; however, with careful planning and construction processes, these difficulties can be overcome, as seen in the early theme parks that sprung up in Europe and America.

1.1.1 Theoretical Significance

Researching the application of Chinese classical literature to contemporary children's theme parks is an influential step in understanding and analyzing cultural adaptation of literary works. A key aspect of the theoretical significance of this research is an in-depth study of the process of adaptation of literary works in various areas of cultural activity. By considering the application of classical Chinese literature in children's parks, this research has expanded our knowledge of the methods and techniques of translating cultural heritage into contemporary forms and contexts. This allows the visitors to the theme park to better understand how literary works adapt to contemporary cultural practices and learn how to interact with audiences of different ages.

Analyzing its impact on the experience of young visitors in the context of a theme park helps us understand how different forms of cultural content shape children's cultural understandings and perceptions. This is crucial not only for creating culturally valuable environments in children's parks, but also for developing educational strategies aimed at broadening the cultural horizons of the younger generation.

In addition, researchers can use the results of this study as a basis for developing

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current strategies for entertainment projects based on literary heritage. They can help identify current trends and prospects in the entertainment industry.

Finally, it has significant implications for supporting academic research in the field of cultural heritage.

Researchers can use the obtained results as a basis for additional research in the fields of cultural studies, literary studies, and the entertainment industry. One can use them for an in-depth analysis of how cultural heritage affects modern societies and their cultural practices.

This research is therefore of great theoretical interest, as it helps us analyze the adaptability of traditional culture in modern society, positive impact on the formation of children's values, and provides reference for the development of the entertainment industry.

1.1.2 Practical Significance

The application of Chinese classical literature to modern children's theme parks has opened up a fascinating world of cultural heritage and adventure. One of the most prominent examples of this use is a children's theme park based on the legendary work *Journey to the West*. Not only does it bring the work's characters and storylines to life, but it also creates a special space where children can interact with the world of legends. Therefore, one of the expected results of this application is to effectively attract visitors to the park.

And, it can enhance the cultural experience for visitors. Give children the opportunity to learn about Chinese culture, traditions and values. This gives the park an educational character and makes the visit more meaningful and substantial for children.

Moreover, the concept of park based on literary works enriches the creativity and form of the entertainment market, which helps to enhance its diversity and competitiveness. Practical suggestions for improving the design and maintenance of the park will enhance their appeal and quality, providing visitors with a unique and memorable experience.

Therefore, it enriches cultural learning opportunities for children and adds an educational dimension to theme park visits (Dag et al., 2021). This diverse offering based on literary themes offers experiences for the development of the entertainment industry and promises to bring joy and fulfillment to generations of children and their families.

1.2 Research Content and Methods

1.2.1 Research Content

The main content of this study is to extract ways to better display the culture in children's spaces by studying and analyzing the artistic cultural aspects of *Journey to the West*. It also provides a basic overview of children's theme parks and theoretical knowledge related to children. Combining the physical, psychological characteristics and aesthetic needs of children aged 3-9, we summarize some design methods that can help children better accept the culture of *Journey to the West*. Several theme park design cases were analyzed, their design key points and ways of presenting the theme were studied, and a theoretical basis for such design practices was established.

1.2.2 Research Methods

1) Literature Review

Collect relevant basic information about children's theme parks, summarize and organize them, analyze relevant theories, and play a positive supporting role in research and discussion.

2) Field Investigation

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Although the planning and construction of theme park in China started late, a large number of excellent cases emerged in the early stages of theme parks construction. Therefore, on-the-spot surveys can be adopted and representative theme park can be selected as cases for actual surveys and inspections. During the fieldwork, the personal experiences of the visitors must be a prerequisite to ensure the authenticity of the survey data. The survey cases were collected through on-site surveys and preliminary theoretical studies, and the strengths and weaknesses of the survey cases in terms of planning and design, topic prominence, landscape, and architectural modeling were analyzed and summarized to ensure the real availability of the results.

3) Cases Analysis

Combine online and field visits in-person to search for design cases and information related to the research topic. Pay attention to the development trends of Journey to the West in the field of art design, as well as the development status of children's theme park, comprehensively understand and analyze excellent domestic and foreign cases, learn and master relevant design techniques and concepts, and provide more ideas for research.

2. Objectives

The primary objective of this research is to explore the application of Chinese classical literature, specifically the iconic 'Journey to the West', in the design and conceptualization of contemporary children's theme parks. This study aims to understand the theoretical and practical implications of cultural adaptation, as it applies to literary works, and to analyze the methods and techniques for translating cultural heritage into modern entertainment forms. By integrating traditional narratives into children's recreational environments, the research seeks to examine the impact on young visitors' cultural understanding and perceptions, thereby contributing to the creation of culturally enriching and educationally valuable spaces. Ultimately, the research aspires to support academic endeavors in cultural studies and literary analysis, while fostering the adaptability of traditional culture in contemporary society and enhancing the educational and entertainment value for future generations.

This study aims to explore the effectiveness and influence of integrating Chinese classical literature into children's theme parks on the development of the entertainment industry. It seeks to measure the extent to which this integration can enhance the younger generation's understanding of and respect for Chinese cultural and literary traditions. In addition, the study will scrutinize responses and feedback from children and their guardians to discern their taste, enthusiasm, and contentment, which are key indicators of the success of such integration. Using these findings, this study attempts to develop practical strategies for creators and managers of children's theme parks. The goal of these strategies is to improve the construction and operation aspects of the parks, thereby promoting their development and enhancing their attractiveness to visitors.

3. Details

3.1 Children's Theme Park

3.1.1 Children's Theme Park Concept

When analyzing the definition of children's theme park, we must first understand what 'theme design' is. Theme design is the process of designing and constructing an object or space so that "the particular subject or idea on which the style of something is based" is made clear through the "synthesis of recognizable symbols with spatial forms" (Lukas and Scott, 2007).

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Theme design is applied to an environment in order to create a memorable and meaningful experience for individuals or groups that visit the space, and can be expressed through the use of architecture, decor, signage, music and sound design, costuming, integrated technology, special effects, and other techniques (Lukas and Scott, 2007). Theming is increasingly used to create physical spaces for “experiential marketing,” in which consumers can connect and interact with a brand (Buhida, 2023).

As a result, children's theme park design refers to a space built specifically for children with game, education, science, and other features, with a specific central theme throughout the design process.

3.1.2 The Needs of Children's Theme Park Users

1) *Entertainment*

A children's theme park is entertaining, and that is determined by the properties of the space. Children aged 3-9 are at an age when they are full of curiosity about external things and it is in their nature to be playful and active. A children's theme park is a place designed to entertain children, where children can let their nature loose in play.

2) *Educational*

For children, a children's playground may only have to meet their amusement function to meet their expectations. But for parents, the hope is that their children will grow in play, for example by strengthening their sense of solidarity and cooperation, expanding their thinking and improving their stock of knowledge. Children's theme parks have changed the original cognitive concept of providing only entertainment. A growing number of excellent cases combining education and entertainment are emerging. For example, designers will set up multiple exploratory and creative rides and play sessions to allow children to fully explore their potential and creativity, learning and growing happily while playing.

3.1.3 Characteristics of Children's Theme Park Users

The research objects of this paper are children aged 3-9 years. Children at this age are in a period of constant physical and mental development. They have an abundant imagination and keen perception, and are full of curiosity about external things. Therefore, these developmental and cognitive factors of children must be completely taken into account when designing play spaces for children. Only with a precise understanding of a child's psychological and behavioral characteristics can we design a space that meets their real needs and meets educational purposes (Centers for Disease Control and Prevention, 2021). Children 3-9 years old can be divided into 3-5 year old preschool children (also known as preschoolers) and 6-9 year old school children (also known as school-age kids) (Morin. A, 2021).

1) *Characteristics of Preschool*

Preschoolers control their emotions better than toddlers and show an interest in learning, playing with other children, and pleasing their parents (Centers for Disease Control and Prevention, 2021). However, preschoolers develop "separation anxiety" when they are away from their parents and feel overwhelmed when alone with other preschoolers. Fortunately, they're also a lot of fun at this age. They love to learn and play and they can be quite funny and loving. At the same time, they are becoming independent, they're often eager to learn how to dress on their own and they may insist on doing as much as they can independently (Morin. A, 2021). Therefore, when designing a children's playground space, things with bright colors and strong images should be used to attract the attention of the children, and some exploration and communication activities should be set up to promote the growth of the children.

2) *Characteristics of School-age Kids*

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As the social sphere of school-age kids expands as they enter school, they are able to perform more independent and critical self-assessments, and the content of their assessments gradually broadens and deepens under the influence of their enhanced sense of self-independence and desire for expression. As their physiological function continued to improve, their way of thinking also began to switch from the concrete to the abstract, and they were able to perceive spatial relationships between things (Centers for Disease Control and Prevention, 2021). They have a strong curiosity and desire to explore unknown things in the artificial environment, and like exciting and novel game content and game activities (Dream Garden, 2022). Therefore, when designing theme parks for children, the spatial structure and stereoscopic effects of rides should be enhanced, and the spatial thinking ability of children should be cultivated.

3.1.4 Ergonomics for Children

Studies have shown that the surrounding environment has a dramatic effect on our feelings, thinking, behaviors, and quality of life. Environmental impacts can serve our needs or act against them (Shaw, 2010). These findings confirm the importance of designing spaces and facilities for children's theme parks that are appropriate to the characteristics and needs of children. Moreover, children have a considerably better ability to remember their surroundings than people and objects, so the detail-oriented design of their spaces is a particular need (Olds, 2000).

Selecting the right colors, materials, and textures to cover the walls, floors, ceilings, and appliances in the space can help create a fun environment for children. With the proper application of color in visual design, we can create visual attractions for children that increase interest and inspire (Ata, Deniz and Akman, 2012). With regard to early life children gaining experience through tactile stimulation, the use of multiple materials with different textures helps the child to learn in their environment (Ata, Deniz and Akman, 2012). Various research studies show the impact of noise on the incidence of cognitive impairment as well as the decline in learning in children, therefore, taking measures to reduce space noise is mandatory when designing (Linting et al., 2013). Also, because of the importance of the quality of light and fresh air inside the space in the physical and psychological growth of children, when designing the children's theme park, we should pay special attention to the sunlight of the space and the theme park should be equipped with a ventilation system in accordance with the standards (Zuraimi and Tham, 2008).

3.1.5 Design Principles for Children's Theme Park

1) *Safety and Comfort*

Children's theme parks must prioritize the safety and comfort of children (Levockhina, 2018). Playground equipment should be designed to meet safety standards for children and provide adequate supervision to ensure that children are not injured while playing. In addition, the environment of the park should be pleasant and relaxing for children.

2) *Creativity and Clarity*

The theme of children's theme park should be original and captivating, capturing children's attention and stimulating their imagination and curiosity (Levockhina, 2018). The park's design should be clear and

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understandable, allowing children to easily grasp the theme and providing meaningful education and inspiration during play.

3) Timeliness

With the development of technology and society, children's interests and needs are constantly changing. Therefore, children's theme parks need to be updated and improved in a timely manner, introducing new rides and entertainment facilities, and utilizing advanced technology and interactive experiences to maintain their attractiveness and competitiveness (Levockkina, 2018).

4) Convenient Transportation

The accessibility of children's theme parks is crucial for both parents and children (Levockkina, 2018). The park should be located in convenient locations with ample parking and accessible transportation options, allowing parents and children to easily access them.

5) Enhancing Leisure Quality

Children's theme parks are not only places for children to play but also family leisure destinations. By providing a variety of entertainment activities and a comfortable environment with quality services, children's theme park can enhance the leisure quality of families, allowing family members to enjoy pleasant and unforgettable moments together (Levockkina, 2018).

3.2 Key Points of Spatial Organization in Children's Theme Parks

3.2.1 Sequence of Spaces

The spatial sequence is a deliberate arrangement of functional areas that guides visitors through a narrative journey within the park. It is crafted by designers to lead children along a path that unfolds in stages—each with its own set of experiences that correspond to the park's thematic elements. The sequence typically begins with an inviting entrance that captivates the young audience, followed by transitional spaces that build anticipation, leading up to the climactic areas designed to elicit excitement and joy. The conclusion of the sequence gently eases visitors back into a state of calm, leaving them with lasting memories of the adventure. The layout of these sequences can vary, adopting symmetrical, asymmetrical, or free-form patterns based on the space's function, scale, and performance objectives (White, 1986).

3.2.2 Space Orientation

Space orientation is a design technique that subtly directs visitors' movements without the need for explicit signage (Moore and Lackney, 1994). It relies on the strategic placement of elements within the space that create a rhythm and suggest a direction.

3.2.3 Visual Center

The visual center serves as a focal point within a space, capturing attention and guiding movement. In the complex layout of a children's playground, clear spatial guidance can be challenging. Establishing a visual center at strategic locations within the spatial sequence can effectively draw attention and reinforce the spatial narrative (White, 1986).

3.2.4 Space Connection and Transition

In designing children's parks, it is essential to blend dynamic and static areas to cater to the developmental needs of children, creating spaces that serve both educational and recreational purposes (Moore and Lackney, 1994). Transitions between different functional areas are crucial to maintain spatial coherence. The design should avoid abrupt changes, instead incorporating transitional spaces that provide a natural flow. Direct transitions might use partitions or varied materials, while indirect transitions introduce intermediary spaces like halls or porches.

3.3 Performance of Design Elements in Children's Theme Parks

3.3.1 Light Effect Environment

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The design of the light environment is a pivotal aspect of interior space design, especially in children's theme parks. It serves not only to illuminate the space but also to fulfill the physiological, psychological, and aesthetic needs of its young visitors. Given that the primary audiences comprises minors aged 3-9, who have not yet developed mature visual systems, the lighting requirements are unique and demand careful consideration (Zhang et al., 2023).

In the light environment design for indoor children's theme parks, it is essential to maximize the use of natural light sources. This preference stems from the comfort that natural light provides to the human eye, reducing fatigue compared to artificial lighting. The lighting strategy should incorporate a blend of overall and local lighting to cater to the diverse activities within the park (Sun and Zhang, 2023). For instance, areas designated for dynamic activities like running and jumping should feature soft, overall lighting, while spaces for focused tasks such as reading or painting require targeted, brighter local lighting. Additionally, selecting appropriate color temperatures for different functional areas is crucial. Bright, high-color-temperature lighting can enhance alertness in learning spaces, whereas lower color temperature lighting with a warm glow is ideal for entertainment areas, fostering a lively and joyful atmosphere (Sun & Zhang, 2023).

3.3.2 Sound Environment

Children between the ages of 3-9 possess the ability to discern sounds within their environment, which can significantly influence their psychological state and behavior. An optimal sound environment is vital for their well-being, as negative auditory experiences can induce anxiety, reduce attention span, and impair memory (Cuadrado et al., 2020). Designers must therefore tailor the acoustic environment to the preferences of children, selecting sound effects that are harmonious, relaxing, and pleasant, aligning with the thematic essence of the park. The maintenance of this soundscape is supported by the spatial structure and materials used within the park. In learning spaces, such as reading or audio-visual areas, soundproofing measures are imperative to provide a conducive learning environment (Shu, 2023).

3.3.3 Color Matching

The harmonious color matching in a children's theme park is essential for stimulating children's aesthetic appreciation and creativity. Research in children's cognitive psychology indicates that bright and cheerful colors can captivate children's attention, foster their visual development, and ignite their imagination and creativity (Color Meanings, 2022). However, it's important to avoid using overly bright and pure colors in playground spaces, as these can overstimulate and exhaust children, leading to disinterest. The color design of an indoor children's theme park should, therefore, select vibrant yet soothing colors that align with children's aesthetic and psychological preferences, based on the thematic design of the space.

3.3.4 Material Selection

Material selection is integral to the design of indoor spaces, with different materials contributing varied visual and psychological impacts through their textures and colors. For example, wood typically imparts a warm and inviting sensation due to its color and texture, while marble, with its bright, refined, and solid texture, offers a sense of elegance and detachment. In designing an indoor children's theme park, it is crucial to adhere to a child-centric design philosophy and choose green, environmentally friendly materials that meet safety standards, thus preventing any potential harm from toxic substances. Materials should be selected not only for their aesthetic appeal and texture but also for their safety features, ensuring children's well-being while enhancing the space's interest (Park N Play Design, 2023). Materials such as PVC wood boards and eco-friendly latex paint are not only sustainable but also versatile in color and style, catering to design requirements. Many contemporary indoor children's theme parks incorporate safe and

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sustainable materials like wood, PVC wood plastic, and aluminum grilles in their design choices.

4. Results

4.1 Character Image Design of Journey to the West

4.1.1 Design Concept

Originally published in 1592 during the Ming dynasty, Journey to the West is a Chinese novel by Wu Cheng'en. It is regarded as one of the greatest Classic Chinese Novels and has been described as arguably the most popular literary work in East Asia (Editors of Encyclopaedia, 2023).

The selection of Journey to the West as a muse for design is anchored in its deep cultural significance and compelling narrative. Since the target audience is children who are full of curiosity about mythic stories, the researcher carefully selects characters and characteristics, taking into account their preferences for color, shape and story, emphasizing the combination of traditional elements of the story and modern children's aesthetics, hoping to convey core values such as justice, wisdom, frankness, composure and bravery through the design. The aim is to create characters that not only attract children's eyes, but also stimulate their imagination and desire to explore.

4.1.2 Innovative Points

In the character image design, the researcher breaks through the traditional depiction, integrates modern elements with traditional stories, and adds simplified and abstract design elements to make it more close to the aesthetic of modern children. For example, by reducing the use of lines and using block color combinations, the characters are more vivid and recognizable, while ensuring visual friendliness and fun, which is easier to attract children's attention.

4.1.3 Character Image Portray

From concept to final design, the researcher first studied the original work of Journey to the West and related works of art, conducted in-depth research on each character, extracted characters' characteristics and symbolic meanings, and ensured that their appearance and temperament were consistent with the description. Then, around the children's cognitive characteristics and preferences, the researcher began to sketch the design, after many modifications and adjustments, and finally determined the image and color of each character. In this process, the researcher pays special attention to the expressions and movements of the characters to convey the corresponding emotions and personalities.

4.1.4 Material Selection and Technical Application

During the design process, the researcher used vector graphics software to ensure that the image remained clear in different sizes and media (Figure 4.1). In particular, the researchers consider the applicability of these designs to different application scenarios, such as silicone toy, animation, and interactive screens.

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Technical Application

Characters design

Vectorgraph



Tripitaka and his team

Figure 4.1 The final design of the Tripitaka and his team

Source: Researcher, February 2024

In addition, in order to allow children to touch the figures, researcher also chose environmentally friendly silicone and glass fiber reinforced plastics to make the figures, which are safe and easy to wash (Figure 4.2).



Figure 4.2 The environmentally friendly silicone dolls

Source: Researcher, February 2024

4.1.5 Design Evaluation

1) Questionnaire Survey

Through a questionnaire survey, the researcher collected the intuitive reactions of children and parents to these character designs. The vast majority of children show a particular fondness for these vibrant characters, and parents appreciate the educational values embedded in the character design, such as bravery, wisdom, and composure. This kind of expression of edutainment can provide reference opinions for the design concept of theme parks.

2) Expert Review

Through a series of targeted questionnaires of art design and child education

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professionals, the expert review produced constructive insights. Experts praised the harmonious integration of traditional cultural themes and contemporary design principles, which they said respected the portrayal of characters in classical literature while adding values valued by modern audiences. However, they also pointed out areas for improvement, particularly in terms of the depth of the characters' expressions and the fluidity of their movements. Among them, the stability of the monkey doll is a concern, and experts recommend adjusting the balance of the monkey to improve the user experience of children.

Through questionnaire survey and expert evaluation results of the character image design of Journey to the West, the researcher has confirmed the effectiveness of this design direction in innovation, education, and entertainment.

4.2 Children's Theme Park Design of Journey to the West

4.2.1 Design Concept

The design concept of the children's theme park is deeply rooted in the rich story elements and profound cultural significance of Journey to the West. Through carefully planned spatial layouts and themed areas, the park brings key scenes and characters from the story to life, creating an environment that is both educational and entertaining. Here, children can experience the magical journey of classic stories and learn the importance of courage, wisdom, tenacity and teamwork.

1) *Flowers and Fruits Mountain*

The design concept of this part of the children's theme park draws inspiration from the Flower and Fruit Mountain, the birthplace of Monkey in Journey to the West (Figure 4.3). This area is not only a physical representation of the mountain, but also symbolizes the process of personal growth and practice, and is the

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central theme of this scene. The researcher shapes the topography of the park into the form of the Taiji diagram, symbolizing the principle of combining games and education, while also reflecting the connotation of Oriental aesthetics.

Design Concept

It symbolizes the process of individual growth and practice

Color

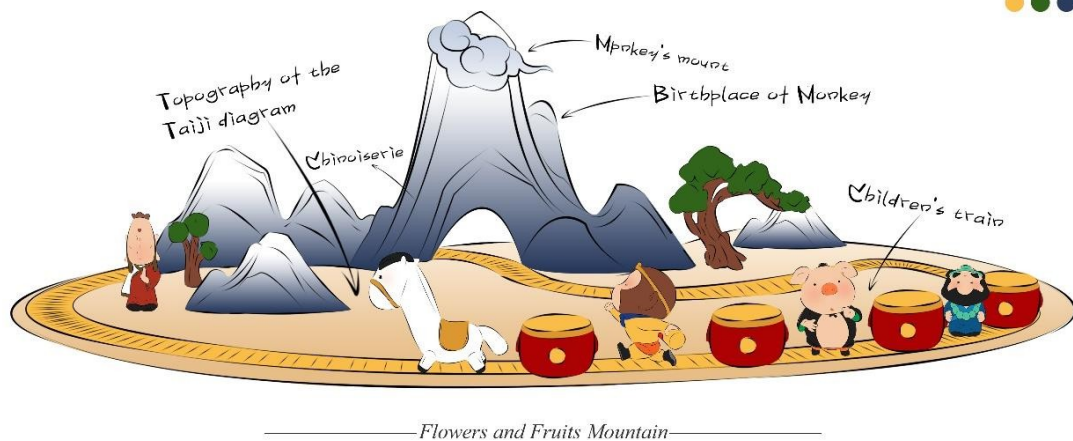


Figure 4.3 The final design of the Flowers and Fruits Mountain

Source: Researcher, February 2024

The researcher integrates the traditional Chinese cultural symbol drum and the modern interactive element of children's train into the scene. This new design can better allow children to actively play and explore in a safe environment. Challenging climbing structures echo Monkey's playful nature, encouraging children to climb and explore just like Monkey. The railway tracks around the scene represent Monkey's path to enlightenment. The concept of Flower and Fruit Mountain is not only a scenic spot, but also an educational platform designed to invite children to actively participate in Sun Wukong's metamorphosis journey.

2) River of Sand

The researcher infuses the River of Sand concept from Journey to the West into this interactive space, where the flowing sand symbolizes the changing challenges of life (Figure 4.4). It simulates the hardships encountered by the characters in Journey to the West when they cross the dangerous river. Interactive installations such as seesaw and swings in the park mimic the journey across the dangerous river in the story.

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Design Concept

It represents the hardships and tests on the road of life

Color

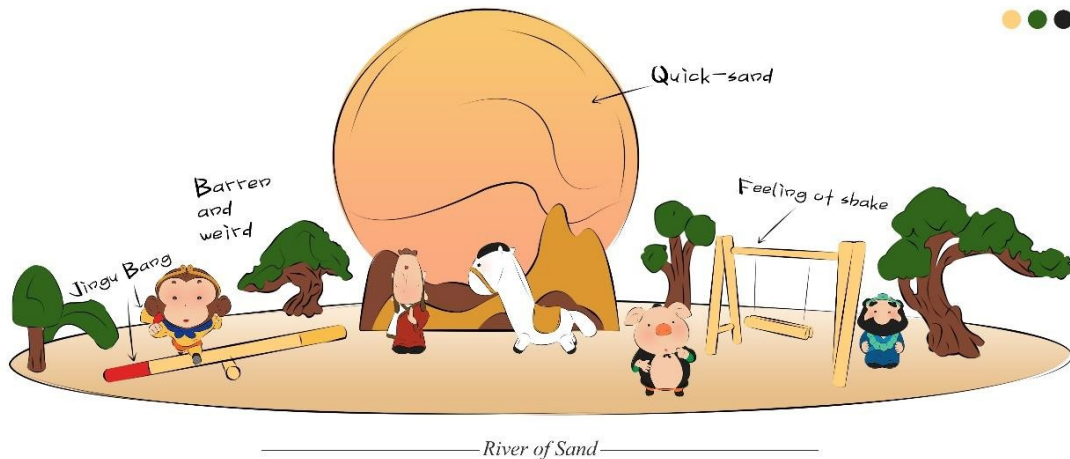


Figure 4.4 The final design of the River of Sand

Source: Researcher, February 2024

3) Yang Pass

In designing Yang Pass' design concept, the researcher creatively transforms a historic location into a space suitable for children's play and education (Figure 4.5). The researcher not only reproduces the majesty of traditional Chinese architecture, but also permeates a solemn and historical atmosphere. In the form of a children's flea market, the park guides children to learn thrifty and share, echoes the market function of Yang Pass in Journey to the West. This layout creates a relaxed learning space, allowing children to understand social interactions and basic economic concepts while playing.

Design Concept

It means everyone needs to learn to be thrifty and share

Color

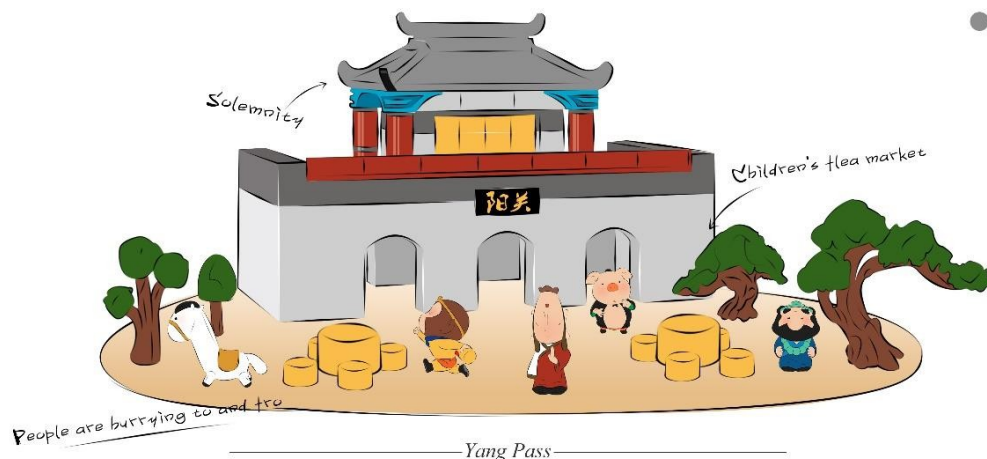


Figure 4.5 The final design of the Yang Pass

Source: Researcher, February 2024

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4) Peach Banquet

The Peach Banquet section of the theme park, inspired by the gathering in Heaven in Journey to the West, becomes a key scene symbolizing the immortality and joy of Heaven (Figure 4.6). It suggests that building a harmonious society is a prerequisite for common prosperity and strength. The design incorporates elements such as a stage backdrop and towering columns, with auspicious clouds to create a festive atmosphere. The iconic peach represents the quest for wisdom. At the same time, the scene serves as a dining area and communication center for the children's theme park.

Design Concept

It means that building a harmonious society is a prerequisite for common prosperity and strength
Color

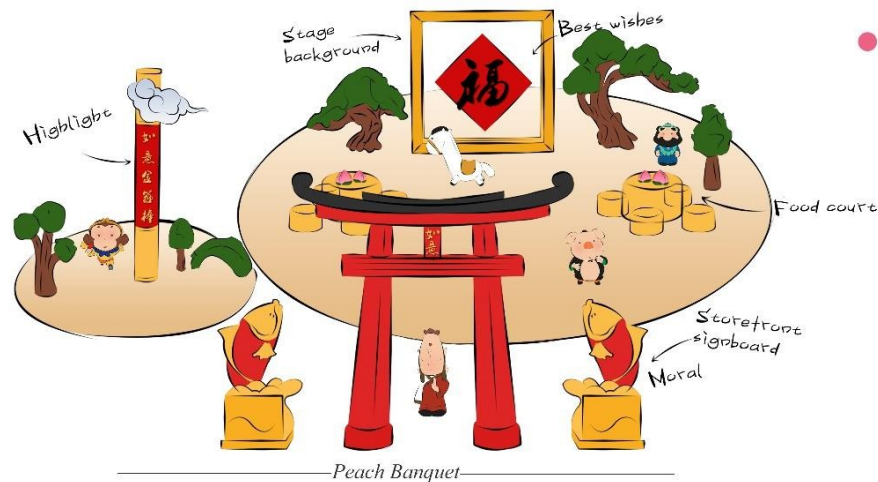


Figure 4.6 The final design of the Peach Banquet
Source: Researcher, February 2024

4.2.2 Innovation Points

The design draws innovative inspiration from the core scenes of Journey to the West, actively creating a multifaceted educational and fun environment. It includes the natural adventure area inspired by the Flowers and Fruits Mountain, the balance challenge field that echoes the River of Sand, the social role interaction zone modeled after Yang Pass, and the exchange space reminiscent of the Peach Banquet. Each element is crafted to foster a blend of learning and enjoyment. The researcher has designed the space layout to encourage children to explore, learn, and grow, while reinforcing their understanding and involvement in the storyline through a variety of interactive experiences such as rock climbing, balance beam activities, role- playing, and interactive games.

4.2.3 Implementation

1) Flowers and Fruits Mountain

In the design of Flowers and Fruits Mountain, the researcher used 3D modeling software to accurately repeat the size of the scene (Figure 4.7). Choose durable synthetic resin materials to simulate trees and terrain that are finely colored to reveal natural textures and colors.

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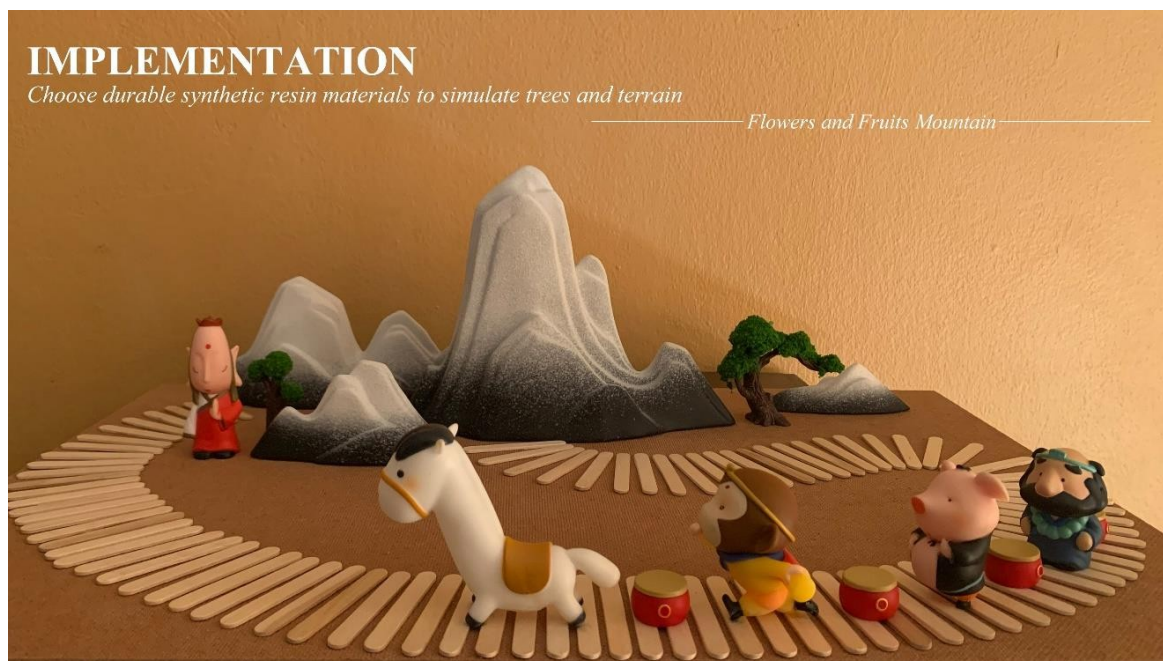


Figure 4.7 The final model of Flowers and Fruits Mountain

Source: Researcher, April 2024

2) River of Sand

The model of River of Sand combines dynamic effects and static displays (Figure 4.8). The quicksand part simulates the flow of river water through transparent resin and built-in movement mechanism. The sand on the riverbed is made by mixing crushed quartz and metal particles to create a realistic quicksand effect, but is actually completely safe and does not cause settlement.

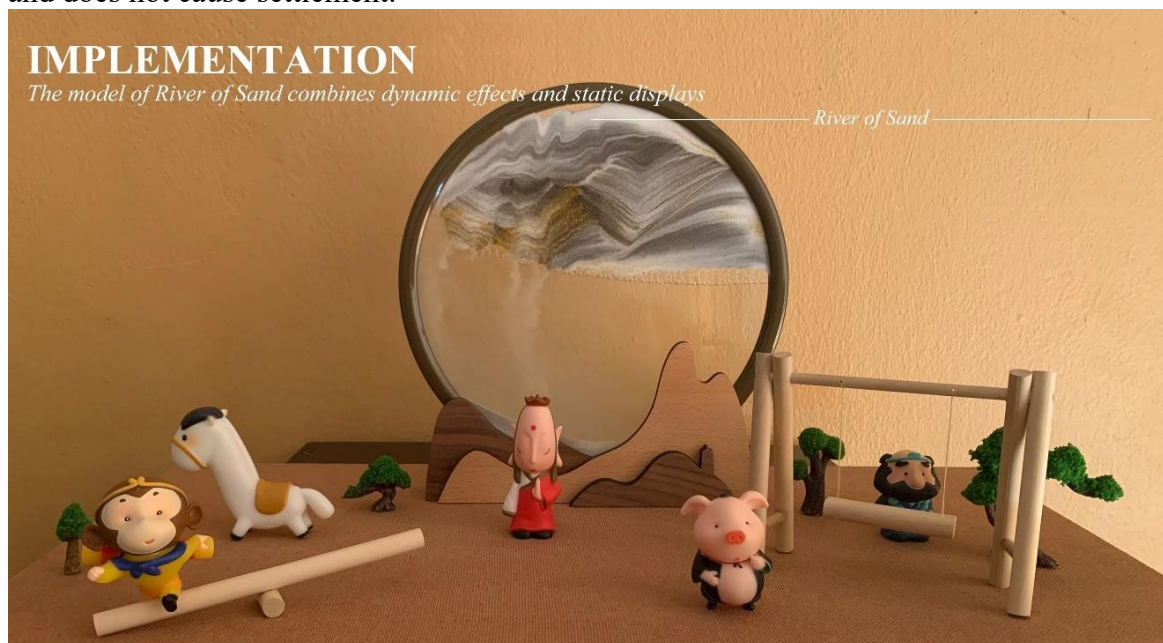


Figure 4.8 The final model of River of Sand

Source: Researcher, April 2024

3) Yang Pass

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The Yang Guan model uses meticulous sculpting and painting techniques, and every architectural detail is taken into account with historical accuracy (Figure 4.9). Children can experience the plot of the story by exchanging their own items.

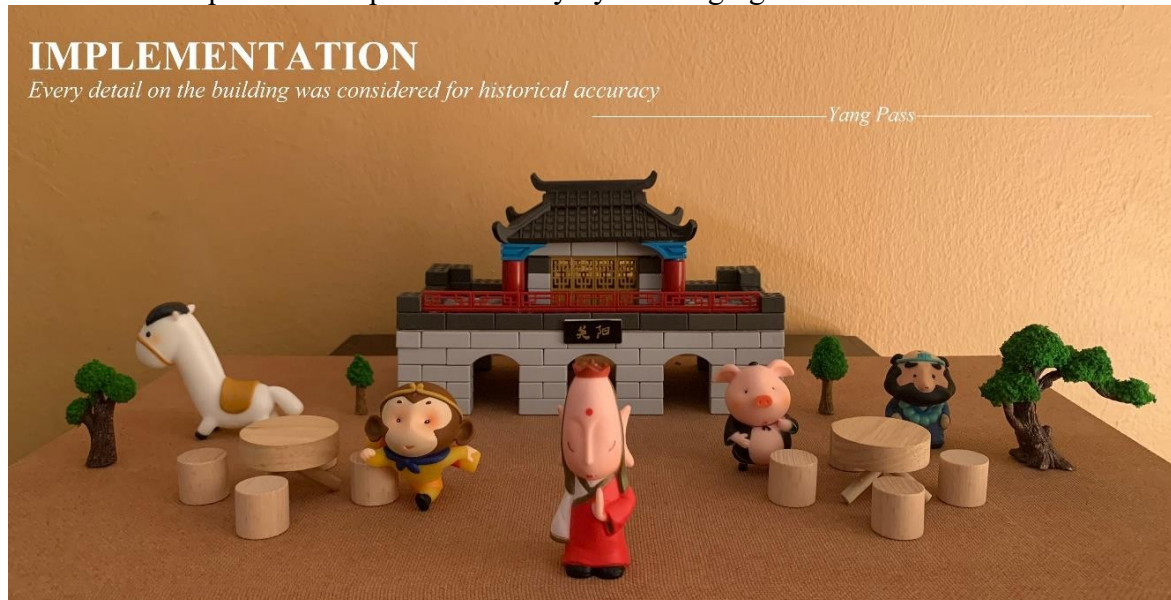


Figure 4.9 The final model of Yang Pass
Source: Researcher, April 2024

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4) Peach Banquet

The researcher presents the model of the Peach Banquet through hierarchical construction (Figure 4.10). Reflecting the grandeur and celebratory atmosphere of the courtyard, the researcher carefully selected metallic pigments for the scene. Additionally, researchers use PVC material to craft the peaches, ensuring safety for children. These peaches in the model provide a tactile delight for children.



Figure 4.10 The final model of Peach Banquet

Source: Researcher, April 2024

4.2.4 Users Feedback

In order to get real user feedback, the researcher held a one-week small exhibition in Longyan Wanbao Plaza. The researcher used materials such as fiberglass, hardwood, foam, and chev board to create the characters and scenes.

Feedback from parents and children shows that they not only love the entertainment nature of children's theme parks, but also appreciate their educational significance and cultural value. Parents particularly recognize designs that promote children's social skills, creativity, and problem solving. For example, natural climbing and exploration activities in the Flowers and Fruits Mountain area are believed to improve children's physical coordination and spatial perception; the River of Sand balance activity teaches children to maintain balance and focus in the face of difficulties; the interactive experience in the Yang Pass area makes the children think about social roles and learn to share; the Peach Banquet became a place for children to learn etiquette and socialize.

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The researcher will use the design and feedback from the entire children's theme park to continuously evaluate and improve the concept of theme park operations, ensuring that they continue to attract families and provide an educational experience. Through these designs, the park has not only become a cheerful place to play, but also a window for children to learn about traditional Chinese culture and values.

5. Conclusion

5.1 Summary of Design Results

The design results of this study show how the classic story of Journey to the West can be revived through modern visual arts and interactive experiences. Through well-designed characters and creative theme park environments, the researcher not only recreates the charm of Journey to the West, but also provides children with a rich cultural education and entertainment experience. By combining traditional and modern elements, the researcher's design allows children to learn traditional stories in interaction and play, while also cultivating their imagination and creativity.

5.2 Key Findings and Insights

The results show that integrating classical literature into modern children's cultural products can effectively promote children's understanding and interest in traditional culture. The modern interpretation of story elements and characters in Journey to the West has brought children a more intuitive and interactive way of learning. In addition, through practice, it is found that the best way to implement cultural education is to combine storytelling with participation experience, which can enhance children's learning motivation and memory impression.

5.3 Recommendations

When designing cultural products for children, designers should first conduct a thorough study of the original literary works to understand their cultural background and story connotations. The design should always prioritize children's experience and safety, utilizing child-friendly materials to ensure that the design is interactive and educational, stimulating children's curiosity and passion for learning. In the process, designers need to actively consider cultural sensitivity, respecting and preserving the cultural essence of the original work while adapting it to the aesthetic and cognitive levels of contemporary children. Collaboration with interdisciplinary teams, such as educational experts, psychologists, artists, and technology developers, is encouraged to create products that are deeply educational and highly interactive. Finally, continuous user feedback should be collected during the design process, and the product should be iterated and optimized to meet the evolving user needs and educational goals.

6. Acknowledgements

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The 12th International Arts and Design Symposium 2024 | Conference Proceedings

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7. References

- Ata, S., Deniz, A., Akman, B. (2012). The physical environment factors in preschools in terms of environmental psychology: A review. *Procedia-Social and Behavioral Sciences*, 46, 2034-9. doi: 10.1016/j.sbspro.2012.05.424
- Editors of Encyclopaedia (2023). *Journey to the West*. Retrieved April 16, 2024, from <https://www.britannica.com/topic/Journey-to-the-West>
- Centers for Disease Control and Prevention. (2021). Preschoolers (3-5 years of age). Retrieved March 2, 2024, from <https://www.cdc.gov/ncbddd/childdevelopment/positiveparenting/preschoolers.html>
- Centers for Disease Control and Prevention. (2021). Middle Childhood (6-8 years of age). Retrieved March 2, 2024, from <https://www.cdc.gov/ncbddd/childdevelopment/positiveparenting/middle.html>
- Cuadrado, F., Lopez-Cobo, I., Mateos-Blanco, T., & Tajadura-Jiménez, A. (2020). *Arousing the Sound: A Field Study on the Emotional Impact on Children of Arousing Sound Design and 3D Audio Spatialization in an Audio Story*. *Frontiers in Psychology*.
- Dag, N. C., Turkkan, E., Kacar, A., & Dag, H. (2021). Children's only profession: Playing with toys. *North Clin Istanbul*, 8(4), 414-420. doi: 10.14744/nci.2020.48243
- Dream Garden. (2022). Design principles of children's Playground facilities! Retrieved March 2, 2024, from <https://www.toymakerinchina.com/news-show/design-principles-of-childrens-playground-facilities.html>
- Levochkina, N. A. (2018). Theme Parks and Their Contribution to the Development of Territories. *IOP Conference Series: Earth and Environmental Science* 204, pp. 12-25. *Omsk State Pedagogical University, Omsk, Russia*. from <https://iopscience.iop.org/article/10.1088/1755-1315/204/1/012025.pdf>
- Linting, M, Groeneveld, M. G., Vermeer, H. J., & Jzendoorn, M. H. (2013). Threshold for noise in daycare: Noise level and noise variability are associated with child wellbeing in home-based childcare. *Early Childhood Research Quarterly*, 28(4), 960-71. doi: 10.1016/j.ecresq.2013.03.00
- Lukas, S. A. (2007). *The Themed Space: Locating Culture, Nation and Self*. Rowman & Littlefield.
- Moore, G. T., & Lackney, J. A. (1994). *Educational facilities for the twenty-first century: Research analysis and design patterns*. Council of Educational Facility Planners, International.
- Morin, A. (2021). Child Development: Milestones and Parenting Tips. Retrieved March 2, 2024, from <https://www.verywellfamily.com/child-development-overview-4172261>
- Olds, A. R. (2000). *Child care design guide*. New York: McGraw-Hill.
- Park N Play Design. (2023). *Your Partner For Building*. Retrieved February 19, 2024, from <https://www.parknplaydesign.com/>
- Shaw, J. (2010). The building blocks of designing early childhood educational environments. *Undergraduate Research Journal For The Human Sciences*, 9(1).
- Shu, S. (2023). *Exploring the role of soundscape in restorative experience: A pilot study from children's perspective*. *Frontiers in Psychology*.
- Sun, X., & Zhang, M. (2023). *Exploring Atmosphere Creation of Light Environment*

The 12th International Arts and Design Symposium 2024 | Conference Proceedings

Design in Visual Space. Springer.

White, E. T. (1986). *Space adjacency analysis: A handbook for architects and planners*. Architectural Media Ltd.

Zhang, L., Xu, X., & Guo, Y. (2023). *The Impact of a Child-Friendly Design on Children's Activities in Urban Community Pocket Parks*. Sustainability.

Zuraimi, M., & Tham, K. (2008). Indoor air quality and its determinants in tropical child care centers.

Atmospheric Environment, 42(9), 2225-39. doi: 10.1016/j.atmosenv.2007.11.041

Energy-Efficient Green Living a Small-Scale Organic Ecological Recycling System

Guan Haitao¹, Pakorn Prohmvitak², Rewat Chumnarn³

Abstract

The primary objective of this study is to meticulously explore the design principles, operational mechanisms, and potential applications of the family ecological recyclable system. Through this in-depth investigation, this research aims to shed light on the system's capacity to instill environmental awareness and foster ecological equilibrium among family members. Furthermore, it seeks to emphasize the practical and engaging ecological experiences that this system offers to households. The overarching research goal is to contribute substantive, household-level solutions to advance the realization of Sustainable Development Goals, ultimately promoting a more sustainable and eco-conscious way of living. The results underscore the practical and engaging ecological experiences offered by the system, contributing substantive, household-level solutions for a more sustainable and eco-conscious way of living.

Key words: *Energy saving, green living, small scale, organic, ecological, recycling*

1. INTRODUCTION

Municipal waste is defined as waste collected and treated by or for municipalities. It covers waste from households, including bulky waste, similar waste from commerce and trade, office buildings, institutions and small businesses, as well as yard and garden waste, street sweepings, the contents of litter containers, and market cleansing waste if managed as household waste. The definition excludes waste from municipal sewage networks and treatment, as well as waste from construction and demolition activities. (OECD Data, 2020)

The United States comes first in the list of countries with the highest amount of daily per capita MSW with 2.58 kg, followed by Canada (2.33 kg/per capita) and Australia (2.23 kg/per capita). The other two biggest landfills are:

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Bordo Poniente located in Mexico City, Mexico with an area extending to 927 acres or 375 hectares

Laogang, found in Shanghai, China covers a total area of 830 acres or 335 hectares. (Daniil, 2023)

In China, the annual transportation volume of urban domestic waste has increased from more than 31 million tons in 1982 to more than 200 million tons in 2023, with the garbage growth rate reaching 10%. (LiuW, 2023) In 2023, Chinese cities' expenditure on the safe disposal of domestic waste will be close to the proportion of higher education expenditure, about 350 billion yuan. Faced with such a large amount of domestic waste and disposal costs, reduction and resource utilization on the basis of harmless treatment have become the research focus and social development trend of China's waste treatment. Different types of garbage have different resource utilization methods, so resource recycling needs to be achieved through garbage classification.

As the main component of domestic waste, the proportion of food waste varies in different cities, accounting for about 50-60% on average (Hu K, 2023), and it needs to be treated with emphasis. Due to the special nature of food waste, which is rich in organic matter and moisture, the cost of garbage collection and terminal treatment is high. The country has targeted the reduction and resource utilization of food waste by treating it on-site at the source.

Kitchen waste refers to the garbage produced by residents' daily living and food processing, professional catering services, catering activities in enterprises & institutions, and other activities related to foods. Kitchen waste contains very high moisture and organic matter, which is easy to rot and produce malodor. However, after proper treatment and processing, it can be converted into valuable resources. (XU, 2018)

Kitchen waste has distinct characteristics compared to other types of waste. The water content of kitchen waste is as high as 70%-90%, and it is rich in organic matter such as protein and starch, as well as various elements such as N, P, and K. Therefore, it is easy to rot, smell, and pathogenic bacteria and mosquitoes can easily breed. Therefore, there is a significant duality of hazards and resources. The resource nature of kitchen waste is reflected in the reuse of organic matter and trace elements through harmless treatment. For example, composting can produce organic fertilizers, feed processing can convert kitchen waste into pet feed, and energy processing can convert it into energy gases such as methane. The recycling of food waste reduces China's resource consumption

to a certain extent. The harm is mainly reflected in the impact on the environment, human health and the difficulty of processing. Food waste is perishable and breeds a large number of mosquitoes, leachate and foul odors. In addition, the random consumption of food waste by livestock and poultry may lead to cross-infection of diseases between humans and animals. The transportation cost of food waste is high, and leakage is prone to occur during transportation. In the subsequent landfill treatment, multi-layer prevention and control of leachate is also required. The cost is very high when the classification is imperfect. Some studies have compared the residual heavy metal content in the products after composting waste with different degrees of separation, pointing out that the earlier food waste is separated, the less heavy metal content remains in the fertilizer.

However, at present, China has not established a relatively complete treatment system for the treatment of kitchen waste. Traditionally, sanitary landfill is the most common of waste handling in China, accounting for over half of the trash, while incineration would be slightly more common in villages due to a smaller scale and less supervision than in the urban area. Due to increasingly tighter remaining capacity of landfills, China also started utilizing incineration to generate electricity. (Daniel, 2024)

The growing waste problem around the world forces us to act, and it is the responsibility of every individual to dispose of waste and conserve resources to the best of their ability. Given the huge amounts of waste, each individual can actively participate in resource recycling to dispose of waste in a more environmentally friendly and sustainable way. By encouraging individuals to adopt resource recycling schemes, we can minimize the negative impact of waste on the environment.

2. Objectives of the study

The primary object of investigation in this research is the family ecological recyclable system, and the research centers on a comprehensive examination of its structure, functionality, and impact on household sustainability. Each component of this investigation plays a crucial role in understanding the system's efficacy in promoting sustainable living practices within the context of households.

Structure:

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Architectural Composition: The structure of the family ecological recyclable system encompasses its physical layout and composition. This involves an in-depth analysis of how components such as trash cans, fish tanks, and flower pots are integrated into a cohesive and functional unit. Evaluating the structural design involves assessing factors like spatial arrangements, ergonomic considerations, and the overall aesthetic appeal of the system.

Material Selection: An investigation into the structural elements also includes an examination of the materials used. This involves understanding the sustainability of materials in terms of production, durability, and environmental impact. Exploring the choices made in material selection contributes to gauging the system's eco-friendliness and resource efficiency.

Functionality:

Waste Management Processes: The functionality of the system is a crucial aspect, involving a detailed examination of how it manages household waste. This includes scrutinizing the processes involved in waste decomposition, the role of microorganisms, and the conversion of organic waste into nutrients for plants. Understanding the mechanics of waste management within the system is fundamental for assessing its efficiency and effectiveness.

Symbiotic Relationships: Investigating the functionality extends to exploring the symbiotic relationships within the system, particularly between fish and plants. This includes understanding how the waste produced by fish becomes a nutrient source for plants, creating a closed-loop system. The examination of these symbiotic interactions provides insights into the ecological balance achieved by the system.

Impact on Household Sustainability:

Environmental Footprint: The research focuses on evaluating the overall impact of the family ecological recyclable system on household sustainability. This involves assessing its contribution to reducing the environmental footprint of households by minimizing waste and promoting recycling. Understanding the quantitative and qualitative aspects of this impact provides a basis for measuring the system's success in fostering sustainable living practices.

Behavioral Changes: Investigating the impact also includes an exploration of how the system influences household behavior and attitudes towards sustainability. This involves understanding

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whether the introduction of the system leads to increased environmental awareness, changes in waste disposal habits, and an overall shift towards more eco-conscious living.

In essence, by thoroughly investigating the family ecological recyclable system's structure, functionality, and impact on household sustainability, the research aims to provide a holistic understanding of its role in promoting sustainable practices at the micro-level of households. This comprehensive examination not only sheds light on the system's strengths and potential areas of improvement but also contributes valuable insights to the broader discourse on sustainable living (Du, M, 2022).

3. Materials and methods

To achieve thesis objective, the following research methods were used:

1. An analysis of current keywords and concepts related to energy-efficient and green living, as well as small-scale organic environmental recycling systems, was carried out.

2. To study successful cases.

3. A mixed approach was used, including both quantitative and qualitative methods of analysis to fully understand the problem and effectively solve it.

The study used data from scientific articles, reports of international organizations, as well as the results of experimental studies conducted by the author of the dissertation. Data and analytical materials from organizations involved in environmental issues and sustainable development were also used.

4. Results and discussion

This research integrates products into a seamless ecological cycle, integrating collection, processing and utilization into a unified system.



Figure 4.8 Analysis of household waste recycling machine Source: Researcher

The designed product incorporates a trash can in the lower-left section, strategically divided into two compartments: one for organic waste collection and another for non-decomposable waste. The organic waste section at the bottom is covered with soil to create a habitat for earthworms. These earthworms play a crucial role in breaking down organic waste naturally. Additionally, the product features two drawers for convenient cleaning and maintenance purposes, ensuring efficient waste management and promoting a sustainable

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and user-friendly design.



Figure 4.9 Product detail
drawingSource:
Researcher

In the upper section of the product design, there is a fish tank situated above the trash can. Positioned above the fish tank is a U-shaped flowerpot. To facilitate water management, a faucet has been installed in the lower right section of the fish tank, allowing for the efficient removal of wastewater. Simultaneously, water can be imported into the system through the gap located in the upper left corner of the fish tank. This integrated water circulation system ensures the proper maintenance of the aquatic environment and supports the overall ecological balance within the product.



Figure 4.10 Product detail
drawing Source:
Researcher

To enhance the waste management system, a composter is positioned on the right side of the trash can. The composter is strategically designed to create a ramp that connects to the trash can, facilitating the smooth flow of decomposing garbage into the composter. This interconnected design streamlines the disposal process, allowing organic waste to fall seamlessly into the composter. Furthermore, the composter benefits from a mixture of water sourced from the fish tanks, enhancing the decomposition process with the assistance of earthworms. This approach promotes a more efficient and integrated waste recycling system within the product.

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Figure 4.11 Product detail drawing
Source: Researcher

Positioned above the composter is an innovative area housing both a hand generator and a water wheel designed for electricity generation. The water wheel is strategically positioned to harness the impact of water flowing from the tap, effectively converting it into electricity. Simultaneously, a hand generator, equipped with a manual handle, provides an alternative method for electricity generation. This dual-purpose approach maximizes the utilization of limited resources, ensuring a sustainable and efficient energy generation system within the product.



Figure 4.12 Product detail drawing
Source: Researcher

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In the upper right area, a water pump and lighting unit are strategically placed. The water pump is responsible for circulating the mixture of waste water and organic waste from the composter, serving as a nutrient-rich irrigation solution for the plants in the pot. Simultaneously, the electricity generated by both the water wheel and the hand generator is harnessed to power the integrated lighting system, ensuring a sustainable and interconnected functionality within the designed product.

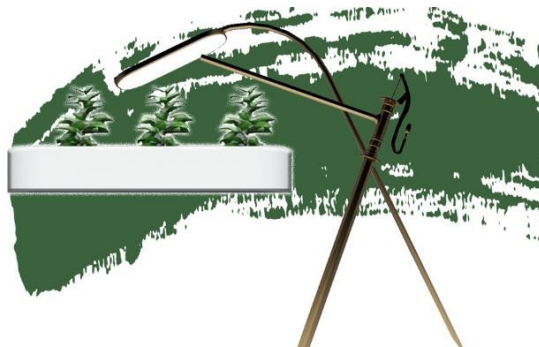


Figure 4.13 Product detail drawing Source: Researcher

Research and design products that maximize the use and reuse of resources. By processing organic garbage and wastewater, this product realizes the concept of turning waste into treasure and creates economic benefits for families. This green economic model aims to improve resource efficiency and reduce dependence on new resources, thereby promoting sustainable development.

5. in conclusion

In conclusion, the integration of design innovations in waste management, composting, energy generation, and eco-recycling within this small ecosystem demonstrates an exceptional level of versatility and ingenuity. The concerted efforts in transforming waste into valuable resources, coupled with the efficient treatment and reuse of organic waste, contribute to the establishment of a sustainable and eco-friendly model.

The incorporation of energy generation devices, including water wheels and hand generators, not only adds a dynamic facet to the ecosystem but also addresses the crucial need for sustainable

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energy sources. This holistic approach not only fosters energy self-sufficiency but also establishes a green living environment within the confines of a home.

The promising results achieved by this system underscore its efficacy in promoting waste recycling and paving the way towards a more sustainable future. By exemplifying a harmonious coexistence between human activities and the environment, this small ecosystem serves as a beacon of inspiration for communities and individuals seeking environmentally responsible solutions.

The lessons learned from this innovative model can guide future endeavors in creating self-sustaining ecosystems that not only manage waste effectively but also harness renewable energy, fostering a balance that aligns with the principles of a circular and regenerative economy. Through ongoing commitment to such initiatives, we can collectively strive towards a greener, cleaner, and more sustainable world for generations to come.

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when we scatter, we shine as individual stars. I wish you all continuous improvement in the days ahead and hope you contribute your strengths to the betterment of the world.

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References

- Chen, Y. (2022). A brief analysis of the current status and classification treatment methods of domestic waste in China. *Environmental Science and Technology*, (16), 150-151. doi: CNKI: SUN: PGZZ.0.2022-16-312
- Du, M. (2022). Implementation progress, dilemma analysis and suggestions of urban domestic waste classification in China. *Journal of Agricultural Engineering*, (4), 99-111. doi: CNKI: SUN: PGZZ.0.2022-12-331
- Hu, K. (2023). Research progress on household food waste treatment technology. *Beijing: Higher Education Press*, (12), 151-161. doi: CNKI: SUN: PGZZ.0.2023-41-42
- Fu, L. (2023). A review of research on aerobic composting of urban food waste. *Modern agricultural equipment*, (3), 42-45. doi: CNKI: SUN: PGZZ.0.2023-5-33
- Su, Y. (2023). Design of ventilation system for aerobic composting of municipal solid waste. *Jiangsu Agricultural Sciences*, (4), 106-112. doi: CNKI: SUN: PGZZ.0.2023-31-45
- Yang, X. (2021). Design of a small household ecological recycling system. *Environmental Science and Technology*, (14), 116-121. doi: CNKI: SUN: PGZZ.0.2021-7-885
- Luo, Y. (2022). Sustainable design research on the utilization of urban household organic food waste. *Beijing: Higher Education Press*, (76), 142-145. doi: CNKI: SUN: PGZZ.0.2022-13-55
- Liu, W. (2023). Research on sustainable design of household waste recycling and disposal systems. *Modern agricultural equipment*, (1), 11-15. doi: CNKI: SUN: PGZZ.0.2023-52-87
- Li Yining (2023). Green Life Research. *New Youth*, (Z1), 65-71. doi: CNKI: SUN: XSNI.0.2023-Z1-13
- Liu Jianming. (2021). Green transformation and development. *Wool spinning technology*, (10), 54-57. doi: 10.19333/j.mFKJ.20210803306

The 12th International Arts and Design Symposium 2024 | Conference Proceedings

Wang Weiguang. (2023). Ecological Civilization Theory. *Western Leather*, (6), 77-79. doi:
CNKI:SUN:XBPG.0.2023-74-774

CHARLIE, L. Water Scarcity in Africa: Causes, Effects, and Solutions, JUL 8TH 2022
from <https://earth.org/water-scarcity-in-africa/>

OECD data. (2020). Municipal waste. Retrieved March 1st, 2023, from
<https://data.oecd.org/waste/municipal-waste.htm>.

Xiao-Lu, XU. (2020). investigation on People's Awareness of Kitchen Waste Related issues in
Hangzhou, China. Retrieved March 1st, 2023, from
https://www.researchgate.net/publication/328310989_Investigation_on_Peoples_Awareness_of_Kitchen_Waste_Related_Issues_in_Hangzhou_China.

Daniel, Slotta. (2024). Solid waste in China - statistics & facts. Retrieved March 1st, 2023,
from <https://www.statista.com/topics/5655/solid-waste-in-china/#topicOverview>.

Collaborative Design to Enhance Positive Communication

Kanatat Yuvajita¹, Pakorn Prohmvitak², Rewat Chumnam³

Abstract

This research aims to show how collaborative design for children which enhances children's ability to communicate, interact and collaborate is able to stimulate their brain's learning capacity. This kind of learning is known as brain-based learning—a new learning process which is planned, managed and introduced to learners in the way that is appropriate for the learning level of their age. Collaborative design can contribute to brain development of young children and thus enhance their physical and mental growth and eventually make them ready for higher level of learning. The research is derived from the fieldwork conducted to test a prototype model with elementary school children, aged 8 to 12 years old, to prove how collaborative design could help create positive communication, interaction and collaboration in them. This collaborative design also stimulates the children's ability to learn according to their brain's capacity. The students' activities are an outside classroom learning experience that motivates their brain to naturally better absorb what they are doing, not by being forced. They give the children a break from the mundane classroom where there is only one-way communication from their teachers. Once the children enjoy communication, interaction and collaboration, their mind will be refreshed and they will be able to develop a positive attitude towards learning by applying what they have learned in creating their collaborative work to their regular classroom.

Keywords: collaborative design, communication, collaboration, brain-based learning, children

1. Introduction

1.1 Background and the Significance of the Problem

The twenty-first century is an era when communication and collaboration are critical skills but people tend to talk to each other face-to-face less and focus on more on the use of electrical devices, like mobile phones and computers for their communication, or they focus on themselves until they do not care much about their surroundings—human or non-human, how can face-to-face communication and collaboration happen in such situation?

This situation is observed by N.J. Morel in his article “Setting the Stage for Collaboration: An Essential Skill for Profession,” 36-39, in *The Delta Kappa Gamma Bulletin* (2014) that collaboration is very different from the past. It requires more-skills in communicating and exchanging ideas than before. It can be seen that nowadays some places have provided spaces where people can do activities and exchange ideas through communicating with each other or working together.

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Design, especially collaborative design, should help maintain face-to face communication and collaboration among people as it did in the old days but, at the same time, it does not mean that technological devices should be rejected in communicating and collaborating. Instead, those technological devices must be appropriately integrated into human communication and collaboration.

While conducting research for the topic of this MA thesis, Researcher was struck by the fact that the lifestyle of people nowadays did not focus on real face-to-face communication. The behavior of people in a number of public areas/places were observed and the researcher found people gazing or fixing their attention on the screens of their mobile phones or their laptops. They were physically close to each other but they were not really communicating with one another. Today's world is a world where technology tends to take control of people. This reminded the researcher of Simon Young's statement, "Humans are social by nature". (Simon N. Young, 2008) The statement makes Researcher realize that something should be done to improve the situation because interfacial or face- to-face communication is significant for humans' physical and mental well-being. Research on this subject matter is thus launched to find how design, especially collaborative design, could contribute to promoting interfacial or face-to-face communication, which has been in the state of decline in today's society as people tend to focus on communication by/through technological devices.

2 Research Questions

1. How can collaborative design be introduced to people?
2. Should collaborative design be introduced to people in their young age?
3. Can collaborative design contribute to education?

3. Research Objectives

- 1.To design a prototype model that can enhance effective collaboration and communication among children,
- 2.To create a prototype model and an App for children to work with others to enhance communication and empathy for better society,
- 3.To show how collaborative design can contribute to the children's education through the Brain-Based Learning Theory.

4. Research Theory

In showing the significance of "collaborative design," the definition of this word must be given by referring to the explanation of Rameses Cabello, Product Designer of "Sketch". He says, "It (collaborative design) is the only way to create products that can work for everyone. ...Because everyone can participate, voice their opinions and concerns, and ultimately help make a product they'd like to use themselves. It is about changing your perspective from 'working for' to 'working with (Welie, 2022) It is an approach that involves a group of individuals working together to create and develop solutions to complex problems. ...bring people of diverse backgrounds, skills, and perspectives to contribute their expertise towards a common goal. In working together, the team members need a wide range of techniques from, for example, "collective decision-making, open

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communication, and active participation from all the people involved throughout the design process” (n. a., What is collaborative design? n. d.)

To show that collaboration is involved with many aspects, five principles taken from “The Twelve Principles of Collaboration,” will be used to support the research proposal. These five principles are related to the research on the target group; namely,

1. Purpose: we must know what work we will do and what to do to achieve clear goals and create speed and efficiency.
2. Communication: we need to talk and share ideas to build a trusting relationship.
3. Exchange: we have to exchange knowledge and experience for cooperation without problems.
4. Expression: we must dare to express our opinion or express what we can do and what we want in order to create an actual exchange.
5. Environment: an environment can affect the mood when working together, for example, if we work in a suitable, well-equipped place, such as a proper classroom or office, the collaboration will be good.

If all these components work together, they will help to create a good performance. (n. a., The 12 Principles of Collaboration, 2001)

The article, “The 5 Principles of Collaboration,” will help to enhance the benefits of collaboration; namely:

1. Increased communication: because communication is the foundation of working together, we will understand the problem and make the work more efficient when we talk with the team.
2. Invaluable flexibility: if we are open to it, we can find new guidelines or ideas to be adapted for benefits.
3. Increased productivity: this is the most significant benefit because it can increase the speed of work or productivity.
4. Learning potential: we will be able to learn, exchange information, experience from each other in the team and develop; this will allow us to grow from that.
5. More engaged: when we feel about working together, it will affect the atmosphere of work. When joining with other people can make us feel happier to work, we will be able to work harder, and the performance will be good. (n. a. 5 Benefits of Collaboration and how to unleash them! n. d.)

The benefits of collaboration, especially collaborative design, can be connected with brain-based education, which can be applied to people of all ages, using the Brain-Based Learning Theory (BBL) by Howard Gardner, a Psychologist at Harvard University, known as “Theory of Multiple Intelligences,” consisting of linguistic intelligence, logical-mathematical intelligence, visual-spatial intelligence, bodily kinesthetic intelligence, musical intelligence, interpersonal intelligence, intrapersonal intelligence and naturalistic intelligence. The prototype model assigned the research target group to collaborate to create artworks or furnishing items will contribute to the development of some of the aforementioned intelligences in the students.

This research will be concluded that the prototype model will be enhance communication, collaboration and education appropriate to the children’s age and it should able to develop the first

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three characteristics necessary for people in the future as specified by the World Economic Forum (2023)—creativity, digital skills, collaboration, global citizenship and environment.

5. Methodology

To obtain the answers to research questions, a fieldwork was organized to try on the research prototype model and the App to be used to accompany the prototype model. The research target group consisted of 40 school children, 24 boys and 16 girls, aged 8-12 years old, of Municipality 1 Chongchumprachanukul School in Sakon Nakhon Province. The fieldwork took place outside normal classrooms, on the grounds of the school. It covered the period of five days, from December 15-20, 2023. The teachers allowed those students to take part in the research project without the interference of the school authorities so the children were quite relaxed and moved around the way they wanted.

Together with using the hand-on technique, a fieldwork, to answer to the research questions, the researcher also asked the students to fill out the questionnaires in order to obtain their opinions and suggestions about the research prototype model and the App to improve the model. The questionnaires were given to other students who were not included in the target group but came to observe what was going on, to the teachers who looked for a way to create positive communication for their children and the parents who wished to see their children spend quality time doing something that develop their characteristics and studies instead of spending time playing games. This enabled the researcher to collect a lot of suggestions that should help to develop the prototype model later on.

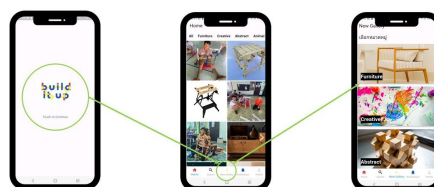


Figure 1. How to use App Source: Researcher, 2023



Figure 2. Color logo

Source: Researcher, 2023



Figure 3. Primary colors used wooden in my design

Source: Researcher, 2023



Figure 4. Box containing colored blocks, marked with logo

Source: Researcher, 2023

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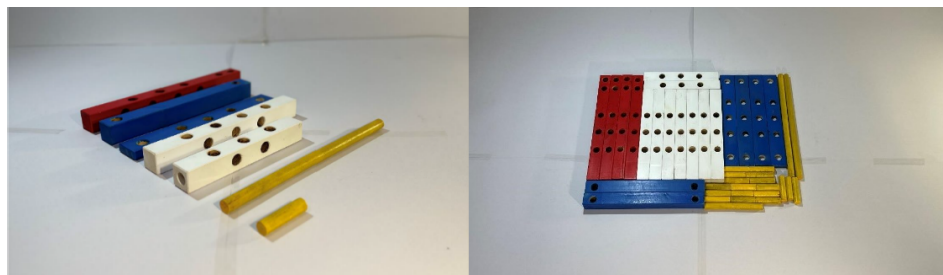


Figure 5. Wooden blocks to be assembled into forms
Source: Researcher, 2023



Figure 6. A table set
Source: Researcher, 2023



Figure 7. A side table
Source: Researcher, 2023



Figure 8. A windmill
Source: Researcher, 2023

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Figure 9. A bench
Source: Researcher, 2023



Figure 10. A robot
Source: Researcher,

6. Introducing Collaborative Design as Part of Brain-Based Learning

Having the chance to work with the students and observe their activities, work attitude, behavior, and treatment of each other in terms of communication, interaction and collaboration, the researcher wants to propose my assumption that communicative design can be used as a tool to educate children in accordance with the Brain-Based Learning Theory (BBL).

The BBL Theory is a new learning paradigm of which the knowledge in neurosciences is integrated with learning theories for educators or teachers to design, plan, organize and implement lessons or tools for learning according to the brain capacities of each age group of learners. Human brains can be developed to enhance different intelligent capacities. In this, “Brain-Based Learning, Part 1” in the Weblog of the Learning Centre of Rangsit University, refers to a theory presented by Howard Gardner, a Psychologist at Harvard University, known as “Theory of Multiple Intelligences” that human beings are naturally equipped with intelligences (which can be one kind or mixed) that should be developed through their learning procedure to become distinctive characteristic(s) of each individual. Human intelligences, according to Gardner, consist of the following:

1. Linguistic Intelligence, referring to the ability to learn languages and see language structures and their comparative and contrastive aspects;
2. Logical-Mathematical Intelligence, referring to the ability to think logically in a concrete manner, properly speculating and doing mathematically computation;
3. Visual-Spatial Intelligence, referring to visual perception, awareness of space, forms, distance and positions that are related and connected;
4. Bodily Kinesthetic Intelligence, referring to the control and expression of different parts of a body with agility, strength, flexibility and precision.
5. Musical Intelligence, referring to the ability to produce music and write musical notes;
6. Interpersonal Intelligence, referring to the ability to understand others in terms of their thoughts, emotions, intention, the ability to detect facial expressions and acts of others and appropriately respond to them to reduce conflicts;
7. Intrapersonal Intelligence, referring to the ability to appropriately develop self-awareness and self-control, the ability to realize one’s own strengths and weaknesses and to understand one’s own thoughts and emotions; and

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8. Naturalist Intelligence, referring to the ability to develop in-depth knowledge and understanding about nature, being observant of nature and natural phenomena, speculating on what happens to nature and the environment. (<https://lc.rsu.ac.th/weblog/11>)

It was found that the prototype model that the target students worked on does not only enhance their communication skills but also contributes to their learning. It can be concluded that the prototype model can develop at least 5 areas of Gardner's intelligences in the children—linguistic intelligence, visual-spatial intelligence, bodily kinesthetic intelligence, interpersonal intelligence and intrapersonal intelligence.

Linguistic Intelligence: though the target students do not learn different languages or a complex language structure, their language ability can be seen in their being able to distinguish the Northeastern dialect that they use at home or when talking to their friends from the standard Thai language they use at school or when talking to their teachers. Also, in working in a group, there may be different opinions, they have to learn to use appropriate language to persuade others to accept their points or to comment on the others' opinions that they disagree with to avoid a serious conflict to occur.

Visual-Spatial Intelligence: assembling those pieces into objects or forms come from their creativity or imagination; the students have to form visual perception in their mind to figure out what forms/objects to create. They have to plan where to place their creations, which should correspond with their functions. Also, as they are creating artworks or furnishing items, they should be aware that their works should be aesthetic to the eyes of beholders.

Bodily Kinesthetic Intelligence: as the work these students are assigned to do is outside the classroom, they have to move around a lot in order to put the pieces together and they have to coordinate with their teammates. This co-working can thus help to promote the children's physical strength.

Interpersonal Intelligence: this intelligence is important in developing communication, interaction and collaboration, which is the aim of my thesis. In co-working to create objects/forms they want, the students have to agree upon what they want to co-create. So, they are allowed to express their opinions and listen to other people opinions. They may not agree with others' opinions but they have to appropriately negotiate and compromise in order to reduce conflicts and come up with the solutions in order to achieve their goal. This requires their ability to understand other people's ideas, emotions and intention, which is part of learning to grow up and to live with others.

Intrapersonal Intelligence: as well as helping to develop interpersonal intelligence in the children, the prototype model should also contribute to the children's learning to appropriately control themselves and their emotions when they work with others.

Besides enhancing communication, interaction and collaboration among young children, the prototype model can be used as a tool to motivate the children's brain because it helps to create active learning in them. This tool comes in the form of a prototype model that can be created into artworks/furnishing items that are not too complicated to make, so the children will have a positive attitude towards it. In assembling those pieces into artworks/furnishing items, they can do it step by step, starting from something easy to something more difficult. The colors of the wooden blocks will excite the children and make them see the fun in putting them into what all the teammates imagine. While doing this, their five senses will be awakened, so their learning experience will not be dull— discussing and talking while co-working, listening to other people's



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opinions, touching the objects while putting them together, appreciating the colors of the blocks and the finished products. The lesson is delivered to the children in the form of a real practice or a play where everyone is an active player and this play discreetly teaches the children something that will form their positive mindset

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about learning that learning does not have to be difficult and boring but it can be something they want to learn according to their interest and the time span of their attention. Sometimes, they may be taken to a situation that is a model of a real situation; they may apply the model to coping with the situation that may happen in their real life. Once the children have acquired this positive mindset, they can apply its positivity to their being introduced to more complex lessons in a traditional way of learning in class when they grow older and are ready to learn proper lessons according to their school syllabus and what society requires from them.

An App created to be used together with co-producing artworks is a way to train the brain to become strong in every aspect—building up creativity and promoting the ability to handle science and technology, which are important in the today's world of work. Using the App should facilitate the creation of artworks/furnishing items, which is non-technical. The App should not replace the students' creative inclination to collaborate and interact in creating artworks/furnishing items, and it should be used only when necessary.

7. Conclusion

The researcher would like to conclude this research by expanding how the prototype model can affect the children in the future. As well as enhancing positive communication and collaboration among children and contributing to their learning, it may be used as a tool to develop future quality citizens of society, in response to the required five characteristics of children in this era, as stated by the World Economic Forum—creativity, digital skills, collaboration, global citizenship and environment.

Creativity: the prototype model helps to enhance children's creativity. The children are assigned to do a task but the instructions will not be rigid. They will be allowed to use their creativity to produce an artwork or furnishing item that their teammates agree upon.

Digital skills: the prototype model introduces the children to digital skills. Their ability to create artworks is enhanced by the use of an App that I have created to help them work to produce their creative product. The knowledge about how the App works can be developed to other digital skills.

Collaboration: collaboration is a prior requirement of my project. The children are asked to co-work in order to create an artwork/furnishing item of their style and imagination as well as the consent of their team. They have to talk, express their ideas and their arguments in a subtle way to avoid a conflict and listen to other people's ideas. The final product is not an individual work but a group work that everyone has their hand on and thus can be proud of.

Global citizenship: this quality is still too early to see in the children in the project but being supported with creativity, introduced to digital skills and encouraged to co-work in order to have collaborative skills, they should be able to adjust themselves to international environment without difficulty. Their mindset will not be limited by geographical location but they will think globally.

Environment: the research prototype model is made of reused wood because the children were expected to make the most from the natural material. They will be aware of the importance of their natural environment and will try to protect it, not only for their own living but also for future generations.

In summary, the reactions of the target children at the fieldwork have proved Researcher's assumption that collaborative design, through the prototype model, can enhance children's communication, interaction and collaboration. It can also be used to apply the Brain-Based Theory

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on teaching the children. This outside classroom learning is a way to make them learn according to their age and interest before they are introduced with traditional education. Moreover, the children will be equipped with the five characteristics which, according to the World Economic Forum, are required for children in the modern world.

8. Discussion

The fieldwork to try the prototype model with school children shows that the research is in the right direction in boosting communicative skills in children. Collaborative design can play a significant role in helping children to communicate. They will learn that in order to live in the world that meets many kinds of challenges, they still need other human beings to help them grow and develop themselves into quality social members. They cannot be alone; human contact is essential in human lives. At the same time, these children cannot avoid the use of technology as it helps to facilitate lives., but they must learn how to make the best out of technology instead of letting it control and ruin their lives. Learning to use the App to accompany producing artworks or forms from the prototype model will teach them that design and technology can go side by side and technology can contribute to design work.

The suggestions from the answers to the questionnaires and Researcher's conversation with the teachers and the parents of the children in the target group made the researcher realize that the wooden blocks are too heavy for the children of this age to handle. If the model is to be developed in larger numbers, the wood to be made into blocks should be lighter in weight or else the blocks should be made of a lighter material.

The fieldwork gained less attention from schoolgirls. They did not like sturdy, geometric blocks because they formed angular shapes only. They preferred something curvy or round in shape that they could use to form cute, curvy figures. This suggested that the prototype model should be added with a variety of forms for users to have more choices.

As for the App, more functions should be added to enable it to help users more. Vudeo clips should be added to make the communication through the App more life-like and more interesting.

All in all, this prototype model is still in its initial stage and it should be further developed. The comments from its users will help to improve it a great deal, and at the same time, further research has to continue to find ways to improve it so that one day, it may be produced for commercial purposes.

9. Acknowledgements

Researcher would like to thank Associate Professor Paijit Ingsiriwat, the thesis advisor, and Assistant Professor Rewat Chumnan, the co-thesis advisor, who supervised this research until it yielded a design work that was tested its possibility to stir and enhance communication and work collaboration of young students. Researcher's appreciation is extended to the lecturers and the classmates in the MFA program in the College of Design, Rangsit University, whose opinions and suggestions helped to improve the design work. Researcher's final product cannot be completed without the Thesis Examination Committee, who carefully went through the work that was submitted and the researcher is grateful to them all.

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10. References

- Accelerating Collaboration. (n.d.). Retrieved from www.steelcase.com:
<https://www.steelcase.com/eu-en/research/articles/topics/case-studies/accelerating-collaboration>
- Brain-Based Learning in Early Childhood. (2023, January 23). Retrieved from <https://mybrightwheel.com>: <https://mybrightwheel.com/blog/brain-baselearning>
- Cabello, R. (2022, September 22). Ramsés Cabello: A designer's journey to collaboration beyond the canvas. Retrieved from www.sketch.com:
<https://www.sketch.com/blog/ramses-cabello-collaborative-design/>
- Forum, T. W. (Director). (2023). These are 5 skills kids will need in the future [Motion Picture]. Hao, M. (2012). Effective Collaboration of Global Teams. Learning Center: Creating Pathways to Transform Your Life.(n.d.).Retrieved from lc.rsu.ac.th: <https://lc.rsu.ac.th/weblog/11>
- Levy, J. (2020, January 13). Enhancing Skills Students Need: Collaboration. Retrieved from capsource.io: <https://capsource.io/collaboration-blog/>
- Morel, N. J. (2014). Setting the Stage for Collaboration: An Essential Skill for Profession. The Delta Kappa Gamma Bulletin, 36-39.
- Morton, J. (2019). Why Color Matters. Retrieved from www.colorcom.com:
<https://www.colorcom.com/research/why-color-matters>
- Technology, m. (2001). The 12 Principles of collaboration. Guidelines for Designing Interaction Management Services.
- The health benefits of strong relationships. (2010, December 1). Retrieved from www.health.harvard.edu: <https://www.health.harvard.edu/staying-healthy/the-health-benefits-of-strong-relationships>
- What is collaborative design? (n.d.). Retrieved from miro.com:
<https://miro.com/research-and-design/what-is-collaborative-design>
- Young, S. N. (2008). The neurobiology of human social behaviour:. Editorial. 5 Benefits of collaboration – and how to unleash them! (2023, September 8). Retrieved from www.project.co: <https://www.project.co/benefits-of-collaboration/>

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Religion pluralism: The study of symbolism and material culture

Snidvongs Sawangjaeng¹, Pajjit Ingsiriwat², Danu Phumalee³

Abstract

The study of religion pluralism for experimental aims to 1) Study the importance, form of construction, religion pluralism, and material culture in each religion 2) Design and experiment with creations exhibition of the connection between objects, particularly through symbolism and material culture. The research methodology used in this study are creative research; collect data, experimentation, and design exhibition space with documentaries research. The study found that these are all things that humans have created to communicate instead of using words. They utilize emotions, history, beliefs, and desires to create symbols that express their identity and desires. In religion, two of these—clothing and religious ceremonies—are widely employed for communication. Interestingly, the researcher found some connections between the creation of symbols.

Keywords: *Religion pluralism, Material Culture, Symbolism*

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1. Introduction

Background and Significance of the Problem

Everything begins with an interest in small things. In Islam, there is a practice of 'slitting the throat of a chicken' to use it as a meal for the family. This practice involves various rituals. Moreover, it is not confined to one place but occurs worldwide whenever an animal is killed for food preparation. Every believer in Islam is required to face the city of Mecca in Saudi Arabia during prayer, with mosques in each country having different architectural designs. Therefore, the question arises about the origin, suggesting that every household practicing Islam must adhere to certain practices.

Given the doubts expressed above, the researcher embarked on a quest to uncover the origins, aiming to demonstrate that all religions originated from the same point.

Research Questions

1) Is it true that all religions originate from the same starting point? What are some indicators of connections and similarities suggesting this shared origin, such as the universal occurrences of birth, marriage, and death? In these instances, every religion incorporates rituals or traditions that involve similar activities?

2) Considering the unsuitability of urban areas for the population, it is assumed that various communities and religions have merged, residing within the same vicinity. Some areas even share places of worship, where they perform certain rituals together. Is this assumption accurate?

Objectives

1) To study the importance, form of construction, religion pluralism, and material culture in each religion

2) To design and experiment again with creations that demonstrate the connection between objects, particularly through symbolism and material culture

2. Research Theory

The researcher has reviewed concepts and theories related to the process of creating symbols for use in each religion. This exploration aims to uncover the common thread among all religions, which utilize symbols for communication.

The theory of SYMBOLISM PERCEPTION guides this study, leading the researcher in their investigation. Reviewing literature in this field enables the researcher to design and conduct data analysis, facilitating the discovery of further research insights.

Literature review

To answer this question, the researcher would like to study and review in the following order:

1) The symbol red in Egyptian religion

From the book of The Symbolism of Red in Egyptian Religion by Gwyn Griffiths. He uses to mention that

Colour symbolism as we know it today often has its roots in religion and magic

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although the awareness of origin may commonly be lacking. Even when the source of a particular usage is known, the interpretation may not be simple. The foundation of the Red Cross organization in 1864 involved the adoption, as emblem, of a red cross on a white ground; the cross is Christian and it is red because blood is red, the succor of the wounded soldier being thus implied. Here is a fairly simple case. The Red Flag of Communism derives, it seems, from a flag which implied, in Paris in 1789, the opposite of revolution: it was at first a flag proclaiming the application of martial law, but in 1792 came the counter-emblem, a red flag including the words "Martial Law of the People". So here a strange twist has occurred. Blood is again the probable source of the colour; hence too the red flag for danger.¹ Yet red as the colour of blood can also be beneficent and life-giving; probably this is the intent of the red ochre spread over the bones of the "Red Lady" of Paviland circa 16,000 B.C. The Red Dragon of Wales likewise betokens a rampant vitality, admixed originally, no doubt, with an element of threat; here the origin may be in a Roman standard mentioned by Ammianus Marcellinus. Ancient Egypt provides examples of a varying connotation, and the god Seth is the centre of much of the symbolism. (Gwyn Griffiths, J., 1972; 81-90)

After researcher studied Gwyn Griffiths' theory, the study confirmed that symbols have been used to convey meaning for a long time. For example, the founding of the Red Cross organization in 1864 featured a red cross on a white background, which is the Christian symbol of the cross. The color red symbolizes blood, and the organization aimed to provide assistance to wounded soldiers.

The researcher found connections between various symbols in this article, leading to established assumptions. The red flag of Communism appears to have come from a flag which was hinted at in Paris in 1789, as opposed to revolution. At first it was a flag proclaiming martial law, but in 1792 the opposite symbol was used. which is red The flag includes the word "People's Martial Law" has caused strange events to occur here. There's blood again.

Possible sources of color So are red flags for danger¹. But red, like blood, can also be beneficial and life-giving. Perhaps this was the purpose of the bright red color that spread across the bones of the "Red Lady" of Pavlina around 16,000 BC

2) Symbol in the religious consciousness

From the book of Symbol in the religious consciousness by Kurt Moritz Artur. He uses to mention that

The formation of religious symbols that occur when unconscious ideas are aroused or when a process of consciousness occurs is principally a matter of religious experience. Such symbols usually become intellectual acquisitions, and, as religious concepts are further elaborated upon, the symbols may even finally become subjects of major theological questions. In Christian theology, for example, summaries of dogmatic statements of faith are called symbols (e.g., the Apostles', Nicene, and Athanasian creeds and the confessional books of Protestantism, such as the Augsburg Confession of Lutheranism). This particular use of the term *symbol* is exceptional, however. In the development of the symbol, religious experience, understanding, and logic are all connected, but each places different accents on the individual categories and species of symbol. Occasionally,

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religion is regarded as the origin and the product of certain established (or fundamental) symbols. In such cases the outcome of the process of the structuralization of religious consciousness would then be the establishment of a symbol that is generally applicable to a particular historical species of religion. Conversely, one could ask whether the experience and establishment of an individual or collective symbol by a creative personality or a community is not itself the establishment of a religion. If so, the classical symbol that was developed at the time of the foundation of any one particular religion would then be constitutive for its origin and further development (e.g., the *taiji* or the combination of the opposite yet complementary forces of yin and yang for the Chinese, the cross for the Christian religion). In any event, the symbol belongs to the essence of humanity's coming to religious consciousness and to the formation of history's institutional religions. It plays a fundamental and continual part in the further growing of such religions and in the mental horizons of their followers. (Written by Kurt Moritz Artur Goldammer Fact-checked by The Editors of Encyclopaedia Britannica)

After reading Kurt Moritz's article, Artur Goldammer, the researcher discovered that the hypothesis previously proposed aligned with many religious symbols, which originate from the creative endeavors of human beings. These symbols often stem from beliefs and observations within a group, and they may undergo changes in form over time in response to evolving beliefs and societal shifts. For instance, Taijiquan symbolizes the combination of opposing yet complementary forces of Yin and Yang.

What Kurt Moritz and Artur Goldammer wrote is related to J. Gwyn Griffiths article on the birth of symbols, which originates from the creative process of human beings. They utilize beliefs and observations to design symbols that communicate desired meanings, such as the use of the cross symbol and the color red in the Red Cross organization. Here, the color red symbolizes blood, often associated with illness or death. Another example is the symbol of Taijiquan, which embodies equal amounts of yin and yang energy. This symbol is represented as black and white, divided into halves.

Design concept framework

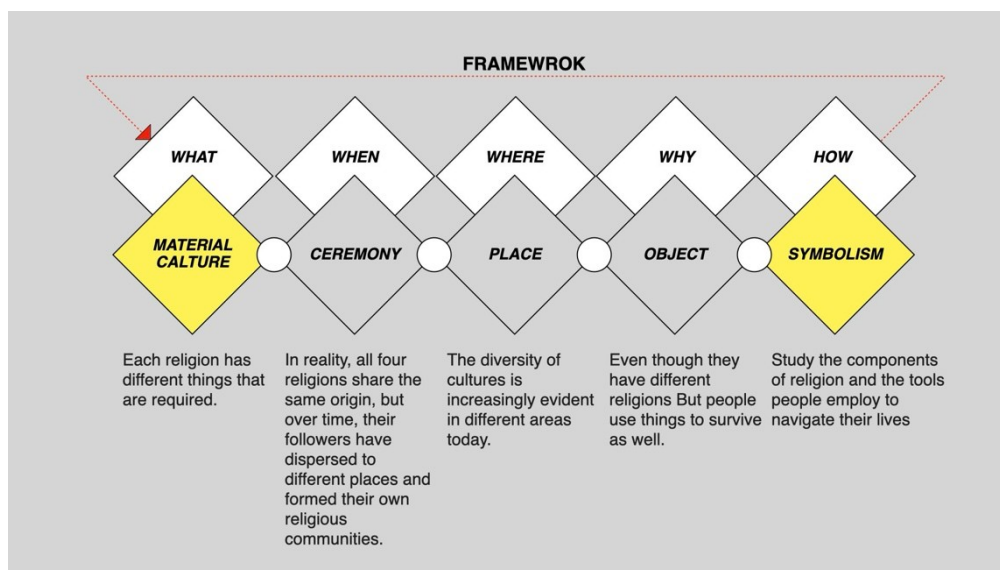


Figure 1: Design concept framework Source: Researcher, 2024

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3. Research Methodology

The research topic, 'THE STUDY OF RELIGIOUS PLURALISM FOR EXPERIMENTATION,' employs creative research methods. It involves studying the emergence of symbols and material culture within each religion, including an exploration of their origins, to establish connections and conduct thorough research down to the roots of their emergence. The work is exhibited in the form of spatial design, enabling visitors to experience the emergence of symbols and material culture from each religion. This is achieved through the design of the exhibition's movement space, guiding visitors along a walking route to observe the events. The design is informed by research into the origins of all religions, utilizing gathered information to shape the exhibition space.

Research scope

This exhibition will be on display from April 24th to 30th, 2024, at Building 8, Rangsit University, Pathum Thani Province, Bangkok. It will showcase the results of a study on the three main religions: Buddhism, Christianity, and Islam. The researcher found that these three religions were among the earliest to emerge in the world.

4. Research result

The researcher has compiled the results of the study, employing creative research methods.

- 1) Investigating the origins of symbolism and material culture in Buddhism, Christianity, and Islam to identify common points of symbolism emergence.

Through data collection, the researcher found that all religions originate from the same point: God. Despite the passage of a long time, various religions still persist; none have disappeared. While there may be subdivisions within each religion, one common element across them all is the worship of God. Another ubiquitous aspect present in every religion is the use of flowers. In addition to using flowers for worship, people also use flower shapes in the design of buildings, windows, and other architectural elements.



Figure 2: Round church window. The design is based on the shape of a flower.
Source: Leo Reynolds, 2024

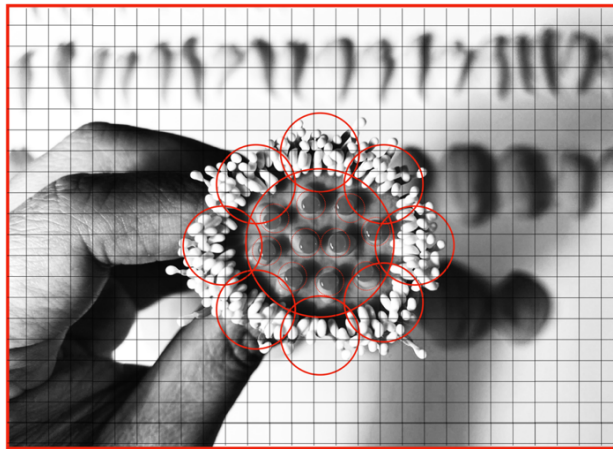


Figure 3: Images from the researcher's study of flower shapes.
Source: Researcher, 2024

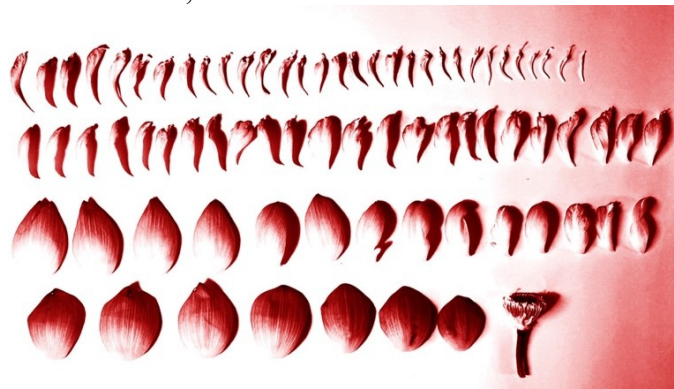


Figure 4: Images from the researchers. The image depicts the study of lotus flower petals, arranged from the largest on the outside to the smallest on the inside, expressing the continuous growth of the flower in a radial pattern from the center.

Source: Researcher, 2024

2) Incorporating all gathered information into the design of the exhibition space.

By studying the shapes of flowers, the researcher discovered that all types exhibit symmetry. They grow from a central point and spread out in a spherical manner. But this is what enables religion to survive. It's not solely God, but people—people who create symbols to communicate their beliefs, and who design clothing for use in important ceremonies within each religion.

The things that enable people to survive are the 5 factors or Basic Human needs, which are 6 as follows: Physiological Needs, Safety and Security Needs, Social Needs, Esteem Needs, and Self-Actualization Needs. When studying the five factors that are essential for human existence, you will find various items that we use in our daily lives. These items are what help people survive and preserve religion and symbols.

Physiological needs include four necessities: food, clothing, shelter, and medicine. It is argued that not all humans require the same nutrients to sustain life.

Safety and security needs are more complex in nature. Humans desire control over their lives, making safety and security paramount. Examples of these needs include financial stability, health safety, and protection from accidents and injuries, as we prefer predictability and dislike unnecessary risks.

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Social needs are closely related to love or a sense of belonging, fulfilling the societal requirements for emotional states, feelings, and relationships. This includes various actions and the involvement in different groups, such as research groups that filter data based on their findings.

Esteem needs emerge as other needs are fulfilled. At this level, we desire respect from others, which can be divided into the desire to become someone or have pride, gaining expertise in various skills, and seeking respect from others through fame and prestige.

This need also includes things like self-esteem. People who meet their esteem needs feel confident in their abilities.

Self-Actualization Needs represent the highest level of needs according to Maslow's theory. It involves recognizing one's abilities and striving to become one's true self. This could manifest as pursuing specific goals, such as striving to excel in a particular field, or as a broader pursuit of personal growth and development.

- 3) Presenting the work in the exhibition, utilizing the studied information to enhance visitors' understanding of the symbolism and material culture in Buddhism, Christianity, and Islam.

Diagram format used in exhibitions.

Use circular and straight lines, studied and analyzed from the shapes of flowers that all religions use similarly, designed in a circular shape resembling the growth pattern of a flower from its center point. It resembles the researcher's journey from the beginning of the research process until the discovery of its origin.

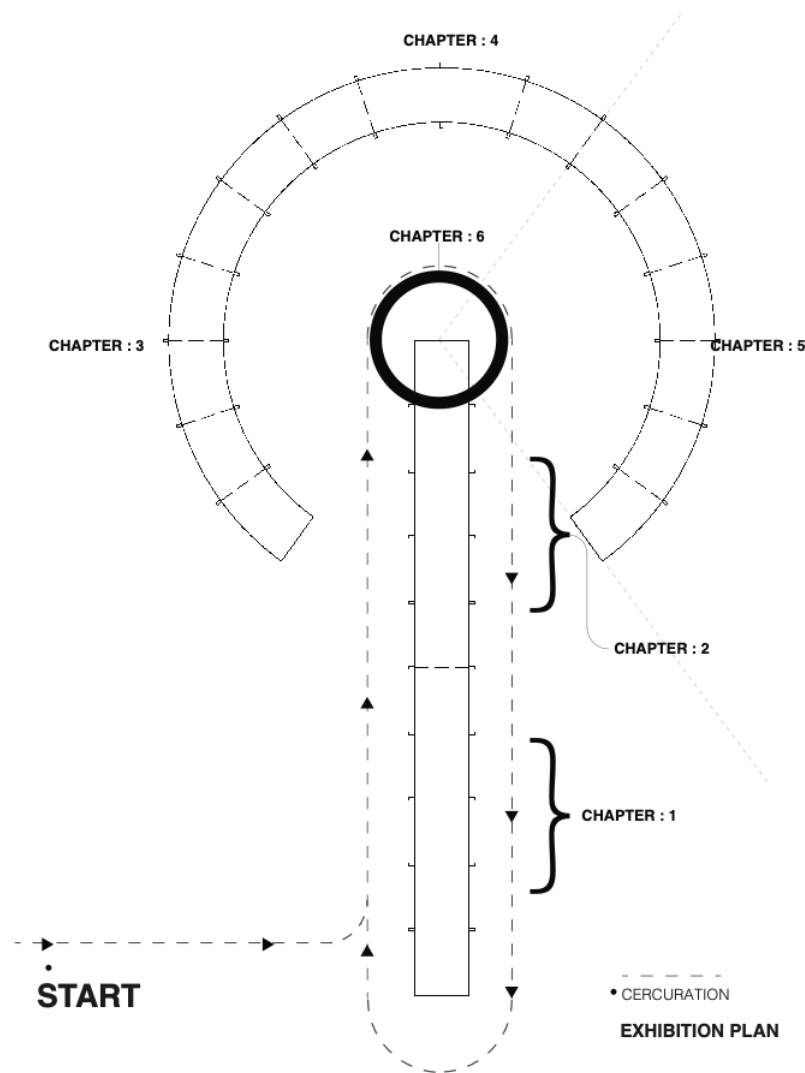


Figure 5: Exhibition space design plan and the format of walking around the event.
Source: Researcher, 2024

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In the form of an exhibition, it is divided into 6 chapters with the following details.

Chapter 1: Explanation of the origins of the Muslim tradition of cutting chicken throats.

Chapter 2: Explanation of findings after researching the origins of all religions worldwide.

Chapter 3: Description of man-made objects used to express symbols.

Chapter 4: Explanation of research on flowers in various religions.

Chapter 5: Explanation of basic human needs that enable humanity to survive.

Chapter 6: Repetition of the explanation of basic human needs that enable humanity to survive.

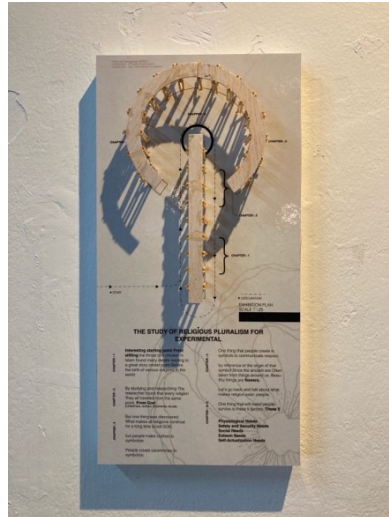


Figure 6: Model cutting studies involve experimenting with pictures before actual construction begins.

Source: Researcher, 2024



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Figure 8: Exhibition pictures the name of the exhibition: "Leaving behind a Symbol"
Source: Researcher, 2024



Figure 9: Exhibition pictures the name of the exhibition: "Leaving behind a Symbol" Source: Researcher, 2024

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Figure 10: Exhibition pictures the name of the exhibition: "Leaving behind a Symbol"

Source: Researcher, 2024

5. Conclusion and Discussion

Through the analysis of gathered information, the researcher delved into the study of symbols and material culture among various communities. This investigation led to the identification of three primary starting points: Buddhism, Christianity, and Islam. Emphasizing the symbolic and material culture of these three traditions, the researcher found similarities in the emergence of interfaces for conveying beliefs and faith. These similarities suggest a belief in verifiable faith and the possibility of passing down one's heritage over generations. Through the transmission of personal narratives, this practice serves as a confirmation of worship and facilitates its continuation to future generations.

In this study, the researcher uncovered a misunderstanding regarding the distinctions among the three religions: Buddhism, Christianity, and Islam, assuming they are fundamentally different. However, through the study, the researcher found commonalities among all three religions. They share similarities in teachings, beliefs, and elements that enable their existence. It's not the deities of each religion but rather the people who preserve the symbolic and material culture, passing it on to subsequent generations, that allows all religions to endure and thrive.

6. Suggestion

In this study, the researcher identified certain flaws in the exhibition, particularly in the design of the exhibition space. The study did not include the opinions of visitors regarding the design of such spaces, which could have been valuable for refining suggestions into a comprehensive design. For future students who wish to exhibit this research, further investigation may be necessary. Alternatively, they could utilize the exhibition plan to formulate a questionnaire and develop a more comprehensive design.

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References

- Diane Davis, Cities and sovereignty: Identity politics in urban space. Retrieved January 2011
From https://www.researchgate.net/publication/293493594_Cities_and_sovereignty_Identity_politics_in_urban_spaces
- Emily McCrary-Ruiz-Esparza, What Is Symbolism and How to Use It in Your Writing. Retrieved April 2024
From <https://www.writtenwordmedia.com/what-is-symbolism/>
- J. Gwyn Griffiths, The Symbolism of Red in Egyptian Religion, pages 81-90. Retrieved 5 January 2024.
From https://brill.com/display/book/9789004378414/B9789004378414_s012.xml
- Jaan Valsiner, The Oxford Handbook of Culture and Psychology, Retrieved November 2012 From https://www.researchgate.net/publication/279187518_The_Oxford_Handbook_of_Culture_and_Psychology
- Kurt Moritz Artur Goldammer, religious symbolism and iconography. Retrieved 12 January 2024.
From <https://www.britannica.com/topic/religious-symbolism>
- Stephen Poon, Symbolic Perception Transformation and Interpretation: The Role and Its Impact on Social Narratives and Social Behaviours. Retrieved march 2018
From https://www.researchgate.net/publication/323679230_Symbolic_Perception_Transformation_and_Interpretation_The_Role_and_Its_Impact_on_Social_Narratives_and_Social_Behaviours
- Worapoj Vaivatha, Theory of Islamic art that influenced the decorative patterns of the Ayutthaya period. Retrieved 22 January 2024.
From <https://digital.car.chula.ac.th/chulaetd/2928/>

Image credits

- Figure 1: Design concept framework. Retrieved from researcher 2024
- Figure 2: Round church window. Retrieved from <https://www.flickr.com/photos/lwr/>
- Figure 3: Images from the researcher's study of flower shapes. Retrieved from researcher 2024
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- Figure 10: Exhibition pictures the name of the exhibition: "Leaving behind a Symbol"
Retrieved from researcher 2024

The Research of Byzantine Culture Identity Design for a New Typography Design

Yuan Yuan¹, Pisrapai Sarasalin², Rewat Chumnam³

Abstract

The objectives of this thesis include research of Byzantine culture for the Byzantine identity design and the typography design based on the Byzantine identity design. Typography is a visual stylistic expression of words that can convey information. The research will unveil the mysteries of Byzantium and the design will be a bridge between history and reality, visualizing Byzantium. In the progress of designing, the researcher used design thinking theory, phenomenology theory and typography design theory. It will become a beacon of culture and art, help people appreciate different cultures, traditions, and perspectives, fostering tolerance and understanding and provide inspiration for people. The main methods used in this research are literature research and interview research.

Keywords: *Byzantine identity design, typography design, Byzantine culture, Byzantine font*

1. Introduction

This thesis is about the study of Byzantine culture, aiming to complete the Byzantine identity design and Byzantine typography design on the basic of the research of Byzantine culture, and use them as the medium to refining the essence of ancient Byzantine culture, preserving the heritage and promoting the art forms of Byzantine culture. preserving and promoting cultural diversity, and fostering cultural tolerance among modern people.

The Byzantine Empire is now history, but the achievements of Byzantine literary art and culture still shine through. The importance of history cannot be overstated, let alone a history and culture as full of magnificent colors as Byzantium. The research will unveil the mysteries and greatness of Byzantium and the design will be a bridge between history and reality, visualizing Byzantium. It will once again become a beacon of culture and art like it used to be in the Middle Ages, help people appreciate different cultures, traditions, and perspectives, fostering tolerance and understanding and provide inspiration for people.

2. Objectives

- 1) Byzantine Identity Design
- 2) Typography Design
- 3) Application Demonstration of the Design

3. User Target

This Byzantine typography design can be used in some commercial applications, such as logo design, advertisement headline, poster or other design for visual communication. The target user group of this font is mainly designers, or other commercial uses. The application of this Byzantine typography is not limited to areas or products related to Byzantine culture or Byzantine style; it is suitable for any classical, ornate, vintage classical style. It is not something that can only be applied to Byzantine style products, but it can bring an unobtrusive Byzantine flavor visual effect to a product.

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4. Context and Significance of the Design

4.1 Byzantine Identity Design

Byzantine cultural identity design is necessary to present Byzantine culture visually, creatively and attractively, and to give concrete expression to the spiritual core of Byzantine culture. The first objective of this thesis is to extract and deconstruct Byzantine culture. These representative Byzantine elements are fused with modern style and redesigned by conducting an in-depth study of the sparkling Byzantine culture of the bygone Byzantine Empire.

The process of Byzantine identity design is through the research of Byzantine culture, refine and extract representative Byzantine elements, deconstruct them and reorganize them with modern elements to create unique, modern and creative Byzantine identity design for subsequent Byzantine typography design. This design process will take on different aspects and will result in many different Byzantine identities for more varied attempts at typography.

4.2 Typography Design

Text is an important medium for conveying information. Typography is the art and technique of arranging type so that the written words legible and attractive when displayed. Typographic arrangement includes the choice of font, point size, line length, line spacing, letter spacing, and spaces between letter pairs. (Bringhurst, 2004) After designing, the typography presents a visual expression symbol integrating communication function and emotional intention. The second objective of this thesis is to design a Byzantine typography based on the Byzantine identity design mentioned in the objective 1. This font design is for twenty-six uppercase letters, twenty-six lowercase letters. Because English is the most common language in the world. Currently, English is spoken by more than 1,452 million people worldwide, including 370 million native speakers and 1,080 million non-native speakers. English is spoken by 18% of the world's population. (Ethnologue, 2023) In the age of information technology where electronic products are becoming more and more popular, typography have penetrated into every aspect of human lives. Whether it's the text displayed on a cell phone or computer screen, the attention-grabbing art fonts in advertisements, or the fonts in books, typography can be used for everyday use or as a design element to create more value and wider dissemination.

4.3 Application Demonstration of the Design

The application of the Byzantine typography design includes logo design and poster design. In these ways of presenting the typography, more emphasis will be placed on intuitive visual communication. A small amount of content and a large number of intuitive typography and images will be used to express Byzantine culture in a more direct way.

5. Research About Major Factors Influencing Human Life Related to Byzantine Culture

The Byzantine Empire had numerous achievements throughout its long history. These achievements cover many areas, whether it is the Byzantine Empire's preservation and continuation of Roman culture or the Code of Justinian, which laid the foundations for modern legal principles, demonstrating the Byzantine Empire's multifaceted contribution to history, culture and civilization and leaving a lasting legacy that has shaped the modern world.(Norwich,1988) The researcher chooses eight areas of the Byzantine Empire to study: Economy, Product, Religion, Flags and insignia, Art, Language, Clothing, Architecture. The legacy of the Byzantine Empire in these areas has had a long-lasting impact on future generations and is well worth studying and extracting as a representation

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of Byzantine identity design.

5.1 Byzantine Architecture.

The architectural heritage from the Byzantine Empire still stands today, especially in Turkey, Greece and other areas that were once part of the territory of the Byzantine Empire. (Simonkarios, 2023) Byzantine style architecture had a profound influence on later architectural styles, especially in Orthodox churches and some Italian Renaissance buildings. For example, the domes and vaulted ceilings characteristic of Byzantine architecture served as inspiration for later structures, such as Orthodox churches and some Italian Renaissance buildings. The use of domes and vaults not only provided structural stability but also created a sense of grandeur and spaciousness in architectural design. (Mango, 1978). Now, Byzantium has not only retained the original Byzantine ancient architecture, after the baptism of history, Byzantine architecture has undergone evolution and evolution, becoming a classic architectural style. In modern times, apart from tall buildings, the Byzantine style is also used in the interior design of apartments and the like. Byzantine style interiors emphasize luxury, sanctity and elaborate decoration. Designers paid attention to the finest details, preferring metal decorations, hanging lamps and stained glass to create a luxurious, sacred and ceremonial atmosphere. (Cormack, 2018)

5.2 Byzantine Religion.

The Byzantine Empire was inextricably linked to Christianity, and it can be said that Christianity has been integrated into every aspect of Byzantium, including art, architecture, culture, politics, and so on. Therefore, in terms of religion, there is a bright Christianity has also had a great and far-reaching influence on the modern Christian world. In modern times, Orthodox Christianity is still the main religion in many countries, including Greece, Russia, Serbia, etc. The doctrines and liturgies of the Byzantine Empire have had a far-reaching influence on the religious practices of these regions.

5.3 Byzantine Art.

Byzantine art in general was characterized by a shift from the naturalism of the classical tradition to a more abstract and universal one, with a clear preference for two-dimensional representations, and a predominance of those artworks that contained a religious message. (Cartwright, 2018) Byzantium's most iconic art form is undoubtedly the mosaic. Although Byzantine mosaics evolved from earlier Greek and Roman practices and styles, artisans in the Byzantine Empire made important technical advances and developed the art of mosaic into a unique and powerful form of personal and religious expression. (Cormack, 2018) Byzantine mosaics were used in paintings, architectural decorations and more. Mosaics have also evolved into Pixelization, a method of image manipulation that utilizes principles similar to those of Mosaic, the decorative art of tessellation. This method degrades the chromatic detail in specific areas of an image and creates a disrupted color block effect, with the goal of making it unrecognizable. In Chinese, this technique is called “马赛克”, same translation as mosaic in Chinese. Some of the characteristics of the Byzantine art form and its legacy to some of the religious art of modern times have played a huge role. The core of Byzantine art was religious expression. Although religious themes are no longer the sole focus of modern art, their influence can still be seen in some works of art, especially in some modern buildings and decorations. Outside of religion, the influence of Byzantine art with its distinctive decorative motifs and metalwork appears in some of the modern designs and crafts that may be taken from Byzantine art especially in decorative

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objects and architecture. The legacy of Byzantine culture and art still exists in present-day Turkey, Greece, and other areas that were once territories of the Byzantine Empire. The cultural and artistic traditions of these places are more influenced by Byzantine art forms.

5.4

5.5 Byzantine Insignia.

The emblem most closely associated with the Byzantine Empire is the double-headed eagle. Although the date of its adoption by the Byzantines has been hotly debated by scholars, (Kazhdan et al., 1991) they have become inextricably intertwined, both in terms of the Byzantine Empire bringing a strong color to the double-headed eagle emblem, and in terms of the fact that the double-headed eagle emblem represents the Byzantine Empire to some extent. Most modern uses of the emblem are directly or indirectly associated with its use by the late Byzantine Empire. To this day, the double-headed eagle remains on the coats of arms or flags of several Slavic and Eastern European countries, whose history of the double-headed eagle is mostly quoted from the coat of arms of the Byzantine Empire. And the Byzantine double-headed eagle is also still part of the Russian coat of arms. (Khutarev, 2014) And the double-headed eagle is now used as an emblem by many Orthodox Churches, including the Greek Orthodox Church and the Albanian Orthodox Church. The symbolism of the double-headed eagle has varied over time and geography, but in general it represents power, dignity and the unity of empire, the same feeling that the Byzantine Empire brought to the people

5.6 Byzantine Jewelry.

Byzantine jewelry is known all over the world. Today, the term no longer represents only jewelry from the Byzantine Empire, but has become as much a style of jewelry design as Byzantine architecture. The design style of Byzantine jewelry had a profound effect on later jewelry making and art. religious theme, intricate patterns and geometric shapes and gemstones and metals are cleverly paired, these design element that continued to be used in later art and jewelry. Overall, the influence of Byzantine jewelry continued not only in religious jewelry, but also in the later Renaissance and beyond, influencing jewelry making and design in Europe and beyond. Its intricate motifs, religious themes and superb craftsmanship provided a rich source of inspiration and models for later jewelry making. In modern times, a lot of Byzantine style jewelry and many jewelry design styles have Byzantine influences.

6. Research Methodology

6.1 Design Thinking Theory

This thesis used the 4 stages of design thinking theory, which run in this order: Empathize, Ideate, Prototype, Test.

Empathize is reflected in Background and Significance of the Study. Through observations and interviews, the researcher determined the interest in Byzantine culture and the attractiveness of Byzantine culture. For this, people's needs are entertaining, visualizing the Byzantine culture, and ways to have more contact surfaces with the Byzantine have culture. They may not be necessary, but there will be a market for them.

In the Ideate stage, through the mind map of the research, the researcher chose two objectives as the solutions, which are objective 1: Byzantine identity design and objective 2: typography design mentioned before. The typography will be the final product, which will have a user group of designers as well as some commercial uses that can be directly applied. Typography, as a visually stylized information carrier, has both a broad user group

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that can reach more people, and a good way to communicate and express Byzantine culture.

The Phototypes for this thesis will be a large number of sketches, from which the best option will be selected to make the typography and proceed to the next stage: Test.

In the Test phase, users are invited to try out the Byzantine fonts, and feedback is collected from them on how they really use this Byzantine typography. Based on the test result and user feedback, modificative, optimize and literate on the phototypes, and the refined solution was transformed into the final product.

6.2 Phenomenology Theory

This research emphasizes subjective experience, awareness, perception and intuition.

Phenomenology emphasizes the study of an individual's subjective experience, not just objective reality. In design, this translates into a focus on understanding users' perceptions, behaviors, and needs. (Norman, 2013) Subjective experience is unique, and each individual may have a different experience of the same object or event. In this study and subsequent design, it is more important to focus on people's subjective feelings about the Byzantine Empire, such as greatness, antiquity, mystery, and so on. Phenomenology recognizes the emotional dimensions of human experience. Designers leverage this understanding to create products and interfaces that evoke positive emotions and resonate with users on an emotional level. By considering factors such as aesthetics, usability, and emotional appeal, designers can create more engaging and meaningful experiences for users. (Norman, 2007)

Phenomenology is concerned with individual processes of consciousness and perception. In this study, the influence of Byzantium on the human lives of modern people, as mentioned in the literature study section of Chapter 2, make people are able to realize and perceive that the Byzantine Empire, which has passed away, still exists, and perceive clear traces of the Byzantine world. The aim of this design is to make people are able to realize and perceive that the Byzantine Empire, which has passed away, still exists.

Phenomenology attempts to understand the "phenomena" of things, i.e., the way they appear to people, rather than their essence. For the purposes of the design of this study, the essence of Byzantium is not the most important thing, but rather how the Byzantine Empire was manifested and perceived in people's consciousness.

6.3 Typography Design Theory

Typography design theory encompasses principles and practices related to the creation and arrangement of typefaces in visual communication.

For the hierarchy and readability, Fonts should have clear, legible glyphs to ensure that text is readable at all sizes and in all applications. Typography plays a crucial role in establishing visual hierarchy and guiding readers through a text. Designers use techniques such as varying font sizes, weights, and styles, as well as employing techniques like kerning, leading, and tracking to enhance readability and convey the relative importance of different elements within a layout. (Butterick & Garner, 2015)

Typography can convey emotions, moods, and personalities through the selection and treatment of

typefaces. Designers choose typefaces with appropriate characteristics to evoke specific feelings or to align with the tone and content of the message. This aspect of typography is particularly important in branding and advertising contexts. (Samara, 2004) For example, rounded fonts may appear friendly while sharp fonts may appear strong. This Byzantine typeface design should convey the antiquity, mystery and greatness of the Byzantine style. In addition, the design of the typeface should be consistent with what is being communicated. For this Byzantine typeface design, which can be used in logos, adverts or artwork, a more flamboyant and eye-catching style should be used.

Typography design theory also considers the cultural and historical contexts in which typefaces are used. Different typefaces carry associations with specific time periods, movements, or cultural identities, and designers leverage these associations to evoke particular themes or to establish connections with audiences. (Meggs & Purvis, 2016) The typography of this thesis should be unique and this final product typeface should have a distinctive Byzantine style and character to make it stand out from the mass of fonts.

7. Design Progress

7.1 Elements 1: Byzantine mosaic

The researcher imitated the Byzantine mosaic style to make four mosaic lines. They are composed of irregular geometric shapes in different shades. And on this basis, the researcher designed the Byzantine mosaic font sketches as shown in figure 1.



Figure 1 Byzantine mosaic typeface sketches

7.2 Elements 2: Byzantine sculpture plant

In figure 2, the researcher extracted and design the motifs from plant and leaf motifs on the Byzantine column sculptures, and on this basis, there are two styles of sketches are designed.

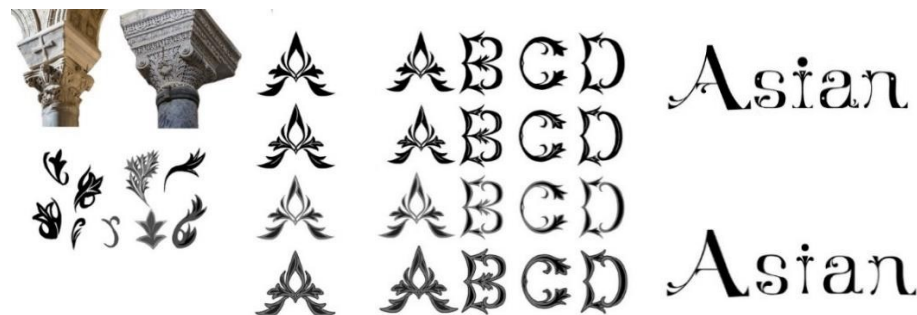


Figure 2 Byzantine plant typeface sketches

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7.3 Elements 3: Byzantine sculpture plant and double-headed eagle

These sketches in figure 3 were designed with the Byzantine sculpture plant and Byzantine double-headed eagle as the main elements.

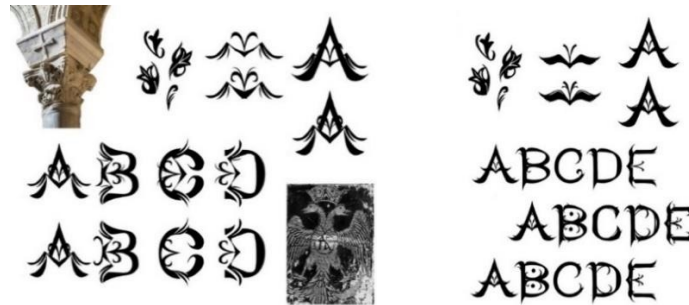


Figure 3 Byzantine plant and double-headed eagle typeface sketches

7.4 Element 4: Byzantine jewelry

Byzantine jewelries often featured religious motifs, including Christian symbols, icons, crosses and so on. This reflects the importance of religion in Byzantine culture. This sketch focuses on the intricate ornate and religious elements of Byzantine jewelry.

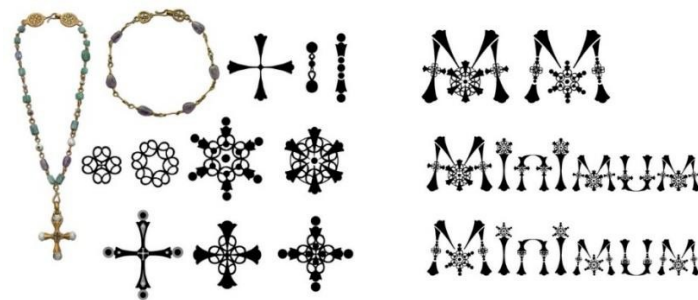


Figure 4 Byzantine jewelry typeface sketches

7.5 Element 5: Byzantine tetra grammatic cross, mosaic and jewelry

The "tetra grammatic cross" It is a specific form of cross associated with the Byzantine Empire, and its design reflects the synthesis of religious and cultural influences in the Byzantine Empire. The cross in these drafts, combined with the mosaic, becomes the central part of theses letter in figure 4.

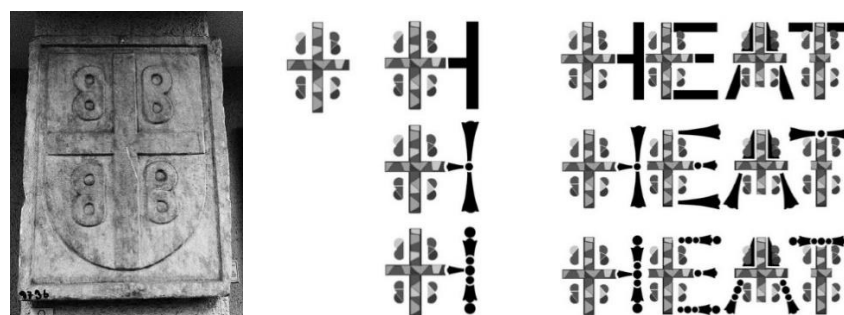


Figure 4 Byzantine tetra grammatic cross, mosaic and jewelry typeface sketches

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8. Final Design

As shown in figure 5, The final design mainly uses shapes evolved from Byzantine sculptural plant patterns, and also incorporates elements of Byzantine jewelry. The typography design is gorgeous, classical, and elegant style. It aims to convey the great, ancient and mysterious identity of Byzantium in people's hearts. Figure 5 contains the final alphabet of the Byzantine typography design and its use in logo design, poster design and application on tickets, a paper bag and a book. And in Figure 6, there are application of the logo and poster design in Figure 5.



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Figure 5 Byzantine typography design and its application



Figure 6 Application of Byzantine typography logo and poster design

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9. Obstacles and Recommendations

9.1 Research Problems about Byzantine history

The history of Byzantine Empire is known to be very long, it survived for about a thousand years. But this state has not survived to the present day. These two reasons cause why there is not so much certain information about the history of the Byzantine Empire.

Many aspects of Byzantine history are not too conclusively documented, and when they are, they are often controversial. This is a difficulty for research and leads to the next obstacle regarding Byzantine identity design.

9.2 Problems About Byzantine Identity Design

The identity of Byzantium is actually very hard to define. The Byzantine legacy, after being passed on and evolving in the land of Constantinople for many more centuries, has influenced and been influenced in reverse by many later European cultures and styles. As the researcher is not a historian, this thesis is not an academically rigorous discussion, but rather a design for a visual perception of Byzantine identity. This means that the design needs to fit not only the historical reality but also the image of Byzantium in people's minds. However, due to historical reasons, the term Byzantium may be associated with Rome, Gothic culture or the Renaissance. Even the inhabitants of the empire did not consider themselves Byzantines. (Theodoropoulos, 2021)

9.3 Recommendation

Byzantine identity design is an issue point that researchers have found very worthwhile to delve into and it has a wide range of applications. It can be referenced and applied wherever Byzantine culture related design is involved. For example, the definition of Byzantine imagery, the historical reasons for each part, etc. The final expression can be in the form of motifs, totems or representative products such as unique mosaic designs.

This question is more difficult for researchers and designers without much historical expertise. The suggestion for this problem is to use more visualized Byzantine elements and images. This is in line with the Byzantine image in people's minds, and it also stands up to scrutiny.

10. References

- Bringinghurst, R. (2004). *The Elements of Typographic Style* (3rd ed.). Hartley & Marks.
- Ethnologue. (2023). *What Are the Top 200 Most Spoken languages?* From <https://www.ethnologue.com/insights/ethnologue200/>
- Norwich, J. J. (1988). *Byzantium: the Early Centuries*. [Mit kt. U. Stammtaf.] (1. publ.).
- Simonkarios. (2023, November 18). *Unveiling Turkey's Architectural Heritage: Byzantine & Ottoman*. exploremoreturkey. From <https://exploremoreturkey.com/whats-new/understanding-turkeys-byzantine-and-ottoman-architectural-heritage/>
- Mango, C. A. (1978). *Byzantine Architecture*. Rizzoli International Publications.
- Cormack, R. (2018). *Byzantine art*. Oxford University Press.
- Cartwright, M. (2018, June 22). *Byzantine Art*. World History Encyclopedia. From https://www.worldhistory.org/Byzantine_Art/
- Kazhdan, A. P., Talbot, A. M., Cutler, A., Gregory, T. E., & Ševčenko, N. P. (1991). *The Oxford Dictionary of Byzantium*. Oxford University Press.

The 12th International Arts and Design Symposium 2024 | Conference Proceedings

Khutarev, V. (2014, July 13). *From Byzantium to present-day Russia, the double-headed eagle still soars. Russia Beyond. From*

https://www.rbth.com/arts/2014/07/13/from_byzantium_to_modern-day_russia_the_double-headed_eagle_still_soars_38131.html

Norman, D. A. (2013). *The design of everyday things*. Basic Books.

Norman, D. A. (2007). *Emotional design: Why We Love (or Hate) Everyday Things*.

Basic Books. Butterick, M., & Garner, B. A. (2015). *Typography for lawyers*.

O'Connor's/Jones McClure.

Samara, T. (2004). *Typography Workbook: A Real-World Guide to Using Type in Graphic Design*.

Rockport Publishers.

Meggs, P. B., & Purvis, A. W. (2016). *Meggs' history of graphic design*. John Wiley & Sons.

Theodoropoulos, P. (2021). Did the Byzantines call themselves Byzantines? Elements of Eastern Roman identity in the imperial discourse of the seventh century. *Byzantine and Modern Greek Studies*, 45(1), 25–41. <https://doi.org/10.1017/byz.2020.28>

The Research of Chinese Traditional Colors to Development Chinese Traditional Color watches

Zhiyao Zhou¹, Pajjit Ingsiriwat², Danu Phumalee³

Abstract

Since humans entered civilization, there has been a sense of the use of color. Whether in primitive society, people use simple pigments to paint their bodies and decorate walls, or in contemporary society, people use computers to carry out complex color matching designs, these reflect that human beings have never stopped exploring and applying color. Ancient Chinese people studied the color problem in natural phenomena long ago and formed a relatively complete color application system and basic principles. At present, the knowledge of Chinese color is lost and forgotten due to many reasons, for example, the appearance of colors that are easy to use and purchase, has made the wisdom of traditional Chinese color matching disappear. The names of traditional Chinese colors and the belief in using traditional Chinese colors have also disappeared.

Through the study and study of traditional Chinese colors, this paper studies the concept of traditional Chinese colors, understands the story behind colors and the source of colors. By studying traditional Chinese colors from ancient architecture, murals, and paintings, and discovering their names and color sources in historical documents. Then we combine this knowledge to create a color database, color value set, and provides a color reference for the majority of young designers. It can not only understand the development history of Chinese color art, but also has a certain reference value for promoting color aesthetics in excellent traditional Chinese culture and modern design color art.

Keywords: traditional color, color concept , traditional culture

1. Introduction

Color plays a very important role in our lives. From everything in nature to every aspect of our lives, color is inseparable. People's demand for color is profound, and color, as a characteristic of the times, has received more and more attention. Traditional Chinese colors hold significant cultural and symbolic meanings deeply rooted in Chinese history, philosophy, and aesthetics. These colors are often used in various aspects of Chinese culture, including art, architecture, fashion, and rituals. The origins of traditional Chinese colors trace back thousands of years, rooted in ancient philosophies, imperial traditions, and natural symbolism.

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With the deepening of people's understanding of color, the color system is gradually enriched, the naming of color has also developed from a single word to a word, and the naming method has also expanded from attachment to an object to imitation or to feel the name (Li, 2024). Over millennia, these symbolic associations evolved and merged with various cultural practices, including art, religion, and even governance. For example, red stands as the quintessential color in Chinese culture, symbolizing happiness, prosperity, and good fortune. It is prominently featured in weddings, festivals, and other celebratory occasions. The most important color for the Chinese is the red color. In China, the red color is our country's basic cultural color. It shows the Chinese material and spirit pursuit. It is the color of good luck and is used for decoration and wedding dressing, the brides always wear a red Qi Pao or a red wedding dress at wedding ceremony (He, 2009). Gold, representing wealth and prestige, often accompanies red, especially during important ceremonies and festivities.

The concept of traditional Chinese colors offers a fascinating glimpse into the rich tapestry of Chinese culture and civilization. From the auspicious reds and golds of imperial grandeur to the serene blues and greens of natural harmony, each hue carries layers of meaning and tradition that continue to resonate in modern-day China. Understanding these colors not only enriches our appreciation of Chinese art and culture but also provides insights into the values and beliefs that have shaped one of the world's oldest civilizations.

1.1 Literature Review

Liu Zhuo once pointed out (Liu 2005): In the development process of human history, each period has a specific social environment background and humanistic thoughts corresponding to it. Therefore, we should learn to study traditional culture from a historical dialectical perspective and analyze the research objects in the corresponding era context. When studying traditional Chinese color concepts, we can summarize some rules related to the use of colors by understanding people's aesthetics and values in different periods. In addition, we can also more accurately grasp the rich ideological connotations contained in the traditional color view by studying the philosophical spirit of the ancients. These abstract ideas constitute the important theoretical basis for modern graphic design concepts.

The famous British physicist Newton, known as the "Father of Modern Physics", gave people a new understanding of light and color through experiments. Its research results have also become an important part of the theoretical basis of color research. Based on the research on color in the field of physics, many art designers have become more and more mature and bold in their use of color, and a large number of art radicals have emerged. In the 19th century, most research on color terms was carried out from the aspect of culture (Zheng 2015). Scholars thought that the number of color terms in various languages was closely related to the development of the culture it rooted. Both Gladstone (1858; 1877) and Geiger (1871) held that less cultivated areas offered their languages fewer color terms. On the contrary, the so-called advanced cultures produced more color terms. After the Enlightenment, cultural relativity dominated the studies of color terms (Zheng 2015). Sapir (1921) and Whorf (1956) contended that a person's native language determines how he or she thinks. According to their hypothesis, in terms of color terms, people's perception of the color world is determined by color terms themselves. (Li, 2020).

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1.2 Research objectives

1. Explore the symbolic meaning, cultural connotation and historical significance of different traditional colors in Chinese culture.

2. Traditional color used in Chinese art and artifacts are analyzed to determine their composition, properties, and origins. Incorporate findings from history, culture, and scientific research to develop standardized color samples that represent the traditional color scope used in Chinese culture. Help to reach a consensus on traditional colors.

2. Method

2.1 Research Theory

The research methods and approaches employed in this thesis cover multidisciplinary and integrated strategies to achieve the outlined objectives. Here's a breakdown of the methods and approaches.

2.1.1 Historical analysis

This involves examining historical texts, artworks, artifacts, and documents to identify and document the traditional colors used during different historical periods of Chinese culture. By tracing the evolution of color use, this approach can provide insight into the cultural and historical significance of specific colors.

2.1.2 Literature Review

Thorough review of existing literature in Chinese art history, color symbolism, cultural studies, and materials science will be conducted.

2.1.3 Pigment Analysis

Traditional color pigments will be analyzed to search their composition, properties, and origin.

2.1.4 Empirical research

Empirical research methods such as surveys, interviews, and observational studies will be used to collect data on contemporary perceptions and uses of traditional colors in Chinese society.

By combining these research approaches and methods, this thesis aims to provide a comprehensive understanding of traditional Chinese colors and develop practical resources in the form of color swatches to capture the richness and diversity of this cultural heritage.

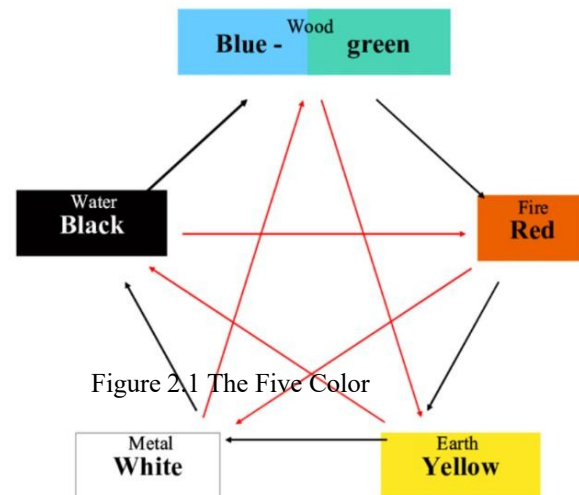
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3.Details

3.1 Traditional Chinese color concepts research

The earliest records on five colours are found in several Confucian classics of the Warring States period (V-III cc. BC), and formed a relatively simple five-element color system. The theory matured and developed to its present form during the Later Han dynasty (25-220 AD) (Bogushevskaya,2016). Compared with the Western concept of color, it was proposed thousands of years earlier. For China, this color concept is not only a manifestation of the traditional national aesthetic psychology, but also represents the essence of national culture. (Figure 3.1)

(Figure 3.1)



Yellow, Chinese traditional culture is known as the "yellow civilization". It is obvious that the choice of yellow as the core color was mainly based on the environmental instinct of the predecessors. The ancient Chinese "Yin Yang and Five Elements" also placed the earth element, yellow as the symbolic color, in the center of the five elements, which also represents the status of the emperor. In all dynasties in Chinese history, yellow costume is reserved solely for the emperor (Mantua -Kommonen,2008).

3.2 The origin of color materials research

Traditional Chinese colors are made from a variety of materials, which can be roughly divided into four types: natural mineral pigments, plant pigments, synthetic pigments and a small number of animal pigments (Figure 3.2).

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Plant



Mineral



Animal

(Figure 3.2)

Plant-based pigments are the most widely used and easily available pigments, and the raw materials are short-term renewable. But its disadvantage is that the color will gradually evaporate over time, which has certain limitations in preservation.

For example, in below (Figure 3.3), the mature fruits of *Gardenia jasminoides* exhibit hues of red and yellow and have been historically employed as a natural dye source for over two millennia (Niu, 2024). Low cost has become an important factor in its popularity and Turmeric (Figure 3.3), which is all used to dye yellow. But they all have a fatal flaw is the color fastness of gardenia seeds were very poor (J 2022), cannot make the color preservation for a long time.



Gardenia



Turmeric

(Figure 3.3)

3.3 Application of traditional Chinese colors research

I chose Dunhuang murals as my research reference. Dunhuang murals, located in Dunhuang County, Gansu Province, China, were built in AD 366 and took more than 1,600 years to paint to their present scale.

Dunhuang Mogao Grottoes mural rare cultural treasures; Its grand scale, rich content and long history rank the crown of China's national grottoes, and it is also the largest and best-preserved grottoes art treasure house in the world.

Because many of the paintings are located in caves that avoid light, and because the pigments used are mostly mineral pigments, their colors can be preserved for thousands of years.

For example(Figure 3.4), the early murals of the caves of the Northern Wei Dynasty have strong emotional exposure, dynamic and obviously exaggerated figure modeling, the expression method of drawing with strong thin lines and focusing on smudging, and the form

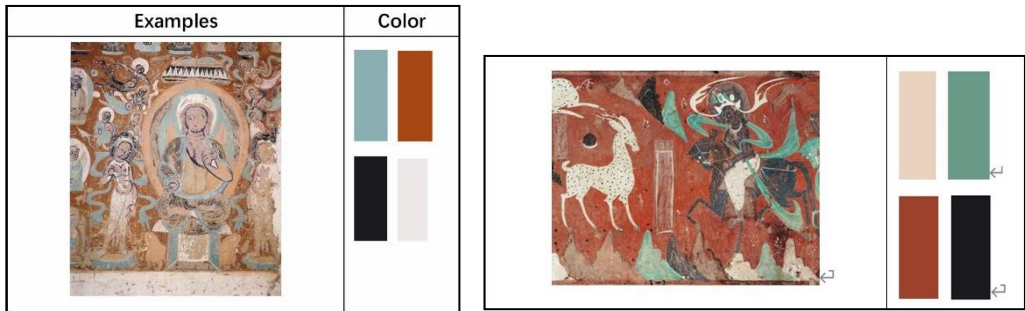
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of decorating the substrate with red patterns, slender bodies completed with sensitive and varied lines dominated and artists paid less attention to three-dimensional rendering accomplished by using thick and vital colors. (Song, 2021)



The Northern Wei Dynasty (AD 386 ~ 534 Year)
(Figure 3.4)

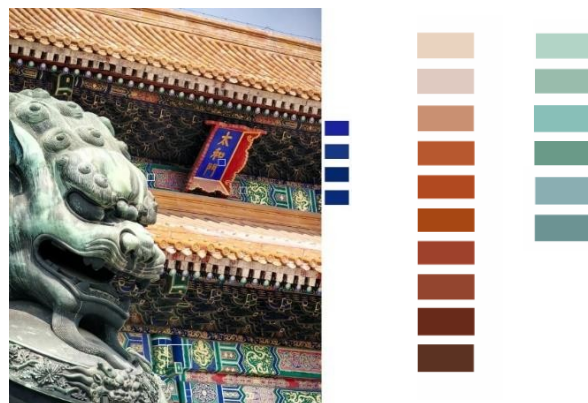
3.4 Color extraction
I will extract the color areas of all kinds of pictures collected before and raw material photos taken by Photoshop (Figure 3.5).



(Figure 3.5) Photoshop collecting
Source: Researcher

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Collect different parts of similar colors from different pictures, and finally select the color closest to the middle. (Figure 3.6)



(Figure 3.6)

(Figure 4.10) Photoshop collecting

Source: Researcher

4.Results

4.1 Color reference book design

4.1.1 Design Concept

The design concept of traditional color cards encompasses a reverence for cultural heritage, an acknowledgment of the historical significance of colors. It integrates the essence of colors deeply embedded in the nation's history and cultural practices, translating them into a tangible format that can be used as a reference in various fields, particularly in art and design.

The traditional color card design concept aims to bridge the gap between the old and the new. It seeks to make these traditional colors accessible to modern designers and artists, providing them with a palette that is not only historically accurate but also rich with cultural significance.

4.1.2 Design process

The design inspiration of this book comes from the combination of traditional colors and photography. Traditional colors in China are mostly associated with objective things and natural phenomena, so my design takes photos related to the color background and matches with the color information I have collected, so that the designer can have a deeper impression on the color feeling while using colors. In addition to the color reference part of the book will also make some brief introduction to the ancient common color raw materials. (Figure 4.1)

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(Figure 4.1) photography
Source: Researcher

By combining with photos, traditional color cards only have a single-color information. Although traditional color cards provide accurate color values, they often lack the perception ability to put colors in the actual environment, and the combination of colors and photos provides a related color perception for colors. This design theory broadens the application range of color cards, through the combination of vivid photos and colors, while providing color numerical reference, it can provide better color perception, so that non-professionals can also understand these colors. (Figure 4.2)



(Figure 4.2) The Final product
Source: Researcher

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5. Conclusions

In the framework of artistic development, color has always played an important role. Chinese traditional color contains rich excellent cultural heritage, which is the complex reflection of social civilization, humanistic customs, art and literature, festival folk customs, ideology and aesthetic judgment. The names of traditional Chinese colors come from animal colors, plant colors, mineral colors, and also from classics, history subsets, poems, which are the materialized forms of ancient Chinese color experience and humanistic feelings, reflecting how ancient people viewed nature and the concept of looking at the world, and integrated in the names of traditional colors. The formation of modern color concept is also an extension on the basis of history and under the influence of social and cultural environment.

The exact colors of ancient times are no longer known. Therefore, for the understanding of traditional colors, we rely more on historical documents, artistic works and archaeological findings and other evidence. I think we should now be more about identifying their range of colors rather than specific colors. At the same time, what we lack now is more of a unified set of standards and common understanding of them, through the study of ancient Chinese colors, The design of a traditional color value reference book can provide a new generation of designers with color reference when designing. In the design requiring traditional Chinese color style, it can quickly provide a rough color range reference or color matching and provide accurate color values for the convenience of designers. At the same time, it also has certain educational value, not only for designers, but also for the General public to get the cognition and perception of traditional colors. Through the introduction of pictures and materials in the book, the cognition of traditional colors can also be improved.

6. Acknowledgements

Two years of postgraduate life is coming to an end. During these two years of study, I have been carefully taught by teachers in the school guide and cultivate under continuous growth, progress.

The problems discussed in this paper, I hope that the problems raised can cause readers to think and resonate. Due to the limited time, limited accumulation, and limited hunting of books and materials, it is inevitable that there will be omissions in the process of writing, and sincerely hope that readers will forgive.

Once again, I would like to thank my family, Rangsit University, teachers and like-minded students. You are the driving force for me to move forward.

7. Reference

- [1] Li, X., & Deng, X. Z. (2024). Application Value of Traditional Chinese Color Names in Fashion Industry. *Progress in Textile Science & Technology*, 46(1). <https://doi.org/10.19507/j.cnki.1673-0356.2024.01.001>
- [2] He, G. M. (2009). English and Chinese Cultural Connotation of Color Words in Comparison. *Asian Social Science*, 5(7). <https://doi.org/10.5539/ass.v5n7p160>

The 12th International Arts and Design Symposium 2024 | Conference Proceedings

- [3] Liu, Z. (2005). Thinking of Color Usage in Graphic Design [Master's thesis, Northeast Normal University]. CNKI.
https://kns.cnki.net/kcms2/article/abstract?v=wcPNn8Zia7MCvflpl2WraPvcRHqyZvIr7DOKJj1Qnoc52KWNPSSBsizVes5xrZ-lgEz_ajGDDqb2JB503fsFDIMLYGISMu9E5n0jGESBqRRBnuRE1dki9wDnt5VZJZkqA2EBnWBYabQh4HmnzO2maA==
- [4] Zheng Jie. (2015). The metaphorical meanings of hong “red” and bai “white” in Chinese , *Doctoral dissertation, University of Malaya, Kuala Lumpur, Malaysia*. Retrieved from <http://studentsrepo.um.edu.my/id/eprint/6009>
- [5] Li, T. . (2020). The metaphorical expressions of basic color words in english and chinese. *English Language Teaching*, 13(3), 85.
- [6] Bogushevskaya, V. (2016). Ancient Chinese ‘Five Colours’ Theory: What does its semantic analysis reveal? , *Essays in Global Color History: Interpreting the Ancient Spectrum*. ISBN 978-1-4632-0582-9.
- [7] Mantua-Kommonen, K. (2008). Colour culture as a visualisation of values and emotions case: China. *In Proceedings of the Design & Emotion Conference 2008*. Retrieved from https://www.researchgate.net/publication/288411169_Colour_culture_as_a_visualisation_of_values_and_emotions_case_China
- [8] Y, S. P., Niu, L., Zhang, J. C., & Liu, Y. (2024). Gardenia yellow pigment: Extraction methods, biological activities, current trends, and future prospects. *Food Research International*, 179, 113981. <https://doi.org/10.1016/j.foodres.2024.113981>
- [9] Song, Y. (2021). The impact of Dunhuang murals on modern and contemporary Chinese art. *Senior Projects Spring 2021*, (107). from https://digitalcommons.bard.edu/cgi/viewcontent.cgi?article=1244&context=senproj_s20_21
- [10] ROH, J., & JO, H. J. (2022). Dyeing and color fastness properties of natural dyed actualsize Hanji. *Journal of Korean Wood Science and Technology*, 50(1), 31-45. <https://doi.org/10.5658/WOOD.2022.50.1.31>

Re-Determine the Relationship Between People-Things-Space

Rongfeng Yao¹, Paijit Ingsiriwat², Sridhar Ryalie³

Abstract

Hoarding disorder (HD) has become a serious social problem, It manifests as difficulty in discarding items and excessive collection. is a psychological disorder which negatively affects the sufferer's personal life and social relationships. It is This problem has become a source of intense conflict in families. So re-determine the relationship between people-things-space is crucial. This study designed a game with the theme of object discarding, thoroughly researched the clinical characteristics of hoarding and related treatments, combines immersive experiences, To improve the cognitive abilities of people with hoarding disorder. The research in this paper employed methods of literature review and information analysis to address the hoarding behavior of individuals with hoarding disorders. The objective of this research are 1) To explore to hoarding disorder from a game perspective, inspiring interest and encouraging Item discarded Object 2) To enhancement of categorization and decision-making skills of people with hoarding disorder. 3) Reduces loneliness and helps socialize. The research results are A new research direction has been proposed for the development of However, whether it can generate greater improvement compared to existing therapies remains an uncertain question. In the future, we will continue to refine the design of the game and Explore its auxiliary role in the psychological field.

Keywords: *Hoarding disorder .Hoarding behavior .Game*

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1: Introduction

Hoarding disorder is a psychological disorder characterized by the irrational accumulation and retention of a large number of items, resulting in a cluttered living environment, impaired functioning, and great distress and burden to the sufferer and his/her family members. The treatment of hoarding disorder has always been a challenge in the field of psychology. Traditional cognitive behavioral therapy (CBT), although able to alleviate the symptoms to a certain extent, still suffers from unstable effects and high relapse rates. Therefore, it is necessary to explore more effective treatments.

Hoarding and cluttering behaviors have been defined as acquiring items that others deem useless or of limited value and being unable to discard them (Frost , 1993) & (Frost, 1996). These behaviors become problematic when they result in the accumulation of large quantities of items that interfere with daily activities or cause distress to oneself or others in the household (Steketee , 2007)。

Hoarding was initially recognized as a symptom of obsessive-compulsive disorder (OCD), and early studies were based on OCD surveys:

In 2013, the DSM-5 (American Diagnostic and Statistical Manual of Mental Disorders, 5th Edition) separated hoarding disorder from OCD and OCPD, recognizing it as a separate mental disorder. According to the DSM-5 (American Diagnostic and Statistical Manual of Mental Disorders, 5th Edition), the prevalence of hoarding disorder ranges from 2% to 6% .

It has been reported that approximately 2.5% of the population in 2019 exhibit hoarding disorder traits that cause them to have difficulty discarding items, resulting in a cluttered living space (APA, 2014) & (Postlethwaite, 2019).

Regarding the treatment of hoarding disorder, the most effective is currently cognitive behavioral therapy. Meanwhile, more individualized treatment options are explored based on cognitive behavioral therapy . The aim of this study is to explore a treatment plan that combines cognitive behavioral therapy with games, with a view to improving the therapeutic effect of hoarding disorder. As a challenging, fun, and interactive activity, games can attract patients' attention, increase their participation, and help change negative emotions and behaviors. Therefore, incorporating game elements into the treatment of hoarding disorder may provide patients with a more engaging and effective treatment modality.

2 Research Objectives

1: Explore hoarding from a playful perspective to stimulate patients' interest and encourage repetitive practice. 2: Emphasizes the importance of patients receiving support from trusted friends and family members, fostering concentration and reducing loneliness, thus having a potentially positive impact on social integration. 3: To provide a fresh perspective on the research and treatment of hoarding disorder. By achieving these research goals, we aim to help people better understand hoarding disorder and explore innovative and effective treatments.

3 :Materials and methods

In this paper, we conducted innovative research based on the existing treatment methods. In response to patients' irrational perception of objects and uncontrollable hoarding behavior, we collected many experimental methods on the market about

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object organization. And these methods were categorized, censored and combined. This information guided the formation of the game design concept, the selection of materials, the experimental process and the final design product.

An innovative aspect of the design process was the integration of the game with object categorization. The traditional steps of cognitive therapy, which include making an appointment, interviewing, answering questionnaires and participating in surveys, are time-consuming, labor-intensive and can lead to mental anguish, causing some people to drop out. Pleasurable, stress-free and space-saving, the game is an extension of existing therapeutic approaches and fills a gap in the therapeutic approach.

3.1 :Typical symptoms of a person with hoarding disorder

Individuals with hoarding disorders typically exhibit two distinguishing characteristics: difficulty in discarding objects and excessive acquisition of objects. Frost highlights the common social, emotional, and behavioral characteristics of hoarders, including irrational beliefs about objects, emotional attachment to possessions, difficulty in establishing harmonious relationships, severe challenges in acquiring and discarding objects, and ignoring outside influences (Frost , 1996).

Problematic hoarding behavior:

Hoarding behavior becomes problematic when the accumulation of items interferes with normal daily activities or causes distress to the individual or others in the household (Steketee , 2003). This behavior can lead to disorganization of the living space, causing serious distress and dysfunction to the individual and their family members (Tolin, 2008).

Impact on mental and physical health:

Studies have shown that hoarding problems are prevalent in the population, severely affecting psychological and physical health and triggering strong negative emotions (Mueller , 2009).

Cognitive and neuropsychiatric aspects:

Most cases of hoarding clutter can be traced to cognitive errors, where faulty thinking leads to dysfunctional behavior and potential loss of control. Studies using brain imaging and neuropsychiatric assessments have found that people with hoarding behaviors have cognitive deficits in executive functioning, attention regulation, and impulsivity (Mataix-Cols, 2011) & (Frost, 2001) & (O'Sullivan, 2010).

3.2 Research basis

In today's environment, information is ubiquitous and comes from a variety of platforms such as social media, medical professional organizations, personal websites of experts, books, personal experiences, literature databases, BILIBILI videos, Xiaohongshu, Weibo, WeChat readers, web pages, Mendeley, YouTube, and organizational services. A large amount of information was collected about the treatments.

The table below is a partial list of treatments collected from the literature. We can see that people are constantly looking for diverse avenues of treatment in an attempt to find more effective treatments.

Author	treatment method	source
Raila H.et al	VR treatment with virtual	10.1016/j.jpsychires.2023.08.002
Stanton c.H.et al.	extend CBT for HD	10.1891/jcp-2022-0009
Boris Litvin a	SCIT	10.1016/j.jocrd.2022.10077610.

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Yap K.Et.al addressing loneliness in 10.1016/j.jocrd.2023.100806
the

HD treatment. 10.1186/s13063-023-07509-4

Jägholm S.Et.al 10 weeks of in-
home
decluttering

Van Roessel P.et al (SRI) Pharmacotherapies 10.1016/j.comppsy.2022.152352

Table 3.2. Treatments in the literature

Over the past 20 years, there have been many changes in the diagnostic criteria, treatments, and classifications of hoarding. However, hoarding behaviors have always been considered the most central symptom (Frost, 2012). Hoarding behaviors are the primary outward manifestation of hoarding disorder, and cognitive behavioral therapy, which integrates traditional cognitive and behavioral therapies, can be effective in addressing hoarding behaviors. This approach helps patients gradually recognize cognitive problems and face them head-on through a dialogical approach, while inhibiting or directing their hoarding behaviors. When hoarding is treated as a stand-alone disorder with cognitive behavioral therapy, patients' symptoms improve by an average of about 25% (David, 2022). Therefore, we based our treatment study on CBT.

Cognitive Behavioral Therapy (CBT)

The first cognitive-behavioral model of hoarding was proposed by Frost and Hartle (1996) and later expanded by Steketee and Frost (2003). In this model, information processing problems, maladaptive beliefs, and excessive attachment to possessions were identified as contributing to behavioral avoidance problems. These problems are characterized by avoidance of the decision to discard items, thus preserving possessions to avoid distress (Frost, 1996). Experimental evidence suggests that people with hoarding problems take longer to decide to discard items, experience more anxiety, and acquire and save more items than healthy controls (Frost, 2016) & (Levy, 2019) &

(Preston, 2009) & (Tolin, 2009). The interrelated difficulties presented in this model are thought to lead to positive and negative emotions that drive excessive acquisition and preservation behaviors (Frost, 1996) & (Steketee, 2003). Accumulating evidence provides some support for this model.

3.3 Hoarding Disorder Treatment - Cognitive Behavioral Therapy (CBT)

Components of Cognitive Behavioral Therapy

1. assessment of hoarding symptoms and other problems: 2 sessions
2. personal modeling to understand the causes of hoarding: 2 sessions

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3. Motivational interviewing to address ambivalence and low insight: ongoing as needed
 4. Sorting, organizing and problem-solving skills training: 3 or more sessions
 5. Practice sorting, decision-making and discarding: 15 or more sessions
- Clients are invited to bring in items to practice sorting, problem-solving skills, and deciding whether to keep or discard.
6. Cognitive Therapy: Ongoing during most sessions, especially during sorting sessions.
 7. Relapse prevention: last two sessions

3.4 Disadvantages of Cognitive Behavioral Therapy

Cognitive-behavioral therapy usually lasts for a longer period of time, usually around six months to a year. In many cases, home visits are not feasible and can therefore cause some difficulty. Each session follows a consistent pattern, beginning with a brief check of homework, followed by a review of homework and a treatment plan. The therapist and the visitor then worked together to complete the tasks for the counseling period and completed the homework during the following week. Thus, for those who do not accept cognitive behavioral therapy and opt out, a new treatment approach is needed. Simplified, individualized interventions in a stress-free, relaxed environment should be considered.

4: Innovative portfolio design

Over the past few decades, there has been a gradual increase in research on hoarding disorder treatment, which has garnered attention. However, there has been limited exploration from alternative perspectives, such as utilizing games to aid patients. Humans naturally enjoy games, whether it's shopping, family gatherings, dining with friends, or other enjoyable activities, all of which contain elements of gaming. Games can fulfill the needs for attention diversion and social interaction, creating an overall relaxed emotional experience. Considering the organizational and categorization challenges faced by hoarding disorder patients, personalized interventions can be designed

based on these considerations. Engaging in captivating games in a relaxed and enjoyable environment can stimulate their enthusiasm and closely integrate gaming with practical activities. Reinforcing repetitive disposal behaviors in an unrestricted, unsupervised environment. In summary, utilizing game design to assist hoarding disorder patients is a mutually beneficial approach that aligns with human inclinations and the inherent characteristics of games.

Compared with traditional cognitive therapy, personalized game interventions are more economical and convenient for several reasons: (1) they cover a wide range of people, including hoarders who do not receive home visits or who need to go to the hospital; (2) attention is diverted and mobilized by playing games; (3) multiplayer games are good for social outreach; (4) they create a relaxing and unburdened atmosphere; and (5) they are free of financial pressure. This exploratory game design helps to increase the likelihood of repetitive discarding behaviors in hoarding groups and trains hoarders' categorization and decision-making skills.

4.1 Game Structure Analysis

The core of the game should be to create a cyclical pattern around repeatable elements that entices users to play the game over and over again in an entertaining way.

1: Teach users something to improve their organization and sorting skills. 2: Set goals that can be achieved through play, such as discarding items.

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3:Starting from the typical symptoms of users, try interesting game mechanisms using tools such as blocks and cards to motivate users to participate.

4:Design the number of game participants to promote social skills. 5:Develop the rules of the game.

6:Expand detailed categorization rules based on the characteristics of the items to make it easier for users to navigate.

7:Encourage as many people as possible to play the physical prototype as early as possible. 8:Keep the rules of the game simple and easy to learn after only one viewing.

4.2 Prototyping

Based on Cognitive Behavioral Therapy (CBT), we have learned that the process of categorizing and making decisions about discarding items is one of the most critical steps. The exercise of inviting clients to bring in items to categorize and decide to keep or discard can be challenging. The number, size, and function of the items the client brings are unclear. What are the criteria for selecting items to bring and is there a clear rationale? How to carry these items is also an issue. Are there alternative methods or materials that can be used?

Let's start with international guidelines and resources on organizing and discarding items. This is discussed in detail in the Japanese works of Hideko Yamashita and Marie Knodo. The criteria for sorting and discarding items can be adapted to suit individual circumstances.

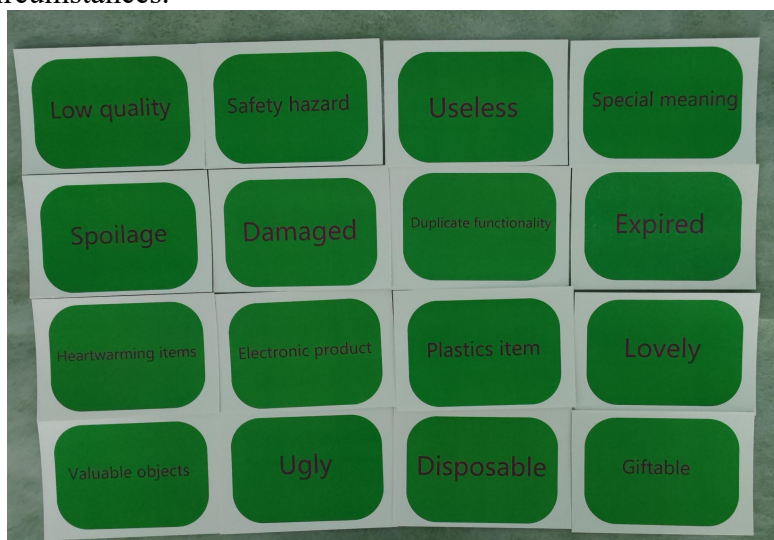


Figure 4.1 Item Classification Source: Researcher

Iterate on this basis for item categorization to reach the goal of easy learning after only one look.

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a set of functions:	A set of recyclable items:	A set of sizes:
Find a cooking item	Find a book you no longer use	Find a stuff that smaller than your palm
Find a fitness item	Find an abandoned metal can	Find a smallest stuff you have
Find a study item	Find a torn piece of clothing	Find an item that is no taller than your height
Find an environmentally friendly item	Find a plastic container to throw away	Find an item to hang on the wall
Find a medical item	Find an aging electronic product	Find an item that is the largest you can move
Find a gardening tool	Find a damaged rubber item	Find an item you can take with you
Find a piece of art	Find a packaging box for express delivery	Find an item that is the same size as your phone
Find something to protect you from the cold	Find an old piece of wooden furniture	Find an item larger than the bed
Find a sunscreen item	Find an expired household appliance	Find an item that is taller than the chair
Find a cleaning item	Find a piece of rusty metal	Find an item put it sitting in a drawer

Figure 4.2 Item
Classification Source:
Researcher

A set of colors:	A set of materials:	A set of shapes:
Find a white object	Find a plastic object	Find a round object
Find a blue object	Find a silk object	Find a flat object
Find a red object	Find a wood object	Find a rectangular object
Find a green object	Find a paper object	Find a cylindrical object
Find a black object	Find a ceramics object	Find an irregular item
Find a yellow object	Find a steel object	Find a square item
Find a purple object	Find a metals object	Find an oval-shaped object
Find a orange object	Find a cotton object	Find a triangular object
Find a cyan object	Find a glass object	Find a spherical object
Find a pink object	Find a rubber object	Find a cube object

Figure 4.3 Item Classification Source: Researcher

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4.3 Source of inspiration

Picking stick game is a traditional folk game with simple rules, easy to start, no cost and no specific location, easy to learn and easy to play. It can effectively exercise the user's attention, observation, judgment and analytical ability, while enhancing hand-eye coordination and finger dexterity, and has wide age appeal.



Figure 4.4 Ancient Bamboo Stick Picking Game

Source: img.zcool.cn/community/01fe505ded9bd7a801213853c90fd6.png

Use this as a basis to start the prototype iteration:

Following the game requirements, a thoughtful combination was attempted to eliminate redundancy and retain those most suitable, aiming to bring a fresh perspective to the gaming experience.

4.4 Design process

The game concept of "Overcoming Hoarding Obstacles" provides participants with a tailored, simplified, and enjoyable experience designed specifically for individuals facing hoarding challenges. Its primary objective is to enhance participants' willingness to embrace behavioral change through personalized therapeutic interventions derived from exploratory research. Utilizing low-cost and lightweight materials, the game can be conducted in any available space, accommodating a limited number of participants. Emphasis is placed on minimizing participant numbers to foster a more concentrated experience, while simultaneously creating an engaging atmosphere through the simplicity and enjoyment of the game. Participants are encouraged to proceed at their own pace, with no time constraints, and the game's design encourages repeated engagement to ensure sustained participation. Additionally, the game adheres to environmental principles, promoting sustainability. Positioned as a personalized and effective therapeutic tool, the "Overcoming Hoarding Obstacles" game cultivates a positive and supportive environment for individuals seeking to overcome hoarding tendencies.

First version:

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Figure 4.5 Material Selection
Source: Researcher



Figure 4.6 First Version Of Finished Game
Source: Researcher

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Figure 4.7
GameExperiment
Source: Researcher

Second
version:

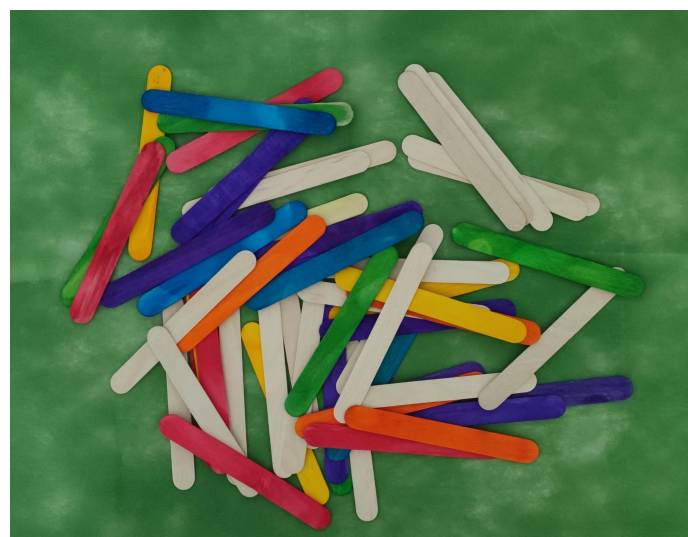


Figure 4.8
GameExperiment
Source: Researcher

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Figure 4.9
GameExperiment
Source:
Researcher

Third version:

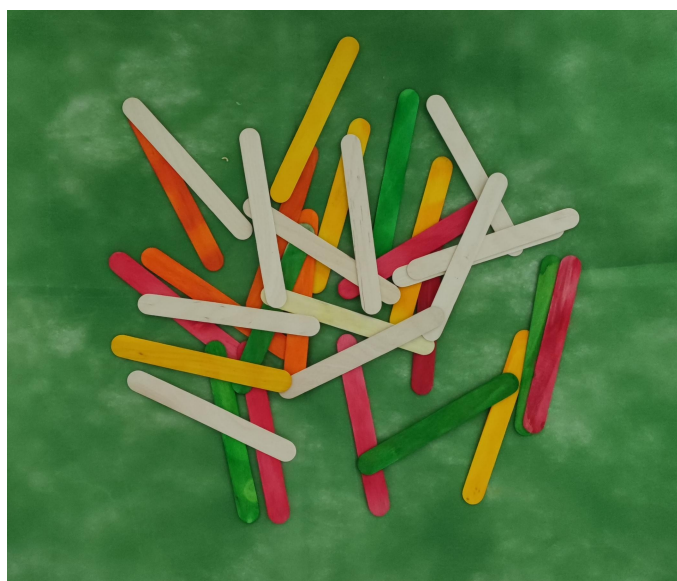


Figure 4.10 Material
Confirmed Source:
Researcher

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Figure 4.11 Final
Product Source:
Researcher

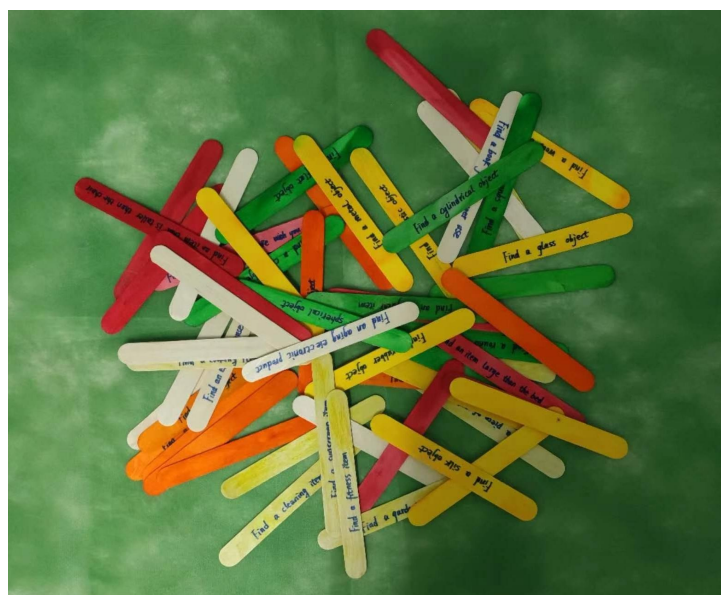


Figure 4.12 Final
Product Source:
Researcher

Final version

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Produce name: Find Object Game

—Games for hoarders



game rules:

- 1: Forward clockwise
- 2: Scissors, Rock, paper, two out of three. Winner first start
- 3: Players hold the gathered sticks in their hands, suspended in the air, and then suddenly let go, the sticks naturally scattered randomly on the table.
- 4: The player can only pick up one stick at a time and cannot touch other sticks.
- 5: The player touches another stick, fails, turns to the next player, and so on.
- 6: When all sticks have been removed, the player with the most sticks wins.
- 7: In the same color for a cycle. When the 10 sticks of the same color are picked first, the winning player can ask others to complete the task written on the selected stick, either individually or jointly. And so on
- 9: When the task on the removed stick is completed, the second cycle begins.
- 10: The rules of the second round are the same as above. Until all tasks on the stick are completed.

Mikado: craft wood

Size: 1.8 ×15cm



45782954252461

Figure 4.13 Final
Product Source:
Researcher

Set the rules of the
game



ido: craft wood

Size: 1.8 ×15cm



45782954252461

Figure 4.14 Final
Product Source:
Researcher

5: Findings

An innovative approach to treating hoarding through game design that re-determine the relationship between people-things-space.

This article outlines my thoughts and approach to the design process. The purpose of this game is to help people with hoarding tendencies learn how to sort, discard, keep, donate, sell, and organize items. By reducing the number of objects and expanding living space, a harmonious balance between people, objects and space is achieved. Play fosters problem-solving skills in hoarders, enabling them to explore solutions, experiment, and immerse themselves in play, elevating moods and alleviating anxiety. The collaborative nature of the game, involving trusted family and friends, marks a positive step toward social integration.

This game is a classic and enjoyable transformative experience. It is not limited to children and has no age requirements, physical or mental exertion. The rules of the game are simple and straightforward, with different colors representing different items. The game is easy to learn, requires minimal space (just a table), and is lightweight and economical. materials for DIY making are readily available and portable, making it very convenient. This simple method of organization allows for unlimited playtime and encourages people with hoarding tendencies to discard items more frequently. In addition, it is consistent with exposure therapy, which is widely used internationally. The game is a novel intervention and an attempt to address hoarding.

In conclusion, this innovative game design is a personalized therapy for treating hoarding disorder, and we have the opportunity to raise awareness through games that contribute to rational consumption and freedom from material constraints. Ultimately, our goal is to work together to create a better social environment.

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References

- American Psychiatric Association. (2013). Diagnostic and statistical manual of mental disorders (5th ed.). American Psychiatric Association.
<https://doi.org/10.1176/appi.books.9780890425596>
- APA, 2014; Postlethwaite et al.(2019) Mindfulness-based cognitive therapy for preventing relapse in recurrent depression: A randomized dismantling trial. *Journal of Consulting and Clinical Psychology* (2014), 10.1037/a0035036
- Boris Litvin a, Srishti Sardana a, Bradley C. Riemann b, Helen Verdeli a, Richard J. McNally c. (2022).
A network examination of symptoms of .obsessive-compulsive disorder and sleep disturbances. *Journal of Obsessive-Compulsive and Related Disorders* Volume 35, October 2022, 100755 <https://www.sciencedirect.com/science/article/pii/S2211364922000483>
doi:10.1016/j.jocrd.2022.10077610
- Frost, R. O., & Gross, R. C. (1993). The hoarding of possessions. *Behaviour Research and Therapy*, 31(4), 367–381. doi: 10.1016/0005-7967(93)90094-B
- Frost, R. O., & Hartl, T. L. (1996). A cognitive-behavioral model of compulsive hoarding.
Behaviour Research and Therapy, 34(4), 341–350. doi: 10.1016/0005-7967(95)00071-2
- Frost, R. O., Meagher, B. M., & Riskind, J. H. (2001). Obsessive-compulsive features in pathological lottery and scratch-ticket gamblers. *Journal of Gambling Studies*, doi: 10.1023/A:1016636214258
- Frost, R. O., Steketee, G., & Tolin, D. F. (2012). Diagnosis and assessment of hoarding disorder.
Annual Review of Clinical Psychology, 8, 219–242.
- Frost et al., (2016) Should I Keep It?
Thoughts Verbalized During a Discarding Task
(*Behav Res Therapy* 85:13–22, 2016)
doi:10.1007/s10608-019-10025-y
- Jägholm S. Lindstedt S. [...] Ivanov V. Z. (2023) Study protocol for a randomized controlled trial of in-home decluttering augmentation of group cognitive-behavioral therapy for hoarding disorder: the Joining Forces Trial. *Trials* (2023), doi:10.1186/s13063-023-07509-4
- Jonathan David, Cassandra Crone, & Melissa M. Norberg (2022). A critical review of cognitive behavioural therapy for hoarding disorder: How can we improve outcomes. *Clin Psychol Psychother.* 2022;29:469-488. DOI: 10.1002/cpp.2660
- Levy, H., Frost, R., Offermann, E., Steketee, G., & Tolin, D. (2019). A comparison of cognitive restructuring and thought listing for excessive acquiring in hoarding disorder.
Cognitive Therapy and Research, 43(6), 1065-1074.
<https://doi.org/10.1007/s10608-019->

The 12th International Arts and Design Symposium 2024 | Conference Proceedings

10022-1

- Mataix-Cols, D., Pertusa, A., & Snowden, J. (2011). Neuropsychological and neural correlates of hoarding: A practice-friendly review. *Journal of Clinical Psychology*, 67(5), 467–476.10.1002/jclp.20791
- Mueller, A., Mitchell, J. E., Crosby, R. D., Glaesmer, H., & de Zwaan, M. (2009). The prevalence of compulsive hoarding and its association with compulsive buying in a German population-based sample. *Behaviour Research and Therapy*, 47(8), 705–709.
- O'Sullivan, S. S., Djamshidian, A., Evans, A. H., Loane, C. M., Lees, A. J., & Lawrence, A. D. (2010). Excessive hoarding in Parkinson's disease. *Movement Disorders*, 25, 1026-1033.
- Postlethwaite, A., Kellett, S., & Mataix-Cols, D. (2019). Prevalence of hoarding disorder: a systematic review and meta- analysis. *Journal of Affective Disorders*, 256, 309–316. <https://doi.org/10.1016/j.jad.2019.06.004>
- Preston et al., (2009) Heterogeneity of variation of relative risk by age at exposure in the Japanese atomic bomb survivors. *Radiation and Environmental Biophysics* (2009),doi: 10.1007/s00411-009-0228-x
- Raila H.Avanesyan T.[...] Rodríguez C. I. (2023) *Journal of Psychiatric Research* (2023), doi:10.1016/j.jpsychires.2023.08.002
- Stanton C. H.Worden B.*Journal of Cognitive Psychotherapy* (2023), doi:10.1891/jcp-2022-0009
- Steketee, G., & Frost, R. (2007). *Compulsive Hoarding and Acquiring: Therapist Guide*. New York: Oxford University Press.
- Steketee, G., Frost, R. O., & Kyrios, M. (2003). Cognitive aspects of compulsive hoarding. *Cognitive Therapy and Research*, 27(4), 463–479.
- Steketee, G., & Frost, R. O. (2006). *Compulsive hoarding and acquiring:Therapist guide (treatments that work)* . New York, NY: Oxford University Press.
- Tolin, D. F., Frost, R. O., Steketee, G., & Fitch, K. E. (2008). Family burden of compulsive hoarding: results of an internet survey. *Behaviour Research and Therapy*, 46, 334-344.
- Tolin et al.(2009) Processes in group cognitive and behavioral treatment for hoarding.10.1016/j.cbpra.2009.08.005
- Van Roessel P. J.Grassi G.[...]Rodríguez C. I. (2023) Treatment-resistant OCD: Pharmacotherapies in adults. *Comprehensive Psychiatry* (2023), doi:10.1016/j.comppsy.2022.152352
- Yap K.Timpano K. R.[...]Grisham J. R. (2023). High levels of loneliness in people with hoarding disorder. *Journal of Obsessive-Compulsive and Related Disorders* (2023), doi:10.1016/j.jocrd.2023.100806

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Research and Design of the Costumes of the Dunhuang Feitian Mural Paintings

Pengbo Feng¹, Pakorn Prohmvitak², Patipat Chaiwitesh³

Abstract

This research delves into the artistic portrayal of Dunhuang Feitian, exploring its cultural origins, historical evolution, and influence on modern art. Chapter 1 sets the stage, outlining the research's background, methods, purpose, and significance, alongside a review of current research trends. Chapter 2 examines the cultural origins and historical evolution of Feitian's artistic image, spanning various regions and periods, including Indian Apsara art, Central Asia, the Dunhuang Mogao Grottoes, and neighboring countries. Chapter 3 analyzes the shapes and costumes of Feitian's artistic image in Dunhuang murals across different dynasties, highlighting distinct characteristics and evolutions. Chapter 4 scrutinizes the artistic beauty of Dunhuang Feitian murals and their impact on modern art, including their influence on art design and clothing design. Finally, Chapter 5 presents design concepts and creations inspired by Dunhuang Feitian mural art, showcasing its relevance and potential in modern contexts.

Key words: *Dunhuang Feitian, artistic image, cultural origins, historical evolution, modern art, mural, costume, influence, design, creativity*

1. introduction

The installations 飛天 (**Feitian**) refer to flying deities often found in Chinese **Buddhist** paintings. 飛天 (**Feitian**) are nameless celestial beings that play supportive and decorative roles in **Buddhist** artwork. They are seen throwing flowers, dancing, or playing instruments in the sky while surrounding another, more important, deity. Because Feitian's image and expression have a high artistic appeal, it will be passed down from generation to generation and will last forever, gaining people's respect and love. It has even become a symbol of auspiciousness, which has long exceeded the meaning of Buddhism. When people of later generations appreciate the grotto art, they admire the ancients for their rigor in shaping the Buddha statues. At the same time, the images of flying apsaras with various postures are also deeply imprinted in people's minds. (Feitian, 2019).

Since Buddhism was introduced to Dunhuang and the Dunhuang Grottoes began to be built, the image of Feitian has become the object of painters' creations. People regard Feitian as the most active spirit in the celestial palace of Buddhism. Buddhist teachings are full of ideas about artistic aesthetics, but Buddhism believes that beauty belongs to the category of sound and color, and the pursuit of beauty is worldly and unreal. Therefore, Buddhist believers regard the beauty of the world as a commandment, so the artistic image of Feitian is not beautiful. But on the other hand, Buddhist art strives to depict a virtual paradise world, and even regards the viewing of Buddha statues as the most basic way of belief. Therefore, the shapes of Buddhism and Buddha statues still embody worldly beauty.

Feitian is an elf in the heavenly palace. The shape of Feitian embodies the most beautiful and kind images in the world, giving people a sense of intimacy and peace. All

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in all, Dunhuang Feitian shows healthy, optimistic and cheerful thoughts and interests, which is also the artistic essence of Feitian's artistic image.

On the surface, Feitian seems to be just an artistic image in Buddhism, but it is vividly portrayed by painters in the grottoes, producing colorful artistic effects. It is also widely circulated among the people and has special value of independent existence. Feitian expresses the ancient people's good wishes for free flight, so the artistic image of Feitian is also a manifestation of idealized romantic art. It will be permanently integrated into the profound cultural connotation of China.

Dunhuang Murals, listed as World Cultural Heritages, are painting art works drawn on the inner walls of Dunhuang grottoes, Gansu province, China. Within a total area of over 50000 square meters, Dunhuang Murals involve 522 grottoes from past dynasties, including Mogao Grottoes, West Qianfo Grottoes, and Anxi Yulin Grottoes. Dunhuang Murals mainly portray the images of deities, activities of deities, deity-deity relations, and deity-human relations in Buddhism, conveying spiritual wishes and conciliating hearts. The Dunhuang grotto murals contain massive information of history, cultures and arts, and visually recorded the religious beliefs, social systems and folk-custom events in different eras. The categories of murals include statue images, classic story paintings of Han Nationality, categorized paintings, historical paintings of Buddhism, figure paintings, and graphic decoration paintings. The contents described in the murals include patterns, figures, animals, plants, clothing, traffic vehicles and buildings. These murals integrate massive colors, lines and other elements, which are distributed to create art syntheses. Shapes of the murals are comprised of forms that are created by lines. Color spreading is applied to create a gorgeous color effect and to finally represent the art forms of murals. (Hong, 2020).

In recent years, in the international fashion industry, the art of Dunhuang Feitian murals has been used as a carrier to perfectly combine Eastern culture with Western dress design forms, constantly enriching and deepening the concept of modern dress design. The art of Dunhuang Feitian murals requires more in-depth research and development. Because of its broad and profound ideological connotation, unique art form, and high aesthetic value, it will have a broader development prospect and space in dress design.

2. Objectives of the study

The purpose of this work is to carry out research and develop a costume design that is inspired by the Feitian murals from Dunhuang. The main emphasis is on understanding and analyzing the artistic characteristics, as well as the symbolic content of these images, with the aim of further introducing these aspects into contemporary artistic fashion design.

The goal is not only to explore the cultural and historical context of the Dunhuang murals, but also to identify ways in which they can be reinterpreted and interpreted in contemporary fashion and clothing design. This work strives to create new concepts and ideas based on Feitian's images that can be applied to modern costume design practice, thereby contributing to the enrichment and development of contemporary artistic design.

The theoretical significance of this work lies in several aspects:

The study of Feitian costumes in the Dunhuang murals allows for greater understanding of the cultural and historical aspects of ancient China and its interactions with other regions and cultures.

Analysis of the form, costume and symbolism of Feitian's images contributes to the expansion of knowledge in the field of artistic design, allowing us to identify the features of style and technique used in ancient Chinese art.

The study of the influence of Dunhuang Feitian's frescoes on modern artistic design allows us to identify the mechanisms of transmission and re-interpretation of cultural

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images in modern art practice.

The results of the work can serve as the basis for further research in the field of ancient Chinese art, as well as inspire artists and designers to create new works based on the images of Feitian.

The practical significance of this work is manifested in several aspects:

The research and costume design of Dunhuang Feitian's murals can serve as a source of inspiration for artists, designers and fashion designers. The creation of new projects based on Feitian imagery and symbolism will enrich contemporary art and design practice.

Studying the Dunhuang murals and their influence on modern art can help attract the attention of cultural tourists and researchers to this topic. This could stimulate the development of museum programs, exhibitions, and cultural events related to the study and interpretation of these murals.

The results of the work may be of interest to the fashion and design industry, attracting the attention of designer brands, fashion magazines and media platforms. It is possible to use Feitian's images in clothing collections, photo shoots, fashion shows and advertising campaigns.

3. Materials and methods

The following research methods are used in this work:

Historical Analysis: To study the origin and historical evolution of Feitian's image, the method of historical analysis is applied to reconstruct the context of the time and place in which the murals of Feitian's images were created. This method includes the analysis of sources, literary data, archaeological finds and other historical documents.

Comparative Research: A comparative research method is used to analyze Feitian artistic images from different regions and compare their form, costume and symbolism. This involves analyzing the similarities and differences between various artistic representations of Feitian and their contexts.

Art and Archeology Analysis Methods: Art and archeology analysis methods are used to gain a deeper understanding of the form, style and technique of the Feitian murals. These methods allow us to study in detail the artistic features and technologies for creating frescoes.

Methods of analysis of artistic design and symbolism: Methods of analysis of artistic design and symbolism are used to analyze the form, costume and symbolism of Feitian's images. This includes analysis of the composition, color, style and symbols used in Feitian's images.

Experimental Methods: The Design and Create section uses experimental methods, such as creating design concepts and translating them into contemporary clothing, to explore the possibilities of translating Feitian imagery into a contemporary context.

These methods together allow for a comprehensive study of Dunhuang Feitian's murals and their influence on contemporary art and costume design.

4. Results and discussion

In the early stage of the design, my main design idea was to combine the characteristics of Dunhuang Feitian's clothing and the picture style of Dunhuang murals with modern clothing to create a set of designs. It not only retains the charm of ancient Dunhuang murals, but also combines elements of modern clothing, making this set of clothing both beautiful and practical.

The fabric colors of this set of design works adopt the three most common background colors in Dunhuang murals, which are ivory white, beige and light bean green.

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A very important feature of the Dunhuang Feitian costumes described previously is its lightness and elegance. Therefore, my design this time uses chiffon fabric, which is characterized by being soft and drapey. It can express the light and elegant characteristics of Dunhuang Feitian clothing in the design.

In the form of a basic shirt, the fabric and shape are partially modified to make the overall effect of the garment lighter and more elegant. Together with the patterns on the clothing, it can better reflect the characteristics of Dunhuang Feitian clothing.



4.1 Design Concept Picture 1 [Source: developed by the author]

In terms of clothing patterns, there are three sources of inspiration. The first is the most common streamers in Feitian clothing. The reason why "Feitian" can "fly" is because it relies on the power of streamers. The streamers wrap around Feitian's body lightly and flutter in the wind. Painters often use ribbons to express the image of Feitian flying in the sky, so streamers are a particularly important part of Feitian costumes. In this set of designs, I added some lines that resemble streamers, and the color is also the color of the streamers that often appear on Feitian in Dunhuang murals. Here it is mainly depicted at the edge of the clothing fabric or at the connection between the upper and lower pieces of fabric, wrapped around the clothing like the streamers in the murals. In terms of the shape of the shirt, irregular cutting methods are used on the edges, so that the streamer-style lines at the edge of the garment can be like the streamers in Feitian clothing, reflecting the irregular feeling of fluttering in the wind.



4.2. Design Concept Picture 2 [Source: developed by the author]

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The second point is the overall effect of the image of Feitian in Dunhuang murals. The flying images mostly appear on the background around the main statues in Dunhuang murals, and are often used to fill in the gaps. The same idea came from this, and some restored line drawings from the original murals were used here, and large blank spaces were hand-painted on the clothing, making the entire clothing more like the Dunhuang murals.

5. In conclusion

In conclusion, the exploration of Dunhuang Feitian's artistic image offers valuable insights into its rich cultural origins, historical evolution, and enduring influence on modern art. Through an analysis of its shapes, costumes, and artistic beauty across different dynasties, we gain a deeper understanding of its significance in the context of Dunhuang murals and beyond. The influence of Dunhuang Feitian murals on modern art and design is evident, with its aesthetic qualities inspiring creativity in various fields, including clothing design. As we continue to study and appreciate Dunhuang Feitian, its relevance and potential in contemporary contexts become increasingly apparent, showcasing its enduring legacy and timeless appeal.

6. Acknowledgements

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Finally, I would like to participate in the busy schedule to review, comment on this paper teachers, to participate in my research. The teachers of the thesis defense expressed their sincere thanks. Name of thesis author.

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References

- Hong Dai. (2020). Motion Representation of Images in Dunhuang Flying Apsaras Murals, 2020, from <https://www.atlantispress.com>
- Ruifang Zhang. (2018). Research on the Elements of Costumes in Dunhuang Feitian Art, 2018, from <https://www.webofproceedings.org>
- Chen Yunji. (1990). Dunhuang flying apsaras and their historical changes of aesthetic consciousness, 2023, 82–88.
- Chen Yunji. (1990) Dunhuang flying apsaras and their historical changes of aesthetic consciousness. J.Fudan journal. 82–88.
- Fu Qiang. (2004) On the Beauty of Dunhuang Flying Apsaras Art. J. Zhuangshi. 18–19.
- Huang Peiran. (2018) Research Overview of Dunhuang Flying Apsaras Art Image. J. The Aurora Borealis. 70–71.
- Zhou Bo. (2017) Costume Elements in Dunhuang Apsaras Art. J. Yi Hai. 114–115.
- GaoShan. (2018) Reproduction of Dunhuang Fresco Art Copy Collection. Shanghai People's Publishing House, Jiangsu.
- Yang Fanjun. (2018) Research on MG Character Animation Based on Bone Binding Technology. J. Software Guide-Educational Technology. 86–88.

The Design of Packaging Systems Tailored for Color-Blind Consumers

Dong Liang¹, Pisrapai Sarasalin², Rewat Chumnam³.

Abstract

This research investigates the design of packaging systems tailored for color-blind consumers, a demographic often overlooked by many packaged goods brands. With color blindness affecting individuals' ability to perform simple tasks, such as selecting food, driving, and choosing clothing, the research underscores the importance of inclusive packaging design. The objectives were to: 1) Design packaging colors, fonts, and materials that accommodate the visual requirements of color-blind individuals; 2) Enhance the product selection experience for color-blind consumers, preventing mistakes in product identification and selection due to visual impairments. Utilizing a design methodology focused on color contrast, legibility, and material sustainability, the study developed packaging solutions that are both engaging and accessible. Results from user testing indicate improved ease of product identification and increased enjoyment in package interaction for color-blind consumers. The packaging, made entirely from paper, combines low manufacturing costs with environmental benefits, offering a sustainable and inclusive design solution. This study contributes to the broader discourse on inclusive design, advocating for the consideration of diverse visual needs in packaging design. Future research could explore the application of these design principles to digital interfaces, broadening the scope of accessibility for color-blind individuals in various consumer contexts.

Keywords: Color blindness, color blind packaging, color contrast, packaging methods, packaging design

1. Introduction

Colour blindness or colour vision deficiency (CVD) is a reduced ability to see colour or differences in colour. It can interfere with tasks such as picking ripe fruit, choosing clothes and reading traffic lights. Colour blindness can make some schoolwork difficult (Figure 1.1). However, the problems are usually small and people who are colour blind will develop adaptations and coping mechanisms automatically. People with complete colour blindness (colour blindness) are uncomfortable in bright environments and may experience a loss of vision. The most common causes of colour blindness are genetic defects or functional variations in one or more of the three classes of cone cells in the retina that mediate colour vision. The most common form is caused by a genetic disorder called congenital red-green colour blindness. Males are more likely to be colour blind than females because the gene that causes the most common form of colour blindness is located on the X chromosome. Non-colour-blind women also carry the gene for colour blindness, which they can pass on to their children. Colour blindness can also be caused by physical or chemical damage to the eye, optic nerve or part of the brain. Colour blindness makes suggestive colour tasks associated with food selection and preparation difficult. For example: Selecting bait based on ripeness may be difficult. The change from green to yellow in bananas is particularly difficult to recognise. In today's commodity packaging in order to package to appeal to consumers, this has resulted in many products with a rich variety of different packaging colours but with very close packaging colour schemes (Figure 1.2).

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This can give colour-blind consumers the opportunity to make purchases and use items that may be harmful and incorrect due to the colour, especially for children who are not yet literate and who will only be able to select the food they want to eat by using graphics and colours. For example, child fatality reviews reported 731 poisoning-related deaths to the National Fatality Review Case Reporting System (NFRS). More than two-fifths (42.1 per cent, 308 of 731) occurred in infants under the age of 1 year and the majority of deaths (65.1 per cent, 444 of 682) occurred in children's homes. One in six children (97 of 581) had an open CPS case at the time of death. Nearly one-third (32.2%, 203 of 631 children) were in the custody of an individual other than their biological parents. So how do we reduce harm and errors by using packaging. Surveys estimate that about 8 per cent of males and 0.5 per cent of females (Figure 1.3) are born

colour blind, and according to Colorblind, 99 per cent of people with colour blindness have red-green colour blindness. The number of people with monochromatic colour blindness (total colour blindness) is very small, about 1 in 33,000. Of these, 0.05 per cent are colour blind, 4.63 per cent are red-green blind and 1.07 per cent are blue-yellow blind. Red-green colour blindness makes up the majority of the colour blind population. People with colour blindness experience many difficulties in life that are unknown to sighted people. Problems can arise with even the simplest activities, including choosing and preparing food, gardening, exercising, driving a car, and choosing what to wear. Many packaged goods brands do not seem to take colour blindness into account because people who are colour blind often have difficulty distinguishing important information. Colour blind people often do not use colours when deciding what products to buy as many colours may look similar to them. Colour-blind people can also get into trouble because they are unable to properly understand information in the workplace or fail to notice, which can lead to pain and injury. (Cramer, Fabio, Grace E. Shephard, and Philip J. Heron. 2020)

2. Research Objectives

The purpose of this paper is to summarize the existing product packaging for colorblind customers in the market, summarize the advantages and disadvantages of the existing packaging, delve deeper, summarize the advantages, and use the packaging for our own packaging. Add our own elements. Help colorblind people to better identify items through packaging.

2.1 Enhance market value

Through the product packaging will be the combination of artistic creativity and packaging can not only enhance the sense of value of the goods, but also help color-blind consumer groups on the use of the product sense of satisfaction. Enhance the packaging grade, enhance the sense of social value of the product. Therefore, the color art of packaging to design to help color-blind consumers of creative packaging design to obtain the real social value and sense of social responsibility.

2.2. Convey core concepts

Colorblind people are often overlooked in life, and this project aims to help colorblind people to easily identify colorblind people in shopping and food, and to reduce injuries caused by accidental eating. Through the packaging design will have the basic product dissemination, and the main purpose of information dissemination is to show the basic information content of the product, as well as in a wider range to reduce the accidental

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consumption of color blind consumers are harmed. Good packaging design is also for the product and consumer better communication.

2.3 The attraction of visual effects

Color blind people packaging design has very important requirements for packaging visual effect and packaging shape design. Commodity packaging has a communication value to consumers at first glance. Consumers in shopping malls, supermarkets, first of all from the product packaging to produce a first impression of the product, so in the visual effect of the packaging, color matching, font size selection, etc., to increase the visual communication effect, so that the product on the shelves at the first time to tell consumers the basic information of the product.

2.4 Packaging product image identity

First of all, the visual graphics of the packaging should be recognized by consumers as a prerequisite, so that every consumer through the image on the packaging should be recognized, rather than a coarse filtered fuzzy image. Let the consumer produce on the goods error, through the image on the packaging to consumers for a better understanding. Understand the basic information of the product, reduce the harm to consumers due to the wrong understanding of the product. 2.5 Protect the product Potato chips product packaging design of for color blind consumers to ensure that the product is realized under the convenience of graphic identification. And also to protect the product contents, so that the product from external impact, to prevent the product due to light, moisture, collision and other reasons leading to damage or deterioration. Product packaging structure, packaging materials and packaging protection function has a direct relationship. In addition, the appearance of the packaging conspicuous, beautiful packaging design products from the shelves of the goods easily recognized, reduce the product information misinterpretation, identification errors. 3.Snacks product packaging design issues Snacks as a popular food, its a habit of many consumers to eat snacks when watching TV, boredom, so in the snack packaging design, you need to know more about consumer preferences. Understanding consumer preferences, that is, to achieve through packaging design to meet the needs of the product audience. Snack packaging design belongs to the food packaging design, in line with the national norms for food packaging based on, we should fully demonstrate the delicious snack products, so that consumers have a strong sense of appetite for snacks. Snack packaging design should also be presented on the product itself, such as potato chips flavor, fried properties or non-fried properties, potato chips or yam potato chips, the transmission of this information, which allows consumers to quickly go to understand the main advantages of this product, to help consumers better carry out the selection of the product.

4.Analysis of Existing packaging

At present, all the packages of potato chips on the market basically have the above two kinds , using paper and plastic packages, restarting the plastic packages are very easy to break and take up space, and the plastic packages can't be reused and have a long time of degradation, which cause great pollution to the environment after being discarded. As shown in the figure above, the existing potato chips packaging for color blind consumers will be very difficult to separate the potato chips taste, and the illustration in the package does not reflect the taste of the product. Most of the packaging is based on potato as the basic design without integrating the flavor elements. This makes it easy for colorblind consumers to misidentify the product through the packaging alone. This leads to consumer harm due to misinformation. I will be working through the following three aspects, I will

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divide the design ideas into three parts, and try new packaging ideas through different combinations.

4.1, Text Information Design

Consumers generally choose products through visual access to the description information on the packaging, however, the product packaging information is detailed and complex, which contradicts the visual characteristics of color blindness. Amblyopes have lower visual perceptual ability, text information should try to use simple and large fonts, do not use too fancy fonts to increase the difficulty of reading, and the position of the arrangement should be in line with the consumer's visual flow

4.2. Packaging Color Design

Color is ultimately the most sensitive factor for color-blind people in packaging mdesign. From the perspective of humanized package design, package color design should be in line with the cognitive ability of all people, not only to consider that able-bodied people have sufficient color saturation and attraction when viewing, but also to consider the requirements of the color effect in the eyes of color-blind people. Since the human eye reacts less when it perceives the hue change of colors, but reacts strongly when it perceives the brightness change of colors, the color design research for the color-blind people should fully consider the color application of visual perception, so that the color of each visual information has enough brightness change, and the greater the brightness contrast, the easier it is for the color-blind people to recognize the corresponding information.

4.3. Packaging design

Packaging design is not only to enter the plane of the design should also be the shape of the package design, in the design of the product packaging should pay attention to the touch is not easy to touch down, easy to grip when picking up and other issues to meet the characteristics of the stability of the same time, the packaging materials should also consider the safety of the choice to make the packaging more humane needs, but also to let them feel more social care and produce optimistic, positive, grateful and healthy mentality. My choice to use eco-friendly paper and minimize the use of eco-friendly adhesives in packaging has several vivid and concrete benefits: 1) Reduced Resource Consumption: Choosing environmentally friendly paper use more sustainable and renewable resources. This helps to reduce the demand for available such as wood, contributing to forest conservation and ecological balance. 2) Less energy consumption: Eco-friendly paper usually requires less energy to produce than regular paper production, thus reducing the environmental impact. 3) Reduced waste: The use of paper packaging reduces plastic packaging, and paper packaging favors biodegradable materials. This helps to reduce the amount of solid waste, lessen the burden on the environment and reduce pressure on natural cycles. 4) Recyclability: Reducing the use or not using plastic packaging improves the recyclability of paper. This promotes the recycling of paper packaging and reduces resource waste. 5) Health and safety: Reduced chemical adhesives minimize potential risks to product and user health. This is especially important for product-related packaging that is directly related to the health of the product and the consumer. 6) Green image: Packaging design based on environmental protection demonstrates a company's environmental responsibility and values, and establishes a positive brand image. In today's consumer market, where environmental awareness is growing, this image fosters consumer goodwill and trust. 7) Creative Inspiration: Reducing the use of adhesives can inspire creativity in packaging designers. By using only the necessary eco-friendly adhesives, designers can explore new folding and packaging

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techniques that give products a unique look and experience. To summarize, choosing recyclable paper and reducing the use of adhesives in packaging can reduce resource and energy consumption and waste, enhance recyclability, protect consumer health, establish a green image, and create cartoon images to increase popularity with younger consumers. Reduce the harm to consumers caused by misuse of packaging.

5. Packaging structure dimensions

The final package design uses cartoon images of different flavors as the theme, and the package only has cartoon images of the product flavors, in order to increase the interaction between the package and the consumer. The cartoon images on the package were designed to give better awareness to the low collar children (Figure 4.3). The size of the package is designed to be 14cm in height, so that it will not affect the space in the bag when placed in the bag of an adult consumer. The package is designed as a six-pronged column package, because such a package is conducive to the consumer's hands to take, with a better sense of grip to increase the friction between the hand and the package, and in the inner package is designed to have a pull-out box to facilitate the consumer to take the product, convenient for consumers to take the product inside the package, and the pull-out box helps to place the product neatly. When the package is not opened, the picture shows an anthropomorphic image with an open mouth, which looks like an image about to open its mouth to eat (Figure 4.4).

The simple design of the packaging prevents color-blind consumers from picking up or misidentifying the product due to their own visual factors when purchasing and taking it. The box can be opened in two ways. One is to pull out the inner packaging from the top of the package. The other is to open it from the mouth, creating an interaction with consumers when opening the package to increase interest. The entire packaging box is made of paper material, which is low in manufacturing cost, easy to transport, and can be quickly degraded and harmless to the environment when discarded. The packaging design of this project is all made of paper materials, which can be quickly degraded after being discarded, fully demonstrating the characteristics of protecting the environment. The overall shape of the box is mainly a hexagonal prism, which gives the box strong support, increases safety during transportation, and prevents crushing and damage. The opening design of the packaging increases the interesting and beautiful memories that the packaging brings to customers. Increase consumers' repurchase rate.

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References

- Yang Boting. Research on bitmap and vector image conversion methods[J]. Science and Technology Communication, 2011(15):2. SUN Feng-lin. Exploration of Color Design for Color Blind Groups[J]. Design Concept Exploration, 2016(9): 23-25
- MASATAKA O, KEI I. Diversity of Color Vision and Unobstructed Presentation of Color Vision[J]. Cell Engineering, 2002(9): 1080-1104. Cramer, Fabio, Grace E. Shephard, and Philip J. Heron. "The Misuse of Colour in Science Communication." Nature Communications 11, no. 1 (October 28, 2020): 5444. <https://doi.org/10.1038/s41467-020-19160-7>. Hunter JD. Matplotlib: A 2D graphics environment. Comput Sci Eng. 2007;9:90–5. Jambor, Helena, Alberto Antonietti, Bradly Alicea, Tracy L. Audisio, Susann Auer, Vivek Bhardwaj, Steven J. Burgess, et al. "Creating Clear and Informative Image-Based Figures for Scientific Publications." PLOS Biology 19, no. 3 (March 31, 2021): e3001161. Jenny, Bernhard, and Nathaniel Vaughn Kelso. "Color Design for the Color Vision Impaired." Cartographic Perspectives, no. 58 (September 1, 2007): 61 – 67. <https://doi.org/10.14714/CP58.270>. Wong, B. Points of view: Color blindness. Nat Methods 8, 441 (2011). <https://doi.org/10.1038/nmeth.1618>
- Tol, Paul. "Paul Tol's Notes: Introduction to Color Schemes." <https://personal.sron.nl/~pault/>. ZHANG Jiang. Color Perception and Color Blindness[M]. Beijing
- Li H, Dodd-Butera T, Beaman ML, Pritty MB, Heitritter TE, Clark RF. Trends in childhood poison exposures and fatalities: a retrospective secondary data analysis of the 2009–2019 U.S. National Poison Data System annual reports. Pediatr Rep. 2021 ;13(4):613–623
- Xiang Y, Zhao W, Xiang H, Smith GA. ED visits for drug-related poisoning in the United States, 2007. Am J Emerg Med. 2012;30(2):293–301
- Qin A. Pediatric poisoning fatalities from 1972 through 2018. Available at: <https://www.cpsc.gov/s3fs-public/Pediatric-Poisoning-Fatalities-from-1972-2018.pdf?AssSXNgG73EHX2iZZTizrQufAMHbTwQ3>. Accessed June 28, 2022 Dong, H. (2022). The blue dye absorbed elements of installation art studies (Master's thesis, Lu Xun Academy of Fine Arts). Retrieved from <https://kns.cnki.net/KCMS/detail/detail.aspxdbname=CMFD202301&filename=1022579632.nh>

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