

# New Generation of Sangkhalok Figurines

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## Abstract

This research on the New Generation of Sangkhalok Figurines aims to investigate the history and craftsmanship of Sangkhalok production, highlighting its distinctive features to guide future developments. It seeks to collect contemporary concepts that resonate with today's audience by engaging the younger generation to establish set guidelines for creating figurines of the new generation. The study employs participatory learning theory, involving a group of Generation Z participants aged 8-15 from three schools. These participants designed figurines based on their ideas, which were then evaluated by experts to determine the best design principles. The refined designs are being incorporated into the local production process in preserving cultural significance, resulting in the creation of New Generation Sangkhalok figurines. These contemporary art pieces are deeply rooted in traditional wisdom, yet they also mirror contemporary lifestyles. They captivate the imagination of Gen Z, innocence, and artistic sensibilities.

**Keywords:** *Sangkhalok, Figurines, Ceramic Community Enterprise Groups, Generation Z, Participatory design, Cultural Preservation, Thailand*

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## Introduction

Sukhothai Province, Thailand is considered a historical site with important ancient monuments, such as Sukhothai Historical Park and Si Satchanalai Historical Park. Archaeological evidence and artifacts of great value have been found. The province also has unique traditions, arts, culture, and wisdom, leading to recognition as a UNESCO World Heritage Site that attracts Thai and foreign tourists. Additionally, Sukhothai is famous for its products known since ancient times, particularly Sangkhalok ware, dating back, around the 13th century CE, a distinctive type of pottery representing important economic value through local wisdom. Initially produced within communities, it was mainly used for household items such as cups, bowls, plates, jars, and roof tiles. The popular color was olive green, often without patterns, though some pieces had sgraffito or scratched designs of common motifs like flowers and leaves. Besides household use, Sangkhalok was also produced for ceremonial purposes, including religious statues and figurines, and figurines known as "broken-headed dolls."

Archaeological sites reveal diverse Sangkhalok figurines that reflect the culture and lifestyle of people at that time. These include humans and animals in various postures, such as a woman holding a baby, a man holding a fighting cock, and a figure with swollen cheeks as if chewing betel. They also show beliefs and influences from neighboring countries, like human-animal hybrids reflecting the Burmese belief in Narasimha. Sangkhalok figurines have grown alongside Thai society, originally made as children's toys or for relaxation and community bonding. However, changing lifestyles have led to their decline in everyday cultural contexts, now mainly collected by a small group of enthusiasts.

This research aims to revive the importance of Sangkhalok figurines in reflecting social life through contemporary art, involving the younger generation in presenting updated versions called "New Generation of Sangkhalok Figurines." The study focuses on Generation Z, known for their constant access to global culture and high internet and social media usage. This generation is capable of creating new trends and movements for social causes. The image and characteristics of Generation Z are described as undefined differences, open to creativity and experimentation, daring to live differently while valuing knowledge connection and story sharing. By involving this group in initiating new ideas of New Generation of Sangkhalok Figurines, the project aims to reflect and intergrade current trends and Thai society, bridging the charm of historical artifacts and contemporary life and society. It also explores the possibility of expanding into the contemporary art market as art toys, adding business value. The goal is to instill pride in Thai art, foster learning and understanding of Thai cultural roots from new perspectives by blending modern culture and ideas with distinctive and culturally valuable art through preserving, continuing, and developing.

## Research Objectives

- To study the history and craftsmanship behind Sangkhalok figurines with an aim to identify distinctive features and requirements for future product development
- To collaborate with Gen Z in gathering ideas and establishing guidelines for creating new generation of Sangkhalok figurines that resonate with contemporary contexts.
- To create new generation Sangkhalok figurines, merging elements that mirror lifestyles of the target audiences with the traditional characteristics of Sangkhalok figurines in a modern artistic expression.

## Research Methodology

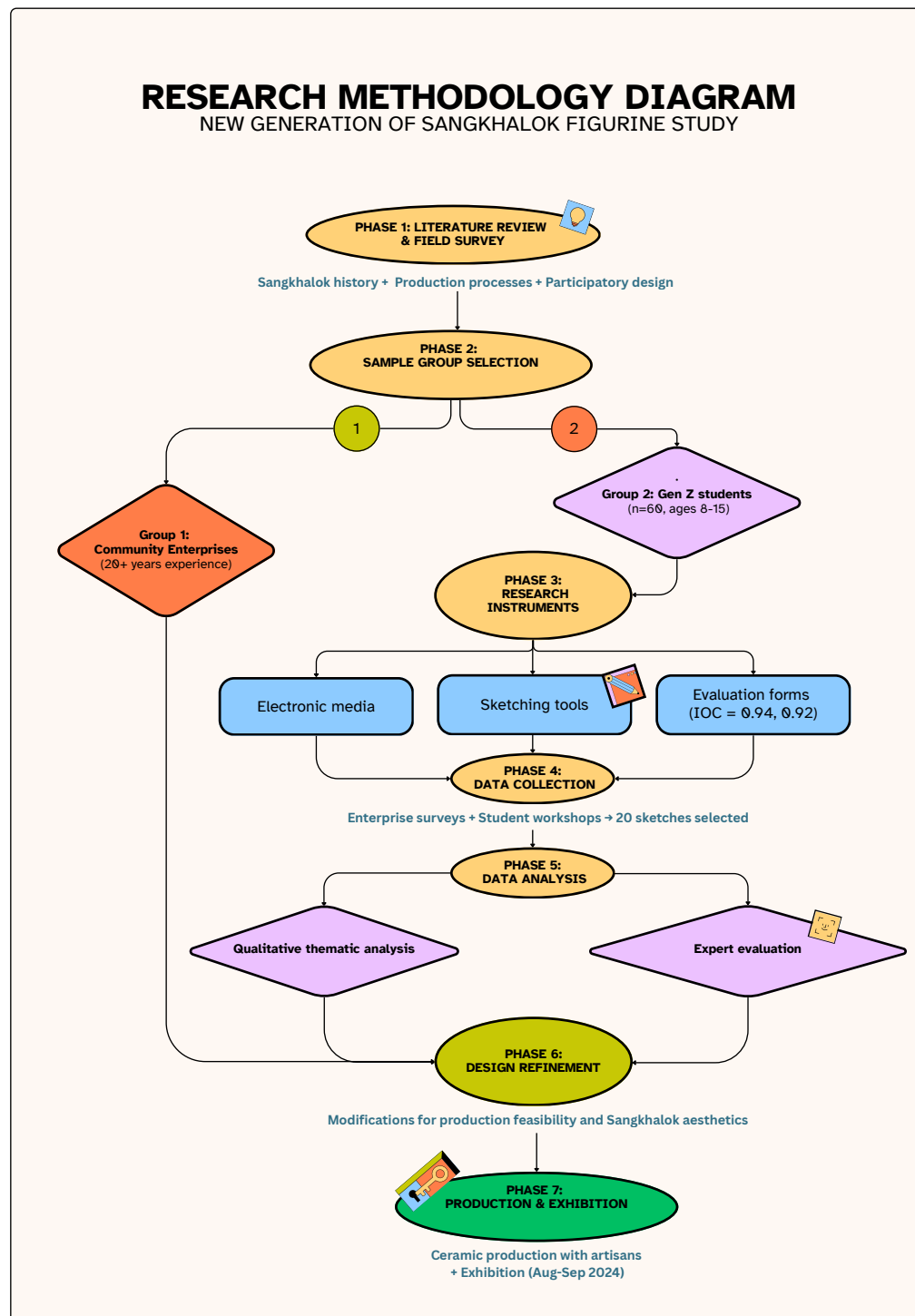


Figure 1. Research Methodology Diagram showing the seven-phase research process for developing New Generation Sangkhalok Figurines. Image by author.

### Literature Review and Field Surveys

- The evolution of Sangkhalok figurines, from their production process in the past to the present day. This includes field surveys study in Sukhothai province.
- The Sangkhalok community enterprises in Sukhothai province, focusing on processes, production capacity, and product styles spanning from past to present.
- Participatory design approaches involve gathering information from books, documents, theses, and related research.

### Define and Select Sample Groups According to the Criteria

There are two sample groups in this research:

*Sangkhalok ceramic community enterprise groups in Sukhothai province, with the following selection criteria:*

- Over 20 years of experience in Sangkhalok production
- Complete production cycle and consistent, locally recognized work
- Willingness to cooperate in developing new products while maintaining Sangkhalok characteristics

*New generation group, with the following selection criteria:*

- Generation Z population, born between 1998-2011, focusing on ages 8-15, currently studying from late elementary to early high school
- Randomly selected from various communities regardless of background to increase diversity of perspectives and definitions of modern social contexts

Based on these criteria, 60 participants were randomly selected by teachers from each school, 20 students per school, from three schools: Wat U-ya School in Suphan Buri Province, Patumwan Demonstration School in Bangkok, and Sukhothai Wittayakom School in Sukhothai

### Create Research Instruments

This qualitative research aims to collect data on Sangkhalok figurine designs illustrated by Generation Z participants. There are three research instruments: 1) Electronic media, 2) Sketches of Sangkhalok figurines illustrated by the participants, and 3) Sketch evaluation forms. The research instruments were created as follows:

- Create electronic media by studying and collecting data on Sangkhalok figurines' history, characteristics, styles, and production processes from books, journals, articles, documents, and related research on participatory learning theory. This electronic media provides basic knowledge about Sukhothai Sangkhalok figurines, their history, importance, styles, and production processes, as well as the research objectives and steps, leading to brainstorming for the sample group to participate in designing new Sangkhalok figurines based on their creativity. The electronic media offers foundational information on Sangkhalok figurines, covering their historical background, cultural significance, distinctive styles, and manufacturing methods. These are gathered from a variety of sources such as books, journals, articles, documents, and relevant research on participatory learning theory. The media also outlines the research objectives and methods which involve brainstorming sessions for the participants to engage their creativity and illustrate new Sangkhalok figurines.
- Sketching tools includes drawing, coloring utensils and A3 paper. The A3 paper is divided into two parts. Part 1: General information about the samples such as grade, school, and age. Part 2: Covers the creative Sangkhalok figurine design
- Sketch evaluation form employs Likert Rating Scales to select suitable works from the participants' sketches, in considering of design composition, aesthetics, creativity, and how well they reflect the lifestyle and activities of Generation Z in current society (2024).

Three experts then reviewed the research instruments to assess their validity. The Index of Item-Objective Congruence (IOC) for electronic media and sketching tools reached 0.94, while the sketch evaluation form, it was 0.92. All research instruments displayed validity values ranging from 0.50-1.00, within the acceptable range for use. The tools were then subsequently submitted to the research ethics committee for review.

### Data Collection

There are two data collection parts in this research:

- ***Sangkhalok ceramic community enterprise groups in Sukhothai province***  
Surveying Sangkhalok ceramic community enterprise groups in Sukhothai province to investigate various aspects such as number of entrepreneurs, product styles, production processes, and raw materials used from the past to the present. It also delves into observing developments and changes over time, and covers examination of Sangkhalok figurine styles, sizes, and popularity.
- ***New generation group***  
Collecting data process involved using electronic media to educate students about Sangkhalok figurines. This was followed by a design session where 60 students from three schools created new figurine concepts. Students then casted their votes on their favorite designs, resulting in the selection of 30 outstanding sketches. Experts assessed these selections according to specific criteria and feasibility of production. The chosen designs were carefully examined, leading to the creation of contemporary Sangkhalok figurines in the next research phase.

### Data Analysis and Design Process

The data analysis and design process consisted of a multi-stage approach. First, qualitative analysis was conducted on the student sketches to identify contemporary themes and preferences. Expert evaluations were then analyzed to align new ideas with practical implementation. These findings were synthesized to form design guidelines that merged traditional Sangkhalok features with contemporary appeal. An iterative design process was implemented, where models were created and refined by the researcher, taking into account feedback from experts, Sangkhalok ceramic production, and the target audience. The final designs were assessed for production feasibility with local artisans. Detailed documentation was consistently recorded throughout this process to capture design development and the reasoning behind the design, serving as a valuable resource for future development in this area.

### Literature Review

The research on New Generation of Sangkhalok Figurines has studied relevant concepts, theories, and research as follows:

- Studied and researched the history, significance, and production process of Sangkhalok figurines from the past to the present by gathering information from books, documents, theses, and research related to the development of Sangkhalok ceramics, as well as conducting field surveys in Sukhothai province.
- Studied Sangkhalok community enterprises in Sukhothai province with a focus on their processes, production capacity, and product styles from the past to the present.

- Studied the evolution of Sangkhalok figurine styles from the past to the present through relevant literatures and conducting field surveys to explore current styles of Sangkhalok figurines.
- Studied information and instruction about Participatory Design approaches by acquiring data from books, documents, theses, and related research.

### Sangkhalok Figurines

Sangkhalok is a type of ceramic ware originating from the Sukhothai period, dating back to the 13th century CE. Initially produced within communities, it was mainly used for household items such as cups, bowls, plates, jars, and roof tiles. The popular color was olive green, often without patterns, yet certain pieces featured scratched or incised natural motifs. Besides household use, Sangkhalok was also crafted for ceremonial purposes, such as water containers, religious statues, urns, and figurines. By the 14th century, the quality had improved, leading to exports and generating significant economic value and reputation that continues to the present day.

Evidence was found at the kiln site known as "Figurine Group" in Ban Pa Yang, Si Satchanalai. They depict humans and animals in various postures, with diverse glazing techniques. It's believed that they were used as toys, decorations, or in rituals. These figurines serve as significance evidence illustrating the lifestyle, traditional attire, beliefs, and customs of people during that period. For example, female figurines holding children represent culture perspectives on guardian spirits. Animal figurines, on the other hand, are associated with offerings made to household spirits. Additionally, figurines with broken-headed were used in ceremonial practices aimed at warding off illnesses. The figurines also showcase the fashion trends of the era, such as hairstyles, accessories, and attire for both genders.



Figure 2. Variety of Original Sangkhalok Figurines. Image Courtesy of Sustainable Arts and Crafts Institute of Thailand.

### Process and Methods of Producing Sangkhalok Figurines in Sukhothai Province

**1. Clay Preparation:** Local clay is well-rested, air-dried, and then wedged for forming. The clay used is sourced from two local sources:

- Si Satchanalai clay: White stoneware or kaolin found at Khao Si Lan mountain, mixed with paddy field clay. After firing, it has a creamy white color.
- Sukhothai clay: Found at Rong Pla Lai, it has a gray color due to its high iron oxide content.

**2. Forming Method:** The figurines are formed by pinching and pressing techniques to shape animal figures or various postures. The body is shaped first, followed by the head, arms, and legs. The forming is simple without complex details. The dimensions of the pieces usually range from 15 to 20 centimeters in height.

**3. Bisque Firing:** Fired at 800°C for 8-14 hours in a gas kiln.

**4. Glazing:** After bisque firing, the pieces are glazed. The Sangkhalok glaze is unique as it contains wood ash from burnt wood. The color is determined by the type of wood ash used: tamarind wood ash provides white, noni wood ash produces red, and oak wood ash yields green.

**5. Glaze Firing:** The glazed figurines are fired at 1,200°C for 10-16 hours in a gas kiln.

### Study of Styles and Characteristics of Sangkhalok Figurines

Historically, Sangkhalok figurines were mostly created for use as toys or in rituals based on beliefs. The figurines imitate familiar things such as people in different poses, pets, or domestic animals used for transportation and agriculture. The forming style is simple, formed by pinching and pressing, with uncomplicated details that are easy comprehensible. They communicate and reflect the way of life, innocence, childlikeness, and naivety, which are characteristic of Naive Art.

From the survey of Sangkhalok figurine appearances at production sites in Mueang Kao Subdistrict, Mueang District, and Si Satchanalai District, Sukhothai Province, carried out on April 29-30, 2024, the figurines can be classified into two styles: animal figures and human figures in various postures.



Figure 3. Sangkhalok figurines from Sukhothai Province found at Bua Sangkhalok shop (left) and Suwat Sangkhalok shop (right). Image by author.

### Study of Traditional Kilns and Firing Processes

Historically, Sangkhalok pieces were fired in kilns known as "Turieng kilns," which employed two types of heat flow (drafts):

- Up-draft Kilns: These circular kilns were consisted of two sections:
  1. **Ware Chamber:** Located at the top area, approximately 1.5 meters in diameter. Ceramic pieces were placed in this part with broken ceramic pieces stacked on top to slow heat flow.



**2. Fire Chamber:** The fuel area where heat rose upward, featuring a protruding opening for convenient fuel loading. Between the ware chamber and chimney, there was a perforated clay disc known as a "Ta-krub plate," was positioned. The disc measured 15-20 cm in thickness and featured holes with diameters ranging from 5-10 cm. It was upheld by clay stands situated inside the fire chamber.

- **Cross-draft Kilns:** Also known as "Pratun kilns," these kilns featured an oval shape with a flat floor and an arched roof that resembling a boat canopy. They were typically inclined 10-30 degrees and comprised two sections:

**1. Fire Chamber:** Located at the lowest front section, with a horseshoe-shaped opening.

**2. Ware Chamber:** In the center area, which is the widest part and slope from front towards the chimney. The floor was covered with 10-15 cm of sand to embed supports for the pieces.

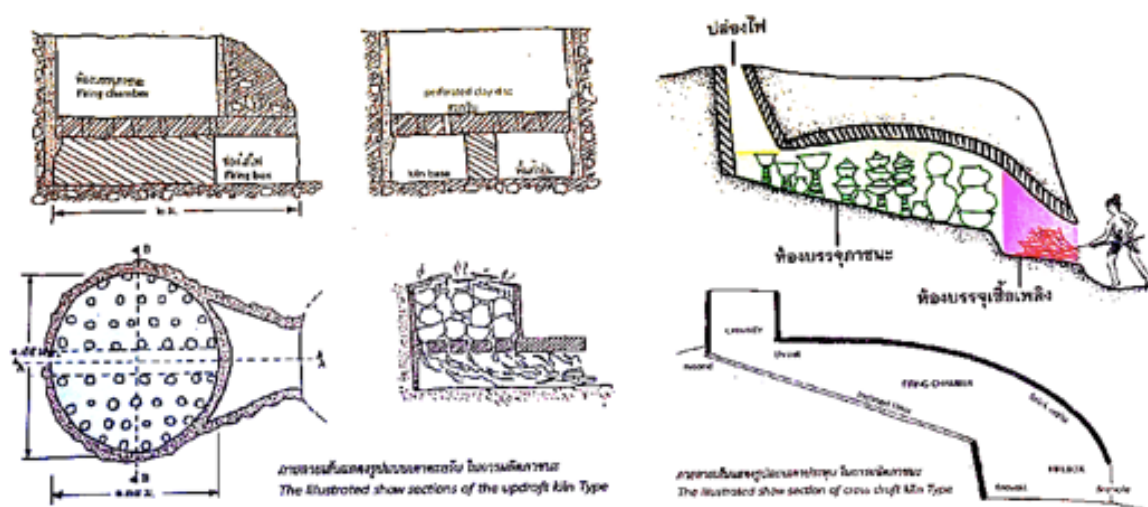


Figure 4. The Illustrated show sections of the updraft and cross draft kiln types found at Sangkhalok Kiln Study and Conservation Center. Image by author.

A field survey of The Sangkhalok Community Enterprise Groups in Sukhothai province on April 29-30, 2024, revealed that Turieng kilns are no longer in used due to the scarcity of wood fuel, Inconsistent temperature control, and the need for expertise for operation. Consequently, producers have transitioned to using gas kilns as an alternative fuel source for firing Sangkhalok pieces.

### Survey of Sukhothai Sangkhalok Community Enterprises

Based on field research conducted on April 28-29, 2024, to survey community enterprises and entrepreneurs producing Sangkhalok ceramics in two locations:

- Mueang Kao Subdistrict, Mueang District, Sukhothai Province, including Suthep Sangkhalok, Ganesha, Bua Sangkhalok, Usa Sangkhalok, and Sangkhalok Art
- Si Satchanalai District, including Suwat Sangkhalok, Ketanong Sangkhalok, and Pa Thong-in Sangkhalok





Figure 5. Survey of Sukhothai Sangkhalok Community Enterprises: Mueang Kao Subdistrict, Mueang District, Sukhothai Province. Images by author.

The survey of community enterprises and entrepreneurs engaged in producing Sangkhalok ceramics in Mueang Kao Subdistrict, Mueang District, Sukhothai Province revealed that production process takes place within family- oriented business 5-15 members. Regarding the production process, it is noted that only a few producers still use local clay mixed into the sculpting clay. Most producers have adjusted their practices by using prefabricated clay sourced from factories and clay sourced from Chiang Mai and Lampang provinces, which is more convenient and standardized. This leads to reduction of work steps and time, considering the limited of available workforce for handling local clay, which requires processes like clay resting, drying, preparing, and clay testing. It also helps in preventing issues associated with product explosion from local clay that may lack consistent quality control. Besides changes in clay sourcing, a transition to gas kiln from traditional kilns have been observed in firing techniques. Thus shift aims to reduce constraints relating to expenses, time, and space, as well as confronting the challenge posed by the scarcity and elevated costs of firewood previously used as fuel sources.



Figure 6. Survey of Sukhothai Sangkhalok Community Enterprises: Si Satchanalai District, Sukhothai Province. Images by author.

The survey conducted on groups and entrepreneurs engaged in production of Sangkhalok ceramics in Si Satchanalai District shown that Sangkhalok enterprises also operate as family-run businesses. Many of these establishments have ceased as a consequence of the impact of the COVID-19 crisis and lack of successors, given that younger generations exhibit a preference for alternative occupations. Production capacity has decreased to only 2-4 family members, leading to smaller operations in comparison to Mueang Kao District. However, they continue to use locally sourced clay and foothill clay that they dig up themselves, then soak, rest, and dry in preparation for molding products according to traditional production processes. This results in distinctive attributes that are exclusive to local clay, which turns red or reddish-brown after firing.

Product styles from both districts, as well as animal and human figurines and functional vessels, which have been continuously produced, now encompass deity statues and figurines modeled inspired by antiquities. They also feature the distinctive fish pattern of Sangkhalok painted on utensils. In addition to the fish, floral patterns and foliage designs are presented Sukhothai Sangkhalok work, characteristics that are considered unique to this style.

Based on the study and field research, it can be concluded that community enterprise operators have altered their production methods from previous practices due to economic, social, and cultural changes, as well as market demands. Originally producing pottery, plates, bowls, decorated vessels, and figurines that imitated antiques, the local producers now also produce statues and deity figures for worship, such as Ganesh, Naga, and lions, in order to cater to specific target groups and markets that have a preference for sacred object worship. Most entrepreneurs cater to custom orders for customers from the Baby Boomer generation. The enterprises are experiencing a lack of new/fresh ideas for product development, particularly concerning Sangkhalok figurines with distinctive characteristics that are marketable and appeal to Generation X and Y customers or newer generations. Developing products to expand the market base and attract interest from newer generations would contribute significantly to adding value and passing on the unique cultural wisdom for new generations to uphold.

Due to the pandemic situation and changes in industrial production that once relied on handcrafts, as along with rapid technological advancements resulting in introduction of machinery and various innovations, many entrepreneurs have closed their businesses due to changing trends and the severe impact of pandemic situation. Currently, Sukhothai Sangkhalok community enterprises have adapted complete production processes, from clay preparation to molding, firing methods, ash glazing, and production styles. These all are employed in a manner to maintain traditional Sangkhalok characteristics by using traditional clay and glazes. Changes include the switch of clay sources for convenience and shifting from traditional Turieng kilns to gas kilns owing to the growing scarcity of firewood fuel. However, all still maintain the essence of Sangkhalok through traditional designs and patterns.

From the field survey and discussions with Sangkhalok community enterprises in Sukhothai province, it was determined that “Suthep Sangkhalok” is a community enterprise that willing to collaborate with designers to produce new-generation Sangkhalok figurines,

creating from children's creativity. After conducting a survey of the actual areas, related design theories were studied to meet requirements of the target group to identify collaborative approaches through studying theories associated with participatory design theory.

### Participatory Design

Participatory design is an excellent approach for engaging Generation Z in reimagining Sangkhalok figurines, as it establishes a significant bridge between ancient local wisdom and contemporary youth culture. Here is how and why this approach is particularly effective:

- **Empowerment and Ownership:** Through the direct inclusion of Gen Z directly in the design process, they acquire a sense of ownership over the cultural heritage. This personal connection increases the possibility that they will value and conserve the tradition of Sangkhalok figurines.
- **Fresh Perspectives:** Gen Z contributes distinct, tech-savvy, and internationally-influenced perspectives to discussions. Their ideas can breathe new life into traditional designs, making them more relevant and appealing to younger audiences.
- **Cultural Continuity:** The participatory process facilitates a direct transfer of knowledge from artisans to young designers. This interaction ensures that the essence of Sangkhalok craftsmanship is comprehended and respected while being reinterpreted.
- **Digital Integration:** Gen Z's natural affinity for digital technologies can lead to innovative ways of marketing, designing, or even producing Sangkhalok figurines, potentially broadening their market reach and attractiveness.
- **Cross-generational Learning:** The collaboration between traditional artisans and young designers creates a two-way learning environment. Artisans acquire knowledge regarding current trends and technologies, while Gen Z gains appreciation for craftsmanship and cultural significance.
- **Relevance to Modern Life:** Gen Z has a potential to assist in identifying ways to make Sangkhalok figurines relevant to modern lifestyles, such as through reconceptualization of their use or instigation of elements from pop culture.
- **Storytelling and Marketing:** Young participants can craft compelling narratives around the figurines, leveraging social media and digital platforms to share the story of Sangkhalok to a worldwide audience.
- **Global-Local Connection:** Gen Z's global outlook can assist in positioning Sangkhalok figurines within a broader cultural context, potentially increasing their appeal to international markets.

### Theoretical Framework for Participatory Design

This study is grounded in two key theoretical approaches that inform the methodology of engaging Generation Z in the reconceptualization of Sangkhalok figurines:

#### *Roger Hart's Ladder of Youth Participation*

Hart's model (1992) provides a framework for understanding and evaluating youth participation in projects and decision-making processes. The ladder consists of eight rungs, each representing increasing levels of youth engagement:

- 1) Manipulation
- 2) Decoration
- 3) Tokenism
- 4) Assigned but Informed

- 5) Consulted and Informed
- 6) Adult-initiated, Shared Decisions with Youth
- 7) Youth-initiated and Directed
- 8) Youth-initiated, Shared Decisions with Adults

For this study, the researcher aimed to operate within the higher rungs of the ladder (6-8), where youth are actively participating in decision-making processes, either by collaborating with adults or by initiating projects themselves. This approach ensures that Generation Z participants have genuine agency in the redesign of Sangkhalok figurines.

### ***Participatory Learning Theory***

Participatory Learning Theory, as described by scholars like Paulo Freire (1970) and Jean Lave and Etienne Wenger (1991), emphasizes the importance of active engagement in the learning process. Key principles include:

- a) A Learner-centered approach: Focusing on the experiences, knowledge, and interests of the learners.
- b) Active participation: Engaging learners in hands-on activities and decision-making processes.
- c) Experiential learning: Drawing on and creating new experiences as a basis for learning.
- d) Collaborative learning: Emphasizing interaction and knowledge sharing among participants.
- e) Reflective practice: Encouraging ongoing reflection on the learning process and outcomes.

In the context of this study, Participatory Learning Theory informs the design of workshops and collaborative sessions, ensuring that Generation Z participants are not merely recipients of knowledge about Sangkhalok figurines, but active co-creators in the process of reimagining this cultural artifact.

By integrating these theoretical frameworks, this study aims to establish a robust participatory design process that engages Generation Z participants meaningfully, honors their perspectives and creativity, and facilitates a genuine exchange of knowledge and ideas between traditional artisans and young designers.

### ***Examples of Participatory Design Activities***

IKEA's initiative involves transforming children's drawings into cuddly toys, with proceeds going to charity: IKEA has created a special project to manufacture uniquely designed stuffed animals inspired by illustrations submitted by children worldwide. The process involved a competition among children from 40 cities, resulting in over 1,000 submissions. Children were asked to design their "Dream Toy" on paper, which was then selected by designers. The toys designed by children were novel, naive, and simplicity, easy-to-understand forms. After selection process, prototypes were made to ensure accuracy or make necessary adjustments before producing the final soft toys. The toys were then sent to the children who designed them, instilling pride in the young designers who won the competition. The toys were manufactured for commercial purposes, and the profits were allocated to support underprivileged children through UNICEF projects. This activity instilled a sense of pride in the children who created the designs and raised social awareness (Cameron Keady, 2015).



Figure 7. IKEA's Dream toy project. Image Courtesy of [https://www.huffpost.com/entry/ikea-kids-design-plushy-toys-charity\\_n\\_5630f9c7e4b0c66bae5a6e2c](https://www.huffpost.com/entry/ikea-kids-design-plushy-toys-charity_n_5630f9c7e4b0c66bae5a6e2c).

Children's furniture design project by Jack Beveridge and Joshua Lake: These designers collaborated with a local primary school, involving 8-year-old students in an art class activity. With the simple prompt "Please draw a chair," children were asked to draw and color chairs. The designers then transformed these pure imaginative drawings from 8-year-olds into actual functional chairs for children.



Figure 8. Children's furniture design project by Jack Beveridge and Joshua Lake. Image Courtesy of <https://www.designboom.com/art/childrens-drawings-made-into-furniture/>.

The project "Turning senior citizens into superheroes" project led by designer Yoni Lefevre: This project aimed to portray an elderly in a vibrant light. Children often view them as



superheroes especially their grandparents, in their hearts. The designer asked children to draw their grandparents on paper. These drawings were then scanned, edited, and converted into life-sized photographs. Local seniors were invited to see how children envision them and were requested to pose in accordance with the photographs while wearing costumes and props produced from the drawings. This activity instilled pride in the children and fostered a sense of value and a lively image of the elderly within the community.



Figure 9. Turning senior citizens into superheroes project by Yoni Lefevre. Image Courtesy of <https://www.today.com/news/artist-brings-kids-drawings-life-turning-senior-citizens-superheroes-2d11603758>.

These creative activities, which involve children or community participation, contribute to the enhancement of value for both children and the community. They foster sense of unity, love within the community, and raise awareness regarding the inherent value present within the community.

### Data Collection

The data collection methodology for the research on New Generation of Sangkhalok Figurines embodies key principles of participatory design, effectively bridging traditional Thai ceramic wisdom with contemporary youth culture. By engaging students in the late elementary to early high school, students stage in creative design and decision-making processes, the study aligns with higher levels of Hart's Ladder of Youth Participation. The combination of digital learning, hands-on design activities, and collaborative decision-making reflects Participatory Learning Theory, cultivating active engagement and experiential learning. The inclusion of expert assessment strikes a balances between youthful creativity and practical feasibility, creating a synergy between the fresh perspectives of Generation Z and traditional expertise. This approach not only yields innovative designs but also cultivates cultural ownership among young participants. This could potentially ensuring the relevance and longevity of Sangkhalok art in contemporary society.

### Data Collection Methodology

1) The researcher utilized electronic media to provide fundamental knowledge about Sangkhalok figurines. This approach was designed to stimulate learning and encourage brainstorming for the design of New Generation of Sangkhalok Figurines in subsequent design sketches.

2) The questionnaires were distributed to a sample group of 60 school students, with 20 students from each of three schools located in Bangkok, Supanburi province, and Sukhothai province. Students were asked to create drawings of Sangkhalok figurines according

to their own imagination. The sample group was allotted one hour and thirty minutes to design their New Generation of Sangkhalok Figurines.

3) After collecting the sketches, the sample group collectively chose their favorite designs. Each participant was provided with three stickers to place on the designs they liked. This process aimed to ascertain the top ten designs with the highest-scores from each school.

4) The thirty highest-scoring designs (ten from each school) were compiled and sent to three experts in ceramic design or product design, along with an evaluation form. These experts were assigned to choosing twenty top designs based on their appropriateness as per the evaluation criteria and feasibility for production.

5) The selected Sangkhalok figurine designs were then categorized, analyzed, and redraw by the researcher for the design of New Generation of Sangkhalok Figurines in a contemporary context. The researcher categorized, analyzed, and redrawn the selected Sangkhalok figurine designs for the creation of the New Generation of Sangkhalok Figurines in a contemporary context.

This methodology ensures a participatory approach, engaging both the target demographic (school students) and Sangkhalok ceramic community enterprise groups in Sukhothai province in the design process. This effectively bridges generational perspectives in the reconceptualized of this traditional art form.

## Data Analysis and Design Process

### Data Analysis

The qualitative analysis of Sangkhalok figurine designs of Generation Z involved a multi-step process to extract meaningful insights from the sketches provided by the participants. Initially, each design was subjected to a thorough content analysis, examining subject matter, artistic style, distinctive features, and accompanying textual explanations. This granular approach allowed for a comprehensive understanding of individual creative expressions. Subsequently, thematic grouping was employed to categorize designs based on emerging patterns, including subject matter (e.g., animal-inspired, technology-themed), aesthetic style (e.g., minimalist, whimsical), and cultural references (e.g., traditional Thai elements, global influences). To ensure a harmonious equilibrium between youthful creativity and practical feasibility, the analysis incorporated expert assessments of the top twenty designs, evaluating their display of Gen Z lifestyle, contemporary art style, appeal to the designated age group, and demonstration of naïve artistic attributes. Trend identification was staged, correlating popular design elements with expert approvals to pinpoint key features for the New Generation of Sangkhalok Figurines. Finally, a Generation Z context analysis was conducted to interpret the designs within the framework of contemporary youth culture. This analysis examined how traditional Sangkhalok elements were reimagined and how current Gen Z interests and values were reflected in the designs. This comprehensive analytical approach provided a nuanced understanding of how Generation Z envisions the evolution of Sangkhalok figurines, offering valuable insights for creating culturally relevant and youth-appealing designs that bridge traditional craftsmanship with contemporary aesthetics.



### Thematic Analysis of Generation Z Sangkhalok Figurine Designs

The thematic analysis of the Sangkhalok figurine designs created by Generation Z participants uncovered three distinct categories: Contemporary Thai Cultural References, Global Influences, and Mimicking Cartoons or Animation. This categorization provided insights into how young designers blend traditional craftsmanship with modern aesthetics and global perspectives.

#### Contemporary Thai Cultural References

The designs in this category demonstrated a nuanced comprehension of Thai cultural heritage, reinterpreted through a contemporary perspective in the context of daily life of the participants. Participants frequently incorporated traditional Thai elements, such as the distinctive motifs like elephants, farmers, Thai fairies, or lotus flowers, but they contextualized them within modern Thai society. For instance, several designs featured Sangkhalok figurines either holding smartphones or wearing contemporary Thai attire, effectively linking the gap between ancient craft and contemporary lifestyle. This category also included references to current Thai pop culture, with certain designs drawing inspiration from popular Thai music artists or social media influencers. The integration of traditional and contemporary elements in these designs implies that Generation Z values their cultural heritage in high regard while trying to imbue it with relevance for their daily lives. This approach could prove notably effective in creating Sangkhalok figurines that resonate with young Thai consumers while maintaining a strong cultural identity.



Figure 10. Examples of sketch categorized in Contemporary Thai Cultural References. Images by author.

#### Global Influences

The influence of global culture on Sangkhalok figurine designs of Generation Z demonstrates a sophisticated fusion of international elements with traditional Thai craftsmanship. These designs reflect their digitally-connected worldview, incorporating elements

from social media platforms like TikTok and Instagram, while embracing diverse cultural influences ranging from K-pop aesthetics to Western holiday motifs. Digital elements are prominently displayed in the designs, which include smartphones, emoji-inspired symbolism, and meme-based expressions. Additionally, K-pop influences are evident in contemporary hairstyles and fashion choices. Social consciousness also emerges as a key theme, with designs addressing global issues like climate change and social justice, often expressed through internationally recognized symbols and messages. This creative synthesis demonstrates natural ability of Generation Z to navigate multiple cultural contexts. It generates designs that maintain Thai authenticity while communicating in the universal language of contemporary youth culture. This indicates significant potential for enhancing the attractiveness of the traditional crafts in the global marketplace/platform.



Figure 11. Examples of sketch categorized in Global Influences. Images by author.

### Mimicking Cartoons or Animation

The category inspired by Cartoon and Animation exhibited a profound influence of visual media on aesthetic preferences of Generation Z frequently manifesting as direct mimicry of popular animated characters and styles. Designs often featured exaggerated proportions, vibrant colors, and stylized features that are typical of well-known animation styles. Many sketches closely emulated specific cartoon characters from widely recognized franchises like Pokémon, Disney animations, or Japanese animations, whereas others created original characters heavily influenced by recognizable cartoon aesthetics. This tendency to mimic and remix existing animated characters and styles illustrates the generation's deep engagement with global visual media and indicates a strong affinity for familiar, media-inspired visuals. The popularity of this category suggests that designs that incorporate these well-known elements may have a strong appeal to younger consumers, engaging them through a visual language they find both recognizable and compelling.



Figure 12. Examples of sketch categorized in Mimicking Cartoons or Animation. Images by author.

The thematic analysis of these designs provides valuable insights for the development of New Generation Sangkhalok Figurines. It is suggested that successful designs may require a balance of traditional craftsmanship alongside contemporary relevance, global awareness, and influences from popular media. By incorporating elements from each of these categories, it may be possible to develop Sangkhalok figurines that not only appeal to Generation Z consumers but also serve as a bridge between Thailand's rich cultural heritage and the globalized, media-saturated world of today's youth. Future research could investigate the practically implemented of these thematic elements in figurine designs and their resonance with broader segments of the contemporary art market.

### Design Process

From twenty sketches of Sangkhalok figurines designed by the participants, experts assessed and selected them using an evaluation form. The evaluation criteria were:

- 1) Reflecting the lifestyle and activities of Generation Z children in current society (2024)
- 2) Presenting an image and concept that reflects contemporary art styles
- 3) Meeting the requirements of Generation Z children aged 8-15 years in the current era as a toy
- 4) Demonstrating imagination, purity, and innocence (Naïve Art)

The design modification process addressed key challenges inherent in ceramic production, focusing, particularly on the material's fragile nature, while also maintaining traditional Sangkhalok characteristics. Three essential criteria guided the refinement of participant designs. First, shapes were simplified by removing delicate details that could easily break during production or handling, thus preserving the distinctive Sangkhalok ceramic aesthet-



ic. Second, the designs were modified to enhance stability, ensuring that each piece could stand securely without any risk of tipping over. Third, sketch details were refined to align with Sangkhalok ceramic stylistic elements, incorporating characteristic glazing patterns and surface treatments while ensuring efficient production processes.



Figure 13. Examples of design process. Images by author.

This methodical approach struck a crucial balance between preserving the participants' creative vision and meeting both manufacturing requirements and traditional Sangkhalok artistic standards. By making thoughtful modification to the designs, while maintaining their core aesthetic elements and Sangkhalok identity, the process ensured that the final pieces would be both producible and true to their original concepts. The resulting designs have elegantly united contemporary creative expression with the traditional constraints of Sangkhalok ceramic production. This exhibits that maintaining artistic integrity is achievable despite adapting to technical limitations and historical artistic conventions.



Figure 14. Production processes. Image by author.

### Research Outcomes: New Generation of Sangkhalok Figurine Study

The exploring of enhancing Sangkhalok figurines yielded multiple significant achievements across cultural, educational, and social dimensions:

#### Cultural Heritage Integration

The research unveiled key features of traditional Sangkhalok figurines – namely their simplicity, lifestyle representation, and naïve art qualities, serving as vital foundations for contemporary reinterpretation. This comprehension established crucial parameters for modernization whilst upholding cultural authenticity.

#### Generational Engagement and Knowledge Transfer

- Implementation of participatory design methodology with Generation Z (ages 8-15) led meaningful engagement with cultural heritage
- Facilitated valuable knowledge exchange between young designers and traditional Sangkhalok artisans
- Established an intergenerational bridge vital for cultural preservation and evolution

#### Contemporary Adaptation and Innovation

The resulting designs successfully merged:

- Modern youth lifestyle elements
- Contemporary artistic concepts
- Traditional Sangkhalok craftsmanship techniques
- Generation Z aesthetic preferences

#### Educational Impact

The research process functioned as an active learning platform, demonstrating:

- Alignment with Vygotsky's developmental theory
- Enhanced creative expression opportunities
- Practical application of cultural knowledge
- Experiential learning through direct engagement

#### Cultural Sustainability Initiatives

- Established a collaborative framework with Sangkhalok community enterprise
- Developed production methodologies balancing tradition with innovation
- Created a pathway for continued cultural evolution and relevance

#### Public Engagement and Dissemination

The culminating exhibition at Chulalongkorn University Museum (August 27 - September 27, 2024) serves to:

- Showcase research outcomes
- Promote cultural preservation through innovation
- Demonstrate successful integration of traditional wisdom with contemporary design

These findings suggest a viable model for cultural preservation through active youth engagement and contemporary reinterpretation of traditional craft forms.



Figure 15. Examples of finished work. Images by author.

## Recommendations for Cultural Heritage Innovation and Preservation

### Strategic Implementation Recommendations

#### 1. Incorporating innovation into Traditional Crafts

- Encouraging traditional craft communities to embrace contemporary design approaches
- Developing strategies to harmonize innovation with cultural authenticity
- Implementing channels for ongoing input from younger demographics
- Establishing sustainable production practice that respect traditional techniques while integrating modern efficiency

#### 2. Model Expansion and Adaptation by Scaling the participatory design methodology across:

- Different age demographics
- Various community enterprises
- Multiple cultural craft forms
- Diverse geographical regions

Developing standardized yet flexible frameworks for implementation

### Future Development Opportunities

#### 1. Educational Integration

- Incorporate cultural craft programs into formal education curricula
- Develop workshop models for intergenerational knowledge transfer
- Create documentation systems for preserving traditional techniques

#### 2. Community Engagement Enhancement

- Facilitate continuous dialogue between traditional craftspeople and young designers
- Establish platforms for sustained innovation and feedback
- Implement mentorship programs connecting experienced artisans with young learners

This research demonstrates the efficacy of engagement young individuals in the preservation of cultural heritage by means of innovative product development. The methodology serves as a reproducible framework for cultural preservation initiatives, particularly those aimed at younger demographics. Success lies in the considerate balance between honoring traditional practices and embracing contemporary relevance, thereby ensuring cultural sustainability through the active participation of future generations.

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