



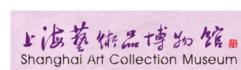
E-PROCEEDING INTERNATIONAL CONFERENCE
**ART ACADEMIC
FORUM**

*Bridging and Connecting The Nations to
Leverage The Insight of Art*

Ahmad Fauzi Amir Hamzah, Wan Samiati Andriana WMD,
Syed Zamzur Akasah Syed Ahmed Jalaluddin, Arif Dwi Kurnia Aji,
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Faculty of Visual Arts
Indonesia Institute of The Arts (ISI) Yogyakarta

In Collaboration



E-PROCEEDING INTERNATIONAL CONFERENCE
ART ACADEMIC FORUM
BRIDGING AND CONNECTING THE NATIONS
TO LEVERAGE THE INSIGHT OF ART

FACULTY OF VISUAL ARTS,
INDONESIA INSTITUTE OF THE ARTS (ISI) YOGYAKARTA
August 20th—21st, 2023



Publisher
BP ISI Yogyakarta 2023

E-PROCEEDING INTERNATIONAL CONFERENCE
ART ACADEMIC FORUM
BRIDGING AND CONNECTING THE NATIONS TO LEVERAGE THE INSIGHT OF ART

ISBN 978-623-5884-37-0

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ISBN 978-623-5884-37-0 (PDF)



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E-PROCEEDING INTERNATIONAL CONFERENCE

ART ACADEMIC FORUM

BRIDGING AND CONNECTING THE NATIONS TO LEVERAGE THE INSIGHT OF ART

The global development of the art world has broken traditional boundaries, expanding beyond local areas to encompass international realms. This evolution, driven by advancements in technology and changing times, has transformed art into a complex entity with new values. The diversity of art development is influenced by the surrounding environment and elements within the art world. Educators and researchers in the art field are encouraged to actively participate in discussions to enrich artistic existence and contribute to human civilization. An academic forum is established to facilitate interdisciplinary discussions, involving fine arts, crafts, multimedia, and design. The collaboration with local and international universities aims to foster a deeper understanding of various art genres. The engagement of diverse disciplines is expected to generate multiple interpretations, leading to valuable conclusions that contribute to overcoming differences and offering new perspectives on art development. The objectives of the forum include strengthening cooperation with partner universities, deepening the understanding of art development in Southeast Asia and Asia, building art discourse, sharing experiences and knowledge, and contributing to human civilization through the advancement of art. The activities are scheduled from August 19th–22nd, 2023, at the Faculty of Visual Arts, ISI Yogyakarta, and Alana Hotel Yogyakarta. Participants include faculty members, invited guests from partner universities (Silpakorn University Thailand, UiTM Malaysia, Shanghai Art Collection Museum, ITB, ISI Denpasar, UKDW, & UNY Yogyakarta) and students from the Faculty of Visual Arts ISI Yogyakarta. The ultimate goal is to establish Southeast Asia and Asia as influential forces in global visual arts.

Preface

Assalamualaikum Warahmatullahi Wabarakatuh,

Peace be upon us.

Om Swastiastu.

Namo Budhaya.

Greetings of Virtue.

It is truly an honor for me, Timbul Raharjo, as the rector of ISI Yogyakarta to deliver this e-proceeding's preface. This gathering marks a remarkable occasion where we celebrate not only the power of knowledge and education, but also the strength of collaboration and unity that binds us together in an event named ART ACADEMIC FORUM 2023; Bridging and Connecting The Nations to Leverage The Insight of Art, organized by Faculty of Visual Art, ISI Yogyakarta.

I am deeply grateful for the opportunity to express my heartfelt appreciation to all those who have contributed to the success of this event. Also, we are honored to welcome our distinguished guests from Malaysia, Thailand, China, and Indonesia as well. Your presence serves as a testament to the global community we are building, one that transcends borders and cultural differences. The exchange of ideas and experiences among our international and national partners enriches us, broadens our perspectives, and paves the way for a brighter future of cooperation.

As we stand at the threshold of endless possibilities, I express my gratitude for the collaborations we have fostered and nurtured. These partnerships have not only enhanced the academic landscape of our university but have also contributed significantly to the advancement of knowledge on a global scale.

With every passing day, we strengthen the bonds that tie us together. It is my sincere hope that these relationships will not only endure but flourish, creating a legacy of shared accomplishments, groundbreaking research, and transformative education. May the flame of collaboration continue to burn brightly, lighting the path for future generations. Together, we can shape a world where the pursuit of knowledge knows no bounds, and where unity paves the way for a better tomorrow.

That's all from me. Thank you.

Wassalamualaikum Warahmatullahi Wabarakatuh,

Peace be upon us,

Om Santi, Santi, Santi Om.

Yogyakarta, August 2023

Rector of ISI Yogyakarta,

Timbul Raharjo

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UNFIRED CLAY SCULPTURE: AN EXPERIMENTATION ON CLAY BODY PROPERTIES

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ABSTRACT

The study of unfired clay qualities focuses on the use of clay as a primary material in the production of a sculpture. As objectives and concerns, researchers are interested in determining and evaluating the material's long-term strength and durability. A variety of elements, including granite, sand, rock, wood, and grog, will be included in clay. By combining components in accordance with the waste-to-wealth principle, a range of tests and experiments will be conducted on the material to determine its strength, durability, and long-term use as a sculpture medium.

Keywords: Unfired clay, wastage material, durability and strength, sculpture

INTRODUCTION

"We are simply wasting resources by burning it instead of considering biological treatment to produce biogas and to compost" (Agamuthu, 2006). The productive use of finite resources has become crucial as we enter the new millennium. Furthermore, items that had been processed and used were being thrown away, leaving Mother Nature to take her course. This has and will continue to have an impact on Malaysia's delicate ecological balance. The former Prime Minister, Tun Abdullah Ahmad Badawi, had expressed the need for waste materials to be recycled and reused. This revelation has inspired the researchers to undertake research on the possibility of combining waste materials with natural materials. Material such as wood stumps could be turned into handicraft items of commercial value by adopting the approach that he termed "waste to wealth". (Former Prime Minister, Tun Abdullah Ahmad Badawi e.d). The critical review of the treatment of waste materials provided a basis for the researchers to look into alternative approaches to the use of clay in a process known as the unfired method. The use of clay in producing artwork such as a ceramic body takes time, and it is a long and arduous process from the greenware to the biscuit before ending up with glaze. In addition, the process is also costly as it involves the usage of the kiln for the firing process.

For a sculptor, the material used is important to give life and meaning to the character of the artwork. There is a possibility of the usage of unfired clay. However, there have not been any serious attempts by artists to explore the usage of unfired clay in producing sculptures in Malaysia. In this case, this research will try to explore a new approach to unfired clay. The use of materials is a way for artists to express themselves in their artworks, and, of course, the usage of unfired clay is cheaper. Contemporary artists who use unfired clay as their material include Sadashi Inuzuka, Titarubi, Rebecca Warren and many more. Understanding unfired clay allows artists to gain experience and experiment with the materials. Waste, rubbish, trash, garbage, or junk are unwanted or undesired materials.

"Waste" is the general term; though the other terms are used loosely as synonyms, they have more specific meanings: rubbish, or trash, is mixed household waste, including paper and packaging; food waste, or garbage, is the kitchen and table waste; and junk, or scrap, is metallic or industrial material. There are other categories of waste as well: sewage, ash, manure, and plant materials from garden operations, including grass cuttings, fallen leaves, and pruned branches.

LITERATURE REVIEW

a. Ceramic Sculpture in Malaysia

In the 1960s, the development of sculpture started in Malaysia's art scene. Besides painting, it also developed the new art movement known as sculpture. This movement gave birth to a new phenomenon for artists who adore playing with three-dimensional substances such as metal, rock, clay, and many more. Some of the artists who were involved in this new movement, such as Anthony Lau, Chan Teck Meng, Teo Tien Eng, Syed Ahmad Jamal have successfully become well-known sculptors. Furthermore, the making processes of the ceramic art scene also have similarities with Malaysia's modern sculpture development. Around the 1970s, more sculptors were fascinated and showed their interest in sculpture from the aspect of idea-making, forms, and the use of materials.

The pioneers of Malaysia's ceramic art scene are Faridah Yusof, Ham Rabeah Kamarun, and Wan Ahmad Wan Mohammad. The development of ceramic sculpture keeps moving forward, and the acceptance from the sculptors is tremendous and excitable. It can be proven by the artwork produced in the ceramic province. Around 2000, there were various styles of ceramics and different ways of interpreting styles existed. The existence of artists over the years helped the development of the ceramic art scene in Malaysia. Examples of ceramic sculptors are Salwa Ayob, Khalil Sulaiman, Mohd Khairi Baharom, Shamsuri Jamaluddin and many more. It shows the acceptance of ceramic sculptures among the artists themselves, who use clay as a medium in the making process in every presentation of artworks. This development has bomb shelled the Malaysian art scene. The various disciplines in the making process have opened a new space for the artists to express and convey themselves in the art scene, whether in the ceramic or fine art province. The materials that have been used by the artists should be used tediously in the presentation and interpretation of the sculptures. In the ceramic province, the artist should use lots of clay as a main material, which has been fired and dissipated. This is so important in the creative-making process because it was the interminable (continuous) process from the greenware, biscuit until it dissipated. All this is the process and the discipline used for the making of ceramic sculptures. This phenomenon is more into the conventional process, and the process used is the same as the earliest ceramic discovered and practiced.

b. Unfired Clay

Since the primitive era, clay has been the main material used by primitive people. Understanding the situation and the level of using the material penetrates the exploration process towards the material. The exploration influences the sculpture-making process. Basically, the clay used in these processes is unfired. In the ceramic field, unfired clay is more commonly recognised as greenware. The strength is brittle, porous, and unstable compared to the fired clay, which is known as "biscuits" and more stable. The unfired clay is the process of producing the ceramic artwork while shaping the form and being neglected to dry. The condition of the unfired clay is between the wet clay until it dries and has neglected to dry and shrivel.

In this situation, the possibilities for using clay are limited because the enzyme between the materials cannot support (the hole), and it doesn't have enough strength and can easily be broken.

From the durability aspect, the unfired clay is more fragile compared to the fired clay, whether in an indoor or outdoor situation. Firing clay is a method to get durability that uses the kiln, but the methods destroy the substances' characteristics. The burning process, which uses the kiln, is a way to get the substances' durability, but it involves a huge cost. The cost of a good and quality kiln is higher and more expensive. It can be divided into various categories of prices and used as an example, prices for a kiln that is not so big will cost around RM20 thousand to RM40 thousand, while the small one will cost around RM10 thousand. The kiln is also facing a problem with customization sizes. Maintenance is also a big factor among the artists themselves because it is quite costly. The use of unfired clay is a way for artists to express their feelings towards their artworks, and, of course, the usage of unfired clay is cheaper.

c. Wastage Materials

Looking at Malaysia's industry development, which keeps moving forward, these development factors have always been put aside and ignored by society. The situation can be proven through the waste materials that were left by the construction project, land clearing, and wood based on the industrial field. Most of the waste materials, such as the overspill wood that has been thrown away by the developer, contribute to the distraction of the earth's ecological system. But if we look at the economy from a point of view, the waste-to-wealth situation can save the overspending cost. According to Professor Agamuthu, converting just 20% of waste into organic compost can earn us RM 3.6 million. Furthermore, approximately 40% of the daily waste received at landfills consists of items that can be recycled again, such as paper, plastic, metals, and glass. Combining all the methods and treating waste in an integrated manner could, at the end of the day, save us a whopping RM 909 million in management costs. That's nine times the amount recently allocated to reduce blast floods in Kuala Lumpur. Recycling has been a common practice throughout human history. In pre-industrial times, scrap made of bronze and other precious metals was collected in Europe and melted down for perpetual reuse, and in Britain, dust and ash from wood and coal fires were recycled as a base material in brickmaking.

The main driver for these types of recycling was the economic advantage of obtaining recycled feedstock instead of acquiring virgin material, as well as a lack of public waste removal in ever more-populated sites. In 1999, recycling and composting activities prevented about 64 million tonnes of material from ending up in landfills and incinerators. Today, the United States recycles 32% of its waste, a figure that has nearly doubled in the last 15 years. While general recycling has increased, recycling of specific materials has increased even more dramatically: 50% of all paper, 34% of all soft plastic drink bottles, 45% of all aluminium beer and soft drink cans, 63% of all steel packaging, and 67% of all major appliances are now recycled. Twenty years ago, only one curbside recycling programme existed in the United States, which collected several materials at the curb. By 2005, almost 9,000 curbside programmes had sprouted up across the nation. As of 2005, about 500 materials recovery facilities had been established to process the collected materials.

Based on the Agamuthu statement (Management, 2005), we can say that waste material can be thrifty from the economic expenditure aspects, and it won't affect or distract the earth's ecological system. The waste material can be useful and beneficial to us if we manage to recycle it again and the material also can produce an alternative product or be "new" again. Recycling is a series of activities that includes collecting recyclable materials that would otherwise be considered waste, sorting and processing recyclables into raw materials such as fibres, and manufacturing raw materials into new products.

METHODOLOGY

a. Experiment Clay and Wastage Materials

In this study, the local clay is the best material to be used in this study. The selection factors are also important to the study and focused on the clay ingredient itself. Local clay is one of the easiest types to obtain and can easily be found. Sayong, Perak is the best location because it has lots of clay. Besides that, clay can also be found around the industrial area of Klang, Selangor, where the area does the trading of ceramic materials commercially. In the process of searching for this waste material, the study is more focused on the waste material that has been left by the Fine Arts student. This search is being conducted because every material that has been used by the student produces a different pattern, form, and so on. For example, the cutting of wood produces wood dust. The wood dust will be collected and kept based on the researcher's needs. All material is collected and kept and will be measured and standardised in gramme measurements.



Figure 1: Clay

(Source: Fine Art Department, College of Creative Arts, UiTM, Shah Alam)



Figure 2: Grog

(Source: Fine Art Department, College of Creative Arts, UiTM, Shah Alam)



Figure 3: Brick

(Source: Fine Art Department, College of Creative Arts, UiTM, Shah Alam)



Figure 4: Granite

(Source: Fine Art Department, College of Creative Arts, UiTM, Shah Alam)



Figure 5: Wood Dust

(Source: Fine Art Department, College of Creative Arts, UiTM, Shah Alam)



Figure 6: Sand

(Source: Fine Art Department, College of Creative Arts, UiTM, Shah Alam)

b. Process

There are five (5) items used in preparing the mixture of the clay, waste materials such as grog, soil, granite, redbrick and wood dust. The clay and the waste materials will be mixed up to get the exact amount of about 250 grams. The entire mixture will be measured in equal amounts and the quantity will be measured using the gramme measurement.

The same measurement on the mixture to ensure the similarity of the substances themselves. In preparing those mixtures, the ingredients play an important role in obtaining a concise and solid ingredient. After the mixing process, the mixture will be formed into a slab shape and left to dry at room temperature for two days. The prototypes, - the formed slabs, are then taken to the Faculty of Mechanical Engineering to be tested for their strength. The researcher will observe the strength of each of the prototypes.



Figure 7: Portable Hardness Test
(Source: Fine Art Department, College of Creative Arts, UiTM, Shah Alam)

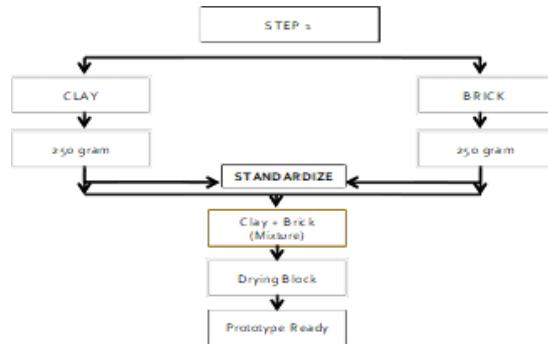


Figure 8: Flow chart
(Source: Fine Art Department, College of Creative Arts, UiTM, Shah Alam)

c. Sketches and Idea development

Sketches play an important role in the artwork-making process. This is because the sketches will illustrate raw designs or ideas. Basically, the sketches are the process of developing the idea before it can be translated into 3-dimensional forms (3D).

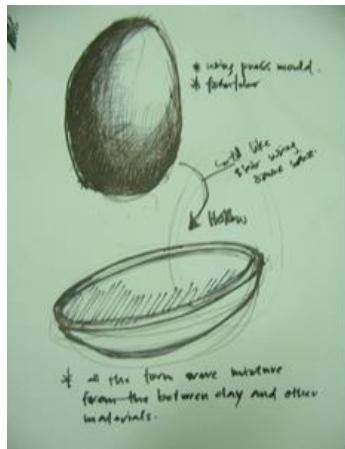


Figure 9: Sketches, Concept, and Development
(Source: Fine Art Department, College of Creative Arts, UiTM, Shah Alam)



Figure 10: Sketchy Outline
(Source: Fine Art Department, College of Creative Arts, UiTM, Shah Alam)



Figure 8: Suggestion Installation sketches
(Source: Fine Art Department, College of Creative Arts, UiTM, Shah Alam)

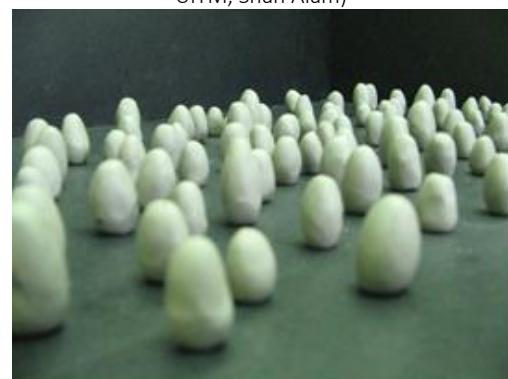


Figure 9: Mockup
(Source: Fine Art Department, College of Creative Arts, UiTM, Shah Alam)

FINDINGS

No.	Prototype	Result
1	Grog	282 kg/Newton
2	Granite	231 kg/Newton
3	Wood dust	272 kg/Newton
4	Brick	278 kg/Newton
5	Sand	209 kg/Newton

Figure 10: Results Finding

(Source: Fine Art Department, College of Creative Arts,
UiTM, Shah Alam)



Figure 21: Final artwork

(Source: Fine Art Department, College of Creative Arts,
UiTM, Shah Alam)

The material that has been tested, such as clay, which has been mixed with waste materials such as grog, granite, sand, wood, and brick, found that the use of the material that has been mixed between clay and grog is more successful compared to other wastage materials. Furthermore, based on the results of the mechanical test and artists' observations, which show the same results, the use of grog with clay is the most successful compared to other waste materials. In comparing the waste materials' durability and strength, basically, every material that has been used in this research is almost the same. Each of them can be drilled and finished, but the mechanical comparison found that the use of grog is more affectionate. This is because grog is clay that has been fired and crushed. The stacking level between grog and clay is higher and stronger compared to other materials. Besides that, the grog is more porous, and more plastic compared to others.

DISCUSSION

Based on the concept of "Journey" this installation depicts the nature of the form itself. Each of the forms created has its own meaning in which the unfired clay mixture that has been mixed with different waste materials represents a temporary strength in a time continuum. The arrangement of the sculptures gives a different interpretation of the installation. This can be seen in the mixture of the forms. The idea of Today, Tomorrow, and the Future is subjected to this installation. Considering the characteristic of clay is temporary, we can deduce a sense of meaning for it in illustrating the concept of the journey of today, tomorrow, and the future. The piece of art also helps to explain the unfired clay approach and the concepts the sculptor tries to depict.

CONCLUSION

We can conclude that using unfired clay with a waste material mixture known as grog is more effective than other methods. The effectiveness of the materials can be demonstrated by the results of the experiments conducted utilising the mechanical test. Furthermore, the research revealed that the usage of waste materials aided in the manufacture of additional materials, such as in the materials reproduction or recycling process. In terms of strength, the utilisation of waste materials provides a novel alternative to the use of unfired clay. Based on the findings, it was demonstrated that ceramics or fine art sculptors can now utilise unfired clay in their artwork without going through the same processes as when manufacturing a ceramic, where the unfired clay needs to be fired. Unfired clay is utilised in artworks to provide meaning to the materials. Even though the prototype lacks long-lasting characteristics, the results are compelling enough to justify the use of unfired clay in the production of the sculptures.

ACKNOWLEDGEMENT

The authors would like to thank the College of Creative Arts, Universiti Teknologi MARA (UiTM) Shah Alam, Malaysia, for the opportunity and support for attending this program. Alhamdulillah. The sincere appreciation goes to those who have been involved and worked closely since the beginning of the research.

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PECI BATIK JOGOKARIYAN SEBAGAI MEDIA KOMUNIKASI ANTAR BUDAYA DAN KEBERAGAMAN BANGSA INDONESIA DI ERA GLOBALISASI

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ABSTRAK

Persoalan tentang batik selalu menjadi hal yang menarik sebab salah satu kebudayaan milik bangsa Indonesia tersebut kini dihadapkan pada tantangan baru yakni globalisasi. Pengaruh globalisasi secara tidak langsung membawa dampak yang besar pada industri batik di Indonesia. Dampak yang dirasakan yakni batik begitu dikenal oleh masyarakat internasional. Perlu diketahui bahwa batik juga seolah kurang begitu mendapat tempat di kalangan generasi mudanya, khususnya dalam mode berbusana. Kondisi saat ini menunjukkan bahwa dalam berbusana saja generasi muda lebih banyak menyukai berbagai pakaian dari luar negeri ketimbang pakaian batik milik Indonesia. Generasi muda menilai bahwa pakaian batik sangat identik dengan pakaian orang tua dan pakaian formal sehingga penggunaannya harus disesuaikan dengan kondisi saat ini. Sehingga penting kiranya untuk menyelaraskan bahwa batik harus mengikuti tantangan zaman. Cara yang dapat dilakukan adalah dengan mengakulturasi dua budaya yang berbeda menjadi satu kesatuan yang utuh, melakukan inovasi dengan maksud menjaga eksistensi dari batik tersebut, dan memperkenalkan keberagaman budaya di Indonesia di kancah internasional. Adapun metode yang digunakan berupa kualitatif dengan pendekatan historis dan netnografi.

Kata Kunci: Peci batik, komunikasi, keragaman budaya, globalisasi

PENDAHULUAN

Indonesia merupakan negara kepulauan yang kaya akan keragaman budayanya. Menurut Suharno (2016:7) keragaman budaya merupakan kondisi dimana sebuah negara ataupun wilayah tertentu ditemukan berbagai unsur kebudayaan yang berbeda-beda. Perbedaan unsur budaya tersebut dapat berupa perbedaan bahasa, ras, suku, dan agama. Adanya perbedaan budaya tersebut di Indonesia memiliki dampak positif dan negatif. Dampak positif dari adanya keragaman budaya tersebut meliputi tertanamnya rasa toleransi antar masyarakatnya, integrasi sosial, memupuk rasa persatuan dan kesatuan, dan memperkaya kebudayaan di Indonesia. Sedangkan dampak negatif dari keberagaman budaya tersebut berupa munculnya sikap fanatisme yang berlebih, rasisme, dan konflik lainnya yang berimbang pada disintegrasi budaya. Apabila dipahami lebih dalam lagi maka dampak yang ditimbulkan dari adanya keberagaman kebudayaan tersebut lebih banyak ke arah dampak negatifnya. Hal ini disebabkan karena sifat manusia sendiri yang selalu berpikir idealis dalam memandang sesuatu khususnya jika berkaitan dengan segala kepentingannya, sesuai dengan sikapnya, dan nilai-nilainya. Maka berbagai pesan komunikasi tersebut akan ditanggapi dengan sifat terbuka. Sedangkan apabila tidak sejalan dengan apa yang menjadi kepentingannya maka akan timbul rasa pertentangan (Effendy, 2003:316).

Di Indonesia sendiri masih sering terjadi berbagai konflik yang diakibatkan karena beragam perbedaan tersebut. Masalahnya cukup bervariasi mulai dari rasisme sampai fanatisme yang berlebih

sehingga menghambat rasa persatuan dan kesatuan bangsa. Salah satu contoh konflik yang paling sering terjadi adalah masih banyaknya ditemukan generasi muda yang lebih menyukai busana bergaya luar negeri ketimbang busana yang dimiliki oleh Indonesia sendiri. Batik misalnya yang penggunaannya masih kurang dibandingkan dengan busana bergaya Eropa, Amerika, atau Korea. Situasi saat ini lebih mengarah kepada bentuk fanatisme generasi muda yang ketertarikannya terhadap budaya tertentu ketimbang budaya lokal. Tidak bisa dipungkiri bahwa perkembangan arus globalisasi memungkinkan setiap individu untuk saling berinteraksi satu sama lain dan mudahnya mendapatkan informasi secara instan sehingga secara tidak langsung dalam satu waktu akan bertemu dua atau lebih budaya yang berbeda. Budaya yang lebih kuat maka akan menjadi tren baru dikalangan generasi muda sehingga secara tidak langsung budaya tersebut akan tertanam dalam dirinya dan diekspresikan dikehidupan sehari-hari. Hal ini tentunya harus mendapat perhatian yang serius sebab akan berimbas pada budaya bangsa khususnya batik.

Batik sudah menjadi budaya yang khas bagi bangsa Indonesia. Batik juga telah banyak mengalami perkembangan zaman mulai dari masa kolonialisme hingga modern seperti saat ini. Sudah seharusnya batik juga terus dilibatkan dalam busana-busana lokal melalui para desainer dengan maksud menyesuaikan dengan perkembangan zaman. Sebab dengan menyertakan sentuhan batik dalam setiap busana lokal sama halnya mengupayakan terjaganya eksistensi batik terutama bagi generasi muda ke depan sebagai upaya pewarisan budaya bangsa. Contohnya adalah proses akulturasi antara batik dengan peci yang dinamakan dengan peci batik Jogokariyan.

PEMBAHASAN

Komunikasi adalah proses penting dalam menyampaikan suatu pesan yang bertujuan untuk mencapai keselarasan atau persamaan persepsi antara komunikator dan komunikan. Selain itu, komunikasi juga diartikan sebagai proses individu dalam mengirim stimulus. Bagi manusia komunikasi sangatlah penting sebab menjadi sarana utama dalam memberikan informasi tertentu terhadap pihak lain. Dalam berkomunikasi seorang komunikator tentunya menuangkan ide atau gagasannya berkaitan dengan segala hal yang bermuatan informasi baik secara verbal maupun non verbal. Komunikasi secara verbal biasanya dilakukan secara lisan maupun tulisan. Sedangkan komunikasi secara non verbal menggunakan bahasa tubuh, sentuhan, dan tanda. Salah satu bentuk dari berkomunikasi secara non verbal adalah tanda.

Dalam perspektif komunikasi antar budaya, keberadaan tanda sudah teramat sering digunakan sebagai pertukaran informasi. Dalam sejarahnya berkomunikasi dengan menggunakan tanda telah ada sejak zaman prasejarah. Dalam hubungannya dengan kebudayaan bahwa komunikasi dengan menggunakan tanda lebih memungkinkan terlebih ketika dua individu memiliki latar belakang budaya yang berbeda seperti bahasa, agama, suku, dan cara hidup. Perbedaan bahasa seringkali menyulitkan dalam berkomunikasi. Sehingga ketika berada dalam kondisi ini lebih memungkinkan untuk menggunakan tanda atau simbol dengan maksud menyatukan persamaan persepsi agar informasi tersebut dapat diterima oleh komunikan. Bahkan cara berkomunikasi menggunakan tanda ini juga lebih memungkinkan dapat diterimanya informasi tersebut hingga ke generasi berikutnya. Salah satu contoh komunikasi dalam hal tanda yaitu batik.

Batik menjadi salah satu komunikasi dalam bentuk tanda atau simbolis. Keberadaan batik sangat penting sebab sebagai media komunikasi yang bertujuan memberikan sebuah pesan baik dari satu generasi ke generasi berikutnya. Menurut Djoemena (1990:10) dalam Pramono (2019) bahwa batik diciptakan tidak hanya sebagai pemenuhan estetika semata akan tetapi juga memberikan sebuah arti atau makna yang erat dengan falsafah hidup manusia pada zaman tersebut dengan maksud agar falsafah

tersebut tetap terjaga dan dilestarikan secara turun-temurun. Melalui warna dan bentuknya batik telah menunjukkan proses komunikasi yang sangat baik sebab di dalamnya telah menunjukkan informasi yang berkaitan dengan budaya yang sedang telah terjadi di masa lampau.

Batik menjadi ekspresi dalam wujud simbol yang merefleksikan setiap kehidupan masyarakatnya sehingga keberadaannya sangatlah penting dan tidak dapat dipisahkan dari bangsa Indonesia. Perbedaan batik antara satu dengan lainnya juga menggambarkan keberagaman yang dimiliki Indonesia. Sebab secara tidak langsung batik telah menunjukkan perannya dalam berkomunikasi seperti menyampaikan kehidupan di masa lalu, menggambarkan geografis asalnya, dan memupuk rasa kesatuan bangsa Indonesia.

a. Batik sebagai informasi sejarah

Batik tidak bisa dilepaskan dari kehidupan masa lalu bangsa Indonesia sebab keberadaannya telah membawa pesan yang sangat mahal. Berbagai peristiwa di masa lalu berhasil diidentifikasi oleh para arkeologi melalui objek temuannya baik berasal dari situs peninggalan sejarah seperti relief candi, arca, dan museum-museum sejarah. Temuan berbagai motif batik yang melekat di dinding candi menegaskan bahwa batik benar-benar sudah ada sejak masa Hindu-Budha. Seperti pada motif *kawung* yang melekat di arca *Siwa Mahakala* dan motif *suluran* yang menghias pada dinding Candi Prambanan.



Gambar 1. Motif Kawung dan motif Suluran

(Sumber: Dokumentasi <https://docplayer.info/47118369-Ragam-hias-candi-candi-di-jawa.html>, diakses pada 14 Agustus 2023)

b. Batik sebagai penggambaran geografis asalnya

Batik tercipta juga tidak jauh dari wilayahnya dimana dalam hal motif saja tentunya sering kali ditemui berbagai bentuk yang khas seperti motif tumbuhan, hewan, manusia, dan alam benda. Terkadang juga menjelaskan berkaitan dengan garis hidup masyarakatnya seperti pada beberapa daerah yang berada di wilayah pesisir sehingga motifnya menggambarkan keadaan alam sekitarnya seperti motif ombak, karang, dan pepohonan sekitarnya. Selain itu juga dapat menggambarkan adanya perbedaan etnis berupa akulturasi budaya seperti motif Islami, motif tiongkok, dan motif Belanda. Ketiga motif tersebut tidak hanya mewarnai keberagaman batik tetapi juga menegaskan bahwa di wilayah tersebut juga terdapat perbedaan akan ras, suku, agama, dan adat istiadanya

masing-masing.

c. Batik sebagai pemupuk rasa kesatuan bangsa Indonesia

Meskipun Indonesia sebagai negara multikultural akan tetapi lewat batik kita dapat memahami berkaitan dengan kondisi yang ada dimana negara telah menjunjung tinggi makna dari pancasila terutama pada butir ke tiga yaitu persatuan Indonesia. Dalam butir tersebut menyimpan harapan yang tinggi agar bangsa ini selalu hidup rukun, damai, dan sentosa kendati dalam budaya yang berbeda-beda. Oleh karena itu, cara yang dapat dilakukan demi mengimplementasikan butir ketiga pancasila salah satunya adalah menyerap berbagai kebudayaan yang ada ke dalam satu media sebagai upaya persatuan dan kerukunan. Seperti yang dilakukan oleh Jardiyanto lewat peci batik Jogokariyan yang mengakulturasikan antara beragam motif batik Nusantara seperti motif *poleng*, *parang*, kontemporer, dan kopi pecah.



Gambar 2. Motif poleng, parang, kontemporer, dan kopi pecah
(Sumber: Dokumentasi Arif Dwi Kurnia Aji, diakses pada 14 Agustus 2023)

PENUTUP

Peci batik Jogokariyan menjadi salah satu media komunikasi yang merepresentasikan keberagaman budaya nusantara. Berbagai sentuhan batik yang melekat pada peci batik Jogokariyan merupakan upaya dalam menjaga keutuhan dan persatuan bangsa agar tidak terpecah belah akibat dari perbedaan yang ada. Selain itu, dengan mengakulturasikan beragam motif batik yang ada menjadi usaha pelestarian budaya nusantara agar tidak hilang akibat hegemoni budaya masa kini yang disebabkan oleh perkembangan zaman. Dalam perspektif komunikasi antar budaya tentunya adanya sentuhan batik tersebut tidak hanya sebagai pemenuhan estetika semata akan tetapi juga memberikan berupa arti dan maknanya sebagai falsafah. Selain itu, turut memberikan informasi mengenai kondisi geografis alam sekitarnya, pemupuk rasa persatuan, dan kesejarahan.

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"MOKKHALAN CLAY" EKSPLORASI ARTISTIK PENCIPTAAN KARYA SENI KERAMIK KOLABORASI 35 SENIMAN 5 NEGARA

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ABSTRACT

"Mokkhalan Clay" is an international ceramic workshop supported by the Office of Contemporary Culture, Ministry of Culture, in the Thasala District of Nakhon Si Thammarat Province, Thailand. The program is attended by 35 artists from 5 invited countries (Korea, Singapore, Australia, Indonesia, and Thailand) with the aim of fostering collaboration between Thai and international artists to explore the creation of ceramic artworks using clay from Mokkhalan. This program also serves as a platform for the exchange of knowledge and artistic exploration in the field of ceramic creation, aimed at elevating the ceramic production of the Mokkhalan artisan community from the local market to the international arena. The activities have resulted in diversified forms of creative expression, technical advancements in artwork realization, product finishing (raku firing), and globally standardized marketing aspects. The collective agreement among international ceramic practitioners to advance the presence of local ceramics in various countries has transformed into scholarly studies in art and culture, as well as practice-based research, in order to enhance the economic livelihoods of the creative community participants. The values of local wisdom in global development require collaboration between local communities, governments, international organizations, and academic institutions. The integration of local knowledge and practices into global policies can help create a more sustainable, just, and inclusive world.

Keywords: Mokkhalan, art-culture, collaboration, ceramics

ABSTRAK

"Mokkhalan Clay" merupakan kegiatan workshop internasional keramik yang didukung oleh Kantor Kebudayaan Kontemporer Kementerian Kebudayaan di Distrik Thasala Provinsi Nakhon Si Thammarat Thailand. Program ini diikuti oleh 35 seniman dari 5 negara yang diundang (Korea, Singapura, Australia, Indonesia, dan Thailand) bertujuan untuk mendorong kolaborasi antara seniman Thailand dan internasional guna menjelajahi penciptaan karya seni keramik menggunakan tanah liat dari Mokkhalan. Program ini juga sebagai wahana pertukaran ilmu pengetahuan dan eksplorasi artistik di bidang kreasi keramik untuk meningkatkan produksi keramik dari komunitas pengrajin Mokkhalan naik kelas yaitu dari pasar lokal ke pasar internasional. Kegiatan ini telah menghasilkan diversifikasi kreasi bentuk, teknologi teknis perwujudan karya, finishing produk (*raku firing*), dan aspek pemasaran berstandar mutu global. Kesepakatan bersama para pelaku keramikus internasional untuk memajukan eksistensi keramik lokal di berbagai negara menjadi kajian ilmiah seni dan budaya serta *practice based research* guna memajukan kehidupan ekonomi yang mensejahterakan masyarakat pelaku kreatifnya. Nilai-nilai kearifan lokal dalam pembangunan global sangat diperlukan kolaborasi antara masyarakat lokal, pemerintah, organisasi internasional, dan lembaga akademis. Integrasi pengetahuan dan praktik lokal dalam kebijakan global dapat membantu menciptakan dunia yang lebih berkelanjutan, adil, dan inklusif.

Kata Kunci: Mokkhalan, seni-budaya, kolaborasi, keramik

PENDAHULUAN

Kegiatan yang bertajuk *Mokkhalan Clay From Local to Global Art* menjadi bukti keseriusan pemerintah Thailand dalam rangka meningkatkan taraf hidup sosial ekonomi masyarakat dan mempertahankan eksistensi budaya lokal pada pengrajin gerabah Mokkhalan di Nakhon si Thammarat Thailand. Keramik Mokkhalan memiliki beberapa keunikan yang dibuat dengan teknik putar *electricwheel*, difinishing dengan teknik tradisional *burnish* dan dekorasi *stamp* dari alat sederhana terbuat dari kayu atau bambu serta dekorasi *engobe*. Ketersediaan bahan baku tanah liat sangat melimpah dari tanah liat yang bersuhu rendah dengan warna kuning sampai pada tanah bakaran tinggi dengan karakter warna abu-abu kehitaman. Selain itu, keramik Mokkhalan juga mempunyai ciri khas tungku pembakaran yang disebut dengan *elephant trunk* hasil pengembangan tungku gua atau tungku sarang rayap peninggalan budaya dari nenek moyang mereka. Proses pembakaran dengan tungku *elephant trunk* memakan waktu 7 hari menggunakan bahan baku bakar dari kulit dan batok kelapa (sepet). Keunikan inilah yang menjadi ciri khas budaya keramik Mokkhalan yang wajib dipertahankan karena mengandung pendidikan karakter yaitu melatih kesabaran dan sebagai salah satu *branding* kota Nakhon si Tammarat Thailand bagian Selatan sebagai kota penghasil keramik.

Keberadaan keramik yang menjadi identitas budaya masyarakat dan telah menjadi sumber ekonomi masyarakat lokal terus digalakkan dengan mengadakan event workshop keramik berkelas internasional. Perubahan dunia global pasca pandemic covid 19 membawa pada perubahan yang cepat memaksa kita untuk berdamai dengan keadaan yang ada. Perubahan tidak selalu mengindikasikan kemajuan yang positif, tetapi sering kali memiliki aspek negatif seperti perpecahan dan krisis identitas (Adi Satriyo, 2013, p. 167). Diakui oleh salah satu masyarakat pelaku industri keramik Mokkhalan dalam acara kunjungan dan ramah tamah 35 seniman dari 5 negara menyebutkan bahwa keberadaan laju ekonomi mereka kian terpuruk karena pandemic Covid-19. Hingga saat ini pun belum menunjukkan dampak yang baik. Beliau berharap perhatian dari pemerintah secara kontinyu dan terstruktur untuk kembali menjadikan Mokkhalan sebagai destinasi wisata edukasi keramik dan budaya. Melalui kegiatan workshop, pameran, dan eksplorasi artistik yang mendatangkan kolaborasi dari 5 negara diharapkan akan memberikan dampak perubahan yang signifikan, sehingga eksistensi industri keramik di Mokkhalan kembali berjaya dan mampu meningkatkan ekonomi yang mensejahterakan. Hal serupa juga disampaikan oleh pihak Kantor Kebudayaan Kontemporer Kementerian Kebudayaan di Distrik Thasala Provinsi Nakhon Si Thammarat Thailand agar event ini mampu memberikan perubahan besar, baik secara pengetahuan, teknologi, distribusi pasar, dan lainnya untuk kemajuan masyarakat pengrajin keramik di Mokkhalan. Pemerintah Thailand juga mengakui bahwa keadaan ini bermula ketika untuk alasan keselamatan semua warganya dari Covid-19 terpaksa harus menutup semua destinasi wisata yang merupakan sumber devisa negara dan sampai hari ini belum semuanya normal kembali.

Fabeil, Pazim, dan Langgat dalam artikel mereka yang diterbitkan di *Journal of Economics and Business* dengan judul "*The Impact of Covid-19 Pandemic Crisis on Micro Enterprises: Entrepreneurs' Perspective on Business Continuity and Recovery Strategy*" menjelaskan bahwa kebijakan pemerintah yang membatasi perjalanan dan mobilitas wisatawan saat pandemi COVID-19 berdampak langsung pada sektor usaha kecil. Para pengusaha menghadapi pembatalan atau penutupan bisnis dan pendapatan yang berkurang akibat penutupan beberapa sektor pendukung seperti ritel dan transportasi. Para pengusaha terus berupaya untuk menunjukkan kemampuan mereka bertahan dalam bisnis dengan mengadopsi beberapa pendekatan untuk menjaga kesinambungan bisnis dan merumuskan strategi pemulihan, terutama dalam hal pengiriman dan pemasaran produk. Bagi

pengusaha mikro yang mengelola bisnis di tengah situasi krisis, terutama di daerah yang kurang berkembang, sangat penting untuk memperoleh bantuan dan fasilitas pendukung yang sesuai. Hal ini mencakup penguasaan pengetahuan dan keterampilan terkait metode manajemen krisis (Fabeil, 2020, pp. 837-844).

Penciptaan desain baru dan strategi pemasaran sudah dilakukan oleh masyarakat khususnya pengrajin keramik di Mokkhalan, baik secara personal maupun komunal akan tetapi masih belum meningkatkan nilai tambah signifikan. Covid 19 yang sudah berlalu belum memberikan perubahan besar terhadap Mokkhalan yang dikenal sebagai sentra industri keramik terbesar di wilayah Thailand Selatan. Melihat persoalan tersebut dibutuhkan suatu terobosan dengan menyelenggarakan *international ceramic workshops* untuk menjaring informasi dari sesama pelaku industri keramik, budayawan, seniman, akademisi, dan pemerintah. Kolaborasi menjadi solusi yang dianggap paling sesuai sehingga pemerintah Thailand mengundang 35 seniman keramik dari 5 negara untuk bersama-sama membantu Mokkhalan kembali menapaki jalur kesuksesan penjualan produk keramiknya. Kolaborasi dengan berbagai negara, juga dikenal sebagai kerjasama internasional, adalah proses di mana negara-negara bekerja sama untuk mencapai tujuan bersama atau mengatasi tantangan yang melintasi batas nasional. Kerjasama semacam itu dapat melibatkan berbagai bidang, termasuk politik, ekonomi, sosial, lingkungan, ilmiah, teknologi, seni, dan budaya. Ada beberapa bentuk kolaborasi dengan berbagai negara, seperti perjanjian dagang, kemitraan keamanan, kerjasama ilmiah, program bantuan, workshop, seminar, dan banyak lagi.

Kolaborasi yang dilakukan melalui event Mokkhalan Clay juga menjadi wahana pemecahan masalah secara global. Kolaborasi memiliki arti yang luas dan umum, menggambarkan situasi di mana dua orang, institusi, atau lebih bekerja sama dengan saling memahami masalah yang dihadapi dan berusaha bersama-sama untuk membantu memecahkan masalah tersebut. Bahkan dalam konteks yang lebih spesifik, kolaborasi merujuk pada kerja sama yang intensif untuk mengatasi permasalahan yang dihadapi kedua belah pihak secara bersamaan (O'Leary, 2010). Demikian juga, pandangan yang hampir serupa disampaikan oleh (Camarihma-Matos, 2008) yang menjelaskan bahwa kolaborasi adalah suatu proses di mana beberapa entitas atau kelompok saling berbagi informasi, sumber daya, serta tanggung jawab dalam suatu program kegiatan yang direncanakan, dilaksanakan, dan dinilai bersama, dengan tujuan mencapai target yang telah disepakati secara bersama. Pertukaran ilmu dan informasi para stake holder yang bergerak dalam bidang keramik akan membuka pengetahuan baru bagaimana keramik Mokkhalan harus dikembangkan dan produknya dapat masuk dalam pasar internasional. Kerjasama ekonomi antara negara-negara dapat membuka peluang perdagangan baru, investasi, dan akses ke pasar yang lebih luas. Ini dapat menguntungkan pertumbuhan ekonomi dan penciptaan lapangan kerja di berbagai negara. Kolaborasi ilmiah dan teknologi antar negara dapat memfasilitasi pertukaran pengetahuan, penelitian bersama, dan pengembangan teknologi baru yang bermanfaat bagi semua pihak. Program bantuan dan kerjasama dalam bidang pembangunan dapat membantu negara-negara yang kurang berkembang untuk meningkatkan akses pendidikan dan mengurangi kesenjangan sosial. Interaksi lintas budaya yang terjadi melalui kolaborasi internasional dapat menghasilkan pertukaran ide, gagasan, dan tradisi budaya lokal yang pada gilirannya dapat memajukan budaya global secara berkelanjutan.

PEMBAHASAN

Mokkhalan adalah sebuah desa yang terdapat di wilayah Nakhon si Tammarat yang menjadi sentra keramik di Selatan Thailand. Nakhon Si Thammarat merupakan provinsi tertua di Thailand yang berlokasi di bagian selatan negara tersebut. Di provinsi ini, terdapat berbagai situs bersejarah yang berhubungan dengan agama Buddha. Salah satu contohnya adalah vihara-vihara yang menjadi saksi historis dari perjalanan agama Buddha dari Sriwijaya ke Thailand. Sriwijaya merupakan sebuah kerajaan maritim yang pusatnya terletak di Sumatera dan berdiri pada sekitar abad ke-7 hingga ke-13 Masehi. Kerajaan ini dikenal sebagai pusat perdagangan dan penyebaran agama Buddha di kawasan Asia Tenggara. Sriwijaya juga memiliki keterkaitan erat dengan kerajaan-kerajaan di Thailand, seperti Dvaravati dan Lavo. Salah satu bukti konkret hubungan antara Sriwijaya dan Thailand adalah keberadaan vihara-vihara yang didirikan oleh para raja Sriwijaya di Nakhon Si Thammarat. Arsitektur vihara-vihara ini memiliki kesamaan dengan vihara-vihara di Sumatera, termasuk bentuk stupa dan hiasan ukiran. Salah satu vihara tertua dan terbesar di Nakhon Si Thammarat adalah Wat Phra Mahathat Woramahawihan, juga dikenal sebagai Wat Phra Borommathat. Vihara ini didirikan pada abad ke-8 oleh Raja Sriwijaya Dapunta Hyang Sri Jayanasa sebagai tempat penyimpanan relik Buddha. Vihara ini menampilkan stupa utama yang memiliki ketinggian mencapai 78 meter dan dihiasi dengan lapisan emas. Bentuk stupa ini juga mirip dengan stupa Borobudur di Indonesia. Vihara-vihara di Nakhon Si Tammarat juga berhubungan dengan penciptaan produk keramik sebagai sarana peribadatan dan dekorasi interior maupun eksteriornya.



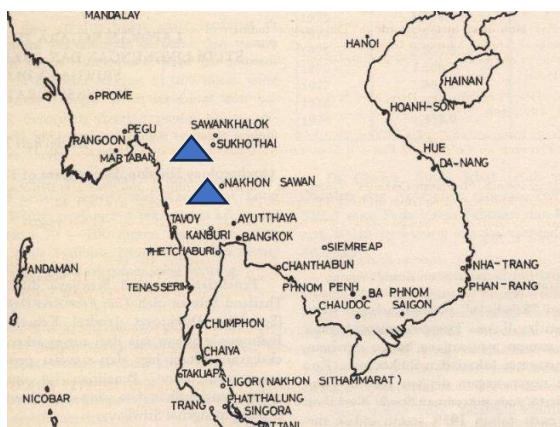
Gambar 1. Vihara Wat Phra Mahathat Woramahawihan di Nakhon Si Tammarat yang bangunannya mirip dengan candi Borobudur di Jawa Tengah Indonesia
(Sumber: Dokumentasi Penulis, diambil 3 Agustus 2023)©©

Phasook Indrawooth dalam Jurnal Amerta (1983) yang berjudul Studi Keramik Lokal Thailand Selatan Serta Hubungannya Dengan Kebudayaan Drawati dan Sriwijaya menerangkan bahwa telah ditemukan gerabah yang berkarakter halus oleh tim peneliti arkeologi dari Slipakorn University Thailand. Temuan gerabah halus tersebut berupa guci-guci berkaki dengan tepian membuka dihias dengan teknik gores yang menggambarkan tangkai lotus yang disamarkan. Hiasan ini terdapat pada pundak dan dibawah sambungan leher dengan badan bodi guci. Disamping itu juga ditemukan kendi-kendi halus berwarna putih susu dengan ceret (cucuk) yang panjang dan meruncing, benda-benda ini mirip dengan temuan kendi-kendi berceret panjang yang ditemukan di Sumatera dan Jawa Tengah. Hal ini membuktikan bahwa ada keterkaitan atau hubungan dengan kebudayaan Sriwijaya

atau Drawati yang menggunakan produk guci atau kendi sebagai sarana peribadatan dan alat rumah tangga pada masa lalu yang sejalan dengan temuan di situs Museum Nasional Propinsi Nakhon Si Tammarat. Disamping itu terdapat peta persebaran beberapa vihara penting yang juga menggunakan keramik-keramik sebagai sarana ibadah dan kebutuhan lainnya yang digunakan dalam vihara tersebut (Indrawooth, 1983, pp. 23-27). Terdapat berbagai bentuk keramik yang digunakan untuk berbagai tujuan dan simbolisme dalam upacara agama Buddha, Namun, perlu diingat bahwa praktik dan penggunaan keramik ini bisa bervariasi tergantung pada tradisi Buddha dan budaya tempat pelaksanaannya. Pentingnya simbol dalam agama terungkap melalui pelaksanaan upacara atau aktivitas keagamaan. Dalam konteks ini, kehidupan tampaknya dipandu oleh simbol-simbol, yang membentuk dan mengarahkan jalannya (Kontjaraningrat, 1980, p. 18)

Beberapa bentuk keramik yang umumnya digunakan dalam upacara agama Buddha sebagai simbol secara umum, yaitu:

- Mangkuk (Bowl): Mangkuk digunakan oleh para biksu untuk menerima makanan dalam praktik "mendapatkan makanan" (pindapata). Mangkuk ini melambangkan kesederhanaan dan ketergantungan pada pemberian masyarakat.
- Piring dan mangkuk kecil yang digunakan untuk menaruh makanan yang akan diberikan kepada para biksu dalam upacara pemberian makanan (dana). Ini adalah bentuk dari kebijakan memberi dan keberbagian.
- Lembaran daun lontar atau piring besar yang dalam beberapa tradisi Buddha, lembaran daun lontar digunakan sebagai alas untuk menaruh makanan atau benda-benda suci selama upacara.
- Cawan air yang digunakan untuk membersihkan tangan atau untuk menyirami bunga dan tumbuhan selama upacara, yang melambangkan kebersihan dan keindahan.
- Vase bunga keramik berbentuk vas atau wadah bunga digunakan untuk meletakkan bunga selama upacara sebagai simbol kemurnian, keindahan, dan kerapian.
- Wadah dupa yaitu wadah ini digunakan untuk membakar dupa atau bahan harum selama upacara sebagai tanda penghormatan kepada Buddha, Dharma, dan Sangha.
- Patung Buddha dan arca-arca Keagamaan: Meskipun biasanya terbuat dari berbagai bahan, termasuk kayu dan batu, ada juga patung Buddha dan arca keagamaan yang dibuat dari keramik.



Gambar 2. Peta persebaran Vihara dan situs penting peninggalan keramik di Thailand Selatan menurut Phasook Indrawooth dalam Jurnal Amerta (1983, p.27)
(Sumber: Dokumentasi Penulis, diakses 10 Agustus 2023, pukul 8.35 WIB)

Eksistensi keramik di Thailand yang terbesar ada di wilayah utara yang sampai hari ini menjadi penghasil keramik yang maju dengan sistem pembakaran suhu tinggi bergelasir. Berbeda dengan keramik yang diproduksi di wilayah Thailand Selatan. Keramik menjadi bagian penting dalam perkembangan sejarah kebudayaan manusia. Produk kerajinan tertua yang tercatat dalam sejarah peradaban dan kebudayaan manusia adalah keramik. Menurut catatan sejarah, orang-orang di Afrika Timur sudah mengenal keramik sejak 2.6 juta tahun yang lalu. Namun, perkembangan keramik yang menyebar ke berbagai wilayah dunia baru terjadi pada zaman Neolitikum atau sekitar 15 ribu hingga 10 ribu tahun yang lalu. Seiring berjalanannya waktu, keramik telah terus berkembang menjadi bahan yang sangat penting hingga saat ini. Material keramik dapat ditemukan dalam berbagai produk teknologi, termasuk komponen pesawat ruang angkasa, perangkat komputer, dan berbagai aplikasi lainnya (Smith, 1996).

Menurut Kedutaan Indonesia-Bangkok yang ditulis dalam buku untuk memperingati hubungan bilateral ke 70 tahun Thailand-Indonesia menyebutkan kebijakan khusus dalam membina keberagaman budaya terutama dalam hal seni tradisi masyarakat. Dalam tulisan buku tersebut menjelaskan bahwa Thailand memiliki keberagaman budaya dan senantiasa melestarikan adat dan tradisi, seraya tetap menyerap beragam budaya dari luar sehingga memperkaya khasanah budaya Thailand. Kebudayaan Thailand dipengaruhi oleh ajaran agama terutama Buddha Theravada serta budaya India, Cina, Khmer dan tradisi lainnya dari semenanjung Asia Tenggara. Dengan populasi sekitar 66.413.979 juta jiwa (data Ministry of Interior, 31 Desember 2018), sekitar 80% merupakan suku Thai, 10% suku Cina dan 3% suku Melayu. Selebihnya adalah suku-suku minoritas meliputi Mon, Khmer dan beberapa suku gunung (hilltribe). Terdapat 5 agama utama yang diakui pemerintah. Sekitar 89% menganut agama Buddha dari sekte Theravada. Islam merupakan agama terbesar kedua dengan pemeluknya sekitar 10%. Agama Kristen utamanya Katholik sebanyak 0,7% dari populasi. Terdapat pula kelompok kecil masyarakat yang cukup berpengaruh yang menganut ajaran Sikh dan Hindu yang sebagian besar berprofesi sebagai pedagang. Kelompok penganut agama Kristen juga memberikan kontribusi besar dalam pembangunan Thailand utamanya di bidang pendidikan dan kesehatan.

Semua kelompok masyarakat dapat hidup secara harmoni dan mendapat kebebasan memeluk dan menjalankan agama dan kepercayaan masing-masing sebagaimana dijamin dalam Konstitusi Thailand. Raja merupakan pelindung semua agama. Dalam perjalannya, kebijakan pembangunan pemerintah Thailand sangat menghargai nilai budaya lokal masyarakat. Proyek pembangunan banyak melibatkan partisipasi masyarakat lokal yang ditujukan untuk pembangunan berkelanjutan. Dalam mendukung pembangunan, khususnya wilayah pedesaan, Pemerintah Thailand memberikan pelatihan secara umum kepada tenaga kerja/masyarakat usia produktif Thailand untuk dapat bersaing dalam pasar global. Kesiapan Thailand ini ditunjukkan melalui kebijakan Pemerintah dalam menerapkan program yang dikenal dengan One Tambon One Product (OTOP) yang diadopsi dari kebijakan One Village One Product Jepang. OTOP pada dasarnya adalah suatu konsep atau program untuk menghasilkan satu jenis komoditas atau produk unggulan. OTOP merupakan program stimulus entrepreneurship yang bertujuan untuk mendukung keunikan lokal dan mempromosikan produk dari setiap tambon (desa/kecamatan) di seluruh wilayah Thailand yang meliputi 77 provinsi, 8 distrik, 255 sub distrik, serta 787 desa. OTOP juga bertujuan untuk memperkuat ekonomi akar rumput Thailand dengan menghasilkan berbagai macam produk *handycrafts*, garmen, keramik, *fashion accessories*, peralatan rumah tangga dan makanan minuman, hingga produk *home decoratives*. Masing-masing wilayah Thailand memiliki kekhasannya masing-masing (Kedutaan Besar Republik Indonesia Bangkok, 2020, pp. 1-70). Kebijakan satu desa satu

produk OTOP inilah yang terus digalakkan oleh pemerintah Thailand dalam membangun *branding* sebuah kota untuk menjadi ciri khas dan pembeda wilayah lain dalam pengembangan potensi ekonomi yang kuat dan berkelanjutan.

a. Sejarah Desa Keramik Mokkhalan

Menurut penjelasan dari Dosen Seni Rupa di Nakhon University of the Art (Don Salvador, 41 thn) yang pernah meneliti keberadaan keramik di Mokkhalan dan (Wanitchaya Nualanong, 45 th) sebagai ketua program "Mokkhalan Clay" memberikan penjelasan bahwa komunitas pengrajin keramik Mokkhalan adalah sebuah komunitas kuno yang terletak di atas sebuah tanah tandus tua sekitar 100 meter di sebelah utara puing-puing Mokkhalan. Di masa lampau, diperkirakan lebih dari 100 km tanah digunakan sebagai industri gerabah lokal di wilayah ini. Sebelum porselen dari Tiongkok dan tembikar dari periode Sukhothai mendominasi pasar. Hal menakjubkan adalah saat berjalan melalui jalur Kuil Rang Chan, Kuil Rang Pueang, Kuil Mo Khlan, serta area luas tersebut ditemukan gundukan-gundukan yang mirip seperti bentuk sarang rayap. Gundukan tersebut disekelingnya juga terdapat sebuah tumpukan besar dengan pecahan-pecahan gerabah. Sambil berjalan di sepanjang sungai Klong Ma, kita akan melihat pecahan-pecahan tembikar muncul berulang kali hingga mencapai lokasi desa Mokkhalan. Fenomena gundukan sejarah ini disebut dengan istilah "*Water Museum of the Ma Ying Canal*". Gundukan tersebut akhirnya digali oleh masyarakat Mokkhalan dan menemukan sebuah peninggalan artefak berupa tungku primitif yang diperkirakan sebagai tungku pembakaran keramik.

Tungku primitif ini merupakan prototipe tungku pendingin (*updraught kilns*) peninggalan teknologi pembakaran dari kebudayaan nenek moyang mereka yang membuat tungku seperti sarang rayap dengan membangun tungku memanjang. Tungku ini masih terus dijaga dan dipelihara dengan baik sebagai suatu hasil kekayaan budaya peninggalan nenek moyang mereka sebagai pembuat kerajinan keramik. Tungku ini memberikan inspirasi dalam pembakaran keramik dengan sistem membuat gua memanjang agar pembakaran keramik memiliki suhu pembakaran yang konstan dan merata. Dari penggalian yang telah dilakukan juga ditemukan pecahan-pecahan tembikar berupa fragmen terendap dalam lapisan-lapisan yang sangat dalam. Juga ditemukan tembikar kuno dengan dekorasi motif-motif kuno yang belum dapat dipahami secara jelas apa makna filosofi dalam hiasan tersebut. Ornamen kuno tersebut diperkirakan berhubungan dengan pola kepercayaan religius masa lalu (animisme-dinamisme) yang berupa ornament baris luar alur yang dicampur dengan titik-titik yang berbintik-bintik, cap pada bodi keramik berbentuk huruf S, berupa bentuk pohon dengan ranting dan ujung ranting berbentuk bulatan tanah. Perlu ada kajian riset dengan pendekatan ilmu arkeologi atau yang lainnya agar ornamen-ornamen pada masa lampau yang diyakini memiliki makna filosofi dapat terbaca maksud dan tujuannya. Peninggalan nenek moyang dengan membuat tungku berbentuk memanjang seperti gua kemudian diadopsi oleh masyarakat pengrajin keramik Mokkhalan dengan membuat tungku serupa tetapi dibuat lebih pendek dengan istilah tungku belalai gajah (*elephant trunk kilns*) yang keberadaannya masih digunakan untuk membakar produk keramik hingga sekarang.

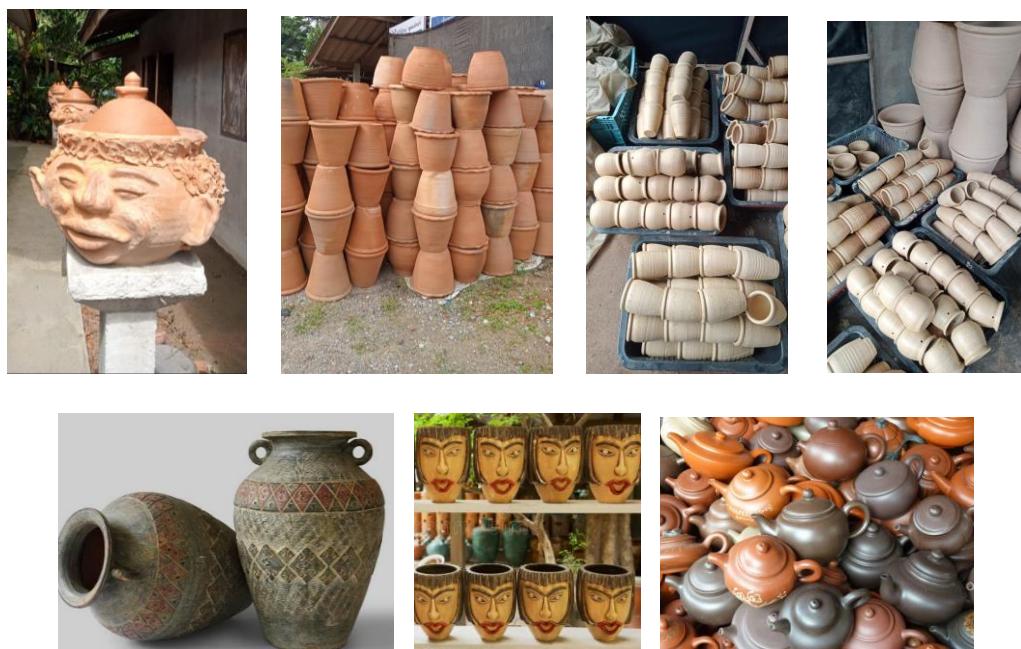
Di masa lalu, tanah dari "Thung Nam Khem" tanah liatnya untuk dapat digunakan sebagai bahan keramik harus dihancurkan menjadi potongan-potongan kecil kemudian direndam dengan air dan disatukan dengan cara manual. Tanah yang sudah homogen dengan air pada tingkat plastisitas tertentu dapat digunakan untuk membuat produk-produk fungsional berupa alat-alat keperluan rumah tangga dan memasak. Hasil produknya kemudian dikeringkan dan dibakar dengan tungku gua atau tungku sarang rayap dengan menggunakan sekam padi atau daun kering sebagai bahan bakar.

Hasil pembakaran produknya bersifat pembakaran oksigen atau oksidasi juga berupa pembakaran reduksi. Jika melihat artefak yang ditemukan warna keramiknya tidak semua berwarna merah tanah terang tetapi sebagian juga berwarna gelap kehitaman seperti karakter pembakaran reduksi.



Gambar 3. Bentuk tungku belai gajah (*elephant trunk kilns*) yang mengadopsi bentuk tungku gua atau tungku sarang rayap peninggalan neneh moyang masyarakat pengrajin keramik Mokkhalan
(Sumber: Dokumentasi Penulis, diambil 2 Agustus 2023)

Pola putaran atau teknik putar yang digunakan disebut "mon", yang dibuat dari kayu atau semen/batu yang dibuat 2 bagian yang berbeda, satu di atas lebih besar dan dua potongan yang dibuat lebih kecil. Teknik pembuatan produknya dengan cara memberikan air pada tanah agar licin dan mudah dibentuk. Pembentukannya dengan cara menekan dengan lapisan kain di atas permukaan tangan dengan cara kain dibasahi air dan ditekankan di sepanjang bodi permukaan tanah untuk membuat sebuah bentuk yang dinginkan. Bagian dalam dibuat dengan "Luk Tho", dipoles dengan "Saba", dan bagian luarnya dihias dengan pola atau corak. Pewarnaan bodi keramik dengan membuat tanah warna berbeda agar memberikan kesan menarik yang dalam ilmu keramik disebut *engobe*.



Gambar 4. Berbagai bentuk produk keramik Mokkhalan dan finishing tanah berwarna (*engobe*)
(Sumber: Dokumentasi Penulis, diambil 2 Agustus 2023)

b. Kolaborasi dan Kreasi Artistik 35 Seniman 5 Negara

Tanah liat Mokkhalan sebagai bahan baku utama pembuatan produk kreasi artistik keramik memiliki karakteristik tanah yang secara visual berkarakter bakaran suhu rendah atau *earthenware*. Akan tetapi tanah keramik Mokkhalan juga dapat dibakar sampai suhu tinggi dengan tingkat plastisitas yang baik. Tingkat plastisitas tanah liat Mokkhalan mampu digunakan untuk pembuatan produk keramik dengan berbagai teknik dan ukuran. Terbukti oleh masyarakat pengrajin keramik Mokkhalan mampu membuat produk-produk fungsional bersifat silindris dan non silindris dari ukuran terkecil 5 cm dan yang besar sampai mencapai 100 cm. Tetapi pelaku keramik Mokkhalan saat ini generasinya tidak banyak yang mampu memutar sampai ketinggian 100 cm, pada umumnya paling besar hanya 70 cm. Plastisitas merujuk pada fleksibilitas dan kemampuan penyesuaian tanah liat. Dalam seni keramik, tingkat plastisitas dari tanah liat memiliki peran yang sangat penting dalam proses pembuatan produknya. Tanah liat yang memiliki plastisitas tinggi lebih mudah untuk dibentuk dibandingkan dengan yang memiliki plastisitas rendah. Karakteristik plastisitas dipengaruhi oleh partikel tanah, substansi organik yang mengalami pelapukan, dan aktivitas bakteri (Astuti, 2008, p. 5). Sifat plastis dari lempung adalah bila dicampur dengan air sedikit demi sedikit kemudian diremas-remas atau dipijit akan homogen dan liat, maka lempung itu akan mudah dibentuk. Plastisitas tanah liat tidak terjadi begitu saja, tetapi lempung ini terjadi karena pelapukan dan erosi angin, air dan gletser, sehingga berbentuk halus. Lempung primer atau residu adalah lempung yang terdapat di dalam batuan induknya (kerak bumi) atau tidak jauh dari batuan induk dan tidak terpindahkan dari tempatnya, baik oleh angin, air, maupun gletser (Suharson, 2015, pp. 10-15).

Kolaborasi 35 seniman dari 5 negara yang memiliki *background* keahlian berbeda dimaksudkan untuk dapat memberikan solusi terbaik atas masalah turunnya nilai penjualan produk keramik Mokkhalan dengan melakukan kolaborasi penciptaan kreasi artistik. Hal ini memang tidak mudah tetapi juga menjadi tantangan bersama untuk membuat keramik Mokkhalan kembali memiliki pasar keramik yang baik. Diskusi awal menjadi sajian utama dengan melakukan kunjungan langsung ke sentra keramik dan melakukan tanya jawab seputar permasalahan yang ada pada keramik Mokkhalan. Metode diskusi merupakan suatu yang berkaitan erat dengan proses mencari cara untuk memecahkan suatu masalah (*problem solving*) secara objektif dan tepat (Syah, 2004, p. 205). Pemecahan masalah dari masalah keramik Mokkhalan dimulai dari segi teknis pembahanan, teknik produksi, dekorasi, pembakaran, finishing, sampai pada jalur distribusi pemasaran keramik. Hasil diskusi menunjukkan terjadi permasalahan yang harus dicari solusi terbaik. Masalah terbesar ada pada diversifikasi bentuk produk keramik, inovasi teknik produksi dan pembakaran, serta pemasaran di era digital.

Berkenaan dengan kapasitas seniman yang dihadirkan tidak semua sama sebagai keramikus tetapi juga para kreator pematung (*sculpture*) ternama dari negara Thailand. Kehadiran para keramikus dan pematung ini akan memberikan solusi terbaik untuk kemajuan keramik Mokkhalan yang memiliki keunikan dan tidak meninggalkan budaya terhadap nilai-nilai *local genius* yang akan tetap menjadi *branding* kota Nakhon Si Tammarat. Sebuah kota perlu mengembangkan identitas yang kuat agar dapat membentuk citra sejalan dengan potensi yang dimiliki kota tersebut. Proses pembentukan *branding* kota memiliki dampak dalam membuat persepsi pengunjung tentang kota tersebut, karena citra kota mencerminkan unsur-unsur yang ada dalam kota dalam jangka waktu yang lama. Ini berarti bahwa citra kota memiliki dampak pada bagaimana para wisatawan memandang kota dan memutuskan apakah mereka akan mengunjunginya atau tidak. Secara keseluruhan, jika citra kota terdefinisi dengan baik, calon wisatawan akan memiliki pemahaman yang lebih jelas mengenai berbagai produk wisata yang ditawarkan oleh kota tersebut. Penggunaan *branding* tidak hanya

sebagai sarana pengelolaan kota, tetapi juga sebagai instrumen untuk menyampaikan citra positif guna meningkatkan pandangan yang dimiliki oleh berbagai pihak berkepentingan. *Branding* tidak memiliki kemampuan untuk mengubah substansi suatu kota, namun dapat berperan dalam meningkatkan daya saing secara menyeluruh (Anholt, 2007, pp. 1-13).

Hal ini juga sejalan dengan program dari UNESCO (United Nations Educational, Scientific and Cultural Organization) memiliki sejumlah program yang dapat membantu dalam membangun citra dan merek suatu kota, terutama yang berfokus pada aspek-aspek budaya, pendidikan, ilmu pengetahuan, dan pelestarian warisan. Program yang relevan untuk tujuan *branding* kota adalah: 1) UNESCO Creative Cities Network (Jaringan Kota Kreatif UNESCO): Program ini menghubungkan kota-kota di seluruh dunia yang memiliki komitmen terhadap industri kreatif, seperti desain, seni rupa, kerajinan, film, musik, literatur, dan gastronomi. Bergabung dengan jaringan ini dapat membantu kota memperoleh pengakuan internasional sebagai pusat kreativitas dan inovasi dan 2) World Heritage Cities Program (Program Kota Warisan Dunia): Program ini mendukung pelestarian dan pengelolaan kota-kota yang memiliki nilai budaya dan sejarah yang luar biasa. Kota-kota yang terdaftar sebagai Situs Warisan Dunia oleh UNESCO mendapatkan status yang diakui secara internasional, yang dapat menjadi aset penting dalam upaya *branding* kota.

Menghadapi persoalan tentang keramik Mokkhalan di atas kemudian masing-masing para keramikus melakukan testimoni pada pembahanan tanah liat dengan menguji karakter tanah liat keramik Mokkhalan dengan berbagai teknik, yaitu teknik putar, teknik pijit, teknik pilin putar, dan *slabbing*. Ahli putar keramik dari Korea, Singapura, dan Thailand mencoba menerapkan membuat produk dengan menggunakan alat putar Mokkhalan. Hasil uji coba tanah liat Mokkhalan sangat kuat dan bagus untuk teknik putar, akan tetapi banyaknya serat dalam tanah akan memberikan hasil putaran memiliki susut yang besar. Pada saat melakukan pemutaran unsur-unsur akar yang terdapat dalam tanah sangat terasa, sehingga wajib dilakukan pengolahan tanah dengan menyaring tanah menggunakan mess yang lebih rapat antara 60-80 mess. Dengan keadaan tanah seperti ini, maka untuk pembuatan produk yang memiliki ukuran lebar atau tinggi akan merasakan kesulitan dan cepat capek. Tingkat rusak dan daya lekat tanah menjadi berkurang dan harus segera menyambung dalam kedaan basah. Karena jika dilakukan dalam keadaan kering akan terkelupas atau retak yang akhirnya produk akan mudah pecah pada saat dibakar.

Pembuatan keramik dengan bahan tanah Mokkhalan kemudian diuji coba dengan teknik pilin putar, teknik pijit, *slabbing*, dan dekorasi seni tradisional *tempel* untuk mengetahui karakter tanah lebih lanjut. Keutamaan lainnya adalah memberikan pembelajaran pada para pengrajin keramik tentang proses pembuatan keramik atistik non putar dengan bentuk karya-karya modern sesuai dengan permintaan pasar. Akan tetapi ciri khas budaya keramik Mokkhalan tidak dihilangkan begitu saja. Aplikasi finishing tanah berwarna dengan bahan sistem *engobe* juga diterapkan, karakter lingkungan alam desa dan dekatnya desa dengan wisata Pantai juga dapat menjadi ide pembuatan produk keramik yang berbeda. Beberapa seniman mencoba menghadirkan karya-karya monumental, baik bersifat tradisi, religi, lingkungan alam, dan abstrak. Kehadiran seniman patung Thailand turut mewarnai pembuatan produk keramik dengan bentuk yang berbeda dan segmentasi pasar yang berbeda pula. Selama ini para pengrajin sudah mencoba membuat karya non silindris dan bertema patung tetapi terkendala dengan finishing dan detail bentuknya. Dengan pembuatan karya kreatif dari seniman keramik dan pematung antar negara beda budaya ini diharapkan mampu memberikan inspirasi kreatif lain bagi para pengrajin. Inovasi yang berbeda akan memberikan stimulan kreatif yang merangsang ide untuk menciptakan sesuatu yang baru. Inovasi adalah kapasitas untuk menjalankan dan menerapkan konsep yang segar dan unik. Konsep yang segar dan unik dapat diterjemahkan ke

dalam bentuk produk atau layanan baru, cara berproses yang belum terpikirkan sebelumnya, gagasan-gagasan baru, metode-metode baru, serta kegiatan-kegiatan yang mampu menambah nilai, yang pada akhirnya menjadi keunggulan berharga. Keunggulan berharga ini membawa peluang berharga bagi para pengusaha. Gagasan-gagasan kreatif muncul ketika pengusaha mengambil pandangan dari hal-hal lama dan menghasilkan pemikiran yang baru atau berbeda dari yang sudah pernah ada (Anatan, 2008, p. 135). Kegiatan kolaborasi 35 seniman 5 negara inipun mendapat banyak dukungan dari berbagai pemerhati masyarakat dan *stake holder* lainnya dan memiliki tanggung jawab sinergi bersama untuk memajukan Mokkhalan sebagai salah satu jati diri masyarakat di kota Nakhon Si Tammarat.



Gambar 5. Penciptaan karya seni keramik dengan bentuk patung teknik pijit oleh seniman patung dari Thailand
(Sumber: Dokumentasi Penulis, diambil 4 Agustus 2023)



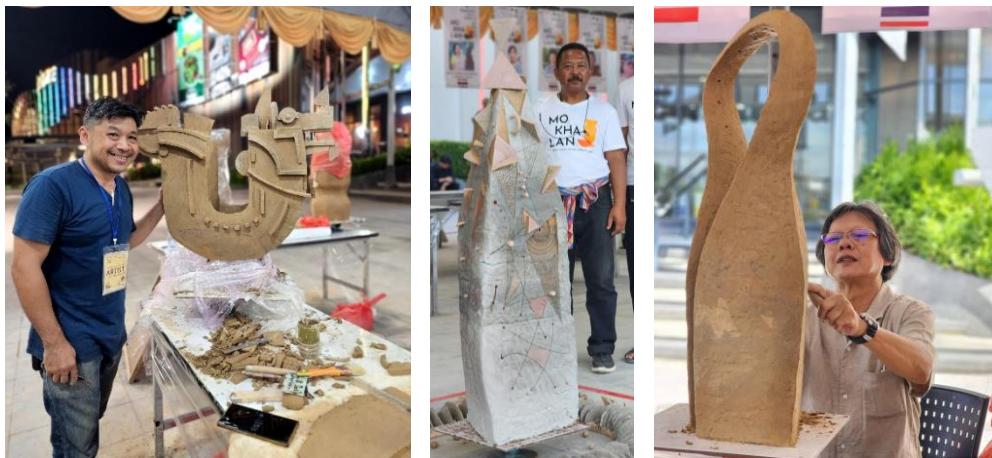
Gambar 6. Penciptaan karya seni keramik dengan bentuk patung teknik pijit pilin dekorasi teknik tempel yang dikreasikan oleh seniman dari Thailand dan Australia
(Sumber: Dokumentasi Penulis, diambil 4 Agustus 2023)



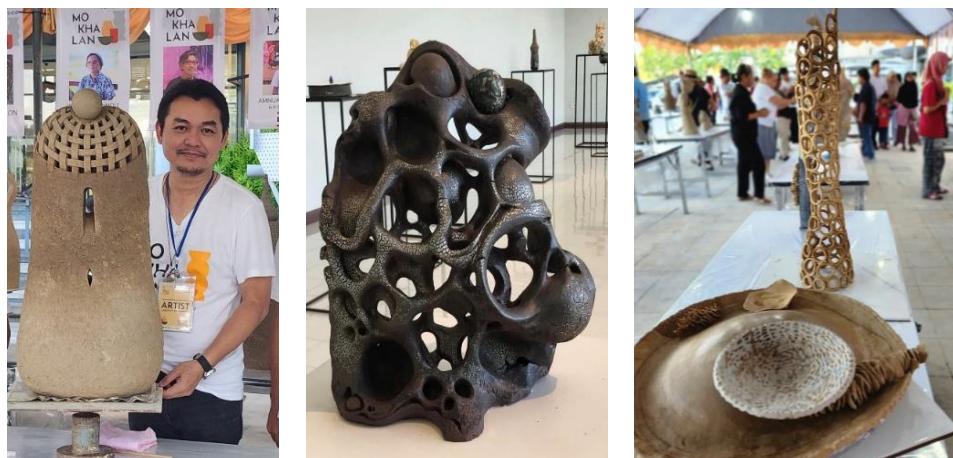
Gambar 7. Penciptaan karya seni keramik dengan bentuk patung gabungan teknik pijit dan teknik putar yang dikreasikan oleh seniman dari Singapura dan Korea
(Sumber: Dokumentasi Penulis, diambil 5 Agustus 2023)



Gambar 8. Penciptaan karya seni keramik dengan bentuk patung dekorasi *engobe* menggunakan slip tanah Mokkhalan dan glasir yang dikreasikan oleh seniman dari Thailand
 (Sumber: Dokumentasi Penulis, diambil 5 Agustus 2023)



Gambar 9. Penciptaan karya seni keramik dengan bentuk patung teknik *slabing* yang dikreasikan oleh seniman dari Thailand
 (Sumber: Dokumentasi Penulis, diambil 5 Agustus 2023)



Gambar 10. Penciptaan karya seni keramik dengan bentuk patung teknik pijit dan kerawang yang dikreasikan oleh seniman dari Thailand dan Singapura
 (Sumber: Dokumentasi Penulis, diambil 5 Agustus 2023)



Gambar 11. Penciptaan karya seni keramik dengan bentuk patung teknik pijit, pilin, dan dekorasi *tempel* berkonsep lingkungan alam serta religi yang dikreasikan oleh seniman dari Thailand, Australia, dan Indonesia
 (Sumber: Dokumentasi Penulis, diambil 5 Agustus 2023)

c. Raku *Firing* Sebagai Alternatif Pembakaran Keramik Mokkhalan

Penambahan ilmu pengetahuan dan pengembangan terkait teknis yang diberikan kepada pelaku pengrajin keramik Mokkhalan juga memberikan dampak secara tidak langsung pada 35 seniman dari 5 negara untuk saling menerima dan memberi asas manfaat dari program internasional workshop keramik. Hal yang menarik dari kegiatan ini adalah dengan adanya pembakaran raku atau *raku firing* mencoba membuat alternatif baru finishing keramik Mokkhalan. Proses pembakaran keramik Mokkhalan yang memakan waktu 7 hari dengan komposisi 2 hari untuk pemanasan, 3 hari untuk pematangan produk, dan 2 hari untuk proses pendinginan. Hal ini menjadi proses panjang yang harus dilalui oleh pengrajin keramik Mokkhalan dan dengan melihat pembakaran teknik raku menjadi memiliki alternatif teknik pembakaran lainnya. Bukan berarti teknik pembakaran keramik Mokkhalan dengan tungku *elephant trunk* ditinggalkan tetapi ini sebagai alternatif baru yang dapat diterapkan dengan konsep hasil yang berbeda. Membuka wawasan baru dan tentunya belajar dengan membuat komposisi gelasir sebagai pewarna bodi keramik untuk raku. Pemahaman tentang peralatan pembakaran raku yang selama ini belum pernah dilakukan wajib diketahui oleh pengrajin Mokkhalan. Seniman keramik yang telah mengetahui teknik pembakaran raku saling bertukar pengalaman dengan mencoba berbagai teknik reduksi, pengolahan bahan gelasir rendah, dan proses kreasi bodi keramik dengan teknik pembakaran raku. Pada mulanya, raku adalah suatu metode dalam menciptakan keramik sederhana yang dikembangkan oleh Sen No Rikyu, seorang seniman keramik

dari Jepang. Karya-karya keramiknya sering digunakan dalam upacara minum teh yang diadakan oleh golongan bangsawan atau pejabat tertentu di Jepang (Byers, 1996, p. 16).

Tahapan awal dalam pembuatan keramik teknik raku sebenarnya serupa dengan proses pembuatan keramik pada umumnya. Dimulai dengan membentuk produk keramik sampai kering dan melakukan pembakaran awal untuk menghasilkan produk keramik merahan (bisquit). Produk bisquit selanjutnya dilapisi dengan glasir sebelum dilakukan pembakaran raku. Perbedaan utama dalam teknik raku terletak pada formulasi tanah liat yang dicampur dengan bahan lain yang dapat memperkuat keramik saat tahap pembakaran berikutnya. Proporsi bahan tambahan dalam campuran tanah liat berkisar antara 30-40%. Contoh dari bahan tambahan tersebut meliputi pasir, abu vulkanik, dan *grog* (*chamotte*). *Grog* adalah tanah liat yang sebelumnya telah dibakar, lalu dihaluskan menjadi butiran halus kembali. Tanah liat biasa yang telah diaduk dengan pasir atau *grog* (*chamotte*) bertujuan untuk memberikan kekuatan memadai pada struktur tanah liat terhadap perubahan suhu yang terjadi secara tiba-tiba selama proses pembakaran. Istilah yang merujuk pada perubahan suhu mendadak dalam proses pembakaran keramik teknik raku disebut *thermal shock*.

Pembakaran raku berbeda dengan pembakaran keramik pada umumnya. Pembakaran keramik secara umum sampai pada suhu yang kita tentukan, setelah suhu tercapai api dalam tungku kita matikan tanpa membuka pintu tungku didiamkan sampai tahap pendinginan. Tetapi untuk pembakaran raku jika suhu yang sudah ditentukan tercapai kemudian pintu raku dibuka dalam keadaan panas tidak harus menunggu pendinginan. Kemudian produk keramik langsung dikeluarkan dari tungku dengan penjepit khusus. Disinilah *thermal shock* terjadi yang akan memberikan efek pembakaran artistik. Pencapaian artistik ini biasanya dilakukan dengan cara reduksi menggunakan sekam, *saw dust*, kertas, daun, atau bahan lain yang dapat terbakar. Bahkan dapat langsung dikeluarkan dari tungku pembakaran yang panas dan karya diberi air atau dibiarkan begitu saja mendingin secara mendadak, sehingga terjadi retak-retek kecil sebagai ciri khas hasil pembakaran raku.

Menurut ahli raku seniman dari Thailand Jarun Nongbour mengatakan bahwa tanah Mokkhalan merupakan tanah yang kaya akan *grog*, sehingga sangat cocok untuk teknik pembakaran raku. Beliau memberikan pernyataan tersebut karena beliau sudah mencoba melakukan riset dan praktek pembakaran raku dua tahun terakhir. Kelebihan lainnya adalah tanah Mokkhalan memiliki suhu bakar yang tinggi dapat mencapai suhu 1200° C, sedangkan suhu pembakaran raku yang paling tepat adalah dengan suhu gelasir rendah sampai pada suhu 1050-1080° C saja. Tanah Mokkhalan juga sudah teruji jika dilakukan dengan teknik pembakaran *siggle firing* khususnya untuk teknik raku. Dapat dijelaskan bahwa teknik pembakaran raku dengan tanah Mokkhalan dapat dilakukan secara langsung, yaitu produk gerabah yang masih mentah belum dibakar bisquit dapat langsung diberi warna gelasir dan dibakar teknik raku. Pembakaran produk gerabah mentah ini dilakukan agak lama yaitu sekitar 4 jam, tetapi jika dilakukan pembakaran raku dengan bodi yang sudah bisquit cukup 1,5 jam saja.



Gambar 12. *Raku firing test* kekuatan tanah Mokkhalan (*shocking temperature/ thermal shock*) dan aplikasi finishing alternatif dengan pembakaran yang singkat dan artistik
 (Sumber: Dokumentasi Penulis, diambil 5 Agustus 2023)



Gambar 13. Beberapa hasil dari pembakaran raku dengan tanah keramik Mokkhalan bersuhu 1080° C.
 (Sumber: Dokumentasi Penulis, diambil 5 Agustus 2023)

Penciptaan karya seni dengan menggunakan tanah liat lokal Mokkhalan oleh 35 seniman dari 5 negara telah dilaksanakan dengan segala kemampuan teknis dan latar budaya yang berbeda. Hasil karya yang diciptakan mengaplikasikan teknik secara umum dalam ilmu keramik, seperti teknik pilin, pijit, *slabing*, dan putar dengan berbagai teknik dekorasi yang dipalikasikan pada bodi keramik, seperti *engobe*, *burnish*, *stamp*, *tempel*, dan *texture clay*. Ada yang unik dalam proses penggerjaan pembuatan karya seni karena waktu yang disediakan hanya 3 hari, maka beberapa seniman menggunakan teknik *fire spray* yang berguna untuk membuat bodi keramik segera kuat atau *green ware*, sehingga proses selanjutnya dapat dilakukan. Memang belum banyak yang menggunakan teknik ini terutama negara-negara yang hanya memiliki 2 musim yaitu kemarau dan hujan. Akan tetapi berbeda dengan negara-negara yang memiliki musim dingin yang tidak bisa melakukan teknik pengeringan dengan cepat. Maka, teknik *fire spray* menjadi sangat dibutuhkan agar waktu pembuatan karya seni dapat dilakukan dengan cepat.

Kebermanfaatan yang dapat digaris bawahi dari program ini adalah memiliki berbagai keberuntungan bagi pengrajin keramik Mokkhalan yang mendapatkan berbagai masukan secara pengetahuan berkeramik, berkarya, dan membangun jejaring *networking*. Kegiatan berkelas internasional ini juga dapat mengangkat *branding city* Nakhon Si Tammarat sebagai tujuan wisata budaya religi, wisata alam, dan wisata edukasi keramik sejalan dengan kebijakan pemerintah Thailand untuk mengembangkan satu desa satu produk. Hal ini diyakini akan memberikan progres keberlanjutan yang baik bagi pembangunan ekonomi, sosial, mental, dan karakter berbudaya masyarakat lokal dalam pergaulan global. Mengacu pada pandangan Alvin Boskoff bahwa kebudayaan lokal memiliki nilai yang mendalam karena mampu menginspirasi cinta pada kehidupan manusia dan alam semesta. Di sisi lain, teknologi yang merupakan hasil dari perkembangan budaya fisik, terkadang kurang mampu menyampaikan nilai-nilai spiritual yang terkandung dalam adat istiadat, agama, dan seni. Kehilangan fokus pada nilai, norma, dan etika yang ditegakkan oleh adat istiadat dapat mengurangi dampak positif teknologi terhadap kualitas hidup manusia. Norma-norma ini, bersama dengan aturan adat, seharusnya menjadi panduan berharga dalam era globalisasi

Tantangan bagi keberlanjutan budaya lokal meliputi pergeseran nilai-nilai budaya dalam masyarakat serta penurunan seni tradisional di berbagai wilayah yang dipengaruhi oleh kemajuan teknologi global (Boskoff, 1964). Budaya lokal adalah elemen penting yang memberikan identitas unik bagi komunitas pengrajin lokal seperti Mokkhalan di tengah keragaman bangsa-bangsa dunia. Oleh karena itu, penting untuk memberi kesadaran kepada generasi muda tentang warisan budaya mereka sendiri dan memperkuat kearifan lokal yang ditumbuhkan dalam generasi selanjutnya yang berwawasan global (Siswantara, 2021, pp. 47-63).

PENUTUP

Kolaborasi 35 seniman 5 negara dalam proses eksplorasi seni kreatif yang dilakukan bersama masyarakat pengrajin keramik Mokkhalan Thailand mendapat apresiasi yang baik oleh berbagai kalangan. Kegiatan ini tidak saja menemukan solusi dari permasalahan keramik Mokkhalan pasca pandemic covid-19 yang terpuruk tetapi dengan kegiatan ini menjadi ajang promosi yang tepat sasaran dalam rangka membangun *branding city* Nakhon Si Tammarat sebagai tujuan wisata budaya dan kota edukasi keramik secara berkelanjutan. Sebagai kota yang kaya akan sejarah seni budaya dan muatan religi masyarakat lokal memang layak ditindaklanjuti agar nilai-nilai kearifan lokal tidak cepat tergerus dalam pergaulan budaya global. Keseriusan pemerintah Thailand dalam mengembangkan potensi kota secara berkelanjutan dengan program OTOP diyakini akan mampu memberikan kemajuan ekonomi yang mensejahterakan dengan ciri budaya lokal kuat sebagai jati diri bangsa yang berbudaya. Eksplorasi artistik dalam penciptaan karya seni keramik oleh 35 seniman 5 negara telah mampu memberikan ilmu pengetahuan baru dan dampak motivasi pada masyarakat pengrajin keramik Mokkhalan bahwa potensi mereka masih memiliki peluang besar untuk maju serta mampu bersaing dalam pasar global.

Pemahaman yang dapat kita ambil bahwa nilai-nilai kearifan budaya lokal dalam masyarakat seperti masyarakat pengrajin keramik Mokkhalan yang telah mengakar dalam kehidupan dan menjadi sumber penghidupan patut untuk diperjuangkan. Kesadaran bersama harus dibangun dan mendapat disupport dari berbagai elemen terkait, baik dari pemerintah, praktisi, akademis, dan stakeholder yang lain akan membangun kemajuan berkelanjutan yang diharapkan. Nilai-nilai lokal tidak hanya berhenti dalam tataran tingkat lokal saja, nilai-nilai budaya lokal yang dianggap usang jangan terus ditinggalkan, akan tetapi digali kembali potensi keunikannya. Bahkan mungkin terdapat nilai-nilai budaya luhur lain yang amat berguna bagi pengembangan karakter generasi penerusnya. Nilai budaya lokal harus terus dikembangkan dan menjadi ciri kota yang memiliki *brandingnya* sendiri. Hal ini sejalan dengan program UNESCO yang mendukung pelestarian dan pengelolaan kota-kota yang memiliki nilai budaya lokal dan sejarah yang luar biasa. Kota-kota yang terdaftar sebagai Situs Warisan Dunia oleh UNESCO mendapatkan status yang diakui secara internasional, yang dapat menjadi aset penting dalam upaya *branding* kota.

Penting untuk diingat bahwa setiap sikap memiliki dasar, dan diskusi terbuka serta penghargaan terhadap keragaman pandangan dapat membantu menciptakan pemahaman yang lebih baik antara generasi yang berbeda dan menjaga keseimbangan antara perkembangan modern dan warisan budaya lokal. Sikap terhadap budaya modern dalam konteks budaya lokal bisa bervariasi tergantung pada individu, masyarakat, dan lingkungan sosial. Faktor-faktor yang dapat memengaruhi sikap ini meliputi pendidikan, nilai-nilai keluarga, lingkungan sosial, dan pengalaman pribadi berinteraksi dengan dunia global. Masyarakat lokal dalam melihat budaya modern sebagai peluang untuk berkembang dan beradaptasi dengan perkembangan global. Mengadopsi beberapa aspek

budaya modern tidak berarti harus mengabaikan budaya lokal, melainkan mengintegrasikannya dengan cara yang memperkaya identitas mereka. Semakin lokal semakin global.

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THE TRADITIONAL CRAFT OPPORTUNITY AND CHALLENGE IN THE CONTEXT OF FINANCIAL VALUE IN BALI TODAY'S

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ABSTRACT

A society with its cultural artifacts is impossible to live in statically, stagnant, and isolated. It has experienced functional transformations at varying rates. It is the same with the activity of creating and using craft products in Bali which has been going on since time immemorial and continues to experience ups and downs of development and change driven by various factors, such as (1) the demand for functional craft products that contain utility values, in the form of work equipment to support various activities of daily living; (2) supporting facilities for religious or belief processions and to be presented to the king and his family and (3) the need for craft products to support secular, hedonistic needs by prioritizing aesthetic functions with financial effects, resulting in the commodification of craft products. Related to these factors, the issue raised is about the opportunities and challenges of craft development in Bali. This study used a descriptive method supported by some references from books, the internet, and observation result. Reflecting on the condition of crafts in Bali today as a sub-sector, it turned out that it has opportunities to be developed and there were several challenges related to various factors that influenced the development of crafts in Bali today.

Keywords: Bali, challenges, craft, opportunities

INTRODUCTION

Crafts products or *kriya* for the previous term as a result of the creativity of the craftsmen community in Bali in the past decade have been used as one of the potential and prospective sub-sectors to support and encourage regional economic improvement. The products were used as commodities and received enough attention from the Indonesian government at that time, such as entering into *the 1993 GBHN (Tap MPR No. II/1993)* that small and medium industries including businesses in the craft sector and home industries need to be fostered into sustainable businesses efficiently so that they can develop independently to increase people's income and create jobs for productive workers in rural areas. In addition, it is expected to be able to increase its role in supplying commodity products, both for domestic and foreign market needs (Bappenas, 2010). The attention of the government, to Balinese craftsmen, is both an opportunity and a challenge, both of which require an effective and harmonious solution. In one perception, regarding the attitude of the craftsmen in facing challenges related to maintaining the idealism of creating craft products. On the other hand, it is expected to be able to create products that are original, unique, and competitive in the global market.

For the craftsmen in Bali, the market opportunity that occurred at that time was a valuable momentum and they responded by taking various strategic actions. For example, holding *kriya* product diversification, namely activities to create more diverse products. These actions were carried out by reproducing and revitalizing traditional craftworks. Traditional *kriya* works from the past were re-explored and used as a spirit or source of inspiration in creating craft products to produce new riches

with the image of Balinese traditions. This is following the opinion of Santika in Ponimin (2009) that cultural artifacts are often used as a source of inspiration in creating craft products because they can produce unique products to be used as commodities of economic value. One example is reliefs or ornaments carved in ancient architecture. For artists, including creative craftspeople, it is an interesting object to be transferred or applied creatively to contemporary handicraft products. In addition to these actions, the craftsmen also conduct innovation which is supported by high creativity and use universal sources of inspiration, namely using other objects that are not related to the roots of Balinese traditions. The steps were taken quite effectively because they are proven to be able to produce new craft product variants with the characteristics of Balinese traditions, and economic value and have a competitive bargaining value in the global market.

In the step of reproduction and revitalization of traditional *kriya* works, it is undeniable that there has been a transformation of the function of the product, initially as a means of offering and to fulfill the needs of household appliances that are used alone. However, now a touch of creativity turned into a utility product with financial tendencies. There is an anomaly in benefits as a result of excess local market demand, the development of the tourism industry as a leading sector in Bali, and the influence of global business. The development of the creation of craft products can be said to have undergone a mechanism of commodification into commodities. Craft products experienced commercialization which is highly dependent on market conditions. According to Mosco (2009) that commodification is a process of changing goods and services that are valued for their usefulness, into commodities that provide something of value according to market needs. In a special sense, it is an attempt to convert use value into exchange value. Is the transformation of goods, services, and ideas into commodities or objects of trade which have economic value.

This phenomenon has been going on since the colonial era and until now the commodification of *kriya* products continues. In the colonial era, *kriya* products began to receive positive appreciation from tourists when visiting Bali. Many of the tourists were interested and bought craft products to be used as souvenirs to take back to their country. From that moment on, the employees began to feel the financial effects of the products they created. This condition causes craftsmen and entrepreneurs of craft products in Bali to be motivated and more passionate about creativity to produce innovative handicraft products that refer to various references, such as originating from traditional *kriya* or completely new craft products following market demands. Based on this, it can be said that the opportunities and pace of development of the creation of crafts products are largely determined by various factors that occurred in the past, present, and future.

Observing the development of craft in Bali, it turns out that the range of values it contains is becoming increasingly complex and widespread, and interrelated. In line with the opinion conveyed by Toekio (2007) that, concerning the use of crafts products in society, in general, it can be distinguished into two aspects, namely: (1) relating to spiritual aspects, creative psychology, and aspects of social life. In the aspect of spiritual life, crafts products are created and used for supporting facilities in the context of vertical relationships with very special patterns based on believed values. (2) crafts products are made by starting from a concept as a form of expression related to the idea or meaning of human life. Related to the social aspect, the existence of crafts is rooted in the framework of collective life as well as communal life. In this context, crafts products are created not only for spiritual purposes but also allocated to meet social, economic, political, and so on. The same thing was also conveyed by Mattil (1971) that, crafts were created for rituals, social activities, theater, and entertainment.

Many challenges must be faced for the stability and sustainability of the business in the craft sector. As the real challenge that occurs in the global market is very tight competition between business

people so quality, price, and creativity to produce innovative crafts products are guaranteed. In addition to this, a major problem that has occurred in recent years is the phenomenon of economic disruption and changes in world business fundamentals. Then it was exacerbated by the exposure to the coronavirus disease (covid 19) pandemic. Like a tsunami storm that appeared unexpectedly and began to rage around 2019 with a very fast spread throughout the world. This condition is experienced by people around the world to this day and still has an impact on the joints of life. Market activity, both local and global, is also experiencing major problems. There was turbulence and a sudden economic downturn. The distribution of goods is hampered due to the very limited means of transportation. Businesses engaged in tourism in Bali are experiencing this impact. Many related businesses are unable to bear operating costs, so they have to be closed for an indefinite period. Likewise, the impact of crafts product creation activities in Bali is not spared. In general, production has decreased and some have even stagnated.

Nevertheless, this condition is a reality that has happened in Bali, that between craft and tourism sub-sectors there is a pattern of synergistic, complementary, symmetrical, and reciprocal relationships or a mutually beneficial symbiosis relationship. In general, it illustrates that the craft sub-sector has been relied upon and has contributed enough to the country's foreign exchange as well as one of the supports for the tourism sector, and vice versa, the positive impact of tourism development and the global market has been felt by the people in Bali. Many benefits have been achieved and can indirectly bring people's lives in Bali to be better. Many businessmen and artisans depend on tourism and the global market, so when the world experiences a problem related to the economy, politics, security, health, and so on, the impact is felt and is a formidable challenge and requires a long time to recover.

Based on the strategic role of craft product creation activities in Bali, this study aims to discuss general problems regarding the challenges and opportunities in the development of crafts today in Bali. This study is supported by secondary data and analyzed descriptively systematically.

DISCUSSION

a. Kriya Or Crafts Scope

Referring to the word *kriya* or craft is a new term in the Indonesian language, many do not understand its meaning. In Indonesian Kawi Language Dictionary, *kriya* means work or action (Wojowasito, 1977). According to Soedarso (1990), the word *kriya* comes from the Sanskrit 'kr' which means 'to do', from the root of the word it becomes the word work, craft, and work. Likewise, according to Moeliono (1994), the word *kriya* means handwork to produce objects or objects that have artistic value, paying attention to functional aspects related to physical needs and beauty related to emotional needs. In society, the term *kriya* is often harmonized with many other terms that are considered to have similarities. As paired with handicrafts. The term is used because they both prioritize extraordinary hand skills (virtuosity). In the Encyclopedia of World Art (1963) it is defined: The word handicrafts refer to useful or decorative objects made by hand or with the tool by a workman who has direct control over the product during all stages of production.

The definition of *kriya* is equated with the term handicraft because the notion of craft or *kriya* also means a skill, a skill that produces objects. However, philosophically craft has a wider scope, not just expertise in doing. According to Soedarso (1988), *kriya* or crafts is a branch of art that prioritizes high craftsmanship, so craftsmanship is essentially focused on emphasizing the weight of craftsmanship which allows the creation of applied artistic values or in new forms of expression according to the

demands of contemporary culture. On this basis, the scope of *kriya* becomes more flexible, so that the results of craft works are in the form of trends between the domains of fine art or design. So, the orientation of product creation reflects on one of the two fields or sometimes it is also the result of a collaboration between art and design. The explanation from the statement above can be seen in Figure 1.

FINE ART	KRIYA OR CRAFTS	DESIGN
<ul style="list-style-type: none"> • Personal expression • Innovation in visual idioms • Working in aesthetic experience • Subjective 	<ul style="list-style-type: none"> • Workmanship • Uniqueness • Beauty of intimacy • Subjective / objective • Craftmanship 	<ul style="list-style-type: none"> • Problem solving • Functional • Production • Marketing • Science and Technology • Objective

Expression is getting stronger

Figure 1. *Kriya or Crafts Scope*

Source: (Buchori, 1990)

Kriya is also known as "folk art". This term is related to the human resources of the perpetrators of craft activities in the past that were indeed carried out by ordinary people. Another term for *kriya* or craft is "traditional art". This is true because it relates to the basis of its creation which is carried out consistently by referring to traditional aesthetics. *Kriya* is also called "home industries" or home industries, because in terms of the ability to produce goods in limited quantities and supported by simple equipment. *Kriya* is also classified as a small industry or small-scale industry because it is seen as the ability to produce goods on a small scale and supported by small capital.

The definition of handicraft is closer to the term *kriya* or everything related to goods produced through hand skills. This is triggered by the process of making handicrafts that cannot be separated from hand-made work, perseverance, and the resulting product leads to a functional product. So, further conclusions can be stated that: craft is different from handicraft, especially regarding the motivation behind the making of its works. The emergence of the term handicraft is inseparable from the production and reproduction of art objects with a tendency to be oriented towards economic interests, in the sense that the direction of creation is focused on the commercialization of handicraft products. In addition, in the activity of creating handicrafts, there are various names associated with the medium used, such as metal crafts, leather, batik, and so on. Overall the term handicraft can be described as shown in Figure 2.

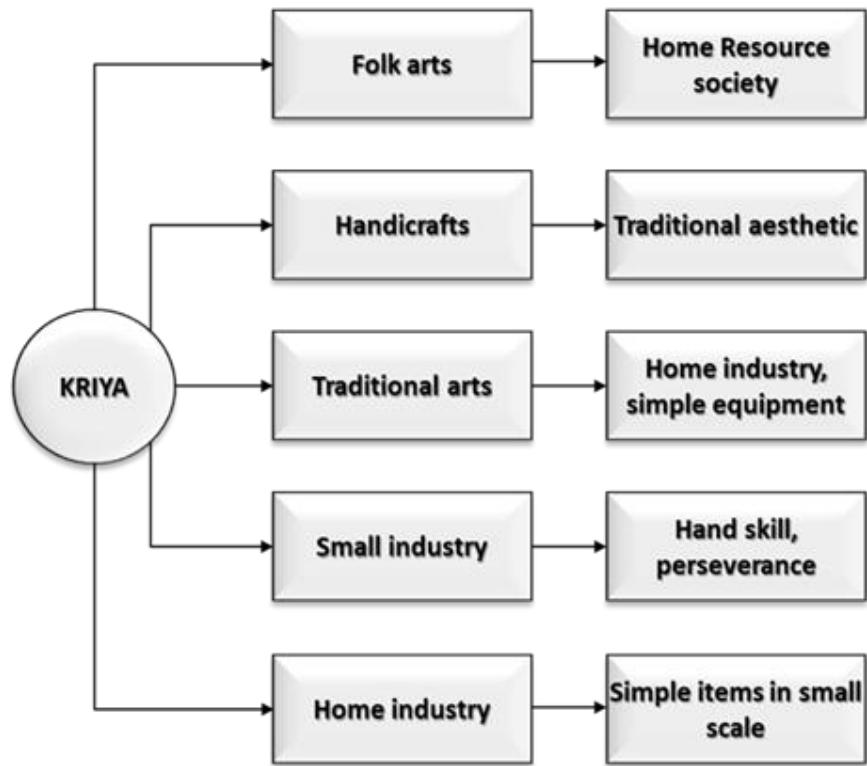


Figure 2. *Kriya* in the Context of Society

Based on this understanding, it can be understood that crafts and handicrafts are part of *kriya* and the similarities can be seen in the process of workmanship and product achievement, that is, both use hand skills and the objects produced can be in the form of art products or applied products, practical with an emphasis on usability. In principle, there is a difference between *kriya* and handicraft. *Kriya* is not artwork that is made with a diligent intensity supported by its high-skill quality of itself. *Kriya*'s artworks come with uniqueness, and characteristics and contain religious, cosmological, symbolic, philosophical, aesthetic, and functional values at the same time. In the past, craftsmen made works with diligence and were based on high philosophical concepts, resulting in *kriya* works that gave legitimacy to past products. This concept contains a metaphysical mindset with spiritual, religious, and magical values. Collective awareness of the natural environment, solidarity, and being supported by traditional cultural arrangements, has produced quality, noble *kriya* products that reflect the soul of the past.

Meanwhile, handicraft activities are motivated by practical needs by using materials available in the vicinity and supported by knowledge and organic work skills from daily life experiences. The word handicraft implies the notion of behaving diligently, passionately, and in general, goods produced through the expertise of hands. Their relationship of them can be seen in Figure 3.

KRIYA	HANDICRAFTS
• Hand skill and high-quality skill of craftsmanship	• Hand skills
• art products or disposable products	• art products or disposable products
• intimacy, uniqueness, high art, noble	• the implementation of kriya which is produced largely
• aesthetic value, cosmological, symbolic, philosophical, and functional	• becomes a unique selling point, aesthetic functional
• metaphysics mindset with spiritual values, religious and magical	• implementation, replication, revitalization, and inspiration of traditional works and innovation
• collective, communal	• individual

Figure 3. The relationship of *kriya* and handicrafts

b. The Development Of *Kriya* Or Craft Definition

Kriya or craft is one of the cultural products that continue to develop along with the times, it is not static and standard, but becomes something flexible and dynamic. Boundaries, understandings, and crafts paradigms are also developing. Related to the past, *kriya* could be understood as a unique work containing various values, such as symbolic, aesthetic, philosophical, cosmological, and functional values. Meanwhile, in the present context, the understanding of crafts is different from the perspective of the past. This is due to the transformation, motivation, and orientation in creating crafts products. This difference in comprehension does not mean that the *kriya* of the past have no historical ties or are separate from the present. Along the way, it turns out that there are still many past *kriyas* that are excavated and used as references or inspiration or collaborated with contemporary idioms and used as unique selling points in the marketing strategy of crafts products today.

Modernization cannot be separated from human life, because it is one of the social changes that occur in society. Humans always experience change and it is a natural phenomenon (Rosan, 2015). Modernization by carrying out new values and its presence is marked by the emergence of industrialization in all fields, thus giving birth to new institutions that have an impact on paradigms and human behavior in traditional societies. (Zuhdi. 2003). Many of the established traditions have been eroded and transformed. There are changes in values that evolutionarily affects various community activities in Bali, including the orientation of crafts development, whether related to aesthetic values, functions, work systems, techniques, or supporting equipment used in activities. One example: is in the production process of handicraft products. Nowadays, it is not confined to using traditional tools that are simple, such as chisels, daggers, axes, and the like, but now seems to be slowly accepting the changes that occur by adapting and adopting work support equipment resulting from modern technology, such as grinders, sensor saws, electric wheels. etc. Lately, it seems that crafts do not want to be left behind and are also involved in the digital era. The employees seem to have used a lot of computer designs in the production process. As used to design *batik* patterns, jewelry, and so on. Even though this condition is still a lot of interesting and debatable discussions related to handmade as a craft characteristic.

The aesthetic value of *kriya* products in the context of craft products, there is a tendency to merely display the abilities of a particular individual or community. There has been a reproduction and revitalization of past *kriya* works that he inherited for the sole purpose of displaying craft products that have a characteristic or traditional Balinese image. When *kriya* products were mass-produced handicrafts, craft products occupy a strategic position in the midst of seeing a low art market with mass quantities. At this point, the *kriya* product experienced a transformation of understanding of function. The direction of creation has changed, craft products are created as commodities affiliated with economic value and lead to the "commercialization" of handicraft products. The parameter measuring the aesthetic value of craft products is money (sold or not sold). Aesthetics become normative or standard in creating products oriented to matters related to financial, business, or organizational issues, to calculate risks and prospects in the future.

Apart from this, crafts concerning handicrafts appear to be a strategic business and have great potential to be developed, because it has a bargaining value in the market. In connection with this, the craftsman is not only concerned with technical abilities in the work but is required to have knowledge, expertise, sensory abilities, and aesthetic experience as well as other related aspects to create quality and original variants of traditional and innovative-based forms. Therefore, it is necessary to instill a special value in the object which is being made, both economic value, practical and aesthetic value (Soedarso, 1988). One of the efforts is to explore, filter, and apply aesthetic values that are sourced from local genius, which can present a unique and indirectly significant effect on aspects of appreciation and economic value and have an impact on the selling price of the product to be higher because it is influenced by the quality and its aesthetic value. This consideration is one of the mainstays in the development and sustainability strategy of the handicraft industry in Bali.

c. The Opportunities Of Craft In The Global Market

All business fields of goods production avoid stagnant production, but on the contrary, building a business is always optimistic and hopes for a sustainable mechanism. In this context, various efforts have been made to find marketing opportunities for their products. Business opportunities are defined as opportunities that arise from momentum and can be used to obtain something by utilizing various available resources (Pahlevi, 2018). In the initial step, it is necessary to identify related problems, both internally, namely recognizing the potential of the business or product to be marketed. While external problems are related to market reach or goals. Recognizing internal problems, there are several characteristics related to products that have potential and have opportunities to be developed (Renjati, 2015), such as:

1. The product created has a high selling value.
2. Not just ambition, but real
3. Have time to last a long time in the market
4. Will did not spend the startup capital, because it is a rough investment
5. Not seasonal
6. Can be upgraded to an industrial scale.

Crafts products are created by craftsmen in Bali in the context of being commercialized commodity products if it is analyzed based on these characteristics, it can be said that they fulfill the six characteristics, because (1) in general, Balinese crafts products have unique ethnic characteristics and can be used as selling point and created with high hand skills, hence it has a high selling value; (2) Judging from history, that *kriya* in Bali has existed since long time ago, therefore, today's crafts have

historical links with past crafts products and are passed down by tradition and developed in line with the times or market needs. Hence, its existence is real with clear resources. (3) the uniqueness and ethnic characteristics contained in Balinese craft products as well as the innovation capabilities of the craftsmen, the products are not easily forgotten and are following the wishes of consumers, so they are likely to last a long time in the market. (4) The characteristic of the crafts business, in general, is that it is not capital-intensive, but is oriented towards labor-intensive or mass-employee, therefore the investment is relatively small and absorbs a lot of skilled labor; (5) Most handicraft products from Bali are not seasonal, because in the process of creating the product they still carry the value of a noble tradition as a spirit or source of inspiration. In addition, it is also supported by the creativity of the craftsmen in Bali, so that production still exists and is sustainable; (6) Crafts products produced by craftsmen in Bali, apart from being unique, are also mass-produced, then in their development, they can be used as a small industry sector, as well as to support government programs related to the development of small and medium enterprises (SMEs).

Looking back to the history of the development of the handicraft industry sector in Bali, actually crafts products today have an opportunity because it had become one of the pillars of the development of the economic sector and to maintain the resilience of Balinese culture. The spirit and dynamics of the creation and use of crafts products continue to develop in the consumer society and occupy various functions. Among these crafts products, there are "directed" to the creative industry with new scopes and dimensions following the times and market demand. The concept of product creation is based on various considerations, to minimize the risks that will occur. Based on the types of crafts products created by craftsmen and spread in the community, if it is viewed based on their use, they can be divided into four groups, namely crafts products to support: (1) traditional ceremonial activities; (2) activities of daily living; (3) various arts activities and (4) tourism sector activities as well as export commodity products to fulfill local and global markets.

The creation of crafts products in Bali, in addition to supporting tourism in the form of souvenir products, is also used as a commodity object for the fulfillment of global business, namely the mobility of items that transcends the boundaries of a country and is connected globally at the cultural, political, and economic levels by removing obstacles. communication in trade (Sihite. 2016). These activities are increasingly widespread, supported by digital-based information and communication technology, which is growing very rapidly today, thereby expanding information lines and trade connectivity between regions in various parts of the world via the internet. This condition is a market opportunity that is increasingly open to all business actors and at the same time a challenge for entrepreneurs and employees because there is a shift in the old conventional trading order with online trading trends. Business people and employees in Bali conduct some great actions regarding these developments, they are adapting with new enthusiasm to seize these opportunities to maintain their existence. Some examples of craft products that are marketed online are shown in Figure 4-5.



Barong traditional Bali is made in small size
Source: Online shop (Tokopedia, 2020)

Reproduction of traditional Balinese Rangda Mask
Source: Online shop (balihandycraft25, 2020)

Figure 4. Reproduction of craft products in the past was marketed online



Keben with Balinese traditional Ornaments
Source: Online shop (JT dulang keben Bali. 2020)



Tokasi or Basket with Balinese traditional ornaments
Sumber: (Gramho. 2020)

Figure 5. The revitalization of Craft Products in The past through Online

The external factor concerns the marketing objectives of crafts products related to tourism activities in Bali and the global market, namely marketing on an international scale. Market opportunities are indeed very open to all businessmen, including the export market. However, this factor is very dynamic, unstable, and fluctuating, consumer demand changes very quickly and sometimes experiences saturation. Generally, consumer demands want a form of display that is always different and new or an up-to-date design. In the market arena, it is undeniable that there is also competition between business people, so they are required to have agility, responsiveness, and creativity to innovate in developing products and be able to set marketing strategies. Tough business actors are certainly not easily drowned out by any changes or market turmoil and business challenges that are getting tougher.

Business related to tourism and the global market is a very prospective business and takes place very dynamically and quickly. However, at certain points, it can undergo major changes, because it is very vulnerable to exposure to world conditions and situations related to problems: economic, social, political, cultural, health, and so on, which often creates unstable conditions. Likewise, the marketing opportunities for crafts products in the global and tourism markets are highly dependent on the world's situation and conditions. This can be seen looks like Figure 6.

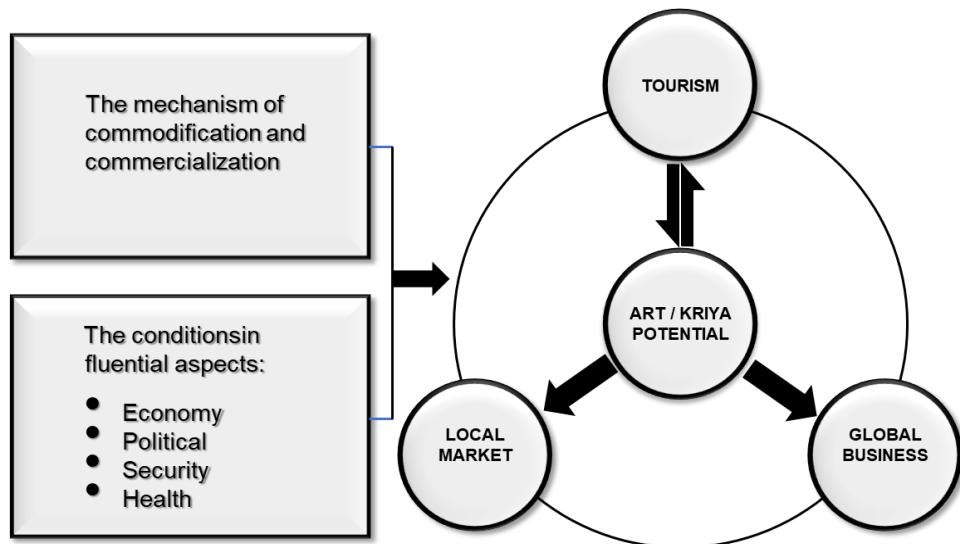


Figure 6: The relationship between the potential of craft products with tourism, the local market, and global business.

Likewise, the products of *kriya*, in the 1990s, with various potentials, had opportunities in the global market, therefore at that time, *kriya* products from the creativity of Balinese craftsmen were used as an alternative to export commodities besides oil and natural gas. This policy was conducted by the government, considering that Indonesia's mainstay export in the form of raw materials needed by overseas processing industries experienced a drastic decline in the world market and was followed by a world recession at that time (Joedawinata, 1990).

d. Challenges In The Craft Business

Various activities do not escape from two different things and sometimes become a dichotomy, advantages-disadvantages, success-failure, opportunities-challenges, and so on. Likewise, in the development of crafts products in Bali, many things become challenges. Some of them are as described by Rahajo (2008); (1) the most common is the matter of working capital; Small entrepreneurs often complain about the difficulty of obtaining business capital. (2) production and market; good at making, but when they want to sell their products they do not know where to sell them, and vice versa; know how to market, but do not know where it should be produced so that it is not risky because production on a large scale carries a high level of risk if it is carried out by incompetent workers. This is because to produce crafts products, the workmanship is very special because it requires hand skills; (3) unorganized management. Many crafts entrepreneurs do not yet have managerial skills, so they are unable to manage finances responsibly. Most of the time, the problem comes from financial management of a business and household need, so it is difficult to control it; (4) Regeneration of skilled workers in the crafts sector, most of the younger generation today are less interested in pursuing this profession. Including formal education, it is also difficult to get students who are interested in taking the crafts field. Therefore, in the future, it is worried that will become an obstacle in recruiting skilled workers in the crafts sector. Related to this and considering the development of the era entering the digital era with fast-paced movements, then this problem should be resolved immediately.

In 2008 there was a global economic crisis. Non-oil and gas export-oriented business units are experiencing problems. Orders in the sub-sector business units experienced a significant decline (Raharjo, 2008). Likewise, regarding a very surprising phenomenon related to health problems, the Covid 19 pandemic. The attention of the world community is focused on dealing with the pandemic,

which is not known with certainty when it will end yet. The impact of this condition is also felt in the crafts business in Bali. The business of making handicraft products in Bali has always been used as a livelihood for some people, human resources are always ready to work on orders and create innovative products with qualified skills. However, during the COVID-19 pandemic that hit the world and caused a domino effect and ravaged all community activities, including handicraft businesses in Bali, it also stagnates and becomes a tough challenge. Production and supply of items almost stopped. Businessmen are forced to stop their company operations indefinitely. This condition is miserable and many people hope that this pandemic will disappear as soon as possible and return to activities as they should be.

CONCLUSION

The crafts activities that have developed in Bali to this day have historical links with the past of its products. The products of the past were inherited as traditions and were used as a spirit and source of inspiration to create products that were uniquely Balinese with ethnicity and uniqueness.

The crafts products that are marketed or exported to the global market have opportunities and still exist, the fact is because Balinese crafts products are unique, although in their development they experience ups and downs caused by various problems that occur and affect tourism and the global market. In addition to this, the development of crafts is still experiencing several challenges that need to be resolved. In this regard, Bekraf or the Indonesian Creative Economy Agency has the authority to manage this sub-sector by facilitating collaboration between designers, SMEs, and manufacturers. Promotion of crafts products at home and abroad, as well as opening access to capital for the craft sub-sector.

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IMPACT OF REPRODUCTION TECHNIQUES ON THE DECLINE OF PADAS STONE SCULPTOR'S CREATIVITY AND SKILL IN SUKAWATI BALI

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ABSTRACT

The craft of padas stone carvings has developed a lot in the Sukawati area of Gianyar Bali through the creation of various forms of statues that are traditional, modern, and contemporary. Balinese people widely use this work of art to decorate holy places, homes, offices, hotels, and restaurants. Most of the creation of this craft is done with manual sculpting techniques, so the creativity and skills of the craftsmen appear to be very high, but recently, the making of sculptures has been mostly done using reproduction techniques, namely by printing, so that the creativity and skills of the craftsmen have decreased. This study aims to examine the decline in the creativity and skills of artisans in making padas stone statues, with the issues raised, namely, how the impact of reproduction techniques on the development of padas stone sculptures in Sukawati and how the impact of reproduction techniques on the creativity and skills of the sculptor in creating, as well as how high is the interests of the young generation to pursue stone crafting. The method used in this study is the interpretive qualitative method, with data collection techniques: observation, interviews, and documentation. The theoretical approaches used are technical theory, form theory, and aesthetic theory. With the existence of reproduction techniques, in quantity, the creation of stone art crafts has increased quite rapidly, but on the other hand, the creativity and skills of the artisans have decreased drastically. One very concerning thing is the difficulty of finding craftsmen who are creative and skilled in working and creating new works that are more unique and varied. It is a phenomenon that needs to be studied in depth and holistically to find answers to the problems that arise, namely the impact of reproduction techniques on the creativity and skills of stone craftsmen.

Keywords: Padas stone, reproduction, creativity, skill

INTRODUCTION

The reproduction technique is creating works of art with a printing process to get large quantities of works of art quickly. In addition to accelerating production, the emergence of reproduction techniques was also to reduce environmental pollution and exploitation of riverbanks. Looking at these problems, craftsmen conducted experiments to recycle stone waste by mixing cement and molding to make artificial stone. This reproduction discovery was very successful in answering the problem of not destroying the environment and not depending on the original stone. Reproduction of artificial stone does not eliminate the creativity and skill of the craftsman in creating new works because they are still done manually with great expression.

Over time, reproduction techniques have not only printed artificial materials but have been able to reproduce works of art as a whole. Various types and shapes of padas stone statues are

processed using reproduction techniques, so manual processing is only done to clean the printout. The shape, style, and characteristics of padas stone statues varied. However, nowadays, many of them have the same shape and style. The material used for printing is not just stone waste but also sand mixed with cement, so physically, this type of statue is very strong. The printout is finished with black paint so that the statue looks like andesite stone, also with moss green color, so it looks antique and ancient.

Reproduction techniques have a positive impact on the economy and the environment. The exploitation of riverbanks and environmental pollution can be drastically reduced, and the economy of the artisan community is increasing. Nonetheless, reproduction techniques have become a major phenomenon, namely the fact that the creativity and skills of the artisans have decreased drastically, and the transfer of knowledge to the young generations has been cut off because it is very rare for young people to want to learn sculpting skills and are more inclined to take part in printing. It will become a very big problem if the skill of making padas stone crafts is cut off, therefore, it is necessary to conduct research holistically to find a solution.

The aims of this study are: To find out, in-depth, the impact of reproduction techniques on the creativity and skills of the stone craftsmen and to explore in depth why the younger generation is less interested in pursuing the skills of stone craftsmen.

The urgency of the research is: currently, it is very difficult to find artisans who are creative and skilled in creating sculptures and stone reliefs because reproduction techniques dominate them. This research is urgent to be carried out so that it can examine in depth the existing problems and find a solution and quickly take action. Scholars and academics are responsible for dealing with this phenomenon so that the richness of cultural arts continues to be sustainable.

Several research and community service results have studied the stone crafts in Sukawati Gianyar as research studies and objects of service. The results of these research and academic studies describe the art of stone crafts with some of their works, their development, processing, and marketing. This research and service was carried out when the stone craft in Sukawati was in its glorious time with minimal problems. Some of the results of the research are as follows:

I Wayan Suardana with Made Berata with research titled "Dynamics of the Development of Padas Stone Carving Crafts in Sukawati Gianyar Bali" (2009), described as follows: The relationship between materials and techniques determines the quality of the work. Increased consumer demand and limited land for quarrying stones hinder producing these crafts. With the discovery of reproduction techniques, stone waste that was previously wasted and polluted the environment can be reprocessed and mixed with cement to produce artificial stone.

I Ketut Muka, in his dissertation titled "Innovation of Traditional Stone Craft Products in the Era of Globalization in Singapadu Village, Kaler, Gianyar" (2016), explained as follows: The development of innovation in stone crafts from Singapadu Kaler Village, in essence, leads to the development of ideas, forms, production techniques, design motifs, and functions. The artisans try to creatively engineer ideas from Balinese cultural heritage values to be developed into multi-functions with the concept of creation leading to modern art; even postmodernism that emphasizes aesthetic forms for practical purposes. Putu Adi Suprapto, et al., in their research titled "Empowerment of Stone Carving Crafts SMEs in Silakarang Bali Hamlet" (2016), explained as follows: There are several obstacles faced by artisans, such as limited production aids, marketing, and the absence of financial management by artisans, resulting in slow production and weak management.

N.W. Suniti, et al., in their research titled "Improving the Padas Sculpture Production Process Using Remaining Materials for Making Padas Sculptures Through Composite Casting" (2019), described as follows: Padas sculpture is a mainstay craft product and makes a very large contribution to people's

income, and has encouraged more intensive stone excavation, which has a negative impact on environmental sustainability such as landslides and floods. Meanwhile, stone waste is unused and thrown away so it doesn't take up space. Based on this, an idea arose to utilize the waste through technological innovation, namely mixing waste with cement by casting sculpture molds according to the craftsman's needs.

The results of the research and studies above do not comprehensively discuss the problems faced by sculptors today, namely the decline in creativity and skill of artisans and the lack of interest of young people to pursue stone crafts. However, the results of the research and studies above are very relevant to be used as a reference in discussing the creativity and skills of artisans and the reproduction technology of stone crafts in creating works of art.

METHOD

The research method is the method used in collecting data to achieve research objectives. This research uses a qualitative method, which pays attention to the depth of information, explores the meaning behind the symptoms, and emphasizes case studies. The results are more narrative in nature through words (Ratna, 2010: 98). Art research usually has two sources of data, namely: first, physical works of art (intra-aesthetic factors) and second, psychological factors (extra-aesthetic factors) (Rohidi, 2011: 75).

The population in this study were stone craftsmen in Sukawati District. The sample came from each village in the district with 3 craft centers and 3 artisans who are considered to represent the region. The data collection technique used is library research to collect data through written sources, including books, journals, magazines, and articles. Observation studies were carried out directly on sculptors who are still creative and skilled and persist in doing crafts manually. Study interviews were conducted with sculptors, craft entrepreneurs, academics, government officials, and humanists. Data analysis includes various stages: First, data identification. Second, data classification. Third, data selection. And the fourth stage was data analysis according to a predetermined theory using qualitative analytic analysis.

DISCUSSION

a. Reproduction Techniques and Creation of Padas Stone Sculptures

The reproduction technique in creating works of art is working with a printing system to reproduce a work of the same shape and type. With the existence of reproduction techniques, it is very helpful for craftsmen to reproduce their work in large quantities. Reproduction techniques help craftsmen to improve their creations. Craftsmen can produce more of their work to be offered to consumers who need it. With prices that are relatively cheap and can be afforded by many people, the marketing of arts and crafts is increasing. The market is quite open, encouraging craftsmen to be more creative in creating new models that consumers like. Varied shapes and models will attract consumers to buy them even though the work is a reproduction. Consumers are more concerned with the form of work, price, and appearance and do not consider the creation process.

Economically, reproduction techniques provide many conveniences in marketing because the price of a work is much lower than a manual product. The production cost is much cheaper, so the market price can be lowered. If the work is done manually, it will take quite a long time, the production costs will be high, and the price will be high. The high price discourages consumers from buying it because it is considered luxurious and expensive. This is a common problem in the creation of fine arts

and crafts. The high price is mostly due to high production costs and the long processing time. If the same form and type of work is done manually, the price will be high.



Figure 1. Sculpture reproduction techniques
(Source: Author documentation, documented on July 15, 2023)

With the existence of reproduction techniques, the quantity of padas stone crafts has increased significantly. On many roadsides, stone crafts are displayed in various forms, from traditional, modern, and contemporary sculptures and carvings. The price offered is quite varied according to the desired shape and size. Economically, the community greatly benefits from the reproduction technique of stone crafts because they can buy them at affordable prices. Before the reproduction technique of padas stone, statues were very expensive and could only be owned by the rich and the general public to decorate temples. Nowadays, people have decorated their holy places and residences with various statues and carvings according to their wishes. In this case, the community does not dare to place the statue even though it is a decoration carelessly they still place it in accordance with its character and function.



Figure 2. Sculpture prints
(Source: Author documentation, documented on July 17, 2023)

b. Negative Impacts of Reproduction Techniques

Reproduction techniques are a big phenomenon in terms of creativity and skill in art creation, especially in comparison with works of art that are done manually. The creativity and skills of the craftsmen have decreased drastically. Many craftsmen are no longer enthusiastic about being creative because they are defeated by printed works whose prices are much lower. Sculptors who are used to working with skilled hands view reproduction techniques as gods that destroy creativity and skill. Works that used to be done with full expression and creativity are now reproduced en masse, and the results are in the same form and type. They are disappointed because the appreciation they get for their work is minimal, and the prints are being sold many times over. Traditional sculptors feel rivaled in every way, especially concerning the timing and number of works.

To show existence as a creative sculptor, many sculptors who have high ideals create statues that are unique and different from existing statues. The same sculptural figures are made with different shapes, styles, and accessories, so they look more beautiful and artistic. Unwittingly, the sculptors seemed to be competing to develop their creativity to create new statues that were better and different from the work of other friends. Sculptors feel dissatisfied working on the same statue, even with the same character. They are always anxious to make a difference in shape and decoration. Here it shows that they have high creativity in practicing art which indicates the existence of dynamics in their work.



Figure 3. Monumental sculpture by hand
(Source: Author documentation, documented on April 10, 2023)

It has become their job every day, from morning to evening, the sculptors always work to make the statue according to their ideas. Sculpting is a part of their life that is carried out routinely and continuously. A day without holding chisels, hammers, and grappling with stones seems lonely, and thus life is useless. Hammer blows, machete movements, and stone dust have become their life breath. This routine activity makes their creativity and skills more vibrant because it has become part of their life every day. Work that is done every day, without realizing it, has honed and increased the mastery of abilities and skills possessed. To work on a large or small sculpture is no problem. All that remains is to work on executing the materials that are available.

With the existence of reproduction techniques, namely making sculptures with printing techniques, it seems to be a pretty tough challenge. They feel that their creativity and skills will no longer be useful. They lose enthusiasm, motivation to be creative because they think they are no longer useful and lose fast with technology. This is inseparable from the market and the interest of consumers who prefer printed statues because the price is much cheaper. The creativity and skills of the stone sculptors experienced a very drastic decline, and they are sad and disappointed with the current situation.

The disappointment of the sculptors cannot be separated from the attitude of the sellers of the statues, whose attention has decreased after the introduction of reproduction techniques. The sellers of statues on the roadside, to increase the number of statues, many process them using reproduction techniques, namely printing the shape of an existing statue. It is rare for stone sculpture entrepreneurs to sell sculptures made by their own hands because the price will be relatively higher. Likewise, consumers prefer printed sculptures because the price is much lower and can be afforded by the general public.

If observed carefully, creative and skilled sculptors are still noticed and receive high awards. They are given to work on sculptures that would serve as positive examples for prints and several original sculptures requested by some consumers who still wanted original works. Apart from that, sculptures are also requested for statues that are large in size and with permanent places. The process is still done manually with sculptural techniques. The material is made using a molding technique using stone powder mixed with cement. This large monumental statue is still much needed by the community to decorate the gates of temples or other holy places.

Nonetheless, there are fewer and fewer sculptors who still work manually. The sculptors did not continue the work, apart from having been beaten by molded sculptures, also because of old age and physically unable to work hard anymore. Creativity and sculpting skills are dwindling, while the next generation's capability is also unclear. Transfer of knowledge to the next generations does not run continuously because there are no younger generations who want to work in this field.

Generational change is interrupted because very few young people are willing to learn sculpting skills and are more inclined to work in other fields. Young people are rarely interested in pursuing sculpture because it is considered dirty work with minimal results. They also consider sculpting to be old-fashioned and unsophisticated. They think that to be a sculptor, one must have a strong talent and hobby, and it is not enough to study it diligently. Such an erroneous and wrong understanding. To be a sculptor, one does not have to have strong talent. Serious and continuous training will shape the soul and feelings to love the profession we are in. Young people are unwilling to get involved in dirty work because they are considered unpromising.

It becomes a very big problem if the skill of making sculptures is cut off because, in Bali, the art of sculpture will be needed throughout the ages. It's a shame that this noble work of art will be cut off, and there will be no next generation. Sculpture works will be less varied, and there will only be the same ones because they are made using reproduction techniques. There will be no sculpture creation because creativity and skill have been cut off. There is only sculpture made by printing. This is a matter of great concern, and a solution needs to be found so that these precious works of art and culture do not disappear with time.

CONCLUSION

Technology will inevitably pervade all aspects of people's lives, including reproduction techniques in art. In the era of globalization, reproduction techniques cannot be avoided but are needed because everything develops so fast and precisely. Globalization is also a competitive era and must be answered properly not to be outdated. With reproduction techniques, many sculptures can be made quickly, and production costs can be reduced, resulting in lower prices. With prices that the public can reach, demand will continue to increase. Reproduction techniques are also very useful for preserving the environment because there is no longer any exploitation of riverbanks for stone excavation, riverbank erosion can be minimized, and flooding can be avoided.

With reproduction techniques, the shape and type of stone statues in quantity have increased rapidly because many statue models can be printed. Nonetheless, skilled and creative sculptors must still be given opportunities and rewards to continue to be creative in creating new models with different styles and sizes. Reproduction techniques should be used as a challenge to increase creativity and skills and not reduce morale. When the time comes, manual works will be the original works, have a higher value, and will be in demand by many people who love original works and will be constantly being sought after.

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PAPERMAKING LIMBAH SERAT DAUN NANAS SEBAGAI SOLUSI UMKM PRODUSEN SERAT DAUN NANAS KABUPATEN SUBANG

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ABSTRACT

This research explores the craft implications in papermaking techniques through the utilization of pineapple fiber waste in Subang Regency, Indonesia. A local Micro, Small, and Medium Enterprise (MSME) has successfully produced fiber, yarn, and fabric from pineapple leaf waste. However, the remaining production waste is still an issue. As a solution, a papermaking workshop using screenprinting techniques was organized to address this issue and provide an innovative solution. In this context, papermaking is not only a craft technique with a long history, but also promotes sustainability and social responsibility. The workshop aims to train MSMEs in papermaking using pineapple leaf waste and contribute to environmental sustainability and green industries.

Keywords: Paper-making technique, pineapple fiber waste, innovation, sustainability, Small and Medium-sized Enterprise (SME), workshop

ABSTRAK

Penelitian ini mengeksplorasi implikasi kerajinan dalam teknik pembuatan kertas melalui pemanfaatan limbah serat nanas di Kabupaten Subang, Indonesia. Sebuah Usaha Mikro, Kecil, dan Menengah (UMKM) lokal telah berhasil menghasilkan serat, benang, dan kain dari limbah daun nanas. Namun, sisa limbah produksi masih menjadi isu. Sebagai solusi, diadakan lokakarya pembuatan kertas dengan teknik cetak saring (screenprinting) untuk mengatasi permasalahan ini dan memberikan solusi inovatif. Dalam konteks ini, pembuatan kertas bukan hanya teknik kerajinan dengan sejarah panjang, tetapi juga mendorong keberlanjutan dan tanggung jawab sosial. Lokakarya ini bertujuan melatih UMKM dalam pembuatan kertas menggunakan limbah daun nanas dan berkontribusi pada keberlanjutan lingkungan serta industri ramah lingkungan.

Kata Kunci: Teknik pembuatan kertas, limbah serat nanas, inovasi, keberlanjutan, Usaha Mikro, Kecil, dan Menengah (UMKM), lokakarya

PENDAHULUAN

Pembuatan kertas sudah ada sejak zaman Tiongkok kuno dan memiliki dampak yang signifikan terhadap peradaban manusia. diciptakan sekitar tahun 105 Masehi, kertas menggantikan bahan tulisan yang lebih berat dan mahal, merevolusi komunikasi dan penyebarluasan pengetahuan. Teknik pembuatan

kertas menyebar ke negara-negara Islam dan inovasi terus berlanjut. Penemuan mesin cetak meningkatkan peran kertas dalam menyebarkan informasi. Kertas telah melayani fungsi-fungsi selain penulisan; pengemasan, mata uang, karya seni, dan kebersihan. Kertas menjadi peran penting dalam melestarikan pengetahuan, memfasilitasi perdagangan, pertukaran budaya, hingga memajukan masyarakat. *"Traditional papermaking generally employs renewable resources, can be carried out in such a way as to avoid polluting the environment, and can help bind communities and social groups together"* (Hubbe, 2009).

Kerajinan kertas adalah keterampilan yang sudah ada sejak lama, dengan garis keturunan yang membentang sejak ribuan tahun yang lalu, yang sangat kental dengan budaya karena keterkaitannya dengan keberlanjutan dan dampak sosial. Pelatihan ini bukan sekadar upaya pedagogi, melainkan sebuah keberlanjutan budaya, sebuah jembatan antara warisan dan inovasi. Misi utama-loka karya ini adalah untuk menginspirasi para peserta dari berbagai UMKM dengan keahlian yang dibutuhkan untuk menguasai proses pembuatan kertas sekaligus mengevaluasi secara kritis hasil kerja mereka.

Proses pembuatan kertas merupakan perpaduan yang menarik antara sejarah, ilmu pengetahuan, dan keterampilan. Secara umum diyakini bahwa orang Tiongkok kuno adalah pelopor pembuatan kertas sekitar tahun 105 Masehi menggunakan campuran kulit kayu murbei, kain, dan serat tanaman lainnya sebagai bahan baku utama. Metode inovatif ini memungkinkan mereka untuk menghasilkan permukaan tulisan yang ringan dan tahan lama yang dengan cepat menyebar ke belahan dunia lainnya. Seiring berjalannya waktu, proses pembuatan kertas berevolusi dan beradaptasi mengikuti setiap budaya dan sumber daya (Hubbe, 2009).

Dalam metode tradisional, pembuatan kertas melibatkan beberapa tahap utama: persiapan bahan baku, pembuatan pulp, pembentukan, pengepresan, dan pengeringan. Awalnya, serat tanaman seperti kayu, kapas, atau rendaman rami dipukul-pukul dan dihaluskan menjadi bubur kertas. Bubur tersebut kemudian disebarluaskan secara merata di atas kasa jaring hingga lembaran serat terbentuk. Langkah-langkah pengepresan dan pengeringan selanjutnya dilakukan untuk menghilangkan kandungan air sehingga menghasilkan selembar kertas yang padat (Laftah dan Hashim, 2013)

Teori di balik pembuatan kertas terletak pada ikatan serat di dalam matriks kertas. Serat selulosa yang terdapat dalam bahan tanaman saling terjalin dan membentuk ikatan hidrogen, memberi kekuatan pada kertas. Selain itu, keselarasan dan perataan serat yang tepat selama tahap pembentukan turut berkontribusi pada kualitas kertas. Penambahan bahan aditif seperti zat pengatur ukuran digunakan untuk mengontrol daya serap dan transparansi kertas (Laftah dan Hashim, 2013)

Kertas umumnya diproduksi dengan cara menekan serat yang lembap, biasanya pulp selulosa yang berasal dari kayu, kain, atau rumput, dan mengeringkannya menjadi lembaran yang lentur. Karakteristik serat jerami seperti kandungan selulosa yang tinggi dan daya tahan serat yang baik (Laftah dan Hashim, 2013) membuatnya cocok untuk digunakan sebagai pulp yang dikelantang untuk menghasilkan kertas tulis dan kertas cetak. Agar dapat digunakan dengan baik serta berkualitas, umumnya 60% hingga 70% pulp jerami yang telah di-bleaching dicampur dengan 40% hingga 30% pulp kayu berserat panjang. Jerami gandum memiliki kualitas yang lebih baik untuk pembuatan kertas dibandingkan dengan serat non-kayu lainnya seperti tangkai bunga matahari, pucuk sulur, maupun tangkai kapas karena panjangnya yang lebih kuat sehingga dapat merobek kertas. Saat ini, jerami gandum merupakan bahan baku yang penting untuk pembuatan pulp dan kertas dan reaksi soda merupakan salah satu proses pembuatan pulp utama untuk menghasilkan pulp berbahan baku jerami gandum di industri pulp dan kertas di Cina (Laftah dan Hashim, 2013).

Teori struktur dan morfologi serat meliputi pemeriksaan sifat-sifat fisik serat seperti panjang, lebar, wujud, hingga tekstur permukaan dalam pembuatan kertas. Faktor-faktor ini memengaruhi bagaimana serat saling mengikat, berinteraksi dengan bahan tambahan, dan berkontribusi pada kekuatan dan tekstur kertas. Serat yang lebih panjang menambah kekuatan dan daya rekat, sedangkan bentuk serat mempengaruhi kohesi. Karakteristik serat memengaruhi interaksi dengan aditif. Memahami aspek-aspek ini sangat penting untuk membentuk lembaran kertas yang kuat dan merata, mengoptimalkan sifat mekanis, dan mencapai tekstur dan rupa yang diinginkan. (Hubbe & Gill, 2019)

Panjang daun nanas mentah bervariasi antara 55 - 75 mm, lebar biasanya berkisar antara 3 - 6 mm dengan berat rata-rata setiap daun adalah 15 - 50 g. Daun ini juga merupakan sumber serat untuk membuat kain tenun dan benang di beberapa daerah di Asia Tenggara. Daun nanas merupakan sumber serat alami berkualitas tinggi tetapi kurang dimanfaatkan. Serat daun nanas atau *Pineapple Leaf Fibers* (PALF) dianggap memiliki tekstur yang lebih halus daripada serat nabati lainnya. Serat berwarna putih krem sepanjang 60 cm, berkilau seperti sutra, serta serat yang mengandung pewarna dapat diekstraksi dengan mudah dari daun nanas segar. Serat daun nanas memiliki banyak aplikasi potensial yang mirip dengan serat alami lainnya seperti penguat plastik, suara, dan isolator panas (Laftah dan Hashim, 2013). Serat memiliki struktur seperti pita dan terdiri dari sistem bundel pembuluh darah yang hadir dalam bentuk ikatan sel berserat, ketika PALF basah, kekuatan ikatan serat menurun sebesar 50%, tetapi kekuatan benang meningkat sebesar 13%, yang dianggap sebagai karakteristik yang menarik dari serat alami. PALF memiliki daya tarik tertinggi dengan daya tarik dan elongasi menengah saat putus dibandingkan dengan serat alami lainnya seperti serat pisang, sabut, dan sisal. Kekuatan tarik utama, modulus awal, dan perpanjangan putus serat daun nanas bundel dengan diameter berkisar antara 20 hingga 80 cm. Kekuatan tarik serat nanas bervariasi dari 200 MPa (megapascal) hingga 600 MPa, tergantung pada faktor-faktor yang telah disebutkan. Sebagai perbandingan, serat kapas memiliki kekuatan tarik sekitar 400 MPa, sedangkan serat sintetis seperti nilon dapat memiliki kekuatan tarik mulai dari 400 hingga 1600 MPa (Laftah dan Hashim, 2013).

Disamping itu, dalam proses pembuatan kertas keunggulan serat non-kayu atau bahan baku non-kayu antara lain ketersediaannya yang melimpah, siklus hidup yang pendek dan regenerasi yang cepat, kebutuhan irigasi dan pemupukan yang tidak terlalu banyak, kandungan lignin yang rendah sehingga mengurangi penggunaan energi dan bahan kimia selama proses produksi pulp, serta biaya yang relatif murah (Laftah & Rahaman, 2015; Aremu & Adedeji, 2015). Berdasarkan pemaparan tersebut, serat nanas muncul sebagai material yang cocok digunakan sebagai bahan baku produksi kertas. Penelitian ini menyoroti sifat serat yang sangat menarik, menekankan potensi serat nanas untuk merevolusi industri kertas. Para peneliti telah mengamati bahwa serat nanas memiliki kombinasi unik antara kekuatan, fleksibilitas, dan kandungan selulosa, menjadikannya kandidat ideal untuk proses pembuatan kertas yang berkelanjutan.

Di Indonesia, Kabupaten Subang yang berlokasi di provinsi Jawa Barat dikenal sebagai salah satu sentra produksi nanas (*Ananas comosus L. Merr*). Produksi nanas di Kabupaten Subang menyumbang lebih dari 92% dari total produksi nanas di Jawa Barat (Luthfi et al., 2022). Selain itu, Kabupaten Subang juga ditetapkan sebagai kawasan komoditas pertanian nanas karena sumber daya alam dan fasilitasnya untuk budidaya nanas (Fathurohman et al., 2020). Sekitar 500 keluarga di Kabupaten Subang bergantung pada pertanian nanas sebagai sumber pendapatan mereka, dan sebagian besar petani hanya berfokus pada produksi nanas tanpa mengolah buahnya. Kegiatan pertanian ini menghasilkan sekitar 30-40% bahan limbah, yang dapat dimanfaatkan untuk menambah nilai tambah. (Salsabila et al., 2021).

Menurut Badan Pusat Statistik (BPS) pada tahun 2022, produksi nanas meningkat dari 2.447.243-ton menjadi 2.886.417-ton antara tahun 2020 dan 2021. Pada tahun 2021, produksi nanas menduduki peringkat kedua setelah pisang (8.741.147 ton) (BPS, 2022). Hal ini menunjukkan permintaan nanas yang cukup besar, yang kemudian berdampak pada peningkatan limbah dari kegiatan pertanian. Bapak Alan Sahroni, A.Md., pendiri salah satu Usaha Mikro, Kecil, dan Menengah (UMKM) yang memproduksi serat daun nanas, Alfiber, juga menyoroti permintaan serat daun nanas yang terus bertumbuh. Meningkatnya permintaan, terutama untuk ekspor serat, berdampak pada jumlah tenaga kerja dan target produksi.

Proses seleksi kualitas serat menjadi sangat penting untuk mendapatkan serat daun nanas yang berkualitas tinggi. Untuk tujuan ekspor, serat harus memenuhi kriteria tertentu, seperti memiliki panjang 60 cm. Serat daun nanas yang tidak memenuhi kriteria ini dianggap sebagai limbah. Serat limbah adalah serat yang kusut akibat proses penyisiran dan tidak mencapai panjang 60 cm. Jumlah limbah serat daun nanas dapat mencapai 40 hingga 50 kg. Hal ini disebabkan karena belum diketahui tujuan atau pemanfaatan dari limbah ini. Upaya untuk menjual limbah ini telah dilakukan, namun daya jualnya tidak sebaik serat daun nanas itu sendiri. Padahal, tujuan awal Alfiber, UMKM yang didirikan oleh Bapak Alan Sahroni, adalah untuk memanfaatkan seluruh bagian tanaman nanas, selain buahnya yang menjadi ciri khas Kota Subang, untuk meminimalisir produksi limbah.

Sejauh ini, produk yang dihasilkan oleh Alfiber masih terbatas pada serat daun nanas dalam bentuk filamen panjang, serta produk olahan seperti benang atau kain yang terbuat dari filamen tersebut. Pengolahan limbah serat daun nanas yang sudah kusut menjadi benang atau kain membutuhkan proses yang berbeda dengan serat yang belum kusut. Selain itu, keterampilan dari 14 karyawan di UMKM Alfiber juga perlu diperhatikan. Maka, berdasarkan permasalahan yang dihadapi serta potensi proses pembuatan kertas dan serat daun nanas itu sendiri, akan dilakukan kegiatan Pengabdian kepada Masyarakat (PKM) berupa lokakarya dengan fokus dan tujuan untuk mengolah serat daun nanas limbah menjadi produk dengan menggunakan teknik cetak saring kertas, memperkaya jangkauan produk potensial UMKM dan meningkatkan keterampilan karyawan melalui lokakarya. Kegiatan PKM tidak hanya bermanfaat sebagai solusi dari permasalahan yang ada, namun juga memperkaya potensi daerah untuk memanfaatkan hasil perkebunan yaitu potensi dari limbah serat daun nanas yang diperoleh dari UMKM produsen serat nanas, yaitu Alfiber di Kabupaten Subang. Serta menghasilkan material inovasi dari sumber daya alam yang telah ada yaitu dari limbah serat daun nanas. Setelah kegiatan selesai, evaluasi akan dilakukan melalui wawancara untuk menilai keberhasilan dalam meningkatkan keterampilan karyawan di UMKM Alfiber.

Metodologi yang digunakan dalam kegiatan ini adalah kualitatif dengan pendekatan partisipatif dan edukatif. Penulis berperan sebagai pelaksana kegiatan atau fasilitator, sedangkan anggota UMKM Alfiber sebagai peserta. Secara keseluruhan, kegiatan ini dibagi menjadi empat tahap, yaitu tahap awal, persiapan, pelaksanaan, dan hasil. Data awal mengenai proses pembuatan kertas terdiri dari data sekunder yang diperoleh dari penelitian sebelumnya yaitu sebesar 30 % hingga 40 % limbah dihasilkan dari proses panen perkebunan buah nanas (Salsabila et al., 2021) dan data primer yang diperoleh melalui observasi lapangan, dokumentasi, dan wawancara yang dilakukan selama kegiatan berlangsung. Data dikumpulkan melalui wawancara dengan pemilik UMKM dan peserta, serta dokumentasi selama kegiatan berlangsung. Wawancara juga memberikan data tentang dampak kegiatan dan saran dari peserta.

Inti dari proses pembuatan kertas ini adalah perubahan serat menjadi lembaran kertas yang berwujud, perpaduan antara transformasi material dan ekspresi artistik. Teknik pembuatan kertas ini

merupakan perwujudan klasik dari kriya, di mana perpaduan antara keterampilan dan kreativitas membentuk esensi dari media tersebut.

Pelaksanaan kegiatan PKM menggunakan *metode community development practice*, dengan pendekatan partisipatif dan edukatif., Metode ini berakar pada prinsip-prinsip pengembangan masyarakat. Dalam paradigma ini, anggota komunitas adalah pemangku kepentingan yang tidak terpisahkan, yang secara aktif terlibat dalam pengembangan lingkungan mereka. Sosialisasi dan pelatihan merupakan instrumen penting untuk pemberdayaan. Dalam konteks ini, karyawan UMKM Alfiber menjalani pelatihan komprehensif, membenamkan diri dalam proses pembuatan lembaran kertas dari serat daun nanas. Upaya ini melambangkan ambisi ganda untuk mengasah keterampilan yang rumit dan mencapai kemahiran dalam seni pembuatan kertas yang bernaansa seni.

Namun, konsekuensi dari pendekatan ini melampaui ranah keterampilan langsung. Pendekatan ini bersinergi dengan prinsip-prinsip Pengembangan Sumber Daya Manusia (SDM), sebuah investasi strategis dalam pengembangan sumber daya manusia. Pelatihan, sebagai bagian inti dari SDM, muncul untuk memperoleh kompetensi khusus yang secara inheren meningkatkan produktivitas, memperbaiki kualitas produk, dan memupuk semangat kerja. Di luar aspek-aspek operasional ini, pelatihan merangkum lintasan pertumbuhan pribadi yang lebih luas, menanamkan rasa kesadaran akan keselamatan yang tinggi. Berfungsi sebagai aspek kompensasi tidak langsung, pelatihan ini memperluas lanskap sumber daya manusia dengan menumbuhkan tidak hanya keahlian khusus, tetapi juga rasa pemberdayaan yang mendalam dan pengembangan holistik.

Tahap Awal

Review hasil penelitian sebelumnya..

Observasi awal kondisi lapangan komunitas di Kabupaten Subang.

Tahap Persiapan Pelatihan

Review hasil observasi kondisi lapangan.

Proses eksplorasi dan eksperimen pembuatan produk

Tahap Kegiatan Pelatihan

Persiapan materi kegiatan pelatihan.

Tahap Akhir (Evaluasi)

Observasi dan diskusi hasil pelatihan di komunitas

Gambar 1. Tahap kegiatan PKM

(Sumber: Dokumentasi Penulis diambil 27 Maret 2022)

Pelaksanaan kegiatan dibagi menjadi beberapa tahap seperti yang ditunjukkan pada Gambar 1. Kegiatan diawali dengan tahap awal, yaitu tahap persiapan pelatihan. Tahap ini meliputi observasi kondisi komunitas UMKM Alfiber dan mengidentifikasi permasalahan yang ada di dalam komunitas, serta mempelajari hasil-hasil penelitian terdahulu. Observasi dilakukan melalui kunjungan lapangan di tahun 2021, dilanjutkan dengan pertemuan daring di tahun 2022 dengan Bapak Alan karena situasi pandemi COVID-19 yang sedang berlangsung. Berdasarkan hasil observasi, ditemukan adanya kesulitan

dalam mengolah limbah serat daun nanas yang tidak lolos uji kualitas UMKM, khususnya serat yang kusut dan pendek sehingga tidak memenuhi panjang minimal 60 cm yang disyaratkan dalam proses penyisiran. Limbah serat daun nanas memiliki permintaan yang terbatas, sehingga mengakibatkan penumpukan limbah di tempat penyimpanan, dengan total sekitar 40-50 kg. Ditemukan juga bahwa jumlah karyawan di UMKM tersebut adalah 14 orang, dengan latar belakang pendidikan mulai dari SD hingga SMA. Selain itu, mereka juga memiliki pekerjaan lain selain bekerja di UMKM Alfiber, seperti menjadi ibu rumah tangga, pedagang kaki lima, pemilik warung, atau berkerja di ladang. Karyawan di UMKM Alfiber memiliki peran yang beragam, seperti yang diperlihatkan pada Tabel 1.

No	Tugas	Jumlah Pegawai	Jenis Kelamin
1	Ekstrasi serat	2	Laki-laki
2	Penghalusan serat	1	Laki-laki
3	Penyisiran dan pemotongan serat	6	Wanita
4	<i>Quality control</i>	1	Laki-laki
5	Pemintalan	1	Wanita
6	Pertenunan	3	Wanita

Tabel 1. Tugas dan Jumlah Pegawai UMKM Alfiber

Dari total 14 karyawan, terdapat 4 laki-laki dan 10 perempuan dengan tugas yang berbeda. Dalam kegiatan pelatihan, jumlah peserta akan dibatasi dan tidak dikhususkan untuk karyawan dengan tugas tertentu. Selain itu, jumlah anggota tim pelaksana juga dibatasi. Peserta yang terlibat akan dibatasi hanya 8 orang, dan pemilihannya akan dilakukan langsung oleh pemilik UMKM Alfiber, Bapak Alan.

Berdasarkan kondisi tersebut maka dikumpulkan informasi dan permasalahan terkait optimalisasi limbah serat daun nanas di UMKM, latar belakang pendidikan dan mata pencaharian sumber daya manusia di UMKM, serta kondisi lapangan dengan keterbatasan fasilitas dan lokasi produksi serat. Data-data tersebut menjadi bahan pertimbangan dalam tahap persiapan kegiatan pelatihan. Tahap persiapan meliputi studi literatur, eksperimen, dan eksplorasi untuk menghasilkan produk dari limbah serat.

Proses dilanjutkan dengan penelitian terhadap limbah serat daun nanas yang diperoleh dari proses penyisiran. Melalui diskusi, diketahui bahwa serat-serat tersebut sulit untuk direkondisi menjadi bentuk filamen dan memiliki panjang yang tidak beraturan. Oleh karena itu, pendekatan yang paling memungkinkan untuk mengolah limbah serat adalah dengan berfokus pada teknik pengolahan tekstil non-woven. Tekstil bukan tenunan memiliki tampilan yang berbeda dibandingkan dengan tekstil tenun karena filamennya yang tersusun secara acak, sehingga menghasilkan tampilan seperti lembaran yang tidak rata dan tekstur yang kasar, seperti yang terlihat pada kain bukan tenunan komersial. Kain bukan tenunan telah berevolusi menyerupai kertas dan dapat digunakan dalam produk tekstil, seperti garmen kertas yang dibuat oleh Scott Paper pada tahun 1968, dan "Tyvek" yang diproduksi oleh DuPont (Cheema et al., 2018). Memanfaatkan serat daun nanas sebagai bahan komposit juga dapat menjadi sumber daya yang ekonomis, ramah lingkungan, dan dapat didaur ulang. Selain itu, serat daun nanas yang digunakan untuk pembuatan kertas menunjukkan sifat dasar kertas, seperti kemampuan menulis, kemampuan sobek, dan penyerapan air (Mahatme et al., 2018).

Melihat potensi dan lokasi kegiatan PKM, tahap awal pembuatan produk tekstil dimulai dengan mengolah serat menjadi kertas dengan teknik cetak saring. *Shifu* menjadi inspirasi dalam pengolahan serat. *Shifu* merupakan kain yang berasal dari Jepang yang dibuat dengan menggunakan benang kertas. Penggunaan kertas sebagai produk sudah umum di Jepang sejak abad ke-4 atau ke-5. Pada abad ke-8, kertas digunakan untuk menulis sutra bagi umat Buddha, dan pada abad ke-17, kertas secara eksklusif digunakan oleh pemerintah dan bangsawan. Sejak proses produksi kertas diketahui, benang kertas telah digunakan secara luas untuk berbagai tujuan. Penggunaan benang kertas sebagai ikat rambut didokumentasikan dalam buku-buku puisi dari pertengahan abad ke-8 hingga ke-10. Daur ulang menjadi salah satu cara bagi masyarakat untuk memanfaatkan kertas dalam kehidupan sehari-hari, karena kertas menyerap keringat dan tidak mudah basah seperti kapas. Kerajinan *shifu* juga digunakan sebagai sarana untuk menilai kekuatan produsen kertas buatan tangan di Jepang saat ini (Karuno, 2016).

Oleh karena itu, diputuskan bahwa materi yang akan disampaikan dan diberikan selama kegiatan lokakarya adalah mengenai proses pembuatan kertas dan praktik produksi kertas termasuk persiapan alat dan bahan. Proses dimulai dari pembuatan bubur kertas hingga produksi lembaran kertas. Para peserta akan dibagi menjadi dua kelompok untuk melakukan kegiatan praktikum. Kegiatan PKM ini akan dilaksanakan di Kampung Cijoged, Desa Cikadu, Kecamatan Cijambe, Kabupaten Subang, Jawa Barat. Mitra yang terlibat dalam kegiatan ini adalah Alfiber, UMKM produsen serat daun nanas, dengan jumlah peserta sebanyak delapan orang. Kegiatan ini akan melibatkan tiga orang laki-laki dan lima orang perempuan yang merupakan karyawan Alfiber, yang akan dibagi menjadi dua kelompok.

PEMBAHASAN

a. Tahap Persiapan Kreasi Kertas

Sebelum kegiatan pelatihan diselenggarakan, dilakukan studi mengenai hasil penelitian sebelumnya serta wawancara dengan pemilik Alfiber, Pak Alan. Berdasarkan hasil penelitian sebelumnya (Salsabilla, dkk., 2021) dimana sebelumnya juga dilakukan kunjungan ke Alfiber yang berlokasi di Subang, terdapat penumpukan bahan yaitu limbah serat daun nanas yang sudah kering dan tidak lolos tahap penyisiran serta panjangnya tidak mencapai minimal 60 cm. Bahan tersebut hanya disimpan dan jumlahnya sekitar 40-50 kg. Satu kilogram limbah serat dijual seharga Rp18.000 hingga Rp60.000. Serta telah dibuatnya kertas dari penelitian sebelumnya dari limbah serat daun nanas tersebut. Walau belum hingga tahap pengujian, namun sudah berhasil dihasilkannya kertas dengan bahan 100% dari limbah serat daun nanas tersebut tanpa ada tambahan bahan serat lainnya.

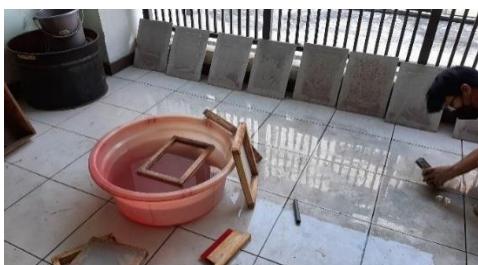


Gambar 2. Limbah serat daun nanas dari proses penyisiran yang belum diproses

(Sumber: Dokumentasi Penulis diambil 7 Juni 2022)

Bulan April 2022, wawancara dilakukan bersama Bapak Alan, pemilik Alfiber, untuk mengetahui kondisi di lokasi produksi serat dan potensi kegiatan pelatihan. Bapak Alan menyadari dampak negatif dari penumpukan limbah tanpa pengolahan, seperti menghabiskan tempat penyimpanan dan menyebabkan kerusakan serat daun nanas. Pelatihan ini bertujuan untuk memberikan wawasan UMKM baru dan menunjukkan peluang untuk menghasilkan produk yang bernilai. Alfiber menanggapi proposal pelatihan ini secara positif. Kemudian dilanjutkan di bulan Juni 2022, tim melakukan pelatihan dan wawancara dengan Alvinska Octaviana, seorang pengrajin kertas yang ahli dalam teknik cetak kertas. Alvinska menceritakan keahliannya dan memperkenalkan alat dan bahan yang diperlukan untuk lokakarya pembuatan kertas. Setelah pelatihan dengan Alvinska, tim berlatih secara mandiri selama satu bulan untuk meningkatkan keterampilan produksi kertas mereka dan mempersiapkan pelatihan dengan UMKM (Usaha Mikro, Kecil, dan Menengah) Alfiber. Selama pelatihan, proses pembuatan kertas dipaparkan, yang melibatkan langkah-langkah berurutan seperti pembuatan bubur dari serat, penghalusan serat, penyaringan pada cetakan, dan melepas bubur kertas dari cetakan ke papan yang akan dikeringkan menjadi kertas.

Selama pelatihan, terlihat bahwa ketebalan kertas yang dihasilkan bergantung pada rasio pulp dari serat daun nanas yang digunakan. Semakin banyak pulp yang digunakan, semakin tebal kertas yang dihasilkan, begitu pula sebaliknya. Teknik penyimpanan pulp juga menjadi bahan pertimbangan. Pulp harus disimpan dalam kondisi lembap. Namun, jika pulp terpapar udara dan teroksidasi, maka akan menimbulkan bau yang tidak sedap. Namun demikian, pulp masih bisa digunakan dan lebih mudah dihancurkan dan digiling sebelum dicetak untuk mencegah pembusukan. Secara teknis, proses pembuatan kertas cetak saring relatif mudah, tetapi perlu latihan terus-menerus untuk menghasilkan kualitas kertas yang bagus, rata dan konsisten. Alat dan bahan yang diperlukan mudah diperoleh, dan sebagian alat bahkan bisa dibuat sendiri, misalnya, bingkai screen yang digunakan untuk mencetak. Berbagai teknik dapat dieksplorasi, seperti memasukkan bunga atau tanaman kering untuk menciptakan kertas yang artistik atau menambahkan warna. Namun, untuk pelatihan dengan UMKM Alfiber, fokusnya akan dibatasi pada pelatihan pembuatan kertas untuk saat ini.



Gambar 3. Kegiatan pelatihan mandiri oleh tim sebelum pelatihan dengan UMKM Alfiber

(Sumber: Dokumentasi Penulis diambil 17 Juni 2022)



Gambar 4. Kertas-kertas yang dibuat oleh tim

(Sumber: Dokumentasi Penulis diambil 18 Juni 2022)

b. Implementasi Aktivitas Kreasi Kertas pada UMKM

Pelatihan pembuatan kertas bersama UMKM Alfiber dilaksanakan pada bulan Agustus 2022 di Balai Desa Cikadu, Kabupaten Subang. Kegiatan dibuka dengan presentasi mengenai tujuan pelatihan dan proses pembuatan lembaran kertas dari limbah serat daun nanas. Handout yang berisi proses pembuatan kertas, mulai dari pembuatan bubur kertas hingga proses sablon, disiapkan oleh tim untuk menghemat waktu. Kegiatan ini melibatkan tiga anggota tim pelaksana dan delapan peserta dari UMKM Alfiber, yang terdiri dari tiga laki-laki dan lima perempuan.

Selama sesi pembuatan kertas, para peserta dibagi menjadi dua kelompok yang masing-masing terdiri dari empat orang, karena hanya ada tiga orang dalam tim pelaksana. Dalam kegiatan ini, setiap peserta mampu menghasilkan hingga empat puluh lembar kertas. Namun, karena keterbatasan waktu, kegiatan ini langsung diarahkan pada proses pembuatan kertas, dengan asumsi bubur kertas atau pulp sudah disiapkan. Tahap pembuatan pulp tidak dilakukan karena membutuhkan waktu minimal 4-6 jam untuk mendapatkan pulp yang optimal. Setelah kegiatan selesai, dilakukan sesi diskusi dengan para peserta dan pemilik Alfiber, Bapak Alan. Dari diskusi tersebut diketahui bahwa para peserta ingin mengetahui lebih lanjut mengenai proses pembuatan pulp, yang menjadi masukan berharga untuk tahapan atau kegiatan selanjutnya.



Gambar 5. Kegiatan PKM pembuatan kertas bersama UMKM Alfiber

(Sumber: Dokumentasi Penulis diambil, 3 Agustus 2022)



Gambar 6. Tim pelaksana bersama peserta kegiatan PKM pembuatan kertas

(Sumber: Dokumentasi Penulis, diambil 3 Agustus 2022)

Di akhir kegiatan, peserta diberikan tugas untuk membuat kertas kembali tanpa bimbingan dari tim pelaksana. Tim pelaksana akan melakukan kunjungan kembali untuk mengevaluasi kertas yang dibuat oleh peserta dan mendiskusikan aspek-aspek yang tidak tercakup pada sesi sebelumnya. Evaluasi hasil kegiatan dilakukan pada tanggal 24 September 2022, dan sebelumnya pada tanggal 18 September

2022, para peserta secara mandiri membuat kertas tanpa diawasi oleh tim pelaksana. Pada saat evaluasi hasil pelatihan, fokus tidak hanya pada kertas yang dihasilkan peserta secara mandiri. Demonstrasi singkat praktik pembuatan bubur kertas juga diberikan karena ada masukan dari sesi sebelumnya bahwa para peserta ingin belajar bagaimana mengubah serat daun nanas menjadi *pulp*.



Gambar 7. Kegiatan pembuatan kertas yang dilakukan oleh peserta secara mandiri
(Sumber: Dokumentasi Penulis, diambil 10 Agustus 2022)

PENUTUP

Para peserta, yang merupakan anggota UMKM Alfiber, menunjukkan antusiasme yang tinggi terhadap pelatihan penggunaan serat daun nanas untuk membuat produk kertas. Pelatihan ini memberikan wawasan baru, mengubah limbah serat menjadi produk kertas yang bernilai. Hal ini menjawab kekhawatiran pemilik usaha tentang limbah yang dihasilkan selama proses ekstraksi serat dan memungkinkan para karyawan untuk menawarkan produk yang lebih beragam dan berkelanjutan, yang berpotensi memberi manfaat bagi masyarakat sekitar. Pelatihan ini memberikan dampak positif, yang berujung pada keberhasilan produksi produk kertas secara mandiri.



Gambar 8. Kertas yang dibuat oleh para peserta pada hari pertama pelatihan
(Sumber: Dokumentasi Penulis, diambil 3 Agustus 2022)



Gambar 9. Kertas hasil kegiatan pelatihan yang siap digunakan atau diolah.
(Sumber: Dokumentasi Penulis, diambil 3 Agustus 2022)

Untuk mengevaluasi tingkat keberhasilan kegiatan pelatihan, wawancara dilakukan dengan dua karyawan UMKM Alfiber dan pemiliknya, Bapak Alan. Pemilik menyatakan bahwa pembuatan kertas dapat mengatasi tantangan pengelolaan sampah dan membuka peluang bisnis baru. Ibu Isyaratul dan Bapak Agus mendapatkan pengetahuan dan keterampilan tambahan dari pelatihan tersebut, menyadari potensi untuk mengubah serat yang tidak terpakai menjadi kertas. Berdasarkan wawancara dan kualitas kertas yang dihasilkan, pelatihan ini berhasil, dan keterampilan para karyawan meningkat.

Melalui inovasi yang dilakukan dengan tekun, produk-produk tersebut telah mengubah serat nanas menjadi beragam produk yang siap dipasarkan, termasuk tas, dompet, dan sepatu. Produk-produk tersebut dijual dengan harga antara Rp150.000 hingga Rp400.000. Terjadi peningkatan nilai ekonomi yang signifikan antara limbah serat yang belum diolah dan kertas serat yang telah dijadikan produk, yaitu dari kisaran harga RP18.000 hingga Rp60.000. Ini muncul sebagai hasil dari komitmen Alfiber untuk menyempurnakan kerajinan mereka serta menerapkan prinsip-prinsip keberlanjutan. Sejalan dengan hal ini, wawancara evaluasi dengan Bapak Alan pada tanggal 13 Juli 2023, mengungkap strategi pengujian pasar dan ambisi mereka untuk masa depan. Rencana untuk membuat koleksi yang diproduksi secara massal dengan tetap menjunjung tinggi keunggulan material dan keahlian menunjukkan dedikasi mereka yang tak henti-hentinya terhadap seni dan kualitas.

KESIMPULAN DAN SARAN

Inisiatif pembuatan kertas dari limbah serat nanas melalui pelatihan keterampilan kriya bagi pengrajin telah membawa dampak positif yang luas. Selain memberikan solusi inovatif terhadap permasalahan limbah pertanian, langkah ini juga memberdayakan industri kreatif lokal, salah satunya Alfibre di Kabupaten Subang, Indonesia.

Melalui lokakarya pembuatan kertas dengan teknik *screenprinting*, pengrajin lokal tidak hanya belajar bagaimana mengubah limbah menjadi produk bernilai tinggi, tetapi juga memahami cara memadukan teknik kriya dengan nilai budaya dan estetika. Kegiatan ini meningkatkan nilai produk dan menarik minat pasar yang lebih besar, serta membantu mengurangi dampak negatif terhadap lingkungan.

Selain manfaat jangka pendek, keterampilan kriya ini memberikan dampak jangka panjang yang signifikan. Pengrajin yang dilengkapi dengan kemampuan pembuatan kertas berkelanjutan tidak hanya menghasilkan produk ramah lingkungan, tetapi juga mendorong kesadaran akan keberlanjutan atau *sustainability*. Dengan demikian, inisiatif ini tidak hanya mendukung pertumbuhan ekonomi yang berkelanjutan, tetapi juga melestarikan budaya lokal melalui penggabungan kerajinan tradisional dengan inovasi modern.

UCAPAN TERIMA KASIH

Kegiatan pemberdayaan masyarakat ini didukung oleh pendanaan dari PPMI 2022 KK Kriya dan Tradisi, Fakultas Seni Rupa dan Desain, Institut Teknologi Bandung. Kami mengucapkan terima kasih kepada Bapak Alan Sahroni dan tim UMKM Alfiber yang telah menerima tim dari KK Kriya dan Tradisi.

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COLLECTIVE CREATIVITY THROUGH AN ONLINE GENERATIVE TOOL FOR LEARNING SPACE DESIGN

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ABSTRACT

This paper describes an experiment to gather visual ideas for learning space design using a generative tool. The online platform allows participants from various countries to join in using the 3d parametric-virtual environment approach to express their visual interpretation of an ideal learning space. The data generated from the 186 participants showed conclusive results but were also potentially open to many interpretations.

Keywords: Collective Creativity, Generative Tool, Parametric Virtual Environment, Learning Space Design

ABSTRAK

Makalah ini menjelaskan percobaan mengumpulkan ide visual untuk pembelajaran desain ruang menggunakan alat generatif. Platform online ini memungkinkan peserta dari berbagai negara untuk bergabung menggunakan pendekatan lingkungan parametrik-virtual 3d untuk mengekspresikan interpretasi visual mereka terhadap ruang belajar yang ideal. Data yang dihasilkan dari 186 partisipan menunjukkan hasil yang konklusif namun juga berpotensi menimbulkan banyak interpretasi.

Kata Kunci: Kreativitas kolektif, alat generatif, lingkungan virtual parametrik, perancangan ruang belajar

INTRODUCTION

A prominent designer, the late Victor Papanek, once preserves a belief that all men are designers since designing is basic to all of our daily activities. Similarly, Elizabeth Sanders also argues that everyone is creative, and in fact, people are experts in their experience, which in turn can be shared in a connected environment and be useful for the wider community. On the other hand, Abercrombie points up that in his book people are to struggle to express their idea. concerns about their ability to express their mind. In that case, Sanders argues that people are creative beings and need the right tool to express their dream and creativity.

An online tool developed by the author named Parametric-Virtual Environment (p-VE), originally functioned as a tool to gather end-user's visual preferences data for learning spaces design. At the time of the experiment, it did not occur to anyone involved that the p-VE also works as online data to share ideas from various backgrounds and places. However, this platform has been inactive for a while. Therefore, it requires further adjustments to make it back to work. Another question is the author's doubt brings up another question. Since the platform's primary purpose was to collect visual preferences from the participants, can the p-VE be useful for design purposes? Or is it just garbage?

INTERACTIVE PARAMETRIC-VIRTUAL ENVIRONMENT

An early attempt to combine Interactive Virtual Environments and the Internet as a generative tool was demonstrated by Richens and Trinder in the late 90s. The objective was to explore a method of incorporating the Internet and a game engine to achieve better building through consultation. In the experiment, they utilized a game engine to create a 3D visualization of the Cambridge Computer Laboratory design and employ third-party software to make modifications. However, other than the walkthrough ability, the platform itself was non-generative. The visual presentation was carried out in a computer lab where the participants performed their walkthrough and sent their feedback through email afterwards (Richens & Trinder, 1999). A few years later, Vosinakis experimented by using a Virtual Reality Environment technology for interior design purposes (2007). Although there is no mention of the platform's ability to reach users through the internet, it allows the user to express their creativity for the interior space design.

The development of the Parametric-Virtual Environment (p-VE) started in 2013 and collected data through mid-2015. This online platform allows anyone from any place to express their preferences for a communal learning space using a visual user interface at any time. The platform integrates parametric design principles to provide interaction capabilities. In parametric design, the participant as an agent is given the ability to change parameter values that will affect other parameters associated with specific formulas. These parameters can be connected to any relevant objects depending on the purpose, either for urban planning, architecture, fashion, structure, or environmental study. In an Interior space, all design elements and dimensions can be considered parameters, i.e., the room's dimensions, windows' shape, and ceiling. Altering a specific parameter will automatically update the model accordingly. Upon completing the task, participants received a prompt to save the data on an online database and reaccess it anytime.

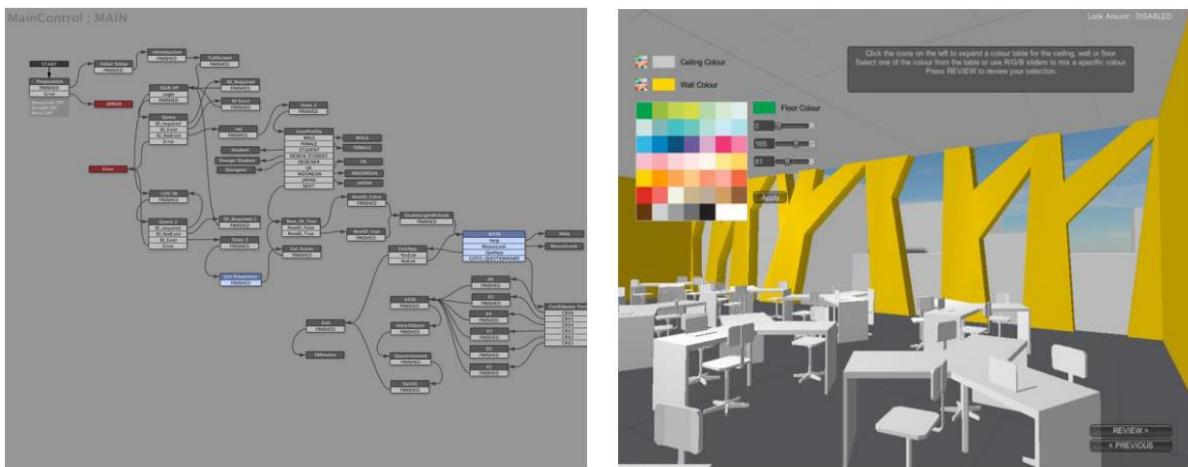


Figure 1 Development process with Visual Scripting (left) and the Virtual Environment Interface (right)

The platform was developed mainly using free and open-source tools, making it relatively accessible for anyone to develop. At that time, the author was inexperienced in programming which lead to three years long development. The downside of using open-source and freeware is the feasibility of the fast-moving digital world development. Besides, collecting data through the Internet has become a sensitive matter due to data safety and privacy issues. These central issues appeared to affect the p-VE functionality in 2017. It happened when some of the technologies behind it were abandoned, leaving the platform useless.

The development of the platform has always been user-centred since the beginning. In a Piloting Test, seventeen participants were invited to evaluate the prototype for its usability using three criteria in the After-Scenario Questionnaire (ASQ) developed by IBM Corporation, namely (1) Ease of task completion, (2) Support information, and (3) Completion time (Lewis, 1995). More participants (186) then performed another Usability Test on the revised version. They also created 178 digital artefacts as part of the data collection for their preferred learning spaces. Both tests showed the participants positively favour the usability of the platform as shown in *Figure 2*.

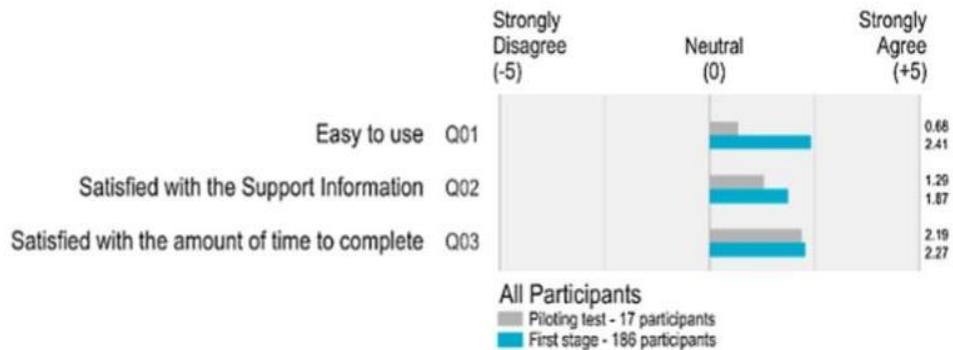


Figure 2 Usability Test result on two tests (Piloting Test, First Stage Test)

COLLECTIVE CREATIVITY

Since the platform was accessible through a web browser, anyone with a connected computer can visually express their creativity from anywhere. The participants were invited through email or social media and required to respond to the following task:

“Express your preferences on these following properties:

- (1) Windows and Ceiling Type
- (2) Spatial dimensions
- (3) Ceiling/Wall/Floor colour

which you think are favourable for learning space.”

At the end of the experiment, there are 186 participants joined the experiment submitting their creation in the form of digital artefacts as shown in figure 3. They came from various places such as Indonesia (135), the United Kingdom (36), Japan (11), Thailand (2), and Australia (1), and one participant did not indicate a location. Collective Creativity occurs when an idea is shared by several people in various contexts. Sanders (2001) argues that the result can be very powerful and lead to more culturally relevant results than individual ideas.

EVALUATING THE ARTEFACTS: ART OR GARBAGE?

The term Art can have diverse meanings to different people since everyone has various backgrounds and experiences in interpreting perceived sensations. The earliest presence of Art in an interior environment was found in a pre-historic cave as an effort to decorate the space to be more liveable. However, defining a work of art may lead to endless discussions. Thus, this paper will not address the discussion thoroughly.

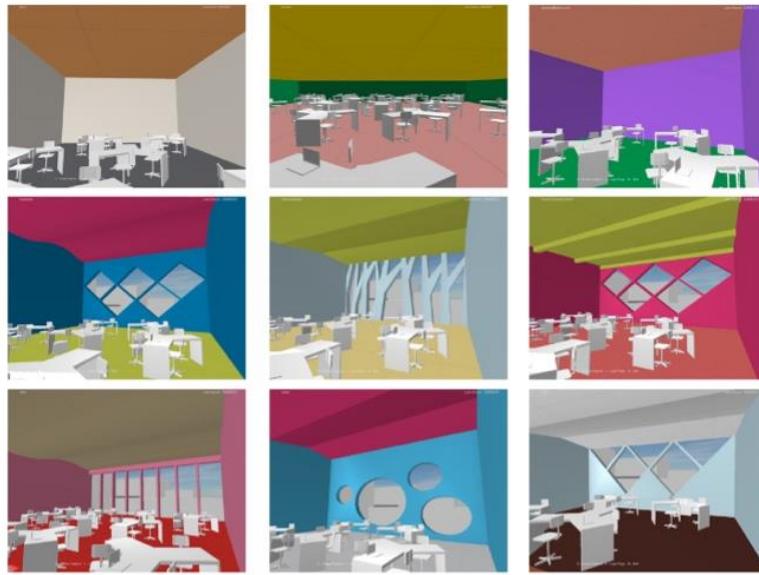


Figure 3 Examples of collected artefacts

'Art as a diversity of human activities in creating visual, auditory or performing artefacts, artworks, expressing the author's imaginative, conceptual ideas, or technical skill is intended to be appreciated for their beauty and emotional power.'

Dharsono (2020)

People believe that the primary goal of Art is to create beautiful objects that elicit an aesthetic response. Aesthetics has long been associated with how Art elicits an emotional reaction. In 1750, Alexander Baumgarten coined the term to promote his new philosophical approach to studying the "art of thinking beautifully". He claimed that beauty appreciation is the culmination of an aesthetic experience. Aesthetics is the study of how the mind perceives beautiful objects, including everything from natural objects to skilled artworks. According to Baumgarten, some physical qualities of an object can elicit sentiments of beauty, but the experience is simply a mindful one. Considering the platform's purpose is to collect user preference data, can it also facilitate the participant to create an aesthetically pleasing artefact? Or is it just Garbage? For most of us, Garbage is merely waste material, unwanted, ugly, and disgusting. Nevertheless, for some others, like the trash men, it could mean 'gold' that will bless their fortunes. Even some prominent artists worldwide incorporate them into their pieces of Art, transforming trash into treasure.

'There is no such thing as garbage, just useful stuff in the wrong place.'

Alex Steffen

In a computational world, the 'Garbage in Garbage out' phrase refers to the relationship between the data feed quality and output, i.e., if a participant does not take the experiment seriously. The p-VE is just a machine that processes anything the agent sends over the interface. If the agent does not get it correctly the first time, the machine will not give him or her the gold he or she wanted.

Is the p-VE a piece of Art or Garbage? Previous studies conducted by the author might have addressed the question. The first experiment conducted in mid-2015 was intended to collect data for a visual preferences survey using the matching method. This method requires the participants to

choose and match a set of elements and properties until the result satisfies them. Participants from various backgrounds and abilities created digital artefacts through the platform. The visual interactive virtual environment in the p-VE enables the participants to complete the task quicker than they should when using standard design tools. They finished the experiment in 7.94 minutes on average, and as aforementioned above, there were 178 artefacts created during this process (Priyanto & Peng, 2018). A few years later, these artefacts were recollected for a further study that conducted an aesthetic evaluation involving five judges. Aesthetic evaluation is a method to determine whether or not an artefact can aesthetically appease its viewers. Simultaneously, these judges are people with design backgrounds, either design students or lecturers. In this study, the judges used their experiences to separate the digital artefacts into three categories based on their aesthetic quality, either pleasant, neutral, or unpleasant (Priyanto, 2021).

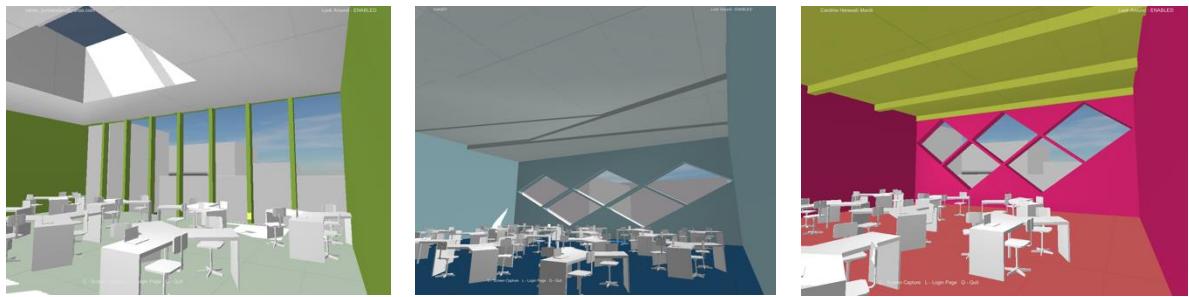


Figure 4 Examples of artefacts in Pleasant (left), Neutral (middle), and Unpleasant (right) Categories.

The result showed that 37 from 178 (20.8%) artefacts are regarded as pleasant, while 17 (9.5%) are neutral and 124 (69.7%) are unpleasant. Among the pleasant artefacts, 12 were created by designers and 25 by the participants without a design background. It is tough to declare this platform a success since there is no standardization for the ideal proportion. In this case, a quotation by an American author Theodore Sturgeon that states, 'Ninety per cent of everything is crap' may give a general idea. Although there is no proof that the adage is true, it has many followers in the public participation area (Barisano, 2013). The result showed that the platform could also facilitate them in producing aesthetic artefacts appealing to judges since the participants were invited to express their preferences for learning spaces as part of the data collection. Even the proportion of the aesthetically pleasant artefacts is greater than what Sturgeon hinted.

The p-VE's purpose is to collect data from the participants, similar to a visual questionnaire, while at the same time facilitating them to create an artefact with various aesthetic qualities. For some people, this platform is just a tool like a canvas to start a painting, or maybe a box of Lego with a collection of blocks to build something. This platform is probably not something Dharsono would specify as Art. The artefacts created through data collection can aesthetically appease some judges with design backgrounds. Although, according to Dharsono, the presence of an aesthetical (beauty) aspect is not the sole factor for Art.

CONCLUSION

Collective creativity can occur in various ways, and the current technology can drastically enhance the efficacy of the platform. The development of p-VE followed some principles that allow the end-users to easily express their preferences anywhere, anyplace anytime. Despite most participants

never experiencing a design education, it has a relatively high score for easy-to-use aspects. It could help the participant express their aesthetic capability in designing a learning space with a minimum learning curve, especially in the development of aesthetic taste. One-fifth of the artefacts created through it have successfully appeased the judges based on their aesthetical qualities. Furthermore, the p-VE can be expanded to serve various purposes, i.e., as a platform for students to collaborate in the virtual environment.

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KAWUNG BATIK MOTIF AS A BRIDGE OF GLOBAL CULTURE IN VARIOUS PRODUCTS

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ABSTRACT

Art has an important role as a cultural bridge between nations, connecting cultural diversity in various parts of the world. One example of traditional art that plays this role is the art of batik. Batik is not only an integral part of Indonesia's cultural heritage but has also spread to various countries and cultures around the world. One of the typical batik motifs is the Kawung motif, which has high historical and artistic value. This paper discusses the role of art as a cultural bridge between nations, with a focus on the application of the Kawung batik motif to various products, as well as its impact on the introduction of Indonesian culture at the global level.

Keywords: Batik, kawung motifs, cultural bridges, products

ABSTRAK

Seni memiliki peran penting sebagai jembatan budaya antar bangsa, menghubungkan keragaman budaya yang ada di berbagai belahan dunia. Salah satu contoh seni tradisional yang memainkan peran ini adalah seni batik. Batik tidak hanya menjadi bagian integral dari warisan budaya Indonesia, tetapi juga telah menyebar ke berbagai negara dan budaya di seluruh dunia. Salah satu motif batik yang khas adalah motif Kawung, yang memiliki nilai historis dan artistik yang tinggi. Makalah ini membahas tentang peran seni sebagai jembatan budaya antar bangsa, dengan fokus pada penerapan motif batik Kawung pada berbagai produk, serta dampaknya terhadap pengenalan budaya Indonesia di tingkat global.

Kata Kunci: Batik, motif kawung, jembatan budaya, produk

INTRODUCTION

Art has the unique ability to be a bridge connecting different cultures. In this era of globalization, art plays a crucial role in introducing and introducing the culture of a nation to the world community. As a concrete example, the art of batik has proven its ability as an effective means of representing the cultural wealth of a country. Batik, a traditional cloth dyeing technique that has a variety of motifs that vary across Indonesia, has been able to break through cultural boundaries and become a global icon.

One of the most distinctive batik motifs is the Kawung motif, with intersecting circular patterns. Behind its beautiful visual form, this motif carries a deep meaning and philosophy. The presence of Kawung motifs on various products has proven its ability to bridge cultural differences between nations. Through the presence of this motif, the cultural, historical, and philosophical messages contained in it can be interpreted and appreciated by people across cultures.

The application of Kawung motifs to various products has helped to strengthen understanding and intercultural relations. Products decorated with these motifs become a medium for telling stories about Indonesia to the outside world. This is an important step in embracing differences and opening

the door to a wider cultural dialogue. In this process, the art of batik becomes a solid bridge in bridging cultural gaps, enabling exchanges of understanding, appreciation, and closer cooperation between nations around the world.

In the era of globalization, every country seeks to promote its culture as a form of national identity in the eyes of the world. Indonesia, which is known for its rich culture, has great potential to be recognized through its traditional arts and crafts. Batik, a form of traditional dyeing cloth art, has gained international recognition as an intangible cultural heritage. Among the various batik motifs, the Kawung motif has a particularity that sets it apart. As one of the oldest batik motifs, Kawung carries a deep philosophy capable of being a representative of Indonesian culture on the global stage.

The purpose of this writing is to explore how the Kawung batik motif can be applied to various products, so that it becomes an intermediary in bridging global culture, as well as to identify its impact in promoting Indonesian culture.

This paper is expected to increase appreciation and recognition of the Kawung batik motif at the international level. In addition, the results of this study can also be a reference for creative industries and entrepreneurs in developing batik-based products that are competitive in the global market.

The method used in this paper is a qualitative method with a case study approach. Data was collected through observation, in-depth interviews with batik industry players, as well as literature studies related to history, philosophy, and the application of Kawung batik motifs to various products. Furthermore, data analysis was performed using content analysis techniques.

As a basis for this research, several theories related to culture, national identity, and intercultural communication are used. These concepts are obtained from various relevant literary sources and help in understanding how batik motifs, especially Kawung, function as a means of cultural communication at the global level.

In this research, the author will discuss more about the history of the Kawung batik motif, the philosophy contained therein, the application of this motif in various products, and its impact in promoting Indonesian culture at the global level.

METHOD AND DISCUSSION

a. A Brief History of Indonesian Batik

Batik is a heritage that has been left by Indonesian ancestors. Historical research shows that the batik tradition has existed since the time of the Majapahit kingdom. Over time, this tradition has developed through the influence of Islamic teachings in the land of Java. The process of this development can be traced from the era of the Islamic Demak, Pajang and Mataram kingdoms, to the Surakarta and Yogyakarta kingdoms.

From a philosophical point of view, Indonesian batik is considered to contain symbols and cultural values that are closely connected with people's lives. This condition reinforces these cultural characteristics making it difficult to be recognized by other countries. Motifs in batik have appeared since the 17th-century ad, although at that time batik was only drawn and painted on palm leaves and traditional house boards. The diversity of motifs at that time was still limited, with plant and animal patterns dominating. Batik craftsmen at that time were also still limited in number, with batik production only being done as a personal hobby of the craftsmen.

Floral motifs emerged together with Hindu influences coming from India, floral or plant motifs became very common and became the main motifs found in Indonesia. In batik, we see a variety of animal motifs that vary into very rich decorations.

Over time, the history of batik attracted the attention of the rulers of the Majapahit kingdom. Batik craftsmen experienced significant development. The material used, originally from leather, changed to white cloth or light-colored cloth. (Tarling. 2018)

Because it is felt from the white cloth itself the motifs obtained are more durable and can be used for wider utilization. The motives are not only about animals and plants. But now motifs such as abstract motifs, temple motifs, cloud motifs, wayang beber motifs, and so on, have been used at that time, namely when the Majapahit kingdom was founded.



Figure 1. Motif kawung pada arca Ganesha yang terdapat di Boro, Blitar
(sumber : www.arsip.tembi.net. downloaded 16 Agustus 2023)

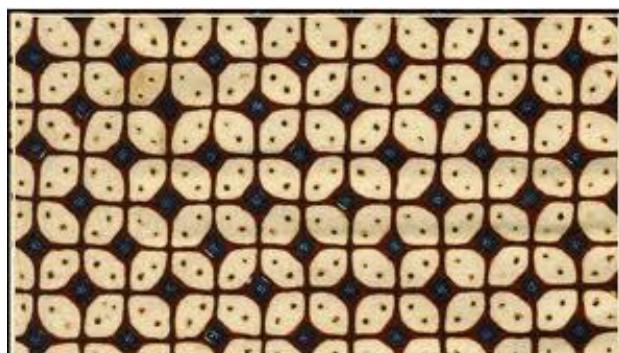


Figure 2. Motif kawung picis gaya Yogyakarta
(sumber : www.tinashue.blogspot.com. downloaded 16 Agustus 2023).

This is also related to the Javanese philosophy which considers that the universe or cosmology is a place with predetermined boundaries. Inside a place, there is content, namely elements that cannot be seen and can be seen.

In addition to elements that can be seen in the real world such as plants, animals, mountains, humans, and so on. There are also elements that cannot be seen and cannot be touched that inhabit the unseen world, such as ancestral spirits, gods, spirits, and other powerful powers.

"... Those who have good qualities and bring good luck, or those who are evil by bringing disaster or loss to humans," wrote Franz Magnis Suseno in the book Ethics of Java. (Magnis, 1994)

After the enforcement of the Giyanti agreement in 1755, batik decorative motifs developed uniquely in the two centers of the kingdom, namely Yogyakarta and Surakarta. Both palaces present their own distinctive aesthetics and styles.

Over time, batik production spread out from the palace environment and began to be managed by batik entrepreneurs in the Kauman, Kratonan, and Laweyan areas. They combined the palace's aesthetics with personal tastes and market needs. The people who previously used lurik cloth were dominant, starting to switch to batik cloth with various motifs, which eventually became known as Sudagaran batik. (Haryono, 2008).

As a world-recognized national identity, batik gained popularity in the late 18th to early 19th centuries. The emergence of stamped batik signifies the era of industrialization in the batik industry. Furthermore, with the introduction of automatic printing techniques, a new type of batik was born, known as printing batik. This type of batik influences the batik industry because of its efficiency in production and the price is more affordable than *batik tulis*.

Indonesia, as the owner of batik culture, has been further strengthened by Unesco's decision to designate it as a humanitarian heritage for masterpieces of the oral and intangible heritage of humanity since October 2009.

During the visit of us President Ronald Reagan to the Bali ASEAN summit in 1986, he was also seen with Mrs. Tien wearing batik at a dinner. Then the gift of batik souvenirs to Nelson Mandela in 1990 (Kusumo, Rizki. 2021).

In 1997 Mandela wore the batik again when he came back to Indonesia, as president of south Africa. Since then, it's been said that the famous apartheid fighter really fell in love with batik. (Haryono, 2008).

b. The Kawung Motif in Batik: Its Characteristics And Philosophical Meaning

Adi Kusriyanto, in his book entitled batik, philosophy, motifs and uses, states that motif is a term to describe the overall design of a batik cloth. A motif consists of a set of ornaments or decorations. In batik motifs, for example, the kawung motif, there are round-shaped ornaments resembling fruit and from arranged in the shape of a flower with four petals. Several kawung motifs are combined with garuda (eagle) ornaments. Ornament in this case is a form of object (image) that functions as a decoration or filler.

Decoration or ornament is a basic form of decoration that usually becomes a pattern that is repeated in a work of art. The decoration that is arranged will form a special motif. (Kusriyanto. 2013)

Meanwhile, Asti Musmah and Ambar b Arini (2011) in the book batik: inheritance of the adiluhung archipelago writes that kawung motifs or patterns that are full of meaning for the Javanese way of life, in the past included patterns of prohibition, some were even sacred so that people would always respect meaning. One of the sacred kawung motifs is kawung Semar. It is called that because the pattern is shaped like a Semar's body and is used by Kyai Semar Badranaya (in wayang).

Kawung includes a geometric pattern, a square shape, always composed of the same four shapes in a symmetrical arrangement. The kawung pattern continues to develop into several types, for example, kawung kemplang, kawung picis, and kawung geger which have unique patterns. Kawung batik motifs have distinctive characteristics and are easy to recognize. (Musmah, Arini. 2011).

c. Patterns And Characteristics

Here are some of the main characteristics of the kawung batik motif:

1. Sliced circle pattern: the most prominent feature of the kawung batik motif is the intersecting circle pattern. This circular shape forms a central motif that repeats itself in a geometric arrangement. This pattern consists of circles connecting the center of each previous circle.

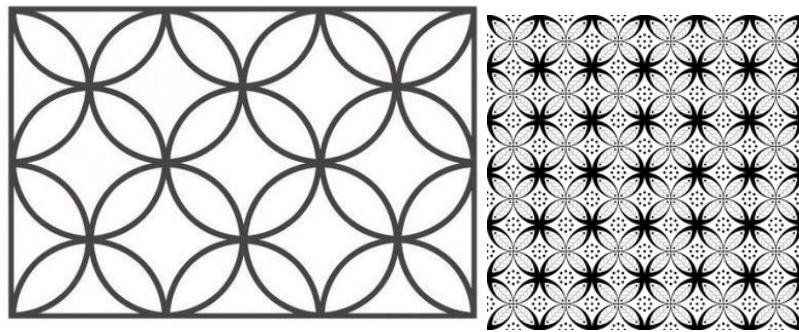


Figure 3. The basic pattern of the kawung motif (Source: Sekartaji, 16 Agustus 2023)

2. Symmetrical and Regular: Kawung motifs tend to be very symmetrical and regular. The intersecting circles form geometric patterns that are neatly arranged, creating a balanced and harmonious visual appearance.
3. No Empty Spaces: The circular pattern that keeps repeating in the Kawung motif means that there is no empty space between the patterns. Each part of the motif is filled with color and detail, creating a solid and full impression.



Fig 4. Contoh motif kawung dengan warna-warna yang penuh
(Source: <https://www.blibli.com/p/butimo-kain-batik-tulis-asli-motif-kawung> downloaded 16 Agustus 2023).

4. Contrasting colors: kawung motifs are often filled with contrasting color combinations, such as white and black, red, and black, or blue and white. This color contrast helps the pattern stand out and be easily visible.
5. Symbolic and deep meaning: behind its simple geometric patterns, the kawung motif contains deep symbols and philosophical meanings. The intersecting circle pattern can be interpreted in various ways, including in the context of harmony, balance, and the meaning of life.
6. Use in various products: the kawung motif is not only applied in batik cloth, but also in various other products such as clothing, accessories, interior decorations, and others. This shows the flexibility and adaptation of kawung's motifs in various contexts.
7. Combination with other motifs: several times, the kawung motif is also combined with other motifs such as plants, animals, or other patterns to create richer and more complex variations.



Figure 5. Motif Kawung Merak (Source: <https://bergaya.id/batik-kawung/> downloaded 16 Agustus 2023)

These characteristics make the kawung batik motif one of the iconic and easily recognized motifs in the Indonesian batik tradition.

d. Philosophical meaning

The kawung batik motif has a deep philosophical meaning. The intersecting circle pattern in the kawung motif has several philosophical interpretations that reflect various aspects of life and cultural values. Some of the philosophical meanings of the kawung batik motif are:

1. Harmony and balance: the intersecting circles in the kawung motif can be interpreted as a symbol of harmony and balance between the various elements in life. This illustrates the importance of maintaining balance in all things, such as the relationship between humans and nature, life and death, and so on.
2. Luck and serenity: the circle in the kawung motif can also be interpreted as a symbol of good luck and serenity. The circular shape shows continuity and continuity and meaning that luck and serenity always exist in every cycle of life.
3. The journey of life: the kawung motif is also often associated with the symbol of the journey of life. The intersecting circle pattern can be interpreted as a representation of the various stages in human life, from birth to death, and how everything is related in an ever-circling plot.
4. Prosperity and success: the kawung motif can also have an interpretation as a symbol of prosperity and success. The intersecting circle shape can be considered a symbol of abundance, prosperity, and achieving success in life.
5. Cultural and spiritual values: in addition to these meanings, the kawung motif is also often associated with Javanese cultural and spiritual values. In Javanese culture, the circle has a deep meaning related to religious beliefs and practices.
6. Respect for tradition: kawung motifs also reflect respect for traditions and ancestral heritage. The use of these motifs in batik and other products is a way to preserve and respect cultural values passed down from generation to generation.

The philosophical meaning of the kawung batik motif can vary depending on culture, personal interpretation, and the context in which it is used. However, basically, this motif has deep symbolic content and provides a philosophical dimension that enriches the cultural values of a society (junaidi, 2015).

e. The application of the Kawung motif in today's products

The application of the kawung batik motif to various products has become an important means of promoting and maintaining the uniqueness of Indonesian culture at the global level. Some examples of the application of the kawung batik motif to various products are as follows:

Fashion: kawung batik motifs have become popular in the fashion world. Dresses, shirts, shirts, and accessories with this motif have been worn by people from many cultures. This helps in introducing Indonesian aesthetics and cultural values to the international community.



Figure 6. The application of kawung motifs on clothes (Source: <https://wevagarment.com/> downloaded 16 Agustus 2023).

Interior decoration: kawung batik motifs are also applied in interior decoration, such as on curtains, pillows, tablecloths, and others. The use of this motif provides a unique touch of Indonesian culture in spaces around the world.



Figure 7. The application of kawung motifs in the interior of the house (Source: Grace Hartanti, Budi Setiawan, Univ. Ciputra e-Jurnal, downloaded 16 Agustus 2023)

Accessories: kawung batik motifs are used in various accessories such as scarves, bags, shoes, and jewelry. This provides an added value in embracing the diversity of cultures and fashions around the world.



Figure 8. The application of kawung motifs on shoes (Source: Lisa Andriana, Kusmadi, Jurnal Asdi.ac.id, downloaded 16 Agustus 2023).

f. Cultural Implications and National Identity

The application of Kawung batik motifs to various products is not just a fashion trend or decoration. It also carries deep cultural implications. The existence of this motif allows people from various countries to recognize and appreciate Indonesian culture. This can strengthen national identity and broaden understanding of Indonesian culture at a global level.

Introduction to Indonesian Culture at the Global Level

Through the application of the Kawung batik motif to various products, Indonesian culture has become better known throughout the world. The international community can recognize and appreciate the beauty, philosophy, and history contained in every Kawung batik motif. This leads to an increased understanding and appreciation of cultural richness.

One proof of the development of batik motifs internationally is the launch of the Ioniq 5 car with batik motifs by Hyundai, an electric car manufacturer, as a celebration of 50 years of friendship between Indonesia and South Korea. This step was taken within the framework of a new round of diplomatic relations between the two countries which have been going on for half a century. This initiative was introduced by the Indonesian Ambassador to Seoul, Gandi Sulistiyo, and demonstrates the close cooperation between the Korean automotive industry and Indonesia's creative economy and cultural heritage.

The launch was officially held at the 2023 Gaikindo Indonesia International Auto Show (GIIAS) which was held at ICE BSD, Tangerang. Sulis, the Indonesian Ambassador to South Korea, revealed that, for the Indonesian people, batik has a deeper meaning than just cloth. It is an intangible cultural heritage that has been recognized by UNESCO since 2009. Batik is a symbol of Indonesian history and civilization, where batik techniques and motifs are passed down from generation to generation.

The plan is that the batik version of the Hyundai Ioniq 5 will be produced in limited quantities and is intended for collectors. This car will be sold at a price of around IDR 1 billion. This car prototype can be seen at the Hyundai booth during GIIAS 2023, which will take place in Hall 10 ICE BSD from 11 to 20 August 2023.



Figure 9. The application of batik motifs to the Ioniq 5 car produced by Hyundai (Source: <https://www.porosjakarta.com/hiburan/062655397/merayakan-50-tahun-persahabatan-indonesia-korea-dengan-hyundai-ioniq-5-batik> downloaded 18 Agustus 2023).



Figure 10. The kawung motif on the ceiling of YIA Yogyakarta International Airport (Source: <https://eksotisjogja.blogspot.com/2020/10/bandara-yogyakarta-internasional-airport-YIA.html> downloaded 18 Agustus 2023).

CONCLUSION

Through exploring the application of the Kawung batik motif as a bridge to global culture in various products, we have gained rich and evocative insights. This paper has revealed how the art of batik is able to function as a powerful link between different cultures. The Kawung batik motif, with its intersecting circle pattern, has become a deep symbolic representation of harmony, balance, and the meaning of life.

It is well realized that in this era of globalization, art has an invaluable role in introducing and deepening understanding of a nation's culture. The application of Kawung motifs to various products has helped in bridging cultural gaps, enabling exchanges of understanding, appreciation, and closer cooperation among peoples around the world. This enriches and broadens cultural horizons, creating deeper connections amid diversity.

In the context of Kawung batik motifs, we found that art is not only a decorative element but also a powerful communication tool to describe the cultural values and philosophy of a nation. The application of this motif in various products opens new opportunities to promote Indonesian culture globally, as well as to maintain and continue the cultural heritage given to us by our ancestors.

However, it must be acknowledged that challenges remain, such as the protection and preservation of traditional batik motifs in the modern era, as well as possible controversies in cultural adaptation and commercialization. Therefore, as a recommendation, there needs to be a collective effort to support the development and preservation of batik art, as well as a sustainable approach in promoting Indonesian cultural heritage at the global level.

In conclusion, the Kawung batik motif has proven itself to be an effective cultural bridge, depicting harmony and deep values amidst the diversity of the world. We believe that art in its various forms will continue to be a powerful tool in embracing cultural differences and building deeper understanding between people.

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EKSPLORASI MOTIF *MID-CENTURY MODERN* MENGGUNAKAN TEKNIK *DOUBLE WEAVING*

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ABSTRACT

Mid-century modern is a design movement that emerged from complaints about bad hotel furniture and has its roots in the early 20th century. Modernism itself can be defined as a form that rejects history and creates a new one based on an analysis of rational needs. Stylistically, modernism is synonymous with minimal ornamentation, open interior space, experimentation with new materials, blending traditional crafts with industrial, essential, functional, biomorphic forms and geometric shapes. In the post-pandemic era, people want a warmer interior style because they spend more time at home. The double weaving technique is an approach taken to display this mid-century modern style motif through pick-up, pick-down techniques, and so on. In addition, the advantage of the double weave product is that it has relevance to the values and needs of modern mid-century style home fashion. The method used is the design process by analyzing the visual elements of the modern mid-century style, then applied through the double weaving pattern. This research still has some limitations, including the limited skills of woven craftsmen in making double weaving fabrics

Keywords: Double weaving, geometric, home fashion, mid-century modern, motif

ABSTRAK

*Mid-century modern adalah sebuah pergerakan desain yang terjadi karena keluhan terkait furnitur hotel yang buruk dan berakar pada awal abad ke-20. Modernisme sendiri dapat didefinisikan sebagai bentuk yang menolak sejarah dan menciptakan yang baru berdasarkan analisis kebutuhan rasional. Secara gaya, modernisme identik dengan sedikit ornamen, ruang interior terbuka, eksperimen material baru memadukan kerajinan tradisional dengan industri, esensial, fungsional, bentuk biomorfik, dan bentuk geometris. Era setelah pandemi, masyarakat menginginkan gaya interior yang lebih hangat karena lebih banyak menghabiskan waktu di dalam rumah. Teknik *double weaving* merupakan pendekatan yang dilakukan untuk menampilkan motif bergaya *mid-century modern* ini melalui teknik *pick-up*, *pick-down*, dan sebagainya. Selain itu, kelebihan dari produk *double weave*, yaitu memiliki relevansi dengan nilai dan kebutuhan pada *home fashion* bergaya *mid-century modern*. Metode yang digunakan adalah proses perancangan dengan menganalisa unsur visual gaya *mid-century modern*, kemudian diterapkan melalui pola tenun *double weaving*. Penelitian ini masih terdapat beberapa keterbatasan, diantaranya keterbatasan keterampilan pengrajin tenun dalam membuat kain *double weaving*.*

Kata Kunci: Double weaving, geometri, home fashion, mid-century modern, motif

PENDAHULUAN

Yulianti dkk. (2018), memaparkan ‘kebutuhan utama manusia sering disebut dengan kebutuhan primer, yang meliputi kebutuhan sandang, pangan, dan papan. Kebutuhan sandang adalah kebutuhan akan pakaian yang diperlukan oleh manusia sebagai makhluk berbudaya’. Anderson (2013) memaparkan, manusia telah memilin dan menenun kain sejak ribuan tahun, lebih dari dua puluh ribu tahun menurut hitungan terakhir. Tenun secara umum dan sejarahnya berdasarkan proses pembuatan kain tenun terdapat tiga jenis alat yaitu, alat tenun tradisional atau biasa disebut *gedhogan*, Alat Tenun Bukan Mesin (ATBM), dan Alat Tenun Mesin (ATM) (Gratha dkk., 2016).

Tenun *double cloth weaving* memiliki perbedaan dari segi teknik tenun sederhana yaitu menenun dua lapis kain atau lebih pada alat tenun secara bersamaan, satu diatas yang lain. Lapisan ini mungkin benar-benar independen satu sama lain, atau mungkin dapat dihubungkan pada satu atau kedua tepian, atau kedua lapisan dapat terjalin melalui pertukaran yang dikendalikan dengan alat tenun atau dengan manipulasi tangan. *Double weaving* merupakan teknik tenun kuno yang ditemukan pertama kali oleh bangsa Peru dan Cina pada 1000 tahun sebelum masehi. Pada masa tersebut teknik *double weaving* terus berkembang dan semakin tersebar luas mulai ke India, Persia, Rusia, hingga Eropa. Pada masa ke-16 *double weave* biasa digunakan oleh orang Skandinavia untuk keperluan kain insulasi di rumah seperti selimut, pakaian hangat, dan pelapis dinding (Moore, 2018). Tenun *doubleweave* memiliki potensi yang sama dengan seperti pada tenun sederhana yaitu untuk variasi motif, namun terdapat perbedaan yang kompleks dilihat dari teknik pembuatannya. Kain yang dibuat menggunakan tenun *double weaving* dapat memiliki lebih banyak variasi tidak hanya pada motif saja, namun juga seperti struktur dan tekstur pada kain, karakteristik kain tenun *doubleweave* lebih kuat daripada tenun sederhana, dan ukuran kain yang dihasilkan dapat dua hingga tiga kali ukuran mesin tenun sebenarnya (Heinrich, 1988).

Double weave pada saat ini banyak dijadikan sebagai karya seni. Banyak dari seniman tekstil yang mengangkat tenun *double weave* sebagai karya mereka, di antaranya adalah Maggie Orth dengan judul karya ‘*Dynamic Double-Weave*’ yang membawakan seni, teknologi, dan desain. Karyanya merupakan eksplorasi pola tekstil berulang yang dapat berinteraksi dengan pola perangkat lunak berulang (Orth, 2007). ‘*Color Design : Where the Shuttle Meets the Shed*’ merupakan judul karya dari seorang seniman tekstil bernama Natalie Drummond mengenai eksplorasi tekstur dan warna pada benang yang dihasilkan setelah mengalami pencucian (Drummond, 2021). Christine Maurer juga merupakan seorang seniman tekstil *double weave*. Pada karya ia kebanyakan melakukan eksplorasi yang berfokus pada efek penggabungan antara warna dan pola grafis (Maurer, 2016). Motif atau pola adalah cara untuk melihat sebuah bentuk. Motif atau pola secara langsung berhubungan dengan garis, bukan warna. Selain itu, warna, cahaya, dan bayangan, secara struktur umum dan komposisi pada sebuah karya adalah sebuah dasar. Motif atau pola adalah elemen dasar pada kebanyakan karya, mulai dari aksesoris rumah hingga arsitektur dan tekstil yang mana adalah visualisasi dan estetika merupakan yang terdepan. Motif atau pola diciptakan juga untuk memeriksa dalam fungsi dan dimensi artistik menggunakan teknik dan material yang berbeda dengan mempertimbangkan warna, komposisi, dan kegunaan (Starter, 2021).

Kelebihan karakteristik tenun *double weave* dan motif atau pola terdapat relevansi dengan berkembangnya nilai modernisme pada awal abad ke-20. Modernisme sendiri merupakan pergerakan desain yang terjadi karena keluhan terkait furnitur yang buruk, dan juga dapat didefinisikan sebagai bentuk dalam menolak sejarah dan menciptakan yang baru berdasarkan analisis kebutuhan rasional. Modernisme ditandai dengan sedikit ornamen, ruang terbuka, dan eksperimen dengan material baru. Hal tersebut didukung dengan tiga kategori yang diperkenalkan oleh tokoh *mid-century modern*,

George Nelson. salah satu kategori tersebut adalah *The Handcrafted* yang merupakan penggabungan material tradisional dan mengedepankan kesederhanaan dan fungsionalitas. Karakter dari gaya *mid-century modern* ini memiliki kecenderungan masyarakat mencari kehangatan dalam gaya interior setelah pandemi (Smith, 2022). Penelitian ini bertujuan menghasilkan produk kain dengan desain motif *mid-century modern* menggunakan teknik *double weaving* melalui perencanaan yang matang melalui kombinasi benang lungsi dan pakan, *pick-up* dan *pick-down*, dan rumus pola tenun. Sehingga pada karya ini diharapkan memberikan kreasi baru, nilai guna, dan inovasi terhadap tenun yang dihasilkan dan mencapai nilai-nilai dari gaya interior *mid-century modern* dan *double weave* berupa fungsionalisme, esensialisme dan utilitarianisme.

Penelitian ini bersandar pada landasan pemikiran yang dikembangkan dari eksplorasi motif bergaya *mid-century modern* yang akan diaplikasikan pada produk *home fashion* menggunakan teknik tenun *double weaving*. Proses ini terbagi menjadi beberapa tahap, berikut adalah landasan dan tujuan dari proses studi kreatif penelitian ini.

MASALAH PENELITIAN

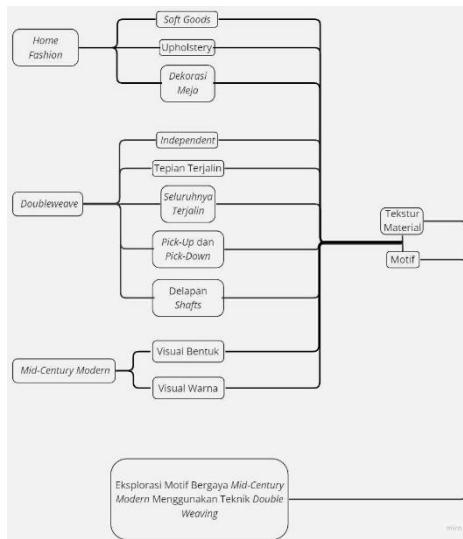
Era setelah pandemi membuat masyarakat menginginkan gaya interior yang lebih hangat karena lebih banyak menghabiskan waktu di dalam rumah seperti gaya interior *mid-century modern* (Smith, 2022). Karakter dari gaya *mid-century modern* ini memiliki relevansi dengan kelebihan dari karakteristik tenun *double weave* yang dapat menampilkan berbagai macam motif tenun, penggabungan material tradisional dan mengedepankan kesederhanaan dan fungsionalitas.

TUJUAN

Adapun tujuan dalam penelitian ini berdasarkan latar belakang yang ada adalah merancang produk kain yang dapat menampilkan motif dan bentuk geometris untuk mencapai karakteristik dari gaya interior *mid-century modern* menggunakan teknik *double weaving* melalui perencanaan yang matang melalui kombinasi benang lungsi dan pakan, *pick-up* dan *pick-down*, dan rumus pola tenun.

PROSES STUDI

Dilakukan proses studi dengan dua data, yaitu data primer dan sekunder. Data primer diperoleh secara langsung di lapangan dengan eksplorasi utama adalah struktur umum mengenai teknik *double weaving* dan dilanjutkan dengan eksplorasi lanjutan adalah melakukan studi visual mengenai karakteristik dari gaya interior *mid-century modern*. Data sekunder diperoleh melalui studi literatur melalui buku, jurnal, karya tulis berkaitan, dan internet dengan topik gaya *mid-century modern*, *double weaving*, dan *home fashion*. Hasil data tersebut diaplikasikan pada proses pengembangan konsep produk dan desain motif yang akan dibuat.



Gambar 1. Kerangka Penelitian (Gunawan, 2023)

PEMBAHASAN

Hasil studi dan pembahasan akan terbagi menjadi tujuh, yaitu reka benang, reka struktur *double weaving*, analisa bentuk gaya interior *mid-century modern*, analisa warna dari gaya interior *mid-century modern*, konsep produk, eksplorasi motif, dan proses produksi.

a. Reka Benang

Material benang yang digunakan baik pada proses eksplorasi awal struktur *double weaving* maupun pada proses produksi merupakan hasil survei dengan pertimbangan pada komposisi pembentuk, tekstur, ukuran, dan warna.

Tabel 1. Survey Material Benang

No	Foto	Nama Benang	Karakteristik	No	Foto	Nama Benang	Karakteristik
1.		Loopy jumbo	95% akrilik - Bulky pada seluruh bagian – berserabut kecil	4.		Bambu	100% serat bambu – lurus beberapa helai – halus, adem
2.		Loopy mini	95% akrilik – ukuran benang tidak tentu – berserabut kecil	5.		Nilon	100% poliester – lurus memilin - licin

3.		Mohiar spotty	50% poliester 50% akrilik – bentuk bergerigi – sedikit berserabut	6.		Katun susu	20% serat susu 80% katun – bergelombang – lembut, hangat, stretchy
7.		Mohair klasik	100% akrilik – ukuran kecil – semakin berserabut jika terkena gesekan	10.		Katun CSM 40/2	100% katun – sangat kecil struktur kepang – kaku tidak licin
8.		Katun bali	100% katun – banyak helai benang saling memilin – lembut tidak licin	11.		Rayon 40/2	100% serat rayon – tipis mengepang – halus sedikit mengkilap
9.		Poly kiwi	100% poliester – lurus memilin – licin mudah terlepas bagian ujung				

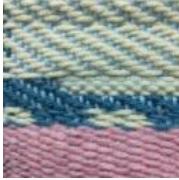
(Sumber: Gunawan, 2023)

b. Struktur Double weaving

Eksplorasi teknik tenun *double weaving* yang dilakukan adalah dengan rumus delapan shafts yang tersedia pada alat table loom. Eksplorasi yang dilakukan berdasarkan material benang, rumus pola tenun *double weaving*, teknik pick-up dan pick-down untuk menghadirkan berbagai macam lapisan, tekstur, motif, dan warna.

Tabel 2. Eksplorasi teknik *double weaving*

No .	Hasil	Benang – Teknik - Pola	Keterangan	No .	Hasil	Benang – Teknik - Pola	Keterangan
1.		<i>Fancy yarn – four layer draft – plain weave</i>	Gagal - Hasi tenun tidak menjadi 4 lapisan terpisah, melainkan menjadi sambungan tertutup pada sisi bagian kanan dan kiri membuat lapisan kain menjadi <i>closed-loop</i> atau tertutup.	3.		Bambu yarn – stitched layer – 2/2 twill z	Berhasil Teknik bertujuan untuk menghasilkan barisan awal pada proses tenun.
2		<i>Bambu yarn – stitched layer – 2/2 twill z</i>	Berhasil Teknik ini bertujuan untuk menghasilkan kain yang memiliki lebar dua kali lipat dari ukuran alat tenun yang digunakan dengan menghasilkan dua lapisan dengan satu sisi terbuka atau	4.		<i>Bambu yarn – stitched layer – pick up – 2/2 twill z</i>	Berhasil Eksplorasi ke-4 ini menggunakan teknik tambahan berupa <i>pick-up</i> untuk membentuk pola yang diinginkan sesuai desain. Permukaan benang menjadi tidak rapih

			terpisah dan sisi lainnya			dikarenakan ukuran benang
			terhubung (<i>fold</i>).			pakan yang berbeda dengan solusi memperhatikan perbandingan benang kecil dengan benang besar saat berapa kali baris menenun.
5.	 	Bambu yarn – katun susu – pick up – pick down – polos – 2/2 twill z	Berhasil - Eksplorasi ini diajarkan oleh Kak Sabrina selaku dosen pembimbing . Pada proses <i>pick-up</i> dan <i>pick-down</i> akan terjadi persilangan antara motif sehingga pada bagian motif atau warna yang sama, kain akan terpisah menjadi dua lapisan sedangkan akan <i>stitched</i> pada silangan motif. Dan warna motif	8.	 	Bambu yarn – 100% polieste r – pick up – polos – 2/2 twill z Gagal - Pada eksplorasi ke-8 ini dimaksudkan untuk memiliki dua lapisan yang terpisah dengan perumakaan atas dan bawah memiliki pola tenun dan warna yang berbeda, namun gagal karena seharusnya juga dilakukan teknik <i>pick-down</i> .

			akan menjadi Kebalikan dari tampak depan.				
6.		Bambu yarn – 100% katun – katun susu – two separat e layers – polos – twill 2/2 z	Berhasil - Pada eksplorasi ke-6 ini dimaksudkan untuk memiliki dua lapisan yang terpisah dengan perumakaan atas dan bawah memiliki pola tenun dan warna yang berbeda	9.		Bambu yarn – polieste r – katun susu – mohair – pick up pick down – polos 2/2 twill z	Gagal - Pada eksplorasi ke-9 ini dimaksudkan untuk memiliki dua lapisan yang terpisah dengan perumakaan atas dan bawah memiliki pola tenun dan warna yang berbeda namun gagal, karena saat pick-up dilakukan 2x dan menggunakan dua benang berbeda, lalu pick down menggunakan 1 benang berbeda. Dimana pakan hanya dapat dua.
7.		Bambu yarn – polyeste r – 100% katun – two separat	Berhasil - Pada eksplorasi ke-7 ini dimaksudkan untuk memiliki dua	10.		Benang bambu – polieste r – katun susu – pick up	Berhasil - Pada eksplorasi ke-10 ini dimaksudkan untuk memiliki dua lapisan yang terpisah

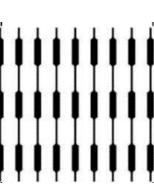
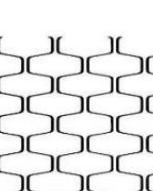
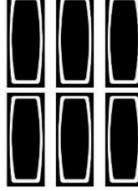
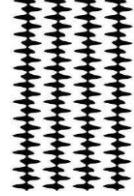
		e layers bagian samping - polos -	lapisan yang terpisah dengan perumakanan			pick down polos	- dengan perumakanan atas dan bawah
		2/2 twill z	atas dan bawah memiliki pola tenun dan warna yang berbeda			twill 2/2 z	memiliki pola tenun dan warna yang berbeda dan berhasil dikarenakan pakan hanya menggunakan dua jenis saja dan proses pick-up dan pick down yang benar

(Sumber: Gunawan, 2023)

c. Studi Visual Gaya Interior Mid-Century Modern

Studi visual dilakukan dengan menganalisa dari berbagai macam interior pada masa lampau dan masa sekarang untuk melihat persamaan dan perbedaan yang didapat baik dari segi visual bentuk maupun visual warna.

Tabel 3. Analisa Bentuk Visual Gaya Interior *Mid-Century Modern*

No.	Foto	Bentuk	Keterangan	No.	Foto	Bentuk	Keterangan
1.			Repetisi bentuk pada interior	2.			Repetisi bentuk pada interior
3.			Repetisi bentuk pada interior	4.			Repetisi bentuk pada interior

5.			Bentuk-bentuk geometris dasar lingkaran.	6.			Bentuk-bentuk organic seperti amoeba.
7.			Bentuk-bentuk geometris dasar persegi dan persegi Panjang				

(Sumber: Gunawan, 2023)

Tabel 4. Analisa Warna Visual Gaya Interior *Mid-Century Modern*

No.	Foto	Color Scheme	Keterangan	No.	Foto	Color scheme	Keterangan
1.			Kolase foto sebagai <i>imageboards</i> .	2.			Proyek residensi yang di desain oleh desainer interior Kelly Wreastler.
3.			Kediaman Troy Sivan yang diliput oleh <i>Architectural Digest</i> .	4.			Landmark arsitektur modern pertengahan abad ke-20 yang terletak di 203 North Chautauwa Boulevard di Kawasan Pacific Palisades di Los Angeles.

5.		Proyek hotel, Santa Monica Proper yang dioleh Desainer interior Kelly Wreastler.	6.		Kolase foto Artikel tren interior 2023 oleh majalah <i>Bazaar</i> .
7.		Set acara Televisi <i>Mad-Men</i> yang memenangkan penghargaan.	8.		Hotel Puro yang didesain oleh Studio Paradowski.

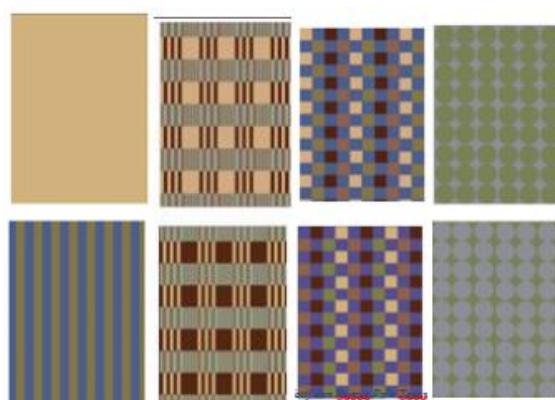
(Sumber: Gunawan, 2023)

d. Eksplorasi Komposisi Motif

Eksplorasi motif didapatkan berdasarkan hasil analisa visual bentuk dan warna sebelumnya.



Gambar 2. Komposisi Eksplorasi Motif



Gambar 3. Komposisi Motif Terpilih

e. Produksi Tenun *Double weaving*

Proses produksi dilakukan di dua lokasi, yaitu Laboratorium tenun gedung Center for Arts, Design, and Language dan Rumah Tenun Balqis, Majalaya. Material yang digunakan untuk produk tenun dengan ukuran kecil menggunakan benang katun susu, benang poliester, dan benang katun bali, sedangkan untuk produk tenun dengan ukuran besar menggunakan benang katun csm 40/2 dan rayon 40/2 dengan pewarnaan sintetis. Produksi tenun *double weaving* dilakukan dengan menggunakan beberapa teknik diantaranya, *pick-up* dan *pick-down* dan *two separated layers*, dengan rumus pola tenunnya adalah polos dan *twill*



Gambar 4. Proses Produksi Komposisi Motif Kain 1

f. Hasil Tenun

Hasil tenun komposisi motif kain 1 merupakan produk table runner atau taplak meja dengan ukuran panjang 30 cm x 120 cm dengan benang yang digunakan adalah poliester. Teknik *double weaving* adalah *two separated layers*.



Gambar 5. Produk Kain Motif 1

PENUTUP

Berdasarkan hasil penelitian terhadap analisis visual gaya mid-century modern, struktur tenun *double weaving*, warna motif sebagai produk home fashion, terdapat kesimpulan yang dapat diperoleh dari penitian ini yang berjudul “Eksplorasi Motif Bergaya Mid-Century Modern Menggunakan Teknik Double weaving” adalah sebagai berikut:

1. Gaya interior mid-century modern yang menjadi tren beberapa tahun mendatang sesuai dengan sumber yang terdapat pada tinjauan Pustaka, *Mid-century modern* identik dengan bentuk geometris, bentuk biomorfik, fungsional, sederhana, dan warna-warna *warm tone* akan banyak dicari sehingga eksplorasi motif bergaya *mid-century modern* ini memiliki potensi dan peluang dalam kebutuhan produk *home fashion* sebagai aksesoris dan kebutuhan gaya dalam ruangan dalam jangka waktu yang panjang.

- Eksplorasi berbagai desain motif bergaya *mid-century modern* dapat dihasilkan melalui teknik tenun *double weaving* melalui beberapa tahapan perencanaan yang matang mulai benang lungsi dan benang pakan, hani hingga proses cucuk dan *tying*. Berbagai desain motif dapat ditampilkan atau dihasilkan melalui teknik *pick-up*, *pick-down*, dan rumus pola tenun yang tepat. Namun tetap ada keterbatasan diantaranya adalah terbatasnya keterampilan pengrajin tenun pada teknik *double weaving*. Keterbatasan dalam menggunakan (ATBM) yang berukuran besar dengan 8 *shafts* pada satu baris benang pakan hanya dapat menggunakan dua benang yang berbeda saat melalui *shed* sehingga desain motif juga perlu disesuaikan dengan keterbatasan ini. Pada proses menenun *double weaving* juga perlu dilakukan dengan hati-hati dan seksama hal ini dikarenakan untuk menghindari terambilnya benang yang tidak diinginkan dan akan membuat motif tidak sesuai dengan desain.

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EXPLORING SUSTAINABILITY COLLABORATION IN FINE ART

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ABSTRACT

This paper examines the potential of sustainability collaboration through artistic initiatives. Focusing on the intersection of art and sustainable development, it explores how creative endeavours can facilitate cross-disciplinary partnerships and promote sustainable practices. Through case studies and analysis, the study offers insights into the various ways art can contribute to addressing environmental and social challenges, fostering community engagement, and driving positive change.

Keywords: Sustainability collaboration, art, sustainable development, cross-disciplinary, community engagement

ABSTRAK

Makalah ini mengkaji potensi kolaborasi keberlanjutan melalui inisiatif artistik. Berfokus pada titik temu antara seni dan pembangunan berkelanjutan, makalah ini mengeksplorasi bagaimana upaya kreatif dapat memfasilitasi kemitraan lintas disiplin dan mendorong praktik berkelanjutan. Melalui studi kasus dan analisis, studi ini menawarkan wawasan tentang berbagai cara seni dapat berkontribusi dalam mengatasi tantangan lingkungan dan sosial, mendorong keterlibatan masyarakat, dan mendorong perubahan positif.

Kata Kunci: Kolaborasi keberlanjutan, seni, pembangunan berkelanjutan, lintas disiplin, keterlibatan masyarakat

INTRODUCTION

Art has a longstanding reputation as a powerful tool for conveying emotions, messages, and cultural identities. In recent times, its role has expanded to include sustainability collaboration, where artists, organizations, and communities unite to tackle urgent global challenges. This form of collaboration plays a pivotal role in addressing environmental and social issues facing the world today. When combined with the power of art, it creates a unique platform for raising awareness, igniting conversations, and instigating positive change. The fusion of art and sustainability collaboration showcases the synergy between creativity and responsibility. Artists, activists, and communities globally are converging to explore innovative methods of conveying the importance of sustainable practices through diverse artistic mediums. Whether through thought-provoking visual art, immersive installations, captivating performances, or interactive digital experiences, these artistic ventures have the potential to transcend language barriers and connect with individuals on an emotionally profound level.

The exploration of sustainability collaboration through art, emphasizing how artists and creators leverage their talents to highlight environmental and social concerns. By referencing significant examples and studies in the field, we can illuminate the efficacy of art as a catalyst for change. Through

the lens of these collaborations, we uncover how art possesses the power to transcend conventional boundaries, encourage dialogue, and inspire collective action for a more sustainable future. This paper delves into the dynamics of sustainability collaboration through art, uncovering how creative expressions can inspire change, enhance cross-disciplinary cooperation, and contribute to sustainable development goals.

LITERATURE REVIEW ON ART AS A CATALYST FOR SUSTAINABILITY COLLABORATION

Art possesses a unique ability to transcend linguistic and cultural barriers, rendering it a versatile medium for fostering collaboration. Art possesses a unique ability to transcend linguistic and cultural barriers, rendering it a versatile medium for fostering collaboration. Collaborations between artists and scientists, policymakers, and community members bring fresh perspectives to sustainability challenges. Creative approaches like visual storytelling, interactive installations, and public performances encourage engagement and spark discussions on environmental and social issues (Smith et al., 2020). Collaborations between artists and scientists, policymakers, and community members bring fresh perspectives to sustainability challenges. Creative approaches like visual storytelling, interactive installations, and public performances encourage engagement and spark discussions on environmental and social issues.

Art has demonstrated its influence as a potent medium for raising awareness and initiating discussions about sustainability. Collaborative endeavours involving artists, activists, scientists, and communities have yielded an array of creative projects that address environmental and social challenges (Johnson & Brown, 2018). Collaborative endeavours involving artists, activists, scientists, and communities have yielded an array of creative projects that address environmental and social challenges. Research studies examining the impact of sustainability collaborations through art have showcased their efficacy in raising awareness, inspiring behaviours change, and fostering dialogue. At its core, sustainability collaboration involves bringing together various stakeholders, such as scientists, policymakers, communities, and organizations, to collectively address environmental, social, and economic challenges. This collaboration aims to develop solutions that promote a more sustainable future for the planet and its inhabitants.

Fine art, on the other hand, encompasses a diverse range of artistic expressions, including visual arts, performing arts, multimedia installations, and more. Artists use their creativity to convey messages, evoke emotions, and spark conversations through their works. These works can be both thought-provoking and visually compelling, making them powerful tools for communicating complex ideas and engaging audiences on a deep level (Lopez, 2016). Artists use their creativity to convey messages, evoke emotions, and spark conversations through their works. These works can be both thought-provoking and visually compelling, making them powerful tools for communicating complex ideas and engaging audiences on a deep level.

When the realms of sustainability collaboration and fine art intersect, a unique opportunity emerges. Artists, activists, and communities can collaborate to raise awareness about sustainability issues, inspire behaviours change, and foster dialogue around pressing global challenges. Creative approaches, such as visual storytelling, interactive installations, performances, and digital experiences, become channels for conveying messages related to environmental stewardship, social responsibility, and the interconnectedness of human actions and the planet's well-being. By exploring sustainability collaboration through fine art, researchers and practitioners aim to understand the ways in which artistic initiatives contribute to the broader sustainability agenda. This exploration encompasses the study of successful case examples, collaborative partnerships, the impact of artistic interventions on behaviours

and attitudes, and the potential of art to transcend linguistic and cultural boundaries (Adams, 2021). Ultimately, this paper seeks to uncover the synergies between creative expression and sustainable development, shedding light on how art can engage diverse audiences, stimulate dialogue, and drive positive action for a more sustainable and harmonious world (Thompson, 2022). This field of collaboration aims to contribute insights into the transformative potential of artistic endeavours in addressing some of the most urgent challenges of our time.

METHOD

Case Studies: Art-Driven Sustainability Collaborations. Using case studies in this research can illustrate the diverse ways in which art drives sustainability collaboration.

DISCUSSION

In an era marked by heightened awareness of environmental and social challenges, the integration of fine art into sustainability collaboration has emerged as a powerful means of provoking thought, inspiring action, and fostering meaningful change. The dynamic relationship between fine art and sustainability collaboration, delving into the myriad ways artists, communities, and institutions engage with these topics to promote a more sustainable world.

a. Art as a Catalyst for Environmental Awareness:

Fine art possesses a distinctive capacity to evoke emotions and establish connections. Through visual representation, artists encapsulate complex sustainability issues, rendering them relatable and accessible to audiences. Visual mediums like paintings, sculptures, and photography effectively communicate intricate environmental concepts, simplifying ideas for a broader audience. By utilizing symbolism and metaphors, artists translate scientific data into visuals that resonate with people. Environmental challenges are often complex and multifaceted. Art has the power to simplify these complexities through visual storytelling. Artists use their creativity to distil intricate environmental concepts into relatable images and narratives. These artworks make it easier for audiences to grasp the interconnectedness of ecosystems, climate change, and other environmental concerns. Art helps people feel a personal connection to nature and the environment, even if they live in urban settings. Through art, individuals can experience the beauty of landscapes they may never physically visit. This sense of connection fosters a desire to protect and preserve the natural world. Artistic creations become part of cultural and historical legacies. Artworks also related to environmental awareness can stand as reminders of past and present challenges, leaving a lasting impact on current and future generations. This cultural continuity maintains awareness and encourages ongoing efforts for environmental conservation. Collaborative art projects can bring communities together, encouraging them to collectively address local environmental concerns. Murals, sculptures, and interactive installations often involve community participation, fostering a sense of ownership and shared responsibility for the environment.

b. Art as a Platform for Social Engagement:

Art can provoke thought and encourage individuals to reflect on their own beliefs and experiences. Artworks that address social issues such as inequality, justice, and human rights can prompt viewers to consider different viewpoints and engage in meaningful conversations. Collaborations involving fine art have facilitated engagement with local communities, inspiring collective action towards sustainability goals. Collaborative projects transform abandoned spaces into cultural hubs that promote community interaction and environmental stewardship. These initiatives empower communities to take ownership of their surroundings and envision sustainable futures. Art serves as a potent platform for social

engagement, providing space for dialogue, reflection, and the exchange of diverse perspectives. It brings people together, stimulates discussions about crucial social issues, and motivates collective action. Art events, exhibitions, and workshops provide opportunities for people to come together in shared spaces. These gatherings foster a sense of community and belonging, encouraging interactions that might not otherwise occur. Art has historically played a role in social and political movements.

c. Fine Art as a Driver of Behaviour Change:

Fine art engages viewers on an emotional level, sparking feelings of empathy, concern, and connection. Artworks that depict environmental degradation, social injustice, or human suffering evoke strong emotional responses that can motivate individuals to act. The immersive nature of fine art experiences can lead to profound shifts in attitudes and behaviours. Fine art often evokes strong emotions, ranging from awe and inspiration to empathy and reflection. By engaging viewers emotionally, art deepens connections to societal issues, motivating action. Art can tell stories and convey messages in a visually compelling way. Artists use symbolism, metaphors, and visual narratives to communicate complex ideas, making issues more relatable and understandable. Art can portray a vision of a better future, where sustainable behaviours lead to improved well-being and a healthier planet. These positive depictions inspire viewers to envision themselves as part of this future and take steps to realize it. Art challenges societal norms and prompts viewers to question ingrained behaviours and systems. By inviting critical thinking, art encourages individuals to reconsider their choices and seek alternative approaches. Fine art possesses the potential to drive behaviours change by evoking emotions, creating narratives, and inspiring reflection. Through its ability to humanize global issues, promote empathy, and challenge the status quo, fine art can motivate individuals to adopt behaviours that contribute to a more sustainable, compassionate, and socially responsible world.

d. Fine Art in Education and Activism:

The fusion of fine art and education amplifies sustainability messages, particularly among younger generations. Educational initiatives harness artistic expression to educate and inspire activism. Fine art offers a visual representation of ideas, concepts, and historical events, making it an effective medium for visual learners. Art exhibitions, installations, and public spaces can serve as educational platforms, conveying information about pressing issues and potential solutions. This educational aspect aids in raising awareness and promoting informed decisions. Fine art's aesthetics captivate attention and draw viewers into contemplation. Artworks that incorporate beauty, innovation, and creativity inspire individuals to embrace change and adopt behaviours that align with these values.

e. Fine Art and the Power of Symbolism:

Fine art often employs symbolism to convey complex ideas, emotions, and concepts in a visually compelling and thought-provoking manner. Symbolism involves the use of objects, images, colours, or elements that carry deeper meanings beyond their literal representations. Artists often use symbolism to convey the intricate relationships between humanity and the environment. Symbols allow artists to communicate multiple layers of meaning within a single artwork. By incorporating symbols, artists can address intricate concepts or emotions that might be challenging to express directly. Symbols in fine art often carry multiple layers of meaning. A single symbol can represent various concepts, emotions, or cultural associations, allowing artists to create artworks that resonate with diverse audiences. Symbols possess the ability to evoke strong emotions and create connections with viewers. An artist can use a symbol to trigger feelings of nostalgia, empathy, joy, or sadness, fostering a deep and personal engagement with the artwork. Symbols often tap into cultural archetypes and contribute to the formation of individual and collective identities. They can serve as touchpoints that connect viewers with their cultural heritage and shared experiences.

CONCLUSION

The exploration of sustainability collaboration through fine art underscores the profound impact that creative expression can have on our comprehension of environmental and social challenges. Through artistic representation, community engagement, behaviours change initiatives, educational efforts, and symbolic messaging, artists and collaborators continue to enrich the discourse surrounding sustainability. As fine art evolves, its potential to catalyse transformative change remains a vital force in the pursuit of a more sustainable world.

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GEOMETRIC SONGKET MOTIF ARTWORK

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ABSTRACT

This paper is based on the classification of Malaysian songket patterns. The songket's motif shape is made up of natural elements and parts. The method of weaving causes geometric styles to be the birthplace of all forms of motifs. The intention of creating artwork is to convey the meaning of geometric shapes and motifs of songket through the use of the Tauhid Aesthetic introduced by Al-Fauqi, which focuses on the modular structure. The formalistic aspect will be emphasised in this artwork. It is also to serve as evidence of the existence of geometric and symmetry patterns on Malaysian songket patterns as a useful contribution to the songket design industry and finally to be an example for other Malaysian arts or crafts for effectively making ideas and designs.

Keywords: Geometric, songket, motif, artwork

INTRODUCTION

Geometric Songket motif artwork is a style of visual art that combines geometric patterns with traditional Songket motifs. Songket is a traditional handwoven fabric that originated in Southeast Asia, particularly in countries like Malaysia, Indonesia, and Brunei. It is known for its intricate designs and vibrant colours.

In geometric Songket motif artwork, the artist takes inspiration from the geometric shapes found in Songket patterns and incorporates them into their artistic composition. Geometric shapes such as squares, triangles, diamonds, or hexagons are often used as the building blocks of the artwork.

The artist carefully arranges these geometric shapes to create a visually appealing and balanced composition. The patterns may repeat or be layered to add complexity and depth to the artwork. The use of geometric shapes allows for precision and symmetry, enhancing the overall aesthetic appeal.

Additionally, the artist incorporates the vibrant colours traditionally associated with Songket into the artwork. These colours are often bold and rich, creating a visually striking contrast against geometric patterns. The combination of intricate geometric designs and vibrant colours results in a captivating and harmonious visual experience.

Geometric Songket motif artwork celebrates the cultural heritage of Southeast Asia while also infusing contemporary elements. It pays homage to the traditional craft of Songket weaving while exploring new artistic expressions through the use of geometric forms. The artwork serves as a fusion

of tradition and innovation, creating a unique visual representation of cultural identity and artistic creativity.

LITERATURE REVIEW

a. Geometric and Motif Songket

Geometric motifs are popular among the Islamic designs which can also be found in songket. The process of making songket itself involves the calculation of the amount of warp, weft yarns to be prepared and the number of tekat in songket that should be made. Therefore in designing the songket pattern graph or point paper are used for easier calculation for the weaver to follow. In songket design, the motifs can be taken from nature which are mainly in organic shapes nevertheless the structure of the motif in weaving will be in the geometrical shape that is governed by symmetry principles.

Songket is a traditional Malaysian cloth depicting Malaysian craftsmanship (Siti Zainon Ismail, 1987). The fabric is called 'kain benang emas' (golden threading fabric) and it is utilized for making garment accessories. Songket, also known as menongket, menolek bunga, and flower weaving, is a Malay word for weaving flowers with golden thread on silk warp. Embroidering ornamental designs (embroidering) is achieved by weaving the thread with a 'Lidi', or coconut vein or stick.

The origin of songket in Malaya is still unknown, but the most important weavers are concentrated in the east coast states of Pahang, Terengganu, and Kelantan. It's possible that weaving techniques were influenced by the cultures of China, Cambodia, India, and the Middle East, given that the Peninsula has been exposed to them for centuries.

The Malaysian community uses songket as a sarong, sideline or shawl. It symbolizes luxury classic fabrics or custom textiles such as weddings, circumcision ceremonies, the celebration of Hari Raya and funerals.

Prior to the 19th century, this fabric was cultivated under the auspices of the king, and their respective parents imposed different taboos on its use. The yellow textile cloth is usually reserved for use by the king. At the beginning, the gold and silver woven songket was reserved for wedding ceremonies only. The design of the edge of the cloth was the only thing permitted, and it was named the 'king of the day'. (Selvanayagan, 1990).

According to Norwani (1989), most songket motifs are created and named based on diverse themes like flora, fauna, and environment. Flower motifs include 'Bunga Tanjung', 'Bunga Kemunting Cina', and 'Bunga Cengkoh' (clovers). The most common fruit motifs are 'manggis' (mangosteen), 'kesemak' (persimmon), pomegranate (delima) and 'buah cermin' (bears fruit). In addition, the animal motifs are 'unduk-unduk' (hippocampus), 'gigi yu' (shark teeth), 'gigi belalang' (locust teeth), 'kepala lalat' (fly head), 'siku kelawar' (bat elbow) and 'kaki lipan' (centipede feet). Furthermore, the environment theme displays examples such as 'pokok pucuk rebung' (bamboo shoot motifs) and 'awan' (clouds). These motifs are a representation of the love and bond between the weaver and the natural surroundings.

Siti Zainon Ismail (1997) also mentioned that another source of inspiration for the songket weavers will be the local Malay delicacies such as 'Potong Wajik', 'Tepung Talam', 'Madu Manis', 'Potong Seri Kaya' and 'Potong Pulut'. Besides, songket motifs are also originated from beliefs and cosmos such as 'Lidah Bota', 'Bunga Semangat', 'Sinar Matahari', 'Bintang Beralih', 'Pergunungan' and 'Tampuk Semesta'. Animal motifs are modified because Islam prohibits the exact representation of animals and people in any artistic presentation. As a result, geometric expression of weaving techniques and methods is common.

The use of golden or silver thread and plain, coloured fabric such as dark blue, black, red, and

other materials is used to weave all songket motifs and designs. The selection of colours will be enhanced by the choice of thread.

The traditional establishment of the Malay political system (which associates spirituality with Divine Kingship), a largely agrarian economy and social system that expresses communal activities, is depicted in the songket motifs. The assimilation of Hindu-Buddhist and Islamic cultural influences with animist traditions is reflected in the reshaping of cultural values through these motifs. Although the songket motifs portray the Malay cultural identity, the concepts of 'growth,' 'sense of unity,' and 'human spirituality' will remain.

METHODOLOGY

Nature's elements and parts are used to create the motif shape of the songket. All forms of motifs originate in geometric styles due to the method of weaving itself. One of the characteristics of censorship in Islam is 'Arabesque', where geometric shapes are combined, repeated, connected, and arranged into complete combinations. The following are several compotes that are thought to give the meaning of geometric shapes and motifs of this songket based on the characteristics of the statement of the Tauhid Aesthetic, introduced by Al-Fauqi regarding the modular structure. Songket demonstrates that beauty has been enhanced by the styling of Malay and Islamic culture.

RESULT AND FINDINGS

The motive is a consideration for an artist when determining, designing, or altering the work that will be produced. By using concepts like reference material or subject matter, imagination, and symbols, Dzul Haimi Md. Zain (1985) examines how motifs can be deleted in the context of work.

The visible language or language of human connection with other beings in both the real world and the world of illusion is made up of symbols, imaginations, and motifs. It implies things which are both objective and subjective, or, in other words, external and internal.

The idea of description and meaning needs to be consistent with the nature, importance and existence of its environment. The design that has been presented can be accepted by the community or tribe. Consistent with a specific community's culture, economy, politics and beliefs. The thoughts and ideas that the Malay culture embodies reflect the rich oral traditions reflected in Principle 1 of the National Culture Policy. The themes emphasize and encourage the unity of the population by portraying Malay etiquette in their patterning. The symbolic meaning contained in the motifs was absorbed by Malays who arrived in Malaysia with foreign cultural traditions.

The policy's Principle 2 mandates that various cultures coexist, particularly Chinese and Indian cultures, which challenge the supremacy of the Malay mainstream culture. According to this concept, our cultural identities are reflections of our shared cultural norms and historical experiences, which give us, as "one people," constant, unchanging frames of reference and meaning that lay underlying the varying divisions and vicissitudes of our actual history (Hall, 1990, p.223).

Principle 3 of the National Culture policy stated that Islam would be a significant component of the cultural identity. According to sociologists in Malaysia, the modernization of Malay culture began after the conversion of the Malay people to Islam, which dates back to the 12th century. Islamization of the Malays caused them to change their perspective on life and adopt "the world of rationality, intellectualisation, and the entire character of people, physically and spiritually" (Deraman, 1994, p.114).

The artist's approach and creative process can affect the creation of a geometric Songket motif artwork. The steps required to create this artwork are listed here in a general outline:

Research and Inspiration: Begin by conducting research on traditional Songket motifs, their symbolism, and their cultural significance. Explore different geometric patterns, shapes, and colour schemes used in Songket. This research will serve as a foundation for your artwork and help you understand the essence of Songket motifs.

Concept Development: Based on your research, develop a concept for your geometric Songket motif artwork. Determine the theme, mood, and overall aesthetic you wish to convey. Consider how you can incorporate geometric elements while staying true to the spirit of traditional Songket.

Sketching and Designing: Start sketching and experimenting with various geometric shapes and patterns that align with your concept. Explore symmetrical arrangements, repetitive motifs, and combinations of different geometric elements. Refine your designs and compositions until you achieve a visually pleasing and harmonious balance.

Colour Palette Selection: Choose a colour palette that complements your geometric Songket motif artwork. Consider traditional Songket colour schemes or explore your colour combinations that resonate with your concept. Remember to take into account the cultural symbolism and emotional impact of colours.

Material and Medium Selection: Determine the materials and medium you will use for your artwork. Traditionally, Songket is woven using silk or metallic threads. However, for visual artwork, you can choose a suitable medium such as paints, markers, digital tools, or mixed media that allows you to create the desired geometric motifs and textures.

Execution and Refinement: Begin executing your artwork based on the chosen design and materials. Pay attention to the precision and details of the geometric motifs, ensuring they reflect the intricacy associated with Songket. Take time to refine and enhance your composition, colours, and overall visual impact as you progress.

Final Touches: Once the artwork is complete, evaluate it and make any necessary adjustments or additions. Consider adding final touches, such as highlighting certain motifs or incorporating additional elements to enhance the overall aesthetic.

Presentation and Display: Prepare your geometric Songket motif artwork for presentation or display. This could include framing the artwork, mounting it on a suitable surface, or showcasing it digitally, depending on your preferred presentation format.

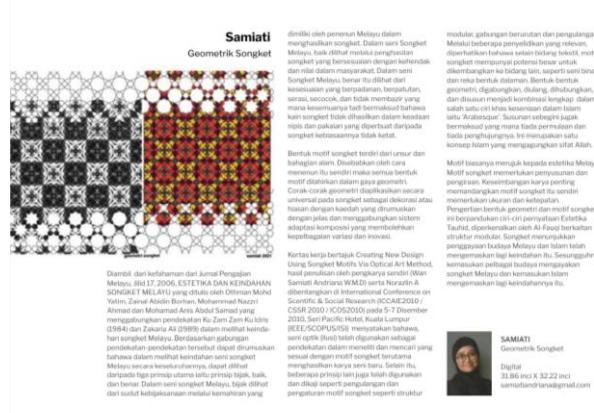


Figure 1: Design DECODED 2021 Virtual Art Exhibition Catalogue, 24 August - 31 December 2021

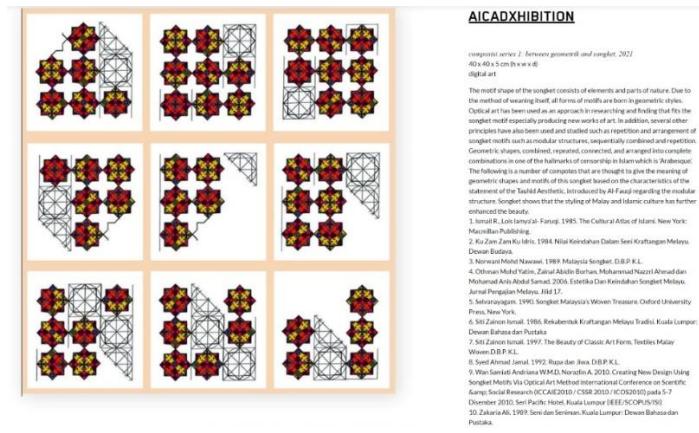
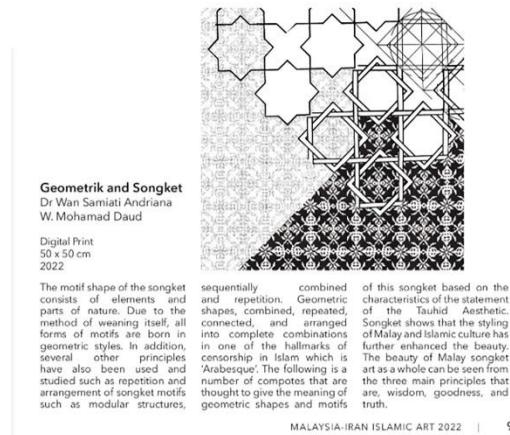


Figure 2: AICAD Virtual Art Exhibition 2021 Catalogue, 15 Dec 2021 - 30 Jan 2022



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Figure 1 and Figure 2 show artwork which takes the element of motif songket that is put together to form Geometric Visual Artwork. A pattern that has no prefix and no suffix that gives a Figure of the universe is the best way to express it in the art of monotheistic doctrine. The structures created for this purpose are what characterize all the arts of Muslims. Muslim art is often considered to be saujana or infinity art which is also called arabesque. Arabesque should not be limited to the type of leaf pattern or just two-dimensional or stylish plant shapes.

Instead, arabesque is in line with the aesthetic principles of Islamic ideology. Nature, despite being beautiful in its diversity and perfection, is only a stage where human beings work to fulfil God's will. The features of Tauhid's aesthetics statement introduced by Al-Fauqi, namely the modular structure, help strengthen the understanding of the new design of this songket.

1. Abstraction or mujarad - the infinite pattern in Islamic art is abstract or mujarad. The body of nature is used, the body is subject to denaturalisation and stylistic techniques more suitable for the denial of naturalism than as a fitting Figure of natural phenomena.
2. Modular structure-Islamic works of art contain many parts or modules that are combined to produce a larger design.
3. Sequential combinations-combinations that are repeated, diversified and connected with other smaller or larger entities to form other more complex combinations.
4. Repetition - a combination of Islamic art mixes using repetition of motifs, structural modules, and also using sequential combinations that appear to be continuous ad infinitum.
5. Dynamism - Islamic design is dynamic, which is a pattern that must go through a period.

6. Intrusion or complexity - this feature of intrigue or complexity adds to the ability of any pattern or arabesque to draw the attention and focus of the audience to the structural entity being depicted.

The songket process itself creates this pattern, and the usage of bogan flowers, spirit flowers, and eight-pointed star flowers is an aspect of nature that has been through a stage of denaturalisation. Motif combinations make beautiful designs and are essential. Each of these themes is a distinct entity that possesses a level of culmination and perfection that allows them to be viewed as a satisfying and expressive unit on their own.

By repeating, diversifying, and connecting large motif combinations with smaller ones, new, more complex combinations are created. The design of this theme is influenced by the use of space. i.e., creating them using points, lines, forms, and volumes. With the increase of complexity to the execution and the addition of the combination, motive momentum can be accomplished. Because the songket motif itself requires effort and precision, accurate calculation, as well as balance, are crucial. The setting of the concept is more prominent in the creation of this new songket design, but the creation process is a little challenging.

CONCLUSION AND RECOMMENDATIONS

Geometric art is heavily influenced by the use of basic and complex shapes. Visually intriguing compositions can be created by artists by experimenting with different shapes, sizes, and orientations. In geometric art, symmetry is a crucial element, as elements are often arranged in a balanced and harmonious manner. To achieve visual equilibrium, it is common to use reflective, rotational, or translational symmetries. Clean, precise lines are often used in geometric art to define shapes, create patterns, and delineate boundaries. Straight lines, curves, and intersections are meticulously crafted to produce a visually appealing outcome. Geometrical works can use a variety of colour palettes, ranging from monochrome patterns to bold and contrasting combinations. The use of colour can enhance visual impact, create depth, and highlight specific elements within the composition. Geometric art is often characterized by repetitive patterns, where shapes or motifs are repeated consistently. The artwork can be characterized by a sense of rhythm, movement, and order due to these patterns. Geometric art frequently utilizes abstraction, simplifying or distorting reality to concentrate on the underlying forms and structures. Artists have the ability to reduce objects to their essential geometric components, emphasizing shape and line over representational details. With the advancement of technology, many artists are now using digital tools and software to create geometrical art. Artists can experiment and iterate quickly thanks to the precise control over shapes, colours, and patterns provided by these tools.

A sense of order, precision, and mathematical beauty can be evoked by geometric art. The form can be minimalistic, complex, or even optically illusionary, grabbing the viewer's attention and engaging them in an exploration of form and space. From ancient cultures to contemporary art movements, geometrical art has been a popular and lasting artistic expression throughout history.

ACKNOWLEDGEMENTS

The authors would like to thank the College of Creative Arts, Universiti Teknologi MARA (UiTM) Shah Alam, Malaysia, for the opportunity and support for attending this program. Alhamdulillah.

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THE INFLUENCE AND CHALLENGE OF VALUES IN THE CULTURE OF THE MALAY SOCIETY IN MALAYSIA

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ABSTRACT

The influence and challenge of values in the culture of Malay society in Malaysia. Based on Islamic principles as a way of life concept. The Malay community in Malaysia is based on a philosophy of values that is always based on ethical, moral and moral aspects and is based on basic principles related to life with the influence of Islam. This article a descriptive case study discusses the meaning of the philosophy of values, and the history of the civilization of the Malay community in Malaysia through three (3) books namely *Mitos Peribumi Malas*, by Syed Hussein Altas, *Revolusi Mantel* by Senu Abdul Rahman, and *Dilema Melayu*, by Mahathir bin Mohamad. This study explores various concepts of value in Malaysian society, as well as the important aspects of shaping Malaysian civilization through the influence of Islam after and before.

Keywords: Values, islam, culture, malay society

INTRODUCTION

According to Abd. Aziz (2000), community is defined as a group of people who communicate and interact within a designated region or border and are educated about the culture they share together. The statement was also supported by Muthahhari (1986) by describing society as a group of human beings who are under pressure from the interests of one group and under the influence of a group of beliefs, ideas and purposes, united and translated into a series of co-living unions.

Meanwhile, S.M. Zakir (2013) in his writing entitled *Alam Budaya Melayu* explains from the point of view that Malay refers to the views and philosophy of the Malay world which includes three (3) social values (ethos), emotional values (pathos), and logical values (logos).

First, social values (ethos), the concept of the arrangement of the Malay community is based on family units. The so-called primate order has seen the development of society stretching from family units, from parents, from descendants to ethnic races.

Whereas, the emotional value (pathos) of the Malay community is said to be closely related to the sentiments formed by their psychological space which involves the so-called presence of clues; which is a symbol of naturalness and cultural symbol. The natural emblem is the archaic roots which

find ideas and shadows of ancient archives and early societies. While cultural symbols are emblems that have been used to express the 'principles of purity' used in convention, belief and religion. The faith aspect of the existence of the numinous (supernatural) aspect. However, after the presence of Islam, the entity of the Malay community changed completely. The Malay Muslim community is increasingly shaping emotional values based on *tauhid* and their submission to Allah s.w.t. And through the principles and concepts of Islam as an indirect way of life, it forms the Malay community as a strong and civilized Malay community.

And the third is the logical value (logos), which is that the Malay community is linked to the socio-politics of the Malay community through the rules and regulations that are legitimized by the Malay community. The arrival of Hindu-Buddhist influence extended this logical value to the reinforcement of the king's institution, which elevated the king as the 'shadow of the gods'. It was then enhanced with ceremonial creations to instill this 'belief' in the community. But after the rise of Islam, the socio-political perspectives of religion would have to be treated rationally. The rules and regulations of the Malaysian Muslim community are based on the concept of Shariah and practice Shariah according to the Constitution.

Thus, the values of the Malay community fluctuate in accordance with religious principles, but according to Al-Quran Karim, Islam is a guide to life. The concept of Malay community values is rooted and developed according to modernization based on the Islamic religion. Wan Abdul Kadir (2000) also explained that the value system provides a framework for the analysis of the norms of society, excellence, beliefs and behaviour. The value of being a measure and a hold on either bad or pretty ugly an act based on prevalence or habit in society.

LITERATURE REVIEW

a. Meaning of The Malay Society

According to Abd Jalil, the term "Malay World" or "Malay Archipelago" and its geographical boundaries are contained within the Malay Peninsula and this statement is supported by local and Western historians including Prof. Hamka. In the Malay community, the characteristics of Islam form the basis of behaviour and behaviour in the form of relationships, the essence of values, attitudes and views in which Islam becomes the soul of the overall social and culture of the Malays.

Prior to the advent of Islam, the Malay community adopted the belief of animism and dynamism. Animism is to believe in everything there is a soul and spirit. Dynamism, on the other hand, is the belief in the energy that is present in the spirit, soul and spirit in people, animals and plants or things that can have both good and bad effects. The arrival of either Hindus or Buddhists made the religious ceremonies of the Malaysian community more present and formal. The obvious consequence was the separation of the kings, the nobles, the religious class and the common people. This has spread in the culture of the Malay community. The arrival of Islam gave a response to the events of nature, solidifying the whole view of the Malay universe and concentrating on God (centred on God).

The arrival of Islam in the Malay community has brought about many changes as Syed Naquib al-Attas calls a new age. The changes brought about are a comprehensive influence based on the foundation of *tauhid*. The impact of *tauhid* has led to a change in the 'look and soul' of the Malay community. Based on Tauhid, an Islamic faith that expresses the oneness of Allah s.w.t has left the days of Hinduism and Buddhism that arrived in the 4th and 5th centuries where the commandments enforced the use of Islamic elements through formal educational activities.

METHODOLOGY

This is an instrumental case study used to understand a particular phenomenon that is instrumental in achieving a particular goal. Such a case study is useful when the researcher wants to understand the role of the phenomenon in achieving the objective. Data collection is made up of observations and uses a variety of techniques to analyze the data as content analysis.

RESULT AND FINDINGS

The effect of the influence of the British colonialists has to some extent diluted the faith and creed of the Malay community to the Islamic religion. The Malay community experienced social shock and began to be influenced by Western ethical thinking and values that were humanistic, materialistic and conflicting secular understanding. This influence is contrary to the values and norms of life of the Malays who are concerned with religious elements.

The impact of Western cultural influences is also discussed in the book *Mitos Peribumi Malas*, by Syed Hussein Altas, in the 10th chapter entitled *Revolusi Mantel* and *Mitos Peribumi Malas*, in which he discusses two books, *The Revolusi Mantel* and *The Dilema Melayu*. Drawing a quote from Syed Hussien Alias,

"If we generalize the character of a society based on the actions of a few people, then we are really in disarray. The Malay community tends to steal because some of them steal; the Malays are lazy because some of them are; Malay women are unfaithful to their husbands because of the nature of some of them; the Malay community is crazy because some of them are crazy; Malays smoked cannabis because a small proportion did it. So we can count constantly the negative characteristics of the Malay community, which is based on the fact that some Malays, sometimes exhibit these characteristics. Although the nuisance of the soul exists among the specific community, it cannot automatically be considered as part of a specific community mental order. ... Cultural and obscurity factors can explain this although cultural factors may not have any immediate effect. This, however, is not related to the character of the whole community."

In *Mitos Peribumi Malas* gives a new perception of the Malay community which has always been synonymized with negative culture. In the book of the *Revolusi Mantel* it is written:

"What one person says is that it's the state of his soul, it's-it's the champion impulses of the first with his learned impulses. Everyone has both kinds of impulses, but the order and the impulse in themselves are different between people and others. It is the difference in order and impulse that distinguishes the personal one from the other person."

And so on in the Malay Pomegranate:

"Islam is the single greatest influence on the concepts of Malay values and codes. However, it should be noted that it is not the religion that is influential but rather the interpretation of the teachings of Islam that is strong in influence. The interpretation of religion varies not only according to the individual but also according to age and time, but also to the State. It should be noted that Islam also has five *mazhab* and sometimes new *mazhab* arise due to the interpretation of an individual. If sometimes the influence of Islam on the concept of Malay values does not seem to be very good, then it should be noted that the influence is not due to the teachings of Islam but largely because of the

current interpretation of the locals that has caused this adverse influence.”

But now, the challenge to value is seen as more challenging with the presence of a wide range of technologies. Change after change has a profound impact on the cultural values of the Malay community. The results of this study are derived from various scientific materials and references related to the cultural values of the Malay community. The results showed that the basis for the formation of the Malay nation-state in Malaysia is to be comprehensive with the influence of Islam. The arrival of Islam as the main religion in Malaysia has made the language, manners, and socio-cultural of the Malay community all the more important. In particular, Islam and Malay customs became one of the most important structures in the process of Malaysian civilization. The language and cultural values of the Malay community need to be preserved and developed to form and continue a harmonious and prosperous Malaysian society.

CONCLUSION AND RECOMMENDATIONS

Value in philosophy is the main focus of the axiological method. Values are seen as views, customs, habits and others, so much so that they create an emotional impression in a particular person or society. Values are also subjective and objective depending on the feelings and intellect of a person. In general, value is an important aspect of shaping the culture of human life. That value is a pillar of the norms of society and race. This norm is very important for controlling the behaviour of people or groups of society because if every member of a community group is accustomed to doing anything without rules and taboos, then a matter is without limitations, manners, and order. Humans will act according to emotions without thinking about the perceptions and views of the community, and the local culture.

The values in the Malay community are inherited, defended and closely guarded. But there are also values that are being held that have changed, are changing and are about to change. Thus, the application of values based on the norms that have been set from time to time should go hand in hand so that a harmonious and united society can be built.

ACKNOWLEDGEMENTS

The authors would like to thank the College of Creative Arts, Universiti Teknologi MARA (UiTM) Shah Alam, Malaysia, for the opportunity and support for attending this program.

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A BRIEF OF MODERN MOVEMENTS IN DESIGN HISTORY

(A Tribute to Nikolaus Pevsner)

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ABSTRACT

Activities of design were born alongside technological activities when humans existed and survived. The fact shows that there were already hunting methods and tools long before the activities of drawing on cave walls or even before Newton's laws of physics. Design is one of the ideas in the world that continues to evolve strongly because it is inherent in the needs and development of humans. However, design as a discipline is relatively new. When did design as a discipline begin to exist? What underlies the existence of the design knowledge discipline? Those questions may seem simple, but they are fundamental to design knowledge's foundation, especially industrial design. This article aims to invite a discussion on understanding the history of design as knowledge that began with the idea of the modern movement. The way to trace and reconstruct the relationship between the modern movement and design history is through literature studies. Through this reconstruction, it is hoped that there will be a clear role regarding the existence of the design discipline and the direction of design in shaping the world.

Keywords: Nikolaus Pevsner, Modern Movement, Industrial Design, Design History

ABSTRAK

Aktivitas desain lahir bersamaan dengan aktivitas teknologi saat manusia ada dan bertahan hidup. Fakta menunjukkan bahwa metode dan alat berburu sudah ada jauh sebelum ada kegiatan menggambar di dinding gua, atau bahkan sebelum adanya hukum fisika Newton. Desain merupakan salah satu ide di dunia yang terus berkembang dengan kuat karena melekat pada kebutuhan dan perkembangan manusia itu sendiri. Namun, desain sebagai suatu disiplin relatif baru. Kapan desain mewujud sebagai suatu disiplin mulai ada? Apa yang mendasari keberadaan disiplin pengetahuan desain? Pertanyaan-pertanyaan tersebut mungkin tampak sederhana, tetapi merupakan hal mendasar sebagai landasan pengetahuan desain khususnya desain industrial. Artikel ini bertujuan untuk mengajak diskusi tentang pemahaman sejarah desain sebagai ilmu yang bermula dari ide modern movement. Cara untuk melacak dan merekonstruksi hubungan antara gerakan modern dan sejarah industrial desain adalah melalui studi literatur. Melalui rekonstruksi ini, diharapkan akan ada peran yang jelas tentang keberadaan disiplin desain dan arah desain dalam membentuk dunia.

Kata Kunci: Nikolaus Pevsner, Modern Movement, Desain Industrial, Sejarah Desain

INTRODUCTION

Design and technology are twin siblings born from human efforts to survive and deal with the environment. Design as an activity has been going on for a long time since humans tried to negotiate and coexist with nature and their environment (Michalos & Simon, 1970). However, design as a piece of knowledge, especially industrial design including product design, only began to develop around 1880 when Louis Sullivan introduced the idea of form follows function, followed by Frank Lloyd Wright's statement about form and function are one in 1890 (Papanek, 1985), and finally developed in Ashby's thought that form follows material (Ashby & Johnson, 2014). These three ideas became very important

because they shifted the noise of thinking about expression (i.e., beautiful) into something very meaningful (i.e., meaningful) in an object that requires utility performance. Design must have utility value or "cash value" if referring to pragmatic thinking (James, 1922), which later became an essential formulation in the Bauhaus thinking tradition and many design schools in America by formulating aesthetics as a function so that design can stand alone apart from the stigma of applied art or industrial art (Papanek, 1985). The relationship between design and technology as twin siblings is embodied in four elements that are very relevant to human life today and then become the background for the movement of design and technology, namely wishes, habits, ideas, and goals (Mumford, 1967).

DISCUSSION

a. The spirit of the modern movement

The topic of design history itself is relatively new and continues the thoughts of art history, especially in Britain. The beginning of design history thinking started with the emergence of the modern movement, including modern art, which includes art history or Kunstgeschichte (Vidrih, 2020) proposed by Nikolaus Pevsner in 1936 in Nikolaus Pevsner's 'Pioneers of the Modern Movement', 1936 (Amery, 1936), Nikolaus Pevsner argues for the modern movement (Engel, 2015), and Siegfried Gideon in 1947 in Siegfried Giedion, Mechanization Takes Command (Hauser, 1952; Zucker & Giedion, 1949). These thoughts were then continued by Hazel Conway in 1987 through design history basics which views design history from design activities (i.e., design activity and design science), including production and its relationship with material culture (Conway, 2006). Based on the above thoughts, it can be seen that the scope of design history is closely related to (1) the industrial revolution, (2) mass production manufacturing, (3) lifestyle taste, and (4) consumer society.

Specifically, the modern movement will highlight the figure of Nikolaus Pevsner, an architect and art and architecture historian at the University of Gottingen, Britain. In 1933, Pevsner moved from Germany to England and became a researcher in the trade department at the University of Birmingham. In addition, in 1935, Pevsner also became a designer and was responsible for quality control at the furniture company Gordon Russell Ltd. At the same time, Pevsner was involved in several activities at the Royal College of Art in London and studied more about modernity movements through industrial design and the sociology of art (Amery, 1936). Pevsner's journey provides an overview of design expertise, like connoisseurship or special skills that fine art artists possess when writing art history. Like what Giorgio Vasari did in writing art history, Pevsner also gave a connoisseurship touch to his writing, such as quality assessment, style definition, source identification, progress, and development of art, design or architecture that is reflected through the thoughts, behavior, ideas, and methods of the actors as written in the book *Pioneers of Modern Design* (Pevsner, 1936).

One of Pevsner's concerns when writing the book stems from the "old" paradigm of thinking held by art historians that has become too entrenched and even "biblical" to be applied to modern architecture and design. Pevsner wanted to introduce a modern way of thinking to shift and break free from the hierarchy of old thinking by incorporating eclectic thinking, including moral and social responsibilities in designing architectural and design matters (Vidrih, 2020). Through several arguments presented, Pevsner shows that the old way of thinking is too individualistic and overly celebrates freedom of expression in claims of artistic creativity. In the 1920s-1930s, Pevsner believed modern architecture and design should demonstrate unified and cohesive stylistic thinking, not detached from moral and social systems following the zeitgeist or spirit of the times (i.e., modern). "The spirit of the age" should be translated into everyday life in various forms of thinking, social work, and behavior.

As a special note about Pevsner, his way of thinking and his lack of enthusiasm for the Nazi dictatorship at the time caused him to leave Germany for England. However, Pevsner also saw that there were new developments influenced by the Nazi invasion, namely the collapse of many architectural works in the form of buildings. The reconstruction of buildings and urban spaces provided a new picture through iron, steel, and glass. Through this, Pevsner provided a lot of understanding of how the romantic and Gothic spirit of the times had shifted to the industrial age. Art, design, and architecture had to think more about how industry took over the celebration of individual expression and turned it into a collective celebration through material and mass production that still adhered to the continuity of the social system. Pevsner advocated a modern way of thinking as cleanliness, directness, precision, and functionalism because, in any case, the birth of the modern movement was initiated by science and technology. Pevsner argued that the modern movement had three paths of progress that needed to be considered, namely (1) the problems, (2) the forms, and (3) the materials and process. So that through this, new aesthetic standards related to new production standards could be thought of and become a solution to everyday problems (Vidrih, 2020). One example of Pevsner's thinking used by Reyner Banham is how the stylistic shift from Art Nouveau luxury to elegant yet simple principles (i.e., simplicity and manufacturability) occurred (Banham, 1967).

b. Eclecticism

The use of eclectic thinking, including its terminology, in the concept of art signifies a new understanding of creativity related to art history. This sign emerged and strengthened in the 19th century due to the shift in style periods (*zeitstil*), but no modern stylistic movement fit within the scope of art history. Eclectic or eclecticism operates through the principle of creative synthesis by incorporating all sources indiscriminately and tends to be random in choosing the best. Thus, eclecticism, which is the tool for the birth of modernity, has two significant situations at the beginning, namely (1) the non-reflectiveness of different and conflicting historical beliefs or styles and (2) the way of critical involvement that will ultimately lead to rethinking the contrasting differences between creation and criticism with original ideas. There is no single term to describe how eclecticism works because it will always be a process, product, and coincidence that is also a necessity (Bolus-Reichert, 2020).

The given passage discusses the concept of eclecticism as an intellectual and aesthetic dilemma that arises from claims of the past and present, which art history is expected to resolve with an extraordinary challenge. In the modern movement, Pevsner, including the scope of design history, attempted to do the same. Although it is more challenging than collecting the wealth of the past to design the future, Pevsner encouraged other thoughts by providing a grounded direction. In architecture and design, Pevsner shifted the focus of German and Italian Baroque to the modern movement in the form of industrial art. In 1925-1926, Pevsner reviewed several exhibitions and publications of modern art and architecture. Pevsner's argument in the review was to invite artisans to see the contemporary needs of society and demand that this be positioned in art history. Pevsner's efforts were then written in 1930-1933 and published in 1940 in England under the title *Academies of Art: Past and Present* (Engel, 2015).

At the beginning of his move from Germany to England in 1933, Pevsner met Philip Sargent Florence, head of the commercial department at the University of Birmingham. During this opportunity, Pevsner discussed his book project related to the modern movement with Florence. In 1934-1935, Pevsner joined a research project at the University of Birmingham and received funding intending to investigate commercial products in industry development in England. In its development, Pevsner then

formed a team and collaborated with designers and industry players in England to formulate a standard of 'good design and popular taste'. The results of this research were then documented and in 1937 produced a document entitled *An Inquiry into Industrial Art in England*. Under Florence's supervision, the investigation was then developed into market research using questionnaires to visitors of the Exhibition of Midland Industrial Art as respondents. The first follow-up of Pevsner's study on the market was to join the Design and Industries Association (DIA) in 1934, and in 1935 produced a document entitled *Design for Today* which described the tendency of popular market tastes.

Then start of his move from Germany to England in 1933, Pevsner, who still held the principle of the modern movement and embraced the concept of modern design as a 'simple pattern', was dissatisfied with the results of the research questionnaire, which referred more to 'conventional style'. From this, Pevsner challenged the industry in England to pay attention and take responsibility for the problem. Through the Birmingham City Museum and Art Gallery together with DIA, Pevsner then provided criteria for good design, which are (1) design that is connected to industrial production, (2) design accepted and purchased by consumers, (3) not expensive, (4) has functional and useful value, and (5) related to business process development. Furthermore, Pevsner entered the concept called 'industrial sociology' in supporting the analysis of Pauline Madge by investigating design products in England. Together with economists and sociologists interested in art history, Pevsner then shifted the situation of 'high-price individual works' to 'cheap mass production'. In addition, Pevsner introduced the argument of 'fitness for purpose', which claimed beauty in design to distinguish beauty in art. Through furniture design produced in the Bauhaus style tradition in 1924 as plain and unadorned, Pevsner brought this concept firmly by promoting tubular steel chairs in England, produced by Gordon Russel and Plan Furniture. From this point, Pevsner then brought the perspective of art history into a formulation of design history through new furniture types (Engel, 2015).

c. Early history of design

The history of design in England began to develop more radically and inclusively after the modern movement initiated by Pevsner in the 1960s by highlighting topics such as popular culture and ephemeral styling, advertising and consumption, and things that were previously unknown and occurred in everyday life (Woodham, 2006). At the end of the 1970s, John Blake, an administrator at the British Design Council, urged that design history could function as a 'coagulation of ideas' that could be widely recognized, not as an embellishment of art history or architectural history, although there are still relationships between them (Margolin, 1995). Thus, reading and writing design history has a basis of thought that is no longer dependent on dates and years as a period of history in theory but instead emphasizes the development of ideas based on needs (meet the need) and things that influence socio-cultural changes, such as the relationship between feminism in design and its relationship with the way and type of production (e.g., jewelry, weaving, fashion). Through an understanding such as the example within the scope of feminism in design, it can be said that thinking about design history cannot be separated from an understanding of design itself and connoisseurship. The question of what design is with practices that are fundamentally carried out will greatly influence the perspective of design history.

CONCLUSION

Through modern movements, mass production has made many expensive items more affordable. This situation also applies to art objects becoming commercial products through a change in their functional value. Pevsner provides an overview that technology has become an instrument of change, and design creates scenarios that contribute to shaping global ideas. There has been a shift in

the roles played by art, which is now led by design. Papanek, in his book *Design for The Real World* explains that the functional value in design involves six elements: method, association, aesthetics, need, telesis, and use. Through these six elements, the foundation of design thinking has been formed to realize new scenarios that help technology transform the era (Papanek, 1985).

A question then arises, how can Pevsner's thinking be used for the Indonesian situation? Indonesia has yet to experience modernism unless we are still in colonial consciousness and regard modernity that is taking place in Europe as modernity that is also happening in Indonesia. Today, Indonesia needs a scenario like when Pevsner thought about the modern movement taking place. Indonesia needs designers who don't just talk about "beautifully" but have to talk about "meaningful". Indonesia needs designers who can think as Pevsner did at the beginning of the modern movement. Technology as an instrument of change has marked changing times through digitalization and information systems. On the other hand, commercial products in Indonesia still rely on intermediate technology, with small enterprises in the production arena. Then, what will Indonesian designs be like? Will Indonesian designers be able to mark their modernity? or will we still be colonial products by accepting Western modernity as Indonesian modernity?

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KONSERVASI SENI DI DAERAH TROPIS

Studi Kasus Patung Infinity Karya Dunadi

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ABSTRACT

Art embodies the artist's sense of beauty and representation of ideas. The physical form of a work of art is defined as an artifact because it is created through a creative process. Art as artifacts has the risk of damage by various destructive agents, especially the tropical climate. Works of art in tropical climates have a higher risk of injury due to increased rainfall, sunlight, and humidity. Special conservation methods are needed to extend the life of works of art in the tropics. An example of damage to works of art due to climate is the Infinity Statue by Dunadi. This article attempts to discuss the conservation of art objects in the tropics with a case study of the Infinity Sculpture by Dunadi. The research method used is the method of literature study. As a result, the infinity statue was infected with rust on almost the entire surface. The Infinity statue needs conservation as soon as possible. Conservation measures required include cleaning, repainting and coating.

Keyword: Art conservation, tropical, infinity statue

ABSTRAK

Karya seni adalah perwujudan dari rasa keindahan dan representasi ide dari seniman. Wujud fisik karya seni didefinisikan sebagai artefak karena merupakan diciptakan melalui proses kreatif. Sebagai artefak karya seni memiliki resiko kerusakan oleh berbagai agen perusak terutama iklim tropis. Karya seni yang berlokasi di daerah beriklim tropis memiliki resiko kerusakan yang lebih tinggi akibat tingginya curah hujan, intensitas sinar matahari dan kelembaban. Dibutuhkan metode konservasi khusus dibutuhkan untuk memperpanjang usia karya seni di wilayah tropis contoh kerusakan karya seni akibat iklim adalah patung infinity karya dunadi. Artikel ini berusaha membahas konservasi benda seni di daerah tropis dengan studi kasus Patung Infinity karya Dunadi. Metode penelitian yang digunakan adalah metode studi pustaka. Hasilnya, patung infinity terjangkit karat di hampir seluruh permukaannya. Patung infinity membutuhkan konservasi sesegera mungkin. Tindakan konservasi yang dibutuhkan meliputi pembersihan, pengecatan ulang dan pelapisan.

Kata kunci: Konservasi seni, iklim tropis, patung *infinity*

PENDAHULUAN

Definisi seni yang paling dasar adalah keindahan yang diciptakan oleh manusia. Aktivitas seni yaitu menciptakan keindahan mengikuti ide kreatif senimannya. Seni diciptakan untuk memenuhi hasrat manusia akan keindahan yang belum mereka dapatkan dari alam (Adajian, 2018). Konsepsi seni terbangun dari konsep keindahan. Menurut Leo Tolstoy (1904: 40-41) seni adalah manifestasi dari keindahan. Namun tidak ada definisi objektif tentang keindahan itu sendiri. Dari definisi yang ada keindahan adalah sesuatu yang serba sempurna yang mana kesempurnaan yang dimaksud adalah suatu kesempurnaan yang telah disepakati bersama. Definisi yang lebih luas dari keindahan adalah

kesempurnaan yang menimbulkan kesenangan dan dapat membangkitkan hasrat manusia yang menikmatinya.

Seiring berkembangnya ilmu pengetahuan definisi seni tidak hanya terbatas pada keindahan saja. Definisi seni turut berkembang dan saling beririsan dengan disiplin yang lain. Misalnya, dari sudut pandang kebudayaan seni adalah bagian dari kebudayaan karena seni muncul dari ide manusia kemudian dituangkan ke dalam bentuk fisik untuk dinikmati oleh manusia. Kebutuhan manusia yang terus berkembang akibat dari perkembangan pengetahuan manusia mempengaruhi perkembangan kebudayaan. Dalam hal kaitan antara seni dan budaya, seni turut berkembang seiring perkembangan budaya karena seni dan budaya saling mempengaruhi satu dengan yang lain (Rahim, 2009).

Seni tidak terhenti hanya sebagai bagian dari kebudayaan saja, seni juga memiliki sisi filosofis. Dari berbagai sudut pandang terhadap filosofi seni yang berkembang tidak satupun ditemukan kesamaan antara satu dengan yang lain. antara satu filsuf dengan filsuf yang lain memiliki definisinya sendiri. Definisi yang muncul dari suatu filsuf berdasarkan ideologi dan ilmu yang mereka kembangkan. Misalnya perbedaan definisi antara Plato, Immanuel Kant dan Hegel. Plato berpendapat bahwa seni adalah representasi dari imitasi. Wujud fisik seni yang diciptakan oleh seniman merupakan sebuah imitasi dari apa yang pernah dialami seniman baik pengalaman nyata maupun pengalaman metafisik. Pendapat lain muncul dari Immanuel Kant, Kant berpendapat bahwa seni adalah semacam representasi dari diri seseorang, representasi tersebut memiliki tujuan tertentu yang menunjukkan budaya kekuatan mental untuk komunikasi yang dapat dimengerti masyarakat luas. Pendapat berikutnya datang dari Hegel. Hegel memandang seni sebagai suatu keindahan, keindahan yang dimaksud adalah penampilan atau ekspresi sensual/perseptual tentang kebenaran mutlak. Karya seni terbaik mampu menyampaikan kebenaran metafisik terdalam secara fisik atau dapat diamati secara inderawi (Adajian, 2018: 4-7).

Berdasarkan definisi seni menurut Plato, Kant dan Hegel, meskipun ditemukan perbedaan sudut pandang, namun dapat pula ditemukan kesepakatan di antara mereka mengenai fungsi seni yaitu seni sebagai media representasi. Representasi yaitu segala sesuatu yang berwujud baik itu tertulis, suara atau media visual lainnya yang didalamnya memiliki makna untuk disampaikan kepada publik (Beltran, 1998: 98). Kegiatan berkesenian merupakan kegiatan memproduksi representasi. Kegiatan menulis, bernyanyi, memfoto, membuat video dan kegiatan membuat karya seni lainnya adalah beberapa contoh kegiatan representasi. Antara seniman sebagai produsen seni dan penikmat seni sebagai konsumen terikat oleh representasi (Bolt, 2004: 11). Seniman menciptakan karya seni berwujud, fisik, yang mana didalamnya memiliki makna tertentu yang ingin disampaikan kepada khalayak. Sedangkan penikmat seni tidak hanya menikmati keindahan karya seni namun juga berusaha menangkap makna yang ingin disampaikan seniman.

Seni sebagai media representasi memiliki dimensi-dimensi berdasarkan perwujudanya, yakni artefak. Menurut KBBI, artefak adalah benda (barang-barang) hasil kecerdasan manusia, seperti perkakas, senjata (<https://kbbi.web.id/artefak>). Pada dimensi artefak karya seni merupakan hasil kecerdasan manusia. Berdasarkan lingkup fungsinya artefak memiliki definisi lain yaitu teknofak, ideofak dan sosiofak. Teknofak berarti artefak yang berfungsi membantu manusia berhubungan langsung dengan lingkungannya. Ideofak adalah artefak yang berkaitan dengan ideologi suatu kebudayaan, misalnya kepercayaan. Sedangkan sosiofak adalah artefak yang berkaitan dengan hubungan suatu kelompok masyarakat (Hasanudin, 2002:6).

Contoh dari dimensi artefak seni adalah Patung Infinity Karya Dunadi. Patung Infinity sekarang terletak di halaman Fakultas Seni Rupa dan Desain ISI Yogyakarta. Patung Infinity memiliki dimensi artefak karena Patung Infinity merupakan hasil kecerdasan dari dunadi sebagai pencipta patung

tersebut. Patung Infinity berwujud sejumlah sepeda yang dirangkai berurutan membentuk simbol infinity. Artefak Patung Infinity memiliki lingkup fungsi artefak sebagai ideofak karena merupakan representasi ide atau gagasan dari Dunadi mengenai fungsi sepeda. Gagasan yang direpresentasikan oleh dunadi melalui Patung Infinity adalah fungsi sepeda akan terus dibutuhkan manusia terus menerus dari masa lalu, masa kini hingga masa depan. Penggunaan sepeda tidak akan punah meskipun teknologi transportasi terus berkembang. Patung Infinity berukuran 7m x 2m x 4m, terbuat dari logam besi hampir di seluruh bagiannya. beberapa bagian yang tidak terbuat dari logam besi adalah grip stang, pedal, jok dan ban. patung infinity berwarna hijau neon. Jika diamati dari penampilan Patung Infinity, Dunadi berusaha merepresentasikan gagasannya menggunakan keindahan yang muncul dari susunan sepeda dan warna pada patung infinity.



Gambar 1. Patung *Infinity* karya Dunadi
(Sumber: <https://www.idntimes.com/travel/destination>)

Patung Infinity dibuat pada tahun 2017 kemudian diletakkan di halaman Fakultas Seni Rupa dan Desain pada tahun 2020. sejak tahun 2020 Patung Infinity terpapar radiasi matahari, oksigen, air hujan maupun berbagai agen perusak lainnya. Sehingga menyebabkan pengelupasan cat dan kontak antara logam dengan agen perusak tak bisa terhindarkan. Hasilnya, kondisi patung infinity karya dunadi pada saat ini sangat parah. Cat asli sudah luntur dan karat menjangkiti hampir seluruh bagian patung yang terbuat dari logam.

Radiasi sinar matahari, air hujan dan kelembaban merupakan faktor iklim yang berpengaruh besar terhadap kerusakan karya seni. Didaerah yang beriklim tropis durasi sinar matahari, kelembaban dan curah hujan cukup tinggi, hal ini berbanding lurus dengan resiko kerusakan yang ditimbulkan. Contoh karya seni yang rusak oleh faktor iklim tropis adalah Patung Infinity karya Dunadi. Berdasarkan kondisi Patung Infinity saat ini maka diperlukan langkah konservasi secepat mungkin. Artikel ini berusaha membahas konservasi benda seni di daerah tropis studi kasus Patung Infinity Karya Dunadi. Konservasi benda seni di daerah beriklim tropis perlu mendapat kajian lebih dalam karena iklim tropis memiliki sumbangsih yang cukup besar terhadap potensi kerusakan benda seni.

METODE PENELITIAN

Metode penelitian yang digunakan dalam penyusunan artikel ini adalah metode studi pustaka. Metode penelitian studi pustaka adalah metode penelitian yang pengumpulan datanya dilakukan dengan mengumpulkan informasi dari berbagai sumber pustaka kemudian direkonstruksi hasilnya

(adlini dkk, 2022: 1). Kegiatan penelitian studi pustaka dilakukan dengan cara mengumpulkan informasi dan data dengan bantuan berbagai macam material yang ada di perpustakaan seperti buku referensi, hasil penelitian sebelumnya yang sejenis, artikel, catatan, serta berbagai jurnal yang berkaitan dengan masalah yang ingin dipecahkan. Kegiatan dilakukan secara sistematis untuk mengumpulkan, mengolah, dan menyimpulkan data dengan menggunakan metode/teknik tertentu guna mencari jawaban atas permasalahan yang dihadapi (sari dan Asendri, 2020: 44).

KONSEP DASAR

a. Iklim Sebagai Faktor Perusak Karya Seni

Permasalahan yang dihadapi oleh patung infinity juga dihadapi oleh jenis karya seni yang lain. Karya seni sebagai artefak memiliki resiko atau ancaman kerusakan yang disebabkan oleh berbagai faktor, baik biotik maupun abiotik. Kerusakan akibat faktor biotik seperti manusia, hewan dan tumbuhan sedangkan faktor abiotik seperti iklim, lingkungan dan bencana alam (BPCB DIY; ICCROM, 2016: 8-10). Faktor kerusakan biotik contohnya karena ulah manusia. Ulah manusia yang dimaksud antara lain vandalisme dan pencurian. Kerusakan akibat ulah manusia dapat dicegah dengan misalnya dengan memberi pembatas, memasang cctv, menciptakan produk hukum perlindungan karya seni atau dengan langkah yang lain.

Resiko kerusakan berikutnya disebabkan oleh faktor abiotik yaitu iklim, lingkungan dan bencana alam. Faktor penyebab kerusakan abiotik berbeda-beda tergantung wilayah keberadaan karya seni. Wilayah yang memiliki potensi bencana alam tinggi berbanding lurus dengan besarnya resiko kerusakan karya seni oleh bencana alam. Misalnya, di wilayah pertemuan lempeng bumi memiliki resiko kerusakan karya seni akibat bencana yang sangat besar. Resiko kerusakan tersebut muncul karena di wilayah pertemuan lempeng bumi rentan mengalami gempa bumi serta banyaknya gunung api yang menimbulkan potensi kerusakan akibat aktivitas vulkanis. Selain faktor bencana alam, resiko kerusakan karya seni juga disebabkan oleh faktor lingkungan dan iklim.

Karya seni tidak mungkin terlepas dari resiko kerusakan yang disebabkan oleh lingkungan karena karya seni berinteraksi langsung dengan lingkungannya. Faktor lingkungan biasanya berkaitan dengan faktor perusak biotik, contohnya kondisi tanah yang memicu munculnya agen perusak biotik seperti tumbuhan. Tumbuhan tidak hanya menjadi ancaman terhadap karya seni namun juga mengundang agen perusak yang lain yaitu hewan. Contoh lain dari kaitan antara lingkungan dan faktor biotik adalah aktivitas manusia yang memicu perubahan kondisi lingkungan seperti pencemaran lingkungan akibat aktivitas manusia. Pencemaran lingkungan oleh aktivitas manusia menjadi ancaman yang serius bagi karya seni. Misalnya debu dan CO₂ yang bertebaran di udara akibat aktivitas industri beresiko menurunkan kualitas karya seni.

Faktor abiotik penyebab kerusakan berikutnya adalah iklim. Setiap wilayah memiliki iklim yang berbeda sehingga pengaruh iklim terhadap resiko kerusakan karya seni juga berbeda. Wilayah beriklim tropis memiliki curah hujan dan kelembaban lebih tinggi daripada wilayah yang beriklim subtropis. Curah hujan yang tinggi pada wilayah beriklim tropis memicu resiko kerusakan karya seni terutama yang terletak di luar ruangan. sedangkan kelembaban memicu munculnya agen perusak biotik seperti hewan dan tumbuhan mikroskopis yang menjadi ancaman bagi karya seni terutama lukisan, foto, dan karya seni berbahan kertas lainnya. Kombinasi antara curah hujan yang tinggi dan kelembaban dapat memicu timbulnya karat pada karya seni berbahan logam dan pelapukan pada kayu dan batu (Rene, 2001). Peletakan karya seni juga berpengaruh terhadap resiko kerusakan akibat iklim. Karya seni yang diletakkan diluar ruangan memiliki resiko kerusakan lebih tinggi dibanding karya seni yang diletakkan di

dalam ruangan karena mengalami kontak langsung dengan sinar matahari dengan intensitas tinggi, air hujan dan kelembaban.

b. Konservasi Benda Seni

Melihat kondisi fisik Patung Infinity yang cukup memprihatinkan maka diperlukan langkah konservasi sesegera mungkin. Konservasi adalah seperangkat upaya pencegahan terhadap kerusakan. Konservasi adalah tindakan pencegahan terhadap kerusakan suatu benda dengan cara mengambil langkah-langkah pengawetan. Tujuan dari tindakan konservasi adalah usaha untuk menemukan atau mempertahankan keaslian suatu benda (Yanuardi,2009: 31). Tujuan konservasi benda seni yang lebih spesifik yaitu mengurangi risiko kerusakan dengan cara: pengendalian lingkungan, pemeliharaan secara teratur dengan metode yang tepat, dan perlindungan koleksi misalnya menggunakan perangkat anti pencurian (Rene, 2001).

Definisi konservasi benda seni yang lebih luas mencakup konservasi preventif dan restorasi. restorasi adalah semua tindakan yang dilakukan untuk memperpanjang usia objek konservasi dengan tetap menjaga integritas historisnya. Restorasi merupakan pekerjaan konservator yang sangat terlatih. Restorasi adalah tahap pelestarian yang paling mahal dan memakan waktu. Sedangkan konservasi preventif adalah tindakan pencegahan terhadap kerusakan benda seni, misalnya perawatan rutin dan optimalisasi daya dukung lingkungan terhadap kelestarian benda seni. Dalam konservasi preventif terdapat langkah konservasi pasif dan konservasi aktif. Konservasi pasif adalah langkah konservasi yang tidak melakukan kontak langsung dengan objek konservasi, misalnya perumusan kebijakan konservasi, penetapan langkah mitigasi, pelatihan atau pembelajaran konservasi. Konservasi aktif adalah langkah konservasi dengan melakukan kontak langsung dengan objek konservasi, misalnya pengemasan ulang, pemasangan vitrin atau media pelindung lain, dan pembersihan secara berkala (Rene, 2001).

Konsep konservasi terus berkembang seiring perkembangan ilmu pengetahuan. Konsep konservasi dimulai dari konsep tradisional. Konsep konservasi tradisional melibatkan perbaikan, perubahan serta pembongkaran, tergantung pada kebutuhan yang muncul dan kebutuhan pengguna. Ini juga berarti kesinambungan dalam penggunaan teknik dan bahan tradisional, daripada memperkenalkan metode industri modern. Namun, seiring berjalannya waktu, pendekatan ini semakin berkurang akibat dari meningkatnya modernisasi di masyarakat.

Pada tahap perkembangan konsep konservasi berikutnya muncul 3 aliran konsep. Pertama, adalah apa yang disebut restorasi gaya yaitu pemulihan integritas gaya, kemudian memperkenalkan model yang disebut restorasi bersejarah yaitu restorasi berdasarkan bukti sejarah. Konsep kedua, muncul sebagai gerakan protes, pendekatan 'anti goes' (mempertahankan keaslian objek), yang kemudian berkembang menjadi gerakan konservasi modern, berdasarkan kekhususan aktivitas manusia yang tunduk pada nilai-nilai budaya dan konteks sosial-ekonomi. Dari tahun 1880-an, muncul konsep ketiga yang menyarankan kompromi dari konsep pertama dan kedua. Konsep konservasi ketiga disebut restorasi filologis karena membandingkan sebuah monumen kuno atau struktur bersejarah dengan sebuah manuskrip. Restorasi harus menghormati teks yang diwariskan dari masa lalu, dan penambahan apa pun harus memiliki catatan yang dapat dipelajari dengan jelas. Pada tahun 1920-an, pendekatan ini berkembang menjadi apa yang disebut restorasi ilmiah, yang menekankan pentingnya metode ilmiah dalam restorasi. Seiring berjalannya waktu, pendekatan ini cenderung mengeliminasikan isu budaya, menekankan bukti material yang dilengkapi dengan penelitian arsip. Pendekatan ini juga menekankan kepatuhan pragmatis terhadap prinsip.

Selama dekade-dekade awal abad ke-20, ada pendekatan matang yang dijabarkan setelah Perang Dunia Kedua. Pendekatan ini dapat disebut sebagai teori konservasi modern karena mengakui kekhususan setiap objek konservasi dan memperkenalkan metodologi kritis berdasarkan penilaian yang

baik mengenai karakter dan signifikansinya. Yang terakhir, Sejak tahun 1970-an ada lagi konsep konservasi yang mana berkaitan dengan lingkungan sosial dan alam. Di satu sisi, konsep ini telah menekankan aspek ekologi dalam setiap eksploitasi atau perubahan lingkungan alam. Di sisi lain, konsep ini telah memperluas konsep warisan budaya ke lingkungan binaan, dengan mempertimbangkan konteks manusia dan sosial. konsep konservasi yang terakhir ini telah memperkenalkan pembangunan berkelanjutan secara budaya dan lingkungan. Konsep konservasi yang terakhir ini telah menjadi perhatian utama dalam konteks konsep konservasi seluruh dunia saat ini (Jokilehto, 2007: 4-6).

Masyarakat di daerah tropis telah mengembangkan metode konservasi terhadap benda seni yang mereka miliki. Seiring berkembangnya waktu kini metode konservasi di daerah tropis dibagi menjadi metode konservasi tradisional dan modern. Metode konservasi tradisional melibatkan kearifan lokal masyarakat daerah tropis. Metode konservasi tradisional didapatkan secara turun temurun dari generasi pendahulu. Konservator ditunjuk melalui kesepakatan komunitas melibatkan mitologi yang berkembang di daerah keberadaan konservator. Pengetahuan konservasi diturunkan melalui mitos, legenda, folk dan media tradisional lainnya. Bahan konservasi didapatkan dari lingkungan sekitar baik dari tumbuhan maupun non tumbuhan. Sedangkan konservasi modern biasanya berkebalikan dengan konservasi tradisional. Pengetahuan konservasi didapatkan dari lembaga-lembaga yang sudah diakui secara resmi. Metode dan bahan konservasi harus diseleksi melalui pengujian ilmiah (Swastikawati dkk, 2012).

Konsep konservasi yang mengalami perkembangan cukup dinamis menandakan kegiatan konservasi adalah hal penting dalam suatu lingkungan kebudayaan. Konservasi bukan hanya mempertahankan bentuk fisik objek konservasi, namun lebih dari itu konservasi berusaha mempertahankan makna dan nilai yang terkandung di dalam objek konservasi (Rizzi, 2007). Benda seni merupakan manifestasi fisik dari rasa keindahan dan representasi ide dari seniman sehingga upaya untuk mempertahankan kondisi fisik karya seni sama juga dengan upaya mempertahankan manifestasi keindahan dan representasi ide dari seniman.

HASIL DAN PEMBAHASAN

Indonesia merupakan negara beriklim tropis yang hanya memiliki dua musim yaitu musim hujan dan musim kemarau. Secara umum, musim hujan di Indonesia terjadi pada bulan Maret sampai Oktober dan musim kemarau terjadi pada bulan April sampai September. daerah tropis memiliki suhu rata-rata yang cukup tinggi yaitu 20-30 derajat celcius. tingginya suhu rata-rata menyebabkan tingginya penguapan air laut sehingga intensitas kelembaban dan curah hujan juga tinggi (Rahayu dkk, 2018: 1).

Kondisi iklim tropis menjadi tantangan tersendiri bagi karya seni karena resiko kerusakan akibat iklim menjadi lebih tinggi. Resiko kerusakan yang ditimbulkan antara lain pelapukan pada batuan dan kayu serta karat pada logam. Konservasi benda seni dibutuhkan untuk meminimalisir resiko kerusakan akibat iklim. Konservasi yang dibutuhkan antara lain; konservasi preventif seperti pembersihan rutin, penerapan pelapis atau pelindung untuk menghindari kontak langsung antara karya seni dengan curah hujan atau radiasi matahari dan pengendalian lingkungan. Konservasi restoratif seperti penggantian elemen yang sudah rusak berat juga diperlukan. Namun penerapan konservasi restoratif harus menggunakan pengkajian yang cermat serta melibatkan pihak-pihak yang kompeten.

a. Studi Kasus Patung Infinity Karya Dunadi

kondisi terkini patung infinity karya dunadi cukup memprihatinkan. cat terluar patung sudah hilang sama sekali tinggal cat dasar yang sebagian sudah mengelupas. pada bagian logam yang tidak tertutup cat muncul karat. patung Infinity semula berwarna hijau neon di seluruh bagian permukaannya. Kini patung infinity berwarna putih dan coklat di berbagai permukaannya. Warna putih

adalah cat dasar yang masih menempel, sedangkan warna kecoklatan adalah karat yang muncul di hampir seluruh permukaan patung.



Gambar 2. Kondisi terkini Patung infinity
(Sumber: dokumentasi Penulis, foto diambil tanggal 30 juli 2023)

Penyebab utama kerusakan yang terjadi pada patung infinity karya dunadi adalah faktor iklim. Patung Infinity terletak di daerah yang beriklim tropis yaitu Kabupaten Bantul, Daerah Istimewa Yogyakarta. Menurut klasifikasi iklim Koppen, Bantul memiliki iklim muson tropis. Sama seperti kabupaten lain di Indonesia, musim hujan di Kabupaten Bantul dimulai bulan Oktober hingga Maret, dan musim kemarau bulan April hingga September. Rata-rata curah hujan di Bantul adalah 90,76 mm, dan bulan paling tinggi curah hujannya adalah Desember, Januari, dan Februari. Suhu udara relatif konsisten sepanjang tahun, dengan suhu rata-rata 30 derajat Celsius (https://bantulkab.go.id/data_pokok/index/).

Berdasarkan data cuaca kabupaten bantul patung infinity berinteraksi langsung dengan iklim muson tropis. Patung infinity diletakkan di luar ruangan sehingga menerima paparan langsung sinar matahari, air hujan dan kelembaban secara langsung. Patung Infinity karya Dunadi yang bahan utamanya adalah logam besi (Fe) telah terjangkit karat di hampir seluruh bagiannya. Karat pada Patung Infinity karya Dunadi tumbuh akibat oksidasi dan kontak dengan asam yang terkandung dalam air hujan selama bertahun-tahun.

Karat dan korosi lainnya pada logam besi (Fe) terjadi akibat terjadi kontak antara permukaan logam besi dengan zat penyebab korosi seperti oksigen dan asam. Kontak antara logam besi dengan oksigen, asam atau keduanya dalam jangka waktu tertentu mengakibatkan kerusakan ikatan atom. Kerusakan atom pada logam besi mengakibatkan pelepasan elektron ke udara atau air. Saat oksigen berkurang akibat reaksi pelepasan elektron maka terjadilah reaksi oksida yang mengakibatkan terjadinya deposit pada permukaan logam besi. Deposit oksida pada logam besi secara umum disebut sebagai karat atau *rust* (4FeO(OH)) (Howard, 1910; North & MacLeod, 1987: 68-69; watkinson, 2010: 3310-3313)



Gambar 3. karat yang tumbuh di permukaan Patung Infinity
(Sumber: dokumentasi Penulis, foto diambil tanggal 30 juli 2023)

Karat yang sudah menjangkiti hampir seluruh permukaan patung infinity jika dibiarkan lebih lama lagi akan menimbulkan kerusakan lanjutan. Patung Infinity membutuhkan tindakan konservasi sesegera mungkin. Rekomendasi konservasi untuk patung infinity antara lain pembersihan karat, pengembalian warna asli dan pelapisan. pembersihan mekanis yaitu membersihkan objek dari karat dengan metode mekanis seperti digosok, dicungkil atau digoyang-goyang. Sedangkan pembersihan kimiawi adalah pembersihan menggunakan bantuan bahan kimia. Pembersihan mekanis dapat menggunakan amplas atau teknik lain seperti *sand blasting*. Pemilihan teknik pembersihan harus mempertimbangkan sumber daya, resiko dan dampak yang ditimbulkan terhadap objek, konservator dan lingkungan (Swe et all, 2019).

Langkah berikutnya adalah pengembalian warna asli dan pelapisan atau *coating*. pengembalian warna asli dilakukan dengan pengecatan ulang. Pada tahap ini konservator sebaiknya berdiskusi dengan seniman untuk mengetahui teknik pengecatan dan merk serta jenis cat yang digunakan. Diupayakan sedapat mungkin menggunakan merk dan jenis cat serta teknik pengecatan yang sama dengan pengecatan awal. Dalam menerapkan metode konservasi, konservator harus mempertimbangkan keaslian bahan, teknik konservasi serta resiko yang muncul dari kegiatan konservasi. Konservator harus mempertimbangkan kerusakan yang muncul akibat kegiatan konservasi karena tujuan konservasi adalah menjaga keaslian bentuk dan rupa objek konservasi.

PENUTUP

Karya seni adalah perwujudan rasa keindahan dan representasi ide dari seniman. Sebagai objek fisik atau artefak karya seni tidak luput dari resiko kerusakan. Resiko kerusakan diakibatkan oleh berbagai faktor seperti manusia, hewan, tumbuhan, lingkungan maupun iklim. Khususnya iklim, karya seni di wilayah yang beriklim tropis memiliki resiko kerusakan akibat iklim yang cukup tinggi. resiko yang muncul adalah pelapukan, korosi, karat, jamur dan resiko biotik lainnya akibat tingginya curah hujan, intensitas sinar matahari dan kelembaban di daerah tropis. Contoh kasus kerusakan karya seni akibat iklim tropis adalah patung infinity karya dunadi. Patung infinity mengalami pengelupasan cat dan dijangkiti oleh karat di hampir seluruh permukaannya. Patung Infinity membutuhkan tindakan konservasi segera untuk menghindari kerusakan lanjutan akibat iklim tropis. Tindakan konservasi yang dibutuhkan adalah pembersihan karat, pengecatan ulang dan pelapisan atau *coating*.

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HOW IS ARTWORK A SOLUTION TO ENVIRONMENTAL PROBLEMS?

UTILIZATION OF MYCELIUM IN

THE MANUFACTURE OF WORKS OF ART

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ABSTRACT

Industrial development has a positive and negative impact on the surrounding life; many new findings facilitate and beautify the appearance of everyday life but also have a negative effect that is reasonably concerning, such as the need for large production materials so that hunting and exploitation of animals increases and also the accumulation of industrial waste produced. The problem of increasing industrial waste due to industrial post-production and post-consumption is complicated. Some materials require a long time to decompose, so the mass of this waste is increasingly mounting, even not infrequently. Some of the waste results provide pollution to the environment, which then impacts human life. Then, encourages practitioners to explore and develop alternative materials that are sustainable and environmentally friendly. The rapid development of science and technology provides breakthroughs in the processing and development of alternative materials, including fungi. The exploration of fungal material is designed so that it can be processed in such a way and tends to be strong; besides that, the waste produced can decompose well because it is a natural material. Apart from being a consumption material, fungi are then developed into alternative materials in the manufacture of creative industry products, such as shoes, clothes, bags, furniture, and even substitute materials for building materials; the phenomenon of the process of processing fungi into industrial materials is the focus put forward in this study. This study will use qualitative methods with a phenomenological approach. Environmental awareness, which is generally the background of artists, designers, and architects in processing and applying renewable materials in their works into reading the phenomenon of the use of fungi in works of art, design, and architecture that are friendly to the environment while reducing the use of animal skins, is the starting point to see the possibility of developing and perfecting alternative materials for the sustainability of human life in the future.

Keywords: Fungi, bioart, art medium, interdisciplinary, sustainable

ABSTRAK

Perkembangan industri memberikan dampak positif dan negatif bagi kehidupan di sekitarnya, banyaknya temuan baru yang mempermudah dan memperindah tampilan dalam kehidupan sehari-hari namun juga memberikan dampak negatif yang terbilang memprihatinkan, seperti kebutuhan bahan produksi yang besar sehingga perburuan dan eksploitasi terhadap hewan menjadi meningkat dan juga

penumpukan limbah industri yang dihasilkan. Permasalahan limbah industri yang semakin banyak karena post-produksi industri dan post-konsumsi menjadi permasalahan yang cukup pelik. Beberapa material membutuhkan waktu urai yang cukup lama sehingga massa limbah ini semakin menggunung, bahkan tak jarang beberapa hasil limbah tersebut memberikan pencemaran kepada lingkungan yang kemudian memberikan dampak kepada kehidupan manusia. Hal inilah yang kemudian mendorong para praktisi untuk mengeksplor dan mengembangkan material alternatif yang berkelanjutan dan ramah lingkungan. Perkembangan sains dan teknologi yang kian pesat, memberikan terobosan baru dalam pengolahan dan pengembangan material alternatif, salah satunya fungi. Eksplorasi terhadap material fungi dikembangkan hingga mampu diolah sedemikian rupa dan cenderung kuat, selain itu hasil limbah yang dihasilkan pun mampu terurai dengan baik karena merupakan material alam. Selain sebagai bahan konsumsi, fungi kemudian dikembangkan menjadi material alternatif dalam pembuatan produk industri kreatif, seperti sepatu, pakaian, tas, mebel bahkan material pengganti bahan bangunan, fenomena proses pengolahan fungi menjadi material industri menjadi fokus yang dikedepankan dalam penelitian ini. Kajian ini akan menggunakan metode kualitatif dengan pendekatan fenomenologi. Kesadaran terhadap lingkungan, yang umumnya menjadi latar belakang para seniman, desainer dan arsitek dalam mengolah dan mengaplikasikan material terbarukan dalam karyanya menjadi pembacaan terhadap fenomena penggunaan fungi dalam karya-karya seni, desain dan arsitektur yang ramah terhadap lingkungan sekaligus mereduksi penggunaan kulit hewan, menjadi titik awal untuk melihat perkembangan material alternatif untuk keberlanjutan hidup manusia di masa depan.

Kata kunci: Jamur, bioart, medium seni, interdisipliner, berkelanjutan

INTRODUCTION

The damage to the earth due to decades of garbage is quite concerning. Many waste from consumption tends to be difficult to decompose due to the large consumption of plastic-based materials, thus having a significant impact on the environment, such as groundwater pollution, accumulation of the amount of waste that blocks the flow of rivers, large-scale animal deaths due to consuming waste and so on. According to World Bank data, waste produced during the year is around 2.01 billion tons and is predicted to continue to increase to 3.4 billion tons in 2050. Not a few parties are aware of the problems that occur, so many organizations have sprung up that call and invite the public to care about how to minimize and process household waste wisely, but this awareness has not grown massively so that the situation that occurs globally has not shown significant improvement. This will be a big problem if waste processing and handling are not managed properly.

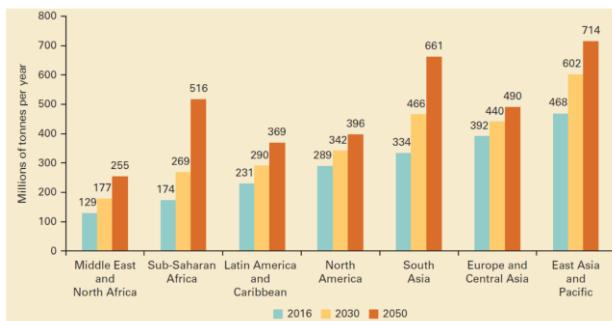


Figure 1. Waste produced during the years

(Source: https://datatopics.worldbank.org/what-a-waste/trends_in_solid_waste_management.html)

Based on data from the World Bank, food waste still holds the largest percentage in contributing to existing waste pollution (44%), followed by various waste with materials such as paper and cardboard (17%), plastic (12%), glass (5%), metal (4%), wood, leather and rubber (4%) and other waste (14%). So far, the largest waste production is generated from countries with high-income levels, which is around 34% or 683 million tons. Of course, this illustrates how the high consumption patterns of people who are generally domiciled in big cities, outside of food consumption, rapid economic turnover results in the turnover of unused, used goods, which then become piles of garbage. Used goods (which generally come from industrial products) often use materials that are difficult to decompose. The reason that, at first, the selection of these materials is so that the goods can last a long time, but their functions and needs are replaced along with changes in fashion and the times, this is what later became a problem.

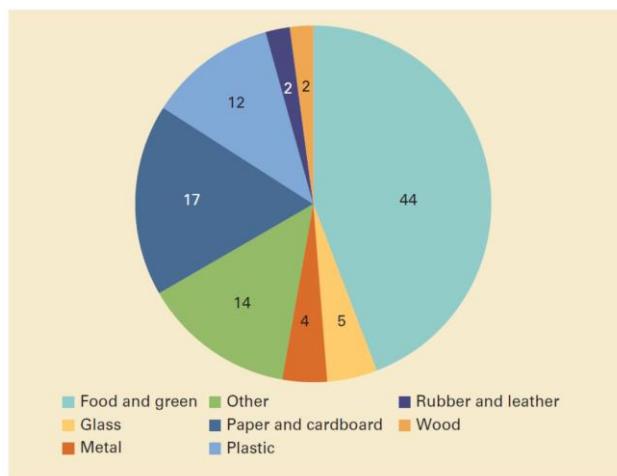


Figure 2. Various of materials waste

(Source: https://datatopics.worldbank.org/what-a-waste/trends_in_solid_waste_management.html)

Industrial development, as an effort to meet human needs, has a major impact on society, both from positive and negative sides. Many findings and innovations from industry are of great benefit in facilitating daily life; in addition to function, the display innovation presented also beautifies and facilitates the efficiency of its use. Changes in trends and fashions that are increasingly rapid have a direct impact on the turnover of industrial products. Goods that are fairly out of trend become fairly obsolete and then tend not to be used until then categorized not infrequently, which are discarded and categorized as 'waste' from consumption. The accumulation of these items is then tried to be mitigated by developing new materials that can decompose faster than the materials used before. Industrial materials that become plastic waste can decompose in 20-500 years, aluminum cans in 80-100 years, glass bottles one million years, shoe leather 25-40 million years, and tire rubber in 2000 years; there are even types of styrofoam that cannot be decomposed (<https://www.p-wec.org/id/go-green/hindari-budaya-nyampah>) and (<https://www.sciencelearn.org.nz/resources/1543-measuring-biodegradability>). The process of destroying waste that is not careful will cause new problems. For example, such as burning garbage causes pollution that causes serious respiratory problems, such as lung infections, pneumonia, cancer, and irritation to the skin; in addition, the indiscriminate burning process also causes greenhouse gas emissions that increasingly trigger global warming. Low public awareness of managing waste worsens the condition of the surrounding

environment (Styana et al., 2019). In addition, the process of processing raw materials into industrial materials carried out by industry players is not spared from the process of environmental destruction, such as combustion that pollutes the air, and the process of coating animal skins that produce liquid and solid waste tends to be discharged into rivers which then results in pollution.

This is then tricked by scientists and industry practitioners who have concerns about the environment by developing various materials that are fairly environmentally friendly. Various breakthroughs were made through biotechnology methods by producing several inventions, such as plastic bags made from cornstarch, seaweed, or cellulose, called bioplastics, which can be used for daily needs. Bioplastics can decompose within six months to 3 years but still leave carbon residues in the soil. Another finding is that processing food waste into biogas is quite effective in reducing the amount of waste that exists if it can be socialized en masse. In addition, breakthroughs were made by exploring the use of various non-animal materials as a substitute for animal skins, such as mushrooms and coconut water. These various activities are an effort to overcome the waste problem that occurs today.

The various findings that have been and will be produced are efforts that will not have a major effect without massive awareness from the global community. This is what art bridges. Art has a function as a medium of arousing awareness and will have a major impact through functional works that are mass-produced and used in people's daily lives. Global problems that are being faced can be conveyed, communicated, and implied through works that are close to people's daily lives. This is then the main focus of this study: how the development of substitute materials, especially the processing of fungi or mycelium medium, is processed creatively into a work of art and design products that can be used in daily activities is an effort to reduce the accumulation of global waste that occurs today while providing awareness to the community at large, that by using environmentally friendly materials, The community participates in global waste reduction efforts.

DISCUSSION

Through the presentation that has been done in the previous introduction, this study will be dissected through qualitative research methods with a case study approach. Case study research is a type of qualitative research where researchers explore or explore a single entity or a phenomenon/phenomenon raised by time and activity and collect detailed information using various data collection procedures within a certain period (Sumartono, 2017). Generally, studies with a case study approach aim to explain a special phenomenon that attracts the attention of researchers; according to Gall and Borg, case study research to produce a detailed description of a phenomenon, develop a possible explanation of the phenomenon, or evaluate the phenomenon (Sumartono, 2017) so that case study research can be descriptive, explanatory or evaluative. Several works will be reviewed as references to provide an overview of the development of mycelium-based bioart and biodesign works. This mapping is an effort to describe ongoing phenomena and an effort to read their future developments.

a. Arts and Biotechnology

As one of the branches of science and technology, in general, biotechnology is defined as the science of using living organisms or products of living organisms developed for the benefit of humans and the surrounding environment (Thieman & Palladino, 2013). The rapid development of biotechnology presents a new way of looking at life; methods in agriculture and pharmaceuticals have changed and play

a vital role in the life of modern society, such as making yogurt, fermentation drinks, hydroponic plants, IVF, and so on. How rapid the development and magnitude of the influence of biotechnology in society now certainly has an influence also in the development of art. Discourse about body cells, genetics, and microorganisms that can provide great vitality and benefits for humans is certainly an interesting issue to be dissected in depth and reflected in a work of art, especially social issues that grow along with the development of biotechnology, the response of art as a medium to reflect on life becomes unstoppable. Of course, not only re-describing a process that occurs in biotechnology but also involving the process of growth and development in biotechnology as part of the artist's work, this is where a tendency called bio-art was born. In general, if we look at the work system carried out, the work process of artists and scientists is very different, but there is one thing that is an important slice in the work pattern of both, namely creativity. Both artists and scientists synthesize potential outside their field of work as much as possible to break out of the established rules and abandon the repetition of methods to find a new concept picture, and this is called a "transformative moment" (Lehmann & Gaskins, 2019). As contemporary art develops rapidly, merges disciplinary boundaries, and collaborates with other disciplines, the possibility of forming a new branch of discipline grows and develops rapidly (Wicaksono, 2014).

b. Bioart and Biodesign

In general, bioart is an artistic method where the artist uses the approach of biological and technological laboratory techniques and practices to produce a living work of art and still keep this entity (work) alive in a showroom or gallery (Mitchell, 2010). Initially, there were many terms to name the development of this relatively new discipline, such as *biotech art*, *life art*, *genetic art*, and *transgenic art*. Examining when the development of bioart began, it seems necessary to see when the use of organic media as an art medium was first used. In this case, we will find the name of Alexander Fleming, a scientist who discovered penicillin and used bacteria as a medium to produce paintings in 1928 (Wicaksono & Irawanto, 2023). In his work, Fleming placed bacteria on paper that had been cultured and incubated to produce visual patterns that formed specific objects, and he named these images '*germ paintings*'. Although not exhibited in art galleries like in general a work of art and only exhibited in a hospital, the pattern of creation carried out by Fleming became an early marker of the use of living organisms in the work, as well as an early marker of the emergence of bio art (Stracey, 2009).



Figure 3. Microbial Works of Alexander Fleming

(Source: <https://www.amusingplanet.com/2018/02/alexander-flemings-microbial-art.html>)

The development of the discourse on the use of living organisms in work was then sparked by Eduardo Kac, an artist and scientist, along with several colleagues who came up with a manifesto on bioart. In this manifesto, he describes how consciousness, processing, and selecting media through living organisms as works of art are essential. He also created it by carrying out a mutation process in a rabbit that was created as a green fluorescent rabbit due to fluorescent effects implanted in its genetics. The "*GFP Bunny*" has been genetically manipulated by adding fluorescent green fluorescent genetic elements from jellyfish in the Pacific Ocean so that the rabbits can be lit up in special lights (Kac, 2021).



Figure 4. Eduardo Kac, GFP Bunny, 2000
(Source: <https://www.fondation-langlois.org/html/e/page.php?NumPage=279>)

In addition to Eduardo Kac and his group, during the same period, several artists and groups of artists used organic media as a medium of their work, such as Marta de Menezes, who exhibited a work entitled "Nature?" (1998) exhibited at Ars Electronica 2000 as well as artist group the Tissue Culture and Art Project exhibited at L'art Biotech in Nantes, France in 2003, through a work entitled "Disembodied Cuisine." The majority of bioart artists use laboratories to develop their creation process and keep the entity growing in a showroom or gallery, both technically and technologically. The development of awareness in sorting out mediums gives rise to the complexity built by artists. Not only prioritizing artistic quality, but bioart artists also prioritize methods, ethics, and biotechnological developments that intersect with social and cultural issues (Mitchell, 2010). Through artwork, people are educated to understand the complexity and role of biotechnology in its social sphere, where art then becomes a medium to mobilize consciousness massively (Wicaksono, 2019).

c. Utilization of Mycelium in Making Art

The development of biotechnologies is growing rapidly in solving various community problems that occur. In solving the problem of industrial waste produced, the use and processing of fungi is one alternative to reducing waste problems that occur. Fungi-based biomaterials can be developed and explored to produce various substitute material characters that are quite efficient and fairly environmentally friendly because they can decompose in a fairly short time compared to factory synthetic materials. In addition, strength that is fairly competitive when compared to other materials, lightweight characteristics, and production costs that tend to be cheap are the attractions in developing this fungi-

based biomaterial. So, it is possible to develop mushroom-based materials to be applied in various products and works of art. This method is known as biocomposite, which is the process of combining mycelium, which is the root of fungi, with agricultural waste.

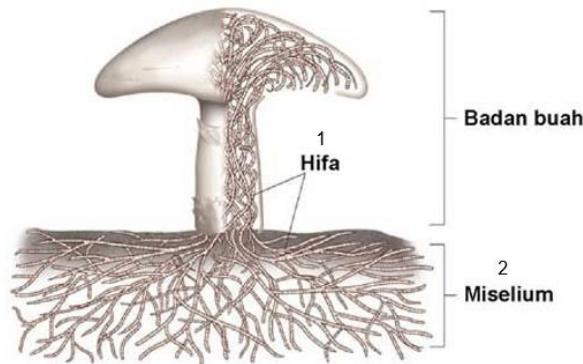


Figure 5. Mycelium Structure in Fungi

(Source: [https://roboguru.ruangguru.com/question/perhatikan-gambar-berikut-ini-apakah-fungsi-dari-bagian-yang-ditunjukkan-pada-nomor QU-0M1QYF73](https://roboguru.ruangguru.com/question/perhatikan-gambar-berikut-ini-apakah-fungsi-dari-bagian-yang-ditunjukkan-pada-nomor_QU-0M1QYF73))

The biocomposite method, which tends to be easy to construct into certain forms, is one of the advantages of fungi. It can be explored in various forms according to needs. In general, mycelium is divided into two, namely generative mycelium, which functions as a means of reproduction and forms spores, and vegetative mycelium, which acts as an absorber of food and nutrients from other organisms around. Both synergize to be able to grow and develop. In the biocomposite method, mycelium is given many nutrients through agricultural waste such as sawdust, coconut water waste, tea powder waste, tempeh waste, and so on. Then placed in a certain container formed as needed and allowed to develop by penetrating the cracks of the nutrient substrate from agricultural waste to bind and grow to fill the mold container, with a note that the storage and growth space for biocomposites must be set in an incubation room temperature of around 28-30 degrees Celsius, with air circulation that tends to be minimal, which allows mycelium to grow optimally (Susilo et al., 2021). This process is significant because it will determine the shape, character, strength, and durability of the biocomposite material presented later.



Figure 6. Mycelium Incubation Process in Simple Containers

(Source : <https://www.pertanianku.com/pertumbuhan-miselium-jamur-pada-kultur-cair/>)

After going through the incubation process, the biocomposite material is then removed from the mold and needs to be dried so that it is solid, and the mycelium growth process stops, so it will not change shape again. Because it is mycelium-based, the moisture content possessed by biocomposite materials tends to be high. Hence, the drying process requires a tool in the form of an oven that has air circulation with a temperature setting of around 70-80 degrees Celsius. After this drying process, the biocomposite material is ready to be used and applied as needed through the mold form used at the beginning.

Several artists and architects have made use of biocomposites in artwork. One of them is Phillip Ross. Philip Ross is co-founder and CTO of MycoWorks, a company that develops skin-like biomaterials from mycelium, based in San Francisco. Ross is an artist, architect, entrepreneur, and researcher who developed a mushroom-based material that he called *microtexture* (*myco* comes from Greek meaning mushroom), which he then developed by processing mushroom material as raw material for design and building. The focus of the study conducted by Ross is to find alternative materials that can then be applied in works of art, design, and architecture. For this *microtexture* project, he did a lot of exploration with Ganoderma fungi, a type of fungus that is found in many Asian plains and is known for having good health benefits. His decision to use Ganoderma mushrooms was due to the character of the mushroom, which has a thick layer, a shiny hood, and wood-like fibers that are varnished, easily formed according to the place of development, and able to be hardened within certain limits.



Figure 7. Phillip Rose

(Source : <https://www.crunchbase.com/person/philip-ross-2>)

Ross developed his biocomposite by using sawdust, which was then molded into the form of bricks that had strong tissue derived from mycelium so that mushroom bricks were claimed to be more stable and sturdy compared to concrete. Currently, mushroom bricks cannot be used as the main material in making buildings but can be used as a companion structure that can bind concrete more strongly. Ross has tried to apply it in structures that are not too large, and the research process is continuing and trying to find the right composition so that this mushroom brick structure has a strong enough compressive force to become the main foundation in the building structure.



Figure 8. Mushroom Bricks, Developed by Phillip Ross

(Source : <https://www.treehugger.com/mycotechnology-mushroom-bricks-philip-ross-4857225>)

In Indonesia, the use of biocomposites in artwork and design is also carried out by several individuals and groups, such as artist Syaiful Aulia Garibaldi and the Mycotech Lab group, both domiciled in Bandung, Indonesia. In the beginning, Garibaldi and Mycotech Lab conducted exploration and research together by studying and examining the potential of fungi in-depth, then applied them in their respective developed works. Syaiful Aulia Garibaldi is an artist who consistently uses fungi media as a medium for his work. He has been doing this since 2011 and continues his exploration to this day.



Figure 9. Syaiful Aulia Garibaldi

(Source : <https://www.gatra.com/news-546103-gaya-hidup-roh-gallery-gelar-pameran-syaiful-aulia-garibaldi-tumbuh.html>)

The method developed by Garibaldi is generally similar to that of Ross, how mycelium is combined with agricultural waste to be formed and applied in works of art. Not only forming biocomposites, but Garibaldi also explored more deeply about fungi. In some of his works, he dissected and visualized the structure of fungi, grew mushrooms in his medium, and formed biocomposite-based sculpture structures. Through his work, Garibaldi wants to communicate the position, role, and function of fungi in our lives, as well as provide an overview of how mushrooms are one of the solutions in the future, especially related to human and environmental relations (Garibaldi, 2014).



Figure 10. Syaiful Garibaldi, "Atoah Epok, Ehoor Lamura
(Like Art, Fungal Statement)", 2012.

(Source: Abiogenesis Exhibition Catalog; Terhah Landscape)

Mycotech Lab is a Biotech startup from Indonesia that focuses on developing alternative materials, especially mushrooms or mycelium, that can be used for industrial needs. Unlike Garibaldi, Mycotech Lab develops biocomposites with an applied art approach. Mycotech Lab developed a material made from fungal mycelium that has skin-like characteristics that they named "mylea™". From the development of leather, they then developed into various forms of industrial products, especially fashion, such as jewelry, bags, shoes, hats, wallets, and so on. They became increasingly known when they made the world's first mycelium clock. They collaborate a lot with designers and fashion brands, both local and international, to produce fashion products that use mushroom materials they develop. Through mushroom materials, Mycotech Lab wants to make consumers aware of these alternative materials so that they can participate sustainably. In the production process, Mycotech Lab collaborates with local farmers to supply organic waste and cultivate mycelium widely. This is so that the availability of materials can be maintained for greater production while providing economic value for residents by empowering them through collaborative processes carried out.



Figure 11. Shoes with Mushroom Material

(Source : <https://inhabitat.com/bro-do-x-mylea-better-shoes-are-made-from-mushroom-leather/>)

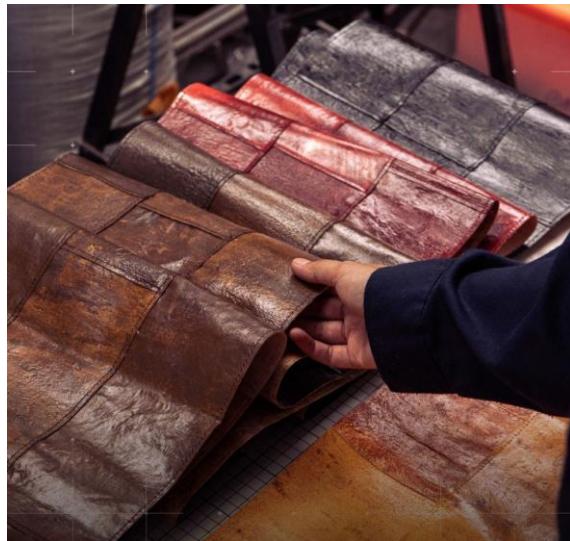


Figure 12. Production of Mushroom-Based Leather Developed by Mycotech Lab
(Source : <https://www.instagram.com/p/CwHo09HxhGg/?hl=en>)

CONCLUSION

The problem of garbage that is increasingly piling up is a problem that is quite worrying if not addressed. The amount of accumulation that is expected to increase in the future certainly provides an idea of how the environment will be increasingly polluted, basic human needs such as clean water and productive soil will decrease, and have a considerable impact on human life and other creatures. The discovery and use of biomaterials is one of the efforts to reduce the use of consumables that are easier to recycle, one of which is the use of fungi in the products we use in everyday life. By using natural materials, production waste that is no longer used by the community can be reduced more quickly and minimize the accumulation of waste and its long decomposition period.

The various findings that have been and will be produced are efforts that will not have a big effect without massive awareness from the global community. This is what art bridges. Art has a function as a medium of generating awareness and will have a great impact through functional works that are mass-produced and used in people's daily lives. Global problems that are being faced can be conveyed, communicated, and implied through works that are close to people's daily lives. This is then the main focus of this study: how the development of substitution materials, especially mushroom processing or mycelium medium, is processed creatively into a work of art and product design that can be used in daily activities, is an effort to reduce the accumulation of global waste that occurs today and is predicted to increase in the future, as well as providing awareness to the wider community, that by using environmentally friendly materials, people participate in global waste reduction efforts.

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IDENTITY OF INDONESIAN CONTEMPORARY INDEPENDENT COMICS THROUGH “CUPS” AND “HOW DO YOU TAKE YOUR COFFEE?”

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ABSTRACT

The cultural identity of contemporary independent comics in Indonesia is ambiguous. Changes and differences were found when identifying contemporary independent comics which published after 2010, through comparison with independent comics from the late 1990s to the early 2000s. This study wanted to see the unique creation patterns in contemporary independent comics after 2010 which could show a certain cultural identity in the discourse of Indonesian comic culture. The study focused to the textual content of comics to explore the differences and uniqueness revealed through comic composition in conveying storytelling. This research used qualitative methods with the Comic Studies approach applied to examine the textual content of comics, and to reveal the identity context of contemporary independent comics, Cultural Studies applied. The objects of this research were independent comics published between 2010-2020, and the cases studied were the comics "Cups" (2014) and "How You Take Your Coffee" (2017). As a result, it was found that the cultural identity of contemporary independent comics depends on the discourse of Indonesian comics whose identification is determined based on similarities and differences to mainstream comics as well as previous generations of independent comics. Independence in control creation created creative 'articulation' to the comic grammar; such as folded panel sequential, and word & picture relationship as unique as the author's personal style and treatment to embrace the visual storytelling and enhance the reading experience and participation. The identity struggle is thus found through the tracing of the articulation of the comic grammar used in the 'language' of contemporary independent comics, which is rarely applied in major publishing.

Keywords: Identity, independent comic, comic studies, culture studies

ABSTRAK

Identitas budaya komik independen kontemporer di Indonesia mengalami ambiguitas. Ditemukan perubahan dan perbedaan ketika mengidentifikasi komik independen kontemporer yang terbit setelah tahun 2010, melalui pembandingan dengan komik independen akhir tahun 1990-an hingga awal tahun 2000-an. Studi ini secara mendasar ingin melihat adanya keunikan pola kreasi pada komik independen kontemporer setelah tahun 2010 yang dapat menunjukkan identitas tertentu dalam wacana budaya komik Indonesia. Studi memperhatikan tekstual komik untuk menggali perbedaan dan keunikan yang diungkap melalui komposisi komik dalam mengantar storytelling. Penelitian ini memakai metode kualitatif dengan pendekatan Kajian Komik yang diterapkan untuk mengkaji tekstual komik, dan Kajian Budaya diterapkan untuk mengungkap konteks identitas komik independen kontemporer. Objek penelitian berupa komik independen yang terbit antara tahun 2010-2020, dan kasus yang dikaji adalah komik "Cups" (2014) dan "How You Take Your Coffee" (2017). Sebagai hasil, ditemukan bahwa identitas budaya komik independen kontemporer bergantung pada wacana komik Indonesia yang identifikasinya

ditetukan berdasar kesamaan dan perbedaan terhadap komik-komik mainstream dan juga sekaligus komik-komik independen generasi sebelumnya. Kebebasan dalam kontrol kreasi menciptakan ‘artikulasi’ kreatif pada tata bahasa komik; seperti panel terlipat berurutan, dan hubungan kata & gambar yang unik sesuai gaya pribadi komikus dan cara penataannya untuk meningkatkan visual storytelling, dan meningkatkan pengalaman dan partisipasi membaca. Pergulatan identitas tersebut ditemukan kemudian melalui penelusuran artikulasi tata bahasa komik yang digunakan dalam ‘bahasa’ komik independen kontemporer, yang jarang diterapkan pada penerbitan komik industri.

Kata Kunci: Identitas, komik independent, kajian komik, kajian budaya

INTRODUCTION

Contemporary independent comics in Indonesia after 2010 display a variety of forms and story contents. Some comics show stories based on daily events and characters, such as "Cups" by Yudha Sandy and Mira Asriningtyas (2014). There is also "How Do You Take Your Coffee" by Azisa Noor (2017), which uses a comic story as a poetic visualization of coffee. Independent comic storytelling is created with a unique approach as a form of free creative effort by comic artists to find readers for their work without being bound by publisher regulations. Changes and differences were found when identifying contemporary independent comics published after 2010, through comparison with independent comics from the late 1990s to the early 2000s. Independent comics in mid-1995, which were pioneered by the publication of the Core Komik compilation, along with several other movements at that time, were a form of popular art oriented towards communal interests and participation, including building public awareness toward the repressive attitude of the New Order regime (Harsono, 2003).

Furthermore, because of its value-free nature to be interpreted and crafted, the comic medium is also used as a creative medium as an alternative and resistance medium to the rigid Indonesian art system, which was regulated by the New Order regime through its cultural institutions; museums, galleries and art academies (Harsono, 2003; Wahyudin, 2007). After the 1998 Reformation, independent comics became an alternative for local and national comic publishing, which since the late 1980s had not seen many new publications. Tracing the previous period, coincidentally started around the year 1981 the national comics market began to be flooded by the publication of translated comics from Europe and America, and increasingly by Japanese manga comics since 1993. The big publishers who published these translations eventually also published Indonesian comics, with a format similar to the translated comics that many readers like. Comics produced by large publishers are what we called mainstream comics. Independent comics, which first appeared in 1995 until the early 2000s, were then seen as a form of opposition to the mainstream comics. The printed format of independent comics produced via a photocopier for covers and contents pages, becomes a distinctive visual marker compared to comics from large publishers. Creative control is fully on the side of the comic artists themselves, making the stories and images in independent comics very unrestrained, expressive, straightforward, breaking taboos, and full of experimentation.

However, the ambiguity of cultural identity is found in contemporary independent comics in Indonesia. Independent comics after 2010 have similarities to the format of comics published by mainstream publishers. These could be seen in comics that were self-published and sold directly by their creators at some comic events and pop culture events between 2013 and 2019. This trend has emerged since the early 2000s in independent comics works which were used as a training ground for creating and publishing comics, with references to mainstream comics. Dharmawan (2005) noted that independent comics have at least 2 goal tendencies: (1) Dreaming of the mainstream and (2) Rejecting

the mainstream. Independent comics as an identity that is related to comic art and the social culture of the surrounding community, shows change. Academic studies to explore the identity of contemporary independent comics in the comic culture discourse in Indonesia need to be carried out.

Comic studies in Indonesia so far when observing independent comics have focused on their phenomenal aspects and characteristics, which were seen as a form of symbolic resistance to the militaristic New Order regime (Alkatiri, 2014). Other studies discuss the history of the emergence, social function, visual style, and distribution system of independent comics in the late 1990s to early 2000s (Berman, 2001; Imanda, 2002; Warsono, 2012). A study of the identity of comics was carried out to see the textual differences, both visual and narrative styles, which determine their identification among other types of comics in a certain period and cultural discourse. Hong Kong identity and discourse are researched through the consumption and representation of superheroes in the "Teddy Boy" comic, which is ideal for projecting the imagined identity of Hong Kong citizens (Fung & Pun, 2016). Wayang comics in Indonesia, since their first appearance in the 1950s, have emphasized their identity which were constructed through the choice of visual references, as a response to political pressure which stated that comics were not educational (Ajidarma, 2017). The choice of the term 'Cergam' in the Medan Cergam Movement to replace 'comics' which had certain associations in the National Personality discourse of the Soekarno era, became an identity device that showed the spirit of forming a distinctive personality and raised Indonesian comics to a higher level than before (Gunawan, 2021).

Studies that examine the identity of contemporary independent comics published after 2010 in Indonesia are important in seeing comic works as a reflection of cultural change that cannot be separated from social and political influences, and their context in global cultural exchange. This study basically wants to see the unique creation in contemporary independent comics after 2010 which can show a certain identity in the discourse of Indonesian comic culture. The study focused to the textual content of comics to explore the differences and uniqueness revealed through comics composition in conveying storytelling.

This research uses qualitative methods to explore new phenomena and focus to the process and interpretation of meaning (Given, 2008). The approach applied is Comics Studies, which revolves around the interpretation of meaning, both the meaning examined by the reading public or the meaning constructed by the symbols in the text itself, by paying attention to elements and methods of composition that resemble language systems (Duncan & Smith, 2009; McCloud, 1993; Saraceni, 2003). The research objects are independent comics published between 2010-2020, and the cases chosen to be studied are the comics titled "Cups" (2014) and "How You Take Your Coffee" (2017). Case Studies were chosen because they are empirical in investigating contemporary phenomena in real life contexts (Sarantakos, 2013).

In this research, to examine the textual content of comics, Mario Saraceni's Comic Language approach is used which views the comic composition system as a grammatical system with (1) functional elements; in the form of graphic devices such as panels, word balloons and narrative boxes, and (2) content elements; the choice of text and images that fill functional elements to form meaning (Saraceni, 2003). The practice of comic creation places images and other visual symbols in the arrangement of comic functional devices such as panels, word balloons, and narrative boxes so that these images and visuals have meaning that is determined by the way they are depicted and how they are arranged (Saraceni, 2003). To examine the context of contemporary independent comics, a cultural studies approach will be used, which sees that identity is a matter of cultural construction because the sources of discourse that form the material foundation for identity formation are cultural (Barker & Jane, 2016). Discourse forms the subject through a process of signification and the subject depends on

the existence of discursive positions which are presumed to have existed before the subject. The concept of discourse is used to name and view the strategies of signification or meaning-making engaged by sets of agents as they battle to fix the presence of a particular identity of an object, subject, or practice (Howarth & Stavrakakis, 2000). This can be seen in how Indonesian comics in certain eras were a response based on the previous period. The practices, objects, and identities of independent comics after 2010, for example, cannot be separated from knowledge of the practices and objects of independent comics in the mid-1990s, as a discourse. Some things are referred to as similarities, but at the same time show their response through several differences that are presented.

Philosophical arguments from the field of linguistics (language) show that identity is not a universal entity but a construction of specific cultural discourse, where there is an understanding of the non-representative nature of language so that language does not reflect the world as it is, but language is understood as a tool that is used to achieve a goal (Barker & Galasinski, 2001). According to Hall, based on Laclau & Mouffe's "Hegemony and Socialist Strategy" (1985), hegemonic ideology and practices have a role in trying to repair differences, by placing closure around the meaning of unstable markers in the discursive field. So identity can be understood as a production, a temporary stabilization, or cut in the flow of language and meaning (Barker & Galasinski, 2001). The theoretical framework used in this research is to see that comic language presents a text through a signifying process, whose subjectivity and identity are produced through the regulation of discourse power through a temporary stabilization based on certain interests.

The study discussion explores what it looks like and how text & images appear in a single panel, a series of panels, a page unit, a series of pages, and the composition of an independent comic entitled "Cups" by Yudha Sandy & Mira Asriningtyas and "How Do You Take Your Coffee" by Azisa Noor, in conveying the meaning of the story. These elements will be investigated as an identity construction in defining the similarities and differences of contemporary independent comics in Indonesian comics discourse.

DISCUSSION

a. Independent Comics and Indonesian Comic Culture

Observations of the position of independent comics in Indonesian comics discourse were carried out using mapping that took into account of cultural practices mapped in Stuart Hall's "cultural circuit" model (Richard Johnson & Parvati Raghuram, 2004). Attention is focused on each of the independent comics' cultural practices; Production (Creator, year of publication), Consumption, Regulation (cultural background), and Representation (form, content, artistic style), so the cultural identity could be investigated, which cannot be reduced, and at the same time there is a mutually beneficial reciprocal relationship between one practice and another so that the production of meaning in each moment of the cultural circuit is articulated in the next moment (Barker & Jane, 2016; Paul Du Gay et al., 2003). The results of these observations are presented as follows.

Independent comics in 1995-early 2000s were mostly produced by students at arts or social science universities. Most comic creators at this time were readers of old Indonesian comics or readers of translated European and American comics published in the end of 1970s to 1980s. Independent comics are consumed by buyers when distributed independently at campus events, such as festivals, fine arts exhibitions, or music performances. The commonly available formats are books sized A5 (21x14.5 cm), and A4 (29x21 cm), duplicated using photocopy printing techniques. Likewise, the covers are made manually or using computer graphics, but are finished using paper and printing techniques available at the photocopy shop. The style of the images created shows a personal style that is

explorative and experimental. Some show influence from European and American comic styles, and many also create cartoon styles. Images are done manually, mostly using drawing, collage, or graphic printmaking techniques. Independent comics at this time emerged due to at least two reasons. The first was due to pressure from New Order art institutions, through galleries and academic campuses, which limited art to painting, sculpture, and printmaking, making fine arts students choose the medium of comics free of institutional value to show resistance (Harsono, 2003). Second, independent comics exist as an alternative to the rise of translated comics and national comics which are packaged in a form similar to translated comics. So what resulted from these two reasons were comics that were often labeled wild, breaking taboos, underground, and physically the differences could be seen in opposition to industrial comics at that time (Alkatiri, 2014; Rosidi, 2001). This cultural practice then labeled itself with the term "Indie Comics Movement". Independent comics use the same functional components as industrial comics, i.e., panels, word balloons, and narrative boxes in book form. However, independent comics identify themselves by displaying identity markers that are built through different content components; the drawing style, story style, and story content, which is the opposite of the industrial comics that were present in bookstores at that time. This shows the political nature of identity as explained by Stuart Hall; the identity of "indie comics" (independent comics in 1995-early 2000) as a 'production' and has the possibility of multiple identities (both comic mediums), shifting and fragmented (choosing a different visual style and story), which could be articulated together with other types of comics, especially industrial comics which dominated the comics market at the time, in various ways (Barker & Galasinski, 2001).

Identity, based on this understanding, is seen as a process of formation that continuously exists, resulting from vectors of similarities and differences, the process of which continues and repeats itself in subsequent periods. In 2004-2005, independent comic artists from the late 1990s and early 2000s began working with publishers. National comic publishing is starting to be filled by comic artists who have published their own comics and also new generation comic artists. Some independent comic artists are more active in the field of contemporary art, and some no longer do comics. The world of fine arts in Indonesia is starting to recognize the era of contemporary art which is more accepting of a plurality of types of work, so comics are no longer used as a medium for fine art experimentation. This situation continued through 2009 and go on. Independent comics in 2010-2023 were mostly produced by a new generation of comic creators with more diverse higher education backgrounds. Most comic creators at this time were readers of translated manga comics, which began to enter Indonesia in 1993.

Independent comics are consumed by buyers at Japanese cultural events, pop culture conventions, or similar events where stalls are rented out, and are commonly called comic-markets. Independent comics created by the creator themselves are combined with fanart or doujinshi comics, where the story is created by the comic artists themselves, but the characters or settings are taken from existing industry comic stories. The commonly available formats are books sized A6 (14.5x10 cm), and A5 (21x14.5 cm), which are produced using digital printing techniques. This technique allows comics to be presented in full color, both for the content and cover. The use of computer graphics produces comic layouts and covers that are the same, or even better when compared to industrial comic layouts and covers printed by publishers. The influence of manga style can be found, especially in depicting characters and settings, as well as the storytelling. At this time, comic creators are realizing that self-publishing is an option to create and publish their own comics, as an alternative before trying to submit them to publishers or digital platforms. Or vice versa, comics are self-published when the publisher does not accept the manuscript. For some comic artists, independent comics are a mean of practicing making comics that serving as a proposal that try to test the market. This means that several

comic artists who already have contracts with publishers are still self-publishing other comic titles themselves. Some independent comics that are considered to be best-sellers are then purchased for royalties and republished by publishers. Comics are produced as commodity products targeting certain types of readers so that the storytelling elements are given more attention and created with awareness so that readers can understand them better. The functional components and content components in independent comics at this time have a very strong reference to industrial comics, whether the translation or the imported comics; both print and digital. Apart from this, some comics are self-published precisely to avoid publisher regulations and go beyond existing customs. In general, the symbolic signifiers that show the differentiating identification of independent comics become blurred and give rise to a common identity that intersects with industrial comics.

The following are discussions of 2 comics, case-studied to explain the identity of contemporary independent comics in Indonesian comics discourse.

b. "Cups" Comic

"Cups" is an independent comic published in 2014, as a collaborative work between Yudha Sandy as an illustrator, and Mira Asriningtyas as a story writer. A5 size comic (21x14.5 cm), printed in black and white on book paper, with a cover printed in color. This production technique using a digital copy machine for the content and color digital printing for the cover, is commonly found in independent comics after 2010. This work is part of the Wolfriend project initiation by the Mulyakarya collective. Mulyakarya is one of the comic collectives that still survives with an independent spirit, whose initial project was to create an indie comics catalog in 2007. In 2015 Mulyakarya created a comics workshop for high school students, and since 2019 it has been the organizer of the annual Yogyakarta Komik Weeks comics festival. "Cups" contains short comic strips that make up a graphic diary story that centers on a young female character named Mira and the creative space she initiated. Shown from Mira's point of view, the story starts with the idea of managing a small cafe called Cups and develops into a number of activities at the cafe. Starting from the story of the recruitment of a punker to become a waiter who then became a chef, the story of the hamster club which holds regular meetings there, the regular visitors to the cafe, to the homeless figure in front of the cafe who was blessed with free dinner.



Figure 1. "Cups" cover and page content
(Source: Reproduction from "Cups" (Sandy & Asriningtyas, 2014))

As a story with a narrator who is also the main character, "Cups" tends to display relationships between words and images that are (1) interdependent; words and images are interdependent, combine to depict an idea that cannot be explained by either words or images alone, and (2) intersect;

words and images work together in such a way to convey information to strengthen meaning (McCloud, 2006). Images serve as explanations for the text, to show details of the setting and character activities. The graphic devices presented are general like other comics, with panels, word balloons, narrative boxes and onomatopoeia.

What attracts attention in this comic is the appearance of physically stacked panels, in the form of paper folds, like lift-flap in children's books. Three lift-flaps are used as supplements or extension panels containing explanations of figures who regularly attend the Cups cafe. This panel extension with folds is nothing new, especially when considering children's books, for example Tony Wolf's encyclopedic visual book. The uniqueness of the 'folding panel', let's name it like that, in "Cups" seems to be an attempt to prove Wolfriend's project to explore different ideas in presenting a story-picture book. These folding panels are in the story segment entitled 'Friends', telling the story of Cups cafe visitors as friends. Panels are used as a control medium that regulates the reader's attention and directs the sequence in which the reader will follow the narrative, which utilizes the conventions of the reading flow and requires a unique collaboration between the comic artist's creation and the reader's involvement, which only the comics medium has (Eisner, 2004). In "Cups", this control panel not only regulates the direction of reading, but involves the reader's activity to unfold the panel and explore its contents.



Figure 2. Page with the folding panels & The opened folding panels in "Cups"
(Source: Reproduction from "Cups" (Sandy & Asriningtyas, 2014))

These folding panels represent a story telling that introduces the figures of the regular visitors to the Cups cafe. They are (1) Elisa; which makes Cups a place to share happiness (only because you can smoke when she was around), then there are (2) Guntur; a punk kid who turns out to be a fan and creator of children's comics, and (3) Ipang who is clean and neat, who always orders the same menu and always makes new friends on every visit to Cups. As presented in the chapter entitled Friends, the three regular visitors to Cups are ordinary people, who are highlighted as characters in this graphic diary comic. This tendency to elevate oneself and ordinary people as characters began to appear in autobiographical comics which were initially independent (Ajidarma, 2021; Sabin, 1996).

The reader, who enjoys this segment of the story of 'Friends', can be seen as a visitor, who sees the three characters; Elisa, Guntur, and Ipang, were just ordinary visitors, even though they didn't really know him. Without opening the folding panel, that's what the reader got. A more intimate introduction

will make the three characters become familiar friends for the reader, which is achieved when the reader opens the folding panels. Unfolded panels showed syntagmatic choices, forming a scene together with a series of other panels. Meanwhile, the folding panel that opens at the same time showed the paradigmatic choice, communicating the same message (but developing), at the same point (3 story characters), arranged in a panel (which can be opened) (Duncan & Smith, 2009).

c. "How Do You Take Your Coffee" Comic

"How Do You Take Your Coffee?" is a mini-comic sized A6 (14.5x10 cm) created and published by Azisa Noor herself in 2017. This comic was distributed by Azisa herself together with the Archfriend collective at comic conventions and festivals, including the Pesta Komik Bandung and Indonesian Comic-Con in 2023. The outer and inner covers, as well as the 12 inner pages of this comic, are printed in color on the same type of paper, with a thickness of around 230gsm. English is used to convey the comic story in the form of poetry-like expressions about types of coffee which are related to the type of drinker or the appearance of the type of coffee itself. This comic had resemblance to graphic poetry, where poetry that uses bold visual images along with the poet's words to provide additional clues to the intent of the poet and help readers navigate the rich layers of a poem (Calo, 2011). As presented on page 7 of this comic (Figure 3; top right), the top panel displayed the narrative "Some of us maintain the perfect balance of a perfect cappuccino" accompanied by a picture of a cup of cappuccino seen on a neatly arranged and balanced table.

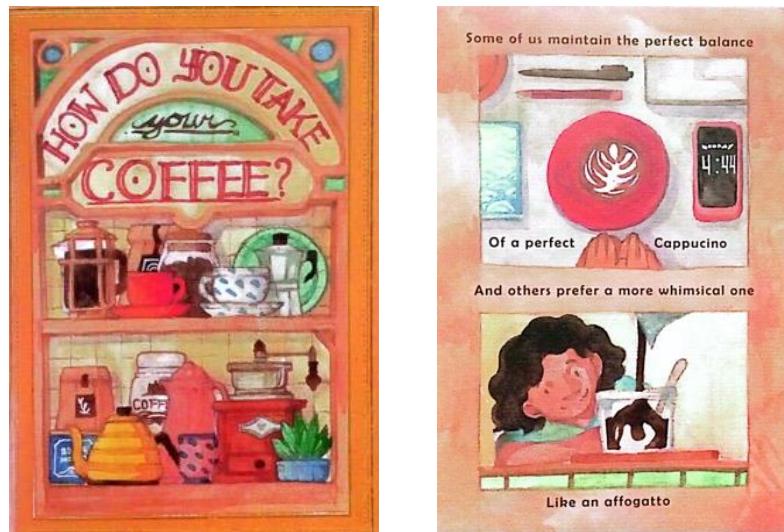


Figure 3. Cover and page 7 of "How Do You Take Your Coffee?"
(Source: Reproduction from "How Do You Take Your Coffee?" (Noor, 2017))

The final part of this comic closed with a romantic expression that every person, whoever the person is and whatever the character, must remember that there is someone who will give appreciation, like when the person appreciates his/her favorite type of coffee. 'Cup of Coffee' moved from the literal meaning of a type of brewed coffee drink and its unique variants to the symbolic meaning as an appropriate measure. That is, even humans, with all their uniqueness, will find a soul mate in the appropriate measure as a partner who loves each other and understands each other's uniqueness.

The poetic expressions about coffee are written in digital typography, sans serif typeface which is contained between the panels and some inside the panels. There are no word balloons or caption boxes to enclose the texts. The panels are not outlined but are only separated by space and color from the blank part of the page which is also given color and ornaments. For both the images and the colors on the page, Azisa uses a semi-transparent watercolor technique. The types of coffee in the story are shown from 2 points of view; (1) The first is the top view so that you can see the circle of the cup and its contents, for example when showing decaffinato, americano, lungo, macchiato, coffee mocha, cappuccino and espresso con panna coffee. (2) Second, the coffee and the cup are shown from the side, for example when showing espresso, milk coffee, caffe latte, affogato, and shakerato. Text and images are interdependently related and intersect when displaying types of coffee.

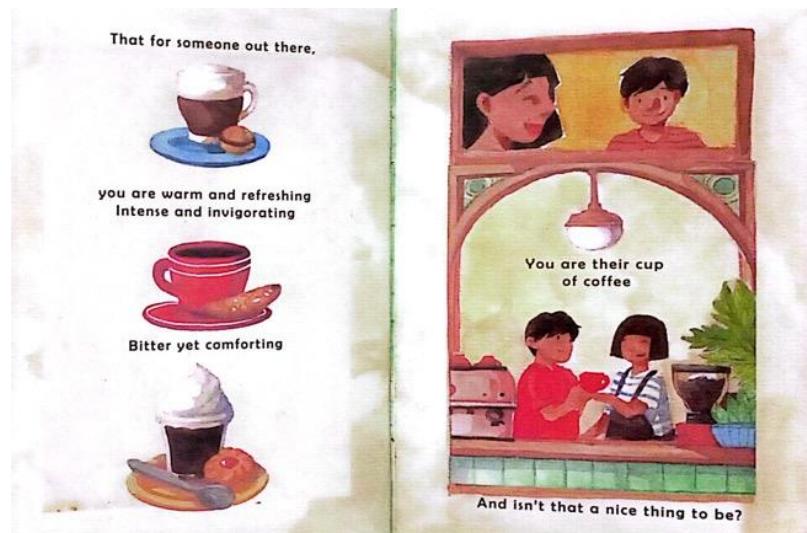


Figure 4. Page 10-11 of "How Do You Take Your Coffee?"
(Source: Reproduction from "How Do You Take Your Coffee?" (Noor, 2017))

In the last 3 pages, the story turns to romantic symbolism, the words and images also turn into a parallel relationship pattern, where words and images follow parallel paths, different paths, without crossing each other (McCloud, 2006). On pages 10-11 of this comic (Figure 4) it can be seen how Azisa presents a row of 3 pictures of different types of coffee cups, arranged downwards, without panels. Accompanied by 3 lines of text; (1) "That for someone out there", (2) "you are warm and refreshing Intense and invigorating", (3) "Better yet comforting" is present on top of each different cup. On the next page, the panel is drawn like a window frame, containing a pair of a man and a woman smiling at each other on the top panel. Meanwhile, the wider lower panel shows a pair of man and woman holding a red cup together, accompanied by the text "You are their cup of coffee" in the middle. Below the panel there is another text "And isn't that a nice thing to be?". The female figure in this last panel is the same character as the barista character at the very beginning in the opening of this comic. The comic opens with a question about coffee; "How Do You Take Your Coffee?", like the title of this comic, and ends with a series of texts and scenes full of romance.

Examined from the beginning of the story, in this comic, almost all panels contain 'added information', or images that are always different which always provide new information and are not repeated as 'given information' in subsequent panels (Saraceni, 2003). The closure ability is to see one part into a whole, and when looking at two different objects in successive panels, it will try to find a

relationship, and at least a symbolic relationship will be present between the two objects (Abel & Maden, 2008; McCloud, 1993).

The image of the female barista character on the first page is repeated on the last page, along with someone. Both of them are holding the same cup and are behind the coffee counter: showing that the man is not the buyer of the coffee, and is more like a pair of people in a romantic relationship. Meanwhile, the rows of coffee pictures that run along the page and differ from each other are the types of coffee that have been brewed and made by the barista. Of the assortment, only one suited him: black coffee in a red cup. That is "her cup of coffee" which in the end is related to someone who is considered suitable for a romantic relationship.

Azisa, with her distinctive watercolor style, composed this comic with pictures of various types of coffee and a pair of people chatting, all of which are different and united by a poetic text. The reader, on the other hand, does the decoding; arranging existing text and image images, looking at the relationship between panels, and relating the panels presented by Azisa to a story (Duncan & Smith, 2009). Even though the same picture is presented, the story composed by every different reader could be very personal. Each reader will have a different interpretation, especially when entering the final part of the comic which is symbolic. Parts that are like philosophizing about coffee; A person's likes and compatibility with the type of coffee they drink is juxtaposed with a person's likes and compatibility with other people in romance or friendship. Through comic form as in "How Do You Take Your Coffee?" reader's participation is involved by the comic creator unconsciously, and changes the story in the comic into their personal story indirectly. The subject in this story is the reader himself, who from the start has been lured in by depicting coffee looking up identically as the point of view from the reader's side.

d. Identity of Indonesian Independent Comics Post-2010 in the Comics "Cups" and "How You Take Your Coffee"

The identity of "Cups" and "How Do You Take Your Coffee" depends on the discourse of Indonesian comics whose identification is determined based on similarities and differences to mainstream comics as well as previous generations of independent comics. An identity is basically a contingent identity; depends on something outside itself, then power is always inscribed in the relation an established identity bears to the differences it constitutes (Laclau, 1990). These two comics, "Cups" and "How Do You Take Your Coffee" emphasize their identity by referring to their relationship with the identity of comics that are considered to have been or are more established, namely: mainstream industry comics with all their rules, and independent comics from the early 1995-2000s which were already has labels of distinctive properties and characteristics. Laclau explains this assertion of identity in two ways: (1) the first if a contingent identity is a threatened identity, it can only establish itself by suppressing what opposes it, and (2) the second is that an established identity is not a homogeneous point but a set of articulated elements (Paul Du Gay, 1996). Articulation for Hall (1996) is a relationship that can unite two different elements under certain conditions (Barker & Jane, 2016).

It can be seen then that independent comics, in showing their creative independence, are trying to suppress the industrial comics characteristics. The addition of folding panels, and full color printing on all pages are examples of creative articulations that are avoided by the industrial comic publishing in Indonesia in general. At the same time, contemporary independent comics are trying to reach a wide readership market as proof of their acceptance and appreciation, by prioritizing storytelling. This effort also shows an articulate side that negotiates previous independent comic labels that emphasized its expressive and unrestrained side. As a cultural form, the identity of independent comics is in the ambiguity of achievement because its existence depends on its ability to define

difference, and is vulnerable to the entity that independent comics try to define. "Cups" and "How Do You Take Your Coffee" do not state their identity directly as a particular type of comic in their print, but identity can be referenced from what is rejected and overturned (Connolly, 2002).

"Cups" and "How Do You Take Your Coffee" articulate by rejecting the standard format of mainstream publishing with a certain shape, size and number of pages. Likewise with the choice of stories that center on the self, or real characters around the author, especially when processed by placing the reader as a figure involved in the story. This can be seen as a cultural articulation, a creative effort that simultaneously subverts characterization standards and the premise of the script with structured conflicts like in industrial comics. If associated with indie comics in the 1990s and early 2000s, "Cups" and "How Do You Take Your Coffee" overturn the understanding that freedom is directly proportional to the straightforwardness of taboo messages and expressions, as well as the comic format which is limited to black and white, and relies on photocopy technology. "Cups" uses it as an experiment in telling a story through folding panels. Meanwhile, "How Do You Take Your Coffee" apart from showing a sweet story, the drawing style and choice of paper, even though it is small, tries to present a visual and physical book that gives a premium impression beyond the capabilities of digital printing technology.

CONCLUSION

Contemporary Independent comics in Indonesia are no longer recognizable just by their format. The convenience of digital printing technology reduces the boundaries of format differences. In contemporary independent comics in Indonesia, storytelling development still uses common comic devices, for example panels, word balloons and caption boxes. The difference is, these graphic devices can be freely explored because creative control is completely on the comic artist's side.

The cultural identity of contemporary Indonesian Independent Comics studied is not an essence that must be discovered. It is hoped that the discussion of it as a distinct comic entity can be a description that, although constantly changing and not fixed, can show the meaning of the identity category of contemporary independent comics that can be considered as subjects. Because as a subject, the cultural identity of contemporary Indonesian Independent Comics can achieve a strong position in the discourse of Indonesian comic culture which can become a cultural signifier at a certain time and will become a reference in the future.

The identity of contemporary independent comics in Indonesia, which seeks to show uniqueness and freedom, its construction remains dependent and based on the discourse of "Indonesian comic culture", especially in (1) contemporary mainstream comics and (2) independent comics in the previous era from 1995 to early 2000. In the case of the comics studied, dependence can be seen on the type of articulation presented. Referring to the industry, contemporary independent comics such as "Cups" and "How Do You Take Your Coffee?" show similarities in their intended target market of readers, although they also resist pressures such as industry standards that limit creative freedom. Referring to the generation of independent comics from 1995-early 2000, contemporary independent comics abandon straightforward expressions and break taboos, and articulate freedom as a choice in optimizing the artistic and unique side of storytelling.

Related to the discussion that put Comics as language system, independence in control creation created creative 'articulation' to the comic grammar; such as folded panel sequential, and word & picture relationship as unique as the author's personal style and treatment to embrace the visual storytelling and enhance the reading experience and participation. The identity struggle is thus found

through the tracing of the articulation of the comic grammar used in the 'language' of contemporary independent comics, which is rarely applied in the major publishing.

This study result wanted to show how a small step in the identity and comic studies of independent comics in Indonesia could bring an enlightenment closer toward the study of the visual grammar and storytelling as the creative articulation in Indonesia. This research is only limited to 2 types of case studied, and it is hoped that it can be continued with subsequent research that offers more discussions.

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E-PROCEEDING INTERNATIONAL CONFERENCE
ART ACADEMIC FORUM
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The global development of the art world has broken traditional boundaries, expanding beyond local areas to encompass international realms. This evolution, driven by advancements in technology and changing times, has transformed art into a complex entity with new values. The diversity of art development is influenced by the surrounding environment and elements within the art world. Educators and researchers in the art field are encouraged to actively participate in discussions to enrich artistic existence and contribute to human civilization. An academic forum is established to facilitate interdisciplinary discussions, involving fine arts, crafts, multimedia, and design. The collaboration with local and international universities aims to foster a deeper understanding of various art genres. The engagement of diverse disciplines is expected to generate multiple interpretations, leading to valuable conclusions that contribute to overcoming differences and offering new perspectives on art development. The objectives of the forum include strengthening cooperation with partner universities, deepening the understanding of art development in Southeast Asia and Asia, building art discourse, sharing experiences and knowledge, and contributing to human civilization through the advancement of art. The activities are scheduled from August 19th–22nd, 2023, at the Faculty of Visual Arts, ISI Yogyakarta, and Alana Hotel Yogyakarta. Participants include faculty members, invited guests from partner universities (Silpakorn University Thailand, UiTM Malaysia, Shanghai Art Collection Museum, ITB, ISI Denpasar, UKDW, & UNY Yogyakarta) and students from the Faculty of Visual Arts ISI Yogyakarta. The ultimate goal is to establish Southeast Asia and Asia as influential forces in global visual arts.

