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Editorial

The Vital Role of Art Therapy in Enriching Urban Senior Lives: A Call to Action

Bussakorn Binson⁺ Executive Director

The Community Canvas

Imagine a community where every senior has access to a palette of artistic activities: singing, watercolor painting, mindful drawing and/or collaborative art projects. Such initiatives have the potential to transform senior care from a model of mere sustenance to one of vibrant engagement and enrichment. By infusing art into the daily rhythm of our elders' lives, we can create a cultural renaissance that celebrates their wisdom, stories and creativity.

Governmental Support and Encouragement

For this vision to become a reality, it is imperative that government bodies recognize and support the integration of art therapy within community programs. This editorial calls on policymakers to see the arts not as a luxury, but as a vital component of urban senior care. Investment in training programs for art therapists, facilitators, and caregivers is a crucial step. Such training will empower leaders within communities to initiate and sustain arts-based programs, resulting in a ripple effect of well-being among our aging citizens.

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A Collaborative Effort

To ensure the success of such initiatives, collaboration across multiple sectors is necessary. Healthcare providers, artists, community organizations, and academic institutions must come together to create a framework that supports the nuanced needs of the elderly. Research into the benefits and best practices of art therapy for seniors should be encouraged and funded, providing a strong evidence base for further development of these programs.

Conclusion

As we look towards the future of urban culture, we must not forget those who have built the cities we live in today. Incorporating art therapy into senior care is not merely an act of compassion; it is an investment in the cultural and social capital of our urban communities. It is time for all stakeholders, including government, community leaders, and healthcare professionals, to take concerted action. Let us paint a new picture of aging—one where every stroke, note, and color brings our seniors back into the heart of urban culture, revitalizing their spirits and our cities alike.

Call to Action

This editorial serves as a clarion call for immediate and proactive measures. We must now turn our collective attention to the implementation of art therapy in urban senior care. Let us champion this cause, ensuring that our policies, programs, and research are aligned with the noble goal of enriching the lives of our elderly. Together, we can create a cultural shift where the arts become a cornerstone of aging gracefully and joyfully in our urban societies.

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Cultural Sustainability, Uniqueness and the Power

of Productive Living Heritage in Cirebon, Indonesia

Eko Nursanty⁺ & Indah Susilowati⁺⁺ (Indonesia)

Abstract

Sustainability is intricately linked to culture, people and place. When exploring heritage cities, visitors encounter a range of possibilities, from preserving historical sites to embracing living heritage and transitioning into modern heritage cities. The value of a historic city extends beyond its history and authenticity; it relies on its ability to fulfill specific functions and cater to visitors' desires. This study focuses on the authenticity of Cirebon, Indonesia, particularly its old historic center comprising four palaces and the Trusmi cultural village. Cirebon, strategically located in West Java, serves as a vital link between Jakarta and Surabaya. In 2022, its population reached 346,348 residents, with a density of 9,194 individuals per square kilometer. Using qualitative methods, the research uncovers two intertwining narratives that shape the city's unique and sustainable identity. It emphasizes that preserving Cirebon's distinctive sense of place, through nurturing cultural assets, is essential for a vibrant living heritage, ultimately enhancing the city's competitiveness in the contemporary era.

Keywords: *Living Heritage, Place Authenticity, City Heritage, SDG11, Indonesia*

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Introduction

Place and identity have a very close relationship with the ability of a place to provide a strong sense of attachment between the environment where a place is and the latter's people. Research by Twigger found that local people who live in such an environment will always converse their relationship with the local environment by supporting and developing their identity (Twigger-Ross & Uzzell, 1996). Meanwhile, those outside the environment who are not bound by it will consider the opinions of the local communities. Although there have been many studies related to place, environment, and psychological identity, few studies can explain the extent of a person's emotional attachment to a place based on the heritage strength of a city. Few studies focused on how and what guides someone in shaping their emotional strength in a place and how that place presents itself to be understood as a place with a unique identity compared to other places around it. In social psychology, a place becomes very prominent and has a strong identity because it has developed a distinct sense of place (Jaspal & Breakwell, 2014). Still, according to Jaspal and Breakwall, in the theoretical framework, there are two ways to regulate the overall capacity of a place in building its identity: (i) the systematic study of the factors that are part of the identity of a place. For example, a person's opinion on their identity is related to the opinion of a group of people regarding self-esteem or the main identity principle; (ii) at a later stage, this primary identity transforms into a shared social category (Jaspal & Breakwell, 2014).

This research concerns a place and its ability to compete with other places around it through an interdisciplinary approach. The anthropological and semiotics approach produces a theoretical model in the sociocultural field. It includes research on a place and its influence on the surrounding places (Raaphorst et al., 2017). Self-identity within a social group; here, the community of a place of residence has a description that comes from membership in their social category. The identification of the place is revealed by each member of a group of people at a specific location. This group's identity will be considered a social identity (Uzzell, Pol & Badenas, 2002). The identity of a place is also very dynamic, which requires a more radical re-evaluation of identity construction. The inhabitation process and the projection of place identity are the same as the process in a group of people within it and their identity (Droseltis & Vignoles, 2010).

Cirebon is located on the northern coast of Java Island, situated on the main historical road from East to West that connects the provincial capital cities of Jakarta (National Capital City), Semarang (Central Java Province), and Surabaya (East Java Province). The total population of Cirebon in 2022 was 346,348 people. The population growth rate is 1.25 percent per year, influenced by factors such as birth, death, and migration (Cirebon Government, 2022).

The city's history began in a small village called Sarumban, built by Ki Gedeng Tapa, a Javanese Muslim missionary in the fifteenth century BCE. Over time, Cirebon developed into a bustling town called "Caruban," which means "United" - given such a name because of the mixed population coming from various cultures and origins, including Sundanese, Javanese, Chinese, and Arabs, as well as religions, languages, and customs. Then over time, the pronunciation of the word "Caruban" changed to "Carbon" and finally "Cirebon" (Rachman & Salim, 2018).

Cirebon was selected by utilizing a cultural property attributed to a significant local cultural product in a structured selection procedure carried out among historic cities on the island of Java. The art of Batik involves coloring a whole piece of fabric using wax-resist dyeing. This method was first practised on the island of Java in Indonesia. Since 2009, it has been included on the Representative List of the Intangible Cultural Heritage of Humanity which UNESCO maintains (UNESCO, 2009). Figure 1 below shows the heritage district of Cirebon, including the old palaces and the old kampungs as living heritage areas.

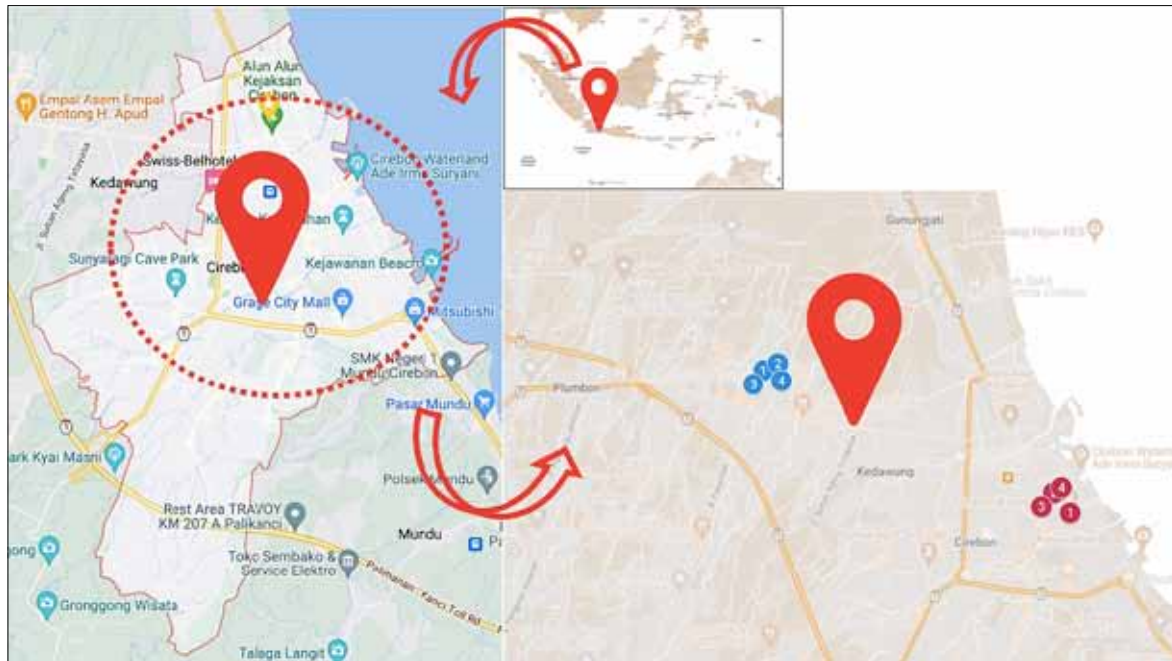


Figure 1. Two clusters of heritage areas (Trusmi in blue color and Four Palaces in maroon color) in the city of Cirebon. Mapping by author using based on google map.

Literature Review

The very rapid mobility accompanied by the existing demographic growth forces a place to display its competitive ability and fight for its opportunity to be chosen by the "market" while struggling to differentiate itself from others (Kavaratzis, 2004). Awareness of finding their environmental identity to win this competition every so often borrows marketing principles as an effort to provide an image or brand that matches the expectations of the "market" that is the target. (Mueller & Schade, 2012). Interpreting a city as a place is by processing perceptions and images of the place itself. (Ashworth & Kavaratzis 2009). More research is needed to determine local distinctiveness. It's a key part of a place's sense of belonging and relates to its semiotics and architecture. Transferring the idea of expressing symbolic involvement with branding to develop the ability to compete in a place needs refinement. The reference ground of previous studies to establish a new understanding of Reciprocal Appeals in a heritage city is structured based on the parts: semiotic and place; enactment and or versus notion; reciprocally.

In various studies, architecture has been considered an object in the communicative process, but the particular emphasis on communication differs. Several studies have explored the role of architecture within the realm of communication, each with varying degrees of

emphasis. Effective communication is crucial among architects, clients, and other stakeholders in the architectural process, especially within the context of evolving societal dynamics and architectural regulations (Tarasova & Markova, 2018). Devetakovic explores the contemporary communication of architectural ideas, highlighting the importance of representing the generic process and involving external participants in the creation process (M. Devetakovic, 2002). Smolander examines the stakeholders involved in architecture design in software companies and their rationales for describing architecture, emphasizing communication, interpretation, and decision-making (Smolander, 2002). Norouzi discusses the complexities of communication in architectural projects, including the impact of technology, design information management systems, and diverse stakeholder backgrounds (Norouzi et al., 2015).

Some researchers are interested in the "meaning of architecture" experienced by a person with a specific motivation. In contrast, others try to analyze the function of a building more abstractly by considering the principle of perspective (Broadbent, Bunt & Jencks, 1980).

It is becoming increasingly clear to us that there are two primary motivations for attempting a semiotic analysis of an architectural object: (i) to know the laws and principles of semiotics for a better understanding of the theory of functions, and (ii) to plan a 'better' place for a particular use or to find a new use that can be excluded from an existing building (Mueller & Schade 2012). The science of semiotics was included in research concerning place and space for the first time carried out by Peirce in 1860, which involved the relationship between places and the signs that appeared in them, where social identity was defined as a common synthesis carrier of normative rules in plural elements, where this is a standard feature of natural phenomena understood as semiotics (Morton, 2006).

The various processes that occur in a place, including evolution, continuity, legislation, learning, representation, acceleration, habits, interactions, and several other things, are all things that are meant in phenomena and are connected. These are ultimately seen as symbolic representations that tie a sign to an object or place representing the expected message. The interpretation that appears to translate the message is a mediation effort by the community. Semiotic mediation involves the relationship between the sign's components (Peirce, 2015). Not many semiotics directly discussed the identity of a place, especially the quality of the existing built environment and the ability of this quality as an identity symbol of the occupation group according to the expected goals. The quality of the existing environment and identities symbol of the community depends on intangible heritage. The revival of intangible heritage has bolstered cooperation among various sectors, including urban communities, educational institutions, academic networks, and local authorities. This revitalization has also facilitated the transfer of cultural knowledge between urban and suburban areas (Denes & Pradit, 2022).

The expression of personal or group identity can be achieved through the connotative character of an environment. It is perhaps the most intangible and overlooked quality of actions in an environment. Still, it is the most significant because it affects the quality of a sense of a place. (Appleyard, 1979). A study found that no matter how well a work of architecture is designed, if the building and the environment are considered symbolic forms imported from outside, it will still be felt like a harmful change of place for the occupants. Themes like these often recur in conflicting environments (Piquard & Swenarton, 2011).

Social meaning can often confuse existing facts and change the mental perception of society in general. For example, an ocean wave that rumbles through the night on a beach can have a decibel level of sound in heavy traffic. However, the perceptions held by the community are very different when it concerns the perception of the sea as something natural and road traffic is artificial noise made by humans. Thus, this research seeks to reveal the new scientific insights needed by space researchers and their competitiveness to be aware of the symbolic content of the environment or symbolic traits in a place that is very helpful for further development.

Methods

This study used qualitative research methodologies to investigate how a heritage city might increase their competitiveness by utilizing the potential of several parts of the region it owns, including heritage buildings, living heritage, and the development area of urban space.

The study was conducted through multiple stages of data collection, including (i) literature study on the history of the establishment of the city of Cirebon from multiple literary sources; (ii) interviews with community leaders and activists of cultural heritage products, in this case, a total of 303 batik entrepreneurs and craftsmen in the city of Cirebon in the 2020-2022 research period; (iii) a trending analysis of social media or big data topics which was conducted during the 2020-2022 research period and using traditional batik of Cirebon as topic; and (iv) the distribution of online questionnaires to the Indonesian traveling community consisting of 114 local travelers from all over Indonesia and have visited the city of Cirebon during the 2012-2022 visit period. Questioner deployed in August 2022. Historical data are evaluated using a sequence of time periods (timelines) in locations associated with the occurrence of history or the mapping process. Participant observation, in-depth interviews, and focus groups are the three most frequent qualitative methodologies, each of which is covered in length in its module. Each technique is ideally suited for collecting a particular type of data.

The literature study that provides insights into the history and development of the city of Cirebon has become the sources for this qualitative research method. Hermawan (2020) highlighting how the center of community activities shifted from the palace to areas around ports, train stations, and plantation areas (Hermawan, Abrianto & Mainaki, 2020). Halim (2017) focuses on the revitalization of the old town of Cirebon, emphasizing the importance of visual communication design, architecture, and product design in preserving and promoting the city's heritage (Halim, Susilastuti & Armas, 2017). Lastly, Segara (2021) investigates the toponyms in Cirebon City, highlighting their local values and their connection to geographical, biological, socio-historical elements, folklore, and local figures (Segara & Hermansyah, 2021)

The research followed a thematic analysis, systematically interpreted the descriptive data, and turned it into concepts and themes. Researchers realize that qualitative approaches provide a source of well-grounded, comprehensive descriptions and explanations of processes in recognizable local settings, implying that the descriptions emerge from data yet provide insight beyond numbers. Qualitative data analysis can be divided into five steps: compiling, deconstructing, reassembling, interpreting, and concluding (Castleberry &

Nolen, 2018). Thematic analysis is a qualitative data analysis method that involves searching across a data collection to locate, analyze, and report on repeating patterns. It is a data description approach but requires interpretation in selecting codes and generating themes (Braun & Clarke, 2006). The categories were based on cultural factors, such as place and function, community skills and economic factors (see figure 2's table below).

Zone	People	Place	Culture
A	There are over 1,000 batik artisans who work daily to produce these fine masterpieces.	The space and environment are still maintained using existing traditions since 1400 CE.	Trusmi village is one of the villages that initially grew as a village in the Islamic cultural tradition which later developed under the influence of Hinduistic culture.
B	People of the Sultanate of Cirebon since 1500 CE.	Established in 1500 CE, initially only one Sultanate of Cirebon but eventually became the four palaces of Cirebon with different kings.	Islamic cultural rule divided the kingdom according to the number of sons in 1677 without the war of power struggle.
C	The Indonesian Spatial Planning Law of 1950 led to the creation of the municipality of Cirebon.	The development of the Cirebon city area, which provides space for the growth of local and immigrant populations, is following the development needs of a modern city.	Cirebon experienced rapid economic and urban extensification growth, focusing on developing the local economy and area.
D	Characterized by modern community life and making Cirebon a tourist and cultural city.	The creation of a contemporary district centre that connects zone A cities in the heritage area to zone B in the monarchy area and the Cirebon commercial hub.	The community generates economic growth and space utilizing the business centre model, obtaining authenticity from tourist villages, and integrating these two things physically and virtually by establishing a modern market in Cirebon City, away from the city center but close to the traditional hamlet of Trusmi.

Figure 2. Table of the four types and distribution of research zone themes in the city of Cirebon by author.

Results and Discussion

Heritage cities in Java have unique narratives manifested in the tangible and intangible culture based on their history that has been sustained and maintained for generations. It is not only in the quantity of time but also in the quality of changes those cities possessed. Cirebon is such one of the cities. To comprehend cultural sustainability, one must first grasp the components of intangible cultural heritage and the efforts to preserve it that make a culture sustainable for future generations.

The intangible cultural heritage elements are expressed, among others, in traditions and oral expressions, including language (Wiktor-Mach, 2020). In this context, UNESCO has also recognized that intangible culture is manifested as a heritage and tradition and has nature as a contemporary element. It is where intangible cultural heritage can become an heirloom if recognized by the community, social group or the individuals who create, maintain, and disseminate it. (Smith & Akagawa, 2009). Intangible cultural heritage is considered a significant source of cultural diversity and a guarantee of sustainable development, con-

stantly being recreated by communities and groups in response to their environment, interaction with nature and history (Lenzerini, 2011).

Based on the timeline analysis, four zones met the criteria for periodization of the growth of spaces and communities that are still functioning and can be recognized by their characteristics (see Figure 3).

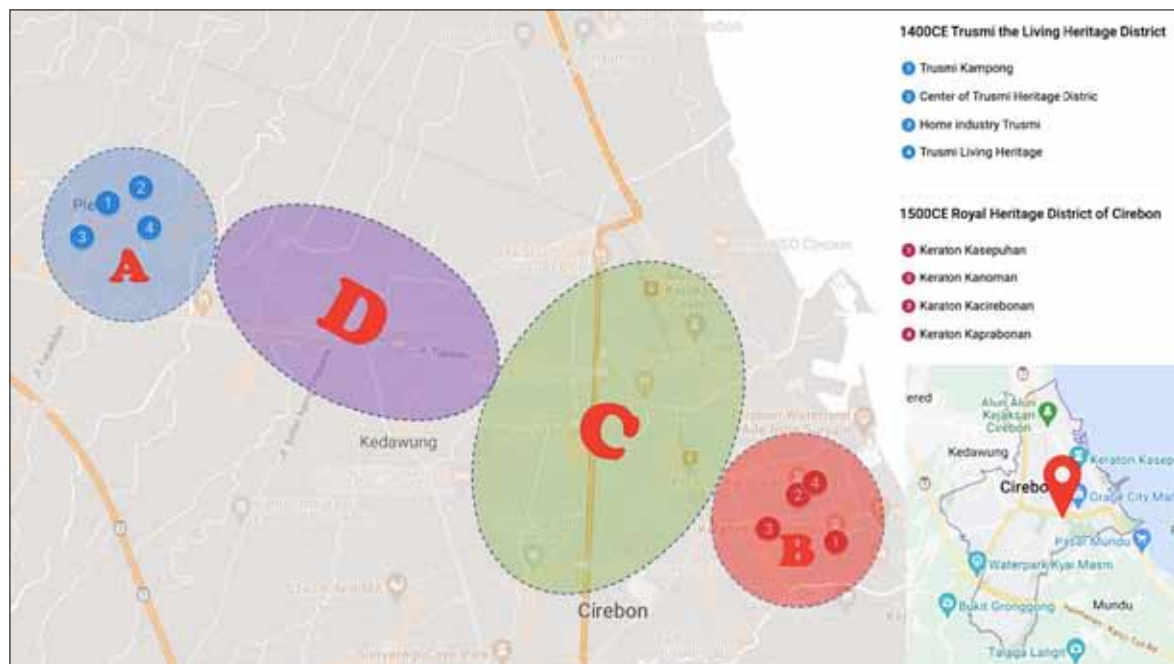


Figure 3. Zones of areas based on the timeline and development of space functions. Mapping by author using based on google map.

The four zones shown in figure 2 above are organized around two main themes: zone A, the establishment of Trusmi Village as the residence of the Cirebon settlement's founder in 1400, and zone B, the establishment of the Cirebon palace area, which began with one palace and expanded to four palaces.

Using data from the above figures, a pattern is identified that forms the authenticity of the present spatial pattern in the city of Cirebon; this will significantly influence the city's future competitiveness. In the globally competitive tourism business, authentic intangible cultural heritage (ICH) offers a community with a distinct selling factor. However, the commodification of ICH has jeopardized its authenticity, necessitating sustainable tourism measures for successfully transmitting and promoting ICH as a tourism resource (Kim, Whitford & Arcodia, 2019).

There is little debate in the heritage tourism literature that heritage value is determined by its authenticity. However, within the same corpus of literature, there is an ongoing argument about what defines authenticity. Authenticity has been described as distinctness and uniqueness from others and imparting cultural identity to communities. Furthermore, au-

thenticity encompasses cultural heritage traditions, practices, spirit, feelings, and historical and social dimensions (Revilla & Dodd, 2003), all of which contribute to a sense of historical and cultural continuity. Authenticity is constructed in numerous ways by various stakeholders and by the social and political contexts in which they exist. When tangible cultural heritage pieces were of worldwide relevance, their authenticity was scientifically interpreted, with the tangible resource's materials, design, and location being defined (Scott, 2015).

People play an essential role in legacy since they constantly shape the physical form and environment of the city. As a result, cultural legacy cannot be separated from the overall urban reality because history cannot be used as the sole criterion for separating heritage from its social fabric. Cities have traditionally been essential venues to discover and exhibit intangible historical values associated with collective identities (Veldpaus, 2015).

Legacy refers to the impact and influence that individuals, communities, or societies have on their surroundings, particularly in shaping the physical form and environment of a city. It encompasses the ongoing processes of cultural, social, and historical development that contribute to the identity and character of a place. In the context mentioned, legacy highlights the idea that cultural heritage cannot be isolated from the broader urban context, as it is continually shaped by the people and their interactions with the city.

Cirebon's history and timeline of changes have led to a pattern of spatial development that defines the strength of its four palaces, which have become the city's economic and cultural centres (see Figure 4).

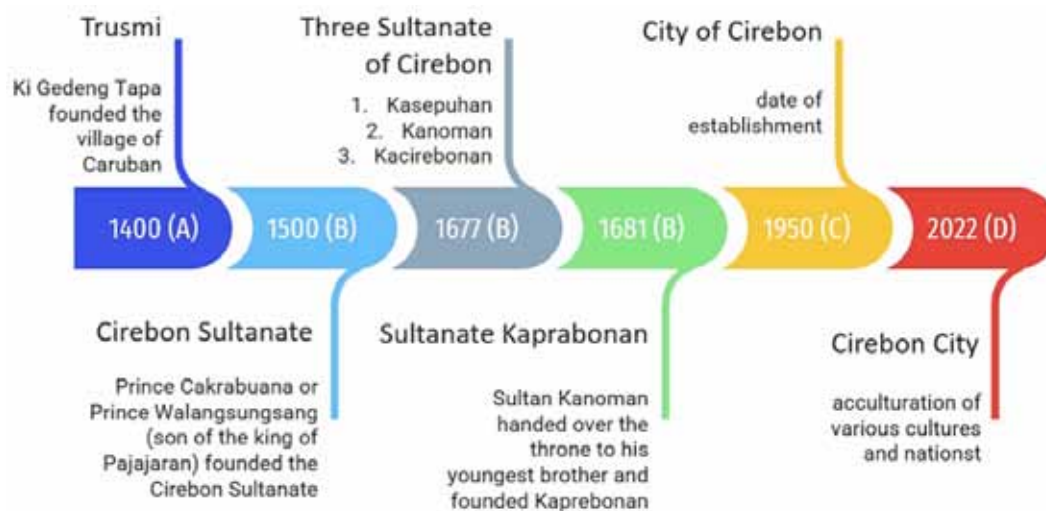


Figure 4. The history of the development of Cirebon City, timeline analysis based on various sources.

Figure 4 above provides a foundation for forming the Heritage Urban Landscape (HUL) process. The formation of space in zones A and B that can still be found today is an alternative, often an option for existing tourists. Using several tourists who are members of the heritage travelling group, researchers found the results of preferences depicted in figure 5 below.

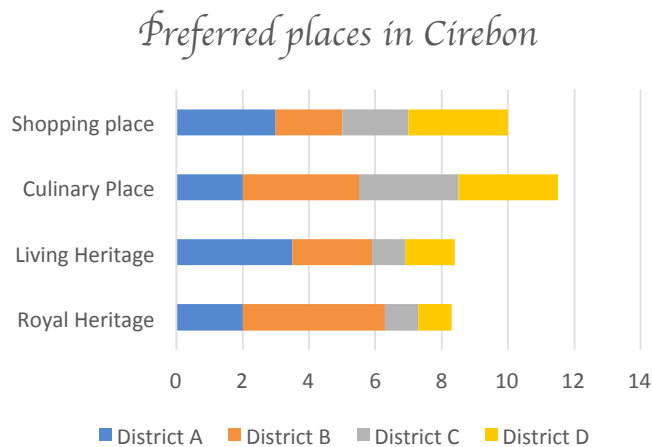


Figure 5. Preferred Place in Cirebon City.

Figure 5 above finds that the public can recognize the four zones of space with the themes specified above using physical characteristics that they consider the easiest to remember. District A, Trusmi Village, is not only very well known for having potential as a living heritage but also as a shopping place with hundreds of batik craftsmen and artists in it as well as a modern batik sales centre in this area. District B, which has been known as the area of the four palaces and the kingdom of Cirebon, is very well known to the public as a royal heritage area and a traditional culinary place in great demand.

Cirebon as a City of Palaces: Enhancing Competitiveness

Intangible heritage is frequently overlooked in the urban and regional planning processes. There is a misunderstanding of the complexity and pervasiveness of intangible values and their direct interaction with the city's physical form. Traditional knowledge is often considered independent from the physical fabric. In contrast, intangible qualities (individual, social, and institutional) gradually fade with the loss of the meaning of urban areas, which serve as the foundation of the genius loci (Petzet, 2008).

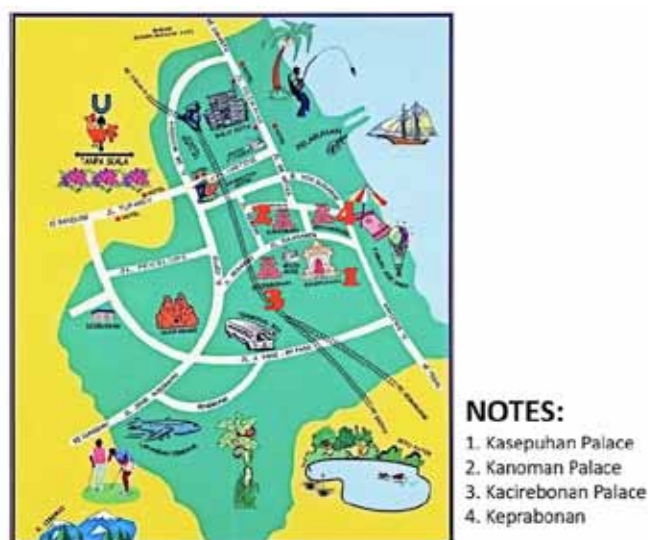


Figure 6. An overview of the location of the four royal palaces at the centre of Cirebon City. Mapping by Metropolitan Cirebon Raya.

Figure 6 above describes the spatial pattern of the city of Cirebon that is developing today, where four pieces of the Cirebon royal palace, namely: 1. Kasepuhan Palace; 2. Kanoman Palace; 3. Kacirebonan Palace and 4. Keprabonan Palace is the centre of Cirebon city development today, which adapts to the needs of a modern city. Pictures of the four palaces can be seen in figure 7 below.



Figure 7. Top left, Kasepuhan Palace; top right, Kacirebonan Palace; bottom left, Kanoman Palace born and divided based on the right of the crown prince as strong as Islamic teachings. Bottom right, "palace" for the fourth son specifically to educate the crown princes known as the place of education (Padepokan). Photos by Nursanty, 2022.

Cirebon's tourism industry and the creative economy are inextricably linked to the city's history. Silk Road in the spread of Islam, trade, and acculturation are so smooth that ethnic diversification plays a significant role in tourist activities. With a qualitative approach that emphasizes the phenomenon of ethnic Cirebon with tourist objects that vary in every corner of this city, this paper confirms that Cirebon is a tourist destination. Its uniqueness in terms of religion, culture, history, and the creative economy, particularly religious tourism, will make this city tourist-friendly (Jaelani, 2016). The cultural tourism industry is important to many cities, regions, and countries from an economic and cultural point of view. It became a place for tourism because of its focus on cultural heritage (Taylor, 2004). An important part of cultural tourism is the travel industry sites that could be used for cultural tourism. It means the growth of the tourism industry based on activities and man-made sites, buildings, and landscapes created through industrial processes in the past. Many traditional industrial areas have been in a downward spiral for decades, and tourism is seen as a valuable tool for reshaping regional and economic growth. Because of this, the development of travellers' places in Cirebon is vital for tourism and the creative industries.

The city of Cirebon is designated as one of the development's metropolitan areas. It is part of the leading areas in which Ciayumajakuning (Cirebon - Indramayu - Majalengka - Kuningan) with the top sectors of agriculture, industry, and fisheries, in national spatial planning, based on Government Regulation No. 26, 2008. Cirebon's status as PKN is an urban area that is the main hub for exports and imports, an international gateway to the region, and the centre of industrial and service activities on a national scale or for some provinces (Rohadin, 2021).

Cirebon could also benefit from a handcraft sector in conjunction with local artisans. Even this craft business can contribute to the development of Cirebon's creative economy. The tourism sector and creative economy in Cirebon are inextricably linked to the historical components of Cirebon's growth and development as part of the Maritime Silk Road and the spread of Islam narrative. Development of the tourism industry needed to expand to maximize the full potential of such cultural heritage, history, and community creativity, which are concrete products of arts, crafts, and culinary. Since the beginning of Cirebon's development, the city's tourist attractions, culture, ethnicity, religion, history, and creative economy can be accessed from nearly every corner of the region, particularly religious tourism, making it a tourist-friendly destination.

Trusmi – The Living Heritage

Ki Buyut Trusmi Complex Site is one of a total of 122 Kabuyutan Sites in Cirebon. One aspect that has aided the growth of Islam in this area is the proliferation of Kabuyutan sites in Cirebon. Because of the massive scale of the complex sites, the history of its construction, pilgrims, and an important tradition that is still perpetuated now, this site is one of the largest and most important Kabuyutan in Cirebon (Mujabuddawat, 2016).

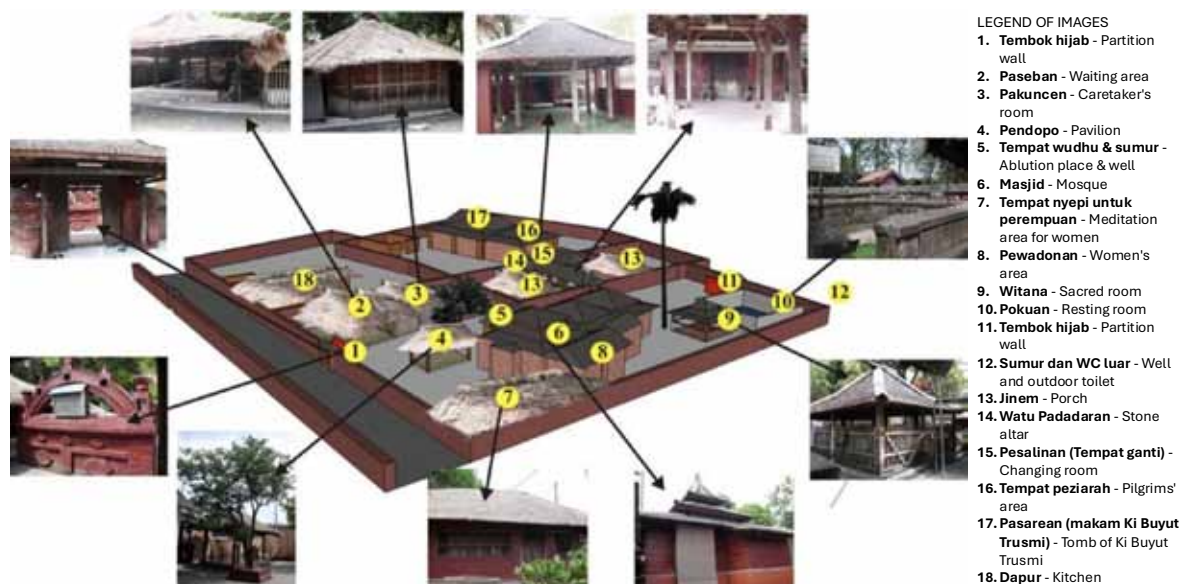


Figure 8. The area of Trusmi Village and the authentic function of space in it. Photos by Ade Maftuhah Sa'adah (Sa'adah 2012a).

Kampong Trusmi, located in Trusmi village, Plered subdistrict, Cirebon, is one of the tourist attractions in the city. In addition to batik shops, guests can observe several undeveloped ceremonies in this area (Sa'adah, 2012) shown in figure 9 below.



Figure 9. Various places in Trusmi as the bearers of the people's narrative brand. Photos taken by Nursanty, 2021.

Cultural heritage is no longer limited to monuments, archaeological sites, and object collections. It also encompasses oral traditions, performing arts, social practices, rituals, celebratory events, knowledge and practices concerning nature and the universe, and the knowledge and skills to manufacture traditional crafts, which are together classified as intangible heritage values (García-Hernández, De la Calle-Vaquero & Yubero, 2017).

Local people keep the intangible heritage alive through their knowledge and skills and through rituals, festivals, and other social events. The built environment and natural environment of historic urban landscapes often play an irreplaceable role in the expression of intangible cultural heritage in the form of public buildings, housing, and places for people to do social activities together at the city or neighborhood unit level (Blake, 2018). People's memories of buildings and spaces are often a big part of their heritage value for the people who live there. In traditional communities, the fact that these memories are kept alive is a part of the social capital. Social capital is defined as social networks or norms that help people in a particular area build relationships, agree on common goals, and grow in a way that is good for everyone. It is an important form of capital with the same potential power as economic capital, environmental capital, and cultural capital. Keeping existing social structures, territories, and identities is the most important for social sustainability. Social capital, then, is a way to measure the social quality of places that are still used (Chang & Zhu, 2012).

The Power of Place Brand: Associative brand and Aspirative Brand

Two types of local power underlie the emergence of significant influence in places considered unique, such as Cirebon's palaces. It follows the concept that a place is a space for humans individually to live and reproduce; on the other hand, it is a space for humans to get their existence by gathering socially. (Schneider, 1987). The palace power development phenomenon in Cirebon based on the two types of strengths above is explained in Figure 8 below. There are three types of uniqueness in places in the historical city of Cirebon. First is the People Narrative in the form of 8 tombs and sacred places in Cirebon, which has become important in the chronological list of archaeological objects there. The second is establishing four palaces in Cirebon, which have ties both in lineage and function of the place, without struggle and bloodshed at each stage of the succession. (Khamdi, 2009). Figure 10 represents the evolution of each element, which initially has its features and gradu-

ally combines in figure 10 (a). When it joins, it has a strength-based in the form of Royal Narrative that is still clearly recognized today. Within the palaces, the Communal Narrative and People Narrative relics are still traceable, as described in Figure 10 (b) diagram.

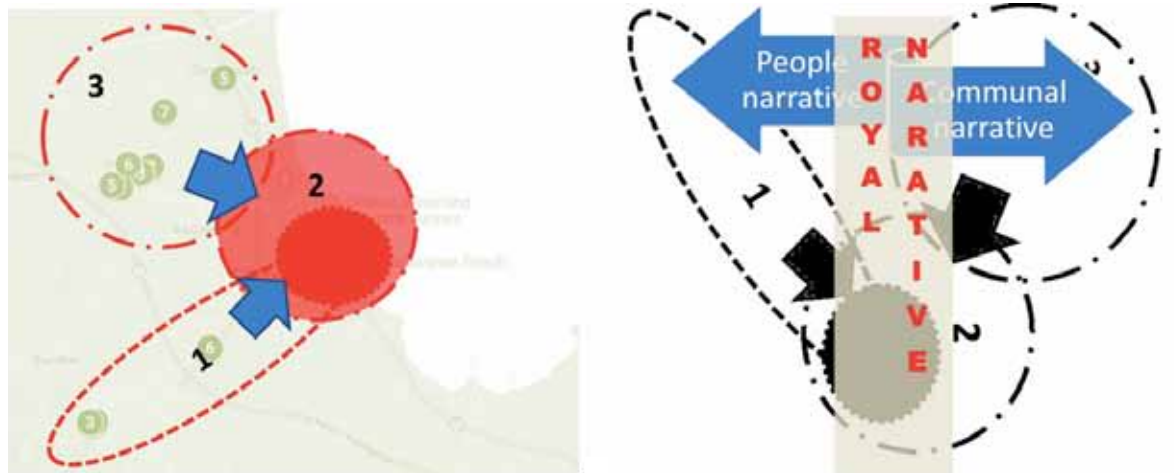


Figure 10. Left, the main unique theme based on the essential elements of reciprocity of place. Right, formation framework is still visible today.

The Power of Characteristic Place: The Need for Growth and Development

Based on its long history, Cirebon is very different from the other royal heritage cities in Java, such as Surakarta and Yogyakarta, the legacy of the most prominent Islamic Mataram kingdom on Java Island. In Cirebon, the three palaces (and the fourth "palace" generally considered informal or non-legitimate) emerged slowly but still based on Islamic teaching. The city's evolution started from a hamlet for Islamic religious study, providing the unique underlying concept of the formation of the royal city of Cirebon. The king is not considered the divine representative, but the king is seen as the central figure of the religious leader and the community leader's prominent figure. No specific pattern or prohibition on the Batik motif is officially declared to be the royal family's privilege and is not permitted. The reason is that there is no distinction between royal descendants and commoners in Islam.

The Batik craft emanated from the palace also has a very different role than the Batiks produced from other palaces. Cirebon palaces' Batiks carried religious prayer, hope and high artistic manifestation. In Batik Cirebon, there are no hierarchical motifs or motifs that kings or royal members can only use. All Batik motifs created in the palaces can be created and openly studied by the public. According to Islamic postulation, which does not accept the king as an incarnation of a god. The king is universally regarded as the egalitarian human society's leader. The personal narrative may grow into Communal, and some would reach the top to become Royal. The main push factor for this upward mobility is religion. The aristocracy would somehow spread the seeds of strong "DNA" back into the community and create a unique place on the Communal level.

Recreational opportunities are a source of enjoyment and engagement for individuals from diverse cultural backgrounds (Nilipour, 2023). However, these opportunities can also create conflicts, issues, and problems in terms of connecting with cultural diversity. For example, different cultural groups may have varying preferences for recreational activities and set-

tings. This can lead to clashes between different user groups who have incompatible interests and desires related to certain land-use units (Komossa, 2019).

Cirebon's cultural diversity naturally arises due to the factor of port city trading. Its development gave rise to harmonious and egalitarian relationships of the diversity of origins without distinction in social status. Stylistic expression based on the appreciation of the natural elements from the local environment is combined with beautiful decorative plate motifs from China that are beautifully arranged on the building's interior and exterior. All of this led to the creation of unique city brandings founded in Cirebon's living legacy, such as "Shrimp City," "City of Batik" and "A City of Many Palaces." All is understood as the city DNA's unique unity, which is not the same as anywhere else. Whereas according to research on various aspects of the formation of a brand of place, the elements that are believed to be able to support the formation of a place's brand (Anholt, 2012) are as follows: (i) the presence or position of the place; (ii) the physical and perceptual aspect of the place, in this case, a narrative; (iii) the potential in the form of the ability to grow economically; (iv) the people both individually and socially; (v) the pulse, the vibration, or the spirit which produces a variety of creativity for the city; and (vi) the accessories as prerequisites that make it easier for residents to live and work.

As shown in Figure 10 above, the two main sides in the forming power of the place's uniqueness in the city of Cirebon are merged into a combined force that is also unique and different from its forming elements. The individuality of the People Narrative declined in parallel with the rising of the Royal Narrative. The Community Narrative can grow together with Royal Narrative until now because it has deep historical roots and, therefore, more robust and resilient "DNA." Figure 11 below illustrates the present situation, where the productive living heritage of Cirebon is sustained by the two Communal and strong Aristocratic narratives that are rooted in six urban places: Kasepuhan Palace, Kacirebonan Palace, Kanoman Palace, Trusmi Village, Trusmi Central Batik Industrial Area, and Trusmi Living Heritage Museum.



Figure 11. Stability Diagram depicting the two pillars of the unique strength of the city of Cirebon.

Conclusion

Historical cities draw visitors because of their rich heritage, but they also have other attractions, such as the stories of locals' pride and joy. People remain an essential catalyst or the carrier of the narrative. Cirebon, today known as a "City of Many Palaces," has been developing in harmony from the past all the way up to the present thanks to the different royal components found within the city. It is different from other Javanese palaces in other cities because of the influence of Islamic leadership values and obligations, which all its people entirely accept.

From the study in Cirebon, the city's unique branding is displayed through the two stable narrative elements' reciprocal relationship, namely the community's and Aristocratism's narratives. It can be called the reciprocal appeals of the place "étalage." In a heritage city like Cirebon, this reciprocal relationship became the powerhouse of productive living heritage, increasing the city's competitive advantages in this modern era. It is the power of productive living heritage.

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Chinese Traditional Paper- Folding Practices as a Social Aesthetic

of Baan Saan Community Art, Phuket Old Town: A Case Study

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Abstract

This research utilizes an anthropological lens to examine the understanding of social aesthetics within a local market community with an unique traditional heritage. The data for this research was collected during a series of workshops aimed at creating community art in the Baan Saan Community of Phuket, Thailand. The artists and community leaders at first proposed graffiti and wall paintings, which are often found in modern South-East Asian tourist hotspots. However, the community members chose instead to conduct a workshop on traditional methods of folding joss paper. The joss paper is contextualized in this merchant community where the aesthetic value of exchange and Hokkien-Chinese cosmology are commemorated. The research found that the material in everyday life could initiate social aestheticism when it is elevated to an artistic state in the process of the workshop. Thereafter, the social relations of community members are strengthened through the engagement with the traditional material and artistic process.

Keywords: *Community Art, Chinese Practice, Phuket Old Town, Social Aesthetic, Thailand*

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Introduction

This article aims to study the social aesthetic of community art through examining art forms, meanings of art forms, and mechanisms of community participation in art-making. Community art is a concept that focuses on designing a process for community members to participate in creating artwork. Art is utilized to communicate the story of the community, by allowing the members to express their opinions and convey their thoughts independently (Fortunati, 2005). Throughout the process, each member develops a sense of belonging to the community (Rothenberg, 1998) and expresses their identity to the public (Niziolek, 2018). Art thus becomes a bottom-up tool of expression to communicate social, cultural, and political matters (Niziolek, 2010). In many cities, artforms are represented as the language of people in manifesting cultural, racial, gendered, and religious differences.

The aesthetics become a basis of sociality in which persons interact to each other by seeing and hearing. Through the sensory process, people distinguish their personal sphere (Simmel, 1997; Munday & Anderson, 2016) and unite the social groups with people who has aesthetic perception in common (Simmel, 1968). Therefore, social aesthetics engage in social context (Berleant, 2005) particular to communications, politics, and productions (Carnival & Pinotti, 2021). In the process to create social aesthetics, the center is a material in everyday life whose values are different by the perception based on social background of a person (Olcese & Savage, 2015). This makes the social aesthetics dynamic. When a traditional material faces with transformation, its production and communication are reconstructed to maintain the social aesthetics (Benzecry, 2015). For this reason, researchers raised the question whether it is possible to create social aesthetics by utilizing traditional materials provided by community members.

Phuket is one of the world's most popular tourist destinations. However, there has been a recent trend in rebranding the city image to attract visitors who are interested in Phuket's unique history and cultural traditions. The initiative of Phuket Old Town refurbishment has brought community participation into the municipality's planning of city development. In the past, speedy-paced economic growth has arguably caused the partial abandonment of Phuket Town's cultural identities, and to revivify the city's unique traditions, a bottom-up process is one of the essential methods for sustainable development. The community members were encouraged to appreciate their quotidian practices and cultures, as these would cultivate the sense of belonging among them to protect and conserve their own cultural resources through the restoration of traditional architecture. The first asset in the restorative plan was the residential shophouses in Thalang Road, known as Sino-Portuguese or Sino-European Architecture. They are old buildings that convey the historical significance of town planning and architectural knowledge, influenced by colonially-inspired styles in Penang and Singapore (Sittichoke, 2017). The building owners worked collaboratively with the municipality, consulting with engineers and architects, in renovating the old buildings (Chomsakorn, n.d.). The community members are active players in reviving their cultural heritage in many ways, such as researching traditional clothes and cuisines, organizing Baba wedding events, and revitalizing old customs and religious ceremonies to attract tourists to visit the community. Thus, the motivation of cultural preservation has been supported by a tourism-based economy, as the locals can generate incomes and uphold their traditions in the long term. Phuket Old Town has developed significantly due to the tireless efforts of community members in creating cultural activities.

In 2016, the concepts of street art and graffiti were first introduced to Phuket Old Town by a group of local creators called “So Phuket.” They established the project of “Food Art Old Town” (F.A.T.) by inviting both Thai and international graffiti artists, such as Alex Face, Ludmila Letnikova, Muebon, and Rukkit Kuanhawate, to create street art showing Phuket traditional food at 12 notable locations in the old town (Monk, 2016). Since Phuket was recognized as one of the Creative Cities of Gastronomy in 2015 by UNESCO, the purpose of the street art was not just to uplift the old town community, but to promote the local cuisines as a publicity campaign for tourists.

In this regard, street arts are perceived as one of the strategic tools for communicating local ways of life to the public for the municipal government and community members. The mayor considers that art should be a festive event to attract tourists.¹ However, there is some skepticism about whether street art can represent the art of the community. To what degree can street art involve the participation of community members? Are there any other forms of art more relatable to community members?

To answer these questions, researchers made a collaboration with the members of Baan Saan Market Community to create street art. There had a plan to collect ethnographic data during the art workshop. The selected community is well-known as the oldest and largest market of Phuket Municipality, known as Baan Saan market, selling fresh ingredients for local people and restaurants from 3 am to 11 am every morning. Within the market vicinity, there are shophouses including small grocery shops known *show-hui*,² cash-and-carry, builders’ merchants, draperies, and gold shops located along the main road. This market community was the main economic center and public-transit hub of Phuket from the 1950s to the 1990s. By the intrusion of modern trades since last decade, the shops in Baan Saan Market Community have gradually been less in demand from the locals. Many younger generations chose not to continue their family business.

In 2021, the representatives of Baan Saan Market Community introduced the concept of “reviving community and cultural values through forming a creative district” that has been promoted by Creative Economy Agency (CEA) with the main stakeholders including Phuket Municipality, local artists, community members, and neighbors. Moreover, there were representatives from educational institutions, benevolent foundations, and business coalitions related to the field of cultural and creative sectors involved in the project. It can be noted that many organizations in the world have been utilizing creative-based activities to uplift the community environments through civic engagement as appeared in Youth ARTivism project in Canada (Solanki, Speer, and Huang, 2014) and DIY and DIWO projects in Indonesia (Larasati et al., 2022), to raise the social issue occurred in Africa (Bekoe et al., 2021), or to revitalize old communities by using performance art, for example in Sapparo, Japan (Iwasawa, 2013).

The street art project was introduced to Baan Saan Community. However, after the meeting among community members, they want not to produce street art and propose the idea to conduct the workshop which teaches participants to fold joss paper instead. The researchers and representative team of the community decided to conduct the folding joss paper workshop and utilize the workshop to support the extension of social relations among community members. Moreover, the participant observation had been conducted during

the workshop aim at understanding the social mechanism that support the traditional materials to be a part of the community art.

Objectives of the Study

1. To examine the cultural means in the process of folding joss paper workshop.
2. To analyze how the folding joss paper activity is interrelated with the conception of social aesthetic.

Theoretical Framework: Aestheticization and Production

Since the colonization, the forms of Western art – painting, sculpting, and printing – have become dominant (Rampley, 2005). This has influenced people in various localities to study and mainly recognize the aesthetic value of Western art. At the same time, the aesthetic value of local arts and crafts and traditional materials seem to be less recognized.

In fact, the perception of aesthetics in each society is varied. Art is created within a cultural system, and exhibits collective formation (Geertz, 1993). Within any cultural system, the interaction between people and objects initiates an aestheticization process whereby the concept of aesthetics is formed (Svašek, 2007). People modify materials and eventually create objects which become symbols. Such symbols communicate values – namely, social norms and ethics – which are the foundation of aesthetics. In this regard, the aesthetic is more subjective. The aesthetic of art is not only from the essence of the art objects, but also from social perception.

Aesthetics are multiple, in accordance with social divisions such as class, gender, nationality, religion, and day-to-day practices of people (Bourdieu, 2010). The multiple aesthetic forms can be observed from the case of art in different societies. Among tribal people, art can become a medium which communicates myths with a belief that its magical power could entail high productivity.³ For working class people, aesthetics is more concerned with morality and ethical standards. Human beings each judge the beauty of art by their own moral standard. Art often portrays religious cosmology. Paintings of deities, mantras, and sacred words are important and included in the environment of daily life.

Outside the domain of Western art, which is dominant in the global artworld, and therefore caters mostly to the aesthetic tastes of the very wealthy, there are art forms for the masses, such as arts and crafts, folk art, primitive art, and popular art. These art forms often relate to production. They tend to be repetitive, functional, and expressive, often with a background of local socioeconomics and politics (Fabian and Szombati-Fabian, 1980).

In the capitalized society, art becomes a part of day-to-day consumption. Art could be reproduced and exchanged in the marketplace. One of the important epitomes is pop art, which became widespread in the early 1960s.⁴ This art represents the beauty, or at times the lack of beauty, of consumption and the consumer lifestyle. This reduces the gap between high art and low art through the expansion of the economic sphere. Since the mid-20th century, commoditization has become the main process whereby art, creativity, and cultures are amalgamated and widely communicated. In such a process, cultures are resources for artists and designers to produce novel products and services.

The marketplace⁵ becomes a space in which the contestation between hegemony and subordinate occurs. The commodities are utilized as symbols to communicate among subordinates (Hebdige, 1988). This phenomenon reveals that humans include everyday objects in their communication process. Such objects become valuable and have power to influence social aesthetics as well. The society therefore encompasses various day-to-day objects in the process of aestheticization.

In sum, aesthetic tastes are multiple. The beauty standards of various cultures, lifestyles, norms, identities, and social classes are contested. The contestation initiates demarcation between groups revealed through the consumption of products in everyday life. The aestheticization then reveals a process in which various commodities and cultures are included in the art realms.

Participation Process and Data Gathering

This research utilizes design anthropology as the main method to examine the interaction of participants during the design process (Otto & Smith, 2017) and activities to produce materials (Drazin, 2021). First, the researchers observed the atmosphere of the market community and its surroundings during the weekdays and weekends of December 2021. Then, the participatory process started on January 9th, 2022, by creating a focus group session to gather cultural resources and inviting 20 stakeholders who are the active community members and are interested in sharing information of the community's history and cultural resources.⁶ As discussed to create the community art, they made decision to conduct workshops of folding joss paper three times. The pilot workshops were held on the Sunday of January 15th and 22nd, and there were 25-30 participants from community members, children of the market sellers, and outsiders who knew the event from the announcement online. Then, the third workshop was held on the Sunday of February 6, 2022, as a session of the Art and Craft Market in the community. It appeared over 80 participants from different parts of Phuket joining in. While conducting the focus groups and workshops on the community art project, an ethnographic approach as part of design anthropology was used to gather data from observing the phenomena as they occurred. The data were collected periodically from December 2021 to February 2022 in Baan Saan Community.

Baan Saan Community

The settlement of Baan Saan Community is generally supposed to have emerged during the reign of King Rama V. However, the formal evidence found from the official map of Phuket City Municipality was delineated circa 1910, appearing in the inauguration year of King Rama VI. It became an old market community, extended from Phuket Old Town, as planned, for the urban development project.

Based on field observations, the economic activities in this community generally continue 24 hours a day. Baan Saan Market, located in the center of the community, is considered the most bustling area especially in the early morning. The market is under the supervision of Phuket City Municipality. Its building consists of four floors with varied choices of local products. Most stall owners inherited businesses from their parents' generation. Myanmar migrants are the main laborers in the market with the wage rate of 400 - 700 baht⁷ per day. The owners usually open their stalls around 3am - 4am to sell fresh products and local ingredients to restaurants, so they can prepare food to sell for breakfast. Then, around 6am is

the peak hour of local sweet-shops in selling sweets wholesale to local retailers and regular customers. Baan Saan Market is the largest market of raw materials and fresh food, flowers, and local sweets in Phuket. Many local customers find it convenient and trustworthy, with relatively low prices and high-quality products. In this regard, Baan Saan Community is considered a heritage market, rich in family histories, culinary cultures, social beliefs, and daily practices.

The Chinese Cultural Inheritance

The practices of Chinese traditions reflect the beliefs of Eastern cosmology. Chinese people believe that the world comprises spirits, nature and humans, and the purpose of life is to seek harmony among these elements (Adair-Toteff, 2014). The Chinese cosmology has been disseminated around the world with the various waves of Chinese diaspora. Moreover, from the research conducted in the various host countries, to some extent, the new generations of Chinese descendants tend to inherit their Chinese culture. Tong (2019) explained that new generations continue traditional practices because the tradition could be included in day-to-day life rather than separated as sacred rituals.⁸ It could be seen that the Chinese descendants can adapt their traditional culture to the modern world where economics and globalizing cultures are significantly concerned. This phenomenon also occurs in the Baan Saan Community, Phuket. However, the perception of Chinese descendants towards traditional practices has changed when contextualizing in modern society. The Chinese descendants' practices have undergone adjustments permitting them to both live in the modern world and maintain Chinese cosmology.

In the Baan Saan Community, many traditional practices can be seen. The community members annually conduct seasonal rituals, such as venerating the deity of the sky for the Chinese New Year celebration in the first month, worshiping ancestral spirits in the fourth month, conducting rituals to feed hungry ghosts in the seventh month, and abstaining from meat products for nine days in the ninth month to worship the Nine Emperor Gods. These rituals are conducted to maintain the balance between heavenly and earthly worlds where the relationship between humans, deities, and ghosts are maintained. The community has four Chinese shrines, called *Jui-Tui*, *Pud-Jor*, *Jeng-Ong*, *Guan-Yin* and *Mah-Jor-Poh*. *Jui-Tui* and *Pud-Jor* are two main shrines of the community and most renowned shrines in Phuket indicated by the numbers of devotees and spirit mediums who participate in annual ceremonies.⁹

The cosmology – earthly world and heavenly world – of Chinese descendants in the Baan Saan Community could be observed from Baan Saan Market and Chinese shrines. The former is a place for socio-economic activities while the latter are for religious activities. The relationship between these two spaces is interconnected. Chinese descendants believe that their good behavior in the earthly world can be perceived by the deities, who will bless them in return to succeed in economic and social life. It implies that the merchants can be rich if they maintain good morality and religious activities. Moreover, the successful merchants who constantly donate to the shrines will have the opportunity to be leaders of the important annual ceremonies.

For this reason, the religious practices – syncretized among Taoism, Buddhism, and Confucianism – become everyday activities of Baan Saan Community members. Every morning,

they worship the deity of the sky [Hokkien: *Tee-Kong* (天公)] whose small red altar is installed in front of the Chinese shophouses. The first room at the entrance of the house will be a place for the house altar which places the statue of deities and tablets with the name of ancestors. In the kitchen, Chinese descendants place the altar of the stove god who has a duty to report the good and evil of family members to the heavenly emperor at the end of the year.

The local community members thus have a unique worldview influenced by Chinese cosmology. Their worldview creates the symbolic meanings of objects which eventually can become social aesthetics. The members commonly perceive the aesthetic of practices following their morality and traditions which are communicated through the utilization of objects – deity statues, religious paraphernalia, foods, and sweets used for worshiping deities, and so on. This is the reason why the members chose joss paper to be the main subject for their community art when the community leader conducted the focus group activity. The leader proposed the community art project in the community and invited members to share knowledge and ideas. Folding joss paper was chosen to be the main workshop in which other members and outsiders participated (Observation on January 9, 2022).

The next section will be ethnography data collected from the workshops conducted in the Baan Saan Community.

Joss Paper: The Aesthetic of Day-to-Day Rituals

In the focus group conducted by the Baan Saan Community leader, street art with stencil style was proposed to community members. The discussion was needed to develop the art form. The artists initiated the idea by developing the art style from traditional Chinese papercuts. The papercut is usually used to decorate the food offerings for Chinese deities. However, one member who is the *Juitui* shrine's consultant proposed that he could lead a workshop to create art objects if the art style is changed to be folding joss paper, writing calligraphy, and making Chinese papercut rather than making the wall painting with paper cut art style. The other members all agreed to conduct such workshops for two days. Folding joss paper is the main workshop activity, while writing calligraphy and making Chinese paper cuts are the additional activities. The community leader therefore changed the strategy not to make a permanent wall painting art, but to try communicating these art and craft workshops as temporary art activities (Observation on January 9, 2022). In doing so, two shrine members were invited to be speakers in the workshops. The information about the workshops was communicated via the Facebook page of the community to invite everyone who was interested in traditional Chinese arts and crafts.

Joss paper represents the aesthetic of a traditional object which is developed and redesigned to conform with the modern market (Chung & Li, 2017). Joss paper, used for worshiping the spirits of the deceased, is still globally used in Chinese communities. The form of joss paper is developed from the traditional form – a paper with silver or golden foil at the center – to paper miniatures which represent household equipment, vehicles, and other everyday objects. Joss papers in the form of brand name products and technological tools are also available and sold in paraphernalia shops.

Joss paper is also used to worship ancestral spirits. Ancestral spirits who are neglected by descendants could become malevolent spirits. Thus, offering food and burning joss paper became a method to communicate with spirits (Carpenter, 1996). The joss paper could become money for spending in the afterlife. Chinese descendants believe that they could receive prosperity in return and their ancestral spirits could protect their descendants from harmful situations. In this regard, joss paper mediates between living humans and those in the afterlife. The balance between two worlds is a result of conducting ceremonies. Joss paper is thus a material which is connected to the cosmology of Chinese descendants.

In the community, there are two kinds of joss paper – golden and silver. The former will be used in the rituals which venerate deities. The latter is particularly for funerals. The golden joss paper then is appropriate for various occasions when worshiping deities is needed. There are honorable ceremonies conducted every month for venerating different deities. The ceremonies can be conducted in either Phuket shrines or houses. Most Phuket Chinese descendants have their house altars and have belief in spirit mediums. The spirit mediums need to clean themselves before the beginning of the ceremony. They light the joss paper, hold the paper in one hand, and move it along the body from head to legs. After the ceremony, a heap of joss paper will be burnt at the court of the shrines or open space in the houses. In the ceremonies, joss paper thus symbolizes two meanings: first, the paraphernalia for the cleansing process; second, a gift sent to the deities which bestow prosperity to devotees.

Joss paper could be folded as various forms – money ingot, lotus, tortoise, flowers, shirts and pants, black gauze cap for a nobleman (纱帽 Mandarin: sha mào), and so on. Phuket locals like to fold joss paper before burning it. They believe that this practice shows appropriate manners and education. The form of folded joss paper is relevant with the blessing bestowed on devotees when worshiping deities. For example, tortoises are for longevity, money ingots are for prosperity, and flowers are for happiness. Boon, a high school teacher who is one of the consultants of Juitui shrine, explains that the practices of folding joss paper imply cultural values and create specific meanings when burning the paper, for example, folding a paper cap for a noble man to wish for a good luck when taking an exam (Boon. Personal Communication, January 22, 2022).

Joss paper is one of the main objects used in funerals and the Hungry Ghost Festival. Utilizing joss paper can create an extension of the social space among Baan Saan Community members. The merchants in Baan Saan Market cooperatively conduct the festivals every year. They believe that their businesses will be more prosperous if they donate foods and offerings to hungry ghosts. A heap of joss paper is burnt with the paper effigy of the deity at the end of ceremony. On the other hand, joss paper could become an object for celebration. They can be folded as Chinese lanterns for decorating at the entrance of the shop-houses. The Chinese lanterns symbolize the celebration of auspicious events like Chinese New Year and ceremonies to honour deities. Joss paper can take different forms as its use for communicating with community members in various contexts. It is a process to exchange symbolic meanings to inform the community of the occurrence of communal activities. Subsequently, the exchange of social and economic resources transpires. Community members engage in activities related to the ceremonies – cooking auspicious foods and sweets, making religious paraphernalia, and fundraising for conducting ceremonies.



Figure 1. Example of joss paper folded in the forms of tortoises, a lotus surrounded by nuggets, peacock and birds.

Lastly, there are criteria to justify the utilization of joss paper as a social aesthetic practice. First, morality becomes a valuable practice in the perception of community members since the urban lifestyles influences the recession of their cultural norms. Second, joss paper can become a representation of Chinese tradition to emphasize the way to pay gratitude to ancestors, deities, and spirits of the deceased. To burn joss paper means to create harmony among earthly, heavenly, and underworld which is one of the most important duties of humans. Third, the exchange between humans, spirits, and deities results in prosperity, longevity, and luck. Fruitfulness of the family is influenced by personal practices. Joss paper is also an intermediary subject among such exchanges.

Joss Paper as a Material of Social Aesthetic

This section explains how the process to form social relations can be initiated by utilizing joss paper. From the perception of aesthetics towards joss paper, the community members share results of the workshop with their friends, neighbors, and family members in various ways, such as sharing images via social media, giving out joss paper as a gift, and teaching their family members to fold more joss papers. Since the workshop was conducted during the week of Chinese New Year celebration, participants could prepare the folded joss paper for worshiping deities, especially the Goddess *Guan-Yin* who is famously worshiped on this occasion. The community leader decided that the joss papers folded in the workshop would be collected to burn at *Pud-Jor* shrine. It is a way to communally worship the deities which can bestow prosperity on the community.

The instructor of the workshop suggested participants make a pair of Chinese lanterns. The participants could then decorate their houses, and food stalls with such lanterns. To make a lantern, the instructor folded 20 pieces of joss paper and assembled them into one big piece. A yarn was threaded at the center of the lantern as the final step. The instructor recommended that the pattern of a lantern could be more beautiful if using special joss papers bought from Penang or Taiwan, instead of ordinary joss paper. Since there are only two shops in Phuket importing the special joss papers, the staff decided to buy them for their workshop. Moreover, to extend the activity to other community members who could not participate in the workshop, the staff of the workshop brought the lanterns to visit shophouses located nearby (Observation on January 15, 2022).

The community members all agreed that the workshop should be extended to the festive activities. They wanted to promote their community and the traditional culture, so the Art and Craft Market was held on February 6, 2022, by organizing joss paper folding, calligraphy, and paper-cut workshops as one of the main activities. The space in the market and management were provided by a group of community leaders without rental cost. The other members reserved around two square meters of space to sell or share their products.

Before the day of the activity, the leader group of the community brought the joss paper lanterns, which were the products of the workshops, to visit and invite their neighbors to participate in the Art and Craft Market. A pair of lanterns were distributed to various members. The lanterns are a symbol of festivity which could be exhibited before the Chinese New Year ceremony. Some community members hung the lanterns at a small altar in front of their houses, while some members chose to decorate their house entrance. The food stall sellers also received the lanterns (Observation on January 29, 2022). By visiting neighbors, the community leaders had an opportunity to communicate with elderly people who usually quietly stay in the houses. The lanterns were used to initiate conversations among members and symbolize the coming of festive occasions in the community. Additionally, one workshop participant was from a different community and said that she also folded Chinese lanterns and brought them to visit her uncle and nieces.

“My nieces really like these folded papers. Next time, I should try to practice making turtles, rabbits, and emperor caps.” (Bee. Personal Communication, January 28, 2022.).

On February 6, 2022, the Art and Craft Market was conducted as planned. In the market, products made by community members were exhibited. There were foods, desserts, post-cards, clothes, and other hand-made products. The workshop was also conducted with the aim to gather the folded papers communally made by community members. The workshop provided various sizes of joss paper. First, large joss paper, called “*Tua-Gim*” (大金), was used to make ingot-like paper. Second, the decorated joss papers imported from Taiwan were for making lanterns. Third, normal-size joss papers were used to make various forms as mentioned above. As there were many participants in the activities, the large lantern which needs more than 20 papers per piece could be made. In this case, the lantern then not only showed the art and craft skill of participants but also exhibited the communal spirit among members. After the event, the leader of the community suggested that the all the papers should be brought to the *Pud-jor* shrine and burnt all at once together, to venerate the Goddess *Guan-Yin*.



Figure 2. The workshop of folding joss paper.



Figure 3. The joss paper folded in the forms of Chinese lanterns and horses.

Apparently, community members extended the joss paper workshop to other activities. They willingly participated in the activities because they shared common values. For this reason, the unity of the community and the expansion of the workshop is possible.



Figure 4. The distribution of paper Chinese lantern to Baan Saan Community members.

Conclusion

By cultural means, the joss paper possibly becomes a representation of Chinese culture in Baan Saan Community because of two reasons. First, the joss paper is related to the culture of Chinese merchants who utilize the process of goods exchange for their sustenance. Baan Saan Community members are also the merchants who venerate Chinese deities in everyday life. At the end of veneration process, joss papers are burnt. Joss papers are called in Hokkien dialect "Gim," which means gold. This gold can be intermediary to communicate among earthly, heavenly and underworld. Therefore, to burn joss papers means to send the gold to the deities or ancestral spirits and they can bestow prosperity in return. Second, the joss papers can be folded into various forms which represents the materials in the imaginary world of Chinese migrants. Chinese sailing boats, horses, or black gauze caps for a nobleman are not the things in day-to-day life, but the nostalgic symbols of Chinese culture which become meaningful through the form of folded joss papers. Therefore, the joss papers can be contextualized in Baan Saan Community.

The joss paper workshop can initiate social aesthetics. Although the joss paper is an ordinary thing, the workshop transforms the joss paper to be an aesthetic material. Workshop becomes a process to create space-time where the value of joss paper is emphasized. In the workshop, the experts of Chinese culture were invited, the history of Chinese community was reminisced, the historic building was set to be a meeting place, and the Chinese identity was promulgated. Furthermore, the social relations among Chinese descendants could be extended from the workshop place to the whole community when distributing the folded Chinese lanterns. Community members could engage in the reciprocal sharing of their personal and family narratives. It could be seen that there is a process of social aesthetics creation: 1) the status of the traditional material is changed from an ordinary thing to the specific subject for the workshop; 2) the traditional material becomes a center of social engagement; 3) the sociality among workshop participants is reconstructed.

Additionally, the social aesthetics do not only influence the unity of community members, but also distinguish the identity between insiders and outsiders. The Baan Saan Community is surrounded by the modern market context. The local government support artists to create modern art forms like street art and graffiti for promoting tourism. This could be a reason that the community members reject the modern art form and want to utilize their traditional culture as the community art concept. Thus, the meanings of community art entailing cultural identity can be more inclusive in terms of content engagement, community participation, and economic exchange. By the prevalence of street art in touristic areas, the arts and crafts associated with traditional aesthetics are challenged. The meaning of aesthetics becomes multiple due to economic-driven modernity and development. To enhance the engagement of local people through community art, the perceptions and values of traditional aesthetic qualities should be prioritized.

Although joss paper has an ephemeral form, it is the agent of connection between community members, who centralize joss paper in the interrelated activities – joss paper workshops, veneration of the deities, and celebration of festive occasions. The distance between any community member and joss paper in the social space is not far. After this research project ended, the workshop to fold joss paper continued to be conducted several more times by the community members. This shows that this community art is deeply implanted and thriving in the social space of the community. Art is not necessarily a permanent object, but it could continually appear and disappear in the space of community over a period. Furthermore, art is not necessarily created by professional artists. Everyone can be an art creator in the process of community art.

Endnotes

- 1 Artists are invited to create their art works to decorate several sites in Phuket City Municipality according to the city's festivals or events, so the creations of sculptures and light art installations are the city decorations that attract visitors to take photos and post them on social media. Some art forms were created by event organizers and their forms were inspired by the illustration from Bangkok Design Week to reproduce for branding Phuket City.
- 2 Show-Hui (Thai: โชห่วย, Mandarin: cu-huò (杂货) means local-retail-grocery store. The root of this term is from Chinese language and is widely used all over Thailand to differentiate local stores from franchise stores like Lotus, 7-11, and Family Mart. In the Baan Saan Community, most grocery store owners are Chinese. They bought various commodities from wholesale shops and increased the sale price in their retail shops in order to receive profit.
- 3 Gell describes a case of canoe paint of Trobriand tribe in Kitava Island, Papua New Guinea (1998). Trobriand artists paint a magical pattern on their canoe-prow board in accordance with the myth of a flying canoe. They believed that the magic could support Trobriand traders to gain high benefits from their product exchange.
- 4 Pop Art is an art form which includes various types of art and liberates the concept of aesthetics through the process of consumption (Marquis, 2013). Pop art aims to reveal the aesthetic of everyday consumption. Thus, artists accept the reproduction, and utilization of day-to-day objects as resources for their art creation. As a result, the art is no longer restricted in the domain of art certified by institutions. The middle class and lower class people have the opportunity to consume art in various public spaces and media – supermarkets, department stores, theaters, parks, and so on.

- 5 The marketplace includes an abstract space in which the commodities are exchanged. The market is also a space where the financial values of commodities are continually re-negotiated in a process involving cultural, social, and economic values.
- 6 This research uses pseudonym to conceal the identity of the informants.
- 7 1 dollar is equal to 35.44 baht as on August, 15th 2022.
- 8 Tong made the argument through the case of death rituals inherited in Singapore. In modern society, Chinese culture has been changed since it is still inherited among Chinese descendants as everyday practices. In the case of Phuket, there are many paraphernalia shops open near to the Chinese shrines. People can buy the necessary paraphernalia from these shops and acquire cultural knowledge to conduct rituals from the shrine's members. The Phuket shrine community is large since there are 34 shrines as members of Phuket Shrine Association (Phuket Shrine Association, 2021).
- 9 Hokkien Chinese descendants have strong belief in spirit mediums. They conduct ceremonies by the lead of ritual specialists and spirit mediums who are in trance. Juitui shrine is the main place in Phuket where the Nine Emperor Gods festival, also known as the Vegetarian Festival, is conducted. There are more than 2,000 spirit mediums participating in the street procession. The Pud-jor shrine's activities are more related to Phuketians' day-to-day life. Phuketians come to the shrine to ask deities to name new-born children and heal their ailments. In doing so, Phuketians pray and shake a bucket of Chinese fortune sticks. After receiving a number of fortune sticks, they can search for a child's name or medicine recipe placed in the wooden drawers tagged with the same number.

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Key Indicators for Effective Implementation of Smart City

Standards in Indonesia During the Covid-19 Pandemic: A Case Study of Four Cities

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Abstract

Resources management owned by smart cities in Indonesia must be effective and efficient because the concept of urban development is based on information technology principles application. To ensure the environment is safe for human health is necessary to apply standards. SNI ISO 37122 implementation has affected the effectiveness of health protocols. Indicators in the standard are arranged to detect the COVID-19 control spread and prevention. The linkage of indicators and health protocols resulted in the indicators scoring that affected the pandemic spread. The indicator's data is obtained from personal authority guided by a questionnaire. This research contains evidence of the smart city policy of the pandemic spreading in cities. Effected indicators are decided involving the expert's judgment. Jakarta is one leading cities that has implemented the indicators and has the lowest pandemic ferocity, as proven by its low IFR and CFR values. This research might be a guide for policymakers to adopt.

Keywords: COVID-19 Pandemic, Smart City, Health Protocols, Urban Environment, Urban Sustainability, Indonesia

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Introduction

The pandemic of COVID-19 affects the world's cities and society's daily life functionally. This phenomenon causes health problems and disruption of community activities that can cause economic, social, and cultural problems (Yang & Chong, 2021; Tampubolon et al., 2021). The regulation and prevention during pandemics require policy coordination, management, and technology updates (He et al., 2021). Therefore, since COVID-19 spread, every country has been equipped with strong knowledge to react and make appropriate decisions in mitigating the spread of the virus. Technology is currently being utilized extensively to track the virus's spread, as demonstrated in Singapore (Chang & Das, 2020). One of the smart city concepts is to utilize technology in policy implementation (Inn, 2020).

Smart cities are associated with various technologies usage or innovative concepts to unify urban systems and urban services management to enhance resource utilization efficiency, optimization, and citizens' life quality improvement (Yang & Chong, 2021). Particularly, The COVID-19 pandemic shows the benefits and needs of multiple smart city platforms for pandemic prevention and pandemic management. Smart cities can improve the prosperity of people in city areas when providing comprehensive services access (Picatoste et al., 2018).

The National Standardization Agency of Indonesia has developed standards related to indicators for smart cities, namely SNI ISO 37122, which is an identical adoption of ISO 37122. The preliminary research conducted by Tampubolon et al. (2021) yields eleven sectors of nineteen in SNI ISO 37122 that affect the spread of the COVID-19 pandemic. Selected sectors are determined based on scores obtained from each sector according to expert judgment. The selected sectors are economy, telecommunication, environment, climate change, finance, governance, health, recreation, safety, sport, culture, urban planning, and water, consisting of twenty-one indicators that might restrict the virus's spread in Indonesia.

This paper is a continuance and further discussion of the preliminary research conducted by Tampubolon et al. (2021), which is supposed to describe the implementation of selected sectors, including the indicators in four cities in Indonesia: Yogyakarta, Bandung, Jakarta, and Banyuwangi. The study in the four cities wants to analyze the level of control effectiveness and prevention of COVID-19 based on smart city standards. The standard is represented by primary data of indicators in the ISO 37122 standard, which has been implemented by the city. The effectiveness level is confirmed based on the number of infected people from the disease, the number of deaths people from the disease, and the number of recovered people from the COVID-19 disease. According to this research, the smart city development policy was probably adjusted caused of the COVID-19 cases. These four cities would provide evidence, and represent that the smart cities standard would handle problems and particularly COVID-19 spread these days effectively. The implication is that the growth of the city sector, which helps contain future pandemics, can be given priority by city policy.

Literature Review

Establishment of Indonesian Smart City

Land transformation in Indonesia, which is caused by several factors such as urbanization, economic growth, technological capability, culture, and tradition, results in a few environmental problems that affect the land structure is no longer fit the urban population

growth. Since the number of populations keeps increasing, city problems are getting more complex, and typical solutions are no longer able to be resolved (Supangkat et al., 2018). Therefore, an extraordinary solution is needed to build an innovative, integrated, and effective city system.

Indonesia has made a master plan and programs for smart city development to accelerate the potential and competitiveness of the region and to improve its services to the community. Smart city concepts are adjusted to the Indonesian context, which is defined as a city that can manage all resources effectively and efficiently to solve city problems by utilizing innovative, integrated, sustainable solutions in certain city services to improve the quality of life (Supangkat et al., 2018). In 2022, there will be 191 city districts, out of a total of 514 city districts in Indonesia, which have the potential for smart city development concepts and join "The Movement Towards a Smart City." According to government regulation No.28 2018, which concerns the cooperation in regional through smart people, smart economy, smart mobility, smart government, smart environment, and improved quality of life. Smart living needs government, stakeholders, and all related parties must work together in providing services of each aspect effectively and efficiently to actualize and succeed in the smart city program. Smart city development includes urban technologies such as the construction of primary infrastructure, technology for transportation, green buildings, and environment-based waste management.

The European Smart City working group has operationalized the smart city concept along six themes: smart governance, smart mobility, smart environment, (smart people, smart economy, and smart living (Giffinger et al., 2007). Most smart cities in Indonesia have provided one or more dimensions of a smart economy, smart living, smart society, smart branding, smart governance, and smart environment (Offenhuber, 2019). Considering from government's vision of smart cities, one of the innovation programs that is being intensively developed in Indonesia is adopting information technology to improve city performance. These aspects are economics, city administrations, and social practices responding to the city development, and smart city inceptions must follow the city's needs and adopt the local needs into their platform (Kusumastuti, 2022).

Smart City Standards

Smart city concepts are formed to help cities solve issues by providing innovative and efficient completion based on information technology. According to Tan and Taeihagh (2020), there are drawbacks to the smart city implementation process in developing countries, namely budget restraints, fundamental infrastructure investment deficiency, fragmented authority, insufficient regulation, under supply of ingenious human resources, and lack of infrastructure preparedness, environmental concerns, citizen engagement, also shortage technology literacy among the citizens. International standard organizations and national standard organizations collaborated to develop the standards of a smart city. The intricacy of smart city system handling is covered by a few standards, so combining the different stakeholders of each city and standards organization brings advantages to building a suitable system. Ministry of Communication and Information Technology adopted the concept of smart city that was promoted by Citiasia Inc. Otherwise, the Smart city term is used consecutively with green and energy cities in European literature. The difference is that American literature is a way of technology-driven, while European literature sets the "city"

as the center of attention. Vision differences cause the contrasting dimensions of both sustainable cities and smart cities. A sustainable city's dimensions are economics, governance, socio-cultural, green, and flexibility, whereas the smart city's dimensions are smart economy, smart governance, smart living, smart branding, smart society, and smart environment (Kusumastuti, 2021). The sustainable urban system developed by Bappenas is adopted by the International Organization for Standardization (ISO) (Kusumastuti, 2021).

ISO/TC 268 is the technical committee on sustainable cities and communities established by the International Organization for Standardization. This technical committee develops the international standards that would encompass the requirements, guidelines, frameworks, and supporting techniques related to achieving sustainable development by considering resilience and intelligence. The standard of the smart city represents and establishes the definition and methodology for sets of indicators to aim and measure the smart city service performance and quality of life. Besides, the standard of a smart city also defines relevant activities to smart community aspects, namely energy, waste, water, information, and communication technology (ICT). The intelligence concept intends to yield a relevant performance to smart solutions that could apply information technology and follow sustainable development and community resilience (Tampubolon et al., 2021).

The standards of a smart city can be applied to one type or several types of community infrastructure, which should involve all social levels. Developed standards arranged by the Technical Committee (TC) and Sub-Committee (SC) of sustainable city and community where for the first group on sustainable development in communities: ISO 37101 management system for sustainable development, ISO 37120 indicators for city services and life quality, and ISO 37122 indicators for smart cities and; for the second group on smart community infrastructures: ISO/TR 37150 review of existing activities relevant to metrics, ISO 37151 principles and requirements for performance metrics, and ISO 37153 maturity model for assessment and improvement.

According to Tampubolon et al. (2020) research, based on SNI ISO 37122, there are nineteen sectors that were judged, and each stakeholder gave a score. The score for no role is 0, and the score for playing a role is 1 through the focus group discussion (FGD). The sectors that score 0.5 and above are sectors that could participate in preventing COVID-19 from spreading in the community. The research yields based on nineteen sectors found that from nineteen sectors on SNI ISO 37122, eleven sectors and twenty-one indicators have roles in restricting the virus spread. The indicators in the smart city standard are parameters or components in a city used to implement policies set in order to control the COVID-19 pandemic so that it is more effective than cities that do not implement this standard.

COVID-19 Prevention and Countermeasures in Indonesia

The covid-19 pandemic caused health problems and ruined the society's entire structure, which formed economic, social, and cultural problems. The socio-economic conditions of Indonesia's citizens are getting weak, specifically in a few high rates spread areas such as Jakarta, Depok, Bogor, Bekasi, and Tangerang. COVID-19 crucially interfered with the economy of Indonesia by the end of the first quarter of 2020 while the government reacted with stimulus packages with allocated Rp 87.55 trillion to moderate the effects on the economy, health, living, and jobs (Olivia et al., 2020). Indonesia's government decided on the social

and physical restrictions on small, medium, and large-scale medical masks to prevent and control the spread of COVID-19. The use of medical masks and social distancing has been implemented to minimize the infection risk, which can be more effective if the individual has high awareness (Aldila et al., 2020).

According to the previous study, the government could choose two methods to regulate society such as 1) How to implement the social restrictions without reducing the freedom of the citizens; otherwise, the government and society can be observed and controlled with technology, and 2) How to implement a “lockdown” policy or flexible social restrictions based on city’s health status that is constantly updated and could be accessed online (Sonn, Kang, & Choi, 2020). This pandemic is a challenging situation that needs to be dealt with and managed by central and regional governments.

Some policies which are related to pandemic handling and health protocols are published. For the purpose of preventing and controlling the virus spread, the Indonesia government set up the 3M (wear a mask, wash hands, maintain social and physical distance) health protocols for citizens in public facilities and places built upon the Decree of the Minister of Health of the Republic of Indonesia Number HK.01.07 / MENKES / 382 / 2020. To support the implementation of health protocols, underline the implementation of the 3T policy (testing, tracing, treatment) as the guidelines, prevention to control for COVID-19 spread (based on the Minister of Health regulation number HK.01.07 / MENKES / 413 / 2020). Both programs (3M policy and 3T policy) are combined and cannot be separated to break the chains of Coronavirus transmission during the pandemic. The program is also integrated with the program of business incentives supply for Micro, Small Medium Enterprises established by the Committee for COVID-19 Handling and National Economic Recovery (KP-CPEN) (Tampubolon et al., 2021). All commercial travel was also restricted, and this action was initially an attempt to control the annual home pilgrimage (mudik) from Jakarta and another big city at the end of the fasting month (Olivia et al., 2020).

Smart City During the Pandemic

Research conducted by Pratama et al. (2023) discusses whether smart cities in Indonesia are better at managing the COVID-19 crisis compared to non-smart cities. This study focuses on the impact of urban governance on city performance in dealing with the pandemic. The findings suggest that smart city status does not have a statistically significant impact on the spread of the COVID-19 pandemic. This study highlights the lack of integration of technological dimensions into health systems and urban governance in the context of a public health crisis. Amandita et al. (2023) explained the implementation of digital health services in handling COVID-19 in Indonesia. This study compares the implementation of digital health services between regions in Indonesia and analyzes strategies in the health sector that are appropriate in the era of digital transformation. The research was conducted using qualitative methods, a systematic literature review, and SWOT analysis techniques. The results show that digital health services dominate the West and Central parts of Indonesia, with various factors influencing differences in the implementation of digital health services in each region.

In concept, it has nine main smart categories: smart energy, smart healthcare, smart mobility, smart technology, smart building, smart infrastructure, smart security, smart

governance, and smart citizen (Awaluddin, 2016). Onoda (2020) stated that the importance of smart concepts for waste management during the pandemic had become a catalyst for accelerating the application of smart cities due to the need for medical waste management in handling COVID-19 spread. Smart citizens play a role in handling COVID-19, which is the individual and social responses that are the most important thing.

Many innovations are created to assist the smart city program based on main parameters, such as applications based on information technology to resolve several COVID-19 issues. The various applications are set up differently in each smart city in Indonesia. These applications have different purposes, functions, and advantages, such as informational apps, government services, health care apps, multipurpose apps, administration apps, etcetera. Smart cities in Indonesia should implement applications to support activities and programs that refer to all elements of smart cities and those various ICT-based applications in an effort to minimize COVID-19 (Rachmawati et al., 2021).

Many cities have different applications to handle and limit the virus-spreading risk. The Capital Special Territory of Jakarta government has developed an app, namely “JAKI” with a tracking feature in order to control the COVID-19 dispersion. This app can be utilized to scan the movement of citizens via a QR code. Synchronously, this app can indicate the COVID-19 patient's exact locations for the last 14 days. Another city that launched an application is Bandung. The Bandung government has configured and published an app named “PIKOBAR” to undertake the COVID-19 pandemic. Through this application, the government can discover the eligible citizens who will provide the social aid, and this app also displays information about the recipient and the source of funds. Rachmawati et al., 2021 stated that this “Pikobar” application also includes information concerning the total of COVID-19 patients, a map of dispersion location, emergency phone calls, self-health checks, and complaints. There are more cities with their self-built-up ICT-based various applications as an implementation of smart cities programs to participate in risk reduction of COVID-19 dispersion.

Data and Methods

This paper aims to find the indicators and sectors in each city's preparation to face the COVID-19 spread and identify the smart city's role in pandemic control and prevention. This approach is created to disclose the significant linkage between factors and explain how the smart city concept goes. The method used in this research is the descriptive method. The overall research design is revealed in Figure 1.

This research begins by identifying the implementation of eleven sectors and includes twenty-one indicators based on preliminary research. Currently, the smart city concept has not been widely implemented in cities in Indonesia. The reason for selecting the four cities in this research is to represent cities in Indonesia that have implemented the smart city concept (smart city pilots in Indonesia). The cities that are the objects of this research are Yogyakarta, Bandung, Jakarta and Banyuwangi. These four cities are also types of cities that represent all cities in Indonesia. Jakarta represents a metropolitan city as the capital; Bandung is a city with quite high IT development; Yogyakarta, in general, is a developing cultural city; and Banyuwangi is a developing agricultural district. Furthermore, these four cities are also willing to help provide the smart city indicator data needed in this research.

After identifying the implementation of eleven sectors and including twenty-one indicators, data was then collected on compliance with the implementation of eleven sectors and including twenty-one indicators listed in SNI ISO 37122 based on preliminary research. Data and assessment available in the survey design, which consists of twenty-one indicators of eleven sectors, are fulfilled by the regional government or stakeholders of each city. Each representation is invited to assess and fill in the filtered indicators and sectors listed in SNI ISO 37122 based on preliminary research. The assessed sectors include economy, environment, climate change, finance, governance, health, recreation, safety, sport and culture, telecommunication, urban planning, and water. In accordance with survey results, each indicator of all cities is scored as 0 (not available), 1 (good), or 2 (incredibly good), which continues equalization and bias prevention. The ratio is calculated in units per 100,000 population.

In this research, IFR and CFR measurements were also carried out on COVID-19 cases to measure the level of massive spread of COVID-19 in a region. According to the World Health Organization (WHO), there are two measurements used to assess the proportion of infected individuals with a fatal outcome. The measurements are IFR, which estimates the proportion of death among all infected individuals, and CFR, which estimates the proportion of death among identified confirmed cases. The data collected to calculate the IFR and CFR values are data on the number of deaths from disease, the number of infected from disease, and the number of recovered from disease. Formulas for IFR and CFR are written as follows:

$$IFR = \frac{\text{Number of deaths from disease}}{\text{Number of infected from disease}} \times 100$$

$$CFR = \frac{\text{Number of deaths from disease}}{\text{Number of deaths from disease} + \text{Number of recovered from disease}} \times 100$$

The final stage in the research is identifying the relationship between the application of smart city indicators and the ability of each city to control the spread of COVID-19. The assessment process for each sector is linked to measuring the massive spread of COVID-19 in a region (IFR and CFR measurements). This relationship will be explained descriptively based on the facts of the conditions found in the region. From the results of this research, it can be seen the relationship and role of implementing smart city indicators during the pandemic in controlling the spread of COVID-19.

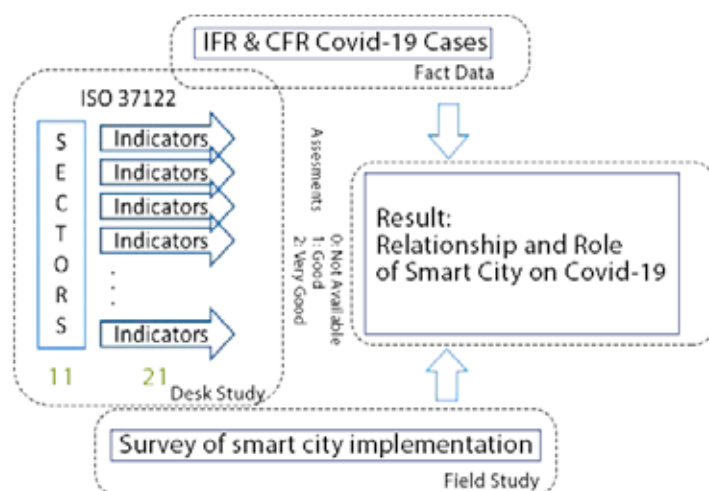


Figure 1. Overall research design.

Results

Identify the Sectors of Each City

Refers to Tampubolon et al. (2021) previous research, eleven sectors of nineteen sectors in SNI ISO 37122 participate in restricting the COVID-19 spread. The sectors are economy, environment, climate change, finance, governance, health, recreation, safety, sport and culture, telecommunication, urban planning, and water. This research discussed the implementation level of each sector in Indonesia's several cities and identified the linkage with COVID-19 spread control and prevention.

Economy

The economic sector has two indicators from four cities in Indonesia, as shown in Figure 2. The formed graph is based on scaling values of the original values. This aims to present several indicator values which have different units in a single graph. This economy sector in SNI ISO 37122 contributes to the control and prevention of pandemics, where the first indicator is about the provision of online city services, and the second indicator is about the workforce in the ICT sector.

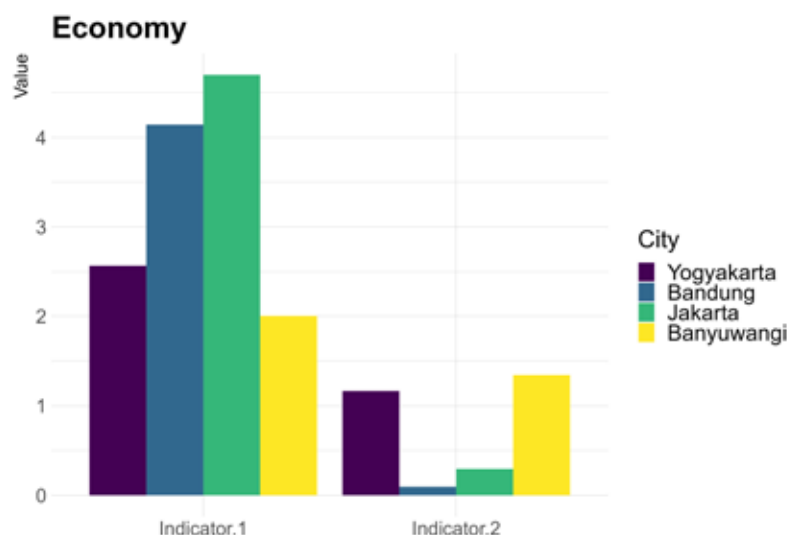


Figure 2. The economy sector values.

Bandung and Jakarta are the leading cities based on indicator 1, in which the number of service contracts that provide the city services and contain an open data policy is more than 10.000 contracts every year. In indicator 2, Yogyakarta and Banyuwangi lead among the other two cities. The number of workers employed in occupations in the information and communications technology (ICT) sector per population in both cities is 14.6 % and 22.1 %.

Environment and Climate Change

The value of each environmental and climate change indicator of the four cities is assessed using a scaled value from the original value. This aims to present several indicator values which have different units in a single graph. This environment and climate change sector in SNI ISO 37122 contributes to the control and prevention of pandemics, was the first indicator of the number of real-time remote air quality monitoring stations per square kilometers, and the second indicator of public buildings equipped for monitoring indoor air quality. Based on indicator 1 in this sector, Jakarta and Bandung are the leading cities of other cities even though both values are not far different from Yogyakarta. Meanwhile,

Banyuwangi does not have available data for this indicator. Indicator 2 is empty because of data unavailability for each city. If refers to the total number of public buildings within the city that are equipped for monitoring indoor air quality.

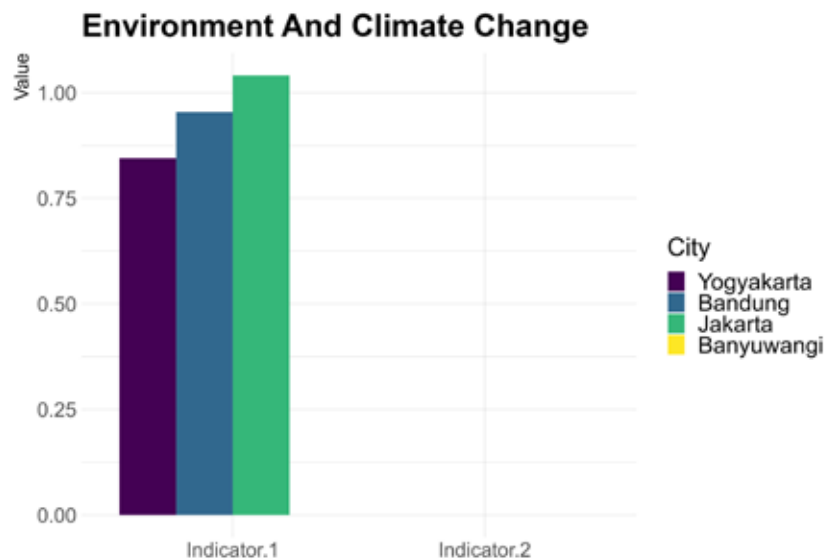


Figure 3. Environment and Climate Change values.

Finance

The graph formed is based on the scaled value of the indicator from the original financial value of the four cities. This aims to present several indicator values which have different units in a single graph. This finance sector in SNI ISO 37122 contributes to the control and prevention of the pandemic, where the main indicator of payments to the city is paid electronically based on electronic invoices.

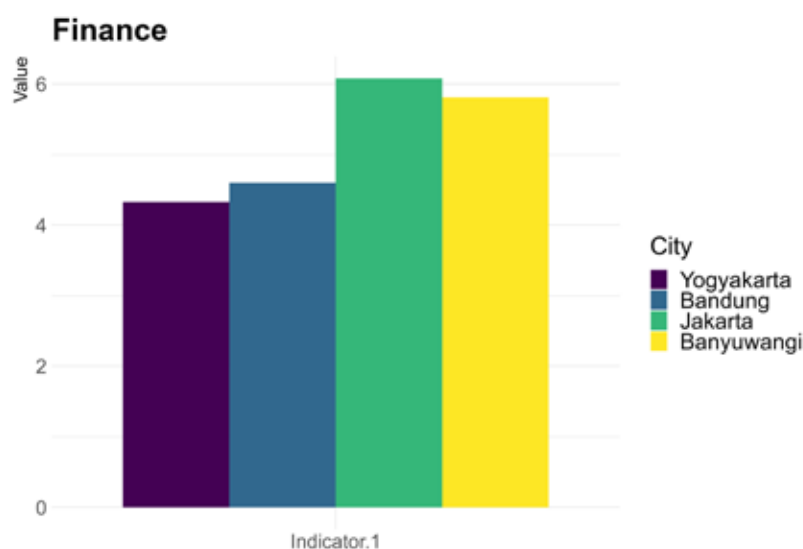


Figure 4. The finance sector values.

It is known that Jakarta and Banyuwangi are leading cities in the finance sectors. The number of payments to the city that are paid electronically based on electronic invoices in both cities Jakarta and Banyuwangi is more than 600.000 transactions. Jakarta leads because it is the capital of the Republic of Indonesia and has district authority in the trade, industry, and service sectors.

Governance

The governance indicator values in four cities in Indonesia are shown in the following graph, based on a scaled value from the original value. This aims to present the several indicators' values with different units in a single graph. The sector of governance in SNI ISO 37122 contributes to pandemic control and prevention with two indicators, namely the annual number of online visits to open city data portals per 100,000 residents (as indicator 1) and city services offered to the community and businesses through a centralized Internet interface (as indicator 2).

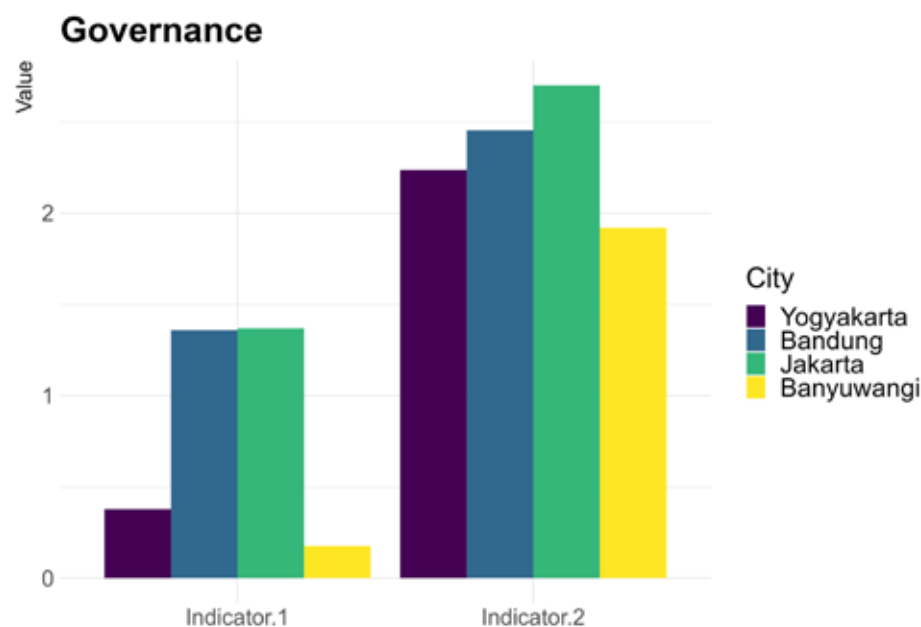


Figure 5. The governance sector values.

Bandung and Jakarta have conducted cities between four cities. The annual number of online visits to the municipal open data portal per 100.000 population in Bandung and Jakarta is more than 20 percent. Based on Indicator 2, the leading cities are also Bandung and Jakarta. This shows that both cities provide internet for things-based government administration services. It is reasonable because both cities are capital cities.

Health

The city's health indicators are reflected in the following graph, based on the scaled values from their original values. This aims to present several indicator values which have different units in a single graph. This health sector in SNI ISO 37122 contributes to the control and prevention of pandemics, where the first indicator of the city's population with an online unified health file accessible to health care providers, and the second indicator on the annual number of medical appointments conducted remotely per 100.000 Population.

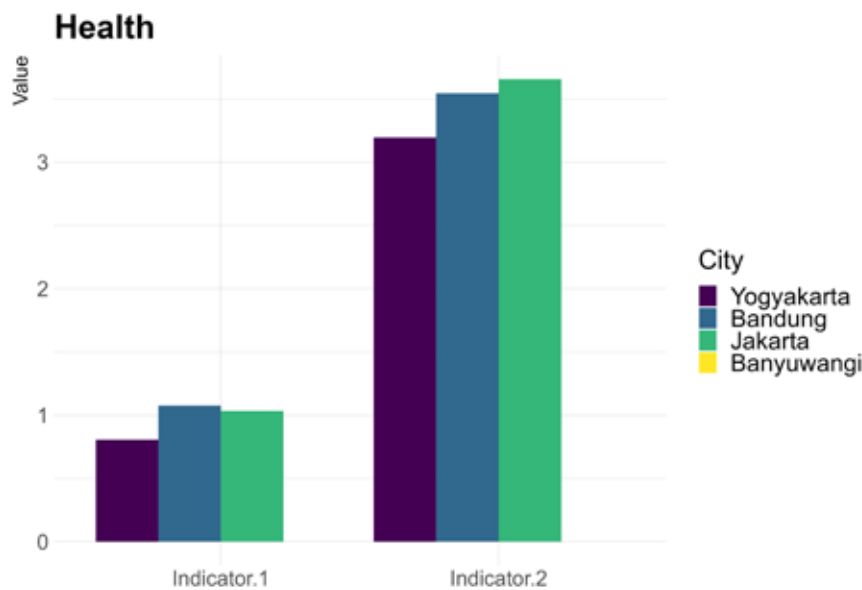


Figure 6. The health sector values.

Bandung and Jakarta also lead in the health sector, and for Banyuwangi, the data was not available. The data unavailability in some cities might represent that the database system in Banyuwangi was not stored as well, or the city does not have a system that is integrated with the internet. This is critical because patient tracking is particularly important during the pandemic.

Recreation

Based on the assessment of the scaling original value of the recreation indicator, this sector contributes to pandemic control and prevention. The main indicator is community recreation services that can be ordered online. Yogyakarta and Banyuwangi are higher rankings since both cities are tourist destinations in Indonesia. Because their natural sources are various and wondrous, the recreation sector is much greater than in other cities. Facilities of public recreation that can be ordered online possibly add value and efficiency to several tourists' management.

Safety

This sector assessment is also based on the scaling values of the original values on safety indicators. This safety sector in SNI ISO 37122 contributes to the control and prevention of pandemics, which is the main indicator of the city area covered by digital surveillance cameras. The cities that lead are Jakarta and Bandung because, in fact, at every spot in both cities, surveillance cameras are facilitated at public facilities, office buildings, and shopping centers.

Sport and Culture

The value of sports and cultural indicators in four cities in Indonesia is exhibited in Figure 9. The graph is based on the scaling values of the original values. This aims to present several indicator values which have different units in a single graph. This sport and culture sector in SNI ISO 37122 contributes to the control and prevention of pandemics, was the first indicator of the number of online bookings for cultural facilities per 100 000 popula-

tion, and the second indicator of the city's cultural records that have been digitized, and the third indicator on the number of a public library book and e-book titles per 100.000 population.

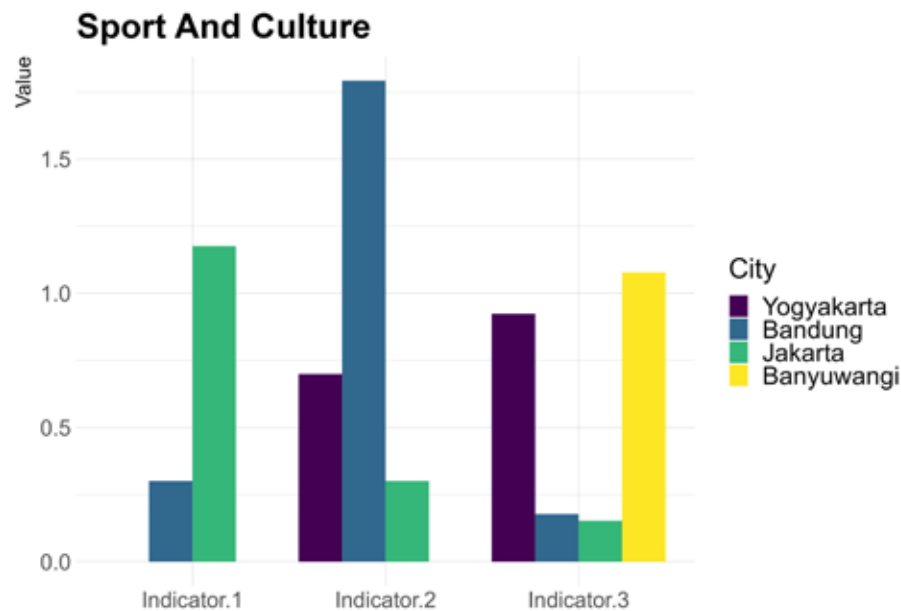


Figure 7. The sports and culture sector values.

Indicator 1 is led by Jakarta, and data source from Yogyakarta and Banyuwangi is unavailable. The number of online bookings for cultural facilities in Jakarta is 15 e-bookings. Bandung has the highest city in sports and culture sector value. The number of the city's cultural records that have been digitized is 62 of 546. In the meantime, the primary city based on indicator 3 is Yogyakarta and Banyuwangi. The number of public library books and e-book titles per population is more than 8 percent.

Telecommunication

The value of telecommunication indicators in four cities is demonstrated in Figure 10. The graph is based on the scaling values of the original values. This aims to present several indicator values which have different units in a single graph. This telecommunication sector in SNI ISO 37122 contributes to the control and prevention of pandemics, is the first indicator of the city population with access to sufficiently fast broadband, the second indicator of city area under a white zone/dead spot/not covered by telecommunication connectivity, and the third indicator on the city area covered by municipally provided Internet connectivity.

The telecommunications sector between cities are not far, but the prime city based on indicator 1 is Yogyakarta and Jakarta, but data on Banyuwangi is unavailable. In contrast, according to indicator 2, all cities have outstanding telecommunication sectors, and in Indicator 3, Jakarta is the superior of the four cities. Jakarta has been discovered as a region with a high flow of administration and business, so it was not surprising that Jakarta leads this sector.

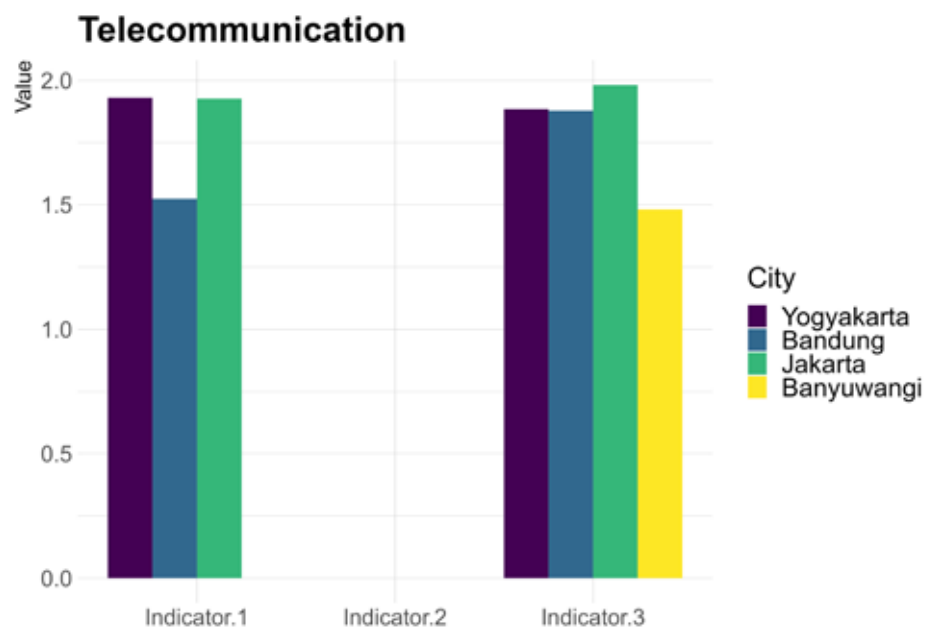


Figure 8. The telecommunication sector values.

Urban Planning

The urban planning indicators value of four cities in Indonesia is indicated in Figure 9. The graph is based on the scaling values of the original values. This aims to present several indicator values which have different units in a single graph. This urban planning sector in SNI ISO 37122 contributes to the control and prevention of pandemics, is the first indicator of building permits submitted through an electronic submission system and the second indicator of the city population living in medium-to-high population densities.

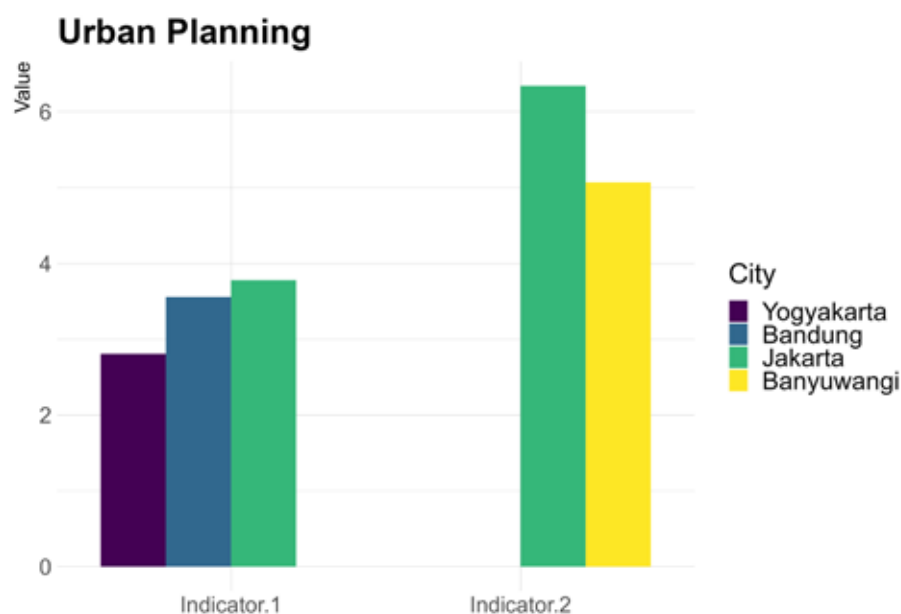


Figure 9. The urban planning sector values.

In this urban planning sector, posted from Indicator 1, Jakarta and Bandung lead among four other cities. The number of submitted building permits through an electric collection

system in Jakarta and Bandung is more than 3600 permits. Dissimilar from Indicator 1, in Indicator 2, Jakarta and Banyuwangi are higher up than other cities, but data was unavailable for Yogyakarta and Bandung.

Water

Water indicator assessments have been carried out for the cities based on the scaling values of the original values. It aims to present several indicator values that have different units. The water sector in SNI ISO 37122 contributes to pandemic control and prevention, being the first indicator of the city's water distribution network monitored by smart water and the second indicator of buildings in the city with smart water meters. Banyuwangi has the highest rate in the water sector of the four cities. Smart water systems have been implemented in many areas, facilities, and buildings in Banyuwangi.

Overall Scores

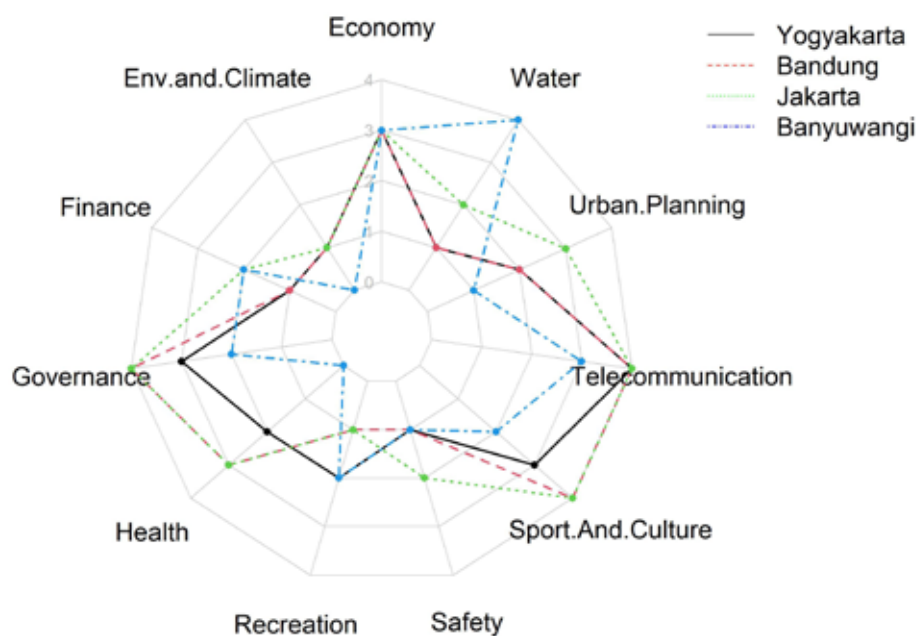


Figure 10. Overall sector scores.

Based on each sector scoring of observed cities, the cities with the best implementation in all indicators and sectors included in SNI ISO 37122 standard are Jakarta and then followed by Bandung, Yogyakarta, and lastly Banyuwangi. Jakarta leads in almost every sector. This was not surprising because Jakarta is the capital of Indonesia and the center of administration and business, so it is necessary for Jakarta to have satisfactory facilities because of society's needs and efficient integration. Sectors with a low score for Jakarta are the recreation sector and the environment and climate change sector. Both sectors need attention, consideration, improvement, and development by the stakeholders and regional government.

Bandung, Yogyakarta, and Banyuwangi are equivalent comparisons in which all cities have implemented smart city indicators well. The reason is that these three cities are placed on the same city level while Jakarta is a Capital Special Territory. Based on the three left cities, Bandung has higher scores of them. Bandung leads within sectors of the economy,

government, health, sports and culture, and telecommunications. Although Banyuwangi is the city that is entirely placed at the lowest rate, this city leads in the recreation and water sectors.

Relationship Between Scores and the Severity of Pandemic

During the linkage assessment between smart city indicator implementation and each city's ability to control the COVID-19 dispersion, the scoring process of each sector is linked to measuring the massive spread in a certain area. The linkage is going to be described descriptively based on available facts. According to the World Health Organization, two measures can be used to generate the proportion of infected individuals with a fatal outcome, which are mentioned as Infection Fatality Ratio (IFR) and Case Fatality Ratio (CFR).

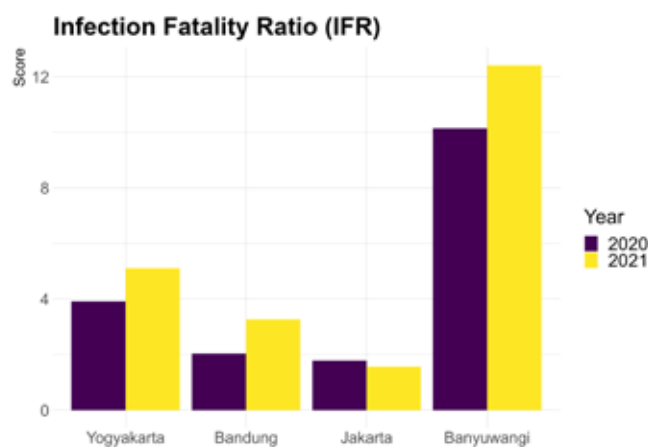


Figure 11. Infection Fatality Ratios.

The Infection Fatality Ratio (IFR) estimates the proportion of deaths among all infected individuals. The lower IFR value describes the virus spread, and its impact is controllable. The peak of the COVID-19 pandemic happened in 2020 and 2021. Each city has different IFR values. Jakarta has the lowest IFR value in 2020, with 1.79 percent, and in 2021, it comes with 1.57 percent. As additional information, during 2020-2021, the IFR value for Jakarta decreased while other cities' rates increased. Related to the other three cities, Bandung reached the lowest IFR score, and Banyuwangi achieved the highest IFR in 2021, which was 12.42 %.

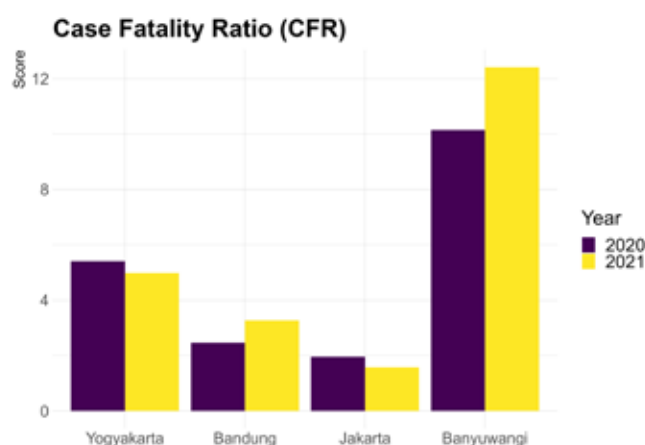


Figure 12. Case Fatality Ratios.

Figure 12 displays the case fatality ratio (CFR) for each city. Lower CFR values define impact, and COVID-19 spread is conductible. Like IFR, each city has a different CFR percentage. The lowest CFR value of 1.95 % appeared in Jakarta in 2020. Yogyakarta and Jakarta have decreased CFR values from 2020 to 2021. Despite the decreasing value, Yogyakarta has a higher CFR value than Bandung. Similar to the IFR percentage, Banyuwangi has the highest CFR value among the others.

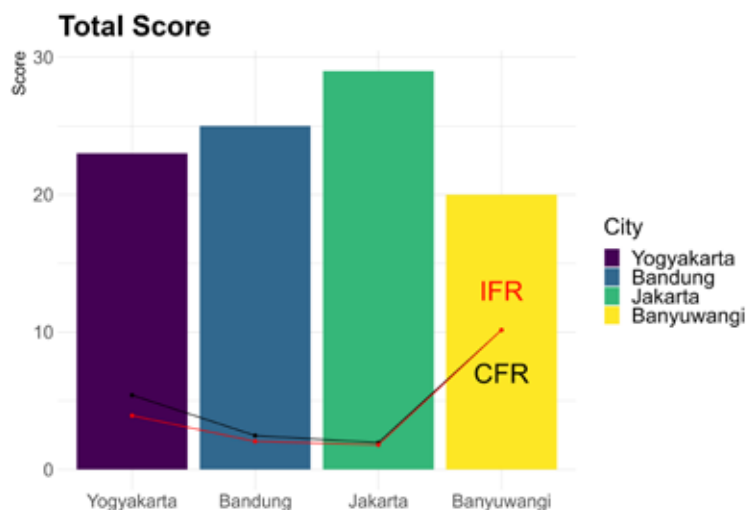


Figure 13. Relationship between IFR and CFR with a total score.

The comparison between IFR and CFR values in 2020 is presented in Figure 13, with total sector scores of assessments based on sector implementation and smart city indicators for each city. The IFR and CFR values, along with the scores of each city, are inversely proportional. A city whose highest score turns out to have low IFR and CFR values; otherwise, the city with the lowest score has both high IFR and CFR values. Based on the smart city indicator assessment, Jakarta mostly leads, but it has low values for both IFR and CFR, besides Banyuwangi, which is the city with the lowest score that has high IFR and CFR values. Hence, this can be concluded that based on available facts and existing primary data, every city that implements all smart city indicators tends to have the ability to prevent and control COVID-19 dispersion better than the city that does not implement the indicators. This can be concluded that every smart city indicator which is selected from preliminary research by Tampubolon et al. (2021) contributes to and has an important role during the COVID-19 pandemic. It is expected that this research will yield a useful discovery that can be utilized as a reference and evidence for further improvement, development, and consideration in Indonesia and other countries.

Discussion

The emergence of the COVID-19 pandemic has significantly changed the pattern of life. In addition to the loss of life, this pandemic has had a negative impact on the economy and social problems. The footprint of the pandemic created one of the biggest economic crises in modern history, a period of significant recession. The world is questioning how to avoid the next pandemic, perhaps worse. An important element for predicting, detecting, and responding to pandemics is data. Increasing data sources should be pursued by every city government. Initiatives are needed to create the smart city of the future. The government plays a major role in this process, particularly in making regulations and budget

allocations to support the program. Solutions for smart city development are more robust, proactive, and integrated. Large urban centers are naturally prone to infectious diseases. In general, cities that are more collaborative and integrated are better equipped to manage a pandemic than those that are not. Jakarta, as an example, has implemented a smart city indicator and has been shown to have the lowest pandemic severity.

An example of an initiative during the pandemic has crowned Jakarta as a smart city that is successful in predicting, detecting, and tackling pandemics through a digitalization platform called JAKI. By the end of 2021, more than two million Jakarta residents have downloaded JAKI. One of the features of JAKI, being a star, is the reporting of new cases and registration of COVID-19 vaccinations. Several achievements were won by Jakarta Smart City for the JAKI application in the e-Government category at the World Summit on the Information Society Prizes 2021. Another award was obtained from International Data Corporation Indonesia, winning in the Best in Future Digital Innovation category. In addition, JAKI also won a gold medal in the Public Sector category at the ASEAN ICT Awards organized by ASEAN. JAKI grows and develops with the latest features, making it easier for the people of Jakarta to meet their daily needs, especially during the COVID-19 pandemic. Overall, Jakarta has adopted six smart city categories, namely smart living, smart mobility, smart governance, smart environment, smart economy, and smart people (Syalianda & Kusumastuti, 2021).

The three cities in this study are still being developed. Bandung Smart City has been started since 2013; various initiatives have been carried out in implementing smart cities, such as the Bandung Command Center, Online Community Complaints and Aspirations Service, Single Number Emergency Call 112, Bandung Panic Button and Bandung Planning Gallery (Arfiansyah & Han, 2020). Meanwhile, Yogyakarta and Banyuwangi are still developing towards smart cities. The development of the smart city of Yogyakarta has established partnerships with related stakeholders. Currently, the City Governments of Yogyakarta and Banyuwangi are finalizing a roadmap for smart city development (Faidat & Khozin, 2018). The City of Banyuwangi has developed the Smart Village concept with a focus on developing rural areas to solve the problem chain. The smart village model is divided into 6 dimensions, namely 1) Governance, (2) Technology, (3) Resources, (4) Village Service, (5) Living, and (6) Tourism (Aziiza & Susanto, 2020).

Based on the overall score for each sector, Jakarta has the highest overall score compared to other cities, namely Yogyakarta, Bandung, and Banyuwangi. Jakarta, as the nation's capital, has easy access to health infrastructure and resources. Jakarta has more health facilities, including hospitals and other health centers, than other cities. Good health infrastructure can support greater treatment and testing capacity. As the country's economic center, Jakarta also has better access to resources, including medical equipment, medicines, and needed medical personnel. This is confirmed by Jakarta's IFR value, which has the lowest value compared to other cities. The IFR value refers to the proportion of deaths among people infected with COVID-19. The lower the IFR value, the lower the death rate caused by infection. The IFR value depends on various factors, including the quality of the healthcare system and success in detecting and reporting cases. This is supported by Jakarta's ability to implement various indicators that support smart cities. After Jakarta, the other lowest

IFR value is Bandung, followed by Yogyakarta and Banyuwangi. If we look at the CFR value, Jakarta also has a lower CFR value than other cities. The CFR value provides an idea of the death rate relative to the number of confirmed cases. The application of smart city indicators during the pandemic also has an important role, such as a system for monitoring and tracking positive cases, public health monitoring, telemedicine, and remote consultations that utilize advanced technology during the pandemic.

This research contains evidence of smart city implementation policies controlling the spread of the pandemic. The research results can be used as a basis for developing or improving policies related to the implementation of smart city standards in other cities. The application of smart cities can provide innovative and efficient solutions to face the challenges faced during health crisis situations.

Conclusion

Based on expert judgment and other analyses that were utilized in previous research, which concludes that through nineteen sectors in SNI ISO 37122, there are eleven sectors that are contributing to restricting the COVID-19 dispersion. The indicators in SNI ISO 37122 are supposed to influence the implementation of health protocols during the pandemic. This research contains evidence of smart city programs that are implemented in four cities of Indonesia, namely Yogyakarta, Bandung, Jakarta, and Banyuwangi; during the COVID-19 pandemic, it has controlled and prevented the COVID-19 spread. Each city has different superior indicators and seeks to build instruments or tools based on these indicators in an effort to realize the implementation of Smart City standards. This research yields much evidence related to the existence of a linkage that is a concern in smart city indicators that affect the COVID-19 spread limitation in Indonesia. Jakarta is one of the leading cities that has implemented the smart city indicators and has the lowest pandemic ferocity, which has proofed by its low IFR and CFR values. At the same time, for another three cities, Bandung leads among the other two cities in implementing the smart city indicators, followed by Yogyakarta and Banyuwangi. This measurement of pandemic ferocity is contradictory because Bandung has a low value for both IFR and CFR; meanwhile, Banyuwangi has the highest value for IFR and CFR. This research might be a guide for city management and the policy arrangement for selected cities or other cities. Nevertheless, it is important while applying these indicators might need responsibility to fulfill the assessment correctly and utilize the exact sources. Finally, it is needed to be thoughtful while using the consideration without the information that is not presented in the standard document. The lack of data on some indicators and the greater number of cities involved in this research provides more information and valuable insights for future policy development.

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Discovering Previously Overlooked Sets of Piano Compositions

*in 24 Major and Minor Keys by Four Russian
Composers at the Turn of the 20th Century*

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Abstract

At the turn of the 20th century, Russian composers Felix Blumenfeld, Anton Arensky, César Cui, and Reinhold Glière crafted sets of piano character pieces, notably the 24 Preludes op. 17 (1892), 24 *Morceaux caractéristiques* op. 36 (1894), 25 *Préludes* op. 64 (1903), and 25 Preludes op. 30 (published in 1906 - 1908), respectively. Blumenfeld mirrors the tonal organization of Chopin's 24 Preludes, op. 28, while Arensky and Glière draw inspiration from Johann Sebastian Bach's *The Well-Tempered Clavier*. Cui innovatively differs from Chopin's scheme by sequencing minor key works before relative major ones. Both Cui and Glière's sets encompass 25 preludes, concluding with an additional piece in C major. Each collection exhibits distinct traits, harmonizing Western Romantic tradition with Russian nationalistic elements. This exploration provides insights into tonal structures, influences, and cyclic performances, spotlighting the distinctive character of these lesser-known yet captivating piano compositions.

Keywords: Blumenfeld, Arensky, Cui, Glière, Late Romanticism, Russian Piano Music

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Introduction

In the rich tapestry of musical history, composers have explored the possibilities presented by creating sets of pieces encompassing all 24 major and minor keys. Notably, Johann Sebastian Bach's *The Well-Tempered Clavier* Books I and II and Frédéric Chopin's 24 Preludes op. 28 exemplify early instances of such exploration. Sergei Rachmaninoff continued this tradition, crafting his own set of Preludes over 18 years, showcasing all major and minor keys in a seemingly random order. My recent performance of Rachmaninoff's Preludes as a cyclic work sparked a fascination with how composers organize 24 keys and how effective they are when performed as a cycle. This article delves into the lesser-known yet captivating piano compositions in all major and minor keys by four Russian composers: Felix Blumenfeld's "24 Preludes op. 17," Anton Arensky's "24 *Morceaux caractéristiques* op. 36," César Cui's "25 *Préludes* op. 64," and Reinhold Glière's "25 Preludes op. 30."

Methodology

The primary aim is to analyze the tonal organization and compositional style of the four above-mentioned sets, by Blumenfeld, Arensky, Cui, and Glière. The overarching research question is to identify originalities within each set and explore potential influences, including the impact of other composers' works. First, researching the four composers involves a comprehensive exploration of their musical careers, from early training to stylistic evolution, and examining connections and friendships with other artists to unveil external influences. This approach aims to uncover their unique artistic expressions, offering insights into the broader context of their works. Secondly, this study employs a comparative approach to explore the tonal schemes across the 24 major and minor keys used by each composer. Additionally, it assesses potential inter-composer influences and evaluates the effectiveness of each set to perform as a cycle. This research elucidates the unique tonal and stylistic decisions of these composers, contributing to the broader discourse on the evolution of Russian piano music. Employing an analytical framework, the study reveals the intricacies of these piano pieces, offering a nuanced perspective on their tonal organization, influences, and overall effectiveness as cyclic works.

Literature Review

Amy Kay Mercer's DMA dissertation "Overlooked but Not Forgotten: A Study of Felix Blumenfeld (1863–1931) and His Twenty-Four Preludes, Op. 17 (1892) for Piano"¹ provides an overview of Blumenfeld's life and piano works and an analysis of his 24 Preludes op. 17 as well as an interesting comparison of the preludes with Chopin's Preludes op. 28. Alina Sorokina's writing "'A man of a rare charm.' Anton Arensky's Life Between Conservatory and Pothouse"² includes valuable information on his life. Ingrid Bols, in his article "Anton Arensky and the Rise of Musical Nationalism in Late Nineteenth-Century Russia,"³ discusses Arensky as one of a new generation of Russian composers after "The Mighty Five," who combined Russian music with a more cosmopolitan Western composition style. Raymond Teele Ryder's dissertation on Cui examines several of Cui's piano works including three from his 25 *Préludes* op. 64 in the context of Russian musical elements. Sunjoo Lee's dissertation "A Stylistic Analysis of Reinhold Glière's 25 Preludes for Piano, Op. 30"⁴ provides an extensive analytical study on Glière's 25 Preludes op. 30 as well as brief biographical information about the composer and a history of the prelude as a compositional genre. Matthew J. Roy's thesis includes a chapter discussing the historical development of the prelude set, which offers helpful information for this study. Eric Gilbert Beuermann's DMA dissertation "The Evolution of the Twenty-Four Prelude Set for Piano"⁵ is a thorough study

on the chronological development of the prelude set and key organization of 46 prelude sets, including those of Blumenfeld, Cui, and Glière.

Twenty-Four Preludes op. 17 by Felix Blumenfeld

The Composer

Felix Blumenfeld descended from Austrian and Polish families and had musical connections in his extended family. The Polish composer Karol Szymanowski was Felix's distant cousin, and the well-known pianist and teacher Heinrich Neuhaus was his nephew. At the St. Petersburg Conservatory, in addition to studying composition under Rimsky-Korsakov, Blumenfeld also studied piano with Fiodor Stein, who had personally known Chopin and Robert Schumann and had been particularly influenced by Chopin, a connection which in turn greatly influenced Blumenfeld's development as a musician. Blumenfeld graduated from the Conservatory with a gold medal in piano in 1885.⁶ He taught piano there between 1885 and 1918 while also serving as conductor of the Mariinsky Theatre in St. Petersburg, where he conducted the Russian première of Richard Wagner's *Tristan und Isolde* (1899).⁷ Blumenfeld was an active and prominent figure in the musical life of St. Petersburg, and he frequently attended the "Fridays" (weekly salons) organized by Mitrofan Petrovich Belaieff, a music publisher and promotor of Russian music.⁸ According to Mercer's dissertation, Rachmaninoff was invited to play at a Belaieff "Friday" and played his new Fantasy for two pianos, op. 5 (1893) by memory while Blumenfeld played the other part "superlatively at sight."⁹ Blumenfeld worked in close contact with Rimsky-Korsakov, Rachmaninoff, and Anton Rubinstein, who was a pianist, composer, and conductor, and who founded the St. Petersburg Conservatory. Blumenfeld's performing style, influenced by Rubinstein's, was heroically brilliant and lyrically melodious; he gave the first performances of many piano works by his contemporary composers, including Arensky.¹⁰ As a well-known teacher, Blumenfeld taught countless students, such as his nephew Neuhaus, Simon Barere, Maria Yudina, Maria Grinberg, and perhaps the best known of them all, Horowitz.¹¹ Grinberg recalls that "My first teacher was Felix Blumenfeld, a prominent concert pianist, an astounding musician... Being a conductor, he heard the piano as an orchestra, and taught his students how to 'orchestrate' piano music in their interpretations."¹² Blumenfeld emphasized color and orchestral qualities in piano music not only in his teaching but also in his piano compositions. In her dissertation, Mercer concludes, "His musical activities influenced his compositions, especially conducting as it affected how he thought about music. As a result, his piano compositions have an orchestral feel to them with thick textures and opportunities for a variety of sounds and colors."¹³

Blumenfeld completed 24 Preludes op. 17 in 1892. (In the same year, Rachmaninoff wrote the famous Prelude in c-sharp minor, op. 3 no. 2.) The collection was first published in 1895 by Belaieff, and at least one edition (ca. 1897) was published with the title page reading *Preambles dans tous les tons* (Preludes in all shades [colors]). He indicated interpretive tempo markings, including in Prelude no. 1, marked *Andante religioso*, and in no. 14, marked *Andante maestoso e lugubre*. Prelude no. 18 is subtitled "Memento mori" ("Remember you must die"), while no. 20 has a motto – a quotation from Nikolaus Lenau's *Schilflieder*, reflecting the stormy and desperate mood of the prelude.¹⁴

Tonal Scheme

The 24 Preludes op. 17 follow the same tonal scheme as Chopin's Preludes op. 28 (1835-1839); the work starts in C major and then, pairing each piece with its relative minor key, moves up following the circle of fifths, that is, C–am–G–em ... Bb–gm–F–dm. Prelude no. 1 in C major, marked *Andante religioso*, opens the set quietly and calmly in chorale-like chordal texture. Interestingly, Blumenfeld had a certain perception of how the key of a piece affects its character, stating C major being full of courage and good spirits.¹⁵ As for the total sequence of the 24 Preludes, the pairs of relative major and minor keys are obviously connected smoothly with two linking tones, for instance, C–E in a C-major chord at the end of no. 1 to C–E in an a-minor chord at the opening of no. 2. Another pair of relative keys – no. 9 in E major and no. 10 in c-sharp minor – seem particularly well bounded by the use of repeated chords at the end of no. 9 and the beginning of no. 10 as well as the use of short motives with Russian flavor. The other relative-key pair of no. 21 in B-flat major and no. 22 in g minor is closely related in the broken-chord accompaniment in the right hand.

Chopin's Influence

Roy observes that the set reflects a strong Chopinesque influence in style, tonality, and form; he highlights commonalities in the preludes in f minor of both composers in the use of recitative-like chromatic melodies with chordal accompaniment and the 23rd Prelude in F major in the combination of left-hand melodies and right-hand accompaniment employing an added-6th harmony.¹⁶ Beuermann points out similarities between preludes in the same key, suggesting that Blumenfeld may have used Chopin's op. 28 as a direct model for his own op. 17. Beuermann compares the fourth preludes in e minor of both composers as an example; in each, an unchanging, rhythmic accompaniment pattern appears with a long, slow melody in stepwise motion.¹⁷ Chopin's influence is apparent in Prelude no. 7 in A major, which has chordal patterns in the right hand, reminding us of Chopin's Etude op. 10 no. 7 and the coda of the Ballade No. 2 in F major, op. 38. Prelude no. 12 in g-sharp minor begins with eighth-note triplets in both hands in unison in the low-middle registers of the piano marked *pp mezza voce*, recalling the *sotto voce e legato* opening of the finale movement of Chopin's Sonata No. 2 in B-flat minor, op. 35. The intense, perpetual chordal texture and the brilliant closing with a sweeping ascending scale in Blumenfeld's Prelude no. 24 in d minor may recall Chopin's Prelude op. 28 no. 12 in g-sharp minor and Etude op. 25 no. 11 in a minor; however, Blumenfeld's texture is much thicker, more orchestral, and more virtuosic. Mercer observes that Blumenfeld's treatment of texture combined with rhythmic complexity generally results in a higher level of virtuosity than in Chopin's preludes.¹⁸

I noticed a connection between Prelude no. 4 in e minor (Figure 1) and the opening of Schumann's Sonata in f-sharp minor, op. 11 (Figure 2) in the arpeggiated up-down-up accompaniment pattern and a slow, sustained melody with an anacrusis in a long phrase.



Figure 1. Felix Blumenfeld, Prelude op. 17 no. 4, b. 1–8. Source: Belaieff.



Figure 2. Robert Schumann, Sonata op. 11, first movement, b. 1–5. Source: Breitkopf & Härtel.

Prelude no. 17 in A-flat major has a lyrical, soaring theme in ascending motion, which may have influenced Rachmaninoff's Prelude op. 23 no. 8 in the same key. The opening theme of Prelude no. 19 in E-flat major (Figure 3) appears to have borrowed the final aria "Liebestod" from Wagner's *Tristan und Isolde*. As mentioned earlier, Blumenfeld was the conductor who gave the Russian première of the opera in 1899. He must have been acquainted with Liszt's transcription of the aria, *Isolde's Liebestod* (1867, revised in 1875) (Figure 4), by the time of composing this prelude.



Figure 3. Felix Blumenfeld, Prelude op. 17 no. 19, b. 1–8. Source: Belaieff.



Figure 4. Franz Liszt, *Isolde's Liebestod*, from Richard Wagner's *Tristan und Isolde*, b. 5–8. Source: Dover.

The three consecutive preludes, marked by the subtitle "Memento mori" in no. 18, the inclusion of *Liebestod* in no. 19, and the poignant motto by Lenau in no. 20, appear to share thematic ties, collectively exploring the profound concepts of death, love, and despair. Moreover, the following Prelude no. 21 in B-flat major, marked *Andante tranquillo*, shares similarities with Liszt's "Bénédiction de Dieu dans la solitude" from *Harmonies poétiques et religieuses* with both texture and the religious and introspective character. Therefore, those four preludes from no. 18 to no. 21 may be meant to be performed successively, as a group.

Chromaticism, one of the significant characteristics of the late Romantic era of Western music, is seen in Preludes 4, 12, 15, 18, and 24. Only a few of them reflect Russian nationalistic character. As for texture, more than half of the preludes are very thick and orchestral with deep bass lines and large arpeggiated chords. Most of the preludes have their own distinctive rhythmic motives and patterns, in contrast to the preceding and following ones (except for 16th-note rhythms in nos. 7 and 8 and three eighth-note rhythms in nos. 10, 11, and 12.) All but three preludes (nos. 6, 9, and 24) begin softly, and many of them feature a lyrical opening theme in romantic style building to a passionate middle section with abundant colorful harmonies and modulations. The piano writing is highly virtuosic, reflecting the composer as a great pianist. The entire performance time of the 24 Preludes is about 50 minutes. Mercer states that the characters of the first and last preludes suggest that Blumenfeld may have intended the 24 Preludes to be performed as a set. I agree with her by adding one observation of an apparently meaningful sequence in Preludes 18–21 suggesting death, love, despair, and tranquility.

Twenty-four *Morceaux Caractéristiques* op. 36 by Anton Arensky

The Composer

Anton Arensky, two years older than Blumenfeld, was born in Novgorod. His father, a doctor, was a keen cellist, and his mother an excellent pianist who gave him his first music lessons. By the age of nine he had already composed some songs and piano pieces.²⁰ After his parents discovered his latent musical talent, the family moved to St. Petersburg (1879), where he studied counterpoint, harmony, composition, and instrumentation with Rimsky-Korsakov at the St. Petersburg Conservatory.²¹ Blumenfeld was one of Arensky's classmates and remained a close colleague. In 1882, Arensky graduated from the St. Petersburg Conservatory with a gold medal in piano and composition; Tchaikovsky awarded him the highest grade for his graduation harmony exam.²² Then Arensky went straight to the Moscow Conservatory as a professor of harmony and counterpoint; among his pupils were

to be Rachmaninoff, Scriabin, and Glière.²³ Glière remembered Arensky as “not an ordinary teacher who must ... prepare [his students] for the exam, but a true artist, an exceptionally gifted composer, deeply appreciated and loved not only by the public, but also by the best musicians of that time.”²⁴ Arensky met Tchaikovsky for the first time in 1883.²⁵ Arensky’s career was curiously parallel to that of Tchaikovsky, who, 16 years previously, as a recent alumnus of the St. Petersburg Conservatory, had been invited to teach at the Moscow Conservatory. Tchaikovsky remained a mentor and a great supporter of his younger colleague and evidently had a major influence on his compositions.²⁶ Beginning in 1888, besides his work at the Moscow Conservatory, Arensky held the position of director of the Russian Choral Society and gained a deep knowledge of vocal texture, mastering the style of Orthodox Church music.²⁷

Mily Balakirev founded “The Mighty Five” with Alexander Borodin, Cui, Rimsky-Korsakov, and Modest Mussorgsky. Their aim was to follow in Mikhail Glinka’s footsteps and create a distinctly Russian school of music.²⁸ Since many of them taught at the St. Petersburg Conservatory the institution became famous for nationalistic style and harmonies inspired by folk music, while the Moscow Conservatory was considered to be more cosmopolitan. It was Tchaikovsky who blurred the line between nationalistic music and foreign influence by combining folk-inspired melodies with his Western Romantic style of composition. Arensky also integrated features of Russian folklore and Orthodox Church music in his compositions, and he showed that in music Russian nationalism and cosmopolitanism can cohabit without major antagonism.²⁹

The 24 *Morceaux Caractéristiques* op. 36 was composed in 1894³⁰ and first published by P. Jurgenson.³¹ Prior to this set Arensky had given titles in French to his compositions in opp. 19, 25, 30, and 34. Even with the rise of nationalism the French language continued to predominate in the names of keyboard pieces in 19th-century Russia because of its social cachet, which led publishers to hope it would attract the all-important market of young ladies.³² Arensky’s student Rachmaninoff wrote his *Morceaux de Fantaisie* op. 3 in 1892 and dedicated it to Arensky.

Tonal Scheme and Titles

The set of Arensky’s op. 36 is organized in an ascending chromatic order of keys with pairs of parallel major and minor pieces, starting with C major and c minor and moving up a semitone chromatically, that is, C–cm–C#–c#m ... Bb–bbm–B–bm, just as J. S. Bach had done in his *The Well-Tempered Clavier*. All 24 pieces have titles; some of them bear French titles and others have typical titles for character pieces used by 19th-century composers like Chopin, Schumann, Mendelssohn, and Liszt. In order, the titles are “Prélude,” “La toupee” (“Spinning Top”), “Nocturne,” “Petite ballade,” “Consolation,” “Duo,” “Valse,” “In modo antico,” “Papillon,” “Ne m’oubliez pas” (“Do Not Forget Me”), “Barcarolle,” “Intermezzo,” “Etude,” “Scherzino,” “Le ruisseau dans la forêt” (“The Stream in the Forest”), “Élégie,” “Le rêve” (“The Dream”), “Inquiétude” (“Restlessness”), “Rêverie du printemps” (“Spring Reverie”), “Mazurka,” “Marche,” “Tarantella,” “Andante con variazioni,” and “Aux champs” (“In the Fields”).

Influence of Romantic Composers

The set contains a kaleidoscopic variety of character pieces. Many of them reveal a strong influence from the composers of the Romantic era, of which the most recognizable is Chopin. The third piece, “Nocturne” in D-flat major begins with a falling interval, recalling the opening of Chopin’s Nocturne op. 27 no. 2 and Prelude op. 28 no. 15, which are written in the same key. Numbers 4, 7, 20, and 22 are in the character of ballade, waltz, mazurka, and tarantella, respectively; all these are titles of Chopin’s pieces. Numbers 9, 12, 14, 18, and 21 demonstrate Schumann’s influence; for example, no. 9 “Papillons” borrows the light dotted rhythms in 2/4 meter in the second movement of Schumann’s *Papillons* op. 2. Mendelssohn’s *Songs Without Words* also seem to have influenced nos. 2, 16, and 19, especially no. 2; “La toupee” can easily remind us of Mendelssohn’s “Spinning Song” op. 67 no. 4; Liszt’s influence is seen in nos. 13, 15, and 17; and that of Brahms is seen in no. 17. An unusual inclusion within a set of character pieces is no. 23, which is in the form of a theme and 5 variations. Beginning with a peaceful theme in 3/4 meter, this piece must have been modeled after the final movement of Beethoven’s Sonata op. 109. The opening of the last piece, “Aux champs” (“In the Field”), reflects a Russian folk tune and uses a church-bell-like sound (Figure 5), while the middle section includes rhythmical passages in two hands in contrary motion (Figure 6) reminding us of Tchaikovsky’s *Dumka* op. 35 (Figure 7).



Figure 5. Anton Arensky, *Morceaux Caractéristiques* op. 36 no. 24, “Aux champs,” b. 5–6. Source: P. Jurgenson.



Figure 6. Anton Arensky, *Morceaux Caractéristiques* op. 36 no. 24, “Aux champs,” b. 17–18. Source: P. Jurgenson.



Figure 7. Pyotr Ilyich Tchaikovsky, *Dumka* op. 59, b. 50–51. Source: Peters.

Arensky's op. 36 no. 8 ("In modo antico") is written in baroque fugal style with the rhythm of a French overture. Numbers 1, 17 (middle section), and 21 are highly orchestral; the first and last are majestic in thick chordal texture, while the latter two include trumpet-like sounds and rhythms. Number 12 ("Intermezzo") is written in the asymmetrical time signature of 5/8. The repeated use of particular intervals is seen in no. 8 (falling fifth), no. 10 (falling second and fourth), and no. 11 (rising sixth). Chromaticism appears in nos. 2, 4, 6, 7, 10, 12, 13, 16, and 18. Numbers 4 and 10 begin in an ambiguous tonality while no. 2 in c minor unexpectedly begins in E-flat major.

The Set as a Cycle?

Two consecutive pieces, nos. 6 and 7, are in the style of a waltz, as the former is marked *Tempo di Valse* and the latter is titled "Valse." It is uncertain whether Arensky intentionally placed these two pieces together to be played without pause. Many pieces are written with repeat signs, and the total performance time may be more than 70 minutes, including the lengthy set of variations (no. 23). Moreover, the set begins with a majestic, orchestral "Prélude" in C major but concludes quietly with the sorrowful no. 24 in b minor. With these considerations, it is questionable whether the composer intended the 24 *Morceaux Caractéristiques* op. 36 to be performed as a cycle. The set may have been conceived not as a cyclic composition but as a collection of short character pieces. I believe that playing them individually or playing a selection of pieces would be more effective.

Twenty-Five Préludes op. 64 by César Cui

The Composer

César Cui was born to a French father and Lithuanian mother in Vilnius three decades before Blumenfeld, and Arensky. Brahms, Camille Saint-Saëns, and Balakirev were of the same generation. As a boy, Cui had first piano lessons with his sister and was strongly attracted to the music of Chopin. Although he started composing at the age of 14 and studied figured bass, chorale harmonization, and counterpoint with the Polish composer Stanisław Moniuszko,³³ he entered the Engineering School at St. Petersburg in 1851 and later studied at the Academy of Military Engineering (1855–1857); after graduation he began his career as a military teacher, becoming an acknowledged expert on fortifications. In 1856, while he was still a student at the Academy of Military Engineering, Cui met Balakirev and entered into the musical life in St. Petersburg. He was greatly influenced by Balakirev, who may have supervised the orchestration of Cui's piano scherzos (1857).³⁴ The orchestral Scherzo op. 1 was premiered in 1859 as his public debut as composer.³⁵ Although he composed in almost all genres, he is known chiefly as a miniaturist; the major part of his music consists of songs and short chamber and piano pieces.³⁶ Cui was also known as a music critic starting in 1864; he continued writing music criticism regularly for about 40 years, reaching a total of nearly 700 articles.³⁷ In addition to receiving accolades and promotion in his military teaching career, Cui was named a member of the Institut de France in 1894, and during the period 1896–1904 he served as officiating director of the St. Petersburg division of the Russian Music Society.³⁸

Total Scheme

The 25 Préludes op. 64 was first published by P. Jurgenson in 1903. The set consists of 25 preludes instead of 24, beginning and ending in the key of C major. Prior to Cui, the French composer Charles-Valentin Alkan wrote a set of 25 Préludes op. 31 in 1847.³⁹ Cui followed

the order of Chopin's Preludes op. 28 in using the circle of fifths, but the sequence is not exactly the same; after *Prélude* no. 1 in C major, he skips its relative key of a minor and goes to e minor followed by G major – relative keys of one sharp, but in this case with the expected major–minor ordering reversed. After the relative-key pair of no. 22 in d minor and no. 23 in F major, the piece in a minor comes as no. 24; following the a-minor prelude, *Prélude* no. 25 in C major concludes the set. This unique order actually follows a scheme of ascent by thirds (major alternating with minor thirds), and with equivalent alternation of major and minor keys: C–em–G–bm–D–f#m–A–c#m–E–g#m–B–ebm–Gb–bbm–Db–f–Ab–cm–Eb–gm–Bb–dm–F–am–C. The result is that two neighboring preludes share two common tones in tonic chords, making a smooth transition from one prelude to the next as a sequence. The repetition of C major to end the set (no. 25) also suggests a sequential compositional intent.

Russian Flavor

Ryder states that Cui himself discussed five traits of Russian characteristics in music: complete freedom of rhythm including odd numbers of measures within phrases, frequent use of church modes other than major or minor, use of plagal cadences, occasional use of static harmony including the use of pedal point, and short melodies using a limited range of intervals.⁴⁰ Two preludes – no. 4 in b minor and no. 11 in B major – display some of those characteristics. The theme of the middle section in the former prelude, which has a stepwise motion in *tarantella* rhythm in 6/8 (Figure 8), recalls the middle-section theme of “Lezginka” in b minor from 12 *Études d'exécution transcendante* op. 11 no. 10 (published ca. 1900) by Sergey Lyapunov⁴¹ (Figure 9).



Figure 8. César Cui, *Prélude* op. 64 no. 4, b. 42–48. Source: P. Jurgenson.



Figure 9. Sergey Lyapunov, “Lezginka” from 12 *Études d'exécution transcendante* op. 11 no. 10, b. 100–103. Source: J. H. Zimmermann.

The middle-section theme of Cui's *Prélude* no. 4 in the figure above is in Phrygian mode in a five-bar phrase. Bars 47–48 include sixteenth-note triplets reminiscent of Tchaikovsky's “Song of the Lark” from *Album for the Young* op. 39 no. 22. The middle section maintains a B pedal point throughout, and a plagal cadence (i–IV7–i–IV7–i) emerges in bars 104–108, echoing the harmonic progression in Glinka–Balakirev's *The Lark* (ca. 1864) (I–iv–I–iv–I in bars

65–67). Prélude no. 11 in B major is another example of Russian flavor. The opening theme (Figure 10) starts with a repeated short rhythmic motive, which can remind us of the opening theme of Tchaikovsky's "Troika (November)" from *The Seasons* op. 37 no. 11.



Figure 10. César Cui, Prélude op. 64 no. 11, b. 1–4. Source: P. Jurgenson.

Prélude no. 11 also uses a pedal point with the tonic B. Cui includes two preludes in asymmetrical meters: no. 14 in b-flat minor in 5/4 and no. 15 in D-flat major in 7/8. Both preludes feature repeated uses of short motives. The stepwise motion of the opening theme in no. 15, marked *pp sempre tranquillo* (Figure 11), recalls Schumann's "Eusebius" from *Carnaval* op. 9 (1834–1835) in its *sotto voce* opening theme in septuplets.



Figure 11. César Cui, Prélude op. 64 no. 15, b. 1–4. Source: P. Jurgenson.

Schumann's influence is also seen in Préludes nos. 3, 7, and 21. Chopin's Nocturne in D-flat major op. 27 no. 2 may be hinted at in the middle section, in D-flat major, of Cui's Prélude no. 14 in b-flat minor. Although it incorporates traits of Russian music, especially the use of repeated rhythmic motives and frequent pedal points, Cui's op. 64 seems to reflect late 19th-century Romantic tradition more than Russian nationalistic style. Cui himself said of his own style, in a letter of 1897, "though Russian, my origins are half French, half Lithuanian, and I don't have the sense of Russian music in my veins."⁴² The total performance time is around 70 minutes. The sequence of Cui's Preludes flows smoothly without any surprise because of sharing two common tones from one to the next. The deliberate inclusion of the 25th Prelude in C major suggests that the composer probably envisioned the set to be performed as a cycle.

Twenty-Five Preludes op. 30 by Reinhold Glière

The Composer

Reinhold Glière was born to a German father and Polish mother in Kiev. Being two years younger than Rachmaninoff, he entered the Moscow Conservatory in 1894, where he studied the violin with Vasily Sokolovsky and Jan Hrímalý, harmony with Arensky and Georgii Konius, counterpoint with Sergei Taneyev, and composition with Mikhail Ippolitov-Ivanov.

He graduated from the Conservatory in 1900 with the gold medal in composition.⁴³ Immediately after graduation, he started teaching harmony and music analysis at Gnessin School of Music in Moscow. Sergei Prokofiev was a private student of Glière in the summers of 1902 and 1903. From 1905 to 1908 Glière went to Berlin to continue further study in conducting and composition. Upon returning to Moscow, he began his conducting career, becoming popular as a conductor of orchestral works.⁴⁴ Glière wrote more than 500 works,⁴⁵ predominantly on a grand scale in the large forms (opera, ballet, symphony, symphonic poem, etc.). The most important element in his style is expressive melody.⁴⁶ During the first decade of the 20th century, he wrote within various genres, such as chamber, orchestral, vocal, and piano music. These works include String Sextet no. 1 op. 1, for which Glière received a Glinka Award in 1905, as well as 25 Preludes op. 30.⁴⁷

Glière's 25 Preludes op. 30 was published by P. Jurgenson⁴⁸ in five volumes over a period of three years, with each volume containing five preludes: volumes 1–2 in 1906, volumes 3–4 in 1907, and volume 5 in 1908.⁴⁹ These may have been written in Germany as the composer studied conducting with Oskar Fried in Berlin.⁵⁰

Tonal Scheme and Influence of Other Composers

Glière's preludes start and end in C major. As discussed above, Alkan and Cui had previously composed sets of 25 preludes, which may have influenced Glière's work. His op. 30 follows the same key scheme as J. S. Bach's *The Well-Tempered Clavier*, with pairs of parallel major and minor keys in ascending order of the chromatic scale. Glière's prelude style is highly chromatic with colorful harmonies and modulations, requiring virtuosic technical skills. The use of chordal texture in Prelude no. 1 in C major matches the opening numbers of the previous sets by Blumenfeld, Arensky, and Cui (Rachmaninoff's op. 3 no. 2 is also chordal). Prelude no. 2 in c minor (Figure 12) displays a significant similarity to Chopin's Prelude no. 28 no. 20 in the same key in the harmonic progression.



Figure 12. Reinhold Glière, Prelude op. 30 no. 2, b. 1–7. Source: P. Jurgenson.

Another Chopinesque influence can be seen in the last two pieces, Preludes 24 and 25; no. 24 in b minor includes double octave lines in unison, which is similar to Chopin Etude op. 25 no. 10 in the same key, while no. 25 begins with a unison melody in *ppp*, which recalls the finale movement of Chopin Sonata no. 2 as well as the Prelude in e-flat minor op. 28 no. 14. Two consecutive pieces, Preludes 10 and 11, may have been inspired by Rachmaninoff's compositions; no. 10 in e minor (Figure 13) may have been modeled on Rachmaninoff's *Moment musicaux* op. 16 no. 4 in the same key (1896), and the rising lyrical melodic line of no. 11 in F major can recall Rachmaninoff's Prelude op. 23 no. 8 in A-flat major (1903).



Figure 13. Reinhold Glière, Prelude op. 30 no. 10, b. 1–7. Source: P. Jurgenson.

Prelude no. 11 is written in an asymmetrical meter of 5/4. Scriabin's influence can be recognized in Preludes 13, 19, 20, and 24. A few successive preludes share some related traits; for example, each of nos. 5, 6, and 7 features a specific interval and rhythm: no. 5 in D major uses recurring rising intervals in trochaic dotted rhythm, no. 6 in d minor has thirds in perpetual motion, and no. 7 in E-flat major uses recurring falling fourths in iambic dotted rhythm. The dotted rhythms of no. 7 noticeably continue in no. 8 in e-flat minor. Three pieces, nos. 16, 17, and 18, are all written in thick chordal texture, reaching a sustained intensity as one of the climactic moments in the entire set. Prelude no. 23 in B major is chorale-like in the style of liturgical music, serving as a short interlude before the last two passionate preludes. None of the 25 Preludes op. 30 seem to reveal a distinctive Russian nationalistic style. Although the total performance duration of the set is more than 50 minutes, the cyclic structure of beginning and ending in C major, along with a brilliant conclusion and the inclusion of relationships among some successive preludes, may support the idea of performing the set as a cycle as the composer's intention.

Conclusion

The piano character pieces composed by Blumenfeld, Arensky, Cui, and Glière, each exploring all 24 major and minor keys, stand as captivating and aesthetically rich creations. The table below illustrates a comparison of the total scheme in the four works (Figure 14).

Despite employing varied tonal schemes, an intriguing commonality emerges – each set commences with a piece in C major, notably featuring chordal texture in their opening preludes. Nos. 5, 9, 13, 17, and 21 in all four works are in D major, E major, F-sharp major, A-flat major, and B-flat major, respectively. All composers except Cui were pianists and conductors, so that these composers infuse their works with a highly pianistic and virtuosic quality, often enriched by orchestral sonorities in lush textures.

Evident throughout is the borrowing of characteristics from other composers, most notably by Arensky, while Glière exhibits a more subtle influence. The pervasive impact of Chopin is discernible across all four compositions, with Blumenfeld's set closely mirroring the tonal organization of Chopin's Preludes op. 28. Chromaticism finds a prominent place in Glière's set, where nearly every prelude incorporates chromatic elements, in contrast to Cui, whose pieces exhibit chromaticism in fewer than half.

No.	Blumenfeld 24 Preludes, op. 17	Arensky 24 Morceaux caractéristiques, op. 36	Cui 25 Préludes, op. 64	Glière 25 Preludes, op. 30
1	C major	C major	C major	C major
2	a minor	E \flat major \rightarrow c minor	e minor	c minor
3	G major	D \flat major	G major	D \flat major
4	e minor	C \sharp minor \rightarrow D \flat major	b minor	c \sharp minor
5	D major	D major	D major	D major
6	b minor	d minor	f \sharp minor	d minor
7	A major	E \flat major	A major	E \flat major
8	a minor	e \flat minor	c \sharp minor	e \flat minor
9	E major	E major	E major	E major
10	c \sharp minor	e minor	g \sharp minor	e minor
11	B major	F major	B major	F major
12	g \sharp minor	f minor	e \flat minor	f minor
13	F \sharp major	F \sharp major	F \sharp major	F \sharp major
14	e \flat minor	f \sharp minor	b \flat minor	f \sharp minor
15	D \flat major	G major	D \flat major	G major
16	b \flat minor	g minor	f minor	g minor
17	A \flat major	A \flat major	A \flat major	A \flat major
18	f minor	g \sharp minor	c minor	g \sharp minor
19	E \flat major	A major	E \flat major	A major
20	c minor	a minor	g minor	a minor
21	B \flat major	B \flat major	B \flat major	B \flat major
22	g minor	b \flat minor	d minor	b \flat minor
23	F major	B major	F major	B major
24	d minor	b minor	a minor	b minor
25			C major	C major

Figure 14. Table of the tonal schemes in the four works.

Russian nationalistic sentiments permeate the works of Blumenfeld, Arensky, and Cui, contributing to their distinctive musical voices. Noteworthy stylistic choices include the frequent use of short motives by Blumenfeld and Cui, along with the incorporation of asymmetrical meters in all sets except Blumenfeld's. It becomes apparent that the sets by Blumenfeld, Cui, and Glière are intended for performance as cycles, underscoring their interconnectedness.

While scholars have raised concerns about the originality of these compositions, the relative obscurity of these composers and their piano works invites a fresh evaluation. The scarcity of performances, particularly as cycles, suggests that their merit deserves reexamination by performers and listeners alike. Without a preconceived notion of their originalities, a closer study may reveal the unique beauty, intricate melodies, harmonies, and

profound emotions that define each of these sets. Their true originality unfolds through an unbiased exploration, encouraging a deeper appreciation of these lesser-known yet remarkable piano pieces.

Endnotes

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Predicted Metaverse Impacts on Architectural Heritage

Conservation & Building Reuse Sustainability

Mohamed Elbelkasy⁺ & Ibrahim Hegazy⁺⁺ (Saudi Arabia)

Abstract

This article delves into the multifaceted effects of Metaverse technology on the conservation and repurposing of heritage sites. It seeks to answer pivotal questions: Can the creation of heritage zones in the Metaverse enhance or impede the sustainability of conservation efforts? Does Metaverse offer a conducive platform for documentation and experimentation, preserving the integrity of real-world sites? Through a meticulously crafted three-step methodology, the study explores the theoretical implications of Metaverse technology on heritage conservation, conducts a rigorous analytical assessment of its impact, and validates its findings via stakeholder surveys. By uncovering both positive and negative ramifications, the research not only illuminates the complexities but also proposes actionable guidelines for optimizing the integration of historical sites into virtual realms. This serves as an invaluable resource for stakeholders navigating the intricate intersection of cutting-edge technology and the preservation of cultural heritage, ensuring informed decision-making and sustainable conservation practices.

Keywords: *Heritage Conservation, Metaverse, Heritage Buildings Reuse, Virtual Reality*

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Introduction

Developments in computer science enrich human interaction, communication, and social transactions to enhance human life. During the COVID-19 pandemic, the need for remote communication emerged, especially in education, work, and social communication; the solution was in cyberspace. The term "metaverse," which appears for the first time in Neal Stephenson's 1992 science fiction book "Snow Crash," is interpreted as a virtual universe separate from the real one (Stephenson, 2000). After Mark Zuckerberg announced in October 2021 the use of metaverse technology in social media (Facebook) and changed the name of the company to Meta, huge investments were directed toward producing virtual elements such as avatars, homes, and virtual environments. Thus, heritage environments are nominated as one of the most critical targets for these investments, like the background of events in electronic games or as a destination for user visits.

The virtual world can be defined as a brand new digitally built environment, an extension of the real world that includes physical appearance, cultural and social interaction, aesthetics, and philosophical arguments (Moneta, 2020). The main goal of using Metaverse technology in social media is to create a virtual environment where a person can present himself to people in digital space, which means that he will be embodied inside the Internet rather than just looking at it. Metaverse technology has been used in architectural education by constructing heritage buildings to facilitate the knowledge and explanation of their components and their visit to virtual reality during the COVID-19 pandemic. Many applications use a three-dimensional model of many heritage sites, with the possibility of walking around (Purwantiasning & Kurniawan, 2020). Using it in electronic games and making it available in virtual reality (VR) will make their use on Facebook (a social media application) more widely accessible.

Multiple factors, including economic, social, and environmental ones, can have an impact on conservation and reuse processes in the long term. The use of new technologies, such as Metaverse technology, can have an impact on heritage conservation and heritage building reuse (Dao Thi, 2023). Because of these areas' sensitivity and historical value, these effects must be studied before using Metaverse technologies to minimize the adverse effects that can influence the social and cultural aspects of heritage areas (Saleh, 2021). The study of the anticipated impact of Metaverse technology on the long-term conservation and reuse of heritage buildings to avoid the negative influence of using architectural heritage areas in Metaverse applications.

Research Goals

The primary objective of the research is to investigate the predicted effects of creating heritage areas in Metaverse technology and various electronic fields or social media and to analyze these effects in order to identify their positive and negative impact to anticipate the impact of using this technology on heritage conservation and heritage buildings reuse processes.

Research Hypothesis

The research hypothesis is that expanding the creation of heritage areas in the Metaverse without control will harm the processes of heritage building conservation and reuse and that these controls are the only ones that can increase the likelihood of sustaining these processes.

Methodology

The research is divided into three stages. The first is a literature review that represents a study that depends on the theoretical method, which sets the concept of Metaverse technology and studies factors for sustaining heritage conservation. The second stage analyzes the strengths, weaknesses, opportunities, and threats affecting heritage conservation and sustainable building reuse. The last step depends on the practical approach to evaluating the analysis and presenting the predicted impact of using heritage areas in Metaverse applications.

The research methodology is divided into three approaches; the first depends on the theoretical background and contextual approach. Studying the Metaverse concept and its applications in architecture and heritage conservation, such as virtual reality (VR) and augmented reality (AR). Examining the factors that affect the sustainability of the heritage conservation process and the relation between them and Metaverse technology and applications. The second approach depends on an analytical approach that analyzes the influence of Metaverse technology (VR) and (AR) on heritage conservation sustainability factors. The analytical side studies the analysis to predict the effects of Metaverse technology on architectural heritage sites. The last applied approach evaluates the research proposal through the evaluation elements inferred from the analysis. The analysis will be examined through an investigation directed at a group of stakeholders related to architectural heritage sites and the conservation process to evaluate this analysis and predict the impact of using architectural heritage areas in Metaverse applications to reach the results and recommendations, as shown in Figure 1.

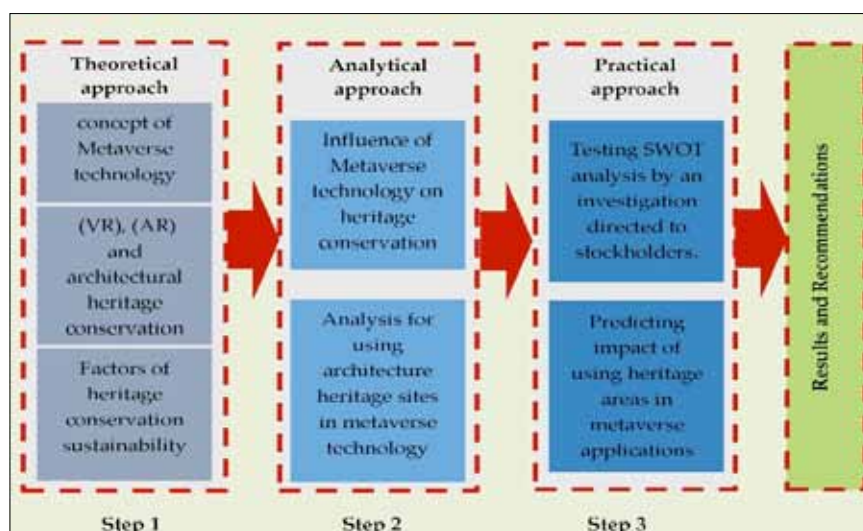


Figure 1. The research methodology.

Theoretical Background and Contextual Approach: Metaverse Technology and Historical Conservation Sustainability

Metaverse is the next version of the Internet, which includes virtual worlds where users can create 3D environments and objects and move through them with their avatars (Binson, 2021; Moneta, 2020). Metaverse can be considered a blending of virtual, physical, and digital environments facilitated by the convergence of Internet and web technology and

extended reality. From the previous definitions of Metaverse technology, we find that building heritage areas and environments can represent an essential part of the experience of visiting and residing in these areas, which can attract many users of these technologies. Metaverse technology has already been used in architectural education to build historical and heritage areas and present to students materials related to the study of the history of architecture, especially during the period of the COVID-19 pandemic (Gaffar, 2021).

Users can now build their own shapes and 3D environments and live in a virtual world. The emerging platforms that use virtual environments enrich the experience that emulates virtual space for social and online meetings. However, to get to the virtual world, we have to pass the digitalized real-world phase (digital twins) and the merged and perpetual world phase to reach the virtual world (digital natives), as shown in Figure 2.

As Metaverse building blocks, virtual reality (VR) and augmented reality (AR) help transform the physical world into a virtual one. Currently employed in digitizing the physical world (digital twins), these applications aid architectural education during the COVID-19 pandemic.

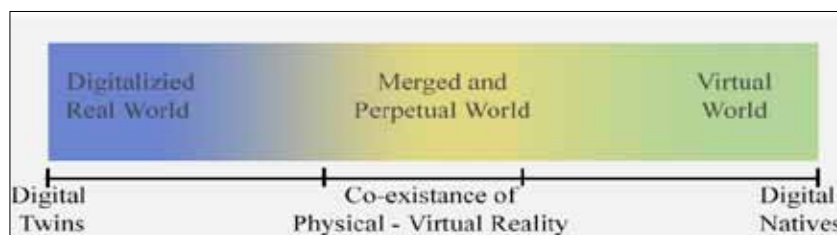


Figure 2. The transformation phases from digital twins to reach the digital natives, Source: Modified by the author from: Lee, Lik-Hang et al., 2021.

Digital Technology in Heritage Conservation

Digital technology makes remote cultures and locations more accessible than ever before. At the level of heritage conservation, digital technology provides images with a high resolution. These 3D models can be utilized in heritage documentation, and digital heritage applications can encourage users to value and appreciate their heritage. It will produce citizens who will aid in heritage preservation and prevent its destruction (Economou, 2016).

Heritage Conservation and Digital Twins

Heritage Conservation and Digital Twins

The idea of digital twins can be divided into two sub-systems: the virtual system holds all the data related to the physical system and the physical system itself. As a result of this connection, data and information flow between the two systems from real space to virtual space, which means there is mirroring or twinning between what existed in real and what existed in virtual (Grieves, 2016), so digital twins can be used in research, education, and heritage conservation.

According to the digital twin's concept, the physical conservation and reuse project data can be used to create a virtual perception that will help create accurate documentation for heritage sites and buildings. The digital twin's concept can help in project evaluation after

implementation, which is more suitable for sensitive heritage buildings and more sustainable because, in this situation, we can decrease the dangers caused by heritage building reuse. Digital twins can make very accurate replicas of heritage monuments that are used in research, education, and heritage conservation.

Virtual and Augmented Reality as Heritage Conservation Digital Applications

Virtual reality (VR) is a computer-generated environment that simulates a physical presence in real or imaginary worlds (Munoz et al., 2014) and closely resembles the reality of the person using it (Shakeri & Ornek, 2022). In heritage conservation, VR technology can create heritage sites to help better understand and identify the main issues of conservation and building reuse. Besides, VR is a tool to help users, stockholders, and decision-makers make suitable decisions for conservation and building reuse.

Virtual reality (VR) applications helped build many heritage sites for educational purposes, which helped in distance learning processes. This technology can help understand and assimilate the fine details in these sites, as well as the traditional building methods and technology used in construction (Gaafar, 2021), as shown in Figure 3.

Augmented reality (AR) can be summarized by adding tools to (VR) to make the scene more real, such as furniture, lights, or new construction elements that overlap the virtual and real worlds. Augmented reality differs from virtual reality in that it can present an image of the building after the conservation and reuse operations, with the addition of all the new elements that help evaluate the reuse operations and their suitability for the building, and it enabled making (VBIM). So, we can say that AR permits users to see the real world and not the virtual environment produced by VR (Aziz & Siang, 2014).



Figure 3. Left, Real Pharaonic Tomb. Right, Model for the Same Tomb Created by VR for Educational Purposes, Source: (Gaafar, 2021).

Social Media Metaverse and Heritage Conservation

The social media Metaverse is just in the development phase, and massive investments have been spent emphasizing the Metaverse applications. Video games and positioning applications represent the most important applications that deal with communication, which can be used in the following:

- Games: gaming is anticipated to be an essential application for Metaverse technology due to its immersive nature. Many cities and heritage buildings appeared as back-grounds for video games, and these buildings contained many details that could be used in documenting these buildings or the periods that they could express, as shown in Figure 4. Zuckerberg explained how the Metaverse would provide gamers with a platform that would increase their gaming experiences and allow more games to be included (Allam et al., 2022).



Figure 4. Left, A model of games used historical buildings as a background. Right, A model of the games used historical buildings as a background, Source: <https://www.ubisoft.com/en-gb/game/assassins-creed/odyssey>.

- GIS applications: many users use GPS applications to interact with traffic and directions, and the most important of these applications is one that contains three-dimensional models of many heritage and historical sites (Figure 5). The user can roam around heritage areas, which can be the basis for Metaverse applications that can use these technologies to navigate heritage areas.



Figure 5. Two different scenes for Piazza San Marco from the Google Earth application, Source: produced by Google Earth image date 9/23/2023, 45o26'01.88" N, 12o20'17.6" E eye alt 30ft.

Sustainability Factors of Architectural Heritage Conservation and Building Reuse

Sustainable development depends mainly on the interaction of three primary factors: the economy, the environment, and the local community (Figure 6). Therefore, developing the three axes together is necessary when investing in the heritage environment (Purwantiasning, 2021). Environmental development aims to create urban aspects and services, which is one of the main elements.

The expected effects of using Metaverse technologies, especially at the level of social media, can affect the sustainability of the preservation and reuse of heritage buildings on all sustainability factors, which can be summarized in the following:

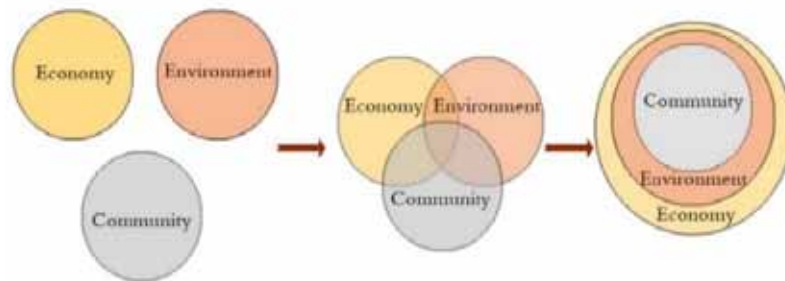


Figure 6. Factors of architectural heritage conservation sustainability, Source: The authors.

Predict the Influence of Metaverse on the Architectural Heritage Site Economy

The economies of heritage areas depend on traditional industries or investment in the employment of heritage buildings, in addition to tourism (Elbelkasy & Mustafa, 2022), which constitutes one of the most important economic resources for these areas. Interaction and visiting heritage areas through Metaverse applications can affect the number of tourists coming to these areas, which may affect the economies of these areas.

Predict the Influence of Metaverse on the Architectural Heritage Site Environment

Developing and developing heritage environments depend on a plan to preserve these areas, which government agencies, civil society organizations, and loans or grants from international bodies interested in heritage mainly fund. The operations of reused heritage buildings can be done by individual investors or for-profit entities. NGO aims to develop the local community economically (Rashed & Al-attar, 2005). The economic returns used in maintenance and development must be increased to ensure the sustainability of heritage environment development. The economic returns could be affected due to the use of Metaverse techniques if the financial returns necessary to sustain the preservation and development of heritage environments are not considered.

Predict the Influence of Metaverse on the Architectural Heritage Site Community

Development of the local community is considered one of the purposes of heritage conservation, which can be achieved by increasing financial returns from local handcrafts that characterize the heritage areas. Increase income through tourism returns, which can be affected due to the use of Metaverse technologies, which will reduce these returns. In the re-settlement of heritage areas with the new community with a higher social and economic level, financial returns will not be required for maintenance operations, which will be provided by re-settlement operations (Elbelkasy 2022).

Using Metaverse Technology in Architectural Heritage Buildings Reuse

Reusing heritage buildings is one of the most important guarantees for the sustainability of the conservation of these buildings and the development of the entire heritage area. The process of selecting the new function of the building goes through a set of phases, as follows (FatemeH Hedieh Arfa, 2022):

- Definition of design strategies
- Definition of adaptive reuse potential
- Definition of the appropriate function
- Evaluate the building
- Final decision making
- The decision of functional changes
- Public participation

The new function of the heritage building has to suit the following (Mahmoud 2015):

- Building nature.
- The structural condition of the building.
- Space potential of the building.
- The local community of the heritage area.

Metaverse techniques help model alternatives for the reuse of heritage buildings, which allows the evaluation of various alternatives before implementation processes and ensures the interaction of the local community with the optimal option for reuse. Augmented reality techniques can also be used to study the movement in architectural space and furniture potentials, which helps decision-makers explore all alternatives. It is also possible to study the economic returns resulting from the various options and use them to reduce the risks of investment operations, select a suitable proposed process to bridge gaps between public and private finance and develop collaborative initiatives (Burnham, 2022).

Analytical Approach: Analysis of Using Architectural Heritage in Metaverse Applications

A structured methodology combining literature review-based analysis and stakeholder questionnaires was employed to comprehensively assess the potential impacts of integrating Metaverse technology into architectural heritage contexts. This methodological approach aimed to provide a nuanced understanding of the environmental, economic, and community dimensions influenced by utilizing Metaverse applications such as virtual reality (VR), augmented reality (AR), games, and social media in heritage areas.

The initial phase of the methodology involved an exhaustive review of existing literature on integrating Metaverse technology in architectural heritage settings. This literature encompassed scholarly articles, research papers, reports, and case studies that examined the positive and negative aspects of employing Metaverse applications in heritage conservation and development. This review process synthesized vital themes, trends, and findings to establish a foundational understanding of the potential implications of Metaverse technology on architectural heritage. Particular emphasis was placed on identifying environmental, economic, and community impacts, thus laying the groundwork for subsequent analysis.

Following the literature review, a stakeholder questionnaire was designed to validate and augment the insights gleaned from the literature. Stakeholders representing diverse interests in architectural heritage—including conservationists, community members, tourism authorities, planners, developers, and technology experts—participated in this study phase. The questionnaire, structured to address specific aspects of environmental, economic, and community dimensions, solicited stakeholders' insights, opinions, and perspectives regarding the potential impacts of Metaverse technology on architectural heritage environments.

The collected data underwent both quantitative and qualitative analysis to discern common themes, disparate viewpoints, and areas of consensus or contention among stakeholders.

Drawing upon the literature review and stakeholder questionnaire findings, an analytical framework was developed to examine the impacts of Metaverse technology on architectural heritage systematically. This framework, organized around the three elements of sustainability—environmental, economic, and community—categorized and analyzed the positive and negative implications of Metaverse applications. At each level of analysis, considerations were made for the effects on heritage conservation processes, economic viability, and social cohesion within local communities. By integrating insights from both the literature and stakeholder perspectives, this methodology facilitated a holistic understanding of the multifaceted impacts of Metaverse technology on architectural heritage.

Analysis According to Environmental Level

The following points include the analysis of the environmental impacts of using heritage areas in Metaverse applications (VR, AR, games, and social media).

Positive impact.

1. Using Metaverse technology to visit heritage areas will reduce the number of visitors to heritage sites, reducing pollution from vehicles and waste.
2. VR and AR can be used to create a virtual building information model (VBIM) for heritage area projects, which helps assess needs and select the best proposals.
3. Metaverse technology allows the evaluation and study of place-making in heritage areas' urban spaces and presents different scenarios for the region's multiple characters and periods.
4. AR and VR technologies help local communities interact with proposed place-making projects in the heritage environment's urban spaces, evaluate them, and participate in their implementation.

Negative Impact

1. The use of (AR) in the urban spaces of the heritage environment in a way that does not suit the traditions, values, or culture of the local community will affect the heritage value.
2. Heritage area local environment plans were created to serve visitors and the local community. Using Metaverse technology will affect these plans and change the heritage environment by reducing visitors.
3. One of the expected risks is that there will be a disconnect between reality and virtual reality, contributing to the deterioration of the heritage environment.

Analysis According to Economic Level

The following points include the analysis of the economic impacts of using heritage areas in Metaverse applications (VR, AR, games, and social media).

Positive Impact

1. Using Metaverse technology in heritage areas will increase investment fields and facilitate the assessment of these investment projects.
2. Building a virtual model for investment projects in heritage areas ensures local community participation, which is essential to their sustainability (Elbelkasy, 2017).

3. Metaverse applications help select the best economic evaluation method for heritage investment projects.
4. Expect huge returns from Metaverse applications that use heritage areas and Civilization Rights to develop heritage. Civilization rights require those who profit from world heritage to develop heritage environments that benefit and develop local communities (Rashed, 2020).

Negative Impact

1. The use of architectural heritage areas in Metaverse applications will reduce visitor numbers, which will affect heritage economies by lowering the returns of investment projects that depend on visitors.
2. The economies of heritage areas depend on marketing the handicrafts that characterize these areas, which could be affected by the use of Metaverse technology and reduce visitor returns.
3. Reducing the economic returns to heritage areas is one of the most critical factors threatening the sustainability of the conservation of these areas.
4. Using Metaverse technology and reducing the number of visitors in heritage areas reduces the economic returns of handicrafts, which threatens their extinction.

Analysis According to the Community Level

The following points include the analysis of the social impacts of using heritage areas in Metaverse applications (VR, AR, games, and social media).

Positive Impact

1. AR technology can revive the ancient cultures, customs, and traditions of heritage areas, allowing researchers to study their development and predict their future effects on the heritage environment.
2. (VR) and (AR) technologies allow an integrated visualization of conservation projects, which ensures more significant interaction from the local community because it can coexist with the project and learn about its various dimensions, ensuring achieving sustainability.
3. Metaverse technology can visualize heritage conservation projects and their effects on the local community. Their knowledge and evaluation of proposed projects promote community interaction.

Negative Impact

1. The use of Metaverse technology and the lack of returns from tourism projects in heritage areas can lead to unexpected changes in the nature and composition of the community, which affect conservation processes.
2. It is using Metaverse technology for heritage areas and reusing them in a way that is not commensurate with the values and culture of the local community.
3. The use of Metaverse technology and the lack of return from tourism projects affects handicrafts and their return and thus may lead to their extinction due to the local community's tendency to use other sources of income.

Evaluation of the Analysis

The analysis was evaluated by a questionnaire directed to the specialists and academics in conservation (architects – archeologists) and tourism, as in Figure (7).

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Tourism worker	6	11.1	11.1	11.1
	Archaeologists	6	11.1	11.1	22.2
	Architect	27	50.0	50.0	72.2
	Academic	15	27.8	27.8	100.0
	Total	54	100.0	100.0	

Figure 7. Table of the numbers, percentages and distribution of the participants.

The questionnaire was divided into three parts as the follows:

- Part one: testing the environmental aspects, such as the influence of the number of visitors to the heritage area on the pollution, infrastructure, placemaking, and urban spaces in heritage areas; the results of testing this aspect are shown in figure's 8 table below..
- Part two: testing the economic aspects of decreased visitors' influence on financial returns, returns from handicrafts, and profits from reuse projects. The results of testing this aspect are shown in figure's 8 table.
- Part three: testing the social aspect as the influence of decreased economic returns on the local community, community public participation, community changes, and impact on traditions and customs of the local community; the result of testing this aspect is shown below..

Part	Testing field	Testing result	
		Mean value	Significance values
Environmental aspects	Decrease pollution according to decrease visitors' number.	2.3333	.050
	Using VR as a tool to evaluate infrastructure projects	1.7222	.208
	Using VR as a tool to evaluate space-making projects	1.5556	.234
	Decrease visitors due to using Metaverse will waste money spent on infrastructure projects	2.9444	.753
	Using Metaverse application ensures local community public participation in evaluating environmental projects	2.0000	.005
	Using Metaverse application will decrease waste financing money spent on environmental development projects	2.4444	.036
Economic aspects	Using Metaverse application will increase investment in heritage areas.	2.0000	.000
	Using Metaverse application will provide investment evaluating model	2.0000	.442
	Using Metaverse application can decrease investment returns.	2.4444	.292
	Using Metaverse application can decrease economic returns from handicrafts.	2.1111	.137
	Economic returns from Metaverse application, which uses heritage areas, can be used to develop these areas	1.7222	.000
	Decreased returns from handicrafts due to using Metaverse applications will threaten the future of these handicrafts.	2.0556	.454

Figure 8. Table of results from testing analysis. Continued next page.

Part	Testing field	Testing result	
		Mean value	Significance values
Social aspects	Using Metaverse application can help revive old traditions.	2.2778	.038
	Using Metaverse application will lead the community to public participation in conservation projects.	2.1667	.016
	Decreased returns due to using Metaverse applications will help to change the community of heritage areas.	2.2222	.092
	Using Metaverse applications will help study and predict change in the community of heritage areas.	2.5556	.001
	Using Metaverse applications can be harmful if they are used in a way not appropriate to the community.	2.3889	.000
	Using Metaverse applications can help lose handicrafts.	2.3889	0.000

Figure 8 cont. Table of results from testing analysis.

Predicting the Impacts of Using Metaverse Technology on Architectural Heritage Conservation Sustainability

According to the previous analysis, we can predict the influence of using Metaverse technology and applications on heritage conservation sustainability factors (environment, economic, and community) as shown in Figure 9's table.

	VR	AR	S. M. Metaverse app.	Games	G.I.S. app.
Environment	Infrastructure	Providing VR and AR scenarios for architectural heritage area infrastructure, helping evaluate the recent projects that decrease negative impacts.			Providing a database for infrastructure, helping detect futuristic needs
	Place Making	Providing VR and AR placemaking scenarios for architectural heritage areas. Increase the community interaction.	Testing different scenarios for place-making will decrease the negative impacts.		
	Pollution	Decrease pollution rates according to using metaverse application due to decreasing visitor numbers.			
Economic	Investment returns	Providing VR and AR scenarios for investment projects decreases investment risks and helps choose suitable economic evaluation methods.	Used returns from the Metaverse, social media, games, and the GIS app. in development projects in heritage areas as any investment project.		
	Returns from handicrafts	providing VR and AR models for explaining the process of making handicraft products will preserve it.	It can be used to mark heritage area products to increase economic returns.	Using the process of making handicrafts in games will preserve it.	Making a database of handicrafts will improve and develop it.
	Returns from using heritage areas in metaverse applications	Using the heritage areas in prof-making activities must direct part of the profits towards developing the heritage areas that will increase the economic returns.			

Figure 9. Impacts of using Metaverse technology on heritage conservation sustainability matrix. Continued next page.

	VR	AR	S. M. Metaverse app.	Games	G.I.S. app.
Community	Customs and traditions	Using AR in the documentation will help preserve old traditions	Revive old traditions and discuss the development of customs and traditions.		Making a database for traditions and customs
	Public participation	Using VR and AR in conservation projects will encourage the community to participate.	Make a discussion about the conservation projects.		Documented conservation projects.
	Community change	Study changes in the community according to the use of metaverse technology and applications.			
	Community and handicrafts	Supporting handicrafts by marketing them and allocating part of the proceeds from using heritage areas for developing handicrafts.			

Figure 9 cont.. Impacts of using Metaverse technology on heritage conservation sustainability matrix.

Discussion

Urban heritage is a cornerstone of cultural identity, embodying social, artistic, and historical values crucial for societal cohesion and preservation of identity. Preserving and conserving these areas are paramount to safeguarding cultural legacies for future generations (Ladiana & Sivo, 2019). However, it is imperative to ensure that conservation and reuse efforts do not inadvertently disrupt the delicate balance of local communities and economies, thereby threatening the sustainability of these operations.

Strengths: The utilization of heritage areas in Metaverse technology presents many opportunities due to the capabilities offered by digital twin technologies. Virtual reality (VR) and augmented reality (AR) applications offer immersive experiences that can aid in the development and evaluation of multiple scenarios for conservation, reuse, and placemaking projects (Economou, 2016). By virtually simulating proposed projects, stakeholders can assess their viability and suitability for the region and local community, thus enhancing decision-making processes.

Moreover, VR and AR technologies are powerful tools for engaging local communities in conservation and reuse projects. By providing interactive experiences, these technologies enable stakeholders to experience and evaluate proposed projects before implementation, fostering greater community involvement and ownership. This participatory approach is crucial for ensuring that projects align with the wishes and needs of the local community, ultimately enhancing their sustainability standards.

Weaknesses: It is essential to acknowledge and address potential challenges associated with integrating Metaverse technology into urban heritage conservation. Sonia Billore underscores the critical role of the local community in conservation efforts, highlighting the potential risks of unplanned demographic shifts and economic changes (Billore, 2021). The reduction in visitor numbers resulting from adopting Metaverse techniques could negatively impact heritage economies reliant on tourism revenue, potentially leading to the decline of traditional handicrafts and cultural practices.

Opportunities: Public participation emerges as a vital aspect of successful conservation projects, with Metaverse applications offering a platform for stakeholders to envision and evaluate future projects (Duan et al., 2021). By showcasing proposed initiatives and soliciting community feedback, these technologies foster greater transparency and inclusivity in decision-making processes, ultimately enhancing project outcomes.

Furthermore, Anna Fischer's perspective on the purpose of virtual spaces underscores the potential for Metaverse technology to facilitate cost-effective prototyping and environmental impact assessments (Fischer, 2022). VR and AR technologies enable the creation of multiple conservation and reuse scenarios, minimizing project impacts and ensuring their long-term success. Additionally, augmented reality has the potential to revive ancient customs and traditions, enriching visitor experiences and promoting cultural heritage preservation.

Threats: Integrating Metaverse technology in urban heritage conservation holds immense potential for enhancing stakeholder engagement, project transparency, and environmental sustainability. However, careful consideration must be given to these technologies' socio-economic impacts and cultural implications. By fostering community participation, promoting financial sustainability, and leveraging innovative technologies, stakeholders can ensure the practical preservation and promotion of urban heritage for future generations.

Results and Recommendations

The research findings underscore several critical points regarding the integration of Metaverse technology in urban heritage conservation efforts, leading to the following conclusions and recommendations:

The local community emerges as a pivotal factor in ensuring the success and sustainability of conservation and reuse projects. Leveraging Virtual Reality (VR) and Augmented Reality (AR) applications to create diverse scenarios can enhance community understanding of project objectives and raise awareness among local stakeholders.

While Metaverse technology offers innovative solutions for heritage conservation, its adoption may decrease visitors, resulting in reduced tourism income and potential harm to the sustainability of heritage conservation efforts.

Revising ancient customs and traditions in heritage areas through VR and AR technologies enriches visitor experiences and facilitates the creation of multiple reuse scenarios, particularly for buildings inaccessible due to construction conditions or sensitivity.

Ensuring the sustainable conservation of heritage areas requires providing adequate economic returns. Stakeholders benefiting from heritage must contribute to the development of these areas, irrespective of the potential impact of Metaverse technology on visitor numbers and tourism income.

While Metaverse technologies offer numerous positive aspects, such as supporting community participation and facilitating scenario development, they pose challenges, including potential decreases in visitor numbers and adverse effects on societal structures and handicrafts in heritage areas.

The impact of using architectural heritage areas in Metaverse applications can be bifurcated into preparatory activities for conservation and reuse projects and leveraging heritage environments to attract the public.

Recommendations:

- Encourage designers to utilize Metaverse technology in documenting, preserving, and reusing heritage buildings, facilitating the creation of diverse restoration materials and reuse scenarios.
- Raise awareness among local communities about heritage conservation projects by providing VR and AR models showcasing conservation and reuse projects.
- Evaluate the environmental and social impacts of implemented conservation and reuse projects using Metaverse technology and gather community feedback to select suitable scenarios.
- Develop laws and regulations to ensure that the use of architectural heritage in Metaverse technology aligns with the customs and traditions of local communities.
- Integrate local community awareness into conservation and reuse projects by presenting proposed scenarios through Metaverse techniques, enhancing stakeholders' understanding and engagement.
- Mitigate the adverse effects of using heritage areas in Metaverse technologies, particularly in electronic games and social media Metaverse applications.

Conclusion

The research discussed the research hypothesis by dealing with Metaverse applications as one type that could cause the non-sustainability of conservation and reuse of heritage buildings—still, the analytical study of the research and the proposed framework divided these applications into two types. The first is helpful for conservation projects through virtual reality and augmented reality techniques in developing scenarios. Conservation operations can be evaluated. An integrated vision of these projects can be achieved if the local community can participate in evaluating these proposals, which helps sustain conservation operations. The second type uses heritage as a commodity through which material gains can be achieved, and this type can affect the sustainability of preservation operations. Still, it can be used to serve the preservation process of established rules, laws, and legislation that give rights to exploit these areas for material gains. It has already been stated that the research hypothesis cannot be achieved. Still, it is partially achieved if we do not set regulations for using urban heritage in a way that achieves economic returns for its beneficiaries.

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Musical Instruments from Recycled Materials:

A Case Study of Uthen Pialor

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Abstract

This research article focuses on two objectives: examining the design concepts and construction techniques of musical instruments made from recycled materials by Uthen Pialor and exploring the materials used and their associated benefits. The researcher utilized a case study research design, conducting qualitative research through semi-structured interviews. The interviews covered three key aspects: design concepts, construction techniques, materials used, and benefits derived from using recycled materials. Findings revealed innovative design concepts, prioritizing sturdy recycled materials and integrating natural elements. Uthen Pialor successfully created 15 instruments across four types using everyday materials. Benefits included addressing instrument scarcity, increasing waste material value, environmental contributions, improved accessibility, streamlined production, reduced costs, and applicability in teaching and learning. These findings demonstrate social benefits and potential for future instrument development.

Keywords *Musical Instruments, Recycled Materials, Uthen Pialor, Thailand*

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Introduction

Thai music is a captivating art form that evokes local identity and represents Thai cultural heritage. It is an expressive medium shaped by human creativity, conveying emotions through melodic compositions. The study of Thai music is integral to a rich legacy passed down through generations (Suwan, 2015; Arunrat, 2016). Each musical instrument in the Thai repertoire has unique techniques and is crafted with carefully selected materials, reflecting the value of Thai music. While solo performances were common initially, the growth of skilled musicians led to the development of ensemble music. However, specific instruments, such as the Pi Phat ensemble, maintain their traditional solo role, which combines instruments for particular occasions.

Uthen Pialor, also known as "Kru Ten," is a highly skilled educator in the art curriculum group at Singburi School located in the central region of Thailand. His exceptional ability to creatively work with a wide range of materials allows him to produce innovative creations that hold intrinsic value and capture the interest of young individuals intrigued by Thai music but have limited access to traditional instruments. His unwavering commitment centers around repurposing leftover materials to craft unique Thai musical instruments and explore unexplored possibilities within the realm of Thai music. His approach is guided by principles that prioritize astute resource selection and cost minimization, ensuring the practical utility of his creations while optimizing resource allocation and reducing costs. He utilizes milk cans, compressed wood, bamboo, tiles, pencil cases, tire rubber, water pipes, bowls, and cookie boxes. In his initial venture into designing and fabricating musical instruments from recycled materials, he successfully created a flute that served its intended purpose. Recognizing the untapped potential inherent in these materials, he continued to conceive and construct various types of Thai musical instruments, aiming to complete a comprehensive ensemble comprising string, percussion, wind, and brass instruments. Kru Ten's notable participation in the Recycle Music Competition held in Bangkok culminated in a momentous victory, as his inaugural musical instrument creation claimed the first-place prize. This achievement served as a catalyst, motivating him to diligently produce musical instruments for over two decades, accumulating a wealth of invaluable experiences and providing opportunities to showcase his recycled musical instruments through diverse media outlets that have generated significant public interest.

Led by Uthen Pialor, the initiative to create Thai musical instruments from recycled materials is driven by his recognition of their inherent value and potential for societal benefits. Rangitsawat's research (2022) supports this approach, highlighting the creative development of environmentally friendly ceramic waste products. The study emphasizes three fundamental principles: 1) the 4R principles (Reduce, Reuse, Recycle, and Repair), 2) extending product and material lifespans and 3) adapting design and production to meet the specific needs of the target audience. Incorporating various recycled materials into the school's music program offers advantages such as waste reduction and the promotion of innovative craftsmanship, leading to the creation of comprehensive Thai musical instruments.

Through his innovative and creative efforts in developing musical instruments from recycled materials, Uthen Pialor has established himself as a leading Thai educator in repurposing discarded materials to create musical instruments. The public widely respects him and has garnered significant attention from various media outlets interested in his groundbreaking work. Furthermore, he has actively shared his knowledge of crafting Thai musical

instruments from recycled materials and provided these instruments to schools facing resource constraints and difficulties acquiring musical equipment. This admirable initiative enhances educational opportunities and access through alternative media platforms and demonstrates a steadfast commitment to exploration and the pursuit of future advancements. Moreover, it serves as an alternative avenue to promote access to Thai music while simultaneously upholding the preservation of traditional Thai musical instruments.

Research Objectives

This study aims to examine the design concepts and construction techniques utilized in developing musical instruments that incorporate recycled materials, guided by the expertise of Uthen Pialor. The primary objective of this investigation is to explore the intricate aspects of design and construction, shedding light on the innovative methods employed in creating these instruments. Furthermore, this research seeks to investigate the specific materials used in their structure and elucidate the potential advantages and benefits of using recycled materials in the production of musical instruments, all within the contextual framework of Uthen Pialor's scholarly contributions.

Theoretical Framework

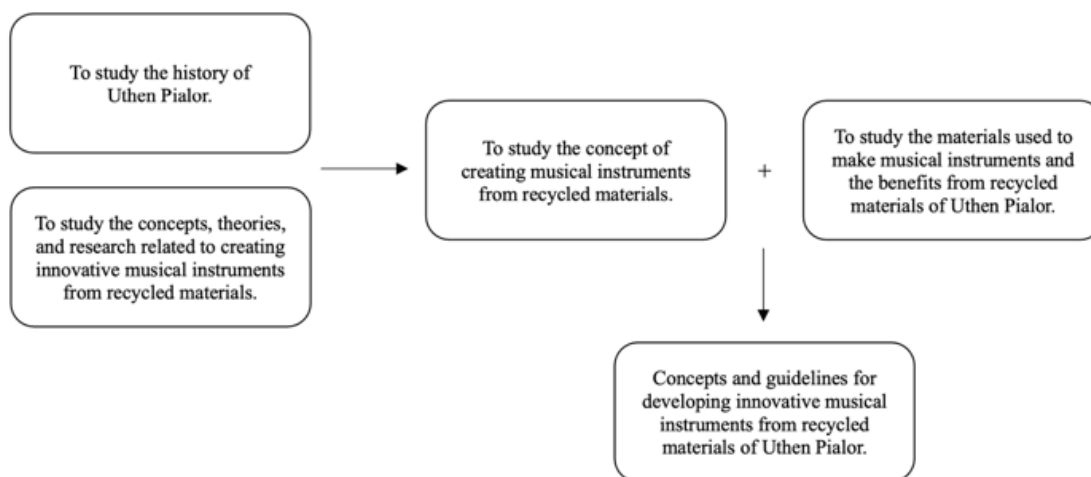


Figure 1. A study on the development of musical instruments from waste materials by Uthen Pialor. Source: Author, 2023.

Musical instruments go beyond their practical purpose as mere tools and surpass their role as lifeless objects. Instead, they embody significance and influence, profoundly shaping human artistic expression, performance technique, physical posture, social relationships, and various aspects of human-object interactions (Allen, 2013:795). Additionally, musical instruments are valuable artifacts rooted in a unique socio-cultural and historical context. They are carefully crafted from natural materials that possess intrinsic worth even before being transformed into musical instruments (Smith, 2018:2).

Literature Review

Musical Instruments

Unique artifacts such as musical instruments combine art and technology in specific ways.

They were created using a compass and a ruler and adhered to particular proportions until the end of the nineteenth century (Perez and Marconi, 2018:208). Musical instruments can be categorized into four main groups: 1) chordophones: instruments that transmit on mechanical vibrating string systems or string instruments, i.e., guitars, violins, and pianos 2) aerophones: instruments that create sound by vibrating an air column, i.e., bagpipes, flutes 3) membranophones: instruments that generate sound by stretching a vibrating membrane, i.e., drums 4) idiophones: instruments that vibrate themselves to make sound, i.e., xylophones (Damodaran et al., 2015; Fletcher, 2012; Kaselouris et al., 2022; Wachsmann et al., 1961).

Musical instruments and materials have a long historical relationship. Many instruments have evolved because of natural structures, specialized materials, players, or artisans. Wood and metal have been the only materials used to build numerous musical instruments. These are considered the preferred materials for creating musical instruments due to their unique mechanical and acoustic characteristics (Damodaran et al., 2015; Fletcher, 2012; Guitar et al., 1974). For instance, the animal gut has traditionally been utilized to make the strings used in the violin family, which significantly impacts tone quality. Synthetic polymers have less loss at high frequencies, provide a brighter sound, and are primarily used in modern violins. The higher strings are constructed of metal, which further lowers high-frequency losses (Fletcher, 2012:131).

In Thailand, musical instruments are categorized into 4 categories based on the method of playing. 1) string instruments refer to musical instruments that the player strums or pickups to make a sound such as the Ja Khae or the Krachappi (four-stringed lute), 2) string instruments refer to musical instruments that the player rubs the string with a bow to make a sound such as Sor or Salo (Thai fiddle), 3) percussion instruments refer to a musical instrument that uses hitting or striking to produce sound such as a xylophone, gong, or drum, and 4) wind instruments refer to musical instruments that are blown to produce sound, such as flutes. Thai musical instruments can be played in two main ways: playing in a band and solo. The band can be divided into 3 main types: the Piphat band, the string band, and the Mahoree band. The Piphat band is an ancient music band that Thailand has adapted directly from Indian music bands, and there has been a clear pattern and technique of playing since the Sukhothai period. In each period, the musical instruments have been added to the Piphat band. For instance, the Piphat band in the Sukhothai period, consist of 5 musical instruments namely Pi Nai (flute), Gong, Klong Tad (two-faced drum), Tapone (two-faced drum), and cymbals. Later in the Ayutthaya period, Ranat Ek, or soprano xylophone was added to the Piphat band (Thepsathit, 2021:12).

The creation of Thai musical instruments is unique and different such as the xylophone which has 17 steps and 37 pieces of equipment, each step is important and can influence the sound quality of the musical instrument. The steps of creating Ranat Ek or soprano xylophone are bamboo selection, segmentation, cutting, soaking, drying, size selecting, shaping bamboo into a bar, size modification, drawing pattern lines, drawing lines to prepare for drilling holes, drilling holes with nail, removing the head and bottom, drill a hole to be threaded, polish uneven bamboo keys, attach the lead to bamboo keys, sound tuning and polishing, and the last step is waxing (Phongkliang & Binson, 2023:115)

Due to environmental changes, wood and metal used to make musical instruments are now becoming more scarce, more expensive, and less desirable. In addition, the quality of the wood varies according to its geographical origins, which makes it difficult to control. Despite having extraordinary mechanical and acoustic qualities, wood has drawbacks such as inconsistent quality, drying, and cracking (Damodaran et al., 2015:2). The scarcity of materials essential for crafting traditional Thai musical instruments presents a significant challenge to instrument makers. This shortage not only impedes production but also threatens the authenticity and quality of these instruments (Chittep, 2019:111). Due to this, most producers of musical instruments are now looking for substitute materials for traditional musical instruments that provide more durability to environmental changes, less material variability, and reduced manufacturing processes (Damodaran et al., 2015; Fletcher, 2012). The requirements for selecting alternative materials are 1) to match the vibrational behavior of the target material and 2) to provide good mechanical strength and workability to match the properties of the existing materials (Damodaran et al., 2015:2).

Recycled Materials

To establish efficient and environmentally responsible waste management systems, increasing the recycling rate is an essential objective. Recycling entails replacing primary resources with secondary resources, which should lessen the environmental effects of the overall system for providing goods and services as determined by the life cycle assessment technique (Ragossnig & Schneider, 2019:2-4). Waste management or the practice of recycling would contribute to making cities clean and green, provide direct economic advantages, and raise awareness of environmental conservation among those involved. The additional socio-environmental benefits such as education, health, improved living standards, clean water and land, and breathable air could be reached, which are the primary goals of the United Nations Sustainable Development Goals (UN-SDGs) (Sharma et al., 2021; Yulianingsih et al., 2020).

A musical instrument was not considered necessary because it was more expensive than housing, transportation, or food. Children in the community had a low chance of being able to afford an instrument because of its high cost (Key, 2020:3). The selection of environmentally friendly materials should be a primary consideration for designers because the product market is becoming more competitive (Chen & Lo, 2019:77). Moreover, the Meanings of Material (MoM) supported that product designers can also use these principles to choose materials suitable for a particular product. Each material also has intangible qualities, such as its relationship to fashion trends, its importance to society, and the feelings a material arouses. These variables are crucial in assisting product designers in choosing suitable materials (Karana et al., 2010: 2932).

The concept of building instruments out of garbage, such as water pipes, kitchenware, and other everyday items from landfills, has developed (Key, 2020:4). Additionally, the construction of musical instruments from natural materials benefits children and people interested in playing music by having easy access because it can be constructed in the community (Kunastian et al., 2022:5)

Musical instruments (i.e., percussion, string instruments, etc.) can be made from recycled materials and craft materials with the use of a variety of techniques, tools, and materials

(i.e., newspapers, magazines, cardboard, plastic, steel, ropes, foam, cans, bottle caps, rubber, fabric, etc.) along with art materials (i.e., scissors, paints, hot glue, etc.) which help the producer define solutions to design challenges using recycled materials with a limited budget (Atkinson, 2020; Hagerman et al., 2022; Yulianingsih et al., 2020). However, as several producers have pointed out, using recycled and upcycled materials is unnecessary in the modern world. Factory-made instruments are now so widely accessible and come in various price ranges that most people probably could afford to acquire one if they wanted to. Producers can access mass-produced parts even while creating their instruments through physical stores or online retailers like eBay (Atkinson, 2020:9).

Design Concepts

The development of musical instruments takes place all over the world. It came from borrowing, adaptation, and inspiration, which affects the broader global musical culture (Magnusson, 2021:182). In the early design process, various aspects need to be taken into account, as shown in Figure 2. Moreover, the designer should also focus on appropriateness in function, ease of production, materials, cost, the number of constituent parts, sales, maintenance, disposal, and recycling (Azman et al., 2021:2).

Economic & ecological design (Eco-design) is a method of increasing production potential by concentrating on decreasing the impact on the environment by reducing waste and extending its lifespan. It takes into account the entire product cycle, from the initial process to the last step. The 4Rs principles are fundamental principles of eco-design and are used in every stage of the life cycle of a product consist of 1) Reduce is a design approach that involves using less material at every stage of the product life cycle, from the design and production phases to consumers who consider the product's durability as well as the end of its lifespan. It contributes to lowering the amount of waste that cannot be disposed of. 2) Reuse is the process of incorporating discarded materials or waste into the design of new items that have already been used or are intended for reuse to achieve new functional goals. 3) Recycled design involves using materials that remain from the manufacturing process to create new items. 4) Repair is the process of designing a product so that it can be easily maintained, which is thought to increase the product's lifespan and leave the least possible amount of environmental damage (Jitmunkongkul & Srithong, 2023:394).

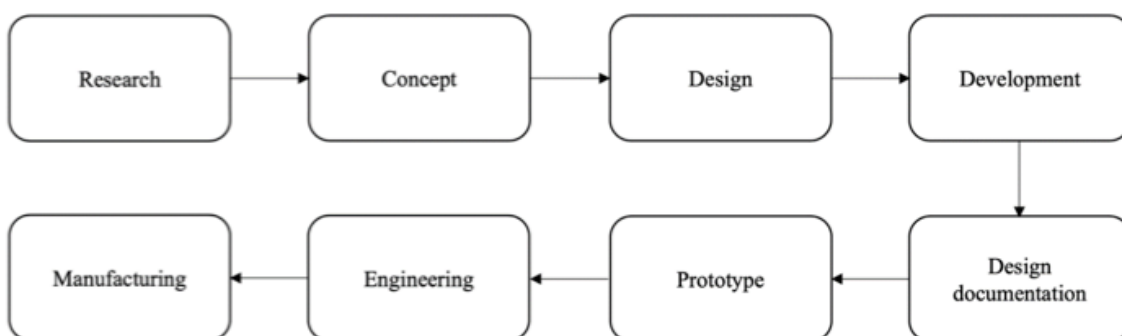


Figure 2. Design process flow. Source: Azman et al., 2021.

Design for Sustainability (DFS), which is defined based on the four pillars of ecological, social, economic, and institutional to promote sustainable products shown in Figure 3.

While considering the effects on human well-being, designers should practice sustainability by using the most effective technology, materials, and manufacturing techniques to produce final products with zero carbon emissions and the least amount of non-renewable resource use possible (Azman et al., 2021:7). Further, they focus on the user experience, which includes how people engage with things and the kinds of meanings and emotions that products arouse. Also make musical instruments better for users by enhancing usability and user understanding (Magnusson, 2021:182), which inspires creative individuals from other disciplines to participate and collaborate throughout the co-creation process to generate novel approaches to problems that will have a positive impact on society (Chen & Lo, 2019:79).

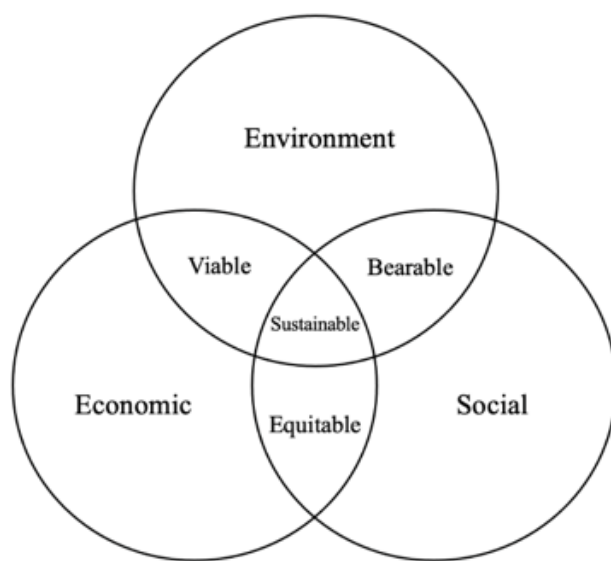


Figure 3. The pillars of sustainability. Source: Azman et al., 2021.

Product designers can employ materials in design concepts to present their work as eco-friendly. Still, they must be more attentive when picking suitable materials for a particular product (Azman et al., 2021:7). The quality of the raw materials used, and the craftsman's skill determine the sound quality of a specific instrument (Damodaran et al., 2015:118). Furthermore, to guarantee that the materials are safe for use, the choice of material frequently depends on the material that has already been used. However, this approach limits the range of materials available. An innovative product's creation depends significantly on the material choice. Designers must continually assess the direction of their design concept while simultaneously producing a variety of ideas from which to choose to avoid selecting the incorrect product design proposal, which may be highly expensive for the manufacturer in terms of money, time, and other precious resources—also preventing from low-quality musical instruments (Damodaran et al., 2015; Rodger et al., 2020).

Construction Techniques

The construction of innovative musical instruments is always a dialectic process that occurs through technological advances, architectural improvements, or new cultural forms (Magnusson, 2021:176). The spread of cultures leads to modifications in the tools, materials, and techniques utilized to create inexpensive, readily accessible musical instruments made from recycled materials (Duangbung, 2022:12).

The idiophones or maracas were made with boxes of milk and rice portion. An empty box was pierced with a wooden skewer stick, and rice was then placed inside. After inserting the skewer stick and fastening elastic bands, attach a second empty box to the top using silicone sealant. Moreover, the empty Styrofoam boxes were used to create chordophones by inserting rubber bands that were stretched and released to create oscillations that produced a range of sounds in an empty Styrofoam box. Eight rubber bands were used to effectively tune to an octave utilizing the Styrofoam instrument as a resonator. In addition, three sizes of handcrafted gongs were created using the six different-sized baking pans. Each pair of identical-sized pans was tied together with tie-ups to resemble a gong when viewed from both the front and the back. The gongs were secured to aluminum broom handles and suspended from a strong stand to form a large musical instrument that resembled a gong. When it strikes the pans, it makes both high-pitched and low-pitched noises. Further, empty Pringles chip containers, pins, rice, and glue were used to make acoustic instruments like rain sticks. These empty boxes' inside surfaces must have included several pins placed in various spots by the constructors. Additionally, hundreds of pins were put into a large cardboard tube to create a sound similar to rain pouring. Carefully placed pins were placed in multiple spots within the cardboard tube and boxes to create resistance in the rice that would be placed inside. The containers were assembled with the pins inside, then filled with rice and sealed with silicone sealant (Tsakiridou, 2022:75).

Phin is a type of stringed instrument with a distinctive sound group called a chordophone (Kammateerawit, 2019:20). Moreover, there were 5 Phin Phu-Tai created from waste materials with the same physical characteristics as follows: neck, headstock, a saddle made of Padauk wood, tuning keys used guitar tuning keys, fret made of flat bamboo ribs, and strings use guitar strings. As for the physical characteristics that are different, it is the body part. It is made from various types and shapes of materials consisting of square-shaped zinc cans, thinner rectangular-shaped cans, round-shaped zinc tin, tin cans, and cylindrical bamboo. The result of the creation showed that the Phin made from thinner rectangular-shaped cans and round-shaped zinc tin were appropriate at the highest level (Kulnasatian et al., 2022: 1). In addition, rubber bands, cardboard boxes, and wooden rods were also used to make stringed instruments by using rubber bands as strings and tied to the box. The rubber band's thickness produces a distinctive and unique sound. To provide a clearer pitch, the wooden rods are also employed as a bridge to lift the strings away from the box (Borsay & Page, 2016:57).

Recognizing that sound quality will influence and impose certain decisions is unavoidable when dealing with construction. Precise widths and masses must be used to create frequencies that fall within the range of human hearing. Sturdy constructions must be considered to maintain the tension of the materials (Tsakiridou, 2022:78).

Benefits

Current resource use is unsustainable. It pressures natural resources, pollutes the environment, and creates significant socio-economic impacts at local, regional, and global scales. The use of waste materials has been more popular over the past ten years due to rising environmental awareness, resource scarcity, high rates of waste generation, and the financial advantages of employing low-cost waste materials (Caldera et al., 2022:8). Waste materials allow people to create musical instruments or utilize materials with unique sound proper-

ties in a group setting. To put it another way, both environmental awareness and creative thinking will be realized and applied to achieve the goals of UN-SDG (Ozturk, 2012; Sharma et al., 2021).

Many micro and small-scale firms are now beginning to perceive it as a business opportunity and have engaged in this practice, which is usually considered a niche practice. The processes integrated into a circular economy (CE) plan are crucial (Caldera et al., 2022:3) and consist of three significant elements value creation, value transfer, and value capture (Centobelli et al., 2020:7). In addition, this strategy should be considered a mandatory approach for waste management (Bigdeloo et al., 2021:1) that promotes recovering value from waste material and achieving sustainability goals (Sharma et al., 2021:1803).

This shows a variety of advantages for society, the environment, and the economy, including increased material quality and life expectancy of materials and goods, lower energy use and greenhouse gas emission, employment creation, and promoting positive consumer behavior (Caldera et al., 2022:8). Moreover, the idea of CE helps to improve material efficiency, slows material flows, and minimizes the need for raw material extraction and the procurement of new products, enhancing environmental sustainability (Bigdeloo et al., 2021:2). Further, the innovators can add value to low-cost waste materials to produce items with a high market value due to their aesthetic appeal and ecological benefits (Bridgens et al., 2018; Caldera et al., 2022).

Finally, small or local businesses could initiate providing services such as waste resource distribution and collection, as well as equipment, training, and facilities to get the use out of waste materials. They may develop instruments for exchanging designs, offering opportunities for product differentiation and connected marketing of other goods intended to be inventively integrated (Bridgens et al., 2018:5)

Research Methodology

This study employs a qualitative research design to address the research objectives effectively. The study consists of two phases, each contributing to a comprehensive understanding of the topic. Phase 1 focuses on exploring the underlying concepts related to the use of recycled materials in the construction of musical instruments and investigating the diverse benefits associated with their incorporation of Uthen Pialor (informant) by using the interview method. In Phase 2, the researcher skillfully synthesized the intriguing findings obtained from the meticulous analysis conducted in Phase 1. This synthesis played a pivotal role in formulating comprehensive guidelines to facilitate the future development of musical instruments that creatively utilize recycled materials. The data was collected at Singburi School provided by Mr. Uthen Pialor, a professional music teacher at Singburi School in Singburi Province, Thailand. He won the first prize in the music band contest from waste materials and is also an expert in creating Thai musical instruments from waste materials. Further, he has knowledge and experience in making musical instruments from waste materials for over 20 years.

Research Instruments

The tool used in this research was a semi-structured interview to interview Uthen Pialor, an expert in musical instrument design and development from waste materials. The insights

gathered from these interviews undergo systematic collection, meticulous examination, comprehensive analysis, and skillful synthesis, resulting in substantial knowledge. This knowledge serves as a solid foundation for future endeavors in designing and developing musical instruments that ingeniously incorporate recycled materials. The researcher takes on the role of conducting interviews, collecting data, recording video, and recording audio. The questions in this in-depth interview allow the informant to explain and describe according to his understanding. The interview questions, presented as exemplars, encompass a wide range of topics, such as the creative ideas and inspirations guiding the design of various musical instruments, the financial aspects involved in instrument design and development, the critical factors to consider when designing instruments using recycled materials, and the differences between developing instruments with recycled materials and prevailing design practices, including the accompanying challenges. The primary objective of these interviews is to acquire invaluable insights and perspectives related to the design and development of musical instruments that effectively integrate recycled materials.

Data Collection

The researcher uses a qualitative research model to collect data and analyze results to meet the research objectives. The researcher divided the research into 2 phases: In phase 1, the researcher studied the development concept. Waste materials used to make musical instruments and the benefits of musical instruments from the waste materials Uthen Pialor (informant) by interviewing the informant. To ask for information and to be analyzed and separated into interesting issues and guidelines. In the second phase, the researcher brought exciting points from the first phase analysis to synthesize them as guidelines for the design and development of musical instruments from waste materials. These are as follows:

Phase 1: Study of the development concepts of waste materials used to make musical instruments and the benefits of those made from waste materials by Uthen Pialor. In the first phase, the researcher used a semi-structured interview form to study the following two issues: 1) Concepts of design and construction of musical instruments, 2) Materials used to create musical instruments, and the benefits of musical instruments made from waste materials of Uthen Pialor. The researchers analyzed the data obtained from interviews about the concept of design and construction of musical instruments, materials used to make musical instruments, and the benefits of musical instruments made from waste materials by Uthen Pialor by separating them into interesting issues and synthesizing the data to draw a qualitative conclusion in the second phase.

Phase 2: Synthesizes information to guide the design and development of musical instruments from waste materials. The second phase is data analysis and synthesis to answer research objective questions. When receiving complete information to answer the research objectives, the researcher analyzed the information obtained from interviews about making musical instruments. Materials used and benefits of musical instruments from Uthen Pialor waste materials by separating them into interesting issues and synthesizing them. Then the researcher summarized the results in an explanatory manner to understand the concept of designing and developing musical instruments from the waste materials of Uthen Pialor.

Data Analysis

The researcher used data analysis based on the concept of Colizzi, with the following data analysis steps:

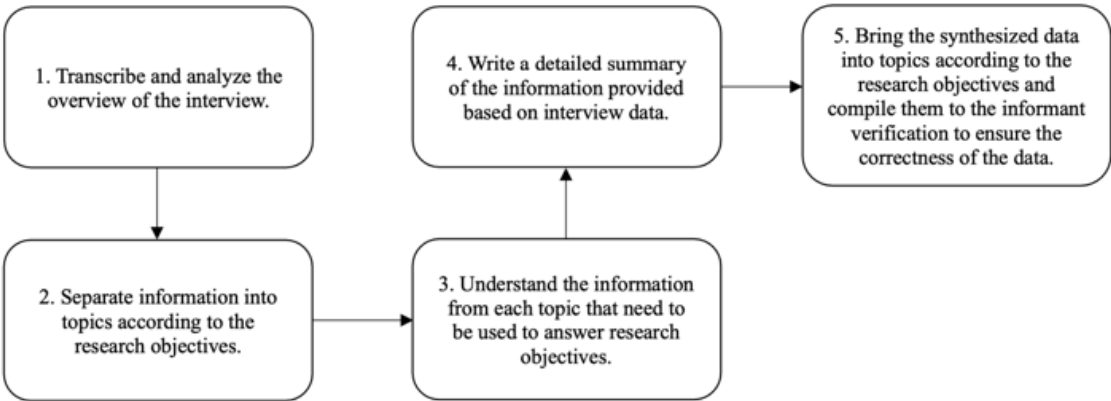


Figure 4. Data analysis procedures according to the concept of Colizzi. Source: Author, 2023.

Results and Discussion

The researcher has analyzed and summarized the musical instruments, material used, benefits, limitations, and budget of constructing musical instruments from waste materials by Uthen Pialor, as shown in the table below.


Instrument Name (With Illustrations)	Materials Used	Benefits	Limitations	Budget (USD)	Material Selection Techniques	Tuning Techniques
1. Ja khae (Thai zither) 	1. Plywood 2. Hardwood 3. Bamboo 4. Pencil case 5. Used PVC pipes or wood 6. Nuts and bolts 7. Strings 8. Wood paint	Reduce the details and the cost of production of the original instrument. (The actual price is about 233 USD)	The sound is quieter, and the quality is also different from the original zither.	17	The waste material such as plywood can used to be assemble the body of the Thai zither because plywood is easy to shape and has similar characteristics to the original material. The creator can select an old pencil case that is the right size to create a zither bridge and tune the sound, which a pencil case can be installed without changing its material characteristics.	The sound quality can be adjusted by tuning with the original Thai zither or using a tuning application, in which the sound quality will be similar to the original zither, but it is different in loudness. The material used is different from the original instrument but the volume can be adjusted by changing the distance to the height of the bridges (The bamboo sheet that separates the cable from the wooden box).

Figure 5. Table listing the musical instruments, materials used, benefits, limitations, and budget for constructing musical instruments from waste materials by Uthen Pia Loh.



Instrument Name (With Illustrations)	Materials Used	Benefits	Limitations	Budget (USD)	Material Selection Techniques	Tuning Techniques
2. Hai (Plucked string instrument) 	1. 2 jars (different sizes) 2. Motorcycle inner tubes	It can be used instead of drums. The sound is very resonant and able to tune.	The sound must be tuned before playing, and the rubber used may get damaged if exposed to sunlight for a long time.	-	The leftover materials from the household such as jars that are left over from fermenting food and old inner tubes can be used to create Hai because they are a highly flexible material, resistant to stretching, and can be easily adjusted to be tight and loose.	Hai can be tuned to the high or low pitch by tightening the rubber band. If the strings are tight, it will produce a higher pitch. If you slacken the string, it will make a low pitch. The water can be added to the jar to produce a higher pitch. There is no original instrument to compare and tune the sound with, so Mr. Uthen used the comparison of the sound of the Klong khaek (The drums that had the loud penetrating sound were labeled male and a drum with the gentler sound was female).
3. Sor au (Alto fiddle) 	1. Cookie tin 2. Bamboo 3. Hardwood 4. Strings 5. Fiddle strings	The sound quality is like an original alto fiddle.	Making the grooves for tuning cables requires a lot of precision.	6	The large leftover cans are commonly found as a replacement material for cylinders for sound amplification, and string from the fishing hook to set the sound of the instrument.	The sound of the alto fiddle can be adjusted by using the tension of the strings. In addition to the Thai fiddle, it is possible to turn and adjust the tension of the string immediately for convenience in setting up strings. However, it has a lower sound than other types of fiddles because the can is used for amplifying sound to a large size which creates a low-pitched fiddle sound.

Figure 5 cont. Table listing the musical instruments, materials used, benefits, limitations, and budget for constructing musical instruments from waste materials by Uthen Pia Loh.




Instrument Name (With Illustrations)	Materials Used	Benefits	Limitations	Budget (USD)	Material Selection Techniques	Tuning Techniques
4. Sor sam sai (Three-stringed fiddle) 	1. Cookie tin 2. Bamboo 3. Hardwood 4. Strings 5. Fiddle strings	The sound quality is like an original fiddle.	Making the grooves for tuning cables requires a lot of precision.	6	The creator can select strings based on the original fiddle, then measure the size of the cookie tin to be the same as the actual size of the fiddle and assemble it with a bamboo neck, fingerboard, and bow.	The sound of a three-stringed fiddle can be adjusted to high and low by using the tension of the strings. Also, the sound quality is similar to the original instrument because it uses the same type of fiddle strings.
5. Sor duang (Soprano fiddle) 	1. A can 2. Fishing line 3. Strings No. 0.25 4. Hardwood	The sound quality is like an original fiddle.	Making the grooves for tuning cables requires a lot of precision.	6	The technique is similar to a three-stringed fiddle.	The use of fishing line no.100 and no. 80 resulting in different sound levels and using fishing line number 0.25 to make the bow by measuring the length to be the same as the original instrument. The sound can be adjusted by using the tension of the strings. In addition to the Thai fiddle, it is possible to turn and adjust the tension of the string immediately for convenience in setting up strings.
6. Ranat ek (Soprano xylophone) 	1. Tiles 2. Plywood 3. Rubber air hose 4. Calico for making mallets 5. Hardwood	The sound level is stable, tuning before playing is not required.	The tiles may break if the player strikes too hard.	6	The creator can select materials left over from the construction such as tiles that can be struck and produce a resonating sound.	The sound can be tuned with the original soprano xylophone from the Piphat band, beginning with the Sol (S). The creator can also use an electric grinder to grind the tile to different sizes and thicknesses. For the high pitch, the creator can grind the tiles to be smaller and thinner but for the low pitch, the tiles must be bigger and thicker.

Figure 5 cont. Table listing the musical instruments, materials used, benefits, limitations, and budget for constructing musical instruments from waste materials by Uthen Pia Loh.




Instrument Name (With Illustrations)	Materials Used	Benefits	Limitations	Budget (USD)	Material Selection Techniques	Tuning Techniques
7. Ranat thum (Alto xylophone) 	1. Tiles 2. Plywood 3. Rubber air hose 4. Calico for making mallets 5. Hardwood	The sound level is stable, tuning before playing is not required.	The tiles may break if the player strikes too hard.	6	The technique is similar to soprano xylophone.	The sound can be tuned with the original alto xylophone from the Piphat band. The creator can also use an electric grinder to grind the tile to different sizes and thicknesses. For the high pitch, the creator can grind the tiles to be smaller and thinner but for the low pitch, the tiles must be bigger and thicker.
8. Khong wong yai (Large gong circle) 	1. 16 different size ceramic bowls 2. Plastic box 3. Plywood 4. Chopsticks for striking	It can be used as well as the original gong.	It is difficult to move and needs to be tuned every time. The sound is less resonant than the original gong and cannot strike too hard.	6	The material used to create this musical instrument has to be able to produce sound with different high and low pitches. Mr. Uthen has chosen to use various-sized ceramic plates and bowls that can be struck and produce a sound that resonates like a gong.	The sound level can be adjusted and tuned with the original gong by choosing different sizes of bowls and adjusting the amount of water in each bowl to create different sound levels. There are limitations in adjusting the sound, the amount of water must be adjusted every time the instrument is moved. This causes the sound to be easily distorted. The chopsticks are used instead of mallets because they are lightweight and commonly found.
9. Hmong (Gong) 	1. Aluminum box 2. Wood for the frame 3. Rope	Lightweight	The sound quality is also different from the actual gong and less resonant.	-	The creator can select waste materials that can be struck to produce a sound while still being durable and beautiful. Therefore, a round aluminum box was chosen to resemble the original musical instrument.	The sound can be adjusted by pounding the center of the aluminum box to create a raised shape using a stone pestle which creates a sound that similar to the original gong. The creator also can adjust the convexity and width of the convex point according to the preference.

Figure 5 cont. Table listing the musical instruments, materials used, benefits, limitations, and budget for constructing musical instruments from waste materials by Uthen Pia Loh.

Instrument Name (With Illustrations)	Materials Used	Benefits	Limitations	Budget (USD)	Material Selection Techniques	Tuning Techniques
10. Tapone (Two-faced drum) 	1. An old two-faced drum frame 2. Drumhead (snare drums, bass drums) 3. Plywood for the base	The drumheads are durable and easier to take care of than the leather. It can be used to practice instead of the two-faced drum.	The sound quality is different from the leather drumhead.	6	The material of the old Tapone that has been damaged and decayed, such as the drumhead can be used to create a new Tapone. However, Mr. Uthen has chosen waste materials to replace the drumhead of Tabon, by using the international bass drumhead that has been broken and stretched instead. It is the selection of waste materials to be useful again as a new musical instrument.	Tapone can adjust the pitch by tightening the drumhead by stringing the edge and using liquid glue to hold the edges of the drumhead with the frame.
11. Ching (Cup-shaped cymbal) 	1. 2 bicycle bells 2. Rope	It can be used as well as the original cymbals.	The sound quality is still very different from the original cymbals.	-	The material used to create a cup-shaped cymbal has to be durable and sound similar to the original instrument because it is a musical instrument that creates sound by percussion. It can be damaged if using fragile materials.	The volume cannot be adjusted, it depends on the size of the bicycle bell. A small size bicycle bell will produce a high-pitch sound while a larger size produces a low-pitch sound.
12. Ching (Cup-shaped cymbal) 	1. 2 gas stove heads 2. Rope	The sounds are similar to an original cymbal, very durable, and can be substituted.	Heavier than the original cymbal	-	The alternative material selection for cup-shaped cymbals such as gas stove heads made from brass. It creates a sound that similar to the original instrument.	The volume cannot be adjusted because a gas stove head is strung with rope. There are no customizations have been made.

Figure 5 cont. Table listing the musical instruments, materials used, benefits, limitations, and budget for constructing musical instruments from waste materials by Uthen Pia Loh.




Instrument Name (With Illustrations)	Materials Used	Benefits	Limitations	Budget (USD)	Material Selection Techniques	Tuning Techniques
13. Chab (Cymbal) 	1. Tin lid 2. Rope	Lightweight	The sound quality is still very different from the original cymbals.	-	The alternative material selection for the cymbal should be durable use which is the tin lid.	The volume cannot be adjusted. The creators created it to complete a set of musical instruments only, so the creators chose to use leftover materials that are durable and can make a sound when hitting. However, the sound quality is not very good.
14. Krap puang (Castanet) 	1. Bamboo 2. Tin lid 3. Strings	Lightweight and durable	-	-	To create a castanet, the creator must select durable materials to prevent damage when playing. Therefore, Mr. Uthen assembles a piece of tin lid with a piece of bamboo to create a sound.	The sound quality can be adjusted by increasing or decreasing the number of tins and bamboo sheets. The sound needs to be adjusted once during the creation of the instrument. It will be difficult to adjust the sound, loudness, or softness when it is built. Further, it depends on the number of records and the power of the player. The sound quality is not very good because the creator created it because they wanted to have a complete set of musical instruments only.
15. Khlui (Flute) 	1. PVC pipe 2. Teak	It sounds like an original flute and is durable.	The sound quality is slightly different from a wooden flute.	-	Waste materials such as PVC pipes that have the same diameter as the original flute can be used to create a new instrument by cutting to the same length as an actual size.	Adjust the sound quality by drilling a hole the size of a flute using a drill to decorate and trim the sound hole (mouthpiece) using teak wood. Adjust the sound by sharpening the width of the area through which the air flows by comparing the sound from the original instrument.

Figure 5 cont. Table listing the musical instruments, materials used, benefits, limitations, and budget for constructing musical instruments from waste materials by Uthen Pia Loh.

As illustrated in Figure 5's table, it can be concluded that Uthen Pialor has created 15 musical instruments from waste materials (i.e., wood, used tiles, PVC pipes, or cookie tins), and each instrument took about 2-4 days to construct. The concept of making musical instruments from waste materials of Uthen Pialor found that he had ideas about making musical instruments from waste materials, which would later become unwanted. Waste materials have been used to construct musical instruments, which makes Thai musical instruments more accessible and cheaper than the originals. For instance, a cymbal made from a bicycle bell, a cymbal made from a gas stove, a cymbal made from a tin lid, a flute made from PVC pipe, a xylophone made from tile scraps, and fiddle made from zinc can. It is a creative use of materials to solve the shortage of musical instruments, which teachers can apply in teaching or in groups of people interested in playing Thai music. A Musical instrument from waste materials such as water pipes, kitchenware, and others every day allows children in society to have more accessibility to musical instruments (Key, 2020:4). Moreover, musical instruments from waste materials can enhance the emotional development of the elderly also add value to environmentally friendly waste materials (Boonrod, 2022:150).

Likewise, Uthen Pialor mentioned the benefits of making musical instruments from waste materials that can solve the shortage of musical instruments, reduce waste, solve environmental problems, create musical instruments more accessible, and easier to play, reduce the complex details of the instrument, and less the cost of production. Environmentally friendly materials should be a key consideration due to environmental changes, materials scarcity, and inconsistent quality (Chen & Lo, 2019; Damodaran et al., 2015). This practice provides a variety of advantages for society, the environment, and the economy, which help to achieve sustainability goals (Caldera et al., 2022:1). However, his anticipate is further developing musical instruments from waste materials to have an appearance and sound quality comparable to traditional Thai instruments and can be applied to creating international musical instruments. Uthen Pialor is considered an innovator in the development and design of Thai musical instruments from waste materials by trying different materials to develop Thai musical instruments that have good tones or methods of playing that come out well and with the quality known as a “ครูผู้ผลิตเครื่องดนตรีจากวัสดุเหลือใช้” or a teacher who produces Thai musical instruments from waste materials.”

Conclusion and Recommendations

In conclusion, the journey of Uthen Pialor in creating musical instruments from waste materials showcases inspired from Siwasit Nilsuwan not only his innovative spirit but also the potential for sustainable creativity within the realm of traditional music. Over more than two decades, he has transformed discarded materials into functional musical instruments, demonstrating a commitment to environmental consciousness and cultural preservation. Through trial and error, Kru Ten has successfully crafted instruments such as the canned fiddle and the tile xylophone, which have not only garnered recognition in competitions but have also provided viable alternatives to traditional Thai instruments. His dedication to utilizing durable residual materials while avoiding hazardous substances underscores his commitment to safety and sustainability. Despite his achievements, there remain opportunities for further refinement and development. Kru Ten acknowledges the need for improvement in both the aesthetic appeal and sound quality of his instruments. With a vision to enhance the beauty and realism of his creations, he seeks to bridge the gap between traditional and recycled musical instruments, ensuring their continued relevance and utility

in contemporary settings. Moving forward, Kru Ten suggested that the creator can continue to explore innovative techniques and materials to enhance the quality and diversity of his instruments. Collaboration with experts in sound engineering and instrument design could provide valuable insights for achieving international standards in both craftsmanship and performance. Additionally, efforts to increase accessibility to these instruments within society, perhaps through educational initiatives or community workshops, would further amplify their impact and promote sustainable practices in the realm of music.

In essence, the pioneering work of Uthen Pialor serves as an inspiration for musicians, artisans, and environmentalists alike, and researchers can build upon the foundation established by Kru Ten, contributing to the ongoing advancement of sustainable and innovative practices in the field of instrument-making. Also, illustrates the transformative power of creativity and resourcefulness in preserving cultural heritage while embracing sustainable practices. Through continued dedication and collaboration, the realm of musical instrument making from waste materials can not only meet international standards but also contribute to a more harmonious relationship between art, nature, and society.

Acknowledgments

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Local Content and Placemaking in Small and Medium-Sized Towns (SMSTs):

A Tale of Two Cities in South Korea

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Abstract

This study aims to explore the process of sustainable placemaking in small and medium-sized towns utilizing local cultural resources and examine the characteristics of their local content. A qualitative analysis is conducted on two cases, namely, Gongju and Buyeo in South Korea, which are experiencing depopulation and regional shrinkage. These two cases emphasise the local content and placeness that can be subjectively experienced in small towns and villages instead of focusing on the creation of large-scale landmarks and iconic artefacts. By highlighting connectivity and unified storytelling amongst various places in their neighborhoods, these cases were able to stimulate the cultural and geographical imaginations of their visitors and revitalise their local culture and host community networks.

Keywords: *Local Content, Placemaking, Small and medium-sized towns (SMSTs), Placeness, South Korea*

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Introduction

In 2022, 56.9% of the world's population were reported to live in urban areas (UNCTAD). With the rise of global place competition, many regions and cities have leveraged their local resources to show their uniqueness and potential. Many studies have focused on the importance of global and 'superstar' cities (Florida, 2017) to understand why wealth, entrepreneurship and innovation are concentrated in these cities. However, some scholars have challenged the 'metropolitan bias' in urban studies and called for further research and theories on SMSTs (Bell and Jayne, 2009; Jayne et al., 2010; Lorentzen and Heur, 2012; Salder and Bryson, 2019; Mayer and Lazzeroni, 2022). The urban-centric focus prevalent in much of the existing literature tend to show a uniform direction of urban growth, overlooking the diverse developmental trajectories of small-and-medium-sized towns (SMSTs) and failing to look into the inherent relationship between placemaking strategies and communities. Research on SMSTs that have effectively employed placemaking strategies based on their resources would enhance the understanding of variegated urban growth.

Many places have used their tangible and intangible resources to highlight the shared values that they have experienced and accumulated over time (Richards and Duif, 2019). Cultural capacity based on local resources plays a key instrument in fostering sustainable development and innovation by preserving local, environmental and cultural identities, attracting activities and visitors and enhancing the vibrancy of local neighborhoods (OECD, 2015). Furthermore, such capacity serves as an indispensable element in survival and resilience of smaller communities.

Having one of the lowest reported birthrates in the world, Korea is entering a super-aging society and experiencing a widening gap between its metropolitan and non-metropolitan areas (Huh, 2022). Many regions, especially SMSTs located in non-metropolitan areas, have experienced socioeconomic decline and demographic shrinkage resulting from the collapse of their industrial economic base (including traditional manufacturing) and the outflow of their young population. In 2021, the Korean government designated 89 small cities and counties nationwide as depopulation areas based on the Special Act on Balanced National Development (Ministry of the Interior and Safety, 2021). Amongst these small cities and counties, 85 are located in non-metropolitan areas, thus highlighting the severity of depopulation in SMSTs in these areas. Local and regional governments have taken several measures to promote population growth and inflow in their societies, such as by offering birth incentives, attracting retirees and companies and relocating public agencies. However, these strategies have reported limited success in settling people in the long term and ensuring a continuous inflow of visitors. As such, SMSTs are struggling in their pursuit of qualitative transformation and in finding new development trajectories. Instead of imitating the success stories of large cities or metropolitan areas, SMSTs try to focus on endogenous development and the creation of vibrant communities by transforming their local cultural resources into attractive local content.

To date, the influence and importance of large cities and mega-cities cannot be overemphasized (Florida, 2017), but the competitiveness of cities and regions need not be discussed and ranked solely in terms of size (Jayne et al., 2010; Lorentzen and Heur, 2012; Richards and Duif, 2019). The creation and development of content based on local and regional cultural base resources can capture the uniqueness and diversity of a region. These cultural assets tend to manifest and be (re)interpreted differently across regions regardless of city

size and are therefore more likely to maximise the potential of SMSTs compared with measures for restructuring economic bases under limited conditions. Richards and Duif (2019) investigate the case of 's-Hertogenbosch in southern Netherlands, which, despite its small population of 150,000, has attracted over 1.4 million visitors. By creating an engaging story and city brand (i.e. as the birthplace of the famous medieval painter Hieronymus Bosch), this small city successfully established connections amongst itself, its cultural resources and its people, thus strengthening its place-based identity. This case illustrates that the scale and impact of local content can vary depending on how local resources are creatively utilized.

This study aims to explore the process of sustainable placemaking in SMSTs utilizing local cultural resources and examine the characteristics of their local content. By focusing on the regeneration of two SMSTs in South Korea (Gongju City and Buyeo County in South Chungcheong Province) that are experiencing depopulation and regional decline, the empirical study attempts to illuminate alternative strategies to enriching local assets in smaller communities. This study further tries to emphasize the need to conduct case studies at various scales to reveal the potential and competitiveness of cities and regions.

The cases in this study share similar historical backgrounds and current situations within the socio-cultural context. As former capitals of the Baekje Kingdom, which was amongst the three kingdoms that flourished from 18 BCE to 660 CE (The Academy of Korean Studies), these cases are rich in historical and cultural resources and have a thriving tourism industry that centres on Baekje cultural festivals and historical sites, such as fortress walls and royal tombs. However, both cities have limited regional development due to their historical significance, and their lack of an industrial economic base and growth engines has led to their socioeconomic decline and population outflow. Consequently, these cities were designated as depopulation areas by the government in 2021.

The data sources used for the analysis include field observations, interviews, workshop participation and various documents, such as news articles and city annual reports. The core qualitative data were collected by conducting interviews with representatives from related public and private agencies between February 2023 and January 2024. Eight interviews were conducted. The interviewees in Gongju were code named A1 and A2, while the interviewees in Buyeo were code named B1 through B6. Among all respondents, A1 and B6, regarded as the central actors in both cases, were conducted semi-structured interviews taking approximately three hours, asking detailed questions about local history, information, and local cultural policies and strategies. Other six interviewees were local artists. Unstructured interviews taking less than an hour were conducted to gather information on topics related to local culture, artistic experiences and networks. The interviews were conducted in participants' workplace in case areas. Additional data were collected by participating in several related workshops and local cultural events.

Theoretical Foundation

Potential of Small Towns

Small cities and towns play a variety of functional roles based on their historically accumulated industrial trajectories. They show a high degree of structural diversity and function as traditional manufacturing cities, dormitory towns, leisure and recreation destina-

tions and locations for distribution centres. However, they are often viewed as unitary within conventional regional and urban hierarchies, and their specific structures, functions and relationships are usually overlooked (Bell and Jayne, 2009; Salder and Bryson, 2019). Jayne et al. (2010) criticise the dominant focus of urban research on a small number of 'global' cities and cite several problems in the cultural economy literature. Firstly, the metropolitan-centred measurement and categorisation work of many theorists, such as Charles Landry and Richard Florida, fail to capture the complexity of cultural production, consumption and creativity in SMSTs. Secondly, SMSTs have vibrant cultural economies but have been consistently overlooked in research and policy on cultural and creative industries. Thirdly, certain factors, such as city size, proximity and location, impose some burden on SMSTs and warrant further examination. Thus, Jayne et al. (2010) call for a continued exploration of the often-neglected socio-spatial practices of cultural production and consumption in SMSTs and the different ways through which they are positioned in the global and national economy.

SMSTs are likely to be either diverse or dynamic even though they are not as large as mega-cities (Mayer, 2022). Meili and Shearmur (2019) show that innovative actors benefit from 'diverse diversities' and find that actors located in SMSTs leverage the urbanity of the place to gain knowledge diversity. Mayer (2022) highlights the need to rethink about the relationship between city size and economic success after finding that socio-economic indicators in the European case are better in SMSTs than in large cities. She adds that the key to regional development is capacity instead of urban size and argues that such development depends on how effectively local individuals and organizations can mobilise local resources.

Whilst small cities have their own disadvantages, such as their risk aversion, low population density and lack of awareness, uniqueness, vision, strategic planning and endogenous resources, they face fewer transportation and infrastructure problems than their larger counterparts. SMSTs also have locational advantages (usually close to resources important to traditional industries), high quality of life and level of happiness and rich cultural assets, social capital, education resources (e.g. universities) and opportunities for start-ups and innovation. Richards and Duif (2019) argue that population size is not necessarily proportional to cultural and creative outcomes. They note that subjective well-being may be higher in small cities than in large ones, that a friendly atmosphere and sense of community introduce additional variety in civic engagement activities and that technology increases the attractiveness of small cities by allowing people to work from anywhere.

Despite the development potential of SMSTs, many cities and towns are facing depopulation and urban shrinkage crises due to a fierce place competition. Several studies on SMSTs emphasise that local and regional governments should pursue enhancement in quality rather than quantity and consider creating new paths to connect people, organizations and places. To fully demonstrate the potential of small cities, Richards and Duif (2019) suggest that their stakeholders should consider 'how' to secure competitiveness by utilizing their local tangible and intangible resources and pay attention to not only creating local content but also utilizing their networks and platforms.

Placemaking and Local Cultural Content

Placemaking has been widely investigated since the mid-1960s following the recognition of the value of good urbanism. In the 1990s, the focus of placemaking has shifted from urban planning, which is oriented in the physical environment and final products of places, to placemaking as a process and people's activity (Akbar and Edelenbos, 2019). This shift results from the awareness of place as a social construct, that is, a place where continuous change occurs through the interaction between people and place as defined by Jacobs (1961). In this sense, placemaking is not aimed at spatial development but rather at fostering vibrant communities (Markusen and Gadwa, 2010; Richards and Duif, 2019; Huh et al., 2020; Fingerhut and Alfasi, 2023; Meetiyagoda et al., 2023).

Placemaking is sought across a variety of contexts with different stakeholders, purposes and intentions. According to Habibah et al. (2013), placemaking may be defined as understanding places in terms of their stakeholders' visions, strategies and practices. Governments, practitioners and local residents may have different perspectives towards placemaking. Whilst governments focus on the physical transformation of places and the creation of symbolic and aesthetic landscapes to strengthen urban identity, practitioners, such as volunteers, pay attention to the process of adding value to the public realm through community-based revitalization projects that are grounded in local resources, including history, culture and the natural environment. The differences in the perspectives of these stakeholders underscore the complexity of placemaking, that is, the modes and strategies of placemaking can vary across places, and a place can be transformed in its own way.

Richards and Duif (2019) highlight the need to effectively combine three broad elements, namely, tangible and/or intangible resources, meanings that emotionally connect people and places and creative narrative composition, which connects resources and meanings into a consistent story to improve the quality of a place. Local resources are used creatively when they are considered meaningful to people, and creative placemaking refers to the process of giving this meaning. Markusen and Gadwa (2010) find that culture- and arts-centred initiatives enhance the quality of life in local communities through important and possibly soft-edged methods. One factor that gives local specificity and competitiveness is related to the local culture and resources. Local resources are recognized as valuable materials that can be used for placemaking. Stakeholders give meaning and creatively weave these resources into a story or brand to create local content that can hardly be imitated in other regions. Such content may be the result of adding stories, values and tastes to local resources instead of simply processing, producing and selling local goods or services, such as indigenous products.

Whilst existing tourism typically focuses on cultural heritage, attractions and landmarks, tourism based on local content shows the attribute of experiential tourism by presenting themes containing various elements, including art, place, people, stories and experiences (Lee et al., 2022; Chung and Huh, 2023). Placemaking based on local content inspires the participation of local residents and organizations and elicits iterative feedback from visitors, thus turning a place into an attractive, sustainable community instead of a place meant for one-off consumption by tourists.

Many studies suggest that placemaking can bring positive social influences to the local community, especially by promoting local empowerment, strengthening social ties and place identity and improving quality of life (Markusen and Gadwa, 2010; Lazarevic et al., 2016; Akbar and Edelenbos, 2019; Richards and Duif, 2019). For a successful placemaking, a collaborative approach that promotes the continuous involvement and endeavour of different stakeholders, such as local governments, organizations, private sector planners and residents, should be adopted (Meetiayagoda et al., 2023). According to Larson and Guenther (2012), collaboration through public-private partnerships is crucial in ensuring the feasibility of a project, securing stable financial resources and strengthening place identity, social capital and community cohesion. In their case study of a cultural district in Belgrade, Lazarevic et al. (2016) highlight the importance of adopting a placemaking approach that balances the interests of different stakeholders.

Wuthnow (2013) finds that SMSTs form social networks, encourage behavior and civic responsibilities and arouse strong attachment. Compared with their larger counterparts, SMSTs have more experience in interacting with pedestrians on a human scale and cultivating identity and a sense of community. Performing case studies in the context of SMSTs can identify with whom placemaking projects should be conducted and how they affect the local community.

Case Study

This study examines the process and characteristics of placemaking in SMSTs using local content. Two SMSTs in South Korea that are experiencing depopulation and urban shrinkage were selected for the case study. The definition of small cities and towns varies across countries or regions¹. Each country follows a different standard within its unique context, and the definition of SMSTs currently lacks clear legal or institutional bases. In South Korea, cities with a population of 1 million or more are defined as large and metropolitan cities, whilst those with a population of 50,000 to 1 million are defined as SMSTs. To compensate for the fact that the standards of SMSTs is too broad, Yim (2019) insists classifying cities with a population of 200,000 or less as small cities.

Gongju City and Buyeo County are located in South Chungcheong Province (Chungcheongnam-do) (Figure 1) and were designated as depopulation areas by the government in 2021. Whilst both SMSTs are currently facing an urban decline, they previously thrived as capitals of the Baekje Kingdom. Throughout the kingdom's 678-year rule, Ungjin (present day Gongju) served as its capital for about 64 years, whilst Sabi (present day Buyeo) served as its capital for about 123 years (The Academy of Korean Studies). With their abundant historical sites and artefacts (e.g. fortress walls and royal tombs), Gongju and Buyeo have gained national reputation as historic and cultural cities and together hold the annual Great Baekje Festival. The Baekje Historic Areas located in three cities across South Korea, including Gongju, Buyeo and Iksan, were named UNESCO World Heritage Sites in 2015 (UNESCO World Heritage Centre).

Despite being famous historical, cultural and educational destinations, Gongju and Buyeo experienced a decline in its old towns and communities and lack an industrial economic base. Between 1975 (peak year) and December 2023, the population in Gongju decreased by 44.23% (from 183,075 to 102,104), whilst that in Buyeo decreased by 64.95% (from 174,190 to 61,046) (Statistics Korea, Resident registration population data).

Gongju has a rich modern cultural heritage due to its position as the administrative centre and major hub of Chungcheong Province from the Joseon Dynasty to the Japanese colonial period in the 1930s. However, since the mid-20th century, the development of neighboring cities has driven a significant population outflow from Gongju, thus highlighting the need to create a new development path. Similarly, Buyeo focused on its tourism industry by reinforcing its status as the ‘old capital of Baekje’ rather than exploring a new place identity. As such, local residents face a dilemma between taking pride in their local heritage and complaining about their underdeveloped and economically marginalized status (Park, 2014).

Due to their similar historical backgrounds and crises, Gongju and Buyeo have moved away from using their local cultural resources simply to attract visitors and instead sought to rediscover and recapture these resources as new development potentials to promote their sustainable development.

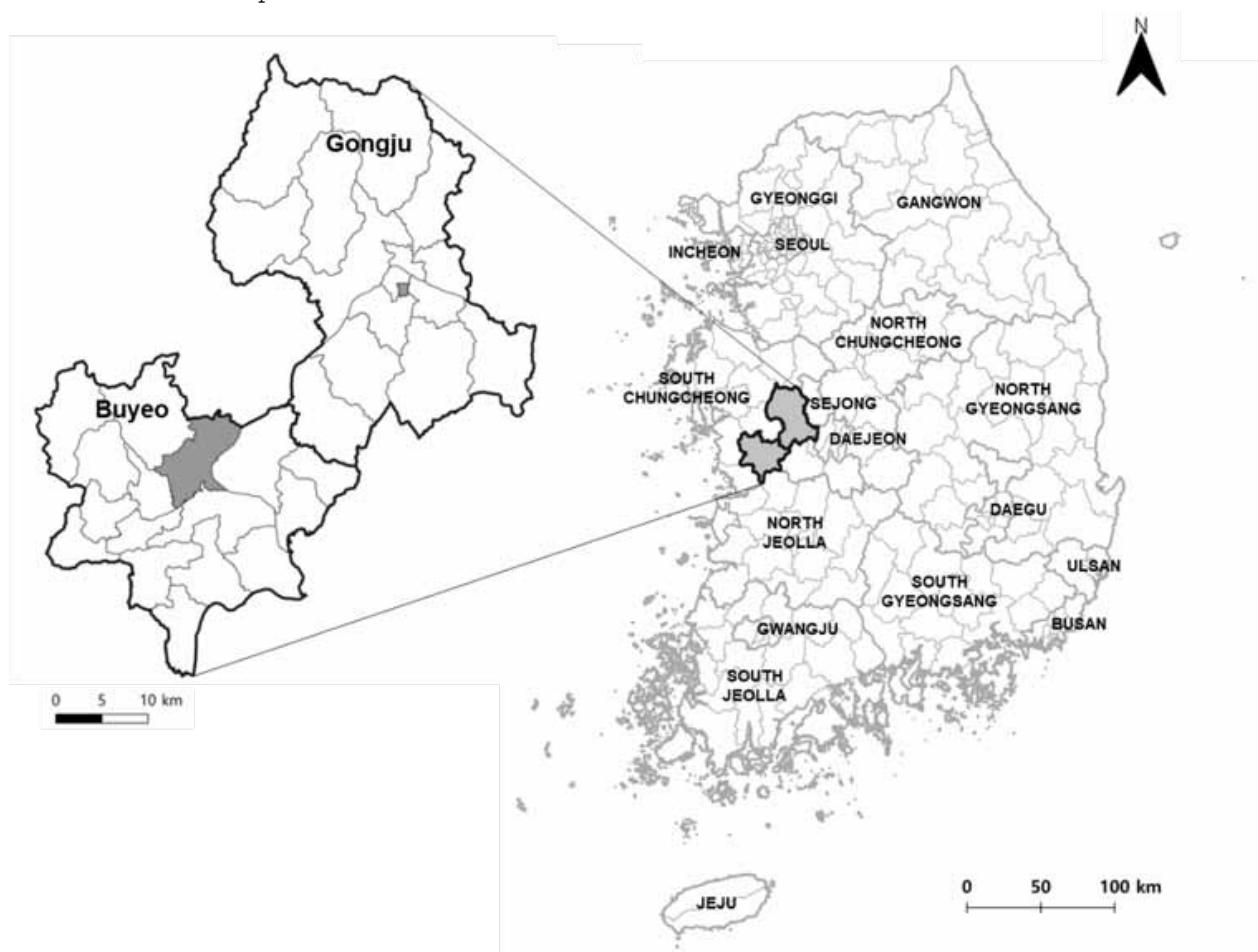


Figure 1. Study areas. Source: created by the author. Note: The shaded areas on the left map represent the cases of the study, which are the downtown area of Gongju and the Gyuam Village in Buyeo, respectively.

Empirical Findings

Case 1: Gongju as the Town-Stay ‘Jemincheon’

The old town in Gongju, Junghak-dong, was the administrative centre of Chungcheong Province until the early 20th century and later served as a dormitory town for university students studying nearby. This town, which only had small commercial and industrial bases, recently rebranded itself as the town-stay ‘Jemincheon’ by focusing on its local content.

The name Jemincheon was taken from the name of the stream that runs through the old city centre of Gongju. The downtown area has various cultural resources that were accumulated over time, such as Hanoks (traditional Korean buildings), temple sites from the Baekje era, cathedrals from the modern era and the poet Na Tae-joo's Literary House. Galleries, ateliers, independent bookstores and photography studios were also established recently to create a vibrant community that enjoys book clubs, art classes and occasional festivals and flea markets. This small neighborhood, which can be explored in just half a day, has almost a dozen galleries and independent bookstores and a variety of ateliers and cafés, many of which are characteristically unmarked, minimally advertised and housed in converted Hanoks and over 60-year old houses to harmonize with the landscape of the town.

As an important contributor to the revitalization of the old city centre in Gongju, the concept of the town-stay 'Jemincheon' was initiated around 2018 by a private actor, 'P' company. A town-stay aims at branding local content and discovering a sustainable model for the town by connecting the people and stories of the entire neighborhood instead of focusing only on its own business site (a guesthouse named Bonghwangjae).

A representative from 'P' company shared that when they first came to town, they realized that despite the presence of interesting resources, the town had a poor local commercial capacity, and outside visitors hardly thought about traveling to the village with only one element of accommodation, so they needed an alternative way to package and recreate the attractiveness of the area (A1, Interview by author. February 14, 2023). The company then started to create an environment and atmosphere where local small businesses and local residents could actively participate in its town-stay brand. This company played a crucial role in envisioning the local experience platform, stay programme (so-called 'workation'), community activities and the physical environment, including the town visitor centre, coworking space and meeting room. By building a network with cultural spaces, cafes and restaurants, this town-stay induces visitors and local residents to interact and experience the town by connecting with its places and stories. In a small town that lacks the spectacular landmarks and single-based notable content being offered in large cities, the above initiative exemplifies how the diverse cultural resources of a small area can be weaved into a coherent narrative through the town-stay brand to deliver seamless interaction experiences between places and people.

A small but not insignificant number of private actors oriented in local culture and community enjoyment are also involved in the rebranding of Gongju. Instead of relying on subsidies from public organisations, these private actors left their own footprints in producing a place-based experience content that conveys their values and cultural tastes. Therefore, local organisations prefer to plan and participate in festivals, events and projects on a horizontal and loose network basis without formal public-private partnerships. These organizations are mainly interested in gastronomic culture and new lifestyles and make strategic choices whilst taking place identity and economic revitalization into account (Chung and Huh, 2023). As shown in the study by Meetiyaogoda et al. (2023), the sense of place and attachment is a significant motivator for community participation in collaborative placemaking. Private actors in Gongju are willing to engage in place-based activities and interactions with neighboring communities, driven by place identity and community attachment:

If a team (or an entrepreneur) that is really essential to the identity of the neighborhood comes in but s/he can't find an office space because of the high cost, we can lend him/her some of the spaces that we've been leasing. I would say, 'Hey, you can use this space without a leasing deposit', because it's a must-have business with good quality that needs to come into the neighborhood... In terms of urban regeneration, public organizations regard my town as just one of the projects under their jurisdiction, and thus they just have to do their job and produce predictable results. On the other hand, we (the private sector) look at the neighborhood with more affection because it affects our living and business environments. (A1, Interview by author. February 14, 2023)

Local public organizations often entrust the private sectors and local communities with the responsibility to organise events to boost the attractiveness of a town. For example, since its launch in October 2020, the Gongju Foundation of Culture and Tourism has been supporting artists and galleries through its annual Gallery Week programme, where citizens are given direct and indirect opportunities to experience the art culture and market (Gongju Foundation of Culture and Tourism). The foundation organizes the 'Made in Gongju Art Project', which is the main program of Gallery Week, and collaborates with several galleries around the Jemincheon stream to solidify its local status as a city of art and culture. Around 10 galleries are scattered throughout the neighborhood separated by walking distance, thus allowing visitors and residents to move from one gallery to another whilst enjoying the town scenery and stopping by nearby cafés and restaurants (A2, Interview by author. March 23, 2023).

Local-community-based activities centred on the town-stay concept are not only organized for economic purposes but also focus on social values with an aim to promote a sustainable ecosystem and encourage participation from a wide range of community members. The transformation of towns tends to attract (potential) entrepreneurs and newcomers that share similar tastes and goals and create a variety of content using local cultural resources. In this case, private sectors in SMSTs may be able to realize their goals in a less competitive environment compared with those in large cities. They can also experience intimate interactions with local residents and become part of a creative community. By participating in, and sometimes spearheading, various cultural events and urban renewal programmes, local residents frequently interact with visitors and (potential) entrepreneurs who are curious about the town and even act as their guides.



Figure 2. Left, Gongju gallery week promotion and right, Jemincheon town tour. Sources: Left, photo by the author; right, provided by the Puzzle lab.

I can't say that we've built a complete ecosystem or that we're back to positive cycles of local growth, but I definitely feel that the neighborhood has become different and more vibrant. (A1, Interview by author. March 20, 2023)

Case 2: Buyeo as the 123 Sabi Craft Town

The 123 Sabi Craft Town, which is a local branding strategy of Buyeo, was developed with the goal to inherit the spirit of Baekje's crafts and arts. '123' stands for the number of years that Sabi developed its elegant culture. The 123 Sabi Craft Town was initiated from a cluster establishment project led by the provincial (South Chungcheong) and county (Buyeo) governments in August 2017 (Lee et al., 2022). This project was implemented as a national balanced development project to boost the culture, art and crafts industries, promote local job creation through the training of young craftspeople and ultimately attract population inflow.

The 123 Sabi Craft Town is located in Gyum Village, whose uniqueness lies in its attempt to retain the traces of the past, such as old signboards and abandoned houses, whilst using them at the same time to regenerate the village. In other words, the village attempts to show the landscape of the old traditional village side by side with the present. In addition to its role as the cultural heritage of Baekje, Gyum Village previously thrived for its strategic location in the waterway centre of the Geum River, through which goods from Jeolla Province were transported to Seoul until around the 1950s. However, as the importance of waterway declined with the development of new transport modes, the village and its impact on the regional economy started to decline.

Local actors have discovered traces of history throughout the village and attempted to recreate a sense of place through a creative process that draws on the villagers' tangible and intangible resources and the meaningful connections between places and people and then weaving these components into interesting stories. For example, Studio B, which was recently reborn as a new cultural space, was built in 1955 and operated as an animal hospital until 2001 until it was destroyed by a fire and left abandoned for 20 years. In addition to organizing cultural and goods exhibits, revealing the former appearance and function of this building effectively attracted the interest of visitors (B1, Interview by author. November 10, 2023). One craftswoman even stumbled upon letters and notes left by the former owner of the building and displayed them in her shop alongside her Raden crafts, thus invoking a fascinating living history museum (B2, Interview by author. November 10, 2023).



Figure 3. A studio (formerly an animal hospital) at the 123 Sabi Craft Festa. Sources: photos by author.

Old signs and writings on walls can also be found in other places across the village, thus driving visitors to ruminate about who had lived in these places, how these places functioned and which facilities were previously present in the village. A visitor might stop by an independent bookstore and realize that the building and its interior used to be a tobacco shop. Visitors can easily recognise that the village is not an artificial space representing a modern era (similar to a theme park) but more of a place where local residents and visitors can enjoy its everyday life and culture.

I think there was a tacit rule that everybody should repair their houses at the least extent. The businesses that came here first did not want to tear down the old buildings and build new ones. That's the vibe of the neighborhood, and the people that settled in town have a similar taste in lifestyle. (B6, Interview by author. January 25, 2024)

The trace of a place can be an important element in placemaking. Different cultural groups, communities and people are embedded in and derive meaning from a place, and vice versa. Therefore, a place imparts a variety of cultural meanings. Anderson (2009) identifies traces as marks, footprints or residues left by cultural life on a place and approaches a place as an 'ongoing composition of traces.' These traces are piled on top of one another, continuously influencing the meaning and identity of a place. By interpreting and utilizing the layered traces of a place, local stakeholders can make a remarkable change that maximizes the potential of a place. Local content that uses the traces and crafts throughout the village can help visitors understand this village from a diachronic perspective and recognise their place in the world. The development of local content also highlights the process of inclusive placemaking that somehow alleviates the local residents' feelings of alienation due to the rapid economic decline of their area since the 1960s.

Public and private actors have played an active role in developing local content based on crafts. For instance, the local government, as a main public actor, renovated two agricultural cooperative warehouses to provide artistic creative spaces for crafts and established residencies and art gallery spaces to solidify the identity of the crafts cluster. The government also fostered young craftspeople and helped them settle down in the area in collaboration with the nearby Korea National University of Cultural Heritage. Two old warehouses were utilized as the 123 Sabi Creative Center for crafts (opened in April 2023) and the Youth Warehouse for (Potential) Entrepreneurs supported by the Chungnam Creative Economy Innovation Center. The craft culture division of the local government organizes cultural events, such as the 123 Sabi Craft Festa and weekend workshops in Art Cube, and provides a platform for the production and sale of crafts. This department also supports craftspeople and connects them with local residents and visitors by organizing experience programmes instead of building physical infrastructure (B6, Interview by author. January 25, 2024).

The private sector runs independently yet participates in locally funded festivals and crafts experience booths and commercializes its own crafts in partnership with the public sector. To archive and visualize the old landscape of the village, the private sector recreates such landscape as local cultural content by weaving it into interesting stories and manufacturing memorabilia. Some craftsmen in the village are diversifying their businesses centred on crafts as needed and seek to operate multiple businesses simultaneously, such as craft

production, education, village tourism and craft cooperatives (social enterprises) (B3, Interview by author. November 10, 2023). One company has been working on a regeneration project called 'Zaon-gil'², which aims to create local content by utilizing the traces of old places. This company operates five to six businesses in the village, including a craft atelier, an independent bookstore, a café and a brewery. Although the business owner ultimately aims for profit maximization, she is also willing to play a central role in revitalizing the culture and tourism of the village by preserving old houses and the village landscape and by recreating the process of meaning-making into stories (B4, Interview by author. November 1, 2023). Another company uses a crowdfunding platform to sell Baekje-themed products, with local craftspeople, studios and the public sector participating in the entire process of making, filming and selling these products (B2, Interview by author. November 10, 2023).

Given the high frequency of crafts education programmes and festivals in the area, the number of visitors seeking the charm of crafts and old places in the village has increased. Although the 123 Sabi Craft Town was initiated by the public sector, public and private actors have collaboratively utilized local resources in a way that maintains the local values, place identity and crafts of the village. Unlike a few years ago when the small village mostly had an elderly population, the village now enjoys a variety of cultural education programmes, commercial activities and community events that attract craftspeople from outside and provide a base for young students and graduates to enjoy crafts and arts. These developments have inspired private actors to embed themselves in the village as members of the community, create a cohesive local narrative within the village and maintain local and non-local networks for craft-related activities.

I am running my atelier for nine years and settled in Buyeo for three years. Originally, my husband and I operated a business in Seoul, but due to gentrification and high rent, we wanted to move somewhere, and we learned about Buyeo by chance through an exhibition organiser. Fortunately, the county government provided me with 30 million KRW to shoulder the interior costs for the 123 Sabi Craft Town project. I already have a solid network that I have built up for nine years, so there are no distance barriers on my artworks. I sell materials and hold classes online and offline. As there are only a few people who do macramé here, requests for my classes are quite many. In a such small village, my husband and I freely organise and participate in hobby gatherings, including wine tasting, board games and Salsa, with local craft artists and young people besides participating in crafts festivals and markets. (B5, Interview by author. November 10, 2023)

Discussion and Conclusion

In recent years, a number of SMSTs in South Korea have experienced a socioeconomic decline and substantial population loss. Despite strong policy efforts to promote population influx into SMSTs, people, specifically the young ones, are eager to move to major urban areas in the capital regions due to the huge gap between urban and rural areas and between large metropolitan areas and SMSTs in terms of the cultural and artistic elements that people consider when deciding where to settle. According to the 2022 National Cultural Infrastructure Survey by the Ministry of Culture, Sports and Tourism, the number of cultural facilities by population in the non-capital regions outnumber those in the capital regions, whereas human resources and cultural content are absolutely concentrated in the capital regions. Therefore, cultural capacity should be enhanced by not just investing in hardware

facilities but also by creating content that captures the uniqueness and diversity of the locality and encouraging people to develop such content. Given that people are attracted to cities with cultural vibrancy (Kourtiti et al., 2021), local and regional competitiveness based on this cultural ambiance can be niched in SMSTs regardless of urban size. In other words, SMSTs in non-capital regions should recreate their local resources into attractive local content in their own ways.

Accordingly, this study explored the process of sustainable placemaking in SMSTs utilizing local cultural resources and examined the characteristics of their local content. Gongju City and Buyeo County in Southern Chungcheong Province, both of which are experiencing depopulation and regional shrinkage, were selected for a case study. These regions have developed strategies in the field of place marketing as historical and cultural cities that share a similar historical background as capitals of the Baekje Kingdom. These regions are recently trying to find a development breakthrough and create culturally vibrant communities instead of simply utilizing local historical sites and artefacts as mass tourist destinations to attract visitors. They attempted to create local content and placeness that can be subjectively experienced in the small town and village themselves instead of focusing on creating large-scale landmarks and iconic artefacts. Such local content has been evolving through the co-creation of cultural expressions by visitors and residents, which is in line with the creative tourism trend in SMSTs that focuses more on visitor experience as noted by Rabbiosi and Ioannides (2022), who mention that creative tourism emphasizes the actors of the cultural landscape they represent, including the local residents, instead of specific objects and places. By highlighting connectivity and unified storytelling amongst places within their neighborhoods, these cases were able to stimulate the cultural and geographical imaginations of their visitors, thus revitalizing the local culture and network of the host community.

Specifically, the revitalization of the old centre in Gongju is centred on the town-stay 'Jemincheon', which is a spatial experience content that connects many places throughout the entire town, allowing visitors to look around the neighborhood and interact with the residents. Having served as a dormitory town for a nearby university for a long time, Jemincheon is known for the openness and hospitality of its local residents. The influx of private actors with similar interests and tastes also promoted cultural solidarity and creativity within the town-stay. These actors prefer to plan and participate in festivals, events and projects on a horizontal and loose network basis without formal public-private partnerships. They attempt to realize their experimental values in an environment that is less competitive than large cities, engage in intimate interactions with local people and become part of a culturally vibrant community.

Meanwhile, Buyeo has developed the 123 Sabi Craft Village, a major regional project that aims to preserve local craft traditions and foster young craftspeople. Initiated by the local government, this project has made active efforts to strengthen not only crafts and arts but also place identity either in cooperation with the public and private sectors or under a private initiative. The project site, called Gyuam Village, thrived until around the 1950s before witnessing a rapid decline, ending up as a small village with empty houses and an elderly population. Throughout the village, local actors have discovered old traces and recreated a sense of place through a creative process that draws on the village's tangible and intangible resources and meaningful connections between places and people and weaving them

into interesting stories. Craftspeople and related actors in the village participate in various local craft festivals, experience booths and education programmes to establish the identity of the craft village in partnership with the public sector. By using the vestiges of the old village as sources of interesting stories, they have transformed a decaying, overlooked place with new content. Through the collaborative attempt of the public and private sectors to build a culturally vibrant community, creative artists and entrepreneurs are attracted to the village and enjoy not only its crafts but also the village itself as interesting content. The development of local content also shows the process of inclusive placemaking that somehow alleviates the local residents' feelings of alienation resulting from the rapid economic decline of their village since the 1960s.

This study emphasizes the need to conduct case studies at various scales to reveal the potential and competitiveness of cities and regions. SMSTs are often assumed to lack diversity to create pathways but have institutional and economic inertia to change. The two cases above illustrate how local stakeholders pursue town regeneration based on local content, creative networks and social capital. As described by Mayer (2022), the private sector involves innovative and entrepreneurial actors who are not limited to their own activities and businesses but are connected to one another. They seek to revitalise their towns and communities and connect themselves with distant partners to maintain their novelty.

However, the cases investigated in this study have their own weaknesses. Specifically, they only have a small number of actors and organizations who can (re)create and distribute content, thus posing challenges in maintaining the identity and uniqueness of the place if some of them leave due to gentrification or conflicts.

Endnotes

- 1 For instance, the Small City Economic Dynamism Index in the US defines micropolitan as those with a population of less than 10,000 to 50,000 (Community Commons), whilst the OECD (2023) classifies urban areas in OECD countries as large metropolitan areas with a population of more than 1.5 million, metropolitan areas as those with a population of 500,000 to 1.5 million, medium-sized urban areas as those with a population of 50,000 to 200,000 and small urban areas as those with a population of 20,000 to 50,000.
- 2 Zaon-gil is a space regeneration project spearheaded by a private company 'S' in which a street with abandoned spaces is filled with the warmth of people. (B4, Interview by author. November 1, 2023)

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Basic Information on Interviewees

Interview code identifying interviewees	Gender	Occupations	Interview methods	Interview date
A1	Male	the CEO of ‘P’ Inc.	Semi-structured interview Workshop participation	February 14, 2023 March 20, 2023
A2	Female	artist	Unstructured interview	March 23, 2023
B1	Female	artist and business owner	Unstructured interview	November 10, 2023
B2	Female	artist and business owner	Unstructured interview	November 10, 2023
B3	Female	artist and business owner	Unstructured interview	November 10, 2023
B4	Female	artist and business owner	Unstructured interview	November 1, 2023
B5	Female	artist and business owner	Unstructured interview	November 10, 2023
B6	Female	a representative of the 123 Sabi Craft Town project	Semi-structured interview	January 25, 2024

The Development of Sustainability for Tonkori Performance of the Ainu People in Northern Japan

Kumkom Pornprasit⁺ (Thailand)

Abstract

The Ainu are the indigenous people of the northern region of Japan which is adjacent to the Russian border. An important Ainu musical instrument is the Tonkori, a wooden 5-string instrument played for entertainment purposes. The current Tonkori music is considered to be introduced by Sakhalin Ainu, one of the sub-ethnic groups of Ainu who migrated to Hokkaido prefecture after WWII. An effort to reduce inequality as well as to make their culture sustainable among the Ainu people is the followings: (1) Promoting the establishment of university research centers; (2) organizing workshops and musical performances in museums and recital halls; (3) offering short but intensive 3-year Tonkori courses for classes of four students each; (4) endorsing the establishment of a national registry of ancient musical instruments; (5) endorsing the establishment of Ainu culture study programs in secondary schools. The research findings reveal that the Ainu people based their sustainable cultural preservation efforts on the two principles of raising social awareness about Tonkori music and enhancing mutual cooperation for the related tasks.

Keywords: Sustainability, Tonkori, Ainu People, Japan

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Introduction

The Northern Peoples are the indigenous peoples who reside in the northern regions of China, Korea, Russia, Japan, and USA. These regions are home to different ethnic groups such as the Ainu, Nivkh, Uilta, etc. The Ainu People is an indigenous ethnic group who lives in three areas in the northern part of Japan: Hokkaido prefecture, the Sakhalin Island, and the Kuril Islands. At the end of WWII, the Sakhalin Island was annexed by the USSR (See Figure 1). The Ainu people live very close to nature as evident from their houses (See Figure 2) or clothing which are made from natural materials (See Figure 3). Their livelihood is closely associated with rivers, mountains, and lakes (Shimazu, 2017). The Ainu people have a speaking language of their own, but do not have any written language. Their primary occupation is fishing, such as salmon fishing which provides fish skin for their clothes and shoes. The Ainu people consider salmon as vital to their existence and have several traditions relating to salmon. They also believe that fire is a representation of deities, therefore, fire is almost always present in all rituals of the Ainu people. (Kitahara, interview, August 31, 2023)



Figure 1. The Ainu traditional territory by the author.

Tamura Masato¹ explained that around 1865 or approximately 80 years before the start of WWII, the Japanese government had conducted a population census in which there were separate figures for the Japanese and Ainu populations. The census revealed that there were approximately 18,000 Ainu people in Hokkaido and another 1,500 in Sakhalin. After WWII ended in 1945, Japan lost the war and the Sakhalin Island was annexed to the USSR, compelling almost all of the Ainu people on the Island to emigrate to Hokkaido. 1,400 Sakhalin Ainu moved to Hokkaido while the other 100 remained there for family reasons such as having Russian or Korean spouses. However, since then the Japanese government had never again conducted a consensus to differentiate Ainu and the Japanese populations, stating that all of them are considered the Japanese nationals. (Tamura, interview, Sept. 18, 2023)



Figure 2. Left, the traditional Ainu house exhibited at Nibutani Ainu Culture Museum photographed by the author. Right, the traditional clothing of the Ainu people. Source: A photograph exhibited at Kayano Shigeru Nibutani Ainu Museum.

Two Ainu Musical instruments were found during my field work in Hokkaido including Tonkori (Figure 3, right) and Mukkuri, left.



Figure 3. Left, Nishihira Ume (1901-1977), a Tonkori musician who emigrated from Sakhalin. Source: (Kitahara, 2005:26). Right, Mukkuri, Jew's harp of the Ainu photographed by the author.

From the research interviews, several Ainu experts agreed that during the immigration from Sakhalin after WWII not many people brought along their musical instruments, especially the Tonkori which was the larger of the two Ainu musical instruments. Most ancient Ainu musical instruments that are currently held in different museums were made in

Hokkaido. However, it is still possible to differentiate between the Hokkaido and Sakhalin Tonkori instruments by their distinctively unique characteristics.

Tonkori is a plucked string instrument with five strings (or only three strings) and six strings. Professor Kitahara Jirota explained that 1876 (the 9th year of the Meiji Era) was the year that the first group of the Sakhalin Ainu emigrated to Hokkaido. They first settled in Ebetsu which was the residential area for international groups of people from Europe and the United States. Some of the foreigners in these groups who were interested in the Ainu culture were probably the ones who took some 6-string Tonkori back to their countries and documented their existence. (Kitahara, interview, August 31, 2023)

Tonkori is a type of chordophone instrument² whose music is produced by plucking its strings. It was previously referred to by the locals of Hokkaido as 'Ka' and by the Ainu of Sakhalin as 'Tonkori.' However, both groups now call them by the same name of 'Tonkori.' Some researchers tried to classify Tonkori by their physical characteristics. In an interview with Oya Kyosuke, a researcher who is the current curator of the Hakodate City Museum of Northern Peoples, he classified the plucked string instruments of the Northern Peoples into two main categories: Lute and Zither. Musical instruments in the first category, Lutes, are further divided by their physical characteristics into three groups. They are musical instruments with three components: the Head, Neck, and Resonance body. Musical instruments in the second category, Zithers, are divided into seven groups of instruments which have only two components: the Head and Resonance body. Tonkori is classified as a musical instrument in the zither category. (Oya, interview, Sept. 1, 2023, See also Oya 2011)

At present, Tonkori music can be found in three regions: (1) Hokkaido; (2) the west coast of Sakhalin Island and; (3) the east coast of Sakhalin Island. In the first region, Hokkaido, Tonkori music tradition had completely disappeared for lack of transmission with no clear evidence to indicate when this had happened. In the second and third regions, the two coasts of the Sakhalin Island, the music tradition that came with Ainu immigrants still remains to this day. Ainu musicians from the Sakhalin Island can be divided into two groups: those who came from the East and West coasts of the Island. Nishihira Ume (1901-1977), an Ainu musician who was the pioneer in the transmission of Tonkori music, came from the East Coast. Fujiyama Haru (1900-1974), another leading Ainu musician from the West Coast passed on the musical knowledge and activities to her own family members. However, after the death of her daughter in 1986 and of her husband, who was both a Tonkori musician and craftsman, in 2001, the West Coast Tonkori music tradition has almost become extinct. (Kitahara, interview, August 31, 2023)

In relation to Tonkori to the Ainu's ways of life, William W. Fitzhugh and Chisato O. Dureuil described this musical instrument as follows: "*Ainu used the tonkori frequently to accompany yukar presentation. It was such an important part of Ainu culture that it was considered a god in itself.*" (Fitzhugh, W. W. and Dubreuil, C. O., 1991). The Garland Encyclopedia of World Music, East Asia: China, Japan, and Korea give the following descriptions for both types of the Ainu musical instruments:

Typical Ainu instruments are the Mukkuri (Jew's harp) and the Tonkori or ka (zeither).

The Mukkuri and the Tonkori were both used not for solo performance but also to accompany

song and dance. Most pieces for these instruments are imitations of the sounds of nature, such as raindrops, waterfalls, and the cries of birds and animals. (Tanimoto, 2002)

Due to the changes of their physical environment after emigrating to Hokkaido, the Ainu people had to adjust themselves to their new social environment and ways of life. The literature review of this study reveals that the Ainu people had made several adjustments to be able to cope with the changes and to preserve their traditional culture. For example, Tonkori music has been recently modified to incorporate modern styles of music into the traditional one. Carlo Forlivesi stated that musicians had to adopt “*new Ainu music*” by *mixing together Ainu tunes and pop styles such as jazz, reggae, new age and so forth (in some case this music is played with “Ainu instrument”)*. (Forlivesi, 2004)

Furthermore, in being under the Japanese administration and increasingly experiencing the pressure of the changing global contexts, the Ainu people must find a means to preserve various aspects of their cultural heritage and wisdom to prevent the loss of their rituals, languages, performing arts, carving, textile weaving, sewing as well as agricultural traditions and knowledge relating to plants, flowers and their relevant contexts. Some of the Ainu people now work in different institutes in Hokkaido, especially in museums which were the key sources of data for this research. The findings of the present research will provide guidelines for ethnic groups across the world in dealing with similar problems and allowing them to recognize the power of cooperation and unity of the Ainu people of Hokkaido in developing sustainable preservation of their culture and traditions, reducing inequality, and creating livelihood stability.

Research Results

This research (since 1 May, 2023 to 1 February, 2024) employed the qualitative research methods of documentary research, interviews of key informants, and collection of field data at the following 11 museums/ institutes in Hokkaido:

- Center for Ainu & Indigenous Studies, Hokkaido University
- Hakodate City Museum of Northern Peoples
- Hakodate City Museum
- National Ainu Museum (UPOPOY)
- Hokkaido Museum
- Biratori Ainu Crafts and Heritage Center (Urespa)
- Nibutani Ainu Culture Museum
- Kayano Shigeru Nibutani Ainu Museum
- Historical Museum of the Saru River
- Asahikawa City Museum
- Kawamura Kaneto Aynu Memorial Museum

In this section, the author will present data on the physical characteristics of the Ainu people’s musical instruments, their performing culture, and recommended guidelines for sustainable preservation of the musical culture of the Ainu people.

Tonkori Physical Characteristics and Performing Arts

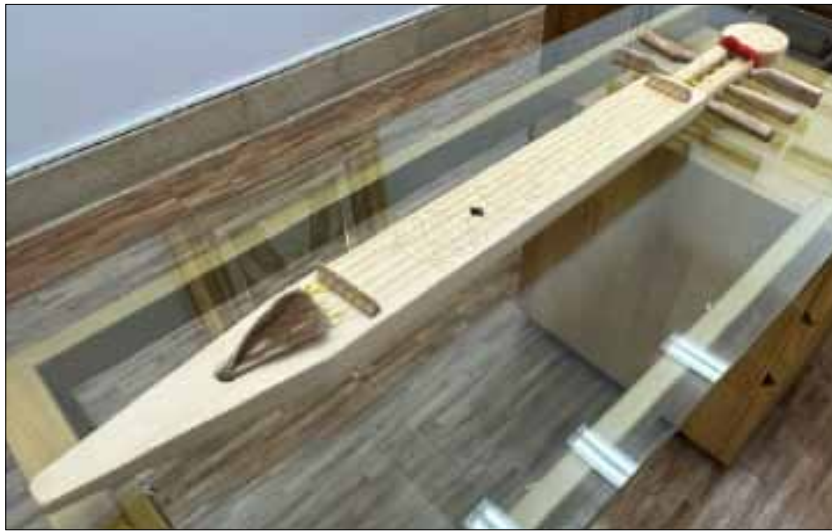


Figure 4. The Tonkori made by Shigehiro Takano photographed by the author.

Since the Ainu people live close to nature and primarily make their living from fishing and hunting, Tonkori components are made from materials that are available in their everyday life. The body of Tonkori is made from the wood of Ezomatsu pines (See Figure 5) which has a distinctive circular rings pattern. Tonkori strings are made from soft but durable silk threads, whale tendons and deer Achilles tendons (See Figure 5, right). However, today's Tonkori strings are mostly made from nylon. Strings made from whale tendons are produced by letting the tendons dry out before pounding them into thin threads and braiding them into individual strings (See Figure 5, right Figure 6, left & center). The unique characteristic of tendon strings lies in their toughness and do not break. However, the law prohibiting whale hunting in Japan has resulted in the use of Shamisen strings for Tonkori. The bridges of Tonkori are made from seal skins (See Figure 6 right) or sheep skin. Tonkori of the old days usually come in different sizes, ranging from 80-105 cm long and 9 cm wide. Present-day Tonkori are approximately 120 cm long and 9-10 cm wide. The currently celebrated Tonkori maker is Takano Shigehiro from Nibutani Village in Biratori-Cho area.



Figure 5. Left, *Picea jezoensis* trees (Ezomatsu). Center, Ezomatsu lumber. Right, deer Achilles tendon. Photos by the author.



Figure 6. Left, Takano Shigehiro demonstrated pounding & crushing deer Achilles tendon. Center, the process of braiding deer Achilles tendon for musical instrument strings. Right, Seal skin is used as neo [cloth end piece anchoring the strings. Photos by the author.

At present, Tonkori is a relatively expensive musical instrument with a price of approximately 100,000 yen and more (prices vary depending on the amount of engraved decoration). This presents quite an obstacle to its sustainable preservation. Takano Shigehiro stated that after the introduction of factory-made Tonkori, its price has been reduced by half to only about 50,000 yen a piece.

Pitches of the 5-string Tonkori

Tonkori pitches are flexible. Some musicians prefer high pitch tuning while others go for low pitch tuning. There is no definite requirement for Tonkori tuning but each string should be four pitches apart while the fourth and fifth strings may be 4 or 5 pitches apart. Nowadays, some musicians may set Tonkori pitches to the pitches of Western music in order to achieve complementary tunes during a performance. For example, Takano Shigehiro sets the first string of his Tonkori at C scale, the second string at G scale, the third string at D scale, the fourth string at A scale, and the fifth string at E or D scales (See Figure 6 right). The five strings of Tonkori are, therefore, not tuned in order of pitch or from high to low like other plucked string instruments in other parts of the world. This makes it difficult for professional plucked string musicians to play Tonkori as they have to modify their performing skills to suit the unique pitch tuning style of Tonkori. Kitahara Jirota also made an effort to meticulously notate Tonkori music, providing clarity on both the position of the strings to be plucked and the rhythm. This was done to facilitate better understanding for students (See Figure 7).



Figure 7. Examples of Tonkori's tone levels. Source: (Tomita, 2017:4).

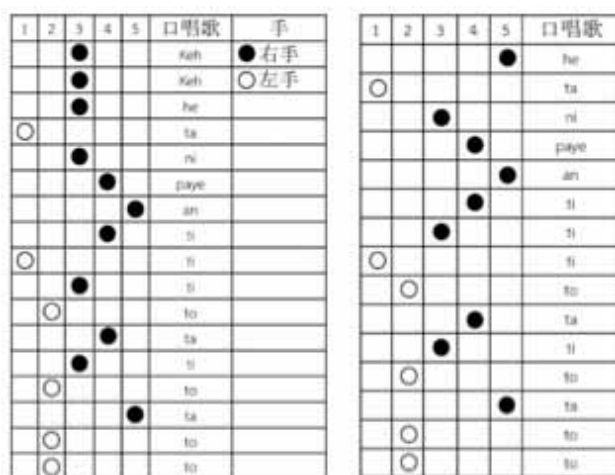


Figure 8. Examples of Tonkori musical notation by Kitahara Jirota.

Performing Methods, Performing Occasions, and Meanings of Tonkori Melodies

Tonkori is generally played to accompany dances or songs or as sleeping music for children and even for the dead. It can be performed while standing, sitting, or lying down. The last performing posture is used when trying to put a child to sleep so that the performer can also rest while playing. If a deceased person is particularly fond of Tonkori music, the musician will play Tonkori for him or her while lying down. However, Tonkori is not usually played to accompany a ritual but can be played before its commencement (Kitahara, interview, August 31, 2023)

There are approximately 50 melodies for Tonkori songs; 17-20 of these belong to Tonkori music tradition of the West Coast of Sakhalin Island while 13-15 melodies of the East Coast music tradition were recorded in various documents. The meanings of most Tonkori melodies revolve around themes from their ways of life and about nature. Examples of such Tonkori melodies are as follows (see Chiba 2005):

- *Keh Keh He Tani Paye An* is a melody used for a request of friendship / or romantic love when a person is too shy to directly confess his or her love.
- *Ikeresotte* is a melody for practice sessions.
- *Tokito Ran Ran* is a melody that describes a scene of birds swooping down to feed on vegetable plots.
- *Kitsune* (Sumari Puu Kosan) is a melody relating a story of a family of Kitsune, a type of animal, that sneaked into an Ainu house to steal their seal oil.
- *Tsuru no Nakigoe* is a melody imitating the voice of a crane.
- *Karasu no Suiyoku* (Cikah Maa Irehte/ Etuhka Maa Irehte) is a melody describing a scene of bathing crows.
- *Uta no Banzo* (Suma Kaa Peka Tuhse Irehte) is a song about a couple who fell in love with one another against the wish of their parents. The lovers made a date to meet at a sea-side location and, after the receding of the tide, ran together towards the sea rocks.
- *Odori no Banzo* is a melody performed to accompany a dance.
- *Ikeresotte Horipi Ikeresotte* is a melody used to accompany a singing lyric.
- *Cakuton/ Hosuyasuya Ikos* is a melody imitating the sound of the word "Cakuton."

Methods of Transmission

Tonkori music is transmitted through oral tradition and face-to-face training. Since the number of Tonkori musicians has significantly decreased and this problem has long been recognized by both scholars and Tonkori musicians, they have strived to find easier methods of transmission, either through the creating of Tonkori musical notation or determination of melodies with more precise rhythms. Another problem has arisen from the fact that Tonkori strings are not tuned in order of pitch, which makes it very difficult to play Tonkori music. On this issue, Kochi Rie, an ethnomusicologist and a researcher on the Ainu people and culture at Hokkaido Museum, stated in an interview that a suitable method of transmission was to initially have students practice with a paper model of a Tonkori (See Figure 8) before advancing to playing a real Tonkori. The practice session is carried out in four steps: memorizing the melodies, making finger movements on a paper model Tonkori, touching a real Tonkori, and practicing a musical notation on a real Tonkori (Kochi, interview, Sept.13, 2023).



Figure 9. Kochi Rie with musical instrument paper models at Hokkaido Museum photographed by the author.

Guidelines for the Development of Sustainability for Tonkori Music

Based on the documentary research data and interviews with scholars, researchers, and museum curators the author found that both the public and private sectors have tried to preserve and promote sustainability for Ainu culture. Following the Ainu immigration from the Sakhalin Island after WWII, it is now almost impossible to differentiate the Ainu Hokkaido from the Ainu people from the Sakhalin Island. Both groups have joined forces in promoting sustainable preservation of Tonkori music by adopting the music tradition mainly from a source of Tonkori music transmitted by Nishihira Ume, a Tonkori performer from the East Coast of the Sakhalin Island. This research found that the following five measures have been implemented for the purpose of developing sustainability for the Ainu's music and its related cultural aspects:

Establishment of the Center for Ainu and Indigenous Studies by Hokkaido University



Figure 10. Professor Kitahara Jirota photographed by the author.

Hokkaido University has established this center to specifically study the Ainu people. Professor Kitahara Jirota (See Figure 10) of the Center for Ainu and Indigenous Studies is a descendant of the Ainu people on his maternal side. His grandmother was born in the Southern part of Sakhalin and emigrated to Hokkaido in 1945. His father was a Japanese, and his mother studied Tonkori music under with Tomoko Tomita who was a student of Nishihira Ume. While actively contributing to sound recordings and research as a Tonkori player, Nishihira Ume had transmitted the art of Tonkori performance not only Ainu descendants but also Japanese. Among her students, Tomita Tomoko devoted herself to its transmission, for example contributing to teach Tonkori music in Kanto Utarikai [one of Ainu's associations which locates in Tokyo and its neighborhoods]. Due to her career as a Japanese Koto player, Tomita had established a unique teaching system through applying Iemoto system [Iemoto system: a teaching/licensing system of Japanese traditional arts with Iemoto, a grand master, at a top] (Kitahara, interview, August 31, 2023). An analysis of these recordings reveals that they have contributed to the sustainability of Tonkori transmission among the Tonkori musicians from the East Coast of Sakhalin Island to this day.

Museum Operations

There are three principal museums that dedicated to their operations to the preservation of the Ainu culture.

National Ainu Museum (UPOPOY)

Prior to 1965, an Ainu village in Shiraoi had organized cultural events to showcase Ainu culture. With an increase in popularity and the number of visitors, the village decided to move the venue for their cultural exhibition from downtown of Shiraoi to the shore of Lake Poroto, where the current museum "UPOPOY" locates. In 1984, the museum was administered by a private organization but was later transferred to be under the government's administration in 2020 (Ishida, interview, Sept. 12, 2023).

Nibutani Kotan in Biratori

Nibutani Village in Biratori area is another site for the preservation of Ainu culture where the Biratori Ainu Crafts and Heritage Center (Urespa) where four more museums are located, namely:

- Nibutani Ainu Culture Museum
- Historical Museum of the Saru River
- Kayano Shigeru Nibutani Ainu Museum (a private museum)

Akanko Ainu Kotan (Ainu Village in Lake Akan)

Akanko Ainu Kotan is one of the largest Ainu kotan (settlements) in Hokkaido, inhabited by about 120 people. The facilities including museum and theatre engaged in various activities to ensure sustainability of Ainu music and other aspects of the Ainu culture.

Moreover, there are around 45 museums in Hokkaido prefecture that have been holding Ainu culture exhibitions for the purpose of disseminating Ainu culture. For additional information, see public relations brochures about these activities on a related website (<http://www.ff.ainu.or.jp>). The three principal museums in this area organized similar activities, namely, indoor/outdoor exhibitions, workshops on various aspects of the Ainu culture, such as Tonkori playing, short 10-15 minutes of Tonkori and Mukkuri performances, full 30-minute indoor musical performances, model Ainu houses to showcase their ways of life. On display in these houses are traditional Ainu implements and utensils, and demonstrations

of Ainu clothing and dressing methods. These museums also hire Ainu staff. This research reveals that some of Ainu gain the permanent jobs in those museums. For this reason, museums are a significant mechanism for the development of sustainability for the Ainu culture.

Intensive Courses for Transmitters of Ainu Culture

This is the most crucial form of sustainability measure. The Biratori Ainu and Heritage Center (Urespa) has continued to organize intensive training courses on Ainu culture with financial support from the District Administrative Organization and the Ainu Culture Foundation. These intensive training courses were first offered in 2003 and until now five classes have been held. The number of trainees is limited to four students per class. This 3-year program offers four training courses in language, rituals, literature, and different types of crafts ranging from Ainu musical instruments, wood carving, weaving, sewing as well as the study of plants, flowers, trees, barks. The training courses have been held in Urespa but relocated a new center named "the Ainu Culture Center" in 2023 with Takano Shigehiro as the program director. Expert guest speakers are invited to share their knowledge and expertise with trainees. Okamoto Tomoya (See Figure 11), a graduate of this program, states that:

I graduated from Sapporo University. My grandparents are of Ainu descent. I study wood carving here because I love this craft. After completing the program, I start working here and receive my salary from Biratori local government. I am afraid that if all Ainu people passes away everything will disappear. That is why I want to transmit this knowledge. (Okamoto, interview, Sept. 15, 2023)



Figure 11. Tomoya Okamoto, course completion graduate photographed by the author.

Procurement of Remaining Old Musical Instruments and Registration as National Important Tangible Folk Cultural Properties

Ainu museums have made efforts to purchase or ask for donation of ancient Tonkori with illustrious history to add to their collection or put on display. Such Tonkori instruments are the source of great pride for the Ainu people. Field data obtained during the course of this research revealed a number of Tonkori instruments that have been registered as national important tangible folk cultural properties as follows:

- Baba Collection (Hakodate City Museum). The oldest Tonkori in this collection was obtained in 1930's.
- Hokkaido Development Commissioners' Collection (Hakodate City Museum). The oldest Tonkori in this collection was obtained in 1800's.

- Sarashina Genzo Collection (Hokkaido Museum)
- Kondo Kyojiro Collection (Hokkaido Museum)

Endorsement of an Ainu Culture Program for Upper Secondary Students

The effort to develop sustainability for the Ainu culture are multi-dimensional. In 2024, Hokkaido Biratori High School calls for admission of students who want to major in its Ainu culture program. This represents an innovative attempt to promote sustainable transmission of Ainu culture in Hokkaido prefecture of Japan.

Conclusion

With recognition of the significance of their culture, the Ainu people of Hokkaido are determined to ensure sustainable preservation of their musical culture. Although it is not possible to rediscover the traditional Tonkori music of Hokkaido and almost impossible to rediscover the Tonkori music of the Ainu on the West Coast of Sakhalin, there still remain traces of the Tonkori music of the Ainu immigrants from the East Coast of Sakhalin which can be retrieved from the sound recordings of a prominent East Coast Tonkori musician. This effort has become successful through a collaboration with a group of Japanese Koto musicians who formed a musical association for the transmission of Tonkori music in the Japanese musical transmission style. Through these measures the Ainu Tonkori music still exist to the present day. The Ainu people of all regions are determined to be unified in their preservation efforts of the remaining musical culture. A testimony to this success can be seen in the number of visitors to the Ainu National Museum (UPOPOY) in the Museum's records. The researcher was able to obtain these figures through the kind assistance of Yachita Mio, an Associate fellow at the National Ainu Museum (see the statistical data available on the website of Comprehensive Ainu Policy Office, Cabinet Secretariat, Government of Japan). These records revealed extremely high numbers of Museum visitors, even during the COVID-19 pandemic period, to the extent that limited number of visitors have to be imposed at specific periods and sometimes a one-month advanced booking is required to visit the museum. Between July 2020 and January 2023, there were as high as 754,910 visitors. The Museum's popularity is a positive indicator for the sustainable existence of Tonkori music and other aspects of the Ainu culture in the future. However, an obstacle to the preservation of Tonkori music lies in the relatively high price of Tonkori instruments. Another problem involves the care and maintenance of ancient Tonkori instruments in the collections of different museums. Takano Shigehiro, a Tonkori craftsman, is very concerned about the lack of knowledge about the musical instrument craftsmanship among museum personnel. He saw this as a serious problem for the future preservation of Tonkori musical instruments.

The benefits gained from this research project reflect the multi-dimensional aspects of Tonkori preservation efforts regarding people's awareness and cooperation in developing and implementing suitable preservation methods. They also open up new perspectives on how to repair or maintain the old and priceless Tonkori instruments that are scattered across different museums. Tonkori performance contests may be another approach that should be taken into consideration to ensure ongoing preservation efforts of the Ainu culture.

Acknowledgements

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Endnotes

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- 2 The basic classification of instruments derived from the system published in 1914 by Erich von Hornbostel and Curt Sachs.

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Collective Memory, Urban Regeneration and Conservation of Historical Sites – *ChaharBagh Street, Isfahan City, Iran*

Mehdi HaghighatBin (Iran),⁺ Sara Saghafi Moghaddam (USA)⁺⁺ & Steffen Nijhuis (Netherlands)³

Abstract

This study aims to present a regeneration process for historical spaces based on the notion of collective memory. We argue for the necessity of simultaneously studying conservation and rehabilitation policies for restoring and continuing the collective memory of historical spaces. This approach can effectively preserve and shape the collective memory of historical spaces by focusing on preservation and valuing the landscape as a major key between place and humans. The historical ChaharBagh Avenue from the Safavid era in Isfahan serves as a case study. Over time, the social and cultural significance and value of ChaharBagh Avenue as a historical public space and collective memory is diminishing due to inconsistent renewal policies. The study employs a qualitative approach, including field studies and interviews with 32 citizens of Isfahan, to suggest a model for sustainable regeneration and conservation of historical urban sites based on collective memory.

Keywords: *Collective Memory, ChaharBagh Boulevard, Urban Open Space, Isfahan, Urban Regeneration, Iran*

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Introduction

Persian Garden City

This paper focuses on Isfahan's Garden City design and ChaharBagh Street as its main axis. The Persian Garden City pattern is a type of urban planning that incorporates Persian garden elements in the city's design. This approach has its origins in the Achaemenid period. Stronach (1990) believes that Cyrus¹ (600–530 BC) unprecedently aimed to build a garden-filled capital, an idea that all Iran's leaders have favored. In the Persian garden-city model, gardens are the major urban identity and landscape elements on the micro and macro scale (Figures 1 and 2).

This paper aims to propose a method for recreating historical places focusing on Charbagh Street as a case study, with the primary objective of preserving collective memory. Historical sources have noted that the Safavid Dynasty used the urban landscape to express their power and greatness and create shared collective memories for citizens (Haghighatbin, 2016; Lavafi, Sepehri Moghadam, and Habib, 2018; Ahari, 2006). It appears that the garden-city model was used to achieve this goal. Shah-Abbas² the Great sought to transform Isfahan, the capital of the Safavid Empire (1501 -1736), into a glamorous city that would attract foreign tourists, merchants, and ambassadors (Shafaqi, 2002) and create a unique collective memory through its atmosphere and places.

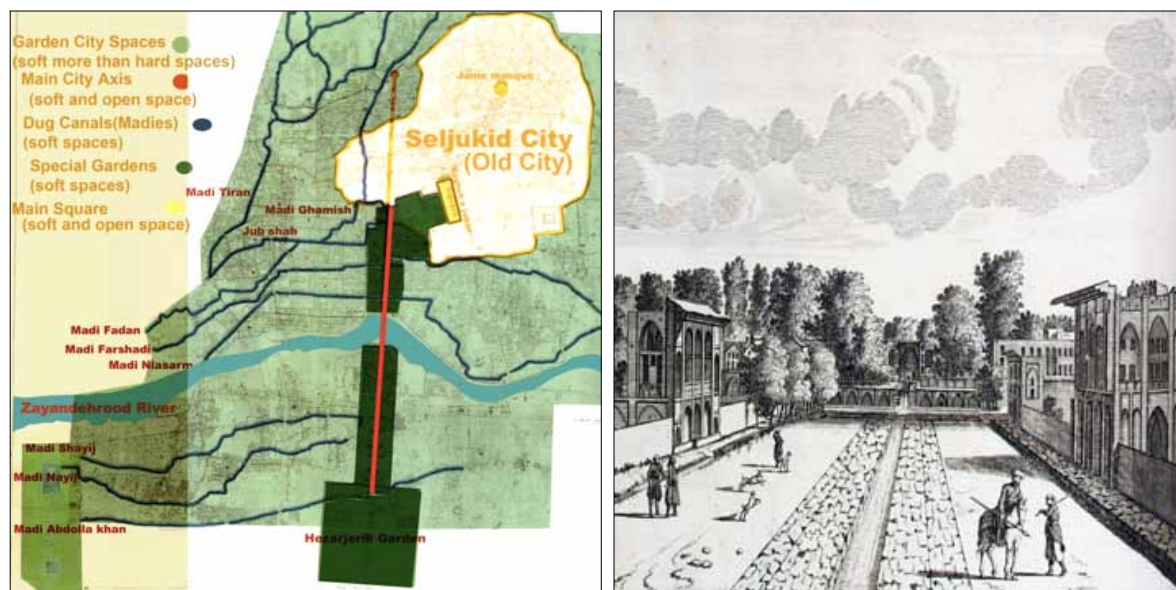


Figure 1. Soft, hard and urban open spaces in Isfahan garden city (Haghighat bin, 2012) and the volume of open spaces in front of building masses in Isfahan garden city (Le Brun, 1718).

Collective Memory

Collective memories are shared recollections of events among a group of individuals (Mir Moghtadaei, 2009). They shape the social narrative and understanding of a community and serve as a shared subjective guide for navigating the world's complexities (Olick and Robbins, 1998; Crumley, 2002; Misztal, 2003; Gongaware, 2003). Researchers argue that the sense of belonging to a social group is important for memory retention (Misztal, 2003). Additionally, studies have reported that collective memory is deeply rooted in social and geographical factors, as it is shaped by the resources and interactions within a community (Connerton, 1989). The spatial context in which events occur is crucial for forming collective memories. Urban spaces serve as the stage for daily life, events, and incidents; these

experiences shape the memories stored in citizens' minds (Habibi, 1999). The concept of collective memory highlights the connection between memory and social interactions, specifically in the context of public spaces in a city (Saghafi Moghaddam and Cora 2012). So, the context of their formation can be a site for the city's social interactions. Maurice Halbwachs, the pioneer of this concept, suggested that "place and group have each received the imprint of the other" (Halbwachs, 1980). Collective memory is interconnected with the city's public spaces, with the context of these memories acting as a venue for social interactions. The spaces and places hold meaning unique to the group, as each part of the space corresponds to various aspects of the group's society and culture, particularly those most stable aspects (Halbwachs, 1980).

Cities play a crucial role in symbolizing and preserving memories. The urban landscape serves as a symbolic representation of power and memory through civic compositions educating citizens about their national heritage and public responsibilities (Boyer, 1996). Just as a nation's history is passed down through generations, so too are collective memories. The city's residents recall and share the narratives of their community's history. Lewicka notes that urban traces act as "urban reminders" and "mnemonic aids" for the collective memory of the inhabitants. These traces are usually made up of natural or architectural features, including graveyards marked by diverse names, public edifices, and architecture spanning different eras. (Lewicka, 2008).

Collective memories are shaped by activities and events, with urban spaces providing a backdrop that visually represents these shared memories. Figure 2, right, illustrates a model for understanding the dimensions of collective memory, encompassing both the objective characteristics of the place (its physical structure and the activities it hosts) and the subjective aspects (its history and the events that have occurred there). The interplay between individuals, the physical environment, and specific activities and events that take place on particular dates contributes to the formation of collective memory. Through engaging in activities and events at these places on designated dates, people's cognitive understanding is influenced, leading to the creation of new memories.

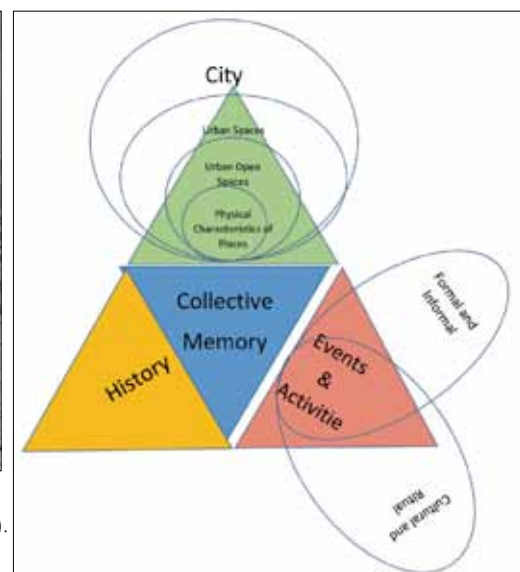
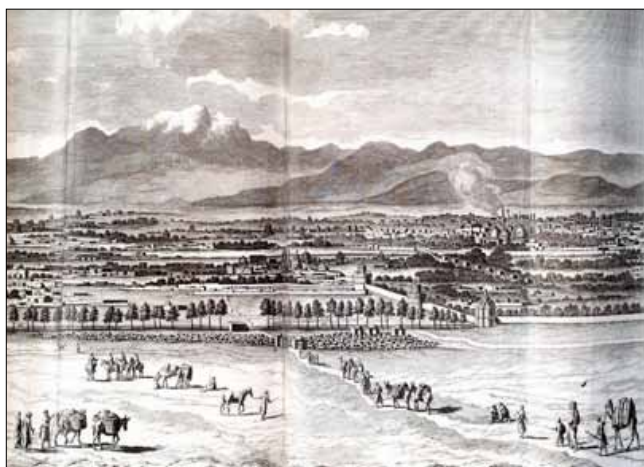


Figure 2. Left, perspective of Isfahan garden city (Le Brun, 1718). Right Conceptual Research Model.

Regeneration

Urban regeneration has emerged as a distinct policy area since the 1970s, emphasizing the revitalization of economic activity, the promotion of social cohesion, and environmental improvements in areas experiencing decline (Couch and Fraser, 2003). The approach to urban regeneration has shifted from modernist, large-scale changes to prioritizing diversity, sustainability, social equality, and livability as crucial strategies for social and economic development (Gittell, 1992; Henneberry & Rowley, 2002; Smith, 2006; Smith, 2012; Tallon, 2013) (Figure 3).

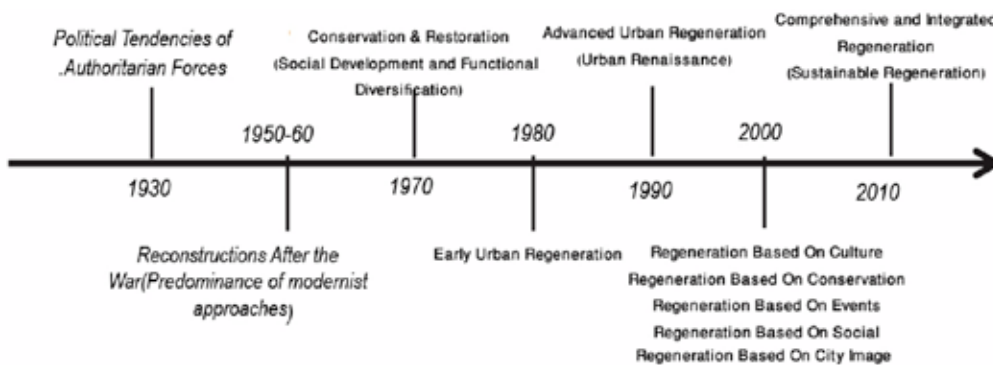


Figure 3. Dominant approaches in time-transition from reconstruction to sustainable regeneration.

Figure 4, based on Clentonio and Dixon's "Urban Regeneration and Social Sustainability" (Clentonio, 2010), outlines the evolution of urban regeneration through various phases: physical development (1940s-1950s), social welfare (1960s), economic focus (1970s-1980s), and local social engagement. They argue that the early 21st century's emphasis on creating "sustainable places" signifies a critical phase in urban regeneration, shifting towards prioritizing "local communities," "sustainable places," and a "social approach."



Figure 4. The Evolution of Regeneration Policies (Colantonio & Dixon, 2010).

This paper studies the Persian garden city concept, focusing on ChaharBagh Street in Isfahan, and its ties to collective memory, urban regeneration, and conservation. It examines the interplay between collective memory and the physical attributes, events, and history of

urban spaces, employing a conceptual framework to analyze this relationship at the case study site (Figure 3). Through semi-structured interviews, the paper identifies spatial elements significant to collective memory and discusses their role in sustainable site regeneration and conservation.

Material

The research conceptual model is based on identifying the values that influence the formation of the collective memory of ChaharBagh Street in Isfahan.

Isfahan

The Safavid government transformed the old Seljuk³ city of Isfahan into a garden city by integrating it with the surrounding environment and incorporating elements of nature into the city's design (Figure 1), notably through the integration of the Zayandehrud River and its tributaries to mirror paradise within the city. (Munshi, 1998). Tavernier, a 17th-century traveler, observed in his travelogue that Isfahan resembled a forest from afar, marked by mosque minarets and house trees extending in all directions (Tavernier, 1957) (Figure 1, right).

ChaharBagh Street

ChaharBagh Street in Isfahan is recognized as a key component of the garden city, as it reached its peak of perfection as a street in this area (Wilber, 2006). The street's alignment with the river mirrors the Persian Garden pattern, being perpendicular and forming Isfahan's primary structure (Figure 1). Chardin⁴ observes the use of varied garden species in ChaharBagh Street's construction and notes that lattice walls facilitated views into the gardens from outside (Figure 5) (Chardin, 1983). The paper utilizes a conceptual model to analyze the interplay of physical elements, activities, and events on Chaharbagh Street during the Safavid era in shaping collective memories, supported by historical evidence.



Figure 6. The initial level of ChaharBagh Street (eskannews, 2019) and Visual cones, signs and spatial hierarchy of Chaharbagh Street (Haghighat bin, 2012).

Physical Characteristics Affecting the Formation of Collective Memories

Kaempfer highlights the prevalence of tall plantain trees in the region, marking them as a characteristic feature of Chaharbagh (Kaempfer, 1984). Sanson⁵ observes that the houses, uniformly shaped and facing one another, feature entrances and forecourt⁶ painted with floral patterns and semi-relief branches in gold (Sanson, 1967). Furthermore, Ahari mentions that overhead mansions at the entrance to ChaharBagh Street's body gardens are constructed for observing street ceremonies and events (Ahari, 2006). The trees and the street's layout are pivotal in shaping memorable experiences for visitors, a noted aspect in many descriptions of the area.

Current Events Affecting the Formation of Collective Memories

1. Business events: Travelogues have mentioned some temporary and permanent commercial activities (such as coffee shops) on ChaharBagh Street, promoting the route's vitality. In his travelogue, Figueroa⁷ writes: In addition to houses, or rather landscapes, there are houses, tents and small shops along the road where everything is sold in them. In his travelogue, Figueroa writes that in addition to houses, or rather landscapes, there are houses, tents and small shops along the road where everything is sold in them (Figueroa, 1984).
2. Tourism events: Many tourists have mentioned this street as a notable public walk and wooded public space of Isfahan. Chardin details the street's attractions, noting: "Walking in the evening is very pleasant and inspiring in this street for nine months of the year because the streets and gardens are sprinkled with water and around the ponds are full of flowers during this time" (Chardin, 1983).
3. Another ceremony showcasing the Safavid kingdom's power and grandeur occurred during the king's horse riding and hunting outings. People watched the royal procession along ChaharBagh Street, enjoying views of royal gardens, and experiencing storytelling, poetry readings, and special celebrations. The banks of ChaharBagh's streams and ponds offered prime spots for coffee makers and innkeepers to lay mats and carpets, allowing people to enjoy performances by poets, speakers, storytellers, and narrators (Kaempfer, 1984).
4. Cultural and ritual events: Collective festivities and rituals served as effective strategies for connecting people and fostering closeness with the Safavid administration. Tavernier mentions a Dervish's house on the left side of ChaharBagh, housing sacred relics of Imam Ali (PBUH) and other Shiite Imams under an arch, before which Iranians would bow as they passed. (Tavernier, 1957)
5. Iskander Beig Monshi (1561/62 – 1633/34), a historian at the Safavid court, describes the revival of national festivities under Abbas the Great's rule noting that on one occasion, over one hundred thousand people from various social strata, both lowly and noble, converged on ChaharBagh Street, engaging in water-spraying festivities (Monshi, 1998). Such events served as platforms for national unity and social solidarity renewal. The blend of commercial, touristic, and ritual-cultural activities on this street plays a significant role in shaping its social memories. Nevertheless, the emphasis on events remains a central aspect of this street's significance.

Historical Development of ChaharBagh Street After Safavid

The period following the Safavids' fall marked a time of altering and erasing the collective memories of this street through physical changes and socio-cultural events, detailed below:

Qajar Period (1789–1925)

The fall of the Safavid government initiated ChaharBagh's decline. Throughout the Qajar era, the city, including its gardens, faced extensive ruin. Ernest Hoeltzer documented the replacement of the street's old trees with new ones after 1869 (Hoeltzer, 1976). Lotfollah Honarfar, citing tourists like Jane Dieulafoy, Pierre Loti, and Henri-René D'Allemagne, noted that ChaharBagh Street, along with other city monuments, was in a dire state during this period. (Honarfar, 1970).

Pahlavi Period (1925-1979)

In 1923, the ChaharBagh axis underwent significant alterations: stairs were removed, ponds filled, and the ground leveled (Figure 6). What was once a pedestrian walkway became a street, forming the city's central axis. During this period, many pavilions and gateways along ChaharBagh Street and within the gardens, either destroyed or severely damaged, were sold off, and new commercial and residential structures were constructed in their place (Ayatollah Zadeh Shirazi, 2007).

The Period After Islamic Revolution (1979 until now)

Since the post-Islamic Revolution expansion of Isfahan, the historic axis of ChaharBagh, alongside the natural-historic axis of Zayandehrud, continues to shape Isfahan's core structure. From 2016, vehicle restriction strategies have been implemented on this street to reduce car traffic and foster a pedestrian-friendly area.

Methods

In this study, interview tools were used to explore and confirm the various dimensions of collective memory among ChaharBagh Street citizens in the contemporary era. Data collection occurred in two phases, with a set of semi-structured interview questions designed for this purpose, including the following:

1. What are the most important features that you know from the historical past of ChaharBagh Street?
2. What physical or activity features remind you of ChaharBagh Street?
3. What kind of memories and events are revived for you by remembering the name of this street?
4. Which prominent places and elements of this street have effectively shaped your memories? (Please name them)
5. Which current events and activities do you think could be a memory for you and be part of your memories of this place in the future?
6. Which of the current physical features of ChaharBagh Street do you think can be recorded in your mind as a valuable memory?
7. Which of the places, prominent elements, and current events of this street remind you of the history of this street?

Participants in the study were 32 citizens who had lived in Isfahan (at least 15 years). They were selected based on random sampling and were in the age range of 30 to 70 years (see table in figure 7). All the interviews were conducted in person (in full compliance with Coronavirus health protocols). Each interview lasted 35 to 40 minutes. The interviews were conducted in August 2022, on different days of the week and in the period of 19-21 nights.

Total	Gender		Age
	Woman	Man	
6	2	4	30-40 Years
7	4	3	40-50 Years
10	4	6	50-60 Years
9	4	5	60-70 Years
Total participants: 32 Persons			

Figure 7. Table of interviewees' Statistics.

An interpretive analysis method was utilized for analyzing interview outcomes, following Herbert & Irene Rubin (Rubin, 2005) and Bill Gilham's (Gilham, 2000) guidance. Interviews were transcribed, with significant statements highlighted. Key concepts and themes were identified through multiple reviews of the transcripts. Additionally, three experts re-evaluated the highlighted sections using an unmarked transcript, focusing on key statements after understanding the research's nature. Their insights were then compared with the initial analysis. Finally, thematic sections, along with their sub-sections, were organized by major topics and general categories.

Results

Interview reviews show that participants expressed different collective memory features about ChaharBagh Street. Therefore, the content analysis of the interviews was performed in line with the suggested conceptual model of collective memory and in the form of three main topics: spatial, activity/event, and historical characteristics. Subsequently, meanings derived from the interviews and aligned with the conceptual model were contextualized to the current situation, covering buildings/structures, functions, usages, events, and street landscape.

Spatial Features in the Collective Memories of ChaharBagh

The physical environment of ChaharBagh Street was pivotal in the research participants' memories, with interviewees highlighting its key elements such as historic monuments, street landscapes, trees, cinemas, commercial complexes, and parks as influential in forming their memories (Figure 8). "ChaharBagh School and Bazar-che Boland are the only historical monuments visible from within the street," noted a 70-year-old male interviewee. Among participants over 40, 78.2% regarded the cinemas and cafes of ChaharBagh as critical physical features etched in their memory, recalling a time when all nine cinemas in Isfahan during the Pahlavi era were located on this street, although only two remain today, with traditional cafes replaced by "van cafes." However, 18.7% felt that "van cafes" would not hold a collective memory of the place in the future. "Good old days...we always

arranged to go to the cinema on Thursdays and Fridays," shared a 60-year-old male interviewee. The street's trees were cited as the most memorable physical element by nearly 84.3% of interviewees, with 56.2% mentioning the commercial complexes, and 81.2% highlighting the boulevard and the paths for walking & cycling under intertwined trees as significant. Notably, 87.5% of these respondents deemed the addition of the middle water axis as an essential feature that, along with the trees, could significantly aid in remembering ChaharBagh Street (figure 9).



Figure 8. ChaharBagh Street in the 1950s (Wisgoon, 2021) and various functions of ChaharBagh St.

Activity Features and Influential Events in the Collective Memories of ChaharBagh

The interviews showed that the current activities do not help much to revive the memories of this street in people's minds. 87.5% of the interviewees believed that the regeneration of this street as a sidewalk had a positive impact on the local community by encouraging more people to engage in activities like walking and cycling and by helping to preserve the historical memory of the area. However, 68.7% were disappointed with the predominance of fast food, viewing it as detracting from the area's historical and cultural identity (Figure 8). "I do not understand the reason for all these fast foods in this historical zone. These types of things can be found anywhere else in the city!" (A 52-year-old female interviewee). Moreover, 59.3% of interviewees cherished activities like shopping, walking, and sitting under trees as significant memories of ChaharBagh's past.

In comparison, 15.6% mentioned driving around as their main activity, with 37.5% of these individuals citing cinema visits and movie explorations as their primary memories. Meanwhile, 62.5% of the interviewees highlighted the most significant event in ChaharBagh Street as the annual Nowruz⁸ Shopping. 21.8% of the participants considered displaying

popular new movies in ChaharBagh cinemas (Figure 8) the most important event in ChaharBagh in the past. "I remember that sometimes new movies cause tumult in ChaharBagh as if all the people of Isfahan had gathered in front of the cinema" (Said 53-year-old male).



Figure 9. Commercial functions and middle water axis of ChaharBagh St.

Ninety- Six percent of interviewees believed that no current events on this street could become part of people's future collective memory. Conversely, 9.3% of participants noted spatiotemporal variations, such as seasonal changes, that impact collective memory: colorful leaves in autumn and spring, and the shade provided by trees in summer, pedestrianize the street.

History and Historical Background of ChaharBagh

All interviewees recognized ChaharBagh Street as a historical site, yet only 25% knew it dated back to the Safavid era. About 18.7% were uncertain if it was from the Safavid or Qajar era, while 59.3% were unaware of its history, likely due to rapid changes since the Pahlavi period. Responses to the seventh question highlighted a significant disconnect between the street's current landscape and its historical roots. Today's ChaharBagh Street fails to evoke the grandeur of the Safavid era or the modernism of the Pahlavi era, including the luxury, cinema industry, and Persian films that marked its past. According to 78.1% of interviewees, none of the current landmarks or events reflect the street's historical significance, as many commercial centers and cinemas have either disappeared or undergone functional changes.

Discussion & Conclusion

Studies show that people remember the city's history and urban spaces through spatial features, activities, and historical events. Participants in this study expressed different dimensions affecting the formation of collective memory in various ways. Findings indi-

cate that a place's features, including body, activities, and events (objective-wise), as well as the history and its perception (in its subjective essence), are essential in the formation, production, and permanence of collective memory of that place, where memory becomes a subjective element of the place's landscape. The landscape of each place is its interface with the collective memory of the users (Figure 3). This research has shown that the place's physical characteristics and the landscape's objective values effectively produce collective memories. The Safavids used rows of tall sycamores and framing through gardens to achieve this goal on ChaharBagh Street. The gardens' lattice walls along the street and the visual and spatial impact of the garden landscape have also been effective in producing and developing the collective memory of the citizens. On a large scale, planning new parts of the city as a garden city has shown to be effective in creating a collective memory for its residents and visitors from a city with a different physical identity. Monuments, as many scholars, including Rossi (1966) and Boyer (1996) have stated, are the primary feature and physical value that shape collective memories. Monuments –in the main when having a cultural function, such as a gallery- also impact the collective memory's continuity. Such historical structures are mostly referred to as "urban reminders" (Luica, 2008). According to the interviewees, ChaharBagh Street's main and historical elements include the trees, ChaharBagh school, cinemas, and commercial complexes. In its current condition, only the trees (and not the ones that belong to the Safavid era but some trees of the Pahlavi era), ChaharBagh school, and a few cinemas remained. According to Aldo Rossi, as long as monuments are present, they can foster the concept of collective memory, which can act as a reminder of what has happened in the place over time (Rossi, 1966).

The revival of the middle creek of ChaharBagh in contemporary times is a reminder of this street's history during the Safavid period, which to many interviewees, is very effective in creating a collective memory. However, many of them were unaware of its historical identity. Based on the research model, cultural and historical events and the feasibility of revisiting them are other important factors affecting collective memory. Significant historical events of each period are established verbally or in writing by repetition in citizens' memories. Also, the landscape of urban spaces can help to recall and visualize citizens' memories of contemporary and historical events, including cultural, ritual, formal, and informal ones. It seems that the Safavids used the capacity of urban spaces and landscapes to narrate the history and the events of their time for the future and create a collective memory for citizens while increasing their sense of belonging to new urban contexts. Formal events like the king's tour and courtiers and cultural events such as celebrations, rituals, and religious ceremonies held formally and informally have been in this direction. After the fall of the Safavids and during the Qajar era, ChaharBagh Street started its downfall towards destruction and frigidity. All official events affiliated with the court had been shut down. Madame Dieulafoy, who had visited Isfahan between 1881 and 1886, writes about ChaharBagh: This Street is a lively walkway whose exuberant trees were planted during the reign of Shah Abbas the Great. The last centuries have not treated these old trees compassionately. Many of them have dried up, and sad cavities have been produced in them. On the right and left side, the ruins of palaces can be seen, which used to be the residence of nobles and aristocrats (Dieulafoy, 1992). A significant part of the history and, thus, the citizens' collective memory from this street vanished because of the removal of many events and monuments during the Qajar era. The mentioned trend about the Qajar era was continued by Pahlavi too. Still, the main differences are replacing the events related to economic activities with ritual, cultural and social events and weakening the historical identity. The removal and

replacement of many monuments of the Safavid era (such as the Middle Creek, some buildings, and gardens of ChaharBagh's outskirts with new functions in the Pahlavi era and later during the Islamic Revolution) have exacerbated the Safavid history elimination from this street and its associating collective memories. Referring to the concept of "the sense of time," Lynch believed that historic buildings could represent different eras in one city (Lynch, 1972). The policies after the Qajar period, especially in creating spatial frames and structures, have weakened the sense of time and, consequently, the component of history in the collective memory of the citizens of this street.

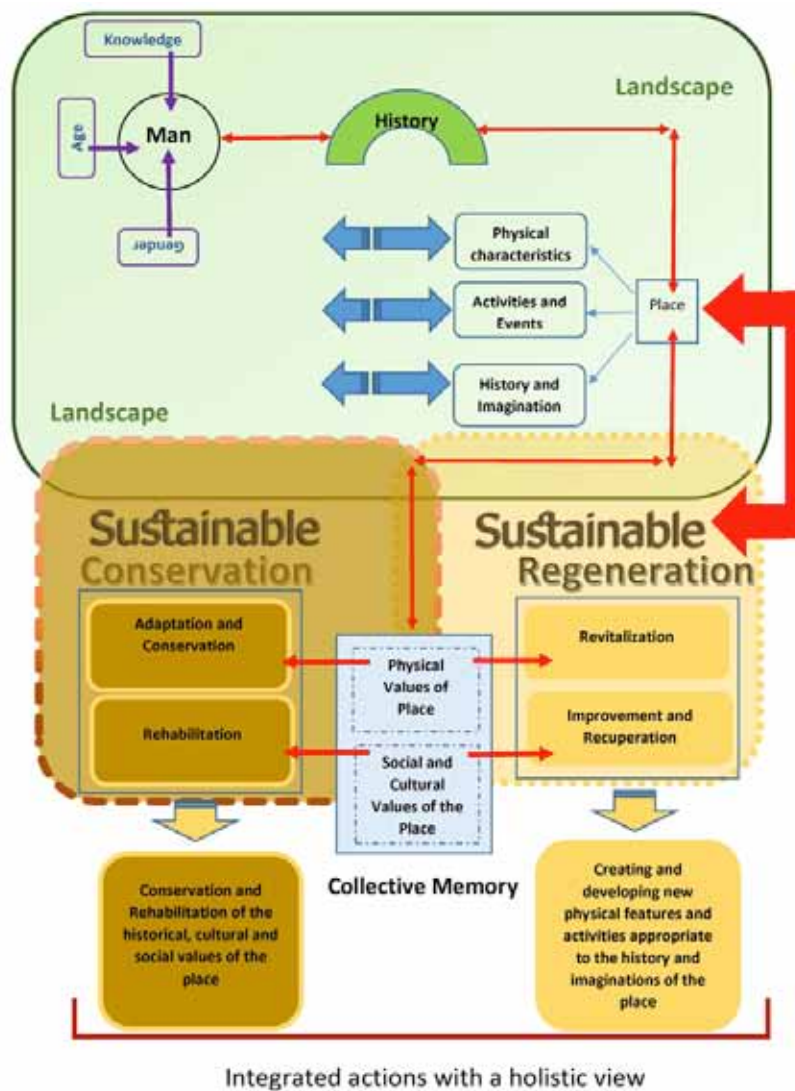


Figure 10. Proposed model related to collective memory in sustainable regeneration and conservation of historical sites.

To accomplish sustainable regeneration in historical landscapes, regeneration and conservation are suggested to be considered simultaneously to preserve and perpetuate collective memories in historical locations (Figure 9). This process can demonstrate substantive and semantic differences while creating basic similarities with the old spatial features. Sustainable Physical and semantic regeneration and physical and semantic conservation should

be influenced by the place's history and physical and socio-cultural values. Increasing users' knowledge through direct and indirect education about the place's history and values is an influential factor in strengthening the relationship with the place and the continuity of the collective memories associated with it. The interventions and strategies for ChaharBagh Street during the Pahlavi and the Islamic Revolution periods have been planned through a unidimensional view and detached from the simultaneous approach (regeneration together with conservation). Besides, ignoring teaching landscape values and developing proper pedagogical approaches together with the history of the place has aggravated the situation, extending the failure. The interviews show that 80% of the interviewees do not consider any of the current actions and monuments in line with this street's story and historical background. Also, 90% of the interviewees believed that no particular event on this street in the current situation could be engaged as part of the collective memory in the future. These results indicate the weakness of conservation policies and the regeneration strategies of this historic site.

This study has aimed to present a process for the sustainable regeneration and conservation of historical spaces like ChaharBagh Street, emphasizing the preservation of collective memory. Our findings underscore the multifaceted relationship between spatial features, events, and the historical backdrop in shaping collective memory. The importance of cultural memories, largely overshadowed by physical and place-based memories, became evident, highlighting a deeper connection to the societal values and shifts across different political eras.

The Safavid era, as a significant period in Isfahan's development, used urban landscapes to manifest power and create a shared collective memory, fundamentally influencing the urban and social fabric of ChaharBagh Street. Similarly, subsequent periods, including the Qajar, Pahlavi, and the era following the Islamic Revolution, each left distinct marks on the urban landscape and collective memory, reflecting the prevailing political and cultural attitudes towards urban development and conservation. These transitions illustrate the complex interplay between design choices and public mood within varying political contexts.

Our proposed model (Figure 9) seeks to bridge the gaps identified in our study, linking physical alterations, cultural significances, and historical narratives to foster a sustainable approach to regeneration and conservation. It underscores the need for an integrated framework that not only preserves the physicality of historical sites but also revitalizes their cultural and social significance. However, the challenge remains in reconciling the modern landscape of ChaharBagh Street with its rich historical layers. The current landscape's disconnection from its historical roots underscores a broader issue in urban regeneration practices — the need for a nuanced understanding of collective memory that encompasses not just the physical but also the cultural and symbolic aspects of urban spaces.

To address these challenges, we propose a multidimensional approach to urban regeneration that considers:

- The preservation of physical elements as anchors of historical identity.
- The revitalization of cultural and social activities that reinforce historical narratives.
- Education and engagement initiatives that foster a deeper public connection with the site's history.

Our study highlights the crucial role of collective memory in sustainable urban regeneration and conservation efforts. By integrating the physical, cultural, and historical dimensions of urban spaces, we can ensure that regeneration practices not only preserve the past but also enrich the present and future urban experience. This approach not only aligns with our proposed model but also offers a pathway to more resilient and meaningful urban landscapes.

Endnotes

- 1 Commonly known as Cyrus the Great, was the founder of the Achaemenid Persian Empire.
- 2 Shah Abbas was the fifth shah of Safavid Iran from 1588 to 1629.
- 3 The Seljuk Empire or the Great Seljuk Empire, was a high medieval, culturally Turko-Persian, Sunni Muslim empire (1074–1308).
- 4 Jean-Baptiste Chardin was a French jeweler and traveler who was also known as Sir John Chardin. Early in 1666, he traveled via Constantinople and the Black Sea to reach Persia.
- 5 He was a French cartographer came to Iran in 1683 AD.
- 6 It has built over the entrance gate, known as Imarat-i-Sardar (gate building).
- 7 Don García de Silva Figueroa (December 29, 1550 – July 22, 1624).
- 8 Nowruz is the Iranian New Year, which begins on the spring equinox.

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Translated English Food Articles for a Bilingual Magazine

in the Urban Context of Chiang Mai

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Abstract

The study aims to explore the ways in which translated food articles in a bilingual magazine are translated from Thai into English. The research question is: What are the ways in which translators translate food articles from Thai into English and to what extent, in the urban context of Chiang Mai? The source material of the research consists of food articles from the 2019 Spoon & Fork Magazine. Through the concept of rewriting in the systems, the study compares source-text and target-text paragraphs to discover the ways in which translators treat source-text social and cultural elements that are specific to the Thai source texts, such as foods, activities, locations and so on into the English versions. The findings illustrate that the English translations appear as rewriting and are largely shorter than the original versions. The translators retain social and cultural elements considered major while, at the same time condensing others seen as minor in the narratives. From the systems point of view, this may result from the constraints, such as target readership and the convention of the text genre.

Keywords: Thai-English Food Articles, Bilingual Magazine, Chiang Mai, Thailand

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Introduction

Most past research into translation in Thailand primarily focuses on proposing translation strategies that are used to solve translation problems (see Khanjanavisittaphol, 2018; Leenakitti and Pongpairoj, 2019; Mata, 2016; Sukwises, 2019; Treetrachet, Tipayasuparat, and Webb, 2017). From the systems point of view (Even-Zohar, 1990), translation is an integral part of the entire social system. It is a process that is closely intertwined with other social and cultural systems of both source-text and target-text languages (see Even-Zohar, 1990; Lefevere, 1992; Toury, 1995). This suggests that studying translation strategies alone are not sufficient to understand translation phenomena in the Thai translation environment because translation productions are affected by social and cultural elements that are integral parts of the literary environment, e.g., target-text norms, readerships, ideologies and so on.

In Thailand, through the lens of the system theories, key previous literature shows that social and cultural elements of the source and target language can affect the ways in which translations are produced (for example, see Techawongstien, 2020; Saejang, 2023; Ninrat, 2019; Inphen, 2020). In the past, when the first English fiction “Vendetta” was translated into Thai in 1902, it was rewritten in the form of adaptation since the translator removed some source-text scenes that were not considered inappropriate for the Siamese or Thai readership at that time (Ninrat, 2019:8, 22, 66). More recently, Koraya Techawongstien’s (2020) study also showcases that translations of fantasy youth fiction give rise to a new youth fiction sub-field and encourage Thai writers to produce fantasy fiction in the Thai literary environment. This is unsurprisingly consistent with Jooyin Saejang’s (2023) findings which illustrate how Boy’s Love novels and audiovisual productions have encouraged Thai authors to produce new Boy’s Love sub-genre (Chinese historical Boy’s Love). Last, Wiriya Inphen’s (2020) study also shows that urban readers of translated fiction can be linked to the ways in which translators decide on translation strategies (i.e., foreignizing translation strategies) for translated thriller fiction in Thailand. These previous studies are important in that they establish connections between social and cultural elements and literary works, including translations in the Thai literary environment.

In the Thai literary context, however, existing studies primarily focus on the elements that could affect literary translations. I consider this as a gap that needs further attention – for example, the exploration of translated texts of other genres. Chiang Mai is an urban landscape that is culturally diverse (see Citylife, 2024). Additionally, in a casual conversation, the editor of Spoon & Fork Magazine¹, posits that the publisher’s target readers are quite specific and comprise of bilingual readers and expatriates who live and work in the city. This background information helps to form the research aim. The study thus attempts to explore how translations of the bilingual magazine genre are produced within an urban landscape like Chiang Mai, Thailand. The research question is: what are ways in which translators translate food articles in a bilingual magazine from Thai into English and to what extent, in the urban context of Chiang Mai?

Theoretical Framework and Related Literature

Readerships and Translation Site: The Case of Chiang Mai Province

Readership is one of the social and cultural elements that can affect the ways in which translations are produced in the target culture (see Kothari, 2003 and Shamma, 2009). According to the Oxford Dictionary of English (2010), readership is defined as a group of people who read newspapers, magazines, books, et cetera. From the systems theoretical

point of view (Even-Zohar, 1990), readership can be considered an integral element of the translation sub-system operating within in the literary system of a particular culture and society.

Thai readership is an important element that is required for understanding how translations are produced for the Thai translation market. As mentioned earlier, in the casual conversation with the editor, the readers of Spoon & Fork City Magazine, presumably, include those who are permanent residents of Chiang Mai City with literacy in Thai and English, as well as expatriates living and working in town. This largely indicates that Thai-English food articles in the bilingual magazine are meant to serve bilingual and expatriate readers in the city.

Chiang Mai province can be considered one of Thailand's urban sites. In his presentation, Faris Yothasamuth (2019) posits that Bangkok is a trade hub in the southeast region since the beginning of the Rattanakosin era (circa. the 1800s). It was a multicultural and multilingual trade hub with the West and other countries in the region. This largely illustrates that Bangkok is not only an urban site for business activities but also a place where languages interact. Similarly, Chiang Mai province shares characteristics with Bangkok in both its economic environment and linguistic landscape. Before and after the pandemic, Chiang Mai has been listed as a world heritage town, attracting tourists from around the world. This makes it a hub for both governmental and private businesses, such as foreign consulates, foods, hospitality entities and investments, to name but a few.

For this reason, Chiang Mai is seen as a site where translations of Thai-English food articles are produced. From a linguistic landscape point of view, Michael Cronin (2006), posits that urban spaces serves as sites where contemporary multilingual and multi-ethnic communities coexist. He describes a city as a place where languages intersect, highlighting it as a space for translation productions (see also Koskinen, 2014). This corresponds to what Sherry Simon (2012:2) perceives as well. Simon goes on to state that most cities are not monolingual but bilingual and/or multilingual. This shows that a city is a site where languages intersect and the ways in which languages are used in the city can demonstrate patterns of such interactions. This makes Chiang Mai town a (provincial) site where the publisher of Spoon & Fork Magazine by Citylife strives to produce translations of food articles to specifically serve its Thai-English bilingual and expatriate readers in the town.

Translation as Rewriting from the Systems Perspective

In the systems, André Lefevere (1992) states that translation is rewriting that is closely linked with social and cultural elements, e.g., patrons, ideologies and professional entities in the community. He further states that translation is affected by 1) patronage or persons or groups of entities that commission the translations, 2) ideologies or what is perceived as appropriate by most people in a community and 3) professionals such as translators and editors who are involved in the translation process. Translation from the source language to the target one is influenced by these elements that appear both in the source-text and target-text environment. Lefevere (1992), however, posits that translators can either conform to or go against these elements. This shows that translators have the decision to rewrite their translations that they judge to be accepted by the readership in the target culture.

Through the lens of the systems, the concept of rewriting lays the basis for exploring the phenomenon of the study in the Thai literary context. Some key previous studies in Thailand show that rewriting is affected by ideologies in that translators make their translation choices based on what is accepted by and appropriate for the community. For example, Narongdej Phanthaphoommee (2022; 2023), in his recent articles, finds that in the political contexts of Thailand translations are both produced to maintain a reputation of the government while giving less emphasis on the critics. Further, this extends to how each translation agency selects political discourse in the translation (Phanthaphoommee, 2022:9). Apart from translators' interventions in the political translations, literary fiction in Thailand is also affected by how translators choose texts to be translated and also their translation choices (for example, see Fernandez, 2019). Further, in the early period of modern Thai literature (circa. early 1900s), most works of literature in the country were written in Western literary genres with interventions by elitists in the translations (Sangangamsakun, 2021:14-15). At this point, it can be posited that translation is a rewriting process operating as an integral part of the source and target cultures. Translators act as mediators who are affected by these social and cultural challenges arising from differences between the language pairs.

Further, given that this study focuses on translations into English of a bilingual magazine, it falls within the scope of text genres and translations, too. In her book, Anna Trosborg (1997:12, 18) states that genre can be defined to include the body of texts that has communicative functions and can be classified as a text type. She further states that the body of texts can vary from one genre to another (e.g. news reports, magazine articles, and textbooks to name but a few) since each genre has its specific structures and conventions (see also García Izquierdo and Montalt I Resurrecció, 2021:136). This is quite important in the present study in that the key literature shows that text genre can affect the ways in which translations are produced in the target language.

Redzioch-Korkuz's (2021) and Limon's (2004) studies both illustrate that the relationship between text genres, target audience and attitudes all works as constraints when translations are being produced by the translators. Also, this aligns with the way in which translations are considered as rewriting in the systems. It seems that all elements (i.e. social, cultural, political, and economical elements) are all intertwined and, to some extent, act as constraints that affect the decisions of translators when choosing translation strategies. Following this notion, it can also be posited that the translators commissioned for the translations are affected by the genre constraints (see Redzioch-Korkuz, 2021; Limon, 2004). As stated, Trosborg (1997:18) considers that genre can affect how translations are produced in the target culture as genres are typically structured and have specific conventions. Together, these act as constraints for the translators to decide on their translation choices to manage their rewriting when translations are being produced.

From what has been illustrated above, translators have an active role and duties in dealing with such constraints in their translation work. David Katan (2004:20-21) states that translators are considered mediators of such linguistic and cultural differences who attempt to ensure that translated texts are readable and comprehensible by the target audience. According to him, "This means that, first, cultural interpreters/mediators need to be extremely aware of their own cultural identities; and, for this reason, they will understand how

their own culture influences perception." From the concept of rewriting presented earlier, translators mediate source and target languages by rewriting the source texts into versions that are acceptable in the target language.

To indicate how much source texts differ from target ones, the concept of translation equivalence can help to illustrate the case. Translation equivalence benefits the research because it provides a conceptual framework that helps to indicate the extent to which the source and target language differ. According to Eugene Nida (1964), translation equivalence can be divided into formal and dynamic equivalence. Nida (1964:159) states that formal equivalence strives to maintain source-text forms and meanings in the target-text versions while, in contrast, dynamic equivalence pays more attention to producing target-text versions that are read naturally in the translated texts. To put it more concretely, the concept permits source-text and target-text versions to be compared (see Toury's (1995) coupled pairs). Comparisons help demonstrate linguistic and semantic differences and similarities between source-text and target-text versions. This means that translation equivalence will help to highlight matching and non-matching linguistic and semantic structures of the paired languages. As the present study strives to explore the ways in which the English translated versions of food articles are presented in the bilingual magazine, comparisons between source and target texts are needed. The comparisons are used generally to indicate the extent to which source- and target-text articles differ, therefore, the focus on Nida's (1964) equivalence is considered sufficient to illustrate the case. .

Material and Methods

The material of the research includes bilingual food articles (Thai and English versions) published in Spoon & Fork Magazine by Citylife. Food articles mainly present source-text contents that manifest cultural and social elements which are culturally bound. An initial survey of food articles in the magazine shows that the source-text contents mainly present local restaurants with local and Western foods in the Chiang Mai area.

From the perspective of culture-specific items in translation, Javier Franco Aixelá (1996:52–53) states that culture-bound items (whether in the forms of words or phrases) usually pose challenges to translators to overcome as they contain source-text and target-text cultural and normative values that differ from one another. In Thailand, target-text cultural and normative values that are quite specific to the Thai language include, for example, Thai culture related to gender and Buddhist notions (see Rattanakantadilok, 2016). Further, in their study, Phanthaphoommee and Ungsitipoonporn (2023) explore translation strategies for Northern Khmer ethnobotanical terms in Thai into English translations. They consider botanical information that is related to medical terms, tastes and parts of plants as culture-specific due to local specificities and they pose translation problems to translators to overcome. These previous studies help to illustrate that both tangible items and intangible ideas/notions that are specific to the Thai target language possess cultural values that to some extent can be not familiar to the readers in other cultures (other than the Thai one). Due to target-text specificities, translators must mediate such differences to produce translations that make sense in the magazine. Based on the concept of culture-specific items (Aixelá, 1996), translations of food articles present specific notions of cultures that vary from Thai and English and require translators to mediate between the source-text and target-text language systems. Therefore, the translations from Thai into English of food articles are considered valid material for the present research.

This study is designed as a case study research to initially explore the ways in which translated English versions of food articles are translated to serve the readership in the urban environment of Chiang Mai City. According to Saldanha & O'Brien (2013:205), case study research is suitable as it emphasizes contexts that give rise to a particular phenomenon. It is considered that Chiang Mai is the urban environment in which the context of urban readership is involved; case study research is thus considered appropriate and helps achieve the aim. Citylife Group is the company that runs Spoon & Fork Magazine. The company website lists multiple affiliated publishers – City News and City Now! and service business City Group Services – providing event and content services (Citylife, 2024). In addition, as mentioned, the conversation with the editor implies that the publisher attempts to make the magazine accessible to the public in general as much as possible because it wants to promote restaurants and events in town. Since the magazine is a free publication, it is believed that most residents and tourists can access it. Considering the business position of the mother company and the accessibility of the magazine, Spoon & Fork Magazine published under Citylife is chosen because it is assumed to be circulated among a wider readership and visitors to Chiang Mai.

Bilingual food articles published in the 2019 magazines are focused. In 2019, the publisher published seven magazines – Issues 57 to 63. When requesting copies from the publisher, Issue 62 of October was not located at the publisher's premises. The magazines that are available as material thus include six issues - Issue 57 of January; 58 of February; 59 of March; 60 of May-June; 61 of July-August; and 63 of November-December in total. The 2019 magazines are used for the analysis for two major reasons. First, as the world experienced the pandemic era in late 2019, this inevitably made business activities halt. Chiang Mai, one of the most visited cities in Thailand, has also been affected by this global disruption. This implies that most restaurants and other food-related businesses in the town are affected. Some may suspend or even stop their operations. The chief editor of Spoon & Fork further posits that the times before the pandemic can be considered the glory periods for restaurants and bars in town. Considering that the Citylife Publisher, the publisher of Spoon & Fork Magazine, mainly publishes food articles related to restaurants and their menus in Chiang Mai, the abundance of restaurants and related businesses is seen to flourish in the magazine before the pandemic. Thus, it is presumed that food articles published in Spoon & Fork Magazine by Citylife are presented with full content that provides a wide range of foods and menus like the ones before the pandemic.

Second, the column named 'Main Dish' is chosen for the study due to its food contents that serve the aim of the research. The table of contents of Spoon & Fork Magazine illustrates 12 columns in total. All of them mainly contain content related to foods, sweets, drinks and food-related activities in Chiang Mai. For example, the 'Food Trails Column' mainly presents articles about current and future activities in town, while 'Main Dish' exclusively features restaurants and bars and their foods and drinks in the city. In the Main Dish column, the publisher presents restaurants and bars in Chiang Mai or major hotels and resorts in town. The column directly deals with culture-bound elements such as the historical background and story of the venues and their menus, foods and drinks and ingredients, chefs and menu creators and so on. The column is therefore chosen due to its essence related to the food contents that represent social and cultural elements appearing as an integral part of the Chiang Mai urban environment.

As for the methods, the criteria for choosing the data (in the form of bilingual food articles) are determined following the concept of culture-bound items in translation (Aixelá, 1996). It will be remembered that, through the concept of equivalence, the source and target languages are mostly non-equivalent, and most importantly they manifest different cultural values. Food articles are enriched with elements whose cultural and social values differ. It therefore can be posited that the source-text social and cultural elements are, to certain degrees, different from the target-text ones. In following this notion, the contents of the food articles represent different values of the elements that translators mediate to produce translations for the readers.

Initial observations show that the English translated versions are largely shorter than the Thai ones. With the help of the rewriting concept, the English versions of the food articles are considered rewriting works in the target language (see Lefevere, 1992). For this reason, it is not accurate to collect data in the forms of words and phrases because it is too ambitious to find their corresponding equivalents in the target language. Collecting data based on the paragraphs they presented is thus considered more feasible and valid.

The data are in the form of source-text and their corresponding target-text paragraphs. The criteria for choosing the data are as follows: 1) paragraphs must appear in the 'Main Dish' column and 2) they must contain social and cultural elements tied to the food contents. The paragraphs are collected purposively based on the set criteria (see Saldanha & O'Brien, 2013) and stored in an Excel spreadsheet to compare paragraph segments between Thai and English.

The research is qualitative and employs the concept of source-text and target-text oriented translation in the analysis. Considering the aim of the research, the quantitative aspect is not included at this time because the study does not aim to use statistical data to answer the research questions. Instead, the research only aims to explore the ways in which translations of a bilingual magazine are produced. Thus, from the qualitative aspect, the source-text paragraphs (Thai) are compared with the target-text corresponding (English) paragraphs to discover how translations are rewritten in the target language. This is quite sufficient to indicate the link between the readership that is pre-determined and how translations are produced in the specialized urban environment of Chiang Mai town.

Findings

The analysis reveals that the translations of the food articles are rewritten in shorter versions than the source texts. This can be considered as rewriting work in the Thai translation environment (Lefevere, 1992). In the theoretical section, the research is situated in the systems theories – translation is a sub-system that operates as an integral part of the larger social systems (Even-Zohar, 1990) or, in this case, the Thai translation environment. The translation is thus affected by social and cultural elements – target readers, urban environment, text genres and others. From this point of view, the findings help to illustrate that the translators rendered the English-translated magazine articles into works of rewriting in which social and cultural elements, e.g. foods, cultural activities, locations and et cetera, were both retained and condensed in the translations.

The findings below will show that the translations appear in a form of rewriting. The social and cultural elements remained present in the rewritten works; however, the translators

rendered them into English in two manners – 1) rewriting of translated versions with the retention of major social and cultural elements and 2) rewriting of translated versions with the condensation of minor social and cultural elements. In what follows, the extent to which main and minor social and cultural elements appear in the magazine will be shown.

Rewriting of Translated Versions with the Retention of Major Social and Cultural Elements

The findings show that the translated versions of the bilingual magazine were rewritten while retaining the key or major social and cultural elements they want to preserve in translations. The comparison between source texts and target texts shows that the translated versions appear much shorter than the original articles, however, some social and cultural elements were retained in the translated versions. In essence, the translators seem to retain the elements that may be perceived as major elements and that are needed in the target texts. The major social and cultural elements include 1) food, 2) activity, 3) location, 4) people, and 5) awards. The examples drawn from the magazines are presented with issues numbers and pages, respectively, for example, Issue 57:15.

First, the major element “food” usually refers to main dishes, featured menus and drinks available at the restaurants – e.g. **Khao Soi, Thai northern style sausages, sticky rice, ... or international foods from Europe and Asia such as pizza, burger, tender BBQ ribs, mala ...** (B.T.) (Issue 57:15). Second, “activity” represents activities taking place at market sites, restaurants, cafes and related venues, e.g. **‘forn leb’ and ‘forn jong’, or ‘umbrella dance’ ...** (B.T.) (Issue 57:17). Third, “location” represents places and venues where activities are taking place or where foods are available, e.g. **Nana Jungle Café and Restaurant (NANA Jungle Café & Restaurant)** (B.T.) (Issue 61:18). Fourth, “people” represents individuals and groups of people who are involved in food making processes or locations of restaurants and cafés and hotels, for instance, **Chef Tiw Ratchanon Rakarin, a northern-born male with a handful of experience** (B.T.) (Issue 63:14). Last, “awards” represents rewards, recognitions and awards received by individuals or restaurants, cafés and hotels, for example, **... with rewards guaranteeing the title of number one Asian restaurant...** (B.T.) (Issue 63:17).

In the translations from Thai into English, the translated versions appear to contain only selected social and cultural elements that may be perceived as necessary for the translations. This means that the translators decided on what to retain in the translations. Due to the limited space, the example of how the translators retain the food elements in the translations is used to illustrate the case only in that it is quite evident to show what has been retained. In the examples, ST refers to source texts while BT back translation and TT target texts.

As stated, the “food” element is used as a specific example to illustrate the circumstance where translators decided to rewrite the translated versions while retaining major social and cultural elements. This element represents foods, menus and drinks that appear in the source texts. However, not all of them were fully presented in the translated versions. The example shows that only some food items were retained while some were omitted. At this point, it can be presumed that the translators tend to retain the food elements that they want to present in the translated versions. Below is an example.

Source text	Back translation	Target text
...ไม่ว่าจะเป็นอาหารเหนือแบบท้องถิ่นที่ยกขบวนกันมาทั้งข้าวซอย ไส้อั่ว น้ำพริกหนุ่ม ไก่ย่าง ข้าวเหนียว ... หรืออาหารนานาชาติ ทั้งยุโรปและเอเชีย อย่าง พิซซ่า เบอร์เกอร์ ² <u>ชีโครงหมูบาร์บีคิวเนื้อนุ่ม หมาล่า</u> ... (Issue 57:15)	... local northern foods include khao soi, Thai northern style sausages, sticky rice, ... or international foods from Europe and Asia such as pizza, burger , tender BBQ ribs , mala ...	Wander from stall to stall and sample an authentic pad thai or bite into a juicy burger ; grab a grilled stick of meat or dig into a big bowl of curry, the choices are endless and varied. (Issue 57:15)

Figure 1. Retention of Food Elements.

The comparison between the source and target texts above shows that the food elements – juicy burger and grilled stick of meat are the two items that have been retained in the translations. As shown above, the excerpt is from the sub-column titled “Go On ... Take a Bite” in Issue 57 of 2019. The sub-column mainly presents foods that are available for visitors at Ploen Ruedee Market in Chiang Mai. The example shows that the Thai source-text version contains a number of food menus such as ‘ข้าวซอย ไส้อั่ว น้ำพริกหนุ่ม ไก่ย่าง ข้าวเหนียว’ (... local northern foods include khao soi, Thai northern style sausages, sticky rice, ..., B.T.) and ‘พิซซ่า เบอร์เกอร์ ชีโครงหมูบาร์บีคิวเนื้อนุ่ม หมาล่า’ (pizza, burger, tender BBQ ribs, mala..., B.T.) On the contrary, the English version merely contains ‘authentic pad thai or bite into a juicy burger; grab a grilled stick of meat or dig into a big bowl of curry.’ It can be seen that the food items ‘burger’ and ‘grilled stick of meat’ are retained and appear in the translations with additions of ‘pad thai’ and ‘curry.’ This shows that through a rewriting process, the translators decided not to translate some food elements into the English versions while at the same time retaining some food elements that they wanted to emphasize to the readers. From this practice point of view, it can be posited that the target-text versions are rewriting of the original articles with key or major social and cultural elements needed for the target readers in the translations.

Rewriting of Translated Versions with the Condensation of Minor Social and Cultural Elements

The findings further show that the translated versions of the bilingual magazine were rewritten with the condensation of social and cultural elements that may be seen as minor by the translators. This is quite similar to the rewriting of translated versions with the retention of major elements. The difference, however, is that minor elements appear as contextual elements that are connected to the major elements presented above. The analysis initially identifies four social and cultural elements in the translated versions: 1) quality, 2) scene, 3) story and 4) method.

First, as stated, the “quality” element appears to include the scents and tastes of the foods – for example, ... by grilling it [foie gras] on a ready-to-serve hot pan so you can experience the taste foie gras that is tender to your tongue (B.T.) (Issue 58:13). Second, “scene” is a social and cultural element that appears in the narratives where the atmosphere of the

locations including music activities and vibes are concerned, e.g. This street [Kensington Street] lies towards more than 20 restaurants giving dining experience of foods of various tastes and cultures – Thai, Chinese, Singapore, Malaysian, Hong Kong, Indian, Korean, and Japanese. The restaurants come in small sizes on the road, like street foods to fine dining cooked by reward-guaranteed chefs (B.T.) (Issue 63:14). As the magazine aims at presenting food articles, the atmosphere is a social and cultural element that is integrated into the texts to give the vibes of the location.

Third, the “story” element is mostly used in narratives that are connected to the location and people that appear as the main elements. The source-text authors usually describe how each restaurant is set up and its menus are created. This further includes stories of business owners and chefs working in the restaurants – for instance, ...as a child, she [Chef Tutu] always strived to ask questions about food. From that day, she has found answers to curiosities by practicing and experiencing life. This has made her an experienced chef today (B.T.) (Issue 61:19). And, last, the “method” element appears in the narratives that are connected to the ingredients and origins of the foods, e.g. ... people to try without modifying their tastes. The dish was cooked in Isaan authentic styles with carefully selected ingredients. ‘Fermented fish’ that was imported from Kalasin gives a ‘well-rounded’ taste and is made in a clean process. It also makes the branch very successful (B.T.) (Issue 60:14). However, due to space limitations, the example of how the translators condense the “quality” elements in the translations is used, focusing on its clear evidence. Below is the excerpt with detailed contexts to explain the circumstances.

The social and cultural “quality” element, scents and tastes of the foods, is one of the other elements that the translators decided not to fully present in the English versions. This results in condensed translations. The example below is in Issue 58 of February 2019, which mainly presents Dhara Dhevi Hotel and its restaurants in Chiang Mai. The article features ‘Sunday Brunch’ at the hotel restaurant that offers Western foods. It presents various menus visitors can find there, such as foie gras, pizza and pasta.

Source text	Back translation	Target text
เสียงซู่ซ่าจากกระทะร้อนๆ อาจทำให้ต้องละสายตาจากหอยนางรมตัวอวบสักครู่ เพราะมุ่มถัดมาเป็นมุมที่มีฟัวกราส์ชิ้นโตถูกจัดวางเรียง รายอยู่ในจานสีขาว มีเชฟคอยปรุงให้เสร็จสรรพ (a) ³ โดยการย่างบนกระทะพร้อมเสิร์ฟ ให้ได้ลิ้มลองรสของ (b) ตัวฟัวกราส์ที่นุ่มละมุนลิ้น ด้านข้างมีพิซซ่ามาเนียบที่อบใหม่ๆ และพาสต้าปรุงสดโดยเชฟอาหารอิตาเลียน มีหลากหลายเส้น ให้ได้เลือกสรร ทั้งฟูซิลี ลิงกวินี ริซอตโต สปาเกตตีและเพนเน่ นำไปปรุงได้หลายซอส ไม่ว่าจะเป็นซอสแดง คาโบนาร่า ครีมเห็ด หรือผัดซีเม่แบบไทยๆ ก็จัดจ้านดี (Issue 58:13)	The sizzling sounds of the hot pan may make you take your eyes off the juicy oysters for a while because the next corner is the corner where big pieces of foie gras have been laid in white plates. The chef cooks it (a) by grilling it on a ready-to-serve hot pan so you can experience the taste of (b) foie gras that is tender to your tongue. On the side, there are freshly baked pizzas and cooked pastas by Italian chefs. It comes with various kinds of pasta – fusilli, linguini, risotto, spaghetti and penne. They can be cooked with various sauces – red sauce, carbonara, mushroom cream or spicy Thai style ‘pad khee mao’.	Following the sizzling sounds of the hot pan and select whatever sized piece of foie gras you wish the chef to cook to order. Just next door is the pasta station where you can select all manner of pasta – linguini, fusilli, spaghetti, penne and even risotto – to be cooked in many classical ways from carbonara to Bolognese. Or you can go daring and order some spicy Thai style pasta filled with chilies and spices. (Issue 58:13)

Figure 2. Condensation of Quality Elements.

The example shows that the minor element about the quality of the food including its scents and tastes is mostly condensed in the English translated version. First, in (a), the quality of the foie gras that is served on a hot pan is rewritten in the English version. The source-text “...โดยการย่างบนกระทะพร้อมเสิร์ฟ...” (“... **by grilling it on a ready-to-serve hot pan** ..., B.T.) that helps to illustrate the quality of foie gras was not rendered into the English version. Further, as indicated in (b), the source-text phrase “... ตัวพักราส์ที่นุ่มละมุนลิ้น” (... **Foie Gras that is tender to your tongue**, B.T.) was rendered into English as ‘foie gras’ only. The translation shows that the translators did not convey the quality of **Foie Gras** (i.e., its soft and tender quality) into the target texts at all. Instead, the translators deliberately condensed them into the translated versions. This reflects a practice in the translations of magazine articles where minor social and cultural elements are condensed in the rewriting.

The Target-Text Versions and its Readership

The main aim of the research is to explore how the translated English versions of food articles are produced for the readership that is quite specific in the Chiang Mai urban space. As posited earlier, translated articles appear in rewritten form. The translators retain major social and cultural elements and, in some cases, condense minor social and cultural elements. The translated versions are different from the source texts because the original Thai versions strive to present narratives that contain these elements to their fullest extent.

Nevertheless, the ways in which translators rewrite the translations in the Thai context appear to have no clear boundary between the retention and condensation of social and cultural elements. Through the lens of the systems, this can be linked to how translators rewrite their translations that are mostly linked to the target readers (Even-Zohar, 1990; Lefevere, 1992) and genres (see Trosborg, 1997:12; García Izquierdo and Montalt I Resurrecció, 2021:136; Redzioch-Korkuz, 2021; Limon, 2004).

As discussed, translation is rewriting that is affected by source- and target-text social and cultural elements (Lefevere, 1992). In the Thai context, ways in which translations are produced can be influenced by translators whose works are rewritten under influenced of the social and cultural constraints, such as their commissioners and readers (see Lefevere’s (1992) patron and ideology). For instance, Phanthaphoommee (2022; 2023) adopts the concepts of rewriting and ideology in his works and illustrates that translations of political texts into Thai are intervened by translators, such as a straightforward translation of the politician’s address and an attitude-driven translation of the politician’s address, respectively. This is important since both studies show that translations in the Thai environment are mostly affected by its socio-political context.

In adopting the systems as the framework, the findings seem consistent with previous research. Considering the target readership and the aim of the bilingual magazine, the translated versions can be considered rewriting containing selected social and cultural elements. As shown earlier in ‘Rewriting of Translated Versions with the Retention of Major Social and Cultural Elements’, the translators mostly retain major social and cultural elements that are related to food, activity, location, people and awards. This can imply that what has been retained in the translations is judged quite sufficient to offer the target

readership the essence of the articles. Similarly, the translators in some cases rewrote the translations while condensing minor social and cultural elements. This in most ways makes the readership experience social and cultural elements that are less than the original Thai versions.

It can be observed that there are possible reasons for the retentions and condensations of social and cultural elements. First, in an informal conversation, the chief editor asserts that it is not necessary to re-present all social and cultural elements in the target-text versions. Since the translated versions are aimed at delivering food menus, activities and locations where they could locate or find them, the readers would probably not need to know very specific detailed elements related to them. Not all major elements in the source texts could correspondingly appear in the target texts. This implies that rewriting of social and cultural elements with retention and condensation methods is a usual practice at the publisher.

Further, apart from the specific target readership, considering that the translated versions are seen as rewriting of the source-text bilingual magazine, the ways in which they are rewritten are influenced by the text genre as well. As mentioned, Trosborg (1997:12) refers to genre as completed texts that contain communicative functions and text types as elements of the texts (see also García Izquierdo and Montalt I Resurrecció, 2021:136). This includes, for example, newspaper reports and articles, TV news, textbooks and so on. She also posits that genre can affect how translations are produced in the target culture due to its structured nature and specific conventions (ibid.:18). Together, these act as constraints that can affect translators when translations are being rewritten.

It will be remembered that the material of this study is a bilingual magazine and has specific communicative functions. The bilingual magazine has its specific target readership in the urban setting of Chiang Mai town. The material is considered a magazine genre in that it has specific communicative functions and conventions for specific readership. The ways in which they were translated are seen to be affected by these specificities, which also act as genre constraints. (see Redzioch-Korkuz, 2021; Limon, 2004). One of the key specificities includes not only its target readers but also the spaces available for English translations. It seems that the space of the columns presented in the magazine also affects how the translators rewrote the translations to fit the space in each column and page. The column space in the magazine is considered an important criterion for the translators to rewrite the translations. The information received from the chief editor of Spoon & Fork Magazine indicates that column space is sold to clients (e.g., bar and restaurant owners) with the promise that their food articles will appear in the magazine. The rate the clients will have to pay depends on how much space they want in the magazine. So, the column space where the publisher publishes its clients' food content is limited by this purchase. For example, in Issue 58 of 2019, the entire Main Dish column was devoted to featuring the restaurants and bars in Dara Dhevi Hotel. This could cost around five figures or six figures in Thai Baht per issue. Because the magazine is bilingual, both Thai source texts must appear alongside the English versions. As the original articles are written in Thai, the English versions could not occupy the same space as the original ones. Nonetheless, to ensure that the food articles reach wide circulation that meets the expectations of the clients and objectives, the translators may perceive that the English translations be made to convey the selected content effectively in the English versions. This, by and large, affects the ways in which the

translators decide to present the English translated versions in shorter or condensed forms. In other words, the English translated versions are meant to deliver specific content to the readers, focusing mainly on foods and where they can find them.

Conclusion

The analysis helps to shed light on a translation of the bilingual magazine genre that is produced in the Thai environment. The findings and discussion show that the translation of the bilingual magazine genre from Thai into English are far from faithful to the source texts but are produced to showcase the essence the translators judged sufficient and necessary for the specific readers. As translation is a sub-system that is an integral part of the Thai social and cultural systems, the findings show that translations of a bilingual magazine genre are rewritten under the constraints – the target readership and text genre conventions. This means that the translators make decisions on what social and cultural elements are to be delivered to the readership – either through the forms of retention and/or condensation of them. This study gives a new perspective on translation phenomena in the Thai translation environment. As the study is descriptive and follows the systems theoretical point of view, the study highlights that, in an urban setting, translators rewrote source-text articles into rewriting works so that they specifically serve their target readers while maintaining the publisher's aim – attempting to reach wider readers to maximize the economic benefits from selling the column space, for instance.

Endnotes

- 1 Information about the publisher and magazine was given by the editor of Spoon & Fork Magazine when the researcher was permitted to receive the hard copies of 2019 magazines in Chiang Mai in December 2022. The conversation was informal to provide the researcher with the fundamental knowledge of the magazine. The editor was given the research proposal and informed of the aim. The permit to obtain the magazines used as data for the research was given. The information obtained from the conversation is meant for the context of the study only. As the research focuses on analyzing source- and target-text food articles, contextual information has not been used for the analysis.
- 2 Bold typeface appearing throughout the paper is used to highlight comparisons between Thai-English versions.
- 3 Sub-examples are labeled in alphabetical order i.e. a) and b).

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Historical Narratives of the Eight Akan Clan Systems Using Museum Theater:

The Case of Prempeh II Jubilee Museum, Ghana

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Abstract

There have been several calls from diverse stakeholders in the museum sector in Ghana for creative programs that enliven the cultural objects in a museum's holding. This study aimed at exploring the use of museum theatre as an intervention to enhance the museum experience of visitors at the Prempeh II Jubilee Museum, a popular museum in the Ashanti Region of Ghana. We produced *The Linguist Staff*, an interactive drama to present the historical narratives of the eight Akan clan systems. The study was carried out using arts-based research under the qualitative approach with observer-as-participant and semi-structured interviews as data collection tools. Data were analyzed using qualitative thematic analysis. Our findings revealed that museum theatre could potentially improve learning while enhancing the understanding of museum objects. The study contends that museum theatre when used tactfully by museum management could be a very useful intervention in increasing visitors' experience and engagement.

Keywords: African Art & Culture, Akan Clan Systems, Cultural Objects, Museum Theater, Museum Engagement, Ghana

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Introduction

This study was carried out to explore the practicality of using museum theatre in re-enacting the historical narratives of the eight Akan clan systems at the Prempeh II Jubilee Museum in Ashanti Region. Before the Covid-19 pandemic, cultural institutions such as museums, galleries and heritage sites experienced reductions in public funding (ICOM, 2018) as well as low visitation rates and perceived relevance (Ibope-Inteligência, 2018; Leiva and Meirelles, 2018) in many countries including Ghana. According to scholars, the drivers for the low patronage of museums are attributed to the poor appreciation of culture and snowballing competition from other leisure service providers. However, there is a long tradition of literature in tourism and cultural heritage on the scope and development of museums which nonetheless has a strong resonance with the demands of 21st-century sophisticated museum visitors. Reussner (2003: 102) succinctly proclaims that since the middle of the 19th-century, museums have served as leisure destinations. However, early museum curators and directors were more focused on their *Wunderkammer*, that is, cabinet of curiosities, than the experiences and satisfaction of its consumers.

The museum's primary goal is to educate visitors about the past, promote cross-cultural cohesion among people, and enhance enjoyment (Calinao and Lin, 2017; Trinh and Ryan 2016; Brida et al., 2016; Pennings, 2015). Some scholars have cautioned that museum visitors demand and want more fulfilling experiences (Gheorghilas et al., 2017; Dove, 2010). Because of this, both the role of museums and visitors have changed substantially (Koma-rac, Ozretic and Skare, 2014). In recent years, there have been several calls from diverse stakeholders in the museum sector in Ghana for creative programmes that enliven the cultural objects in a museum's holding for a much-enhanced museum experience as well as their beneficial role in fostering social and economic development (Lei, 2021, Dika and Agyei Ofori, 2018; Essel, 2017; Essel, Opoku Mensah and Teye, 2016; Kuntaa, 2012). One such call emanated from a longitudinal study that investigated visitor experience and satisfaction with museum education in Ghana. In their study, Amoako-Hene, Nortey and Bodjawah (2022) discovered that 81.9% of museum visitors were extremely unsatisfied with their museum experience due to the interpreting and teaching techniques employed by the museums. Therefore, this comes with the challenge of museum attraction, interpretation approaches, and museum sustainability, which has been extensively discussed in tourism literature (Nielsen, 2017; Pop and Sabou, 2013; Hume and Mills, 2011; Kim and Leec, 2002). The scholars concur that to fight the shifting patterns of the 21st-century museum, there is a need for museum curators to engage or run continuous fresh activities and programmes to help revitalise their cities (Lei, 2021) thereby attracting new visitors or tourists, retain existing visitors and be in good financial standing.

As visitor expectations rise, museums are faced with new obstacles (Wavell et al., 2002). The emergence of new technologies and creative programmes such as podcasts, interactive video booths, virtual reality and watching or practising dance, music and theatre encourages these expectations (Pallud, 2017; Kang and Gretzel, 2012; Bryson and MacKerron, 2017; Wheatley and Bickerton, 2017; Grossi et al., 2012) as they promote greater emotional and cognitive growth for visitors (Newman et al., 2010; Kim and Kim, 2009). Internationally, one major intervention of the new museology is museum theatre (Nikonanou and Venieri, 2017; Jackson, 2010; Bridal, 2004; Faso, 2016). This phenomenon has been created in museums to turn passive visitors into active participants and for tourist appeal. Museum theatre encompasses various forms of theatre or dramatic arts in museums. Upon the establishment of the International Museum Theatre Alliance (ITMAL) in 1990, the term was legally adopted in place of phrases like "interpretive theatre", "living history", and "theatre in museums"

(Tzibazi, 2009: 163). According to ITMAL (2012: 1), museum theatre “is a term that has been used to refer both to the performance of theatre (i.e., a play) in or by a museum and also to the use of any of a variety of theatrical techniques by museums” to animate the inanimate histories and objects in museums and heritage sites. Highlighting the relevance of performance at heritage sites, Dove (2011: 119) avers that it provides “an exciting form of education for internal tourists, school children and foreign visitors.” This is because the interpretation of historical narratives via live performance is often seen as a means of filling gaps by giving the visitors a more vivid museum experience. Other scholars who have done a lot of outstanding studies on the subject of creative industries and culture sustainability note that the concept can be far more successful in boosting cultural heritage promotion and tourism (Das and Chhaparia, 2023; Lei, 2021; Meddegoda, 2020; Purwantiasning, Kurniawan and Sri Sunarti, 2019). While museum theatre has many advantages, including capturing visitors’ attention and allowing for multiple interpretations of objects, it also faces criticism. Farmelo (1992) highlights concerns such as cost, disturbance of museum ambience, space limitations, accuracy, and visitor flow. Nonetheless, Farmelo suggests solutions for each issue, such as creating dedicated gallery spaces for performances, evaluating theatre programmes accurately, and fostering collaboration among museums and other funding agencies. From another perspective, Kidd (2007) convincingly argues that the performance at museums and heritage sites positively promotes the museum as a tourism and heritage destination; and simultaneously, has the power to contribute to economic sustainability – through job creation, revenue generation and foreign exchange earnings.

Museum theatre is a growing but understudied practice, according to Anthony Jackson and Jennifer Kidd, research specialists from the Centre of Applied Theatre Research at the University of Manchester in the United Kingdom. In the case of Ghana, and for that matter, in terms of the available literature, the investigation of the museum theatre concept is relatively new. In the context of the current scarcity of research specifically focused on the Prempeh II Jubilee Museum at the Centre for National Culture, Ashanti Region, the study sought to explore this phenomenon, and by implication examine how the museum theatre performance can be effectively introduced at the Prempeh II Jubilee Museum to aid the interpretation and understanding of the museum’s historical narratives around the eight Akan clan systems that are embedded in the *Linguist Staff* artefact to enhance visitor attraction, interactivity and satisfaction.

Methods

The study was driven by the arts-based research design under the qualitative research approach. Arts-based research is categorized under performing art approaches (i.e., theatre, dance and filmmaking), visual approaches (i.e., photography, murals, carving, and painting), narrative approaches (i.e., poetry, fiction, and novels), sound art and new media (Coemans et al., 2015). The study is primarily focused on theatre since it presents the production of a *Linguist Staff* performance based on the eight Akan Clan Systems at the Prempeh II Jubilee. Thirty stakeholders in the museum enterprise were purposively recruited for the study comprising of museum visitors/tourists (15), museum curators (4), theatre experts (6) and management of the Prempeh II Jubilee museum (5). The choice of the sample size of 30 after the saturation point was reached is consistent with Guetterman (2015) who avers that the ideal sample size for a qualitative study is between 8 to 33 participants. Ethical protocols were highly observed in every phase of the study. All the study participants signed informed consent form after the study’s purpose and requirements were explained to them. Likewise, their consents were sought included using their pictures in the staged museum

theatrical performance in the subsequent publication of the findings of the study. The study participants were very much excited to have their pictures featured in any eventual publication from the work and as such easily consented to it. During the data collection process, pseudo-identity was used. The researchers gave the study participants consent form which were filled and signed to ensure anonymity and confidentiality. To ensure validity and reliability, the researchers gave copies of the interview guides, observation checklist and drama script to two experts at the Department of Theatre and Film Studies, University of Cape Coast (UCC) for their assessment. The researchers also personally visited the study site and the Manhyia Palace Museum for a pre-testimony of the research instruments. Permission was secured from the museum managers by outlining the study's objectives and what is expected from them. The drama display was an interactive theatre—a type of museum theatre—as the researchers decided that it would be intriguing for study participants to engage with the actors/performers while they were performing at the museum. The researchers used the participant observation method in this study because they took part in the museum theatre activities as the script directors and artistic directors although the researchers' primary responsibility in this situation was to collect data by observing the behavior and attitudes of the participants with the aid of an observation checklist. Following the theatre performance and observation were interviews to garner respondents' knowledge of the experiences and beliefs of the museum theatre concept. Subsequently, video recordings and photographs of the museum theatre performance, and audio recordings of the interviews to serve as supplementary data for the study were taken at the Prempeh II Jubilee Museum with permission from the study participants. The researchers' fieldwork, observation, and semi-structured interviews involving Focus Group Discussions served as the primary data, while relevant documents from other scholars served as the secondary data for the study. The recorded interviews, observations and field notes were transcribed and analyzed using NVivo data analytical software and interpreted thematically in a descriptive form.

Results and Discussion

Study Area- Prempeh II Jubilee Museum

The museum is also one of the leading attraction sites in Ghana with rich artefacts, history and culture. The Prempeh II Jubilee Museum is within the Kumasi City Centre of the Ashanti Region of Ghana. The museum is about a 5-minute walk to the Central Business District and a 20-minute drive to the Kumasi International Airport. The museum was established in 1956 by the founder and the first Centre for National Culture Director, Dr. Alexander Atta Yaw Kyerematen. It was named after the late Asantehene, Otumfuo Osei Agyeman Prempeh II, and opened to the public in 1956 – as a living testimony to the revered King's immense contribution and interest in establishing and developing the cultural centre. As one of the topmost tourist attraction sites in Ghana, the Prempeh II Jubilee Museum is a place where tourists and visitors can learn and experience the richness and diversity of the Ashanti Kingdom, what it means to the people's lives and how it helped us profile the Kingdom. Among some of the relics and memorabilia that are on display in the small-size-stuffy museum are the war regalia of Otumfuo Osei Agyeman Prempeh II, brass weights for weighing gold, staffs of the eight clans of the Asantes, cooking utensils, furniture, royal umbrella and palanquin and jewelry. The museum also showcases a replica of the Gold Stool, the Asante Kingdom's actual seat of authority and the object that ultimately led to war between the Asante Empire and the British Imperial government. The museum's construction depicts one of the surviving relics of the Asante Traditional Buildings which the United Nations Educational, Scientific and Cultural Organization (UNESCO) considered a World Heritage Site in Ghana.



Figure 1. Prempeh II Jubilee Museum. Source: Photographed by the researchers.

The Eight Akan Clan Systems (Linguist Staff) at the Prempeh II Jubilee Museum

The Akan are the largest ethnic group in Ghana with the Ashanti's being the largest among them. The study observed that the Akan clans practice the matrilineal system of inheritance, that is, the family that one's mother comes from is where he or she belongs. The Akan people have eight (8) clans and these clans have names and symbols which identify them. Their symbols are all animals known as *Akyeneboa*. These eight animals represent the eight families of the Asantes and for that matter the Akan people in Ghana (Personal Interview with Museum Curator, 28 May 2023). The eight Akan clans are Aduana, Asene, Asakyiri, Asona, Bretuo, Agona, Oyoko and Ekuona. The clans venerate these animals to the point that killing them is forbidden since they have become their totems (Adom, 2019: 734). It is believed that eating the meat of a totemic animal will bring bad luck to the eater and maybe the entire town. Because of this taboo and others, the indigenous Akan communities fear and appreciate this component of their culture and heritage because of what might happen if they do the opposite. The behavior of people depending on their beliefs may have a logical explanation, even if coincidental or a product of their subconscious mind, even when anecdotes or scenarios like these are not scientifically proven.

As the clans see themselves as one people coming from one great ancestor, they do not intermarry. That is, one clan does not marry within the clan (Nukunya, 2003). One clan can cross to a different clan to marry but cannot marry from the same clan. The Linguist Staff can be used to communicate with people who are not part of a specific clan. It was heavily utilized in the past to inform men who wished to marry into particular households about the personalities of the family members. As a result, marriages lasted longer since men were continuously reminded of the traits of a group of people based on the totemic animal of their wives' families. This was done to persuade men to refrain from leaving their spouses in the face of marital problems (Asante et al., 2019; Nkansa-Kyeremateng, 1996).

The study revealed that the eight Akan Clan Systems are embedded in Linguist Staff which is one medium through which the current generation can learn about their ancestry and cultural history at the museum. The Linguist Staff is a decorated sceptres carried by linguists as a symbol of power or office (Anane-Frimpong, 2023). In the Akan setting, it is called *Akyeame Poma*. Whenever the *Okyeame* (linguist) conducts official business, attends public events, or addresses the chief, they carry it. The Linguist Staff (*Akyeame Poma*) housed at the Prempeh II Jubilee Museum epitomizes philosophies and the origin of the eight clans or the families of the Akan families in the Southern part of Ghana. The study revealed that the *Akyeame Poma* comes in three forms. There is the Linguist Staff for the king or chief, the family as well as the family head who is the *Abusuapanin* (Personal Interview with Museum Curator, 28 May 2023). Totems on the Linguist Staff that family heads (*Abusuapanin*), traditional chiefs or subchiefs frequently use characteristically carries metaphorical representations of what their families or clans stand for or the clans and families they belong to. For example, anyone who sees a linguist with a staff bearing the parrot as their totemic animal on the finial carries the philosophy that he or she belongs to the Agona clan symbolizing their eloquence and expressiveness. Descriptively, the study identified that the eight (8) Linguist Staff comes in different design and shapes. They are all depicted in animal form. The shafts of the *Akyeame Poma* are covered in geometric decorations. Made of wood, the shafts of the staffs are also carved in a different segment that makes them collapsible. They are plated with gold, silver, white and black colors. The Linguist Staff signifies the status and historical and cultural significance of the eight Akan clan systems. The clans and their respective Linguist Staff are presented and discussed in the following section. The study revealed that the Aduana clan led by a dog with a fire in its mouth originally came from Asumanya. During the migration, the Aduana people continued their journey to Domaa where they believe the fire is still kept alight; making them commonly referred to as *Ogyasefu* meaning descendants of fire (Personal Interview with Museum Curator, 1 June 2023). The clan is identified by their totem dog (*Okraman*) with fire in the mouth.



Figure 2. Aduana Clan Linguist Staff. Source: Photographed by researchers.

The clan symbolizes industriousness, cleverness and braveness. When they are greeted by someone from the same clan, they reply *Yaa Aberade* or *Yaa Ogyaba*. Some of the major

towns of the Aduana clan in Ashanti are Kumawu, Kaase, Agogo, Asumanya, and Bompata, equally representing the stools they occupy in the Ashanti chieftaincy tradition.

The study observed that the Oyoko clan (Figure 3) was created out of the Ekuona clan. The Oyoko clan is the most powerful clan among the eight clans because they produce kings for the Ashanti Kingdom (Personal Interview with Museum Curator, 1 June 2023). The occupant of the Golden Stool, Asantehene belongs to this clan. The Oyoko families are identified by their totem the eagle (*Okodee*) which symbolizes statesmanship, patience and bravery.



Figure 3. Oyoko Clan Linguist Staff. Source: Photographed by researchers.

When a member from the Oyoko clan or family is greeted, they respond *Yaa Eburu*, *Yaa Oyokuoba* or *Yaa Adohyie Nana*. The Adakos are the uncles of the Oyoko clan. They are located in towns including Kumasi, Bekwae, Dwaben, Mamponten, Nsuta, Kokofu, Dadieso, Obogu, Asaaman, Adubiase, Kenyase, Ntonso, Adako-Jachie, Kontanase. Some of the stools they occupy include Asantehene and Dwabenhene. The Bretuo clan (Figure 4) is the oldest among all the eight clans. The totem of the Bretuo clan is the leopard (*Etwie*). Their distinguishing features or qualities are bravery and aggressiveness.



Figure 4. Bretuo Clan Linguist Staff. Source: Photographed by researchers.

It is worth mentioning that when the Asantes fought against the Denkyiras in the Battle of Feyiase, the Commander-in-Chief was the Mamponhene. In the olden days, matters of war in the Asante Kingdom were the domain of the Mamponhene. The Bretuo's main towns are Mampon, Agogo, Domeabra, Amofo, Adanse, Abuotem, Gyamaase, Hwidiem, and Afigyaase. When they are greeted, the Bretuo's respond *Yaa Twidan* or *Yaa Tana*. Among the Asantes, the Agona Clan (Figure 5) is commonly found in Nkawie. Their totem is the parrot (*Ako*). The Agona's represent eloquence and flawless management skills. Because of their articulateness, expressiveness and eloquence, most of their people easily become linguists serving chiefs and kings in Ashanti.



Figure 5. Agona Clan Linguist Staff. Source: Photographed by researchers.

When the Agona's greet themselves, they respond, *Yaa Adome* or *Yaa Otwidan*. Some of the principal towns where the Agona clan is commonly found are Nkawie, Bodwesango, Fomesua, Tafo, Gynase, Trede and Ahwaa. The Agona families occupy stools in these aforementioned towns and communities. The Asakyiri's are predominantly located in the Adanse precinct in Ashanti Region. Asakyiri is the smallest clan among the eight clans. The Asakyiri clan (Figure 6) is identified by their totemic animal the vulture (*Pete*), which metaphorically represent cleanliness, endurance, calmness and patience.



Figure 6. Asakyiri Clan Linguist Staff. Source: Photographed by researchers.

The Asakyiri clan members are principally found in the towns of Akrokerri, Abofuo, Aman-sie, and Asokore where they occupy stools in the Ashanti traditional system. When the people of the Asakyiri clan are greeted by a fellow Asakyiri clan member, they proudly respond, *Yaa Amoakaade Nana*. The study revealed that among the eight clans, the Asona clan (Figure 7) has the largest membership or population (Personal Interview with Museum Curator, June 5, 2023). Their totem is the crow (*Kwaakwaadebi*). With the crow as their totemic animal, the Asona's are known for their statesmanship and patriotism qualities. When members of this family are greeted by their fellows, they respond *Yaa Asonaa* or *Yaa Oforina*.



Figure 7. Asona Clan Linguist Staff. Source: Photographed by researchers.

Some of their prominent towns include Ejisu, Offinso and Adansi Akrofuom. Others royals of the Asona clan hail from Ejura, Feyiase, Manso-Nkwanta, Bonwire, Atwima-Agogo, Taabuom, Beposo, Toase, and Odumase. The study observed that members of the Ekuona family are not many. Nevertheless, they care for the people around them (Personal Interview with Museum Curator, 5 June 2023). The Ekuona clan (Figure 8) is identified by their totemic animal the buffalo (*Ekoo*) symbolizing their strength, honesty and uprightness.



Figure 8. Ekuona Clan Linguist Staff. Source: Photographed by researchers.

Their principal town is Adanse Fomena. Other family members are also found in towns like Heman, Asokore-Mampon, Kokofu-Abuoso, Banko, Kona and Duayaw-Nkwanta. Mem-

bers of this clan proudly respond *Yaa Kuona* or *Yaa Obatanpa* when they are greeted by their fellow members. The Asene clan like most of the other clans originated from Adanse. The totem of the Asene clan (Figure 9) is the bat (*Apan*) which philosophically represent peace-loving, faithfulness and diplomacy.



Figure 9. Asene Clan Linguist Staff. Source: Photographed by researchers.

Because of their diplomatic and peace-loving attributes, it is believed that people from the Asene clan who rise to the echelon of leadership in society possesses superior leadership skills and qualities which are handed down to them by their great ancestors. Some of the principal towns of the Asenie clan in Ashanti are Amakom, Dompooase, Antoa and Agona. When members of this clan are greeted by their own, they respond *Yaa Abrawo*.

Existing Methods of Interpretation at the Prempeh II Jubilee Museum

The effectiveness with which information about the meanings of museum collections, artefacts or historical narratives is conveyed and interpreted at heritage sites determines how satisfied visitors are with their participation in tourist attractions (Tilden, 1977). Against this backdrop, the researchers sought to explore the various existing techniques employed in the interpretation of the museum objects at the Prempeh II Jubilee Museum. Strangely, all four respondents (museum curators) representing a 100% response rate, admitted that they employ oral and label interpretation techniques. All the respondents were of firm conviction that the Prempeh II Jubilee Museum needed other innovative interpretation techniques to enhance the interpretation of the museum objects and to improve visitor engagement and satisfaction. One of the key informants at the museum revealed that:

‘It is mainly oral translation that is used in interpreting the exhibits to our visitors. Unfortunately, we do not employ any audiovisual method whatsoever. We do not have audio devices to be playing the sounds of the items as well as interpretation panels containing texts, pictures maps or illustrations to guide visitors who visit the museum to make them have an improved understanding of the collections that we have here. The museum is yet to incorporate any audiovisual or performance display due to a lack of technical know-how and resource persons in those areas (Personal Communication, May 23, 2023).’

During the data collection, it was identified that the interpretation methods at the Prempeh II Jubilee Museum are oral or verbal presentations and labels. Strangely, The museum

labels lack physical descriptions such as color, size, and to a larger extent dates to guide visitors. Professionally, museum labels are to have the museum number, the date the objects are made, who used the item or who made them. All this vital information is missing on the museum labels. What the artefacts have are the names of the object and the short histories on them that the researchers observed are insufficient in achieving visitor engagement and satisfaction. The available interpretation methods at the Prempeh II Jubilee Museum affirm the researchers' assertion that the museum does not currently employ the museum theatre interpretive technique. The finding supports the study by Tilden (1977) as well as Jackson and Kidd (2007) who argue that the method of interpretation in museums should be created by the many social functions that they are intended to play to meet the demands of the 21st-century visitor. Tilden, one of the founding fathers of interpretation, has called for the introduction of historical re-enactments, interpretation panels, written materials, and other audiovisual devices in museums for enhanced visitor engagement and satisfaction.

Challenges Faced with the Interpretation of the Linguist Staff Historical Narratives at the Prempeh II Jubilee Museum

The museum curators were asked about some of the specific challenges faced with the employment of the existing interpretation methods at the Prempeh II Jubilee Museum. The respondents rated a lack of creative methodology or technique to support the interpretation of the museum collections, a lack of effective interactive experience, insufficient visitor engagement and satisfaction and a lack of museum facility expansion and renovation. During data collection, one of the respondents noted concerns about the lack of these creative techniques to strengthen the interpretation of the museum artefacts and historical narratives challenges that The museum is one of the popular tourist sites in the Ashanti Region and Ghana as a whole serving as a historic place of learning and enjoyment for domestic and foreign tourists. He added that one of the many concerns that usually emerges after the museum tour is the question of when are we going to provide a meaningful or creative interpretive experience for the tourists who desire to explore the museum collections and the histories in an entertaining manner. The respondent pointed out clearly that the demands are something that the management members of the Centre for National Culture, Kumasi, which manages the Prempeh II Jubilee Museum facility would have to look into it.

Furthermore, in responding to the challenges faced with the interpretation of the museum objects, one of the key informants painted a clear picture of the challenge of insufficient visitor engagement and satisfaction as well as the lack of expansion and renovation of the Prempeh II Jubilee Museum facility. A museum curator buttressed that the lack of expansion and renovation is badly *"affecting the preservation and maintenance of the artefacts. Because the museum has no roofing, the collections are highly exposed to the scorching sun and other unfavourable weather conditions such as rainfall"* (MUCU-PI, Personal Communication, 3 June, 2023). Admittedly, all four key informants indicated these challenges affect the patronage of the museum despite its popularity and regular visits by tourists from around the world. The findings relating to the expectation of the museum curators and visitors at the Prempeh II Jubilee Museum are in line with earlier studies conducted by Gheorghilas et al. (2017), Nikonanou and Venieri (2017) as well as Mencarelli and Pulh (2012) who concluded that artefacts and stories interpretive challenges of heritage sites in developing countries must be addressed to provide tourists with entertaining and distinctive experience and encour-

age repeat visits. In museology, museum theatre has been praised for its optimum creative intervention in promoting cultural tourism as one of the most important factors supporting the expansion and development of various economies (Das and Chhaparia, 2023; Saleh et al., 2022 and Yoopetch, 2022) visitor engagement and satisfaction. A study by Jackson (2010) highlighted that museum theatre – a technique of employing theatre and drama to interpret museum objects and historical narratives – helps visitors to enliven the past. For instance, in a theatrical performance on the “Battle of Feyiase” between the Asantes and Denkyiras in which the *Etwie* war drum is employed as an interpretive tool, the play will transport the visitors to 1701, thereby creating a deeper engagement and satisfaction for them.

The results on the museum expansion and renovation emphasise the need for the management members of the Prempeh II Jubilee Museum to invest in expanding the facility and implementing more sustainable architecture to obtain additional galleries or chambers, improve visitor access, and improve the whole museum’s experiential learning experience. The reasons provided by the museum curators confirms the observation made by Poulin (2010) and McClellan (2012) that administrators of heritage sites and museum must regularly undertake museum expansions and renovations to ensure their sustainability in this 21st century as visitors have now become sophisticated.

The Museum Theater Performance: Linguist Staff

The researchers developed script and produced *The Linguist Staff*, an interactive theatrical performance to re-narrate the historical narratives and worldviews of the eight Akan clan systems embedded in the Linguist Staff artefacts at the Prempeh II Jubilee Museum. The production took place on Thursday 25 May, 2023 at the premises of the Prempeh II Jubilee Museum at exactly 1:00pm. The script was written in English and improvised in Asante Twi. The production style of the performance was *realism* to portray reality and actuality in terms of props, dialogue, costume, music and characterisation for the appreciation of the museum visitors. The actors and actresses were sourced from two cultural ensembles at the Centre for National Culture Ashanti Region, namely, Anokye Players and a Resident Dance Company, *Amammereso Agofomma*. The actors were all type-cast to portray reality and actuality. Being a relatively new museum intervention, marketing and publicity campaign was embarked upon to promote the museum theatre performance. The target audience were museum visitors which comprised students and adults. It is important to highlight that school children visit museums more than adults in Ghana (Amoako-Hene, Nortey and Bodjawah, 2022). That is why there is a need for the incorporation of creative educational programmes to reinforce museum education and for visitor satisfaction.

The Linguist Staff performance took place in the exterior of the Prempeh II Jubilee Museum. The available expansive space within the museum’s precinct became the setting (Found or Created Space) for the performance. The found or created space is one of the main types of theatre spaces in theatrical setting (Gillette and Dionne, 2020; Wilson, 2015). In terms of acting, the actors’ performance was believable and realistic as they were able to convey messages and emotions which enlightened the museum visitors, and gave them a better appreciation of the ‘Linguist Staff’ museum object. The Paramount Chief role, played by Nana Sefa Boakye, for instance, brilliantly portrayed kingship traits to the delight of the museum visitors. He exuded leadership and charisma and was able to craftily drive home

the themes in the play as it was expressly stated by the sub-chiefs in the play. His interpretation of the role was brilliant. This is in line with Constantin Stanislavski (1863-1938), a Russian actor, director, and developer of Method Acting who intimated that the outward behaviors of actors onstage must be convincing, natural and believable. The centre of attraction was the roles played by the Representatives of the eight Akan Clan system – Ad-uana, Oyoko, Asene, Asakyiri, Ekuona, Agona, Bretuo and Asona.



Figure 10. Linguist Staff, Museum Theatre Performance. Source: Photographed by researchers

For instance, the Oyoko representative provided accurate historical information about the Oyoko Clan. She remarked: *"I am a proud Oyoko. I am one of the eight clans of the Akans. When greeted, I reply "Yaa Eburu, Yaa Oyokuoba or Yaa Adehyee Nana." I epitomise a culture so weighty in history. My totem is the falcon. It symbolises our unique attributes – statesmanship, patience and bravery."* The actors dramatically brought live to the 'Linguist Staff' museum objects. They creatively interpreted the historical narratives, origins, totems, and symbolisms associated with the 'Linguist Staff' artefacts to the excitement of the museum visitors. The diction was excellent making the visitors understand every word the actors delivered on stage. The onstage believability was achieved due to the extensive training in vocal work, physical movement and character development of the actors during rehearsals.

As a means to make the audience have a satisfying listening experience, PA system was acquired to make the museum visitors effectively hear the actors' dialogues. Besides, the researchers commissioned a composer at the Kumasi CNC to compose a *Nnwomkoro* song based on the eight Akan Clan system.

The sound and musical performance effectively conveyed the theme of the production concept. It also contributed to the overall atmosphere and the mood of the museum theatre performance. The costume and make-up for the actors and dance performers were rich and flamboyant – Kente fabrics and traditional cloth – which helped set the tone and the style of the production by showcasing the personality and the social status of each of the characters or actors in the play. It also underscored the style of the play – realism. In

the performance, *Linguist Staff*, the 'Linguist Staff' artefacts at the Prempeh II Jubilee Museum were used as props to portray actuality and reality. The artefacts were brought out of the museum to the performance space with the consent of the museum's Management Body. Additionally, the researchers rented other props such as stools, footstool, umbrella, and swords to establish the mood and style of the performance. The props also enhanced the personality status of the Chief in the play. Stage light was not used in the production because the performance took place in the afternoon. The *Linguist Staff* performance was recorded live for archival preservation and later broadcast.



Figure 11. Linguist Staff Performance (Nnwomkoro Ensemble). Source: Photographed by researchers.



Figure 12. Cross section of the Study Participants. Source: Photographed by researchers.

Participants Knowledge of the Museum Theatre Concept

In an attempt to find out if the participants (museum visitors category) have previously experienced museum theatre or living history performance at the Prempeh II Jubilee Museum before, only 6.7% of the total number indicated to have visited the museum before but did not experience the museum theatre performance as part of the museum's collections interpretive interventions. Additionally, the remaining 93.3% who visited the Prempeh II Jubilee Museum for the first time and participated in the *Linguist Staff* performance indicated that they have not experience museum theatre performance as an interpretive tool at any of the museums they have so far visited in Ghana. The observable findings revealed that until the *Linguist Staff* production staged by the researchers at the Prempeh II Jubilee Museum, the visitors who participated in the programme did not have firsthand experience or knowledge of the museum theatre concept. Five (5) management members of the Centre for National Culture, Kumasi, that manages the museum facility were interviewed. During the interview process, all the respondents representing a 100% response rate indicated that the museum theatre concept is not part of the Prempeh II Jubilee Museum's interpretive techniques nor has it been introduced at the museum before. All the four (4) museum curators interviewed also shared the same viewpoint of the management members of the Kumasi CNC by confirming that the museum theatre concept is not incorporated at the Prempeh II Jubilee Museum. This indicates the novelty of this research as the first in Ghana to explore the use of museum theatrical performances in explaining museum holdings. The findings from the study have confirmed that the museum theatre concept is largely an unexplored field by administrators of heritage sites such as museums and monuments across the world, most especially, in developing countries like Ghana. It was identified that the technique of employing theatrical performance to aid the interpretation of the museum objects was unknown to the research key informants. The findings confirm earlier studies done by Jackson and Kidd (2007), scholars at the Centre for Applied Theatre Research, University of Manchester, UK. In their three- and half-year UK Government sponsored project, *Performance, Learning and Heritage*, the study discovered that the museum theatre concept remains an understudied practice. Similar results were highlighted by Wang (2014), a scholar with the Department of Drama Creation and Application at the National University of Tainan, Taiwan. Wan-jung Wang conducted a study as an attempt to reinvent post-colonial cultural identities in Hong Kong, Singapore, and Taiwan through museum theatre educational programmes. In his study, Wang identified that the museum theatre concept has still been novel in eastern and south-eastern Asian nations. These results affirm that the museum theatre concept is not only relatively new to Ghana but the world all over.

Participants' Perception of the Linguist Staff Museum Theatre Performance's ability in aiding the Interpretation, Understanding and Engagement of the Artefacts

In an attempt to gather deeper insight into the perception of the visitors after the theatre performance at the museum, there was also a museum tour for the visitors to complement their visit. The strategy was aimed at having a comparative analysis based on the museum theatre display and the existing interpretation techniques, that is, oral presentation and museum labels at the Prempeh II Jubilee Museum the visitors experienced. All 15 respondents representing 100% indicated that they enjoyed the museum theatre performance as it kept them engaged and connected with the *Linguist Staff* artefact better than the museum label and verbal methods. In terms of the interpretive methods, the participants revealed that the theatre performance made them understand the *Linguist Staff* object

better. They again indicated that the museum administrators must introduce the concept to help complement the existing methods for an enhanced interpretation and better comprehension of the museum objects.

Likewise, the museum visitors interviewed during the Focus Group Discussion unanimously affirmed that the drama was helpful in aiding them to appreciate and understand the complex historical narrative surrounding the Linguist Staff better. Although the theatre display, *Linguist Staff* received good reviews, two recommendations were made for future events that bothered on increasing the publicity of the museum theatre and the introduction of lighting and acoustic effects. Interestingly, when it came to the preferred interpretation types, there was a huge significant disparity among them. All 15 respondents rated the museum theatre display over the museum labels and verbal interpretation. This is because they found the museum theatre more engaging, lively and interactive as compared to the label and verbal interpretations which usually appears to be monotonous. This is in tandem with Nikonanou and Venieri (2017) who emphasized that museum theatre programmes significantly enhance visitors' engagement and learning efficacy at heritage sites and museums. Their project on *Voices of the City* in 2012 at the Thessaloniki History Centre in Greece in which 1030 participants encompassing 700 students and 330 adult visitors showed that the museum theatre performance enabled the visitors to become more engaged and involved in history, further learning about the site, assisting them in better understanding the richness of the heritage, and by overcoming the drawbacks of conventional interpretation methods, which are mostly restricted to a unilateral information transmission. This clearly shows that the museum theatre practice is a powerful museum interpretation tool.

Conclusion

The focus of this study was to explore the practicality of bringing life to the historical narratives of the eight Akan Clan systems which are embedded in the Linguist Staff artefacts using museum theatre at the Prempeh II Jubilee Museum in Ashanti Region. The findings indicate that the museum theatre intervention is not incorporated at the museum as part of its interpretation and educational techniques. It further revealed that museum theatre is an effective tool or technique in interpreting museum objects and artefacts. The staging of the *Linguist Staff* performance helped enliven the artefacts, drew visitors to the historical narratives surrounding the Akan clan system, and aided the visitors' meaning-making of the artefacts comparatively to the curatorial labels and oral interpretive methods at the museum. The study revealed that there are positive connections between museum theatre and visitors' interactivity which leads to improved museum discourse, visitors' engagement and satisfaction.

In spite of the significant role that museum theatre plays in the museum world, the concept is relatively new, understudied and practised in Ghanaian museums. The study therefore recommends that the management of the Prempeh II Jubilee Museum set up a dedicated museum education office to develop high-quality educational programmes such as tours, workshops, school programmes, family events, lectures and classes for museum visitors to improve museum learning, interactivity and visitor satisfaction. The Ministry of Tourism, Arts and Culture and the Ghana Museums and Monuments Board should put in organise a consultative workshop comprising museum stakeholders, educators and per-

forming artists aimed at developing a policy document towards the implementation of museum theatre at heritage sites such as museums and monuments in Ghana. By so doing, it will help the museum theatre intervention gained momentum in Ghana and also offer edutainment events for their sophisticated visitors.

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Exploring the Use of Idealistic Concepts and Symbolic

Interpretation to Enhance the Urban Context for People with Disabilities in an Installation Art Exhibition of Urban ThisAbility

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Abstract

This article explores the design approach of the art installation titled "Urban ThisAbility" which received funding from Bangkok Design Week 2023 and created by artists Torpong Limlunjakorn, Pornrak Chowvanayotin and Arnun Chantan. This project aims to raise awareness about ideal urban environments that accommodate people with disabilities. The artworks are created within the constraints of the installation venue to effectively convey this message. It also explores the cognitive processes involved in creating spatial and symbolic interpretations using grid concepts, reflective elements, and luminous emitting, drawing from relevant literature. The art installation was crafted through a comprehensive process to foster contemporary artistic awareness. The "Urban ThisAbility" project garnered positive feedback for its artistic merits and successful dissemination of awareness about urban mobility challenges for people with disabilities. Additionally, the responses from individuals with disabilities towards this work were insightful. This article seeks to be a valuable resource for students and enthusiasts of installation art and symbolic interpretation, providing a foundation for future studies in this field.

Keywords: *Idealism, Disabilities, Symbolic Interpretation, Grid, Installation Art*

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Introduction

Encouragement of social equality has become a key component of the new urban agenda since numerous United Nations Conferences. Without discrimination, all inhabitants and even people with disabilities, have equal rights and opportunities to adequate accessibility as well as equal access to public goods and quality services (UN, 2017). This includes Target 11.2 from Sustainable Development Goal No.11, which aims to provide safe and sustainable transport systems for all, including people with disabilities (UNDP, 2015). However, the current Bangkok's urban context continues to lack convenient facilities for people with disabilities. Many areas are unsuitable for their specific needs such as limited physical accessibility and unable to access public services. Unfortunately, these issues have persisted without receiving adequate attention for an extended period (Bangkok Post, 2021).

"Disability has frequently been viewed as a restriction on an individual's life and social involvement. Nevertheless, in numerous countries, the perception of disability has changed, regarding it as a non-impediment. The actual obstacle within the environment, which has not received sufficient attention in Thailand. If our country acknowledges that the physical environment is the primary barrier for individuals with disabilities, we must take measures to modify it and establish a more inclusive living environment for them." (The Urbanist, 2023).

In early 2023, during the Bangkok Design Week period, one of the largest design festivals in Southeast Asia, a call for projects was made with the theme of "urban'NICE'zation," aiming to present an inclusive and welcoming city for everyone (Figure 1). As an architect / faculty lecturer who has actively participated in volunteering activities and closely interacted with this community, the author recognized the opportunity to utilize this event as a platform to advocate for improved living conditions and mobility for people with disabilities in the city. Consequently, the author decided to create an installation art exhibition that merges architectural philosophy with the symbolic interpretation influence of the grid concept and idealism.



Figure 1. Publicity poster of "urban'NICE'zation" Bangkok Design Week 2023, Image courtesy of Bangkok Design Week 2023, <https://www.bangkokdesignweek.com/bkkdw2023>.

In general, the grid system is a design principle that involves organizing and structuring information using intersecting horizontal and vertical lines. This system finds applications in various fields such as graphic design, architecture, and art. Many artists and designers utilize the grid system as a compositional tool to arrange elements and establish principles like unity, symmetry, and balance in their work. The grid concepts are often integrated into programming, allowing for the exploration of abstract ideals and perfection. In the realm of architecture, theorists use these concepts to articulate visions of idealized societies (Elam, 2005). In summary, the grid concept possesses an abstract and idealistic meaning. It can be employed to symbolize an imaginary urban context that promotes accessibility for individuals with disabilities.

Urban ThisAbility1 is one of the selected events, and got funding from Bangkok Design Week 2023, which revolves around the theme of 'Nice for Diversity.' The event aims to organize an art exhibition that focuses on promoting diversity-friendly urbanism, with a specific emphasis on people with disabilities. The project has received funding from Bangkok Design Week 2023 and was created by artists Torpong Limlunjakorn, a lecturer from the Faculty of Architecture Art and Design at King Mongkut's Institute of Technology Ladkrabang, Pornrak Chowvanayotin, a lecturer from the Faculty of Fine and Applied Art at Chulalongkorn University, and Arnun Chantan, an active disability activist in social. The exhibition took place during the second week of February 2023, specifically on the second floor of the Darunbannalai Children's Library, a heritage building located on Charoen Krung Road, Bangkok. The primary objective of the installation was to convey an idealistic concept that increases awareness and advocates for equal access among individuals with disabilities. The purpose of this artwork was to address the existing inadequacies of urban accessibility facilities in Bangkok, including rough pavements, pathways lacking slopes, and even damaged manholes, which have a significant impact on people with disabilities (Figure 2). The artwork, the artist's message, aimed to symbolize these issues through artistic interpretation, employing concepts of the grid, idealism, and symbolism that relate to the elements of the installation art.



Figure 2. Bangkok's urban context, Image courtesy of Pornrak Chowvanayotin.

The artwork was divided into two parts, each presenting its interpretation of grid symbolism. The first part was a mixed media art mapping projection, intended to enhance the urban environment. The second part was an art installation that emphasized spatial perception, representing an idealistic realm. This article focuses solely on the field of spatial

perception and the installation of art elements with consideration for spatial restrictions. It also provides a step-by-step description of the installation process.

Objectives

- To provide a concise explanation of the concept of idealism & symbolic interpretation.
- To explain the artistic perception in terms of spatial context.
- To visually illustrate the step-by-step installation process.

Related Concepts and Theories

This article aims to investigate the principles of idealism and symbolic interpretation as they are translated into artistic and spatial perception, particularly in the context of installation art elements. This exploration focuses on creating an imaginary urban environment that caters to the needs of people with disabilities. To accomplish this goal, a thorough review of relevant literature was conducted to gain insight into the underlying concepts, methodologies, and practical applications, which are summarized as follows...

Grid Concept that Reflect the Idealistic

The concept of the grid has been utilized in various ways, particularly by architects who employ the grid system to reflect their conceptual framework. Frank Lloyd Wright, an American architect, described the grid as a flexible and adaptable system that organizes space, enabling architects to create harmonious and coherent structures (Larkin, 1999). The grid's ability to provide a sense of order and proportion allows architects to express their creativity within a disciplined framework while envisioning an idealized vision (Ratti, 2016). Rem Koolhaas, a Dutch architect, also stated that the grid concept represents areas in the imagination, transcending geographic coordinates and reality itself (Nies, 2016). Le Corbusier, a Swiss Architect, indicated that the concept of a grid-like system can create a functional and efficient environment, embodying an idealized vision of urban living and emphasizing order and social harmony (Corbusier, 1929).

Furthermore, grid concepts are often associated with idealized visions. Architectural theorists frequently utilize grid drawings to illustrate abstract imaginative structures, depicting immaculate cities arranged in a logical and rational discipline. Several Italian architecture theorists have addressed 3D grid systems as imaginary spaces that represent abstract spatial concepts without specifying physical contexts or locations, simulated environments likewise virtual reality technology, and also envisioning idealized cities. It often emerged in response to the deficiencies of existing societies, offering a way to imagine an idealistic alternative. Therefore, the incorporation of grid elements may also serve as an alternative vision of the world (Limlunjakorn, 2022).

Additionally, the concept of ideal, in terms of socialization, has been defined as a symbol of human rights and social equality. Thomas More, a social philosopher, expresses that the concept of the basic citizen's rights is equal access to basic infrastructure and standardized public services, and ensuring their right to a good quality of life (Limlunjakorn, 2022). This concept is pivotal and aligns with the Urban ThisAbility project, which aims to enhance urban accessibility, especially for individuals with disabilities, through art. The project will feature a spatial art installation combined with mixed-media art mapping projection. This includes overlaying grid lines on photographs to depict the challenges faced in an obstacle-laden urban environment.

Symbolized and Interpretation

The principle of symbolism and interpretation manifests in various ways. "Symbolism" refers to "the art or practice of using symbols to attribute meaning to objects or to express the invisible or intangible through visible or sensory representations" (Merriam-Webster, 1989). "Symbolism" can be found in different artistic styles, including conceptual art, which aims to convey concepts through visual imagery and provoke contemplation. However, not all conceptual art has explicit meanings (Macbean, 2013).

Nelson Goodman, an American philosopher, asserts that art is a symbol imbued with meaning, going beyond mere indication. Therefore, the application of symbolic interpretation methods becomes crucial, drawing upon experience, knowledge, and the audience's perspectives (Goodman, 1976). Additionally, Arthur C. Danto, an American art critic and philosopher, proposes that a common object can transform into an art object when it embodies its meaning and evokes expressions through metaphor, setting it apart from the ordinary. He argues that the meaning of art is not inherent in the object itself but rather relies on the interpretation and context in which it is encountered (Danto, 2006).

From the literature reviewed, it is evident that the concept of the grid transcends being a mere geometric shape used in art and design. It carries a philosophical significance related to abstraction, freedom from constraints, imagination, idealism, and equality. The Urban ThisAbility project seeks to symbolically represent accessibility in urban environments. This is achieved by employing horizontal and vertical lines to construct an idealistic infinite plane, symbolizing an accessible urban context for wheelchairs. Conversely, a distorted infinite grid pattern, marked by interrupted intersections of horizontal and vertical lines, symbolizes an inaccessible urban context for wheelchairs. However, the original intention was to render the entire grid plane boundless. This decision was made to enhance understanding of the urban context, a topic that will be explored further in consideration of venue limitations, such as those posed by the heritage building.

Moreover, when using art objects to symbolize individuals with disabilities, it is important to consider incorporating characteristics that convey their unique experiences, such as wheelchairs. This is crucial because a complete understanding of disabilities cannot be achieved without taking into account their impact on urban environments. In this specific instance, using a wheelchair as an artistic object can accurately represent individuals with disabilities. The artwork combines various media formats, including audio elements, to convey the sound of wheelchair wheels traversing rough pathways. This symbolic representation highlights the difficulties experienced by wheelchair users while navigating urban settings. These elements are integrated and presented together in the venue to create a more immersive and dramatic experience.

Concepts for Creating Installations that Maximize Aesthetics Despite Venue Constraints

To achieve the desired outcome, it is crucial to consider the limitations imposed by the venue, particularly the constraints of the heritage building. These limitations may present challenges in terms of installing structures or integrating electrical systems. Therefore, as an artistic challenge, adapting the installation process to accommodate these specific conditions is essential to ensure feasibility and successful execution.

Nevertheless, the artist aims to create an imaginative environment that is both aesthetically pleasing and symbolically meaningful, allowing the audience to grasp the artist's message within the given constraints. The artworks emphasize both visual and auditory perception. To create a sense of boundless space within a confined venue of approximately 45 square meters, utilizing visualization techniques is essential. The key is to create an illusion of a cohesive and expansive space that conveys a feeling of endlessness urban context. Drawing inspiration from the work of Yayoi Kusama, a Japanese artist renowned for her infinity mirror rooms, it can actualize this concept by employing mirrored chambers featuring mirrored walls, ceilings, and floors. This arrangement generates the optical illusion of infinite space, providing viewers with a visually disorienting experience. Participants within space gain experience a sense of disorientation, transcendence, and introspection (Figure 3). The play of light, reflections, and patterns creates a mesmerizing and otherworldly atmosphere that blurs the boundaries between reality and illusion (Yoshitake, 2017).

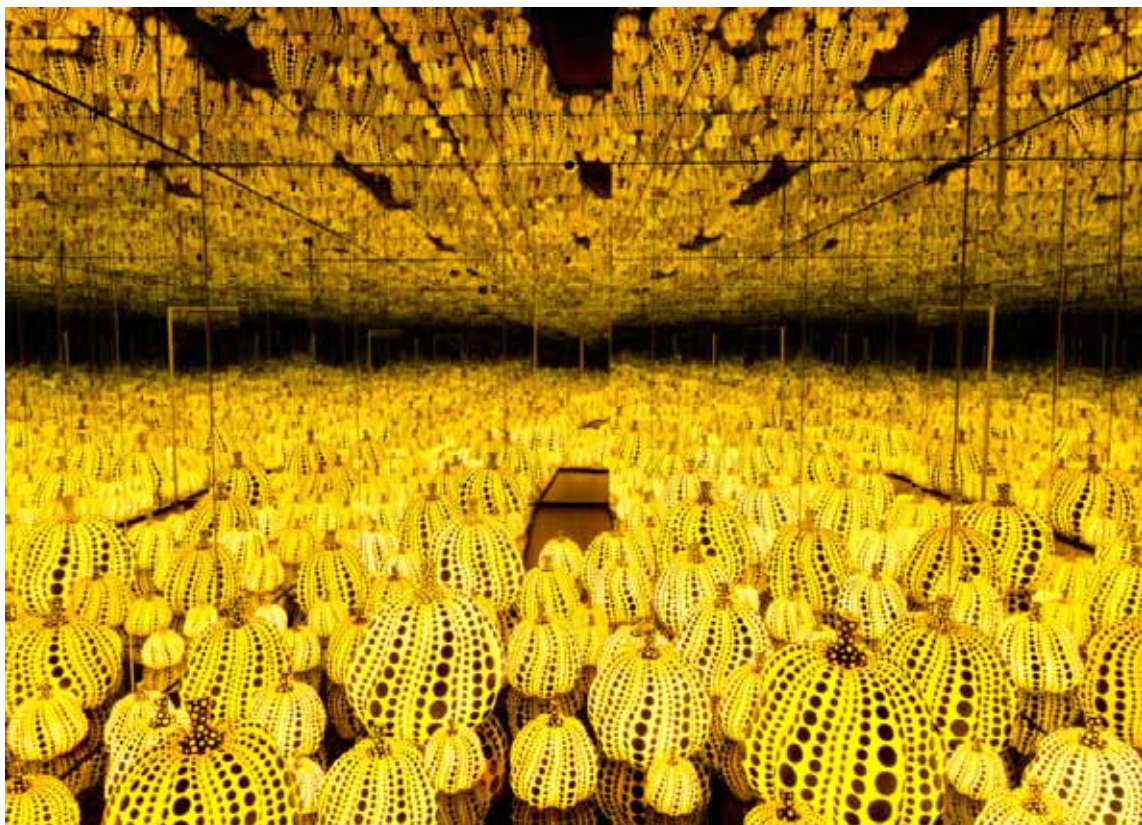


Figure 3. All the Eternal Love I Have for the Pumpkins by Yayoi Kusama (<https://high.org/exhibition/yayoi-kusama-infinity-mirrors>).

Furthermore, to create an aesthetic perception that increases attention through the illusion effect, the method of highlighting linear elements draws inspiration from Dan Flavin, an American artist associated with luminosity, vividness, and minimalism. Flavin's works generally used a simple fluorescent light tube to transform the exhibition space. His work provides a framework that fosters regularity, conceptual depth, and engagement with perception and architectural context. Flavin often incorporates linear patterns and grid struc-

tures into his installations, utilizing fluorescent light fixtures to create precise geometric arrangements (Figure 4). These structures may be suspended from the ceiling, mounted on the walls, or placed on the floor, depending on the specific requirements of the space (Govan, 2005).

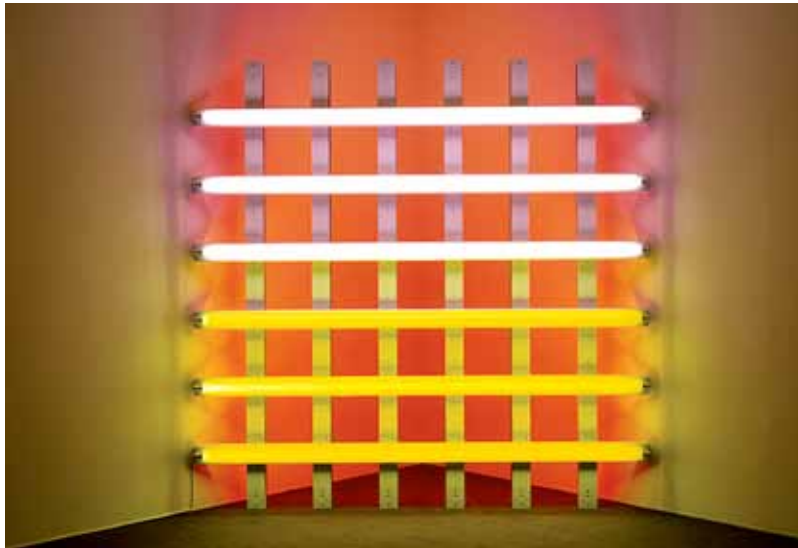


Figure 4. Untitled 2 by Dan Flavin (<https://whitney.org/collection/works/2364>).



Figure 5. The Crown. Glowing painting by Tom Bacher, (<https://www.cincinnatiarts.org/weston-art-gallery/exhibitions/detail/tom-bacher-per4ming-trans4ming-phos4scent-paintings>).

Considering the venue's constraints that prohibit the addition of extra electrical systems and outlets for illuminating grid patterns, the concept of luminous paintings that glow in the dark, as pioneered by American artist Tom Bacher, has been contemplated. Bacher's technique involves using phosphorescence and black light to create luminous paintings

within underexposed environments, resulting in unique luminescent phenomena as a form of artistic expression (Bianchi, 2020). Figure 5 provides an example of his work.

The Urban ThisAbility project has tailored certain concepts to accommodate the venue's limitations. The objective is to highlight the physical phosphorescent grid pattern and reflective effects that emit light in the dark and appear to expand infinitely, enhancing the visual impact. The artworks also integrate mixed media and audio elements to offer a contemporary artistic experience within the underexposed environment.

Thinking Process and Methods of Installation Works

The purpose of this section is to provide further elaboration on the thinking process that be obtained from principles and theories from the literature review, which will be presented in Figure 6. The procedure commences by taking into account the spatial context, followed by a summary of the conceptual framework and elements of the installations in the subsequent sections that operate by the following processes.

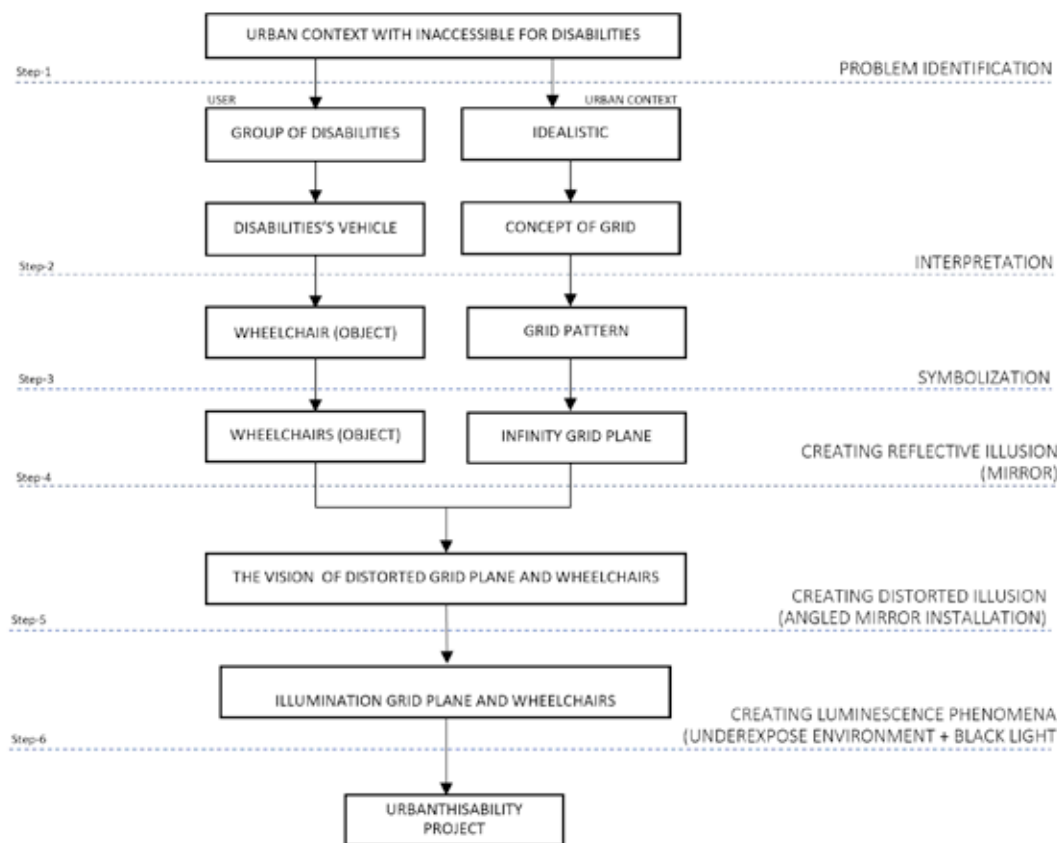


Figure 6. Diagram of the thought process.

- a) Considering spatial elements: The exhibition is hosted on the second floor of the Darunbannalai Children's Library, a heritage building situated on Charoen Krung Rd in Bangkok. The allocated space for the exhibition spans approximately 45 square meters (Figure 7). Given the constraints prohibiting modifications to the existing interior elements, temporary structures and movable elements have been utilized. The spatial organization adheres to a principle that considers the entrance area, circulation paths, projection positions, and installation areas.



Figure 7. Venue of Exhibition. Image courtesy of Pornrak Chowvanayotin.

- b) Clarifying the Grid Ideology, Idealistic Notion, and Interpretation: The objective of the Urban ThisAbility project is to transform the concept of idealism into a physically manifested grid pattern. These grid patterns are intentionally positioned on the ground plane, acting as a metaphor for an imaginary space that enables people with disabilities to navigate through. Within this context, the physical grid pattern represents an alternative ideal characterized by equality. In contrast, a distorted grid pattern represents an inequitable condition which individuals with disabilities face barriers to accessibility.
- c) Clarifying the Symbolism of People with Disabilities and Interpretation: Drawing from insights gained through the literature review, wheelchairs, which are spared from disabilities, are depicted as artistic objects that symbolized people with disabilities (Figure 8). These devices carry immense significance for this demographic, functioning as crucial tools for mobility akin to essential bodily organs. In addition to their artistic representation, wheelchairs serve a dual purpose by providing functional seating that enables active participation in mixed-media art mapping projections and auditory experiences.



Figure 8. Spared wheelchairs from disabilities as art object. Image courtesy of Pornrak Chowvanayotin.

- d) Creating an Illusion: The aim is to create an illusion of boundlessness and repetition by drawing inspiration from Yayoi's infinity mirror room concept, which enhances the perception of endlessness through grid patterns. To achieve this while considering venue

restrictions, movable mirror panels are utilized in the installation. These panels offer flexibility as they can be easily moved. Furthermore, angled installations of these movable mirror panels are integrated to generate a distorted grid plane pattern, effectively achieving the desired effect. The installation incorporates a repetition of wheelchairs from various visual perspectives. Furthermore, to safeguard the existing timber floor finish during the installation process, modular black-colored rubber carpets are used throughout the ground level.

- e) **Creating a Luminous Effect:** Given the venue's restrictions that prohibit the addition of new electrical systems, the concept draws inspiration from Dan Flavin's and Tom Bacher's approaches, particularly Bacher's use of phosphorescence in low-light environments. This concept focuses on incorporating grid linear patterns into the emitting element to achieve easy installation without relying on complex electrical systems. Utilizing 3M Luminous tape, grid-patterned surfaces are created on modular black-colored rubber carpets placed at ground level. This approach effectively enhances the visual impact by highlighting the grid patterns, creating a dramatic perception, and avoiding the need for intricate electrical setups. The installation process is depicted in Figure 9.



Figure 9. Luminous Tape on modular rubber floor and angled mirror panel. Image courtesy of Pornrak Chowvanayotin.

- f) **Enhancing Luminosity:** The integration of blacklight fluorescent significantly amplifies the luminous effect on the grid-patterned surface. This enhancement not only increases the brightness of the 3M luminous tape but also enhances the depth and intensity of the overall visual experience. The synergy between blacklight fluorescent and 3M luminous tape is critical for achieving the desired emitted effect, underscoring the importance of mockup lighting tests. These tests ascertain the specifications, brightness levels, and optimal height for blacklight fluorescent installation. A well-executed setup will infuse the entire venue with a captivating blacklight emitting effect. The outcomes of the mockup lighting test are illustrated in Figure 10.



Figure 10. Mockup lighting test. Image courtesy of Pornrak Chowvanayotin.

- g) **Manipulating the Interior and Lighting Environment:** Following the installation process from Dan Flavin, which needs to consider the atmosphere and ambience of the space. As part of this project, the venue illuminance is deliberately adjusted to establish an almost completely dark (Figure 11). Moreover, it also invisible the interior environment, a conservative Thai style, that is not related to the actual concept of the work. It makes this venue visible only in the installation context without any other disturbances. This deliberate adjustment effectively highlights the luminous grid-patterned surfaces and enhances their brightness and visual impact. This is achieved through the incorporation of blacklight fluorescent fixtures suspended from the existing central structure of the venue, as determined through mockup lighting tests.

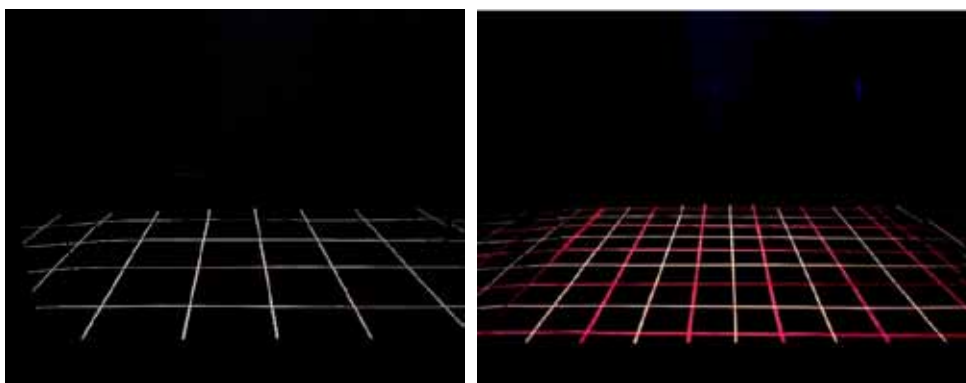


Figure 11. Mockup lighting test. Image courtesy of Pornrak Chowvanayotin.

- h) The final step involves installing the projector system, audio system, and customizing multimedia content to showcase mixed-media art within the arranged environment. A final check of all installation work will be conducted before the commencement of the event.

Results

The exhibition was held for nine days, from February 4 – 12, 2023 at the Darunbannalai Children's Library, the Publicity poster of Urban ThisAbility is illustrated in Figure 12, which has many supporters to assist. Upon analyzing the development based on grid concepts, idealistic principles, and symbolic interpretation, the art installation is depicted in Figure 13. It showcases a modular black-colored rubber carpet adorned with a luminous grid pattern, which is further enhanced by the use of luminous tape. Influencing with a black light fluorescent bulb which is installed in the center of the room to increase the emitting of luminosity, that has the exact installation position including ground clearance obtained from the mockup lighting test. This grid serves as a symbol representing the idealistic dimension and covers a substantial area within the room (Figure 14). Additionally, an angled movable Mirror Panel is strategically positioned to envelop the space, accompanied by strategically placed blacklight fluorescents at the center of the room. As a representation of disabilities, wheelchairs are centrally positioned on the luminous grid ground plane. The underlying concept of this art installation is to create a sense of repetition and a distorted perception of infinity through the interplay of luminous elements and reflection effects.

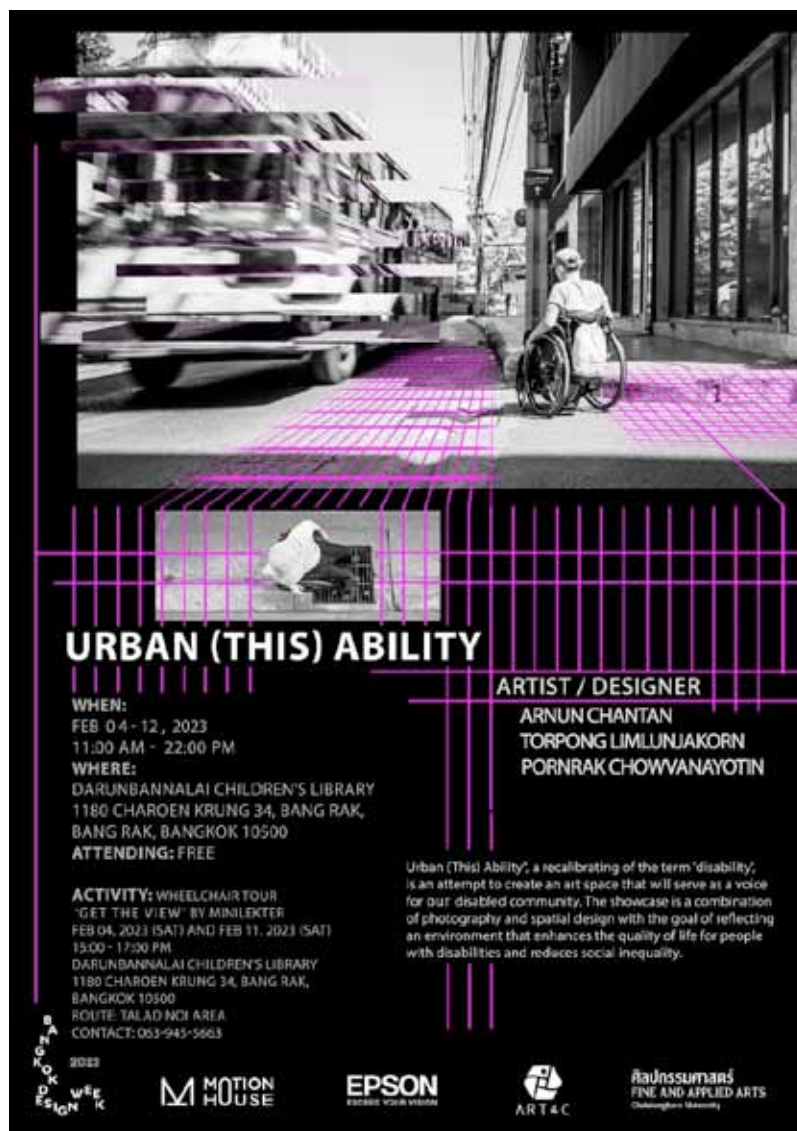


Figure 12. Publicity poster of Urban ThisAbility.

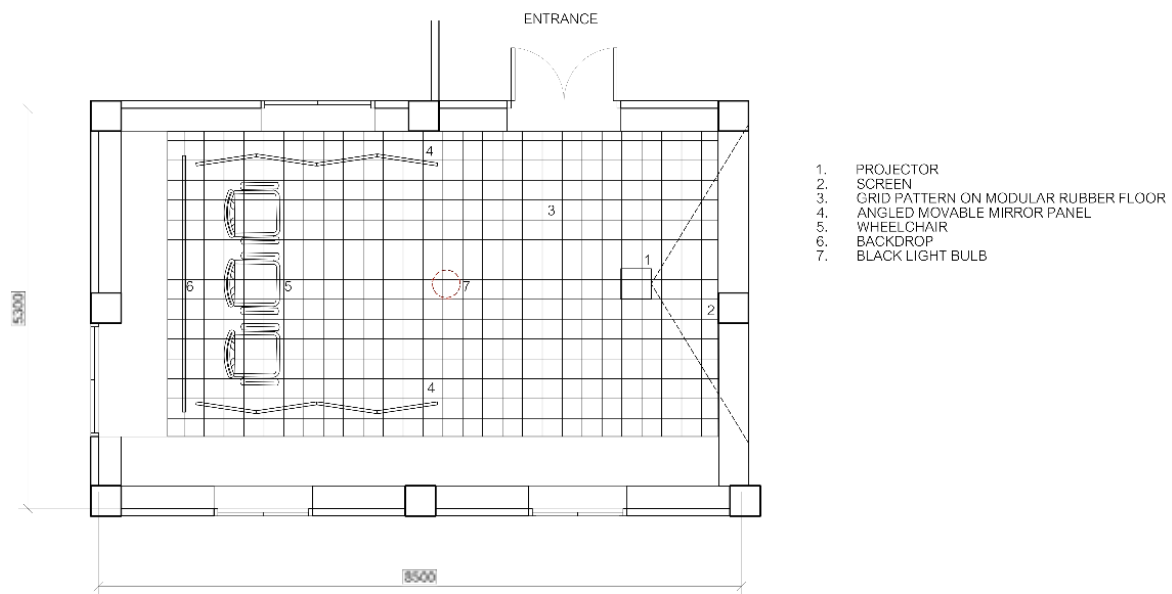


Figure 13. Installation elements.



Figure 14. Luminous grid pattern installations. Image courtesy of Pomrak Chowvanayotin.

With the interpretation of the concept, the space between the angled mirror panels is designed to represent an idealistic realm. The wheelchairs are positioned on a luminous grid pattern, enhancing the visual aesthetics. The visual reflections from angled mirror panels create a sense of disfigured repetition, showcasing the wheelchairs on the distorted grid pattern. Which symbolized the experience of individuals with disabilities in an inaccessible urban environment. The diagram symbolized of spatial interpretation indicated in Figure 15.

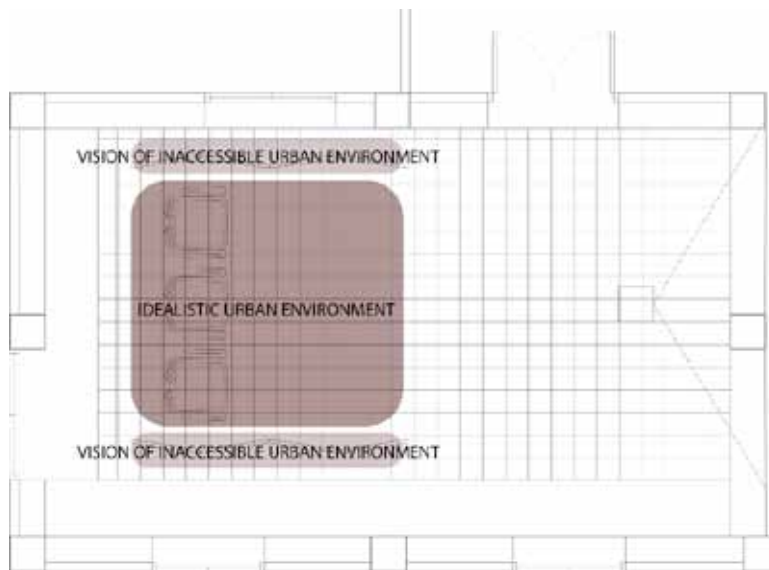


Figure 15. Diagram Concept of spatial interpretation.

During their visit, audiences have the opportunity to interact with the luminous effects, reflections, and illusions showcasing both general and distorted grid patterns in low-light conditions (Figure 16). Additionally, audiences can engage further by sitting on the wheelchairs, and participating in the mixed-media digital mapping installation accompanied by auditory elements representing the sound effects of wheelchair movement along rough pathways (Figure 17). This intentional design by the artists aims to create a dramatic expression and spatial artistic perception, using symbolism and interpretation to convey the concept of an ideal urban environment for individuals with disabilities. It's important to note that all installation elements are temporary structures with movability, designed to be dismantled without causing damage to the existing interior context (heritage building) after the exhibition, in compliance with venue restrictions.



Figure 16. Urban ThisAbility exhibition. Image courtesy of Pornrak Chowvanayotin.



Figure 17. Urban ThisAbility exhibition. Image courtesy of Pornrak Chowvanayotin.

Conclusion

During the exhibition period, there was significant audience interest in the art installation. The feedback can be summarized in various ways. Firstly, the installation was effective in raising awareness about urbanism and its impact on the disabled community. Secondly, it successfully conveyed symbolic interpretations and artistic expressions related to spatial perception. These insights were gathered through an online questionnaire 2 and interviews conducted to gather audience feedback after their participation. Additionally, in-depth online interviews were conducted with people from the disabled community through platforms like UrbanNice with ThisAbility's online interview session (Figure 18), providing valuable responses and perspectives on this event.

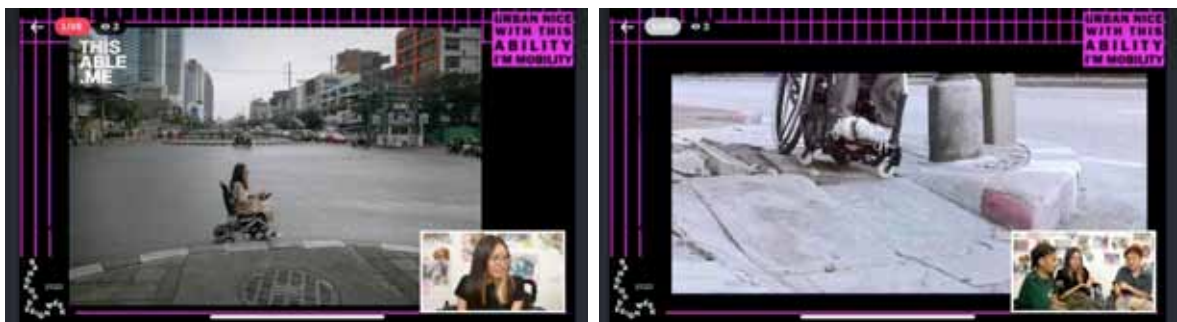


Figure 18. UrbanNice with ThisAbility – online interview session. Image captures by Pornrak Chowvanayotin.

- 1) The questionnaire on awareness of urbanism towards the disabled group collected feedback from the audience, including statements such as:
 - “Thank you for helping raise awareness for people with disabilities”
 - “Thank you for illuminating the daily life of people with special abilities”
 - “Society should have things that help support people with disabilities to cover all areas. the entire transportation system good sidewalk and rights that people with disabilities deserve”
 - “It is a work that reflects the difficulty of traveling for disabled people in the city”
 - “It's a good exhibition. It cultivates basic consciousness; the government sector should support and address this issue.”
 - “It's an event that emphasizes the importance of people with disabilities. It inspires me to look forward to seeing good design work for people with disabilities in the future.”

From that, feedback from an online questionnaire revealed that the Urban ThisAbility project received positive responses from the audience and was considered successful in raising awareness. Some feedback from participants indicates that they were left with a sense of responsibility for ensuring equal access to urban facilities for individuals with disabilities. Additionally, after experiencing the exhibition, the audience became more aware of the travel obstacles faced by people with disabilities in their daily lives. This awareness encourages audience members, students, designers, or artists to prioritize making urban spaces better for everyone, including people with disabilities.

2) The questionnaire on symbolism, interpretation, and artistic expression related to spatial perception collected feedback from the audience, including statements such as:

- “It's a very good exhibition. The requirements of disabilities are presented through modern media and aesthetics”
- “The exhibition communicates well. Conveys the difficulties of people with disabilities”
- “The work effectively communicates through textures, symbols, and spatial perception, employing modern artistic presentations that make it very attractive to participants”
- “The spectacular luminous effects and illusions were very enjoyable”
- “The works create a dramatic perception, especially the spectacular luminous grid pattern”
- “I'm very excited about the underexposed environment with reflections and luminous emitting on the ground, providing a good artistic experience”

These responses indicate that the installation effectively communicated its concept to the audience, who fully understood the artist's intended message. The exhibition successfully portrayed both idealistic and non-idealistic perceptions within space constraints using symbolism and interpretation. Additionally, the artistic presentation in modern media and aesthetic spatial design resonated well with the audience, translating abstract concepts into grid-patterned graphics highlighted by luminosity to create a dramatic perception.

In addition, Chowvanayotin (2019) pointed out, “Art has undergone a shift in its focus, moving beyond the mere object and emphasizing the broader value it carries. The concept of art has surpassed its physical form, enabling the creation of works that delve into the realms of limitless thought and unrestricted space.” This discourse provides strong encouragement for the idea presented in this article.

3) The responses from people with disabilities towards this work.

The responses from people with disabilities regarding this work were gathered through in-depth interviews with participants who had experienced the exhibition. From an artistic perspective, while their knowledge may be at a general level, they could understand the message conveyed by the artwork and enjoyed the glowing grid graphics in the exhibition area. Additionally, they expressed happiness that the exhibition brought attention to the challenges of travelling in the city by wheelchair, highlighting the in-

adequacy of urban facilities for their daily lives , which are often overlooked by society.

This sentiment aligns with the event's concept as articulated in an initial interview with Arnan Chantan, one of the exhibitors and an enthusiastic disability activist. He expressed the key message of the event: 'People with disabilities are not a burden, but the lack of facilities and circumstances in urban areas make people with disabilities feel burdened.' This artistic challenge aims to use art as a tool to raise societal awareness about the challenges faced by individuals with disabilities.

Finally, this article aims to provide valuable insights for young artists and architects, helping them understand the process of design thinking and how to translate abstract concepts into tangible installation elements. It serves as a practical guideline and reference for installation works that must navigate limitations and adjust methods while retaining the intended message. The Urban ThisAbility project aspires to be a voice for advocating and stimulating improvements in living environments for people with disabilities in the future.

Acknowledgments

I am grateful to all of those with whom I have had the pleasure to work during Urban ThisAbility projects. Thank you Pornrak Chowvanayotin, Arnan Chantan for the inspiration, and for contributing their time and effort to this project. Moreover, the 3rd year group of students from the faculty of fine and applied art, Chulalongkorn University, that have assisted in this exhibition willingly.

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Endnotes

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- 2 <https://padlet.com/pornrakc1/urban-this-ability-sharing-your-experience-nyj086tfvk1xwu0c?fbclid=IwAR1qFNsm6yETeFcXsQ4KB1XCdiumv1D80Lr053dNL2jwocQgHbkOW9231A0>.

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Krung Curatorial Practice and Creative Sustainability for Ethnic Music of Mountainous Villagers in Nan Province

Pornprapit Phoasavadi* (Thailand)

Abstract

The objective of this project is to explore the collaborative methods in preserving the wealth of *krung*, one of musical resources in Nan province. The curatorial and collaborative methods engaged with the process of developing plans together with artisans, testing the model with stakeholders, adapting to learn the lessons and mistakes in the field, and to implement a longitudinal activity to integrate cultural and biological ecology. Active agents are the only two instrument makers in the village who possess local wisdom of plant identification, wood cutting, forest hiking. Stakeholders are the local administration of the village, local organization of water management, district administration, educational personnel, and high school students and teachers. The model included meetings, forest survey, collaborative design for a workshop, an instrument making workshop by backward design thinking process, musical instrument design and a student presentation.

Keywords: *Krung, Creative Sustainability, Curatorial Practice, Ethnic Music, Nan, Thailand*

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Introduction

Krung refers to a set of bamboo musical instruments associated with the *Khamu* ethnic group in Nam Sod village, Thung Chang district, Nan province, Thailand. The *Khamu* is a small hill tribe group located in northern Thailand, particularly in the border area of Chiang Rai and Nan provinces, which also extend to Laos. Phoasavadi (2008) conducted a study on the ethnic music of the *Khamu* in Nan province identifying Thung Chang district is one of their primary residences. According to Phoasavadi's findings, *krung* is the sole musical instrument used by the *Khamu* in this village. This instrument is crafted from five different types of bamboo grown locally.

In a subsequent study, Inthanivet (2024) focused on the *Khamu* community in Chiang Rai. His research indicated that the *Khamu* in Chiang Rai utilized a set of bamboo instruments, yet the *krung* was notably absent from their repertoire. Buppacharoen (2024) corroborated these findings, stating that the *Khamu* in Chiangrai were unfamiliar with the *krung* and have never played it. However, they were aware of a *Khamu* community in Nan province and had established a network of *Khamu* communities across Thailand. Instead of the *krung* the Chiang Rai *Khamu* played a different set of bamboo instruments, including the *tornl* (bamboo tube), which was often combined with the *kinltong* (bamboo rack), *shunl* (bamboo flute), and *lhong* (mouth harp).



Figure 1. Four types of *krungs*.

A set of *krung* comprises of four distinct types of bamboo rods, sourced from the lush forests bordering streams in Nan province. Consequently, these bamboo musical instruments not only embody cultural significance but also act as barometers of the forest's richness. The very existence of *krung* hinges on the thriving ecology of the forest, as each bamboo variety required for its construction thrives within an environment teeming with biodiversity. Thus, the presence of *krung* signifies not only musical heritage but also the vitality of the

surrounding ecosystem, where the bamboo grows abundantly amidst the natural splendor of Nan province's deep forests. Each size of *krung* is assigned with their names in descending order. Four types of *krungs* are named as follows:

1. *Mae* means a mother.
2. *Tam Mae* means to follow a mother
3. *Sam Kam* (right side) means to call three times, which stands on the right side of the mother.
Sam Kam (left side) means to call three times, which stands on the left side of the mother.
4. *Khei* means the male in-law or the daughter's husband.



Figure 2. A bamboo grove growing along a stream in a deep forest of Nan province.

The typical length of a *krung* is approximately 31.5 cm. Various components of the *krung* are metaphorically associated with the human body, suggesting that the Khmu people have embodied their worldview and lifestyle within this musical instrument. The upper section of the *krung* is referred to as the "head," with its bamboo surface meticulously scraped to create a fringe. The two rods that extend through the head are termed the "upper eyes" (Ta Bon) and the "lower eyes" (Ta Lang), while the lower section is called the "foot" (Teen). The *krung* is constructed from five types of bamboo sourced from Ban Nam Sod village in Nan Province. These bamboo types include *Bong* bamboo, *Khao Lam* bamboo, *Rai* bamboo, *Hia* bamboo, and *Lo* bamboo.



Figure 3. *Krung's* fringe (hair) made by scraping the bamboo.

The five kinds of bamboo used are as follows:

1. *Bong* bamboo is used to make wedges and bamboo strips.
2. *Khao Lam* bamboo is used to make the bottom part or foot (Teen).
3. *Rai* bamboo is specifically used to craft the core stem that is inserted into the *krung*, which produces sound when the instrument is shaken.
4. *Hia* bamboo is used to make the body and the head of a *krung*.
5. *Lo* bamboo is used to make a leg of *Krung*
(La Paopa, interview, February 5, 2024)

Mae (left side) produces the note that approximately equal to B in the Western diatonic scale.

Mae (right side) produces the note that approximately equal to E in the Western diatonic scale.

Tam Mae (left side) produces the note approximately equal to C in the Western diatonic scale.

Tam Mae (right side) produces the note that approximately equals G in the Western diatonic scale.

Sam Kam (left side) produces the note approximately equal to D in the Western diatonic scale.

Sam Kam (right side) produces the note that approximately equals A in the Western diatonic scale.

Khei (left side) produces the note approximately equal to C in the Western diatonic scale.

Khei (right side) produces the note approximately equal to F in the Western diatonic scale.

The *krung* is played by shaking it up and down, causing the sound stem inside to strike the closed lid above, producing a bass, soft sound. The bamboo internode functions as a sound box. Each *krung* produces a single musical note, and different sizes of *krung* yield different notes. Crafting a *krung* requires skill to identify each type of bamboo grove growing along a stream in a deep forest of Nan province, particularly in estimating the size of the sound stick inserted into the bamboo internode to achieve a pleasing sound.

Regarding the songs of the Khmu people, it has been observed that in Ban Nam Sod, only one song remains. This song is performed by an ensemble in which every *krung* participates equally, with no single instrument playing the main theme. Instead, the melodies and rhythms are distributed among the *krungs*, ensuring each has an equal role. The melody of the "*Mae Krung*" instrument encompasses every rhythm of the full melody but is not considered the main theme. The other *krungs*, namely "*Tam Mae*," "*Left Sam Kam*," and "*Right Sam Kam*," do not play melodic variations but adhere to the regular melody of the entire song. The musical notes of the *krung* song are recorded using the traditional Thai musical notation system, encompassing eight bars, as follows:

To play *krung*, both left and right hands are shaking simultaneously according to their *krung*'s ranks which are represented with signs as follows:

<i>Mae</i>	approximately close to the pitch A in the Western diatonic scale = 6 in Krung notation
<i>Tam Mae</i>	approximately close to the pitch B in the Western diatonic scale = 7 in Krung notation
<i>Sam Kam</i>	approximately close to the pitch C in the Western diatonic scale = 1 in Krung notation
<i>Khei</i>	approximately close to the pitch D in the Western diatonic scale = 2 in Krung notation

	Intro	1 st Beat	2 nd Beat	3 rd Beat	4 th Beat	5 th Beat	6 th Beat	7 th Beat	8 th Beat
Mae	--- 6	--- 6	--- 6	--- 6	--- 6	--- 6	--- 6	--- 6	----
Tam Mae	----	----	--- 7	--- 7	----	----	--- 7	--- 7	----
Sam Kam	----	----	----	----	--- 1	----	--- 1	- 1 --	----
Khei	----	----	----	----	--- 2	----	--- 2	----	--- 2

Figure 4. Notation of *Krung* rhythmic patterns. Note: The strongest beat falls on the fourth beat of each bar.

This component of a set of *krung* reflects the importance of a woman in the household. In many cultures, the woman plays a pivotal role in maintaining the household's harmony, unity, and well-being. As such, her significance is often commemorated through a specific item or symbol within the *krung*. This component serves not only as a tribute to her contributions but also as a reminder of the essential role she plays in the family dynamic. One common representation of the woman's importance in the household is through an intricately crafted figurine or sculpture. This figurine might depict a mother figure engaged in various activities that are central to her role within the family. She could be shown cooking, nurturing children, or engaged in other domestic tasks that highlight her nurturing and caregiving role.

The placement and prominence of this component within the *krung* further emphasize the woman's significance. Positioned at the heart of the set, it serves as a focal point, symbolizing the central role she occupies within the family structure. This placement not only acknowledges her importance but also reinforces the idea that the family's well-being hinges on her efforts and contributions. The significance of this component goes beyond the confines of the household. It reflects broader societal values regarding the role of women in family life and community cohesion. By acknowledging and valuing the woman's contributions within the domestic sphere, the *krung* reinforces the importance of gender equality and respect for women's roles in society. In essence, the component of the *krung* that reflects the importance of a woman in the household serves as a tangible expression of reverence, gratitude, and acknowledgment for her pivotal role in shaping the family's identity and well-being. It stands as a testament to the enduring influence and significance of women in nurturing, sustaining, and enriching the fabric of familial and cultural life.

Objectives

The aim of this study is to examine the collaborative strategies for the preservation of the rich musical heritage of *krung*, a bamboo musical instrument in Nan province in the norther part of Thailand within the context of cultural sustainability. This investigation encompasses a multi-faceted approach that involves the identification and confrontation of pertinent issues through cooperative engagement with key participants. This includes the development of strategic plans in conjunction with local artisans, the empirical testing of proposed models with concerned parties, and the iterative process of learning from both success and failure in practical applications. The ultimate goal is to establish a long-term initiative that harmonizes cultural practices with the principles of ecological conservation.

Location of *Krung* Music Culture

From the interview with Mr. Somkiat Kalasod, the headman of Ban Nam Sod, Moo 12, Lae Subdistrict, Thung Chang District, Nan Province, it can be concluded that Ban Nam Sod Village was founded in A.D. 1871. In this area there was a kind of bamboo grove growing up from the stream's bed, giving the name Ban Nam Sod ("Nam Sod" means shoot up from the water). Later on, people from different places came to settle in Ban Nam Sod which included people from Phu Phiang District who escaped the outbreak of leprosy; the fam-

ily Paopa from Phu Kham; Thin ethnic people from Ban Phae Klang who came in A.D. 1972; Hmong ethnic people from Lao People's Democratic Republic who escaped from Communism. In 2024, Ban Nam Sod comprised of two villages, a community of three ethnic groups of people. Hmong in Moo 8 village and Khmu and Thin in Moo 12 village altogether there were more than 1,100 people (Kalasod, Interview, January 2, 2024). According to the Official Statistics Registration System, in 2023 the population of Lae sub-district consisted of 1,313 houses with the total population of 3,664.

Male	Female	Total population	Number of Households
1,772	1,892	3,664	1,313

Figure 5. Statistics of Population in Lae sub-district, Thungchang district, Nan province.
Source: https://stat.bora.dopa.go.th/new_stat/webPage/statByYear.php.

The primary local experts involved in this project are the only two instrument craftsmen from the Lae village, who held specialized knowledge in the areas of plant identification, timber harvesting, and navigating the forest terrain. The broader spectrum of stakeholders encompasses the village's local government, the water management organization, district-level administrators, educational staff, secondary school educators, and a researcher who fulfills roles as both the project coordinator and the author of this article.

Ritual and Beliefs of The Khmu Ethnicity in Ban Nam Sod Village

Khmu people lived in the watershed forest of Nan Province, especially Ban Nam Sod, Thung Chang Subdistrict, Thung Chang District which is an important water resource in the Project of Watershed Forest Conservation of the Department of Forestry. Somkiat Kalasod, the village headman of Moo 12, Lae Subdistrict, Thung Chang District described as follows:

The rituals concerning sacred spirits and the respect of hill and forest gods help promote people to join in the conservation of forest areas and are far more effective than the modern campaign. Khmu people respect the forest, especially the watershed one which they consider more sacred. Consequently, the forest area of Ban Nam Sod is still abundant. The villagers of Ban Nam Sod are encouraged to live their original lifestyle and their cultural activities are supported to help educate the younger generation in conserving and cherishing their watershed forest (Kalasod, Interview, December 23, 2023).



Figure 6. A Khmu woman Dress.

According to the data of the Committee for Document and Archives Processing in the Organizing Committee for the Celebration in Honor of His Majesty the King Bhumibol Adulyadej (2002:2), it is found that Nan Province has faced the problems of severe deforestation. Nan's forest area has decreased from 7.1 million rai (71.15% of the land area of Nan Province) in A.D.1970 to 3.27 million rai (45.66% of the land area of Nan Province) in A.D. 1993 which means the deforestation rate is 50,000 rai each year and the forest area of Nan Province may be all destroyed in 61 years. As a result, the watershed forests in Northern Thailand decrease rapidly and can be the cause of severe natural disasters in the future.

The Khmu people at Ban Nam Sod, Thung Chang District, believe in sacred spirits who dwell in nature. Hence, before doing any activity concerning nature, the guardian spirits need to be informed. The spirits of ancestors and the guardian spirits of the fields need to be worshipped with offerings such as pigs, liquors, and rice. In Ban Nam Sod, there live 3 ethnic groups, Khmu, Thin, and Hmong, each has its language and dressing style, but they cooperate to organize the annual worship of spirits, one of the important rituals of Ban Nam Sod.

There are 3 kinds of spirits according to the belief of people in Ban Nam Sod:

1. The house spirit, called "Oy Klang" in the Khmu language, is the ancestor guardian spirit of a house.
2. The village spirit, called "Oy Kung" in the Khmu language, is the guardian spirit of a house group or "Khoom" of 2-3 houses.
3. The all-spirits, are called "Oy Num" in the Khmu language. In an annual ritual worshipping the all-spirits, all people in the village come together with offerings of pigs, flowers, incense sticks and candles, and savory and sweet dishes.

According to the beliefs, if any villager does something wrong, such as committing adultery, the spirit will make a warning to someone else in the village, making him sick. The family of the sick one will go to ask the village shaman about the cause of the sickness and the preferred food of the house spirit, and then make the offerings.

The rituals of the Khmu people include:

1. The Oy Num ritual, the annual worship of spirits
2. The Su Khwan blessing ritual
 - 2.1 The Su Khwan blessing ritual for buffaloes. In the past, farmers of Ban Nam Sod used buffaloes in a field plowing and they may sometimes scolded and beat the animals. Consequently, the ceremony is held to apologize to the buffaloes with offerings of savory and sweet dishes.
 - 2.2 The Su Khwan blessing ritual for rice. The ritual means to call the rice spirit to dwell in the barn with offerings including banana shoots, sugar cane shoots, flowers, incense sticks and candles, betel nuts, savory and sweet dishes.

- 2.3 The Su Khwan ritual for the sick. The ritual is held when a sick person is prophesied that his sickness is caused by the loss of his *Khwan* or guardian spirit. In the ritual, the sick person's clothes, a banana, a lump of cooked rice and a boiled egg are prepared to invite the spirit from the area it is supposed to drop, back to the sick man's house. When the shaman arrives at the sick man's house, he will ask whether the *Khwan* has already returned, and the answer must be yes. Then, a tray of offerings to welcome *Khwan* are set up which include two cooked chickens, a bottle of liquor, flowers, incense sticks and candles, and savory and sweet dishes. The shaman, relatives, and elderlies come to bless better health upon the sick man and pray for his *Khwan* to remain with him. After the ritual, the food offerings are shared in the thank you party.

The New Year ritual is performed on Songkran day, called Phaya Wan in the North, which is believed to be the day when stars have strong power. In the ritual, the village headman and the shaman prepare a tray with incense sticks, candles, and talc, and a bucket containing water infused with pods of Sompoi (acacia concinna) and floated with scented flowers. The scented water, considered sacred water, is to be poured on the hands of revered elders, asking for their blessing and apologizing for any offense to them including giving them gifts. The elders will bless the villagers with happiness and well-living. The ritual is completed after the village headman thanks all participants in the ritual.



Figure 7. The New Year Ritual.

The New Year ritual is performed on Songkran day, called Phaya Wan in the North, which is believed to be the day when stars have strong power. In the ritual, the village headman and the shaman prepare a tray with incense sticks, candles, and talc, and a bucket containing water infused with pods of Sompoi (acacia concinna) and floated with scented flowers. The scented water, considered sacred water, is to be poured on the hands of revered elders, asking for their blessing and apologizing for any offense to them including giving them gifts. The elders will bless the villagers with happiness and well-living. The ritual is completed after the village headman thanks all participants in the ritual.

Cultural Resources for Krung Studies

I returned to meet with the former head of the village, Somkiat Kalasod in order to re-connect with the last two *krung* makers in the village, Master Som Paopa and Master La Paopa. In order to quickly safeguard the knowledge of the process of making *krung*, I also arranged with Somkiat Kalasod to coordinate with the male farmers in the villagers to set up a team and go into the forest to cut bamboo. Then, I followed the group to select the dates to cut the bamboo and followed into the forest in order to observe how to select, cut, and transport the bamboo back to the village. During the process of making the *krung* in the village, I asked permission to film the process of making the *krung*, interview the process and the parts of *krung*, and plan the workshop of *krung* making together with two masters in order to prepare a *krung* workshop for 20 high school students at Thung Chang school in Nan province.

The three masters in the village for an interview are as follows:

1. Somkiat Kalasod, the headman of Ban Nam Sod, resided in Ban Nam Sod, Lae Subdistrict, Thung Chang District, Nan Province. Somkiat Kalasod can speak Thai, Lanna, Khmu, Thin, and Hmong languages, and is so efficient in management that the villagers of all ethnicities entrust him to be their village headman. His duties include taking care of villagers' welfare, managing the village's affairs and cooperating with government units in watershed forest conservation, watching over the flash floods and forest fire, presiding in the annual ritual of spirits sacrifice, and supporting and promoting the cultural heritages of Khmu and Thin ethnics, enabling them to survive and be accepted as people of Nan.



Figure 8. Somkiat Kalasod.

2. Som Paopa is a master of making *krung*. He is married to Ms. La and has 4 daughters. All his family members are music artists except the 4 daughters. His main occupation is farming. Wishing to inherit the musical knowledge from his father, Phor Khru Som Paopa has learned to play *Krung* with his father since he was 17 years old until he mastered the *Krung* playing. Before learning, a ritual to sacrifice to spirits was performed.

3. The third person is a *krung* maker who lived in the Nam Sod village. La Paopa was born on November 17, 1947, at Ban Nam Sod, a son of Mr. Noi and Mrs. Nang. He is married to

Ms. Noi and has a son and two daughters. His family members work as farmhands. La Paopa is skillful in making a *Krung*. Learning to play *Krung* is a tradition passed on for a long time within his family and relatives. At the age of 18, Phor Khru La began *Krung* learning with Khru Ping Paopa, his first teacher, at Ban Phu Kham, Thung Chang Subdistrict. Phor Khru La has learned the knowledge of making *Krung* with Khru Ping by rote.



Figure 9. Left, Som Paopa. Right, La Paopa.

The Ritual and Beliefs Concerning Krung

The *Khmu* people believe that each piece of bamboo that is used to make *krung* represents Phi Fah (the celestial spirit), the greatest spirit. To cut the bamboo for *krung* making begins one day before the cutting with the ritual of informing the spirit of the house. The next day, men are called to help cut bamboo in the forest. Since women are not familiar with the tools and the cutting process, only men are allowed to cut the bamboo. Cutting bamboo in the wrong way may result in the sound of *krung* deviating from the desired property (Som Paopa, interview, March 8, 2024).

Four to five *Khmu* men started their bamboo cutting trip at 7.00 a.m. and carry their cuttings out around 10.00 a.m. The men needed to know the characteristics of bamboo. They counted to the 2nd internode above ground and cut under the node ring. The bamboo was cut more than the quantity needed in case of any mistake happened during the *krung* making.

According to Phoasavadi (2018), La Paopa explains that having finished the bamboo cutting, the *krung* making process begins on the same day, first with *krung's* head. An internode of bamboo was cut, and its outer skin was scraped out and slit into long strips with a knife to make *krung's* head and hair. Then, its handle was made, and ropes were tied around. Shafts (called Ta meaning eye) were inserted. Then, a sound stick was inserted in the internode, and lastly; a foot (Teen) was assembled at the lower part of *krung*. The size of *krung* is not

fixed but depends on the size of bamboo acquired. However, its shape is built as has been inherited from *Khmu* ancestors. As for the musical note tuning, Phor Khru La Paopa used the method of shaking the *krung* and listening to identify the right note by his 40 years' experience in making *krung*. If it cannot produce sounds that were loud enough, the *Krung's* foot (Teen) needed to be changed. The making of *Krung* must be completed in one day, adding three days for sound testing by shaking it every night until its sound became stable and ready to be used. *Krung* was played in the field and during the transportation of rice products. *Krung's* makers believed that the house guardian spirits were needed to be informed when *krung* is made.

Curatorial Practice of *Krung* Musical Instruments

On March 9, 2024, a six-hour workshop took place in a music classroom at Thung Chang district school, catering to twenty students. Initially, the atmosphere lacked enthusiasm as there wasn't ample time to establish rapport with the students. However, I endeavored to engage them by sharing my personal journey with the *krung* since 2011. During my introduction, I showed photos of my 2011 journey and videos of making *krung* and a demonstration of *krung* ensemble. This video was made together with a group of relatives of Som and La in 2011 in order to record how to shake the five *krungs* together.

The year 2011 marked my introduction to the *krung* and my encounter with Som and La, the skilled *krung* instrument makers from Ban Nam Sod village. Witnessing their intricate craftsmanship, the complex process of crafting the instrument, and the quest for five types of bamboo left a profound impression on me. Returning to Ban Nam Sod reaffirmed the stark reality of the diminishing musical heritage within the village. Assisted by the Chulalongkorn University staff in Nan province and local villagers, bamboo was cut on March 7-8, 2024 as a preparation for the workshop. According to La and Som's design, bamboo was cut into four pieces in order to facilitate students to learn how to make the *krung* during the workshop faster. The students will learn how to assemble parts of the instruments, if they were not able to use the knives by themselves. The students were organized into four groups. Following my account of my journey in 2011, I extended an invitation to Som and La to join the workshop at the school. I sent a van to pick La and Som from their houses in Ban Nam Sod village which were about 15 minutes from the school. They arrived with their knives. They told me that they would lend their knives to students during the workshop. They would let the students to work on the bamboo with their knives to make the hair of the *krung* top part. Both La and Som arrived equipped with their traditional knives called "pra ngok" – sharp knives featuring a curved metal tip. Mastery of this knife demanded advanced skill to hold the grip; it served not only for cutting bamboo but also for safeguarding against wildlife and snakes while traversing the forest in search of bamboo along the stream.

After students were divided into four groups, they were led to pick up pieces of bamboo on the tables. They were seated on the floor with bamboo rods in front of them. La and Som were comfortable to lead the workshop. I asked if I could lead the students to shake the *krung* first after they first heard the sound of *krung* from the video I had shown at the beginning of the workshop. The students then learned that the instrument was actually

quite heavy and this may be the reason for a village takes turn to play bamboo during the rice harvest ritual. Apart from participation, it is labor distribution of music sharing that students learn from the workshop.

The instrument makers from the village was able to lead the workshop adamantly. The former head of the village also helped the two instrument makers explained students how to make the instrument, how to cut the bamboo, and how to hold the bamboo. One student did not listen to the instrument when the instrument maker asked the student to tight the top of the bamboo with the thin slides of bamboo strings. The instrument maker explained that the bamboo string would hold the bamboo together and prevent them from cracking. Suddenly, the bamboo cracked after a few minutes. The students asked more questions to the instrument makers while they were learning how to make *krung* from the instrument makers.

Later, the female members of each group began to design their new instruments based on an inspiration from the workshop, the lecture, and the interactions with *krung* instrument makers. The first group named their new instrument *ma-ka-rung*; they named their instrument after *krung* and took a name after a maracus. Other new designed instruments include *samarugy* & *samarugoh*, *nong bong*, and *klong kreub*. Students learned how to design a musical instrument that is made of bamboo and each contains a sound box. After designing an instrument, students gave a name to their new musical instruments and gave a presentation of inspiration and outcome. They included their local seeds such rice seed, corn seed, and nuts. The new design of these instruments based on a *krung* workshop will be realized into an actual instrument. The new musical instruments will be incorporated in their folk song band later on when the next semester starts in June. The following photos show the design by four groups of students in Thung Chang district after a workshop.

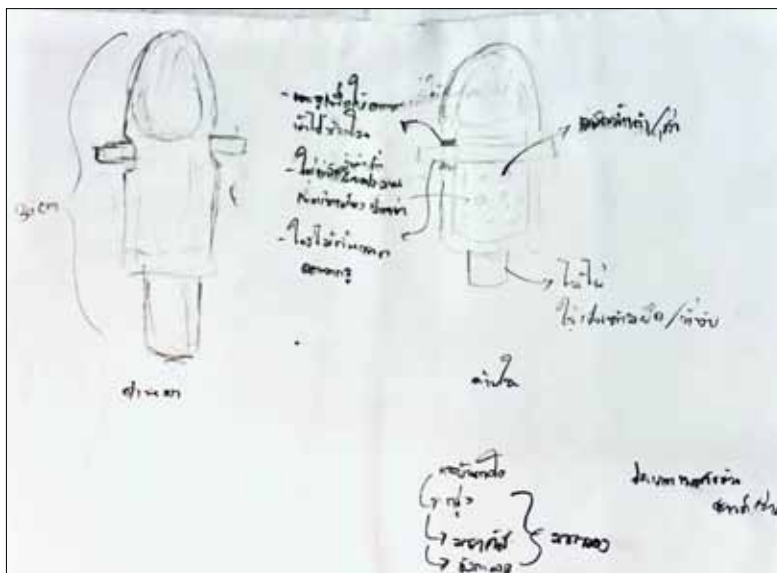


Figure 10. A design of a new musical instrument named *ma-ka-rung*.

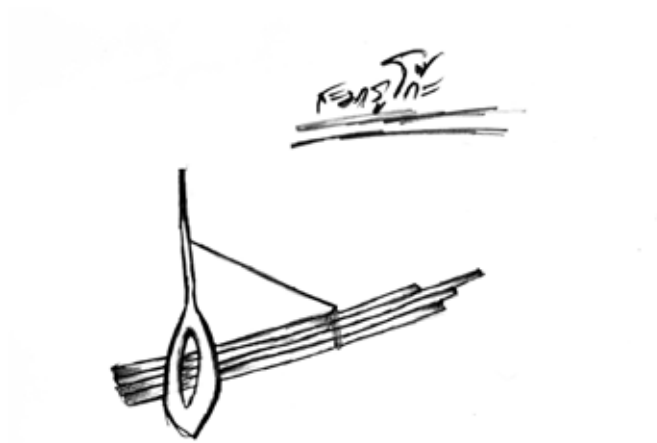


Figure 11. A design of a new musical instrument named *samarugoh*.

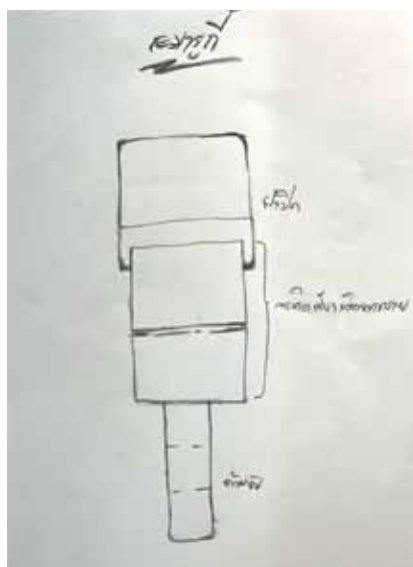


Figure 12. A design of a new musical instrument named *samarugy*.

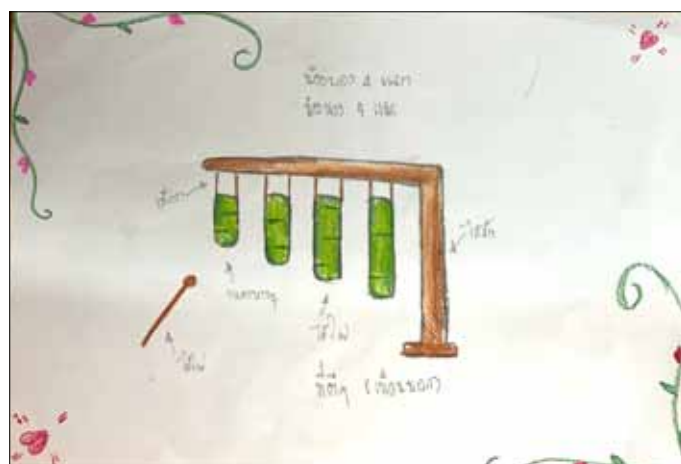


Figure 13. A design of a new musical instrument named *nong bong*.



Figure 14. A design of a new musical instrument named *klong kreub*.



Figure 15. Four *krungs* made by four groups of students in a *krung* workshop.

Assisted by Som, La, and Somkiat, the students swiftly crafted four *krung* instruments. Although the results did not produce optimal sound quality and the instruments were not in pristine condition, the students took pride in their intricate bamboo creations. Each *krung* presented unique challenges: the first lacked hair, the second had an incorrect foot size resulting in an additional foot attached to the body, the third was too high, and the fourth boasted the curliest hair. None of the groups managed to complete the feet properly; the first two groups used bong bamboo instead of the correct *tao* wood. It was only the third and fourth groups that employed *tao* wood or Siamese pom-pom tree (*Mallotus barbatus* Müll. Arg.) for the feet, as advised by La Paopa and Som Paopa. They explained that only *tao* wood could impart the desired mellow and deep tones to the *krung*, emphasizing its superior quality for crafting these traditional instruments.

Continuation of The Krung Workshop

An initiative was discussed among the community leaders after the workshop. The school will set up the *krung* club for high school students which they realized the importance of their bamboo instrument. Their hand-on experience after the process of making and learning with the instrument makers made them realized that the bamboo instrument is an important tool to safeguard their cultural and biology ecology system. To safeguard their cultural legacy, intergenerational knowledge transfer, and the reinforcement of communal bonds. *Krung* are integral aspects of their cultural identity and heritage. The school director expressed that the *krung* will be re-introduced to the school's rice harvest season. This is to re-contextualize the instrument from the original context of village ritual of rice harvest to a school edition of rice harvest. The workshop created a platform for an instrument to function ritually as the rice farmers cut the bamboo to celebrate the first harvest and to thank the rice goddess for yielding and protecting the crops from natural damages such as storms, rain, flood, and animals. The former head of the village stated for the reason of the cease of the musical instrument disappearance from the rice harvest ritual:

We do not play this instrument during the harvest anymore. We stop because the villagers no longer grow rice. They grow other types of crops that are more commercial easy to grow such as corns. Moreover, it is also difficult to find all five types of bamboo in order to make the instrument (Kalasod, Interview, March 8, 2024).

Another villager in Lae sub-district also pointed out that he recalled the ritual from his childhood. He continued to tell from his childhood memory of *krung* and its function during the rice harvest ritual as follows:

People would come around the piles of new rice after the harvest with the instrument. Each member of the village knew how to play the instrument. They would gather around the rice and celebrate by shaking the bamboo instrument in different rhythm. Men and women in the village will then take turn to shake the bamboo instrument on the rice field. Then, they would move the rice to be kept inside of the rice barn. Then, there would be another round of shaking the instrument around the barn in the village again one more time (Lekchai, Interview, March 10, 2024).

Apart from this rice harvest ritual context, the villagers had described an occasion when they held the bamboo instruments to make the sound of *krung*. However, it was not for the ritual but it was designed for the annual festival in Nan province to display cultural diversity comprising of cultural show from various ethnic groups living Nan. Although such venues may not appropriate to the original context of the bamboo, it served as a continuation

of the living spirit of *krung* and the instrument makers. It was the only chance for them to make their bamboo instruments, to renew their knowledge, and to pass down their wisdom and heritage to the younger generation.

In 2024, the author is able to meet with a younger generation who is taking of and safeguard the knowledge of making *krung*, the knowledge of selecting the bamboo, and the knowledge of cutting the bamboo. The author followed Mr. Pongsakorn Khanthaseema, known as Nong in the village, to select and cut the bamboo in the forest of Ban Nam Sod village. Khanthaseema instructed the author how to select and how to cut the bamboo as followings:

Look out for the bamboo that grow up right. The rod should be straight up to the sky. The bamboo rod must not be broken in the middle of the rod. The good location to find the good bamboo is somewhere near the stream. Bamboo needs a lot of water and good soil to grow in order to grow yield good sound quality. Therefore, our village is known and titled Ban Nam Sod. It means the village with the water stream that has bamboo growing along the shore of the water stream. The appropriate age of bamboo is about the old one. If we pick the young bamboo rod, it will crack easily (Khanthaseema, Interview, March 8, 2024).

An initiative to cultivate a botanical plantation of bamboo was inaugurated by the principal of the Thungchang school. This venture is set to expand through the collaboration with experts in the fields of botany and soil science, as well as the engagement of the local instrument makers. This holistic approach aims not only to safeguard the musical traditions of the region but also to foster an environment where cultural and natural resources coexist and sustain each other. The author learned from this trip to cut bamboo in the deep forest that bamboo species also serves as an indicator of forest richness and abundance of resources. The cutting bamboo journey is also an opportunity to explore the abundance of trees, animals, birds, and natural resources in their forest along the forest trail from the village.

While the *krung* in Thailand is found to play after the rice harvest, in West Java, there is a musical instrument made of bamboo for a rice harvest. But the ceremony takes place before the planning and harvesting in order to ask for the blessings of the rice field. The ritual of placing rice in bamboo, a tradition among the Sundanese people, is accompanied by a musical presentation featuring tuned bamboo rattles known as *Angklung*. (Baier 1986). These instruments hold significance in the agricultural rituals of Indonesia, particularly in West Java where they were traditionally believed to ensure a bountiful harvest. The enchanting melodies of this music were thought to beckon the spirit or goddess of rice, inviting her to bless the land with prosperity (Baier, 1985:9).

A reflection of the rice-and-bamboo myth can be found in the Southeast Asia: the old Sundanese practice of planting bamboos with holes in them along the rice fields. (Wessing, 1998:52). In Indonesia (especially on Java), traditional music associated with growing rice included the use of tuned bamboo rattles (*Angklung*), whose sound was pleasing to the goddess of rice, Dewi Sri. Since the mid-1970s, *Angklung* have been co-opted as tools for Western-style classes in music (Williams, 1998:114-115). In central Thailand, goddess of rice is also worshipped but there is no musical accompaniment to the rice harvest ritual to invoke and please the rice goddess. In this research which the fieldwork was taken place in Nan province, the northern part of Thailand, it shows that the bamboo instrument is found

to be associated with the post-harvest ritual in order to thank the spirits of the land and the spirit of their ancestors.

In the context of our workshop on bamboo instrument craftsmanship within the hill tribe communities of Nan, Thailand, our experiential journey led us to a profound understanding of the temporal intricacies inherent in bamboo harvesting. As we engaged in the fabrication of musical instruments alongside indigenous craftsmen, we encountered firsthand the importance of timing in ensuring the quality of our craft. This revelation emerged through observations made during our harvesting endeavors, where we discovered that March was not an ideal time for bamboo cutting due to suboptimal bamboo quality. This finding resonated with our prior experience in December, where we encountered challenges related to the size and dryness of the bamboo, resulting in inferior instrument quality.

Our realization underscored the significance of harvesting bamboo during the rainy season, typically spanning June, July, and August. During this period, the increased moisture content of the bamboo renders it more suitable for crafting high-quality musical instruments. This newfound knowledge not only enhanced our technical understanding of bamboo instrument production but also deepened our appreciation for the intricate relationship between environmental conditions and craftsmanship within indigenous communities. The insights gained from our experiential journey resonate with scholarly discourse on indigenous ecological knowledge and traditional craftsmanship. Studies such as those by Berkes (2018) and Nazarea (2006) highlight the importance of indigenous knowledge systems in sustainable resource management and cultural preservation. Additionally, research by Maffi (2005) underscores the interconnectedness between cultural diversity and biodiversity, emphasizing the role of traditional ecological knowledge in maintaining ecological resilience. Furthermore, our reflection on the urban-rural dichotomy, as experienced by an urban researcher immersed in the rural landscapes of Nan, Thailand, aligns with discussions on the complexities of environmental perception and place-based knowledge (Grünenewald & Smith, 2014; Ingold, 2000). This introspection underscores the transformative potential of experiential learning in fostering cross-cultural understanding and ecological consciousness. Our journey through the hills of Nan illuminated not only the technical intricacies of bamboo instrument craftsmanship but also the profound wisdom embedded within indigenous knowledge systems. Through collaborative engagement with local communities and immersion in their cultural practices, we gained invaluable insights into the temporal rhythms of nature and the symbiotic relationship between humanity and the environment.

Conclusion

This curatorial practice project of *krung* explored an experiential journey in the Ban Nam Sod village, where an initiative was undertaken to organize and culminate in a workshop on crafting bamboo musical instruments with young students in the village in collaboration with senior instrument craftsmen. The workshop was framed within the context of navigating the complexities of cultural preservation amidst ecological challenges. Participants were students who were engaged in hands-on learning experiences encompassing various stages of instrument production, including bamboo selection, cutting, and designing. There were guided closely by the expertise of local artisans. Through this immersive process, insights were gained into the temporal intricacies of bamboo harvesting, highlighting the significance of timing in ensuring instrument quality. Furthermore, collaborative interactions with instrument makers facilitated a deeper understanding of the cultural significance embedded within traditional musical practices, fostering cross-cultural dia-

logue and knowledge exchange. This experiential journey not only enhanced technical proficiency in instrument craftsmanship but also fostered ecological consciousness and ethical stewardship. Through collaborative efforts with the community, a holistic approach to cultural preservation and sustainability was embraced, emphasizing the interconnectedness between human societies and the natural world. This article underscores the transformative potential of experiential learning in fostering cultural resilience and ecological awareness within indigenous communities. Fundamentally, the workshop transcended its role as a mere conduit for technical skill acquisition, embracing a holistic approach informed by the theory of Anthropocene. Through the medium of bamboo musical instruments, it endeavored to cultivate ecological consciousness and ethical stewardship in a world profoundly shaped by human activity

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Textile Art from Mixed-Media on the Struggles of *Kayayie* in Ghana

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Abstract

Kayayie is the name of a leading portering activity by young Ghanaian girls making a living assisting people in transporting their goods from crowded market spaces and bus stations. These girls are under stress and the challenges being on the street. This study employed mixed-media and textile art with a studio-based design approach to effectively carry out the project highlighting their plight. The motivation is to showcase their struggles with their loads in making a living. It was revealed that accommodations remained a major problem facing these female porters as they tend to sleep in front of kiosks, lorry stations or other places along the street. Due to this, some are raped and give birth to fatherless children as they become single parents at a tender age. The creation of textile art pieces serves as a skill-based trade to generate income for their well-being and promote creative artistic development. The artistic process incorporates various techniques, including applique (both sewing and gluing), yarn doodling and others. Further experiments of the various adhesives reveal that some adhesives such as super glue, super adhesive glue, fevicol SH has a very high cohesion bond with the materials and dries faster thereby improving production, while some adhesives do not bond well with certain materials.

Keywords: *Kayayie, Textile Art, Mixed-media, Struggles, Head Porters, Adhesives, Ghana*

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Introduction

According to Graven (1994), the Dadaists of the time used mixed media to disprove what he calls "high art" and to fuse the worlds of art and reality. In terms of mixed media, pottery artists have few options for personal expression. According to Dona (1969) Dona, mixed media offers artists a variety of choices with materials and concepts that may be easily explored by artists of all ages. Mixed media allows the artist to take a fresh look at the most ordinary item and separate them from their everyday environment and uses. Peter & Murray (1983) explain mixed media as an oil painting which includes combining different media in a single art piece to create unique effects on a substrate such as canvas, walls and other suitable substrates.

The aim of this study is to make expressions using mixed media techniques with three-dimensional patterns as textile art. The researcher seeks to make expressions of female head porters (*Kayayie*) as they carry out their daily business in the street of Kumasi using waste fabrics pieces that are picked from the waste bins of dressmakers and other waste products from dust bins and landfills. The decision to use waste materials was defined by the essential need to manage and dispose of fabric and other waste products to solve the country's current issues such as environmental problems. The idea was developed in a way to put back to use a lot of waste generated in the country that ends up in landfills.

Concept of Mixed Media Art

The examination of several techniques or materials to create a single artwork or art form is the main concept behind mixed media. In order to create an artistic work, caught moments in photos combined with photographs or cassettes are used, which is a craft technique. According to Adiamah (1995), the aforementioned materials are recognized as such when they are used to create pottery, textile, and painting works of art. A belief in this philosophy, according to Field (2004), would justify ideas that are assigned to craft and art because of the medium used in creation. The concept of this type of art, known as mixed media, was most prominently displayed and used in sculpture and painting, but in the current period, it refers to a variety of art forms that make use of several elements to produce an artistic composition. According to Appiah-Ofori (1995), using mixed media is a liberating form of self-expression and creativity where the artist may experiment with and employ many methods to convey his ideas. This opens up a wide range of potential uses for expertly adapted textiles produced from yarns, wood, twine, and metal combined with other objects to create works of art with distinctive aesthetic and practical characteristics. According to Peter & Murray (1983), the employment of such materials in a single unit that generate distinctive effects defining its surface is a way to recognize such art by combining factors.

Adhesive Bonding

Bonding basically serves as a means of securing two disparate elements together to form a single entity. In this method, many substrates are combined with the main objective of making them tough to break. These adhesives come in a variety of materials, including plastic, paper, metal, wood, and textiles. Such substrates must be pre-dried on their surfaces before being joined together in order to apply glue bonding, which enables full bonding (Hoke, 2005). According to Dorn (1994), glue bonding is the addition of materials using non-metallic compounds (glue), which undergo chemical or physical reactions to cause the two dissimilar materials to harden through surface adherence and cohesion (tensile strength). However, because the surfaces are permanently joined by this process, it is extremely difficult to separate them without destroying some of them (Ebnesajjad 2006). Given the

advantages of glue bonding, it was essential to use it during the creative and manufacturing processes when adhering elements to the canvas substrate.

Migration Pattern in Ghana

Early in the twenty-first century, most migration in Ghana took the form of seasonal or semi-permanent rural-to-rural migrations as people moved there to work on gold and cocoa fields (Brydon 1992). While the significance of permanent migration has grown over the past forty years, the amount of data that is now accessible on the magnitudes and patterns of seasonal and temporary movement has significantly decreased. According to (GSS 2010), internal migrants make up 52% of Ghana's adult population, with the corresponding percentages for men and women being approximately equal (51.4% and 52.2%). Population mobility in Ghana is fairly significant given that these numbers do not account for temporary and seasonal migration. Temporary and seasonal migration are common in Ghana, and they are mostly related to agricultural activities. Beals & Menezes (1970), who made their observation more than 40 years ago, noted that Ghana's primary method of labor mobility is temporary migration.

Although there is no reason to deny the significance of temporary migration, even though it is not now Ghana's most prevalent form of migration, the rise in manufacturing and other non-agricultural sectors may be the main factor contributing to an increase in permanent migration. Seasonal migration, which is influenced by the differing farming calendars in Ghana's northern and southern regions, is a key part of temporary movement. The busiest time of year is during Ghana's lax season in the north. In this sense, migrants frequently go to Ghana's southern areas to work on cocoa and coffee fields as a means of diversifying their sources of income. Short-term migration from the savannah to the forest was therefore a natural adaptation, especially because the labor needed in the cocoa and coffee regions, such as harvest [labour] and the clearance of new plantings, suited themselves to seasonal or casual performance (Berg 2000). Migration from northern Ghana has also increased due to the concentration of economic development projects on the southern metropolitan areas and the resulting emerging employment prospects. Greater Accra, Ashanti, and Western are the primary geographic areas of destination, according to Tutu (1983). In terms of economic and social growth, these areas have gotten significant attention from several administrations, luring immigrants from other parts of the country, notably the destitute north (Van der Geest 2011). The significant number of immigrants, especially from rural areas.

According to prior estimates from the Ghana Statistical Service (GSS 2010) and the World Urbanization Prospects, in 2010 there were slightly more people living in urban regions of Ghana than in rural ones (GSS 2010). Since urban regions primarily provide non-agricultural opportunities, such those in the construction and service industries, they demonstrate the growing relevance of non-farm livelihood choices (Ellis 2000). This is seen in the expanding rural-urban movement trend from northern Ghana to the south. A temporary or permanent exodus of men, and occasionally women, from rural communities to urban areas in search of wage employment opportunities has occurred in the majority of developing countries, especially in sub-Saharan Africa (Deshingkar and Grimm 2005). Youth migrants make up the majority of migrants in Ghana and are seen to represent the most promising human resource prospects that may significantly contribute to a country's enormous growth.

Rural-urban migration is a major type of livelihood diversification that households and individuals undertake as a means of survival (Ellis 2000). A report by the United Nations Population Fund (UNFPA) stated that the world was undergoing the largest wave of urban growth in history. The report also indicates that for many people, cities represent a world of new opportunities, including jobs. There is a powerful link between urbanization and economic growth. "The opportunities there extend beyond just jobs. Cities also offer greater opportunities for social mobilization and women's empowerment. Many young people, especially young women, regard the move to cities as an opportunity to escape traditional patriarchy and experience new freedoms" (Mirror 2017). This and many reasons why there is a high rate of unemployment in the country.

Laws Impacting on Operations of Kayayie

The Labour Act 2003 (Act 651) and Workmen Compensation Act (1984) generally provide for workers/employers and employees respectively in Ghana. A worker is interpreted by Section 175 of the Labour Act as a "person employed under a contract of employment whether on a continuous, part-time, temporary or casual basis." Like many self-employed persons, the Act does not provide for *Kayayie*. The National Pensions Act (Act 766) provides for voluntary enrolment of self-employed workers on social security schemes. Self-employed persons can voluntarily join the mandatory first two tiers as well as the voluntary third tier. However, practically, the voluntary third tier is more compatible with the earning patterns of *Kayayie*. Local authorities' bye-laws do not have specific provisions barring the activities of *Kayayie*. However, as street people, *Kayayie* may be affected by the development initiatives of local authorities. *Kayayie* assemble at public places in the markets and lorry parks in wait for customers. They sleep at lorry stations, market stalls and on pavements, obstructing the public while they use these facilities. As gathered by the study, *Kayayie* who dwells at the Adum station in Kumasi Central faces harassment and extortion from the station's masters.

Methodology

The study employed the Studio-based research in art and design, which according to De-Freitas (2002) refers to those research projects in which creative practice plays the most important role. It is usually initiated by the artist or designer in response to his/her own particular studio or design practice. Art and design studio practice results in artists and designers acquiring knowledge about concepts, materials, processes and applications. The studio is a space and artistic laboratory where artists' ideas materialize and take form. It is commonly used as a space where artists get to reflect, display, research, store and make art. To have your own studio is a way for artists to maintain individual production and making, and is central to how they stabilize and participate in a professional discourse and identity (Bain, 2004). Both conventional and non-conventional textile materials were used. Some of the materials were collected as waste from the floor of garment making shops. Other materials used include paper card, wood, acrylic paint, high density foam and thin foam, saw dust and shavings, polythene, paper carton and jute among others.

Experimenting in the Art Studio Context

Finding out the working properties of the materials to be employed in the final production is extremely imperative. This phenomenon evidently provides two-distinct categories; variables that worked and variables that did not work. These results clearly exposed the designers or artists on combining variables that worked or did not to produce the required

quality or value. It is at this core reasons that studio experiments or tests are conducted to understand the working properties of the combined variables. Aside from such creative knowledge to the designer or artist, it further adds to the practice knowledge of other craftsmen. It is however worth noting that, experimenting in the studio context must be adhere to strict regulations and guidelines Howard et al. (2019) for an injurious free studio practice. With such core focus, a survey was conducted in the market to sample five key adhesives that are widely employed by craftsmen in the craft industry in Kumasi, Ghana. These adhesives were applied to mixed media in the context of producing textile art forms. The adhesive choice is influence by the high cohesion bond of the adhesives and the substrates.

Adhesive choice plays a crucial role in the application of materials, as it directly affects the integrity, durability, and overall quality of the final product. Different adhesives have varying properties and characteristics that make them suitable for specific applications. Cyanoacrylate adhesive, commonly known as super glue, is valued for its fast bonding capabilities and strong adhesion to various materials such as plastics, metals, and rubber. It is particularly useful in situations where quick and reliable bonding is essential. The adhesive forms a strong and durable bond, ensuring that the materials stay securely attached. On the other hand, Fevicol SH is a popular adhesive known for its versatility and suitability for a wide range of materials, including wood, paper, and fabric. It is often used in craft and woodworking projects. Fevicol SH provides a strong bond, allowing for long-lasting and secure attachments. The choice of adhesive depends on the specific requirements of the application. Factors such as the materials being bonded, the desired bond strength, flexibility, and the environmental conditions the bond will be subjected to should all be considered. Proper adhesive selection ensures that the materials are effectively joined together, minimizing the risk of failure or detachment.

As a result of this, the project employed the two adhesives (fevicol SH and cyanoacrylate adhesive) in the production as shown in figure 1 below.

Context for Students and Artists

The practice of employing adhesives in assembling variables on a substrate clearly influences its durability and aesthetics in the short to long term. In order not to be frustrated and disappointed in the outcomes, it is practically imperative to conduct experiments with the items to be employed in the project or assignment with the appropriate adhesives. It was however key from the experiment that, fevicol SH and super glue combined items firmly which are to be applied for textile art forms. This essentially ensured permanent bonding to the substrate to produce the needed form and effect necessary for unique qualities. The outcomes of this studio-experiment is relevant in teaching students and artists on appropriate adhesives to employ in their textile art forms in the studio-context. This draws the point that, in adopting such materials, relevant test should be conducted in reporting working and non-working variables. Another critical point worth mentioning is that, the choice of ecofix 100E, fine glue and golden gum produce fragile bonds that affected the stability of the items on the surface of the substrates. These materials would however fall-off when a force or sudden movement is applied on the textile art form. In understanding the working properties of the combined materials in art forms by students and artists, they would end up producing works without faults.

Material	Adhesive	Performance	Results
Silk with polyester	Golden gum	Poor	Low bonding strength
	Fevicol SH	Average	Improves peel strength
	Cyanoacrylate adhesive	Excellent	High cohesion bond
	Fine glue	Poor	Poor adhesion
	Ecofix 100E	Poor	Low bonding strength
Wood with cotton	Golden gum	Poor	Low bonding
	Fevicol SH	Average	High cohesion bond
	Cyanoacrylate adhesive	Excellent	Strong bond with high resistance
	Fine glue	Poor	Poor cohesion
	Ecofix 100E	Poor	Low bonding strength
Leather with cotton	Golden gum	Poor	Low bonding
	Fevicol SH	Average	Flexibility improves peels
	Cyanoacrylate adhesive	Excellent	High adhesion
	Fine glue	Poor	Poor adhesion
	Ecofix 100E	Poor	Low bonding strength
Jute with silk	Golden gum	Poor	Poor adhesion
	Fevicol SH	Average	Improves peels strength
	Cyanoacrylate adhesive	Excellent	Bonding with high cohesion
	Fine glue	Poor	Poor adhesion
	Ecofix 100E	Poor	Low bonding strength
Polythene with wool	Golden gum	Poor	Poor adhesion strength
	Fevicol SH	Average	Adheres better upon drying
	Cyanoacrylate adhesive	Excellent	Strong bond with high resistance
	Fine glue	Poor	Poor adhesion
	Ecofix 100E	Poor	Low bonding strength

Figure 1. Experimental Results of Materials and their working Performance. Source: Studio Experiment, 2023.

Production Stages

Techniques Employed in the Production

A canvas was prepared to a size measuring 2 x 3 feet. A sketch of the image was transferred to it. According to Caulfield (2009) as cited by Buami et al. (2021) what may be discarded by one party may be of use to another. The materials used were pieces of fabrics collected from dressmakers, thin foam, cyanoacrylate adhesive, fevicol SH glue, saw shavings, wood, acrylic paint, sand paper, and tools used include scissors, sharp knife, a scroll saw piercing machine. The techniques employed were applique, modelling, doodling, yarn scribbling, twisted plied yarn, carving and painting. Fabric pieces were carefully selected and modelled on the sketched image whilst stuffing it with thin foam and pieces of fabric

to reveal the details of the expressions. Wood was carved and stacked at the section to represent the human body. Studio-based research in the fields of art and design encompasses research projects where creativity is the central focus within the chosen research methods (De Freitas 2002). According to Frayling (1993), the concept of "Design as Research" entails a research path that aims to discover innovative outcomes in the creation of unique products. In this practice, a "design as research" approach was adopted in the studio to bring out the research outcome-based on observation from the field as shown in Figures 2 – 4 below are the procedures undertaken. The final work was finished by fixing the paper carton with rubber containing waste materials from dust bin and landfills.

Project One (Trade trader)



Figure 2. Working Procedure series for Project One. Source: Studio Practice, 2023.

Project Two (Dryness in Life Cycle)



Figure 3. Working Procedure for Project Two. Source: Studio Practice, 2023.

Project Three (Dream)



Figure 4. Working Procedure for Project Three. Source: Studio Practice, 2023.

Discussions and Philosophies Underpinning the Textile Art Works

Project One (Trade trader)

Figure 5 below, measuring 2 feet by 3 feet and titled “Trade trader” represents a female head porter carrying a load on her head for a fee. She is carrying products to be sold. Once a while one may perceive the porter as the seller rather. She is just the facilitator of movement for the products to get to its destination.

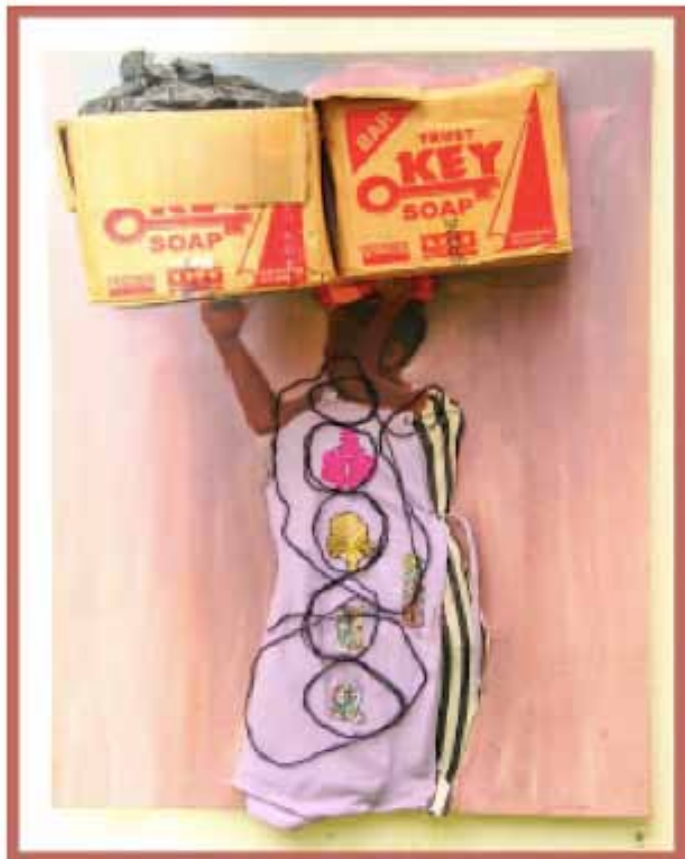


Figure 5. Trade trader. Source: Studio Practice, 2023.

Traders used the porters to reduce costs compared to other modes of transporting their products/items. There are some journeys where other modes of transport should be used but traders will insist on using the head porter instead. Since she needs the money she will also force herself to carry any volume of load for the peanut she will be given. They normally carry items of shoppers or market women. She is dressed in apron showing her commitment and passion for the job she does. The elements dominant here are color, texture and space. Unity and a variety of materials are the major principles of design employed by the artists to create meaning and mood in their work. Various geometric shapes arranged in a vertical manner are incorporated in the composition.

The face and the arms were carved with wood, the main body is clothed with fabric and stuffed with foam. The luggage is composed of a paper carton stuffed with polythene. This was done as a reference to Gardner (1948) who asserts that Dadaists, the German group were spotted to have been practising mixed media techniques mostly where they engage

different materials such as pictures with non-conventional materials into a design composition. Materials used in the production are foam (high density and soft thin foam), saw shavings, fabric pieces, wood, acrylic paint, paper card, crocheting thread and canvas fabric as the support. The techniques employed are: Carving, modelling, applique, yarn doodling, crocheting and scribbling of yarn, plied yarn cross-hatching, embroidery and painting. Embroidery designs in pink and gold colors are employed to bring out the aesthetic of the textile art piece. The work is suitable for wall hanging and can also be placed at the mall, recreational centres, and assembly halls in basic and second-cycle institutions to communicate their ordeals.

Project Two (Dryness in life cycle)

The textile art piece “Dryness in life cycle” in Figure 6 below is made up of varieties of materials and techniques. Many wooden masks and African sculptures according to Vansina (1984), made use of varieties of mixed media to serve the day-to-day needs of those who use them. These artworks have been used to meet the socio-cultural, spiritual, economic and philosophical needs of the users.



Figure 6. Dryness in life cycle. Source: Studio Practice, 2023.

Elements of design such as line, color, texture, shape among others and principles of design such as balance and dominance. The doodling technique on the art piece explains their ordeal in a foreign land as they go about their daily duties. Techniques employed in the work are: carving, applique, modelling, yarn doodling, scribbling of yarn, embroidery, crocheting and painting.

Project Three (Dream)

Figure 7 below measuring 3.8 inches by 3 feet showing a woman resting on a carrier bowl after a hard day's work along the street in Kumasi (central market). The back doodling thread on the image suggests the risk in their business as they are prone to dangers such

as sleeping along the road, lorry stations and sleeping in front of kiosk. It also depicts their struggle or entanglement and hoping to come out successfully after meeting their dreams. The image is a textile art titled "Dreams." Dreams essentially forms a series of images/pictures, sensations of one's cherished ambition, ordeal and aspiration in one's mind at a sleep. These thoughts could be negative or positive. The foreground color in the art piece coupled with the image denoted the struggler and challenges of the head porters on earth. The choice of color shade in blur state represent the hopes and ambitions of these head porters that have been in their minds. These thought of a better tomorrow keeps on recurring in their sleep. Just as its stated in Psychology, "if an individual keeps an image/thought in mind for a long time and live by it ends up becoming that."



Figure 7. Dreams. Source: Studio Practice, 2023.

The elements dominant here are color, texture, shape and unity and variety of materials is the principle of design used in the execution of the art piece. This gives artists different opportunities as opined by Dona (1969) with materials and ideas that can be explored easily by artists either young or old. The art piece is executed in three-dimensional patterns revealing the forms of the image. There are varieties of techniques employed in the illustration of the art piece. These are: embroidery, scribbling of yarns, twisted cross-hatching yarns, crocheting, doodling of yarns, carving, applique, modelling, and painting.

Findings from the Exhibition of the Textile Art Works

An art exhibition was organized on the campus of the Kwame Nkrumah University of Science and Technology (KNUST). Questionnaire was designed to solicit responses from patrons of the art exhibition and one hundred (100) copies were issued. Out of this, 94 (94%) were retrieved.

Out of the 94 copies retrieved, 70.2% were male while 29.8% were female. The ages of the respondents were predominantly youthful. Cumulatively, respondents below the age of 30 years were 79% as shown in figure 7 below. This could be partly due to the fact that in the University setting, many of the people are youthful and also the youth in the university are prone to attending art exhibitions and displays.

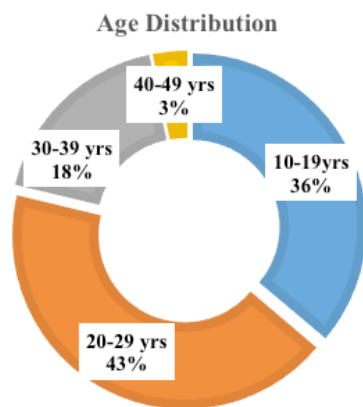


Figure 8. Age distribution of respondents.

The socioeconomic demographics of the respondents showed that 82.9% were students while the remaining were university workers and traders as shown in Figure 9 below. Students being the highest number of respondents makes it more effective since some female head porters are school dropouts and this will create the awareness of the menace effectively.

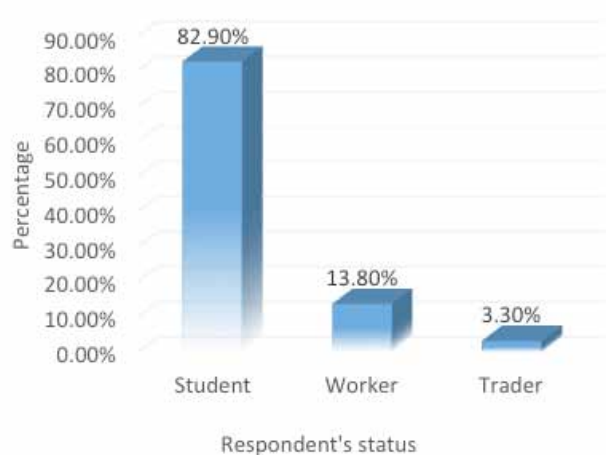


Figure 9. Socioeconomic demographics of respondents.

When the respondents were asked of where they heard about *Kayayie*, 86.2% indicated that they heard it first on the street, 7.4% said they got it from the newspapers while 6.4% said they heard it from Radio/TV. Since people encounter these head porters on the streets, it is not surprising that the results indicated such.

The researchers wanted to know if the respondents have had any prior experience from attending any *Kayayie* art exhibitions. This was to access how participants will situate the current exhibition in the content of others on the same subject. Only 20.2% of the respondents responded in the affirmative. Among the 20.2 % who had attended such exhibitions, the majority of the respondents (52.6%) indicated that they had attended such exhibitions in the Graphic Design subject area. The other areas included painting, play/drama and Textiles as shown in Figure 10 below.

Areas where respondents had attended Kayayie exhibitions in the past

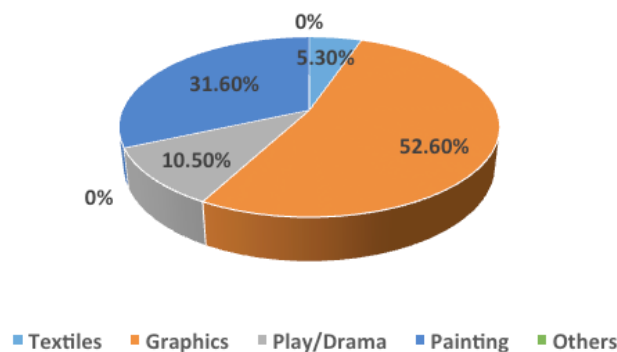


Figure 10. Art areas respondents had attended Kayayie exhibitions.

Using a Likert scale, the participants were asked to rate if the exhibition had had a positive impact or inspired them. As shown in figure 11 below, the majority of the respondents (63.8%) indicated that they agreed that the exhibition has inspired them. At the bottom of the table were people who disagreed (3.2%) or strongly disagreed (3.2%) that they had been inspired by the exhibition.

Responses	Percentage
Strongly Agree	6.4
Agree	63.8
Neither Agree or Disagree	23.4
Disagree	3.2
Strongly disagree	3.2
Total	100.0

Figure 11. Respondent's survey results: "I was positively moved/inspired by the Kayayie exhibition." Source: Field-work, February-June 2023.

It was important to know if the participants had been exposed to new concepts on Kayayie and Textile installation art. When the participants were asked if they were exposed to new concepts, 58.6% answered that they disagreed that they had been introduced to new concepts as shown in figure 12 below. This could stem from the fact that only 20.2% of the respondents had been to such an exhibition of such nature. So it not surprising that few people indicated that they agreed (10.6) or strongly agreed (4.3%) with the fact that they had been exposed to new concepts on the subject matter.

Responses	Frequency	Percentage
Strongly Agree	4	4.3
Agree	10	10.6
Neither Agree or Disagree	15	15.9
Disagree	55	58.6
Strongly disagree	10	10.6
Total	94	100.0

Figure 12. Respondent's survey results: "I was exposed to new concept of how *kayayie* can be executed in art."
Source: Fieldwork, February-June 2023.

Although few people indicated that they got exposed to new concepts on the subject matter, the exhibition triggered an urge for people to want to know more about the *Kayayie* problem and try to offer help. This is evident from the analysis of the responses from the Likert scale in figure 13 below. Respondents who strongly agreed that they wanted to know more about *Kayayie* were 67%. This is significant and also shows that if more of such works were exhibited on the plight of the *Kayayie*, more people would know more about the situation and would also find ways to help salvage them.

Responses	Frequency	Percentage
Strongly Agree	63	67.0
Agree	15	15.9
Neither Agree or Disagree	16	17.1
Disagree	0	0
Strongly disagree	0	0
Total	94	100.0

Figure 13. Respondent's survey results: "It made me want to know more about *kayayie* and how we can help them out of the situation." Source: Fieldwork, February-June 2023.

On the relevance of the works exhibited to the development of the current society we live in, 75.5% strongly agreed that the work was relevant to the society's development as shown in figure 14 below. This is because when such issues are brought to the fore by artists, many well-meaning citizens and people in authority are able to act positively to minimise such occurrences.

Responses	Frequency	Percentage
Strongly Agree	71	75.5
Agree	19	20.2
Neither Agree or Disagree	4	4.3
Disagree	0	0
Strongly disagree	0	0
Total	94	100.0

Figure 14. Respondent's survey results: "I felt the work is relevant to our society and the times we live in." Source: Fieldwork, February-June 2023.

A total of 73.4% of the respondents strongly agreed that the mixed media work on *Kayayie* were very educational and it explained the plight of the *Kayayie* girls as shown in figure 15 below. Others who disagreed with this assertion were 4.3%.

Responses	Frequency	Percentage
Strongly Agree	69	73.4
Agree	18	19.1
Neither Agree or Disagree	3	3.2
Disagree	4	4.3
Strongly disagree	0	0
Total	94	100.0

Figure 15. Respondent's survey results: "The mixed media works are educative and self-explanatory." Source: Fieldwork, February-June 2023.

Comments from Respondents

1. The expressions exhibited speaks volume and so the Government and Non-Governmental Organizations (NGO) should come to the aid of this female head porters
2. It is high time we need to help these *Kayayie* people through education and finance. This will go a long way to ease the economic pressure on our major cities in Ghana hence improves economic growth.
3. The mixed media concept is very educative and so the exhibition should be mounted at places that include duty bearers and decision makers.

Main Findings

This study was designed to solicit information to ascertain the challenging issues about the female head porters (*Kayayie*) in the major market centers in Ghana specifically Kumasi in the Ashanti region. The following are some main observations made:

1. The finding shows that lack of accommodation is a major problem facing the female head porters and so they sleep in front of kiosk, lorry stations, some sleep along the street during the day creating uncomfortable environment for them. Due to this, some are raped and are having children without fathers and these young teenage girls become single parents.

2. The experiments of the various adhesives reveal that some adhesives such as super glue, super adhesive glue, fevicol SH has a very high cohesion bond with the materials and dries faster hence improves production of the art piece. Moreover, some adhesives do not have any bond with certain materials.
3. The canvas fabric (support base) was not primed before working and this have absorbed much of the acrylic paint due to the amorphous areas of the fabric canvas.
4. The researcher decided to use acrylic paint to move away from the normal medium (oil paint) to see the outcome of the work and it have been noticed that the finished work was not glossy as expected.
5. The modeling of fabric on the pencil sketch need a special skill in sculpture to bring out the various details (folds) for the expression and fabric selection is paramount in the production of the art piece.
6. Findings also reveal that majority of respondent to the questionnaires are students which the researcher believes that the *Kayayie* expressions exhibited will create effective sensitization of the menace in their business.

Conclusion

The services provided by *Kayayie* are in no doubt important to shoppers and market traders particularly in the urban centres such as Accra and Kumasi. *Kayayie* in turn make a living from the earnings made by providing the services and contribute to the economy by way of tax payment (ticket as referred). Yet, they are largely not accounted for by labour market surveys like many other informal sector workers. The involvement of young teenage girls into the *Kayayie* business and their exposure to strenuous and hazardous condition is a social problem, particularly against efforts by government and non-government organizations to step up girl child education. Again, it brings into focus failures of government to bridge the gap between the northern and southern parts of Ghana. Evidently, extreme poverty has pushed many of these children and young women into the activity. However, the demeaning nature of the economic activity as regarded by most Ghanaians stems from the poor working conditions. Safety issues of carrying heavy loads on the head cannot be understated; the result of which is the frequent headaches, Fatigue and back aches reported by *Kayayie* involved in the study. It is recommended that, the government, through the Ministry of Gender and Social Protection, can come out with a state-managed housing facility by putting up hostels for the poor in urban Ghana, particularly in Accra and Kumasi. These should be safe (from thieves and rapists), simple, low-cost structures, but with basic sanitary conditions. Ghana needs a comprehensive employment policy integrating the National Youth Employment Programme (NYEP) and vocational/technical training institutions. The concept of the Junior Secondary School to provide vocational and technical training skills need to be supported with adequate resources. Building linkages between school and enterprises could facilitate transfer of skills to basic school children before joining the labour force.

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Media Art Community Festival Based on Local Culture in Indonesia: *An Ethno-pedagogy Perspective*

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Abstract

This study reviews the Indonesian government-led Festival Komunitas Seni Media (FKSM) or Media Art Community Festival in English from an ethno-pedagogical perspective to uncover its strategies for enhancing local cultural values. Using descriptive and historical approaches, data were collected through literature studies, participatory observation, document studies, and personal reflection, and analyzed thematically. The findings are: First, FKSM provides artists with opportunities to learn about the local host city's culture as their creative inspiration (value of locality). Second, FKSM facilitates knowledge sharing between curators and local management for future festivals (value of continuity). Third, FKSM promotes inclusiveness by selecting host cities where media art is relatively new (value of equality). Fourth, FKSM embodies "gotong royong" (value of mutual cooperation) by collaborating with participants from diverse backgrounds. These values are embedded in the informal teaching and learning of local culture through FKSM activities.

Keywords: Media Art, Festival, Cultural Value, Local Wisdom, Festival Komunitas Seni Media, Ethno-pedagogy

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Introduction

The urgency of this research lies in addressing the critical need to preserve and promote local cultural values through innovative platforms such as the Media Art Community Festival (FKSM). UNESCO often emphasizes the significance of preserving and promoting local cultures to foster diversity, social cohesion, and sustainable development. By doing so, societies can ensure a richer, more inclusive, and more harmonious world (UNESCO, 2001). The Indonesian government has established a mission to advance culture through strategic action plans focused on protection, development, utilization, and management, as outlined in The Law Number 5 Year 2017 on Cultural Advancement (Undang-Undang Nomor 5 Tahun 2017 Tentang Pemajuan Kebudayaan, Republic of Indonesia, 2017:1). These action plans are based on a variety of principles such as tolerance, diversity, locality, cross-region, participatory, benefit, continuity, freedom of expression, cohesiveness, equality, and mutual cooperation, which reflects important aspects of Indonesian culture and society in contributing to its richness and resilience (2017:4).

One effective way to preserve and develop cultural assets is through festivals, which hold a significant place in almost all cultures and have a meaningful impact on society (Getz, 2010:1). Festivals are crucial in establishing, strengthening and affirming ethnic identity as they unite participants and celebrate their core values (Harnish, 2005:18). By honoring their local identity and distinct characteristics, festivals not only foster a sense of ethnic pride (Yoopetch, 2022:4), but also transmits local knowledge to younger generations (Denes and Pradit, 2022:12). Indonesia hosts numerous arts and culture festivals, organized periodically by various sectors such as village communities, private organizations, and regional and central governments to fulfill different purposes (Sukmayadi and Masunah, 2020:47). These festivals contribute positively to the cultural resilience and growth of society, and media art festivals are no exception.

The earlier development of media art festivals in Indonesia was made possible by innovative local artists groups such as HONF in Yogyakarta (est. 1999), ruangrupa in Jakarta (est. 2000) and Bandung Center for New Media Arts in Bandung (est. 2001). ruangrupa started biannually held OK. Video: Jakarta International Video Festival in 2003 to support video art development in Indonesia. After changing its name to OK. Video: Indonesia Media Arts Festival in 2015, it presented more diverse forms of art based on sound, Internet, social media and audio-visual art, as well as traditional mediums of video and film (Sukmana, 2015:5). In 2005, HONF organized a video focused international festival titled YIVF–Yogyakarta International Videowork Festival which was held annually and in 2007 the collective also initiated the annual Cellsbutton–Yogyakarta International Media Art Festival to achieve their mission for supporting local creatives through innovation and convergence between art and science (Christ, 2019). In 2007, Bandung Center for New Media Arts (later called Common Room) organized annually held Nu-Substance Festival. Through the Nu-Substance, Common Room built network with numerous international organizations and art institutions that inspired and nurtured the festival programs and contents relevant to local issue (Iskandar, 2012:0-5).

Despite the rich history of media art development in Indonesia and the significant contributions of pioneering artist collectives, these key festivals have ceased operations, creating a gap in the cultural landscape. OK. Video lasted until 2017 although a revival movement is observed through an archive presentation in 2023. YIVF and Nu-Substance held their last festival in 2012, and Cellsbutton concluded its run in 2011. Meantime, Edwin Jurriëns

(2019:449) notes that these artist collectives primarily focus on exploring the socio-cultural, political, and material aspects of urban life in Indonesia, addressing urban issues through their diverse media art activities although he noticed “the shift of emphasis from the urban to the rural” by some of the collectives.

After the older festivals stopped operating, other media art festivals emerged in 2010s. From 2013 to 2017, the Jogja Video Mapping Project, an annual program within Yogyakarta Art Festival, introduced projection mapping in the public space in Yogyakarta. This led to the establishment of the Jogja Video Mapping Festival in 2018. Since 2019, this festival has been known as SUMONAR, meaning ‘glowing and radiating’ in Javanese, and focuses on projection mapping and interactive light art festival (Jogja Video Mapping Project, 2020:3). Apparently, the recent series of SUMONAR seems to prioritize the spectacles of projection mapping techniques and presentations over delivering a compelling message. In 2018 and 2019, the Indonesian government initiated an international media art festival called *Instrumenta* that was held in Jakarta, which aimed to provide both Indonesian and international audiences the opportunity to appreciate and understand the latest trends in media art (Edrian, 2020:5). Unfortunately, *Instrumenta* operated only for two years. Additionally, a Europe-based, Indonesian-run independent organization launched an annual Media Art Globale in 2019, but its current activities have not gained significant attention.

As mentioned above, these newer festivals, while promising, have faced their own challenges. This void underscores the necessity for sustainable and inclusive platforms that can reach diverse regions beyond the metropolitan centers of Java Island. To fulfill the needs, this research focuses on the Media Art Community Festival (FKSM) as an Indonesian government effort in bringing media art to underrepresented regions and fostering a deeper appreciation of local wisdom through contemporary artistic expressions. Gunalan Nadarajan (2009:14) argued that media art in Asia is not just about adopting the latest technologies, but is deeply rooted in the regions’ rich and diverse historical, socio-cultural, and aesthetic traditions. Nadarajan’s argument well reflects how FKSM aims for a unique blend of tradition and modernity, where the past informs and enriches contemporary practices. In addition, it is worth noting how it differs from Western media art festivals. For example, *Ars Electronica* in Linz, Austria, one of the world’s most influential media art festival, was born with a mission to reshape the identity of Linz to become a ‘future’ city through cutting-edge media artworks (Wenhart, 2009:178) while numerous transmedia festivals in Europe which combines media art, music and technology are considered to embody a sense of ‘avant-garde’ (Ludewig, 2019:74).

In analyzing FKSM, this research pays attention to the principles of locality (regional value), continuity (knowledge transfer), equality (inclusiveness), and mutual cooperation (collaboration) as outlined in The Law Number 5 Year 2017 on Cultural Advancement. These principles are recognized as fundamental values for the cultural advancement of Indonesia. Formerly named Media Art Week (PSM-Pekan Seni Media in Indonesian), this festival started in 2015 in Bandung as an annual event. Since 2017, it has been held in different regions across the nation in order to promote media art beyond Java to balance the nation’s media art ecosystem. The host cities include Pekan Baru, Riau, Sumatera (2017), Palu, Central Sulawesi (2018), and Samarinda, East Kalimantan (2019). If PSM invited both individual artists and artist collectives as its participant, FKSM focused on the activity by artist

community. After the two years of void in 2020 and 2021 due to COVID-19 pandemic, this festival has resumed with a new title Festival Komunitas Seni Media in 2022 that was held in the city of Bengkulu, Sumatra with the objectives of introducing media arts close to the public in and around the host city (Farid, 2022:5).

The 2022 festival was held from October 5-12 at UPTD Cultural Park in Bengkulu Province. It featured a media art exhibition and intermedia performances, involving 16 artists from diverse Indonesian cities. Artists were selected through commissions, invitations, and an open call. The festival showcased interactive installations, sound art, bio art, VR, and more, with a collaborative opening ceremony featuring projection mapping and intermedia performances. By examining FKSM 2022, particularly focusing on its media art exhibition, this study seeks to demonstrate the festival's potential as a model for cultural advancement. In relation to this main objective, this research also aims to seek for the answers to the following enquiries: (1) How does FKSM demonstrate local wisdom through presented artworks? (2) How does informal teaching and learning of cultural values occurred during FKSM?

The findings will offer valuable perspectives on how media art festivals can effectively integrate local wisdom, promote cultural education, and foster community engagement, thus ensuring the continuity and evolution of Indonesia's rich cultural heritage in the contemporary era.

Literature Review

Local Wisdom in Ethno-pedagogy

Local wisdom has been defined by numerous scholars. According to Nakhornthap, S. in Roikhwanphut Mungmachon (2012:176), it is a basic knowledge obtained from people's life experiences, resulting from a harmonious integration of the body, the spirit and the environment. Local wisdom is also related to a culture in a community, therefore, it is accumulated and passed on to the next generation. This wisdom can be both abstract such as ideas and beliefs of how we live, and concrete such as the form of artifacts and systems. It values morals more than material things.

In Indonesia Irmayanti Meliono (2011:227) defines local wisdom as a form of expression of the ethnics of Indonesia, thus we can find the depth of the ethnic cultures that express the lives of people. The examples of local wisdom that Meliono illustrates include the architecture and stories in "Borobudur and Prambanan temples, [...] the Subak water system in the Balinese rice fields, and batik, the worldly known cultural heritage." In these illustrations there are underlying ideas and activities by the ethnic groups in the making of artifacts. Therefore, the local wisdom is a system of meanings of the communal societies instead of the individuals.

Preserving local wisdom is an important idea proposed by many scholars as well. Meliono (2011:227) suggests "building a renaissance of local wisdom" because local wisdom can be a crucial means for a new paradigm of the Indonesian identity. For I Ketut Ngurah Ardiawan (2018:1-2) who discusses local wisdom in the Balinese context, preserving local genius is one of the ways to keep values existed in a society and it can help people maintain their harmonic relationship with others. On the other hand, A. Chaedar Alwasilah and Tri Karyo-

no (2009:42) view local knowledge and wisdom as a source of innovation and skills that can be empowered for the welfare of the community. Therefore, Alwasilah and Karyono emphasize the importance of fostering an appreciation of local wisdom for “a pedagogical impact” (2009:36).

Since this socially useful wisdom has an educational aspect, P. Surya in Ardiawan (2018:2) asserts that indigenous knowledge as the source of innovation and expertise can be empowered through cross cultural learning of ethno-pedagogy. Moreover, Mungmachon (2012:174) concerns that globalization has challenged the maintaining local wisdom in a society and as a result, people ignore valuable knowing and wisdom of the former day. Therefore, it is crucial to emphasize the importance of local knowledge and wisdom implemented into school education. According to Anwar (2018:175), ethno-pedagogy is closely related to multicultural education and therefore maintaining local wisdom within multicultural education can contribute a positive impact to other social groups and national cultures as a whole.

It is certain that local knowledge and wisdom derived from traditional culture is important elements of education, particularly in Indonesia because people’s life is strongly influenced by the ethnic value, which is relevant to the locals and their daily life. As a means of learning and obtaining diverse knowledge beyond aesthetics, a locally-held art exhibition in Indonesia can adopt the concept of ethno-pedagogical approach as it will help empower a community and build a better communal society.

Media Art Development in Indonesia

Media art is not a new artistic form in Indonesia as its development is known to have spanned for three decades. Therefore, it is useful to understand the position of Festival Komunitas Seni Media within the diverse spectrum of Indonesian media art development. A recent mapping of its development is proposed by Bob Edrian (2020:8-9) from his symposium paper titled “The Rise and Fall of the Media Art Festival in Indonesia” and it presents its root from the early 1990s in connection to the emergence of experimental art by individual artists and art collectives. According to him, not only the term “installation art” first emerged, but the terms like “postmodern,” “contemporary art,” and “independent curator” were introduced through the Jakarta Biennale IX in 1993, which paved the way for the following Indonesian media art movement.

If Edrian’s analysis of its development is based on overviewing a variety of influences including numerous artistic practices of media art, emergence of intermedia art studies, initiation of several key festivals, and local and global sponsoring systems, Krisna Murti (2009), the pioneer video artist in Indonesia discloses his first-hand experience and observation with media art through the book of his extensive essay compilation titled *Essays on Video Art and New Media: Indonesia and Beyond* (2009). Spanning from 2002 to 2008, his selective writings in this book, once published in the diverse local media, serve as a vivid witness of how the Indonesian media art scene grew in the 2000s. Using a socio-cultural framework, he closely looks into the experimental approaches of his fellow young artists to this new medium.

For example, he elaborated Arahmaiani’s use of video to record her performance as a way of “event memory” that is exposed again to the public in different time and space. He also

paid attention to Tintin Wulia whose single channel video serves as a means of creating new narrative. Jompét was discussed as an artist who used new media to pursue alternative and participatory activity in a real-life setting. Jompét's DIY television production created together with the neighbors in a community where the artist resides not just empowered the public but introduced the new concept of artist as a facilitator (2009:81-83).

On the other hand, in its festival archive book Gustaf Harriman Iskandar (2012:0-5) introduced the six year's journey of Nu-Substance Festival, one of the most important media art festival series annually held in Indonesia between 2007 and 2012. In his introductory essay of "The Opened Horizon: Notes from Nu-Substance Festival 2007-2012", Iskandar as the organizer began discussing how the formation of Bandung Center for New Media Arts in 2001 and its network with numerous international organizations and art institutions, for example, International Symposium for Electronic Arts (ISEA), Futuresonic Festival, and Asia Europe Foundation, have inspired and nurtured the programs and contents of the festival. Although this festival paid more attention to addressing social and environmental issues of the city of Bandung, where the event was held, his writing confirms that Nu-Substance made an essential contribution to laying the foundation for the growth of Indonesian media artists and curators to come.

Another useful mapping of the media art in Indonesia was made by a curator and lecturer Asep Topan (2015:220-225) in his critical essay titled "Becoming the Media Art" included in the exhibition catalogue of OK. Video: Indonesia Media Arts Festival. He draws his main argument of the complexity of the term 'media' in art and its expansion by mapping various exhibitions held in the past, including Festival Seni Experimental (Experimental Art Festival) (1995), Bandung Video, Film and New Media Art Forum (2002), OK. Video: Jakarta International Video Art Festival (2003), Cellsbutton: Yogyakarta International Media Art Festival (2007), Pameran Seni Media (Media Art Exhibition) (2010 & 2011), and Influx: Strategi Seni Multimedia di Indonesia (Influx: Multimedia Art Strategy in Indonesia) (2011). These case studies show how video as the once-main medium of expression in this new artistic movement has expanded to more diverse media technology to enhance creative possibilities.

Despite the enormous efforts and initiatives by private sectors and international arts institutions, most media art events in Indonesia have been organized in Java-centered metropolises such as Jakarta, Yogyakarta, Bandung, and Surabaya. For that reason, although it has three decades of history, it is not a form of art that has been accessible by residents of various regions of Indonesia. Moreover, except for a few regularly held festivals managed by the individual artist communities and independent curators with considerable knowledge and networks, sustainability is still the main challenge for the future of media art in Indonesia.

The integration of local wisdom within the framework of ethno-pedagogy and the evolution of media art in Indonesia creates a fertile ground for understanding how FKSM can serve as a strategic tool to enhance local cultural values. By examining the rich traditions of local wisdom, the author will show the importance of preserving and teaching these values to foster a sense of identity and continuity within communities. Ethno-pedagogical approaches highlight the potential of local knowledge to innovate and empower, providing a robust educational foundation that aligns with the cultural and social fabric of Indonesian society.

Concurrently, the development of media art in Indonesia demonstrates a dynamic and evolving artistic landscape. From the early experimental art movements to the establishment of significant media art festivals, there is a clear trajectory showing how media art has become a vital medium for artistic expression and social commentary. By placing FKSM within the mapping of media art development, this research will show how this festival can underscore the transformative power of media art in addressing contemporary issues and engaging diverse audiences.

Methods

This study is based on both descriptive and historical approaches. It utilizes a practice-led curatorial research method in which the researcher becomes a tool to examine and facilitate FKSM that is the very creative product by the researcher. Practice-led research is an arts-based research approach in which the researcher's art practice is the driving force of initiating and carrying out the research to generate new knowledge of artistic concerns (Haseman, 2007). As "discovery-led", not "hypothesis-led" (Mateus-Berr, 2013:156), the process of reflection and action within practice-led research reveals new meanings and possibilities (2013:154). In that sense, integrating between research and practice through curatorial action is instrumental to conduct this study.

The focus of this study is a media art curatorial practice initiated and organized by the researcher and therefore, her direct involvement in each step of curation is essential. Festival Komunitas Seni Media held in Bengkulu in 2022 became the main object of this study and therefore, a test site for the ideas examined in the analytical process.

This study was conducted in the city of Bengkulu, West Sumatra. The location of this study and the festival is UPTD Cultural Park of Bengkulu Province (UPTD-Unit Pelaksana Teknis Daerah Taman Budaya Provinsi Bengkulu) at Jl. Pembangunan, Padang harapan, Bengkulu, West Sumatra.

The participants of this study include sixteen media art communities from diverse cities across Indonesia, curatorial team from Jakarta and Yogyakarta, specifically two curators who are the experts of media art exhibition and one curator who is the expert of intermedia performing art, government representatives from Jakarta and Bengkulu, local management crew and volunteers from Bengkulu.

A wide range of data was collected from participatory observation and document studies. Participatory observation entails researcher's notes and ideas developed while visiting the venues of Cultural Park, meetings with all participants (government representatives, curatorial team, artists, local management crew and volunteers) and observing response of the audience.

Documents include theoretical texts in ethno-pedagogy and art festival, conference papers on local wisdom, government document on cultural advancement, artist statements from FKSM, curatorial essays from media art exhibition catalogs, and personal notes of reflection from participatory observation.

Data is analyzed through ethno-pedagogical perspective, using thematic analysis elaborated by Virginia Braun and Victoria Clarke (2006). According to them "thematic analysis is a method for identifying, analyzing, reporting patterns (themes) within data (Braun, et al, 2006:6).

The procedure of thematic analysis in this study starts with the researcher's familiarizing with the data during her meetings with participants to discuss their concept of exhibiting artworks, and also during meetings with government stakeholders and local management crew. The themes for analysis are divided into: (1) local wisdom and (2) cultural value found in FKSM. In order to generate initial codes and collate them into potential themes related to 'local wisdom,' the researcher paid attention to the data of artist-curator meetings, artist statements, and actual exhibition artworks by 13 artists from exhibition program. As for the codes and themes related to 'cultural value,' the researcher looked into the working and practicing method of all participants during realization of the festival. Once the thematic 'map' was drawn, the researcher refined each theme through analytical description in this manuscript.

Findings

Local Wisdom in Media Art Festival in Indonesia

As mentioned in the introduction of this paper, the predecessor event of FKSM is Media Art Week (Pekan Seni Media) that was initiated by the Directorate of Arts, Directorate General of Culture, Ministry of Education and Culture in Indonesia. The theme of the 2018 festival was "Local Genius" as an attempt to present how local experiments can give new colors to the development of contemporary art and how such effort is carried out by the artists coming from the fringe of media art in Indonesia (Kelana and Rancajale, 2018:xx).

The curatorial rationale by Hafiz Rancajale and Andang Kelana (2018:xx) can be summarized that in the hyper-connected modern society, it is important to harmonize the external influence and the internal heritage, and this is where local genius plays a role. According to them, new content and technology are rapidly impacting the way media art is made, so it is important for media artists to enhance their own way of practice in the influx of foreign influence. Thus, the exhibition intends to introduce the mode of media art being performed in the regional context.

Multimedia artworks, kinetic arts and sound arts in the exhibition are ways of re-reading the socio-cultural conditions of society and the history that underlies them. Benny Wicaksono from Surabaya created an analogue machine titled "Uniting the Nation on a Microscopic Scale (2018)" by using parts of other machines, which is a popular practice method of many media artists from Surabaya. His machine interprets TVRI Palu's broadcast in another form in order to criticize the system of media (2018:11). Gubuak Kopi, an artist community from Solok, West Sumatra works with people in their area and also help them with media literacy. They presented an archival installation "Daur Subur (2017-2018)" as a cultural mapping of agriculture in West Sumatra. They built this map through community workshops on media literacy, archive management, and art productions in the form of text, images and audio visuals in order to examine local agricultural issues and the history of local traditions through art and media approaches (2018:16). Based on DIY method, Waft Lab from Surabaya co-produced with the audience cutting-edge traditional health products using recycled everyday materials. Titled "Urban Village Medical Practice (2018)", unlike the Western medicine, this traditional medical treatment is based on a holistic healing practice from pharmaceutical to spiritual care (2018:46).

Media Art Week: Local Genius presented artworks by 25 artists from diverse cities across Indonesia. As the curators explained in their curatorial essay, the idea of “Local Genius” in this exhibition serves as a reference as well as an artistic method based on their local context. Technology is not defined merely by means of its sophistication and cutting-edge devices. Technology adapts to intelligence, abilities and needs from local knowledge and tradition. Thus, media art combined with the idea of local wisdom can be a distinctive characteristic of Indonesian media art as it can enrich national identity and traditional culture while embracing international trend (2018:xxiii).

Despite their intent to present the power of local culture in dealing with foreign influences, some of the artworks presented in this exhibition seem not so much related to the curatorial concept due to their emphasis of abstraction, nor to elaborate how their art connects to the knowledge and wisdom driven by the people from the local society. Although the author’s understanding and analysis of the artworks is based on the descriptions and images of the work introduced in the exhibition catalog, it is advisable that if more artworks elaborate their own local culture or the hidden stories from the region of Palu where the exhibition was held, this festival could give the audience an educational experience of various tangible and intangible heritage through cutting-edge media art.

Local Wisdom in Festival Komunitas Seni Media

Meditation and Inner Peace

When we enter the Main Gallery, we will see numerous works of media art. **Studio DKV ITB Ahmad Dahlan** provides us with an opportunity to relax and focus on our inner self through meditative Virtual Reality animation. When we try on the VR headset, we will enter the most peaceful and beautiful forest, often found in Indonesia, so as to escape from the busy moment in our life. **Kecoak Timur and KAE** showcases a miniature terrarium inside a television, which was inspired by “punden”, a sacred and meditative place in Java society even back in prehistoric time. According to the artist, this place of “punden” has been forgotten as we chase convenience through technology. The artists hope to create a place for relaxation, worship, and meditation. **Prewangan Studio** also creates a meditation space based on Javanese spiritual traditions in order to enhance inner strength. When we enter their sound installation area, we will hear rain drops created by electronic elements and help us communicate between our minds and the universe.



Figure 1. Sound installation “Dome of Grains over a Pool of Water” (2022) by Prewangan Studio, artist community from East Java.

Preserving Tradition

Komunitas Gubuak Kopi presents an aroma installation inspired by the traditional ritual practice of farmers. The artists pay attention to the local wisdom from agricultural society and try to show how it is still valid in overcoming many of current problems. The idea of **Komunitas Lintas Seni** departs from linguistic tradition in Bengkulu, namely the Rejang language and the Ulu (Kaganga) script. These manuscripts provide an overview of Bengkulu's culture in the past. So, the artists hope that their audio installation can inspire the wider community to learn and preserve our local culture. **Asosiasi Seniman Bengkulu** was inspired by a rich history of musical traditions in Bengkulu, particularly a *kelawang* – a hollow coconut cob that is a part of *dhol* (or drum). The artists created an interactive sound installation that contains motion sensors so that when the audience move around the artwork, they will hear a musical sound. The kinetic installation by **Sinau Kinetik Seni**, which is located in the Open Space within Cultural Park is inspired by maritime culture and spice trading history in Nusantara archipelago, and thus it resembles the shape of ships, and movement of waves and oars



Figure 2. Kinetic shadow installation “KA.GA.NGA” (2022) by Komunitas Lintas Seni, local artist community from Bengkulu, the host city of FKSM 2022.

Harmony of Life

BAJRA presents an installation work and audio-visual performance inspired by the local folklores from the Malang Residency area that becomes a legend of the colonial period. Their performance is a new interpretation of the East Javanese performance art, called “*Bantengan*” which explores the relationship between humans, nature, and the guardian spirits in the cosmos today. The Small Gallery was dedicated to immersive experiences created by **Prehistoric Soul**. The gallery consists of numerous interactive installations that show human exploitation of nature on earth. The artists hope that if we position humans as the extraterrestrial beings from another galaxy, we can have a new perspective for the balance between humans and non-humans to create a better universe. A light art by **Tomy Herseta and Convert Textured** in Pyramid Room emits the random patterns of lights, glitchy sound compositions and distorted lasers, which creates a chaotic environment. Through this light installation, the artists want us to rethink the flood of information on the internet that we produce and consume at the same time.



Figure 3. Audience explores an immersive gallery filled with interactive installations "Dataome Intersection" (2022) by artist community Prehistoric Soul from Bali.

Local Way of Life

GaraGara Artist Initiative opens a biology laboratory within the Main Gallery where the audience can participate in experimenting a DNA extraction from food that we eat on a daily basis. Incorporating local ingredients, the artists hope to increase a public awareness on food security and natural resource management. **SARANA** created an audio-visual installation that combines video and sound pieces collected from activities in Bengkulu by local people in the city. Based on the third person perspective, this audio-visual piece is familiar yet gives a new perception of the every-day life of Bengkulu. An interactive sound installation by **Waft Lab** was inspired by the street performers, or also known as buskers, who are commonly found in Indonesia. Like the Indonesian street performers, this musical instrument is equipped with a variety of used objects such as gallons, plastic bottles, and glass bottle caps. Audience can interact with the work through touchpad and play music themselves.

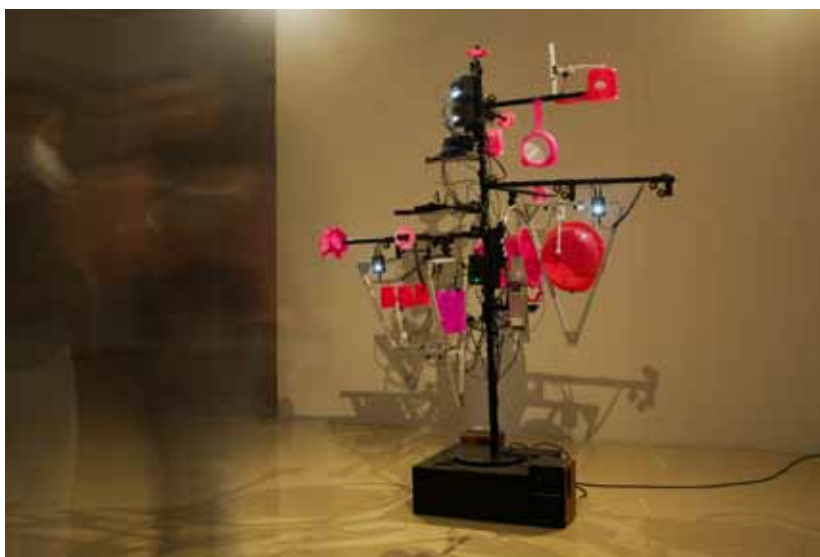


Figure 4. Interactive sound installation "Wanmenben" (2022) by Waft Lab, artist community from Surabaya.

Informal teaching and learning Cultural Values in Festival Komunitas Seni Media

FKSM became an educational opportunity for all participants as they learn and exercise local cultural values through the concept of ethno-pedagogical practice. They learn the meaning of regional value by elaborating the festival theme; the importance of knowledge exchange through mutual understanding between the curatorial team and local management crew to help continuation of the festival; the sense of inclusiveness by opening up the opportunity to artists of diverse backgrounds and outside the mainstream art; and the practice of collaboration between the artists and curatorial team. The figure below illustrates the integration strategies of local values in artworks and festivals. An in-depth explanation follows afterward.


Value	Integration strategy through ethno-pedagogical approach	Image	Description
Locality (regional value)	Emphasizing locality ensures that local cultures and traditions are preserved and promoted. This helps maintain the unique identities of different regions within Indonesia. In addition, this approach empowers festival visitors with a deeper understanding of their own history and traditions.		<p>This outdoor kinetic installation titled “Past Glories for the Present and the Future” (2022) is created by Sinau Kinetik Seni from Yogyakarta, which is inspired by Indonesia’s maritime culture and spice trade history. The installation consists of two pieces, one shaped like a ship with oars and the other representing the movement of waves. The artist used bamboo as the material for the installation because it has a strong cultural root in Bengkulu. The waves symbolise progress, while the oars represent collaboration, <i>gotong royong</i>, a strong value for Indonesian people.</p>

Figure 5. Table of local values integrated into artwork and festival management. Continued next page.



Value	Integration strategy through ethno-pedagogical approach	Image	Description
Continuity (knowledge sharing)	Focusing on continuity ensures that cultural traditions are passed down through generations, preserving the cultural heritage and identity of Indonesia. The focus on continuity and shared knowledge in media art creation and festival organization enriches the educational landscape. It supports the development of well-rounded individuals who are culturally aware, technically skilled, and capable of contributing to both their local communities and the wider world.		On March 6, 2022, the curatorial team from Jakarta and Yogyakarta met with the local management crew and artist communities in Bengkulu to discuss the festival. This meeting was crucial for understanding each other's practices and expectations, as well as for sharing the working methods of each party. The goal was to streamline the preparation process and ensure that everyone had the necessary knowledge and skills to contribute effectively to the festival's success.
			On July 14-16, 2022, a media art-making workshop was conducted for local artists in Bengkulu. The workshop was led by Waft Lab, an artist collective from Surabaya, East Java. Two groups, each consisting of 10 participants, learned about automation work systems, which is basic technical knowledge in media art creation. By the end of the workshop, they had produced a prototype as an outcome.

Figure 5. Table of local values integrated into artwork and festival management. Continued next page.

Value	Integration strategy through ethno-pedagogical approach	Image	Description
Equality (inclusiveness)	Ensuring equality in cultural development promotes inclusivity and fairness. It confirms that all cultural groups have equal opportunities to preserve and develop their cultural expressions. This inclusivity fosters a rich and diverse learning environment where participants can learn to appreciate differences, which is a vital component of personal and communal growth.	 	The festival was hosted in Bengkulu, located in the western part of Sumatra. Bengkulu is a city of historical significance, having served as an important colonial trading post and as the place where Indonesia's first president, Soekarno, shaped his ideas for the independence movement. Despite its cultural diversity, the city lacks media art activities.
		 	Artists participated from cities across Indonesia — including Bengkulu, Pasuruan, Jakarta, Bali, Gresik, Solok, Tuban, Samarinda, Yogyakarta, Solo, Bandung, and Surabaya — illustrates the importance of such diversity. This broad representation allows for the exchange of ideas and techniques, enriching the knowledge base of all participants.
Mutual Cooperation (collaboration)	Fostering mutual cooperation, or "gotong royong," is a traditional Indonesian value that emphasizes communal work and mutual aid. This spirit of cooperation strengthens community bonds and supports collective cultural initiatives. This approach encourages lifelong learning, cultural appreciation, and the development of practical skills that are essential for personal and professional growth.	 	The opening video mapping performance was a collaborative effort by four distinct communities: Jonas Sestakresna-Ruang Asah Tukad Abu (Bali), Bengkulu Performance Artist (Bengkulu), UVisual (Bandung), and Sanggar Rentak Gading (Bengkulu). This mutual cooperation resulted in a dynamic blend of tradition and modernity, seamlessly integrating traditional performance with new technology.

Figure 5. Table of local values integrated into artwork and festival management. Continued next page.


Value	Integration strategy through ethno-pedagogical approach	Image	Description
			Two curators for the media art exhibition and one curator for intermedia performance worked together to ensure these two art disciplines were harmoniously integrated into the festival's main theme. Numerous discussions were held between the curators.

Figure 5. Continuation of the Mutual Cooperation (collaboration) listing in the table of local values integrated into artwork and festival management.

1) Value of Locality (Regional Value)

Festival Komunitas Seni Media (FKSM) in Bengkulu this year is titled “Medi(t)ation Rites/Routes,” which serves as a forum to trace and critically think about how media and its culture has changed the way people connect themselves to the world around them in Indonesia and in Bengkulu in particular. Media, whether it is traditional or cutting-edge, has always created a new environment and culture of diverse dimensions. Not only causing disruption, but it also opens up new possibilities of mediating the future of culture.

The title “Medi(t)ation Rites/Routes” was chosen as a way to explore the concept of rites and routes by means of mediation and meditation. The meaning of rites is not solely attached to the context of tradition, but also related to the rituals of daily life as a cultural practice. Likewise, the route represents multiple meanings as it can refer to the social, symbolic and geographical route that also forms the face of culture.

Through commission, invitation, and open call, the artists of the festival interpreted the phenomena and practices of mediation, which is the very characteristic of media and meditation, which is the way of reaching out an awareness that occur in various phases of rites and routes in history and how they intersect with the context of tradition and modernity. The growing media with numerous scientific and technological advances is forming diverse types of interesting rites and routes to be further explored in the meditative spirit - a power to meet with spiritual awareness.

In this curatorial frame, Bengkulu becomes a metaphor of enriching history of rites and routes that are unique in their position and relation to other places in the global space.

2) Value of Continuity (Knowledge Exchange)

Unique characteristics of FKSM 2022 is that it aims to exchange knowledge of both media art and the curatorial process to the local participants in Bengkulu. The only managing team for the festival traveled to Bengkulu, which includes 3 curators, 1 assistant curator, 2 assistants, 1 exhibition coordinator and 2 display assistants from Jakarta, Bandung and Yogyakarta. The rest of the managing team was recruited in the local city. For example, 2 local coordinators were invited to collaborate with the managing team. The local coordinators

recruited local managing staff and volunteers in order to collectively take care of a series of public programs during the festival, including seminar, artist talk, student workshops, opening ceremony, and gallery tour. In addition, the display team and documentation team were also recruited in Bengkulu. Having numerous local staff as part of the managing team allowed the local participants to be able to learn how to build a media art exhibition, and at the same time, the managing team from Jakarta and Yogyakarta to learn the way local team work.

Knowledge exchange was also made to 10 local artists from diverse backgrounds to a series of media art workshop programs. This workshop program is conducted by one of the participating artist communities Waft Lab from Surabaya. Waft Lab was established in 2011 as an interdisciplinary initiative that is based on DIY (do it yourself) spirit through the practice of art, science and efficient technology. Since its inception, Waft Lab has initiated various activities such as workshops, discussions, exhibitions, and festivals with an aim to develop fresh ideas and build sustainable collective networks. Industrial living in Surabaya and production of a great amount of industrial waste becomes a motivation for their creative process. They also utilized methods of hacking, twisting and reconstructing which are part of their mundane culture (waft-lab.com).

The media art workshop was held in July, 2022, the 10 Bengkulu artists who were selected as participants explored an idea to develop automation work systems using a microcontroller and relay module to execute commands. This media art workshop is designed for 3 days with a series of learning materials, from introduction, practice to production. 2 groups of 10 participants collaborated in the process of making prototypes of light, motion, and sound-based installation art which was later developed into a final artwork to be exhibited during the main event in October. The two groups are Komunitas Lintas Seni and Asosiasi Seniman Bengkulu.

3) Value of Equality (Inclusiveness)

This festival is based on several important artist selection systems. First, the selection scheme includes 3 commission artists, 4 invitation artists, 4 open call artists and 2 artists from Bengkulu. Consideration criteria includes gender balance, multi/transcultural, multi-regional, and disabled/special needs, if applicable. The scheme of artist age is 25% for the age of 20s, 50% for the age of 30s, and 25% for the age of 40s–50s. This selection scheme aims to provide exhibition opportunities to wider Indonesian artists.

As mentioned previously, media art development in Indonesia was centered around the three major art cities in the Java Island – Jakarta, Bandung, and Yogyakarta. This Java-centric phenomenon is due to the fact that Java is not only the birth and nurtured place of Indonesian modern and contemporary art, it is also the mecca of art education and presentation. The infrastructures and resources developed as the result of the regular art activities continue to drive the concentration of arts and culture in this region. Media art is not an exception that most media art initiatives and events in Indonesia have been organized in the Java-centered metropolises. Although media art is not a new artistic form in Indonesia as much as media itself is commonly used in the country, it is not a common form of art that has been created and enjoyed by artists and residents of wider regions of Indonesia. Therefore, FKSM aims to provide both artists and audiences with an equal opportunity for creation and appreciation.

4) Value of Mutual Cooperation (Collaboration)

In FKSM there are two aspects of collaboration: artist and curator.

The festival invites community-based artists, not an individual artist. Therefore, those who want to participate must create a community if there has not been one. It is because this year, the program focuses on several artist collectives across Indonesia to demonstrate the social role of art through the local art communities' innovative and collaborative artistic approach. Indonesia is a country that is built upon a philosophical idea of "gotong royong" which means mutual cooperation in English. By helping each other and collaborating with one another, Indonesian people have endured difficult times, such as the prolonged pandemic since 2019, and they have built their trust in a communalistic-collective way of life which is grounded in every aspect of life, including art.

In addition, the three curators have collaborated with each other in many aspects, such as building a main theme and preparing for the opening performance. By mutually working together, the curators have been learning of the value of cooperation as an important local culture.

FKSM certainly proves to become a space for community to teach, learn, and share each other about the cultural values and local wisdom. In this regard, by combining the concept of an ethnic-pedagogical approach with media art exhibition, FKSM can represent an Indonesian festival mode to enhance the local culture for better society.

Discussion and Conclusion

We grow continuously through various learning experiences in life. Art exhibitions and cultural festivals provide unique opportunities for learning new knowledge through the interaction between the presented art and the appreciative audience. Drawing from the researcher's direct experience as a curator at the Media Art Community Festival (FKSM) in 2022, it becomes clear that learning extends beyond the arts. It also encompasses managerial skills. Moreover, learning and teaching occurs mutually among all participants. Consequently, based on local wisdom and knowledge, the educational impact of FKSM is immense. By emphasizing core values such as locality, continuity, equality, and mutual cooperation, FKSM serves as an exemplary model of ethno-pedagogical practice.

No matter how excellent the education or cultural content, it holds little value if it doesn't endure. A significant aspect of preparing for FKSM was to instill confidence in local artists, empowering them to plan similar cultural events independently. James Drummond et al. (2021:8) stress that the success and development of a festival's cultural identity depend on the involvement of local stakeholders. To this end, the FKSM management team prioritized collaboration between the local community and government organizers during the planning phase to ensure the festival's sustainability.

This study concludes that Media Art Community Festival provides participating artists coming from diverse cities across Indonesia with an opportunity to learn about the culture and tradition of the host city as their creative inspiration (value of locality). The festival enables knowledge exchange between the experienced curatorial team and the local management crew consisting of local artists and art students who can continue to help build

the media art festival of their own (value of continuity). The Indonesian government-led media art festival can be a driving force for the equal development of the national media art scene as its host city each year is chosen from outside Java Island (value of equality). By collaborating with people from different backgrounds and perspectives, this festival demonstrates the fundamental philosophy of Indonesia, namely “gotong royong” (value of mutual cooperation). By integrating traditional practices with modern technology, FKSM provides a comprehensive educational experience that highlights the importance of cultural heritage while embracing contemporary artistic expressions. In this way, FKSM can serve as a model for media art festivals that represent Indonesian local values and wisdom.

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Open Source Art Performance Phase 1: Inclusive Design and Implementation *of an Open Source Online Art Archive in Thailand*

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Abstract

Open Source Art Performance (OSAP) was established in 2019 to bridge the gap between contemporary art and culture for the people of Thailand. The project aims to create an open-source online archive of art and cultural information that can be used for educational purposes. In the first phase, OSAP utilized documentary research, quantitative research, participatory action research, and archival digitization as the research methodologies to collaborate with four artists, two educational institutes, two art institutes, and two local communities to gather primary data from the artists' work, academic forums, and public events. The collected data was then transformed into an online art archive using a user-friendly website called "<https://www.osartperformance.org>," which follows the Inclusive Design concept. OSAP organized ten participatory activities in the first phase to encourage public engagement with contemporary art and culture. These events were attended by 1,076 people, both online and offline. The website collected 71 archives, and Google Analytics data from 2020-2021 showed 210,183 social engagement approaches. Overall, this article portrays the successful initiative process of OSAP phase 1 which focuses on creating a website by using the concept idea of inclusive design, which strives to provide a platform for artistic and cultural expression that is accessible to all. The project's collaborative approach ensures that the archive reflects the diversity of contemporary art and culture in Thailand.

Keywords: *Inclusive Design, Archive, Open Source, Online Art Archive, Art Education, Thailand*

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Introduction

Although the term "Archive" is gaining popularity in the contemporary art scene, the use of archives for education purposes has received little attention, especially in Thailand. Artworks, including documentation of various artistic processes, are considered "cultural products" that are valuable and tradable. However, the dissemination of such archives as a body of knowledge is limited, as traditional archiving methods require physical storage space, making it difficult for people to access information. Therefore, there is a need for an "Open Source Archive" that can be used extensively for research and studies. To address this problem, the researcher aims to create an "Open Source Online Archive", a website that connects creators and art enthusiasts and provides information about the artistic process and methods. The platform will be easily accessible to the general public and researchers.

Open Source Art Performance (OSAP) is an online platform established in 2019 to improve the quality of the archive in Thailand and support the educational system. OSAP's goal is to create an open-source online archive for people to acquire knowledge about art and culture, as well as the conceptualization of contemporary art. The platform aims to serve as an open space for collaboration between artists, organizations, local communities, and individuals. During the first phase of OSAP, a website was designed to collect information and collaborate with various Thai local communities, educational institutes, art venues, creators, and individuals. OSAP seeks to promote local identities and multidisciplinary art aesthetics, such as visual art, sculpture, printing art, mixed media, installation art, digital art, music, and performing arts. The archives on the OSAP website include interview scripts, still images, and motion pictures. Additionally, the OSAP platform's system is being prepared for the API system to share the archive from other art organizations in the coming phase.

Literature Review

Archive Phenomenon for Contemporary Art in Thailand

People nowadays can quickly obtain information through smart devices due to the availability of the internet. Contrary to popular belief, knowledge of contemporary art appears challenging to obtain due to conceptual barriers and the scarcity of physical archives. Art has often been seen as "something special" and removed from everyday life, which has hindered its development as an educational field. However, art is present in various forms across cultures, and modern technology has made it more accessible to the public. This has helped to bridge the gap between artists and their audience, promoting equality, safety, and artistic expression. As a result, art has become a vital tool for community communication and engagement. Art has been used as a link between residents in the community by social workers and social activists in the form of Community Art to encourage participation among youths and adults. Community Art enables residents to create works of art in which they can take pride and address community issues or showcase local identities. Professional artists mostly help establish interaction among locals and inspire the community when creating community art.

Diversity and participation have been known for quite some time, as emergent concepts in discourses in Postmodernism around the mid-twentieth century as a resistance or challenge to modernism. Different disciplines build upon these discourses and refine their criteria to be suitable for further exploration in their specific fields. Some important fields emerged such as deconstructionism and post-structuralism, which did not matter when

looking at the structures now. Nonetheless, author-centricity in the arts and academia persists after all these years, particularly in international events that support local identities and interests (Koh, 2023:108).

Contemporary art allows audiences to participate in art projects in a specific context and time. Furthermore, artists can conduct experiments freely through art expression. Although contemporary art has no boundaries, archiving systems are impractical because these projects have been collected separately by some art organizations, probably due to the lack of a systematic central database that is publicly accessible. However, professional artists in Thailand have created numerous art and activities for many years. Many contemporary media artists around the world no longer must rely solely on public galleries and museums to display their work physically; On-site art exhibitions may no longer be required for gallery and museum endorsements (Kumjim, 2018:78). However, education in New Media Art has been limited in Thailand. There was no central location where artists or the public could learn about the New Media Art genre. Developed an online platform in the form of a multimedia e-magazine that emphasized the direct relationship between online communication and the New Media Art as the subject matter (Javanalikhikara and Phao-savasdi, 2019:74).

Inclusive Design and Web Design in Terms of User Friendliness

Inclusive design does not aim to design one product for all groups, but it can guide the development of an appropriate design for diversity (Boukas, 2008; Kasemsarn 2022:100). In terms of User Experience and User interface (UX/UI) for web design, understanding user expectations and the needs to be considered in the design process is essential in web design. Visual appeal, ease of use, accessibility, and human-computer interaction (HCI) are the most critical factors. A Web page's visual appearance influences how a user will interact with the page. Web page structural elements (such as text, tables, links, and images), as well as the uses of their characteristics (such as color and size), are the main factors to determine the visual presentation and complexity level of a Web page (Michailidou, Harper, and Bechhofer, 2008:111-114). Visual aesthetics significantly impact mobile website user experience, as evidenced by longer dwell times and more fixations on important page areas. In their study, eye-tracking technology was used to investigate this impact. The authors further found that the effect of visual aesthetics on user experience is moderated by the user's familiarity with the website (Forghani, Kujala, and Kaikkonen, 2021).

Website as Open-Source Online Archive

“Open-source refers to software or a project that is freely accessible and can be modified, distributed, and typically available to the public. The principles of transparency, collaboration, and community involvement are often central to the open-source philosophy.” (Weber, 2004:387). This definition highlights the importance of user freedom in open-source software, platforms, or projects emphasizing that users have the right to access. The idea of Open source is thus adaptable to the open-source online archive.

Guédon (2008) described that an open-source online archive refers to a digital repository of information that is freely accessible and can be modified, distributed, and used by anyone. The content of an open-source online archive can range from text-based materials, such as documents and images, to multimedia resources, like audio and video files. The principles

of transparency, collaboration, and community involvement are often central to the open source philosophy and can help to ensure the long-term sustainability and accessibility of the archive. In addition, the content in the open-source archive is typically organized and searchable and may be curated by a community of users who contribute to its creation and maintenance. He also emphasized the need for a cultural shift in how scholars think about and engage with open access to promote global diversity and the sharing of knowledge across borders and cultures.

The challenges that contemporary artists and archivists confront in maintaining and making their work available in the digital age were shown by McElhone (2018), who looked at the archival procedures and preservation of the works of conceptual artist John Baldessari. Contemporary art sometimes uses complicated installations and new media, making traditional preservation procedures inadequate. To develop new strategies for archiving and conserving contemporary art and to modify archival techniques to fit the demands of newly developing art forms, it is imperative that artists, archivists, and scholars collaborate and experiment (Kaji-O'Grady, 2015).

Geraghty (2016) wrote an article that anyone interested in the intersection of art and archival practices would find useful. His article investigated the role of creative archives in preserving the work of international artists by examining case studies of creative archives from around the world, including the archives of Pablo Picasso and Lucian Freud. The findings demonstrated the importance of creative archives in providing insights into the artistic process and contextualizing artists' work within its historical and cultural context, including copyright, access, and digital preservation. Document storage system trends have shifted from physical materials to a digital archive collection where the data is permanently stored in the cloud. As a result, incorporating several practical functions into the digital system can be achieved through an innovative medium such as the digital platform, an essential part of an open-source online archive that can modernize a traditional collective style and broaden digital collective practice and data accessibility.

Lastly, according to visiting a physical and online archive collected by Boris Nieslony, founder of "The Black Kit (Die Schwarze Lade)", The Archive for Performance, Action and Intermedia Arts in Cologne, Germany (Black Kit, 2018), together with "Asia Art Archive" in Hong Kong (Asia Art Archive, n.d.), the Researcher has learned the drawbacks of a physical archive which is because there are always art projects taking place every day around the world. The information concerning these projects is difficult to keep in a limited space.

Research Methodology and Conceptual Framework

The project employs three main research methodologies, which are Documentary Research, Quantitative Research, and Participatory Action Research. The project framework has been established, and it is divided into 4 parts:

Part 1: Website Creation, Looking for Artists and Partnerships for the Project

1. Registering the domain name www.osartperformance.org and structuring the website for Open Source online Archive by focusing on UX/UI, Art Direction, and font.

2. Inviting at least four independent artists to participate in the project with the according criteria:

- Being an emerging artist aged from 20 to 45 years old in any gender identities.
- Their artworks must be integrated from various mediums.
- Having a keen interest in working with communities to solve community issues or enhance the community's uniqueness through their extensive working experience.

For the conceptual framework of individual artists, they have committed themselves to contribute at least one recent project per artist to the open source online archive. Additionally, each artist is required to create one project for the chosen local community that aims to address specific issues faced by the community, whether it be raising awareness or providing support.

3. Aiming to Coordinate with one art institute, two educational institutes and one community with the following collaborative roles:

- Supporting the projects for holding academic forums or workshops
- Supporting the projects for collaborative activities that reflect community issues or strengthen community identity.

Part 2: Documentation and Transforming into Open Source Online Archive

In terms of archive production, the project aimed to acquire 17 databases with the following steps:

1. Recording and organizing artists' archives through still images, motion pictures, and interview records about the academic context and the artistic process. The records will be a partial element of the "Artist's Archive" on the OSAP's website.
2. Documenting and organizing artists' projects that reflect collaborative action to address community issues or strengthen community identity, as well as the records of the primary data from project activities that will be transformed into archives as a partial element of the "OSAP Archive."

As part of the Artist Archive, individual artists are invited to create video introductions of themselves, which helps the audience understand the artists' perspectives and the concept behind their practices. In addition, OSAP collects documentation of the artist's works, which are then used as content for the Artist Archive menu on the website. Similarly, as part of the OSAP Archive, primary data from project activities that involve collaborating with invited artists, educational institutes, art institutes, and the local community are recorded in the form of forums, academic talks, and site research. After that, the records are used as content for the OSAP Archive menu on the website.

Part 3: Organizing Activities and Project Publicity

1. Activities that collaborate with the project's partnership, which includes artists, art institutes, educational institutes, and communities, are planned and organized. OSAP intends to have 1,000 participants in 7 activities to complete the project in phase 1.

2. Organizing the project's public relations through public spaces, educational institutions, art institutes, and various social media platforms such as Facebook, Instagram, Youtube, Soundcloud, and an e-newsletter. The project is expected to receive 150,000 accesses through its online channel.

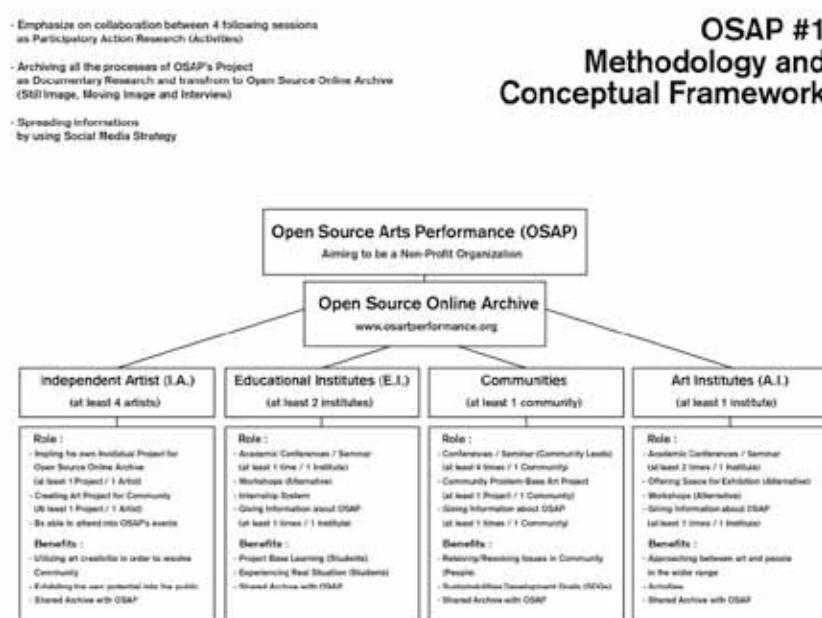


Figure 1. Diagram of conceptual framework of OSAP Phase 1.

Part 4: Evaluation

The project set the key indicators related to the research methodology and conceptual framework of the project, which is follows:

Conceptual Framework	KPI
1. Building a network of cooperation	
• Cooperating with Artists	4 Persons
• Cooperating with Educational Institute	2 Organizations
• Cooperating with Art Institute	1 Organizations
• Cooperating with local community	1 Communities
2. Participatory Activities	
Number of Activity	7 Activities
• Activity with art Educational Institute	1 Activities
• Activity with Art Institute	1 Activities
• Activity with Local Communities	5 activities
3. Number of Participant from Activities	1,000 Persons
4. Archive	
Number of Database	17 Databases
5. The number of people who have accessed the project via online platforms	
Number of online access	150,000 Access

Figure 2. Table show the KPI of the Open Source Art Performance Phase 1.

Google Analytics has been used to obtain fundamental data about the viewer, such as hometown, numbers, and interests. In addition, the application allows us to analyze the viewers' genders, ages, and countries. Google Analytics can also track the E-newsletter read by the receivers.

Project Implementation

Creating the Website for Open Source Art Performance

The domain name www.osartperformance.org has been registered for OSAP's (Open Source Art Performance) website, which has been designed and structured by professional web designers and web developers to collect archive data with three primary focuses:

Website Appearance

OSAP's website is designed with a focus on "User Centered System Design" by using inclusive design theory, and the principle of interaction design. Visibility is the basic principle that the more visible an element is, the more likely users will know about it and how to use it (Norman, 2013). The primary focus is the art direction of the website, which was to set the mood and tone of color and text to make the user feel the warm welcome of the online platform.

The Art Direction

OSAP's website emphasizes a warm modest, and intellectual feeling, and the tone of the website aims to provide users with a sense of accessibility and intellect at the same time. Thus, Pantone of cool and warm pastel colors is selected to convey the sense of youth, casualness, and entertainment and is used for community archives. In addition, Pantone of dark, calm, and warm pastel colors are selected to represent the sense of solemnity and intellectuality and are used for academic conferences and art exhibition archives.

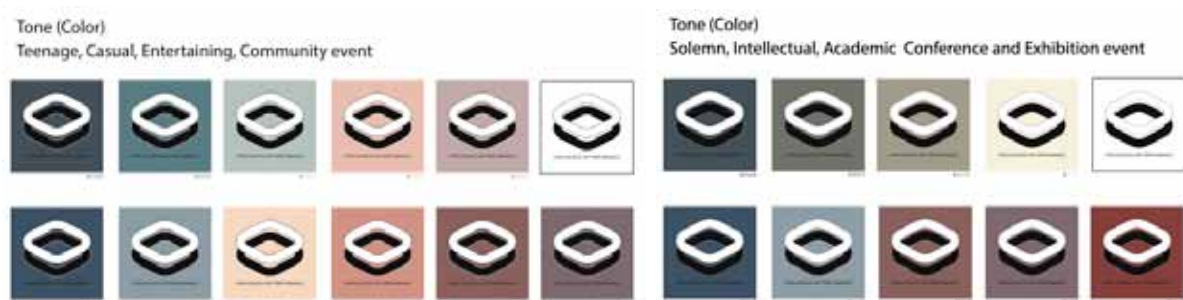


Figure 3. Art direction: Color tone of OSAP's Website.

OSAP's website typography has chosen fonts that complement the art direction and are warm, modest, and intellectual, placed into three elements, which are as follows:

Font for the website's headers and footers

"Akzidenz Grotesk," a sans-serif typeface font that is free for personal use. Furthermore, this font is appropriate for any work, particularly Headlines and Titles. It is ideal for headlines and titles due to its techno style and bold weight. This font can also be utilized for slogans or quotes (Akzidenz Grotesk Font download free, 2020).

OSAP chose "Ekkamai (TH)" for the Thai language Header and Footer. This simple font will support and enhance other artistic elements to become more valuable in suitability and coverage for various applications and occasions. At the same time, it retains the simplicity and modernity unique to this font set as a whole (Ekkamai New, n.d.).

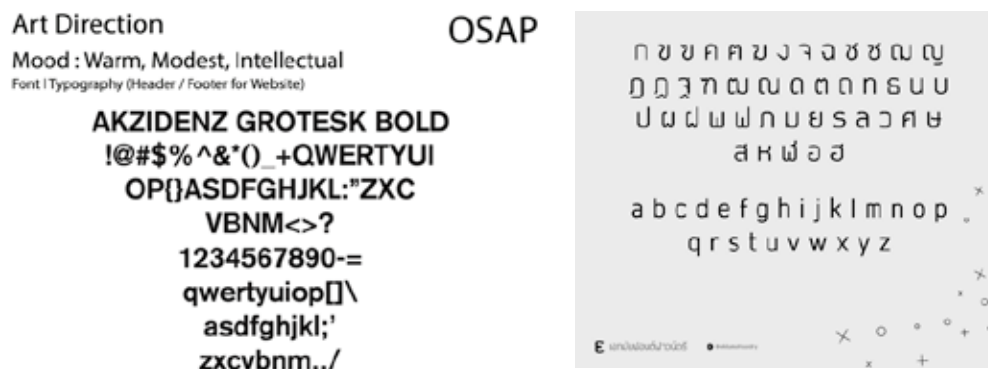


Figure 4. Akzidenz Grotesk and Ekkamai (TH) font view.

Font for content layout and composition of the website

"Body Text Assets Light," also known as body copy or main text, corresponds to any text that appears in the main body of a book, newspaper, web page, magazine, or other printed or digital content. Body text differs from other text on a page, such as headers, sub-headers, and footnotes. The main goal of the body text is to make the text easier to read. To that end, body text should be written in a legible font at small sizes, allowing readers to easily recognize the letters (what is body text, 2022).

"CS Prajad" is a simple Thai font with standard letterforms. Continue drawing lines, and no shoe at the bottom of the letter is suitable for creating book content or any text that requires elegance. This font is simple to read in a set of four: average, thick, skewed, and skewed, and it is compatible with all programs and operating systems (CS Prajad, 2014).



Figure 6. Orkney Light, Regular and Bold font views.

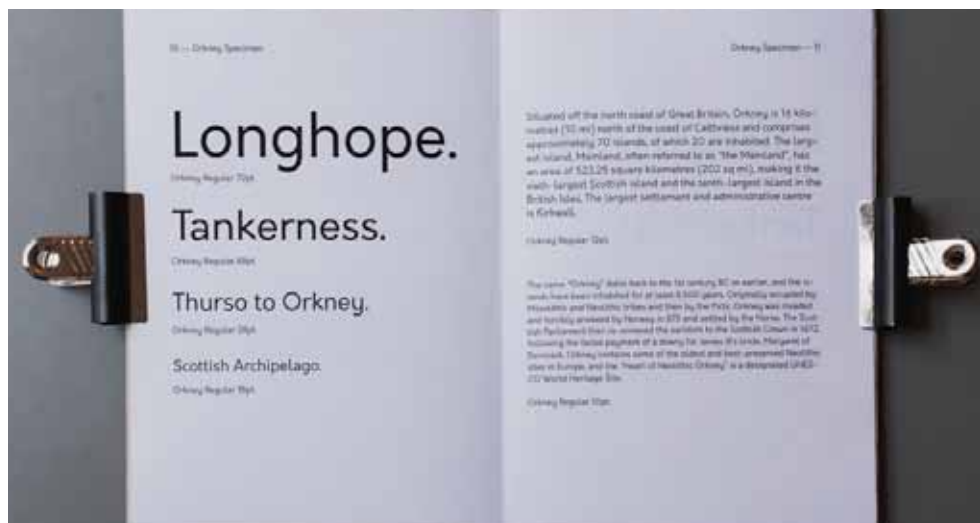


Figure 7. Orkney font view on hardcopy artwork.

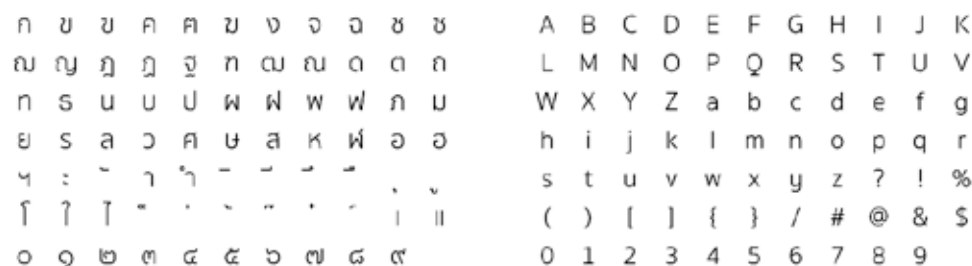


Figure 8. Sukhumvit Light font set view.

User Experience (UX) and User Interface (UI)

UX/UI is a crucial aspect of technology that deals with the part of technology that users directly engage with. The more complex the technology is, the more UX/UI is required. UX comprises four experience threads, including sensory, emotional, compositional, and spatiotemporal experiences. These threads of experience can involve sensations of warmth or confinement in a place and the impression of time moving slowly or rapidly (McCarthy and Wright, 2004; Hassenzahl and Tractinsky, 2006). On the other hand, UI is the part of technology that users interact with and observe firsthand. Although UX is not a technology in itself, it can be defined by the design of the UI to assist people in interacting with technology effectively.

The website is programmed in Bilingual (EN/ TH) and in both PC and mobile versions, with the concern of broader user accessibility; the main menus were categorized so that users could explore the website and link to Social Media such as Facebook, Instagram, Youtube, Twitter, and Soundcloud practically and simply.



Figure 9. OSAP's website appearance in PC and Mobile versions.

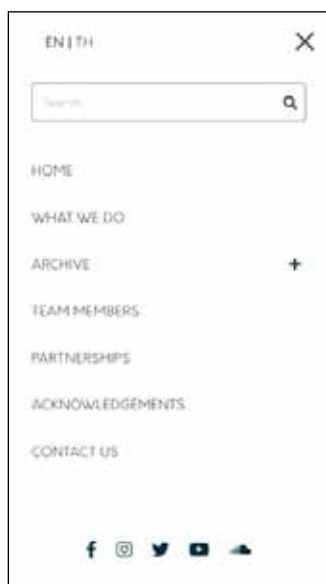


Figure 10. Main menu of OSAP's website appearance with social media Icon in PC and mobile versions.

Structure and System of the Website

Norman's "Human-Computer Interaction (HCI)" highlights the importance of designing computer systems and interfaces that are easy to use, efficient, and enjoyable for users. "User Centered System Design" is a crucial aspect of this process, which aims to create user-friendly and effective computer systems (Norman, 2017). When it comes to educational websites, they serve various purposes, such as presenting information, online learning, providing facilities to students, promoting the institution, or research funding. However, the information content is the most significant factor for these websites as students, parents, professors, or researchers use them and are concerned about the quality of information (Agarina, Karim, and Sutedi, 2019; Devi and Sharma, 2016; Nielsen, 2006). Devi and Sharma (2016) also state that users of educational websites usually have two questions in mind: (1) Can I find the information I am looking for on the website? (2) Can I find the information promptly? Therefore, the success of educational websites primarily depends on the quality and accessibility of information, which is directly related to the website's structure and system of OSAP.

The website of OSAP has a user-friendly design that enables visitors to easily navigate all archive categories the homepage displays random archival content from the Archive main menu, allowing users to explore the site's content by simply scrolling down. Users can click on "UPCOMING EVENTS" to access information about events that are set to take place, or "LATEST EVENTS" to learn about events that have already occurred. By clicking on "MORE EVENT," users can access the platform's central archive. Thumbnail images display the event or article title, event date, and tag for each session. In addition, OSAP's website includes a "Tagging System" at the bottom of the homepage for recording a type of event, artistic format, event topic, and current issues in the form of keywords. The Tagging System also allows users to view the archive of their interests by exploring tags or typing a keyword into OSAP's website's search engine. Once the user clicks on Tag, a list of specific archive form keywords appears.



Figure 11. Appearance OSAP Archival contents in the Homepage (PCs and Mobiles).

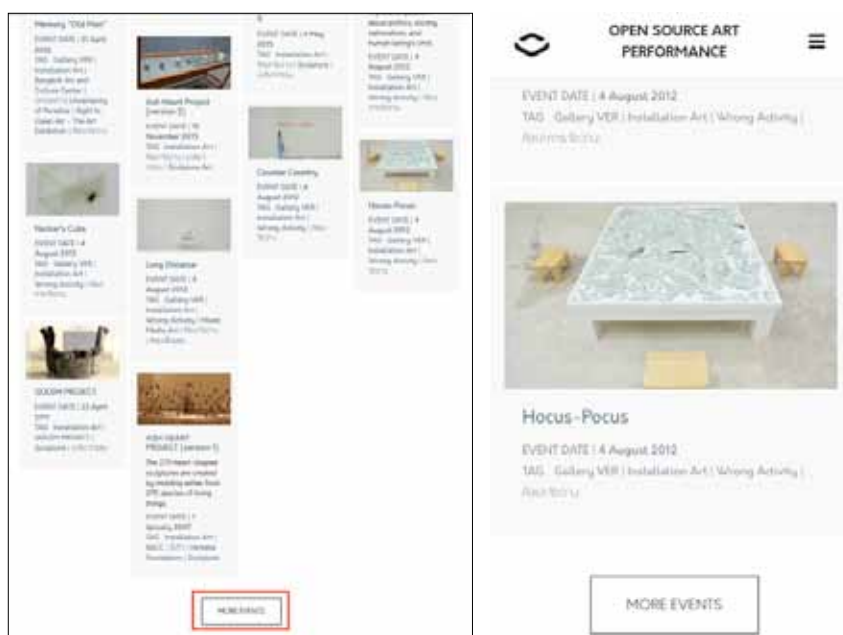


Figure 12. MORE EVENT Button (PCs and Mobiles).

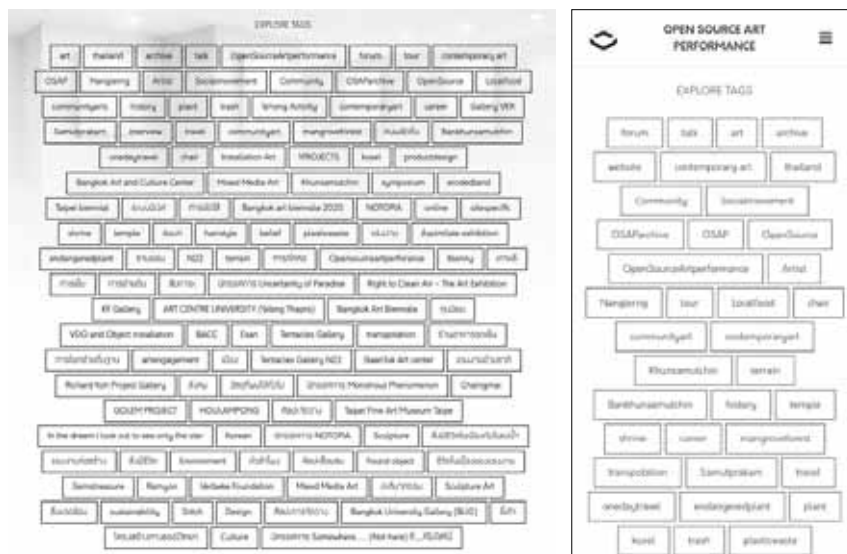


Figure 13. Tagging System (PCs and Mobiles).

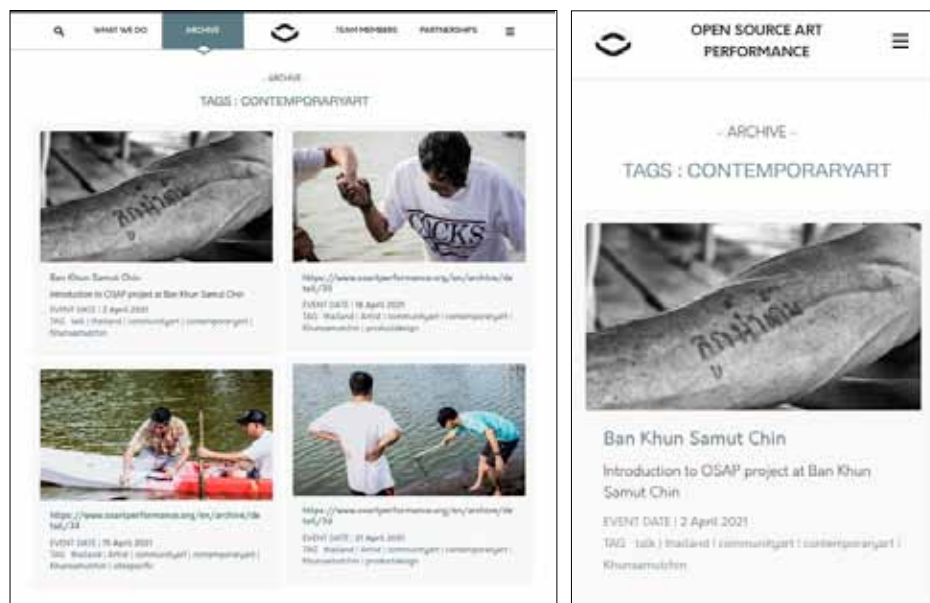


Figure 14. Examples of the list of archives searched from Tagging System (PCs and Mobiles).

Furthermore, the "ARCHIVE" main menu displays an "EVENT SCHEDULE" symbol, which allows the user to click and see the timeline of the collected archive in both "OPEN SOURCE ARCHIVE" and "ARTISTS ARCHIVE," allowing the user to research the chronicle of Open Source Archive as well as the profile of the specific artist that is collected in OSAP's website.



Figure 15. Positioning and details of the symbol of "Event Schedule" (PCs and Mobiles).

Finally, the backend of OSAP's website was designed so that the administrator could be oriented most practically to monitor the popularity of the Archive and Tags so that the initiated can analyze and develop the archive's content for the platforms in the future.



Figure 16. Image of the back-end of OSAP's website.

Open Source Online Archive System of OSAP

Concerned about the archive's effectiveness, OSAP decided to have the high-resolution still and moving images archive production. The Archive main menu contains three main submenus: "OPEN SOURCE," which consists of the archive from OSAP's events engaging with communities, art institutes, and educational institutes in the form of symposiums or academic conferences in both online and offline, "ARTISTS," which depicts the process of creating artworks of each artist in both holistic and analytic perspectives so that the user understands the concept of contemporary art, and "PARTNERSHIPS," which is structured to link the archive from OSAP's Partners in the future with the use of API system.

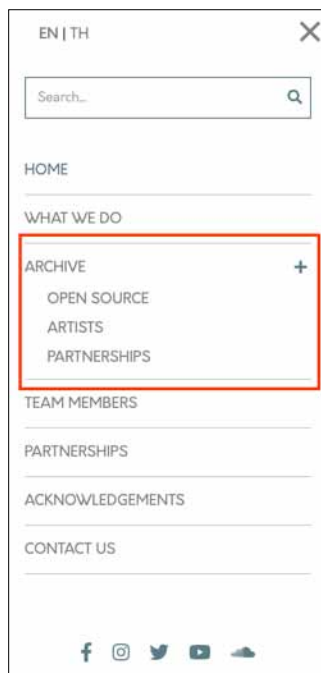


Figure 17. Image of Archive Submenus of Open Source Art Performance website.

Archive Production

Artist Introduction

Participating artists' archive production is planned in still and moving image formats for use as an artist's profile. During Open Source Performance Phase 1, The research invited four artists to become a part of the research which are following artists: Patipat Chaiwitesh, Ruangsak Anuwatwimon, Rungruang Sittirerk, and Suwan Welployngam.



Figure 18. Images of Archive Production of OSAP Phase 1.

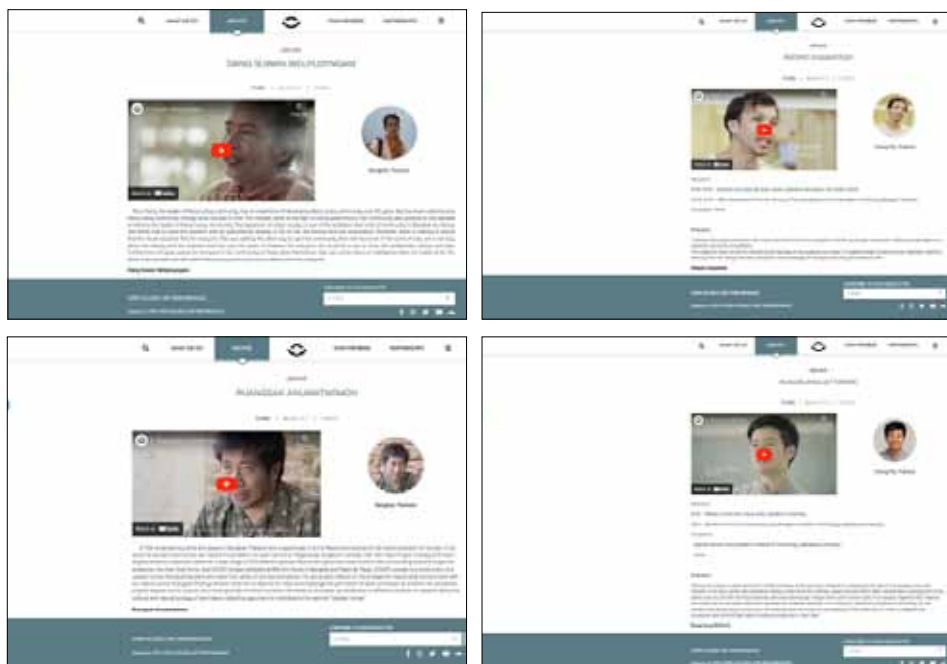


Figure 19. Interface Artist's Profiles on the OSAP's website.

OSAP Archives

The OSAP Archive is intended to preserve the content of OSAP-organized participatory research through forums, articles, and community art. Archive stores information about each activity in both still and moving image formats. The activities are also transcribed into documents that can be downloaded in Thai and English.

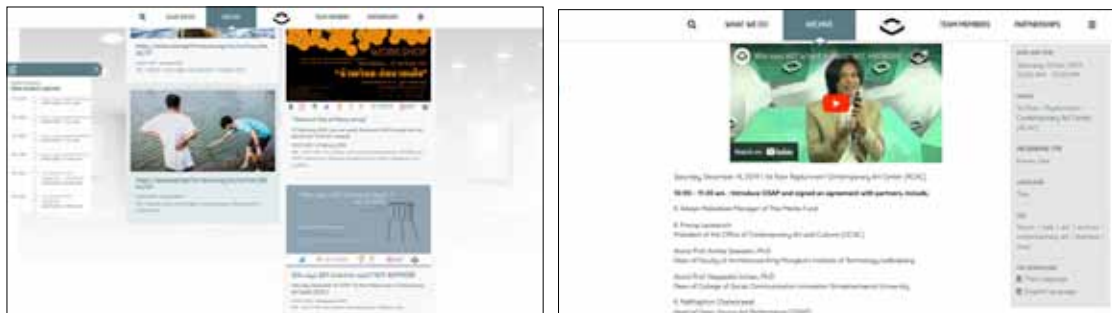


Figure 20. Interface of OSAP Archive.

During the first phase, from 2019 to 2021, OSAP Archive contained 24 databases by which the following organizations and communities collaborated with Open Source Art Performance:

- Office of Contemporary Art and Culture, Ministry of Culture of Thailand
- School of Architecture, Art, and Design, King Mongkut's Institute of Technology Ladkrabang, Bangkok, Thailand
- College of Social Communication Innovation, Srinakharinwirot University, Bangkok, Thailand
- Civil Society Tourism Network of Thailand
- Nang Lerng Community, Bangkok, Thailand
- Baan Khunsamutchin Community, Samut Prakarn, Thailand

Activities	Target Stakeholder
Academic forum “Who says ART is hard to reach?” at Office of Contemporary Art and Culture, Ministry of Culture of Thailand	Academic, Artists, Students, People
Activity “Nang Lerng Tour: Authentic Chilli Pasted of Nang Lerng” in collaboration with Civil Society Tourism Network of Thailand at Ford Foundation Nang Lerng Community, Bangkok Thailand	Academic, Artists, Nang Lerng Community, People
Activity “Site Specific Art Installation” at Baan Khunsamutchin Community, Samut Prakarn, Thailand	Academic, Artists, Baan Khunsamutchin Community, People
Online Activitiy “The Essentials of Arts Engagement” in collaboration with School of Architecture, Art, and Design, King Mongkut’s Institute of Technology Ladkrabang, Bangkok, Thailand	Academic, Artists, Baan Khunsamutchin Community, Students, People
Online Activitiy “Cultural Crisis of Coastal People”	Academic, Artists, Baan Khunsamutchin Community Students, People
Online Activity “Virtual Tour @ Baan Khunsamutchin Community”	Baan Khunsamutchin Community
Online Activity “Transfer art to local communities”	Academic, Artists, Baan Khunsamutchin Community Students, People
Online Activity “ Art, innovation and technology for the public”	Academic, Artists, Baan Khunsamutchin Community Students, People

Figure 21. Table of Participatory Action Research activities recorded in OSAP Archive.

Artists Archive

During the first phase, from 2019 to 2021, Open Source Art Performance recorded 47 databases from four participating artists who distributed the information to their works of art. The researcher gathered data for each art project through interviews and then input it into the Artist Archive submenu. First, the artists' names are revealed alphabetically in Thai and English. Whenever a user clicks on the name of a particular artist, the website shows information about the artist in three categories; 1) Artist profile, including an artist statement, video interview, and portrait. 2) Record; revealing the whole archive from the individual artist, the user can see the total number of the database of that artist by which OSAP has recorded. 3) Portfolio; images of the artist's artworks from which the viewer can visualize the artist's concept.



Figure 22. Interface of Artist Archive (Artist's namelist).



Figure 23. Interface of Artist Archive (Timeline, Record and Portfolio).

Launching Website to the Public

OSAP disseminated database content from the website via various social media platforms such as Facebook, Instagram, Youtube, Soundcloud, and E-newsletter, using Google Analytics to track the source (gender, age, country, etc.), including the number of website visitors. The mechanism enables OSAP to analyze visitors' interest in the content based on time spent on the page and track email recipients' access to E-newsletter data. According to statistical data, the OSAP's database has been widely accessed. With the most accesses, Facebook is the most accessible, followed by the OSAP's website, and finally, YouTube (2020-2021).

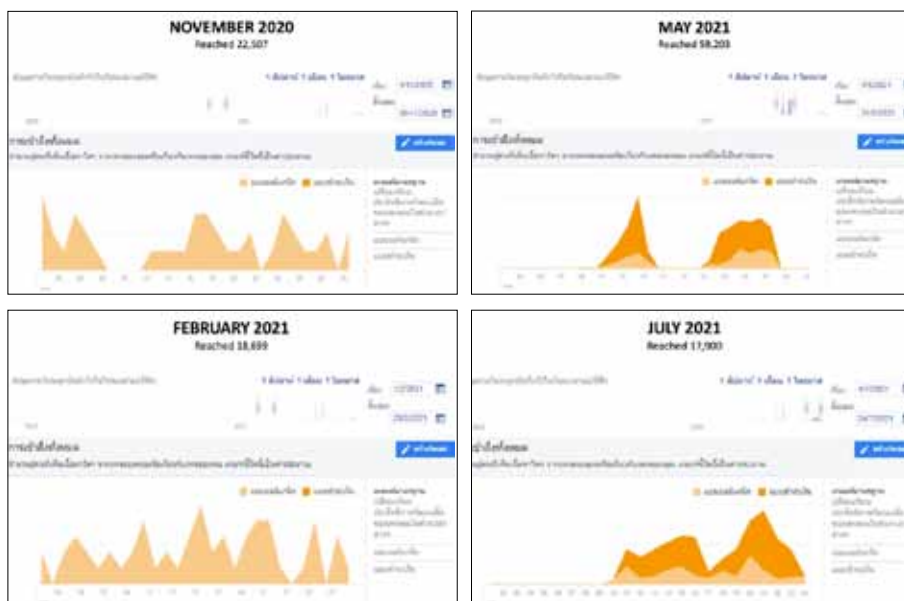


Figure 24. Images of statistical data accessed from Facebook (2020-2021).



Figure 25. Images of User Behavior Flow and Time Spent (2020-2021).

Evaluation and Results

Open Source Performance phase 1 used quantitative and participatory action research and met the research's KPIs as follows:

Research Implementation	KPI	Result	Percentage of Success
1. Building a network of cooperation			
• Cooperating with Artists	4 Persons	4 Persons	100 %
• Cooperating with Educational Institute	2 Organizations	2 Organizations	100 %
• Cooperating with Art Institute	1 Organizations	2 Organizations	100 %
• Cooperating with local community	1 Communities	2 Communities	200 %
2. Participatory Activities			
Number of Activity	7 Activities	N/A	N/A
• Activity with art Educational Institute	1 Activities	1 Activities	100 %
• Activity with Art Institute	1 Activities	1 Activities	100 %
• Activity with Local Communities	5 activities	8 activities	160 %
3. Number of Participant from Activities	1,000 Persons	1,076 Persons	107.6%
• Participant from Onsite Activities	N/A	563 Persons	N/A
• Participant from Onilne Activities	N/A	513 Persons	N/A
4. Archive: Number of Database	17 Databases	71 Databases	417.65 %
• Number of OSAP Archives	N/A	24 Databases	N/A
• Number of Artist Archives	N/A	47 Databases	N/A
5. The number of people who have accessed the project via online platforms			
Number of online access	150,000 Access	210,183 Access	140.12 %
• From Website	N/A	8,242 Access	N/A
• From Facebook	N/A	200,655 Access	N/A
• From Youtube	N/A	402 Access	N/A
• From Instagram	N/A	855 Access	N/A
• From Soundcloud	N/A	29 Access	N/A

Figure 26. Table of Evaluation base on the KPI and Result of the initiative (2019-2021).

In terms of Sustainable Development Goals, OSAP phase 1 implement the project with the focus of the following approach:

Sustainable Development Goals (SDGS)			
	Sustainable	Development	Goals
Goal 4: Quality Education Goal 10: Reduce Inequalities	Creating Open-source online archive platforms	Emphasizing on collecting art database holistically and analytically	<ul style="list-style-type: none"> • To create a collection of knowledge on contemporary art and culture that is beneficial to the public. • To reduce educational inequality and use art as a medium to raise awareness of the problem and the needs of the local community.
Goal 8: Decent work and economic Growth	Creating an understanding of art and promoting the value of archive	Promoting the archival skill for art and culture in Thailand in order to increase the value of cultural product	• To Promote the profession of Art Archivist in Thailand that helps stimulate the economy in terms of art and culture.
Goal 11: Sustainable Cities and Communities	Encouraging interactivities between artists and local people through participatory action research	Creating Community art project from brainstorming between artist and local people	• To create an informative source that is beneficial to the public.
17 Partnerships for the Goals	Promoting the exchange of Contemporary Art and Culture Archive	Creating a network of collaborative ideas from various sector to form an alignment focused on archive exchange.	To Create a big Open Source online Archive network of Contemporary Art and Culture that blur the boundary of Art and People.

Figure 27. Table revealing the goals of OSAP phase 1 that served SDGS.

Discussion

According to Academic forums and public events organized by OSAP that Academics, Artists, researchers, and local people attended, the OSAP platform could be a prototype of a role model for Thailand's open source online archive. Furthermore, OSAP acquired constructive inputs that are very useful for the evaluation and development of the project as follows:

Adolescents' New Normal Lifestyle

People spent time on the internet during the COVID-19 pandemic. The OSAP reached the target group and received positive feedback from organizing online activities. Furthermore, Gen Z and Gen Alpha share a concern for societal well-being. OSAP activities had thus a good chance of reaching the next generation.

The Majority of Thais Still Need to Gain a Greater Understanding of Art

Mostly, art can be recognized as drawing, painting, printmaking, sculpture, and dance. This

makes developing a shared understanding of art through the artistic process difficult. As a result, people place a very low value on art, particularly in art archives.

Art Archive in Thailand

There should be more knowledge and understanding of the value of archives in Thailand, especially in the arts. The exchange of art databases is still discouraged due to a lack of collaboration among arts and culture organizations, including private art institutions. This could imply that the limited use of archives for public education significantly limits people's understanding of art and creates a boundary between people and art. Furthermore, the profession of an art archivist is not well-known in Thailand even though this profession is a well-known occupation in both Western and Asian countries and is capable of generating a consistent income.

Potential Next Step

In the long run, the initiative intends to create an open-source online archive of contemporary art and cultures for educational purposes for the public. To create a diverse collection of archives for the platform, OSAP must collaborate with various organizations from the government, private sector, educational institutions, art institutes, communities, and individual artists. However, after the completion of OSAP Phase 1, as a result, the number of databases still needs to grow. Therefore, OSAP intends to expand the database by increasing the number of artists' archives and expanding the network internationally to facilitate the exchange of diverse information sources on contemporary art and culture.

Conclusion

With the rise of the website www.osartperformance.org as an Open Source Online Archive platform, Open Source Art Performance Phase 1 successfully promoted contemporary art culture for educational purposes. The website was designed with the user in mind regarding UX/UI, Art Direction, and font. According to website research conducted by both the public and private sectors, as well as non-profit organizations, and the concept of inclusive design, the OSAP's website was prioritized to structure the various database access systems such as Bilingual, Timeline Schedule, Tagging System, Open Source Archive, and Artist's Archive to facilitate users' access to the archive most practically. As a result, the Backend system was designed to be easy to manage.

The project employs media properties to increase public interest in contemporary art and culture via various social media platforms such as Facebook, Instagram, Youtube, Soundcloud, and an e-newsletter. Google Analytics was included to track the number of accesses and analyze user behavior to improve the content of the database and the data management system in the future. The total number of accesses during the OSAP phase 1 is 210,183 accesses.

To promote sustainable lifelong learning in contemporary art and culture, the Open Source Art Performance Phase 1 relied on Documentary Research, Quantitative Research, and Participatory Action Research to build a national and international network of partnerships between individuals, communities, governments, private sectors, and artists. To carry out the project, from October 2019 to June 2021, 2 government agencies, 2 educational institutions, 2 local communities, and four artists collaborated, from which OSAP could archive

in 71 databases and organize 10 activities with 1,076 participants. The OPEN SOURCE ART PERFORMANCE is a platform that can bridge the public to understand contemporary arts and culture. Moreover, capable of persuading the general public of the importance of collaboration through art as a tool for applying knowledge to extend ideas in interdisciplinary fields such as humanities and social sciences, geography, and science.

Open Source Art Performance Phase 1 faced limitations, such as the COVID-19 epidemic impacting every aspect of the operation. The project was forced to halt for 15 months in 2020 before resuming in 2021. During Thailand's third wave of COVID-19, organizing public activities on-site proved difficult. Many locals in the community had not been vaccinated at the time, and there were infected people in the area, which shook communication between project members and locals of the community—inability to converse with one another at leisure. As a result, OSAP had to change the project's framework from organizing 100 % of Participatory activities into online events instead. Consequently, there was an impact on the attendance of many groups of participants.

Since Open Source Art Performance is still in its early stages, focused on the structure of the website's system, the number of databases in the archive still needs to be higher. As a result, database exchange between networks should be more efficient. Additionally, regarding potential ramifications, the emergence of Open Source Art Performance can be further developed as a prototype or role model for those interested in the future.

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Digital Interactions and Audience Dynamics:

Analyzing YouTube's Role in Indonesian Performance Arts

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Abstract

This study draws on the framework of mediatization to analyze how YouTube, as a digital entity, facilitates and transforms audience relations and participation in performances. It employs a literature review to explore the intricate dynamics of audience interaction and performative presence on YouTube within the Indonesian context. The findings from engagement metrics powerfully suggest interaction that exceeds traditional audience participation, signaling a shift towards more immersive and interactive consumption of performance arts. The results underline a shift in audience roles from passive receivers to active participants empowered by the mediatization process with YouTube. This transformation strongly impacts cultural production as more artists cater to content that reaches their digital audience. Digital platforms, including YouTube, can reshape cultural norms and performance practices, especially within the panorama of global and local cultural dynamics.

Keywords: Audience Engagement, Digital Mediatization, Indonesian Cultural Practices, Interactive Consumption, Youtube Performance Arts

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Introduction

Departing from the Covid-19 pandemic, which also impacted the arts (Bennett, 2020; Simou, 2022), exploration of new modes continue to be explored until now. Both performing and visual arts, from a performing and study point of view, continue to improvise, innovate, and create to provide new experiences. Even though it happened (in Indonesia) in March 2020, Steve Dixon's statement that art, science, and technology are undergoing a period of significant change is a reminder that in the future digital technology will be an essential point (2007).

Digital technology comes with challenges. It will be an impressive, effective, and efficient mode and vice versa. It can be a tool, media, or even an entity with a power relationship. For the arts, the explosive challenges to the institutions and practices of engineering, art-making, and art-scientific research raise questions about the ethics, methods, and care for the "entity of art" within them. Furthermore, explosiveness which (likely) takes the form of unexpected beauty and understanding, is an opportunity and an unexpected risk and threat. The new global connectivity creates new arenas for interaction between science, art, and technology but also creates preconditions for the challenges of art going forward (Wilson, 2020).

The Covid-19 pandemic and the leap in digital technology required much adaptation from the artist and audience because many cultural events and performances were canceled, postponed, or readjusted worldwide (Iacobute, 2020). On the other hand, the presence of digital platforms such as YouTube is considered very helpful for the continuation of the show. It is increasingly developing as a virtual information center. Furthermore, YouTube features links to other platforms that are identical to the typical sharing characteristics of social media. YouTube is considered an ideal place to collect information not only about its creators (or, in the context of this study, performance), about its users, the shows they are interested in, and how they use the shows as this information.

Thus, YouTube has become a social media site (with the ability to like, comment, and share) focused solely on video content. Due to its focused approach, users can concentrate on their chosen topics (Waldron, 2013). According to Alexa.com, YouTube has been the world's second most popular site since October 2007 (Borghol et al., 2012). One factor contributing to this is YouTube's ability to "learn" what users want, including in shows-related searches. YouTube is constantly improving its query software to ensure that it returns at least 90% correct matches to search criteria (Waldron, 2013). This, in turn, makes the site a "valuable source of information" about its users and the genres they choose to offer.

On the other hand, creators are incentivized to create popular content, as the high number of views translates into a financial contribution where creators can receive a portion of the advertising revenue related to the content they post (Khan, 2017). In the YouTube ecosystem, performative presence or presence, especially from the audience's point of view, is one of the keys to the show's uniqueness, as stated by Cormac Power (2008). The performative

presence that feels different in the pandemic era and how its opportunities for intermedia exploration carried out by performing artists should also give new meaning to processing in the post-pandemic era of art, especially on the YouTube platform as a media for interaction between digital creators and audiences.

This research is to see the tendency of previous research regarding the interactive exploratory construction of YouTube creators and viewers in participatory spaces by looking at how researchers exploring virtual audience experiences are responded to creative and collaborative performance. This is considered necessary because there has yet to be a study on YouTube viewer-creator relationships and their interactions. By trying to depart from the problems being discussed and looking at the opportunities going forward, namely how interactions occur between viewers and show creators on the YouTube platform. Furthermore, what is the role of YouTube creators utilizing the features and experiences of participatory space that are played from the point of view of YouTube virtual show viewers? This research plays on the threshold between the fields of art and technology (even digital psychology opportunities) to provide recommendations on opportunities that can be explored and to enrich the variety of virtual performance models and the role of audience presence as a performance complexity. Even though there is still debate about shows in this pandemic era, YouTube creators still have to work and innovate. Only by continuing to produce and produce works of art are creators able to adapt and meet the challenge of maintaining or changing the way of performing, even if they have to change media; for an undetermined amount of time. Therefore, this research can be a medium for exploring the typicality of audience experience when exploring presence in the participatory space provided by creators.

Deciphering the experience of the audience's presence in a participatory space is needed to see the intermedia opportunities that the audience does when searching for virtual performances. The exploration of intermedia that makes the show present and responds with interaction by the audience requires a specific adaptation. On the other hand, the perspective that was typical at the beginning of a pandemic that audiences might be able to present performances via gadgets easily must be updated immediately so that YouTube creators try to continue presenting a participatory performance experience even though not through conventional stages, but with intermedia exploration as well. Intermedia audiences respond and respond to intermedia performing artists.

Some Were Close and Some Were Not to the Loss of the "Audience" in Performing Arts Research

Research on audiences (both in terms of audience and spectators) is rare, especially when linking the word screen/virtual/online. If found, then the focus is to see the audience's response to the show and have not seen the opportunity for audience studies to open up opportunities that can be extracted as a performance artist's formulation in creating tools or providing digital effects for performances that are treated as unique (Figure 1). On the other hand, inter-media is linked to providing some extra steps when a performance invites the audience to be interactively present in it without ever having to consider the properties previously considered (Iacobute, 2020; Rosas, 2019; Starner, 2020; Y et al., 2023).



Figure 1. The trends of audience research and digital intermediation.

The scarcity of audience research in digital performing arts settings holds innovation potential, especially in how audiences can actively participate in creating digital tools and effects, thus transitioning from passive observers to active contributors (Figure 1) (Liedke, 2021; Radbourne, Glow, and Johanson, 2013). The use of big data and algorithms is revolutionizing how audiences are segmented. However, there remains a need for more focused studies on individual behaviors and preferences to enhance personalized engagement strategies. Moreover, platforms like YouTube are transforming viewing habits and blurring the distinctions between online and offline audience engagement, simultaneously opening new economic avenues for artists. Despite the opportunities presented by digital advancements post-pandemic, challenges persist, particularly in maintaining artistic integrity and managing audience expectations in virtual domains. This digital transformation underscores the importance of interdisciplinary research integrating technology, social sciences, and arts to fully grasp and harness the complexities of digital audience engagement in ensuring the future vibrancy of the arts.

Studies regarding audiences are tied to how they interact with big data, especially considering how these big data algorithms influence the concept of audiences and, more generally, in imagining collectives in the digital age. According to Bauman and Lyon's research, big data with its algorithm is the primary method for estimating "customs," which also contributes to the economy. That is, there is a relationship between the algorithm and the audience that mutually negotiates for mutual influence. The algorithm classifies the raw population into segments so that producers – performing artists – can treat the audience differently based on the behavior or artistic segmentation of the audience as consumers (Bauman and Lyon, 2013). Unfortunately, previous research on audiences has not focused on individual-focused studies or predictive techniques or imagining what viewers will do while enjoying virtual shows on YouTube (Baileys et al., 2020; Botha, 2015; Holton, Lewis, and Coddington, 2016; Scott, 2022; Starmer, 2020; Vultee, 2015). Therefore, this research tries to include the audience-algorithm-artist preference relationship. Furthermore, for its participative role in the creative performance of artists, as an archive and knowledge space, as well as the imagination that it collects through historiography, which is stored in the personalization of each viewer's account.

Other research on virtual viewers often underscores that digital categories of algorithms create identities that are unrelated to the personalization of real-life viewers: age, gender, preferences, or habits are redefined based on a person's online behavior (Barlow et al., 2020; Holton, Lewis, and Coddington, 2016; Liedke, 2021; Loosen and Schmidt, 2012). Hence, Cheney-Lippold (2017, 10) uses quotation marks to distinguish between “online categories” and “offline categories” where “online categories” are characterized by their fluid patterns. As Cheney-Lippold said, the preferences of users or viewers of music videos on YouTube of the same gender (e.g., male) can change (to female) if the algorithm shows that he likes to access music videos that tend to be female. In other studies (Amodu et al., 2020; Beuscart, Coavoux, and Garroq, 2022), this point is confirmed by YouTube performance artists who emphasize the importance of novelty to “new viewers” (or new users) as a point of the latest data to reach them as new consumers who are most receptive to YouTube-suggested music content for the first time (Ciotti, 2014).

Previous research on YouTube shows viewers do not define “newness” as a change in acceptance of existing viewers (or users) compared to new viewers (or users) (Bärtl, 2018; Creator Insider, 2021; Longhurst, 2009) whose goal is to capture behavior while the real thing if studied by YouTube performance artists can be a basis for their creative behavior. Therefore, research on pre-imagined digital audiences builds on audiences as digital subjects (Goriunova, 2019), as they are formed computationally from data, models, and various other analytical algorithms.

Studies that deal with the technical settings involved in algorithmic outcomes tend to be too complex to convey to audiences (Pan, 2021). Therefore, preliminary studies on recommendations for algorithm results can be carried out by taking the form of systematic small-scale observations or more robust strategies. At least, this technique can bring up editorial criteria, which has been shown in research on auto-completion in Google searches (Google search engine features) (Diakopoulos, 2015). However, in large-scale system complexity, where (probabilistic) algorithms intersect with many other possible variables, it is difficult to dismantle the operating principle unambiguously, and engineering techniques will almost certainly miss hard-to-reproduce inputs such as random preference data. Keeping these limitations, a scraping method is used and observing what an algorithm does to investigate the broader shape of the agencies/agencies/creators/agencies involved.

Previous research has not tried to reveal the relationship between individual viewers and YouTube performance artists, but they play in virtual space and are structured in the context of a digital universe (Cheney-Lippold, 2017; Sui, Sui, and Rhodes, 2022; Wilson, 2020). Even in the view of Cheney-Lippold (2017), algorithms create categories such that in the early exploration of the early uses of virtual reality (virtual reality or later written VR), artists and digital media technologists have recognized VR as a medium of inherent performance: Virtual reality is all about illusions. It is about computer graphics in the theater of the mind. It is about using technology to convince yourself that you are in another reality. Virtual reality is where the computer disappears, and you become the ghost in the machine; the computer retreats behind the scenes and becomes invisible (Pimentel and Teixeira, 1993).

Performances (even mainstream ones) have the unique quality of engendering the creation of imaginary worlds where the viewer is invited to embark on a dream-like experience that transcends daily (Pearlman, 2015). Furthermore, the experience of presence occurs at the right moment when someone enters the stage with an emotional tendency to be part of an artistic and aesthetic experience (Naukkarinen and Bragge, 2016; Pearlman, 2015). In this sense, there is a mutual agreement on the symbolic nature of the show as a medium for creating its world, and VR is tasked with extending the experience of the show to new dimensions. Thus, VR or tele/cyber-performance media can be seen as a media, tool, and creative space to enhance essential aspects of imaginary world experience, transformative space, and audience immersion regarding the blurring of boundaries between the natural world and the simulated world (Dixon, 2007; Unger, 2015).

Combining performing arts with digital technology is not new but a continuously developing phenomenon. Furthermore, for the purposes of this study, the search shows that intermedia collaboration with performance has not emerged from the recent development of so-called immersive media technologies (Baía Reis and Ashmore, 2022). Throughout the 1990s, even society could find groundbreaking examples of leveraging VR and other related technologies to explore performance innovatively (Makrzanowska, 2020). Despite its innovative nature, the experience of the world of simulation in performance is essentially an inter-media exploration of participatory installation art, which is accessible to a small number of people (though still in the prototype stage). However, intermedia performances in the type of digital performances provide a reciprocity that provides space for artists and audiences from around the world to participate in transnational digital performances that utilize technology, interactive computer platforms, and participatory applications (Dunne-Howrie, 2022; Hunter, 2019).

The intersection of performance, technology, and the global Covid-19 pandemic in 2020 created a unique phenomenon to be studied by many parties. Theater artist Elyandra Widharta stated that artists try to actualize themselves by using their devices and digital media as training intermediaries (2021). Mukim artists at Theater Satu, Lampung, did the same thing. Instead of using it as a place for rehearsals and performances, the YouTube channel is used to disseminate knowledge about theater to a broader audience (Pratama, 2022). This becomes one of the aspects that make it easier for the theater community to access theater references that are generally scattered in an area (Kiminami and Duggan, 2022). Online platforms (digital platforms) such as live streams and other digital mediations help performing artists and audiences apply the interconnectedness of performances more broadly.

Theater academic, Rustom Bharucha (2021), questioned whether performing online is a new form of theater or simply an attempt to adapt to a new presentation medium. The search for new forms of performance cannot be separated from the interaction of artists and works with new spaces -- in this case, online media becomes that space, and the audience is the entity that is present in it (Walmsley, 2019). Theater that is presented to our private spaces through gadgets still presents things according to basic theater principles: there are elements of creative work (by actors, directors, crew, and other elements), and

there is a contingency and various forms of representation. In the end, Bharucha argued that, during the Coronavirus pandemic, the theater did not change its form but how it was presented (2020).

In line with Bharucha, Meyer-Dinkgrafe (2011) said that changing the way of presenting or mediating performances is a form of co-presence. Technology is not a threat to theatre's existence, but it should be a trigger for artists to be aware of the times, even though they want to maintain their form (Meyer-Dinkgräfe, 2011). Even though there is a difference between the experience of live and virtual performances in the context of creation, the change in rides cannot be a consideration of whether a performance is good or not. On the other hand, the argument about diversion has not been balanced with how the audience has a significant opportunity to participate in the show. Virtual performances provide a simplistic value that seems to ignore the basis of performance as something that departs from communal rituals that are experienced directly. It will not become permanent because the change of vehicle is only to maintain the show's survival and its creators (Caldeira, Van Bauwel, and Ridder, 2018; Stepien, 2021; Acquaye, Sawyerr, and Seidu, 2023). The opportunity for the audience is vast in determining the existence of the show, and its use can change the creation process, considering that creators will focus on attracting the attention of the digital public.

In cyber shows, the relationships between the elements that play in them are redefined. Spectators in cyber-performance are internet users who can improvise and become participatory spectators in performances (Reynolds, 2019). So, the question is about the shift in the relationship between performing artists (YouTube creators) and audiences; and proposes audience responses to reflect the development and metamorphosis of the audience's role in the emerging digital performance environment. Shows find new platforms in the virtual world when they intersect with the internet. So that the term digital performance, screen performance, tele-performance, cyber-performance, YouTube performance, and the like emerged to provide their respective distinctions.

Main Category	Subcategories
Audience Research	Rare studies; focus on digital media response; audience as tool creators
Inter-media	Extra steps in digital engagement
Big Data and Algorithms	Influence on audience categorization; lack of individual-focused studies
Virtual Reality and Performance	VR as a performance medium; creation of imaginary worlds
Digital Performance	Transformation of viewing habits; online and offline categories
Economic and Social Impact	New revenue streams; community and engagement in digital spaces
Future of Digital Performances	Potential permanence post-pandemic; innovations in immersive media technologies

Figure 2. Overview table of research areas in audience engagement and digital intermediation in performing arts.

The research described above has yet to position the audience as the main subject for using technology and its intermediation regarding virtual performances (Figure 2's table). Furthermore, the experience underlying and utilized through virtual-based performances has never been done. From mapping research positions among similar studies above, the originality of the research can be maintained and accounted for.

Mediatization of Music Performances and Cultural Dynamics on YouTube

The phenomenon of mediatization in the performing arts, especially regarding how music performances are experienced through platforms like YouTube, presents multiple multi-perspectives where digital media reshape cultural consumption and artistic production. Mediatization refers to how media becomes integral to societal operations, influencing and transforming communication, culture, and social institutions (Lian, 2023). The transition to digital platforms, particularly YouTube, as a medium for viewing and engaging with music performances exemplifies this transformation in performing arts.

Historically, the performing arts have been an ephemeral experience, largely dependent on physical presence. However, the beginning of YouTube and similar platforms have dramatically altered this dynamic by democratizing access to performances and enabling artists to reach a global audience irrespective of geographical and economic barriers (Marin, Barra, and Moyano, 2022). For instance, small-time musicians or indie bands who previously had limited exposure can now showcase their talent to a vast audience, challenging traditional gatekeepers like record labels and concert promoters. Such platforms do not merely serve as tools for distribution but actively shape the cultural production itself (Svasek, 2012; Kiminami and Duggan, 2022). Artists are increasingly creating content with a digital-first approach, tailoring their performances to cater to online audiences (Unger, 2015). This includes shorter songs, visually engaging content, and interactive elements like live streaming or audience engagement through comments. These adaptations reflect an intrinsic understanding of the YouTube algorithm and its preference for engagement-driven metrics directly influencing creative decisions (Cheney-Lippold, 2017).

From a data perspective, YouTube's statistics reveal a significant impact. According to a report by the International Federation of the Phonographic Industry (IFPI), 46% of global music consumers use YouTube, and 47% of on-demand music streaming is attributed to video streams (Beuscart, Coavoux, and Garroq, 2022). This indicates the popularity of YouTube as a platform for music consumption and highlights its role in the current music ecosystem. Furthermore, YouTube's monetization policies, including ad revenue sharing and the YouTube Partner Program, have become vital income sources for many artists, further embedding the platform into the economic foundations of the music industry.

The cultural implications of this transformation are profound because mediatization through YouTube has facilitated a more participatory culture where fans are not just passive consumers but active participants. They create and share user-generated content, engage in dialogues with artists, and form communities around shared musical interests. This engagement level redefines what it means to be a fan and a performer, blurring the lines between producer and consumer. Simultaneously, the global reach of YouTube challenges

and disrupts traditional notions of cultural hegemony (Beal, 2022). Diverse music forms, including non-Western genres, find a YouTube platform promoting a more inclusive global music culture. This is evident in the rise of K-pop on global charts, propelled mainly by its solid visual components and strategic use of YouTube for global outreach.

Moreover, the mediatization of music performances on YouTube has scholarly implications. It serves as a rich site for examining contemporary cultural trends, identity construction, and the interplay of global and local cultures (Figure 3). Researchers utilize YouTube as a data source by analyzing everything from comments and video metrics to visual and musical trends to gain insights into cultural dynamics in the digital age. However, the reliance on YouTube has raised concerns about algorithmic bias, where certain types of content are favoured over others, potentially marginalizing less mainstream voices. There are also issues related to copyright disputes and the precarious nature of relying on digital platforms for economic sustainability.



Figure 3. The relationship of mediatization through digital platform.

The mediatization of the performing arts through digital platforms like YouTube has profoundly transformed the landscape of cultural consumption, artistic production, and the dynamics of engagement (Figure 3). Artists are increasingly adopting a digital-first approach, tailoring performances to resonate with online audiences and the unique dynamics of digital consumption (Liikkanen and Salovaara, 2015). YouTube, in particular, has become a pivotal platform for music streaming and engagement, influencing artistic decisions through engagement-driven metrics dictated by its algorithms (Durand, 2023). Its change from traditional live performances to digital formats reflects a significant evolution in consumption and production models within the arts, with YouTube's revenue-sharing model emerging as a critical income source for artists, laying new economic foundations globally.

This transformation fosters a participatory culture by blurring the traditional roles between fans and artists and redefining what constitutes a musical or performance experience. Non-Western music genres leverage YouTube for global reach, impacting cultural trends, identity construction, and the dynamics between global and local cultures. Issues such as algorithmic bias and copyright disputes underscore the precariousness of depen-

dency on platform-specific revenue models. As artists modify their creative processes to suit digital platforms, questions about artistic authenticity and the economic impact of such adaptations arise (Botella et al., 2013). The mediatization of music performances through YouTube represents a paradigm shift in how music is consumed and produced. It has democratized access to the performing arts, facilitated new forms of cultural expression, and reshaped the economic landscape of the music industry. As both a medium and a message, YouTube is a pivotal element in the ongoing evolution of the performing arts, reflecting broader societal transformations in the digital age.

Audience Response and Interaction as a Form of Presence in the Participatory Space

As a digital platform, YouTube has transformed the traditional paradigms of audience interaction in performing arts. These platforms have catalyzed a shift from passive spectatorship to active participation, fundamentally redefining the concept of audience presence in the digital age. This transformation is particularly evident in how performing artists, now doubling as YouTube creators, engage with their audiences, turning the viewing experience into an interactive, participatory event. YouTube engages viewers with content beyond mere consumption as a participatory media platform (Beuscart, Coavoux, and Garrocq, 2022). Audience members are not just passive recipients but active participants who can influence the content's creation, dissemination, and reception through likes, comments, shares, and crowdfunding (Kim, 2012). This interaction stimulates a sense of community and shared experience that transcends physical boundaries, creating what could be termed a "virtual presence."

The concept of virtual presence is critical in understanding the new forms of engagement facilitated by YouTube. This presence is characterized by immediacy and intimacy traditionally reserved for live performances. YouTube has allowed artists to create personal spaces online where fans can interact as if in a continuous dialogue. Fans respond to videos with their content, participate in challenges initiated by creators, and engage in lengthy discussions in the comment sections. It can contribute to a sustained engagement that enhances the relational dynamic between the artist and the audience. Data from YouTube analytics reveal the extent of this interaction (Bärtl, 2018). For instance, popular music channels often report high engagement rates that are not merely measured by views but by active participation metrics such as average comment count and likes per video (Khan, 2017). These metrics often exceed those of traditional media platforms, indicating higher audience involvement (YouTube Creator Academy, 2020). Moreover, real-time interaction features like YouTube Live adds another layer of engagement, where audiences can interact with performers during live performances, diminishing the gap between the audience and the performer.

The implications of this transformation are profound both for the audience and the performers. For the audience, the interactive capabilities of YouTube provide a sense of agency and belonging (Hemsley et al., 2015). They are not only watching a performance but are part of the performance narrative, influencing its flow and outcome through their interactions. This participatory culture fosters a deeper emotional connection with the content and creates a community around shared interests and collective experiences. For performers, this new model offers opportunities and challenges. It allows for greater creative freedom and direct fan interaction, enhancing their artistic expression and audience loyalty.

Performers can receive immediate feedback on their work, adjust their artistic output to audience preferences, and experiment with new forms of content without the traditional risks associated with live performance. Then, this model demands high engagement and responsiveness to audience expectations, which can be time-consuming and creatively constraining.

Furthermore, the economic implications of this shift are significant. Audience interactions on YouTube boost visibility through algorithmic promotion and translate into direct economic benefits via ad revenues, sponsorships, and fan donations through platforms like "Patreon" (Kim, 2012). This economic model, heavily reliant on audience engagement, underlines the importance of interactive presence as a critical factor in the financial sustainability of artists on digital platforms. Critically, the mediatization of audience interaction raises questions about the authenticity of digital interactions and the potential commodification of community. Digital platforms offer new spaces for interaction, they also risk transforming genuine community interactions into market transactions, where engagement metrics become proxies for community health (Chountasi, Dafiotis, and Sylaiou, 2021).

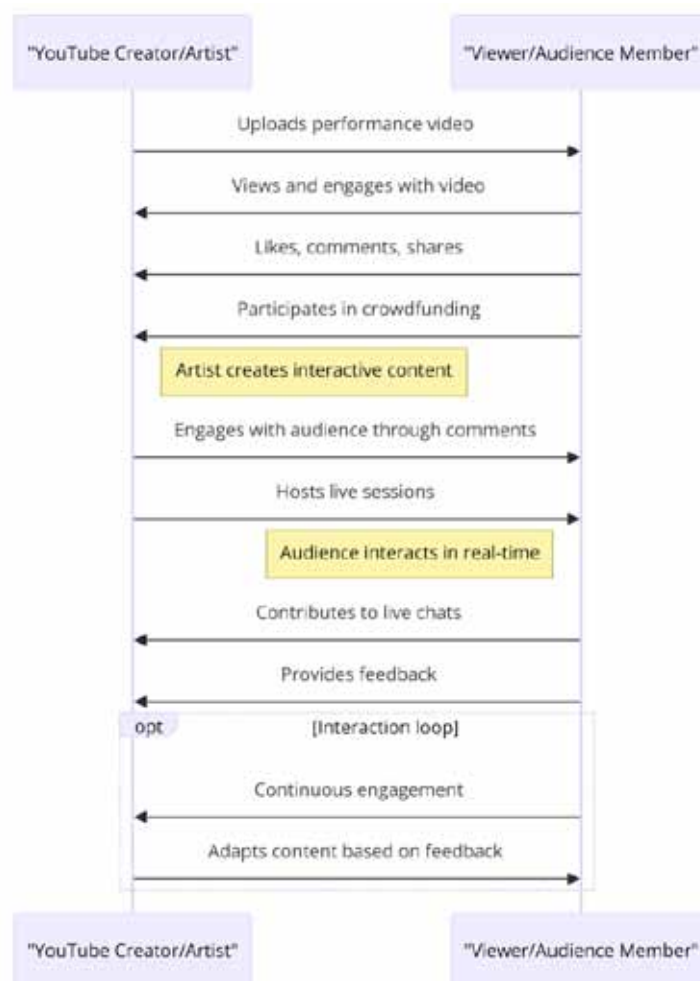


Figure 4. The dynamic interactions between performing artist and their audience.

The sequence diagram illustrating the interactions between performing artists and their audiences on YouTube offers a compelling depiction of how digital platforms have transformed traditional artist-audience dynamics (Figure 4). At the start of this sequence, a performer uploads a video to YouTube, setting off a multifaceted engagement process that underscores a shift from passive spectatorship to a more dynamic, participatory role for the audience. Viewers engage with the content not only by liking, commenting, and sharing, which are critical actions that influence the video's visibility through YouTube's algorithm but also by participating in crowdfunding efforts to support the artist directly.

A crucial element in this interaction is the content creation feedback loop, where audiences provide real-time feedback through comments and live chats during streaming sessions (Figure 3). This feedback informs the artist's future content, thus creating a continuous cycle of adaptation and response. It also shows the importance of live sessions that facilitate real-time interactions and enhance the immediacy and intimacy of engagement between the artist and the audience.

The strategic transformation necessary for artists to create interactive content is noted in the diagram (Figure 4), reflecting the need for artists to adapt their strategies to engage effectively with digital audiences. This promotes a collaborative and interactive connection where audiences transition from mere spectators to co-creators of the artistic experience. While this model offers increased engagement and the opportunity for direct and immediate feedback, it also poses significant challenges for artists, demanding constant adaptation of content and careful management of viewer expectations. Moreover, these interactions carry direct economic implications through ad revenues and crowdfunding, highlighting the significant economic stakes. Encapsulates the dynamic and reciprocal nature of artist-audience interactions on digital platforms like YouTube, emphasizing the profound opportunities and complex challenges that define the modern digital performance landscape.

The transformation of audience interaction in the digital culture, as exemplified by YouTube, represents a significant shift in the performing arts landscape. It challenges traditional notions of presence, participation, and performance into new opportunities for creativity and engagement while posing authenticity and economic dependency challenges. As this digital interaction landscape continues to evolve, it will undoubtedly continue to profoundly shape the cultural and economic dynamics of performing arts.

Intermediation and Virtual Performance Post-Pandemic

Intermediation, the process by which digital tools and platforms mediate user interactions, has been integral in shaping experiences, behaviors, communications, and social interactions in the virtual performance space, especially post-pandemic (Naafs and White, 2012). This dynamic is evident in how digital platforms, notably in the performing arts, have compensated for the absence of physical venues and crafted new forms of cultural and social engagements that could endure beyond the pandemic's immediate impacts. One significant aspect of this intermediation is the alteration of audience experience. Virtual performances can transcend geographical boundaries and eliminate physical constraints, allowing global audiences to participate in cultural events from their homes (Cayari, 2018). This accessibility broadens the demographic reach of performances, as observed during the

Metropolitan Opera's nightly streams, which reportedly attracted an audience much larger and more diverse than its regular live performances (Metropolitan Opera, 2020). The behavior of audiences in virtual settings contrasts with that of traditional venues. Online, viewers can interact with the performers through live chats and with each other, creating a layered communication dynamic typically absent in conventional performances (Bode, 2021). This interaction often extends beyond the performance into digital forums and social media, where discussions and fan activities foster a sense of community and ongoing engagement.

Intermediation also reshapes communication by embedding additional layers of interaction through multimedia elements (Swords, 2020). For example, performances include on-screen captions, integrated social media feeds, or interactive polls, which enhance the communicative richness of the event. These elements make the performance more accessible and inclusive. It transforms the viewer's role from a passive observer to an active participant. This transformation is supported by data from a Pew Research Center survey (Zylinski, Davis, and Vladica, 2024), which found that internet users increased their participation in online classes and streaming performances during the pandemic, with many respondents continuing these activities, suggesting a lasting change in consumer behavior. The social interactions facilitated by these virtual platforms also contribute to creating new social norms and etiquette (Ceh and Benedek, 2021). In virtual theatres, for instance, audience reactions can be immediate and visible through emojis or comments, creating a new type of etiquette where direct feedback becomes part of the performance. This immediacy can enhance the connection between the audience and the performers, as well as among the audience members.

From a technical perspective, the intermediation offered by digital platforms involves sophisticated algorithms that curate and recommend content based on user behaviour, further influencing the cultural consumption landscape (Young, 2017). These algorithms help create personalized experiences, promoting a deeper engagement with the arts and potentially increasing cultural literacy across a diverse audience spectrum. Economically, the shift to virtual performances has opened new revenue streams for artists and cultural institutions (Gomis-Porqueras and Rodrigues-Neto, 2018). While traditional ticket sales might have dwindled, monetization through digital subscriptions, pay-per-view models, and enhanced sponsorship opportunities have begun to fill the gap. Additionally, digital performances can reduce operational costs related to physical venues, allowing for a redistribution of resources towards creative outputs.

The below diagram highlights the enduring impacts of these changes on cultural and social engagements (Figure 5). Virtual platforms have introduced new forms of cultural participation that may persist beyond the pandemic, facilitated by algorithms that curate content and potentially increase cultural literacy among diverse audiences. However, this transformation is complete of challenges. Issues such as maintaining authenticity in community interactions and establishing new norms of digital etiquette are critical considerations. The diagram underscores the evolving roles of audiences from passive spectators to active participants and reflects on the profound economic and cultural shifts that digital intermediation has prompted.



Figure 3. The impact of intermediation in virtual performances.

The role of intermediation in linking experiences, behaviours, communications, and social interactions in virtual performances post-pandemic represents a profound shift in the performing arts landscape. As these platforms continue to evolve, they compensate for the loss of physical interaction and create enriched, accessible, and inclusive cultural experiences. This transformation, supported by both technological advancement and cultural adaptation, suggests that the rise of virtual performances could be a permanent fixture in the cultural consumption habits of global audiences, shaping the future of the performing arts in the digital era.

"Presence:" An Approach to Audience Studies

Giannachi has conveyed an approach to virtual performances with the definition of a form of performance that is re-mediated and performance that emphasizes the involvement of the digital medium in the performance (Giannachi, 2004). Virtual performances, primarily through YouTube, are inclusive because they provide space for artists (creators) to use various media to present or display their work. Furthermore, virtual performance has keywords related to intertextual, metatextual, intermedial, and meta-media forms of performance. These keywords reflect that they cannot stand from just one type of text or form; so does the type of media involved in the show. Virtual performances provide space for existence and non-existence at the same time. This makes virtual performances challenging to reproduce because the medium is often intangible or abstract, which makes virtual performances volatile. Therefore, the interaction between viewers and creators is needed to make YouTube a participatory space that can "extend" virtual shows that are re-mediated and how shows that are held have a unique effect on the memory of the audience involved.

Virtual performances become a meeting place for reality and virtuality, termed hypersurface (Jaller and Serafin, 2020; Sermon et al., 2022). Hypersurface is a vehicle for meeting materiality, textuality, and what is the material with its representation (Fu and Shumate, 2017). The audience can be part of the show directly, even though the nature of the show is not to live, but this show simulates immersiveness. Furthermore, through a hypersurface, the real and the virtual can coexist because a hypersurface offers a variety of perspectives. In the YouTube feature, hypersurface becomes the initial trigger for other virtual shows recommended through the algorithms that play in it.

Related to how participatory space is in a hypersurface, Jamieson uses the term to de-

fine live performance practices that utilize internet technology to unite remote players in real-time for remote audiences (Jamieson, 2008). The boundaries between terms describing digital performance (performance) are still blurred so that they can be used interchangeably in many cases. This is because the audience and performing artists meet virtually and have time to communicate, which is located in a simulated (YouTube) world, and thus the conventional stage is replaced by a simulated (virtual) world stage; because of its online interactive nature; and finally virtual performances are a "digital" thing.

Digital issues often simplified as "shows that can be watched at any time," are interesting. On the one hand, it allows the audience to make arrangements for their presence in a performance, and the audience invites them to attend the performance. On the other hand, it provides an opportunity to ignore liveness issues that have the potential to reduce its performative power. The audience needs to be present, like Cormac Power's statement in his book *Presence in Play* about presence, which is defined as simultaneously being in a space and time (Power, 2008). However, the term "presence" is also interesting when reading about YouTube virtual performances. The audience is present when they interact with the YouTube performance video they are viewing because it triggers the unconscious into a conscious form of experience. So, presence is a concept of awareness and attention to an object simultaneously appearing together.

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Assessing the Niger Delta Residents' Awareness

on Socio-Culture Effect of Wetland Loss

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Abstract

The degradation of Niger Delta ecosystem is due to activities such as crude oil exploitation, agricultural activities, urbanization among others that affects the socio-culture impact of its dwellers. The study's aim was to assess the Niger Delta residents' awareness on socio-culture effect of wetlands loss. This paper engaged the exploration of literature reviews, the randomly selection of communities in three Niger Delta states which includes Rivers, Bayelsa and Delta state and a questionnaire was utilized with 150 participants. The findings demonstrated that less awareness on the effect of wetland loss has impacted the residents. Also industrial activities have affected the wetlands and the health status of the dwellers where the loss of these wetlands have caused destruction as in flooding which had displaced many dwellers. Effective monitoring and enforcement of existing and new policies on conservation of these wetlands should be prioritized. Consequently there should be increased sensitization and awareness in the communities on environmental protection and conservation.

Keywords: Wetland, Ecosystem, Degradation, Socio-culture Impact, Niger Delta

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Introduction

Wetland can be defined as a place which the soil is covered by water and it can be close to the surface of the earth for a whole year. They are valuable and significant ecosystem that provides different ecosystem services such as habitation for wildlife genetic and biochemical materials, cultural services, fuel formation, purification of hydrology water, among many others (Dang et al. 2021). Wetlands are among the most important ecosystem and they are also the most threaten (Hu et al. 2017). According to Nwankwoala & Okujagu (2021), wetlands are sites where water exists either close or at the surface of the soil for a whole year even through the season of planting. Wetlands are the most significant sources of fresh water, serving as both a habitat and a source of food for a variety of aquatic life (Abir 2014) and one of the most vital ecosystems on earth is a wetland, sometimes known as a swamp or a marsh. In terms of global climate change, wetlands like mangroves can provide a haven for a variety of coral species by lowering environmental stress (Stewart et al. 2021). Despite having these advantageous functions wetlands are threatened globally by numerous factors such as climate change and human activities that leads to 64-74% loss since 1900 (Dang et al. 2021). Gucl et al., (2012) described loss of wetlands in Cyprus to be due to high rate human activities such as managing of mosquitoes, pollution, use of drainage and water wetlands for agriculture and construction purposes.

The Ramsar Convention on wetlands defined wetlands to be areas that are fens, peat or water, native or synthetic, marshes, enduring or transient, having either static water or flowing water, brackish or salty, fresh, which includes marine areas with a low tidal depth of no more than 6 meters (Adekola and Mitchell 2011). Ramsar classified wetlands into three categories which includes wetlands in the ocean, on the shore, inland, and artificial (Ramsar Convention Secretariat 2016), they are an integral part of the overall ecosystem and serve a variety of purposes, including the purification and maintenance of the planet's ground and surface water resources as well as numerous services for local communities, local populations, and the overall health of the economy of the country (Edo and Albrecht 2021).

Ramsar Sites in Nigeria

International conventions designated wetlands that are internationally significant to be Ramsar sites, presently there are more 2023 Ramsar sites globally (Popoff et al. 2021). Ramsar Convention emphasizes on the vital importance of wetlands for human welfare, economic growth, cultural values, and recreational activities (Ramsar Convention Secretariat 2016). According to Oluwapamilerin et al. (2009) stated that the enforcement of the existing policies and laws of wetlands in Nigeria is very weak. Figure 1 describes the Ramsar sites in Nigeria and their location.

Site	Designated Date	Coverage Area (ha)	Location	Coordinates
Apoi Creek Forests	30 April 2008	29 213	Bayelsa	5°47'N 4°42'E
Baturiya Wetland	30 April 2008	101 095	Kano	12°31'N 10°29'E
Dagona Sanctuary Lake	30 April 2008	344	Yobe	12°48'N 10°44'E
Lake Chad	30 April 2008	607 354	Borno	13°4'N 13°48'E
Lower Kaduna-Middle Niger Floodplain	30 April 2008	229 054	Niger	8°51'N 5°45'E
Nguru lake marma channel complex	02 Oct. 2000	58 100	Jigawa	10°22'N 12°46'E
Foge Islands	30 April 2008	4229	Kebbi	10°30'N 4°33'E
Maladumba Lake	30 April 2008	1860	Bauchi	10°24'N 9°51'E
Oguta Lake	30 April 2008	572	Imo	5°42'N 6°47'E
Pandam and Wase lake	30 April 2008	19 742	Plateau	8°42'N 8°58'E
Upper Orashi Forests	30 April 2008	25 165	Rivers	4°53'N 6°30'E

Figure 1. Table of Ramsar sites in Nigeria (Ayanlade and Proske 2016).

In Nigeria there are eleven freshwater and coastal wetlands designated by Ramsar and has a total number of 1,076,730 ha (Ayanlade and Proske 2016), in which three are located in Niger Delta area. Niger Delta wetlands is number three among mangrove in the whole world while it is the largest wetland in Africa (Ayanlade and Howard 2017). The Niger Delta wetlands are incredibly rich and provide a wide range of services essential for human wellbeing, including a place for and recreation (ecotourism), purifying air and water, regulating climate, regenerating soil, pollination of crop controlling flood, raw material, supplying food, and medicines, energy (Nwankwoala and Okujagu 2021). The ecosystem of the Niger Delta is split into four ecological regions: freshwater swamps, coastal barrier islands, mangrove swamps and lowland rainforest it is a very significant and abundant ecosystem that supports a wide range of native plants and creatures (Mustapha and Ayodele 2016). According to Gucel et al. (2012) man-made or artificial wetlands help in providing significant dwellings for fauna and flora if well managed water resources and biodiversity. Figure 2 describes the importance of Niger delta wetlands. The aim of this study is to assess the Niger Delta residents' awareness on socio-culture effect of wetlands loss in three states in Niger Delta, Nigeria the states includes Rivers, Bayelsa and Delta state, simply the aim is to assess the socio-culture effect of the loss of wetlands awareness of the residents of these three states in Niger Delta.

Wetlands in the Niger Delta provide or derive important ecosystem functions.		
Service Provided		Examples of Niger Delta Wetland Services Offered
1.	Food	Thorny meat
2.	Construction Materials	Product made from timber such as, building poles fuelwood and chewing sticks, saw logs, bamboo
3.	Clean water	Agricultural crops such as yam, cocoa, cocoyam, maize, cassava, rice among others.
4.	Fiber and oil	Barnacles, crabs, fish and invertebrates
5.	Biochemical	Sea insects
6.	Genetic components	Medic species
Regulating		
7.	Regulating climate	A CO ₂ and CH ₄ reservoir for greenhouse gases are provided
8.	Regulating water	Buffers are provided against natural hazards like shoreline erosion and floods are regulated
9.	Purification of water and treatment of waste	Water movement, volume and quality are regulated
10.	Regulating erosion	Habitat for pollinator
11.	Regulating hazard	Natural attenuation
Cultural		
12.	Inspirational	Source of spiritual inspiration
13.	Recreation activities (Eco-tourism and transportation)	Fishing festivals and inland ports transportation which link places

Figure 2. Importance of Niger Delta wetlands ecosystem service (Edwin-wosu and Dirisu 2022).

Causes of Wetland Loss

According to Amoussou et al. (2022) despite the importance of their ecological, social, and environmental components, wetlands ecosystems are threatened and fragmented due to the combined impacts of human-made activities and climate change. Wetland resources in Nigeria are currently in danger due to a number of human and biological variables, such as a growing population, pollution, urban sprawl, and mining, among others (Olajuyigbe et al. 2015). Tijani et al. (2011) in their research, they discovered, that there is a drastic reduction in the wetland due to the human activities influence such as encroachment, land-use and waste effluent discharges. The nation's main resources such as its crude and gas are located in Niger Delta, which is a major conflict zone that now poses a serious threat to both the nation's economic foundation and national progress (Mustapha and Ayodele 2016).

Since the discovery of crude oil in 1956, terrestrial oil pollution has been one of the main sources of ecological harm in Nigerian region of the Niger Delta and has resulted in a sizable loss of mangroves and arable croplands (Ozigis, Kaduk, and Jarvis 2019). Akujuru (2014) stated that the wetlands in Niger Delta have seen massive contamination from oil pollution, however, it is believed that during the past few decades, ongoing environmental strain brought on by industrial oil extraction and illegal logging has significantly impacted the ecosystems of the Niger Delta (Ayanlade & Proske, 2016; Chidumeje et al., 2015). Most of Nigeria's rural population relies on wetlands for agricultural and fishing activities, re-

source gathering, whose intensity has frequently led to degradation the loss of ecosystem services in Nigeria's wetlands has been made worse (Amoussou et al. 2022). Also Edo & Albrecht (2021) in their paper they reviewed the changes that occur in Niger Delta was due to, human activities i.e anthropogenic activities and the pressure that comes as a result of the large scale oil exploitation and exploration, agriculture, urban sprawl and pipeline installation. The distribution of biodiversity in terms of richness and diversity seems to be steadily declining in recent years. According to Izah et al. (2018) in his study on biodiversity in Niger Delta discovered, the primary causes of biodiversity loss include so much exploitation, industrialization, habitat destruction, urbanization, bushfires, pollution, soil erosion, deforestation, and climate change. The decline in biodiversity has an impact on its functions as a source of plants used for medicine, raw materials for various works of art and construction activities, shelters, mineralization of nutrient through cycles of biogeochemical, protein loss in animal, and species of global importance.

Adekola et al., (2015) in their study they compiled research and organized it using the framework for Drivers' Pressure, State, and Impact Response (DPSIR) to discuss how the ecological services provided by wetlands are changing and what it means for reliant communities in Niger Delta they discovered the drilling for oil and gas, dredging, water pollution introducing exotic plants, migration of fish, and reclaiming wetlands, diminishing ecosystem services. Urbanization has also caused the loss of wetlands by resulting in the conversion of wetlands, vegetation, and fertile agricultural land to urban settlement, as well as an increase in impervious areas, even to the point of eradicating some land use/cover characteristics, like drainages (Mustapha and Ayodele 2016). Another threats faced by Niger delta wetlands is management of sustainable water supply, the demand for water is very high and despite being a wetland there is an inadequate supply of water (Chukwu 2015), damages in a part of wetland does not only have effect on the wetland, but it has a severe impact on the entire wetland environment, and consequently, the population of people and animals (Olajuyigbe et al. 2015). Threats of wetlands are shown in Figure 3.

Factors	Threats
1. Aquaculture	Mangroves and their abundant biodiversity loss that results it effects on livelihoods
2 Oil exploration	Narcotic effects, fish death and other faunal organisms, turbidity increases, obstruction of filter feeding mechanisms, a decrease in plant photosynthetic activities as a result of reduced light penetration.
3. Excavating	Increased erosion and siltation, topographical changes, estuarine acidification, heavy metal pollution, tremendous flooding and ponding of the back swamp, direct engulfment and eradication of fringing mangroves and the fauna associated with them, direct eradication of fringe mangroves and their associated fauna, and the switch to freshwater vegetation are all factors.
4. Damaging behaviors	High form of decrease in sediment and flow of water
5. Human activities	Loss of wildlife and plants (including deforestation overfishing, logging)
6. Reclaiming wetlands	Flora and fauna loss (agriculture and urbanization)
7. Change in climate	Flooding, sea level rise, and the destruction of life and property
8. Industrial and	Pollution of the soil and water, oil spill domestic runoff
9. Uncontrolled application	Water pollution of fertilizer

Figure 3. Wetland Threats in Niger Delta (Nwankwoala and Okujagu 2021).

Methods and Materials

Study Area

The Niger Delta is located in the down portions of the River Niger, between the coordinates of 5.32611°N 6.47083°E and 05°19'34"N 06°28'15"E is the Southern Atlantic Coast of Nigeria. (Chidumeje, Lalit, and Subhashni 2015) as shown in Figure 4. Geo-politically, the Niger Delta is made up of Bayelsa, Cross River, Akwa Ibom, Rivers, Abia, Edo, Delta, Imo, and Ondo state as shown in Figure 4. The region covers about 12% total surface area of Nigeria's. The Niger Delta is a low-lying region in the southern part of Nigeria, in the Gulf of Guinea, at about 3.5 meters above sea level. The Niger Delta is a complex web of waterways and creeks. Mangroves, swampy watery areas, and rainforests and descended savannah are just a few of the several types of vegetation that make up the environment of Niger Delta, together with the brackish lagoons and river systems, man-grove vegetation covers the Niger Delta's coastal region. For the maintenance of this biodiversity, the ecological resources of the Delta must be protected. Niger Delta is situated at Atlantic coast of Southern part of Nigeria's (Elekwachi et al. 2019) (Figure 4).

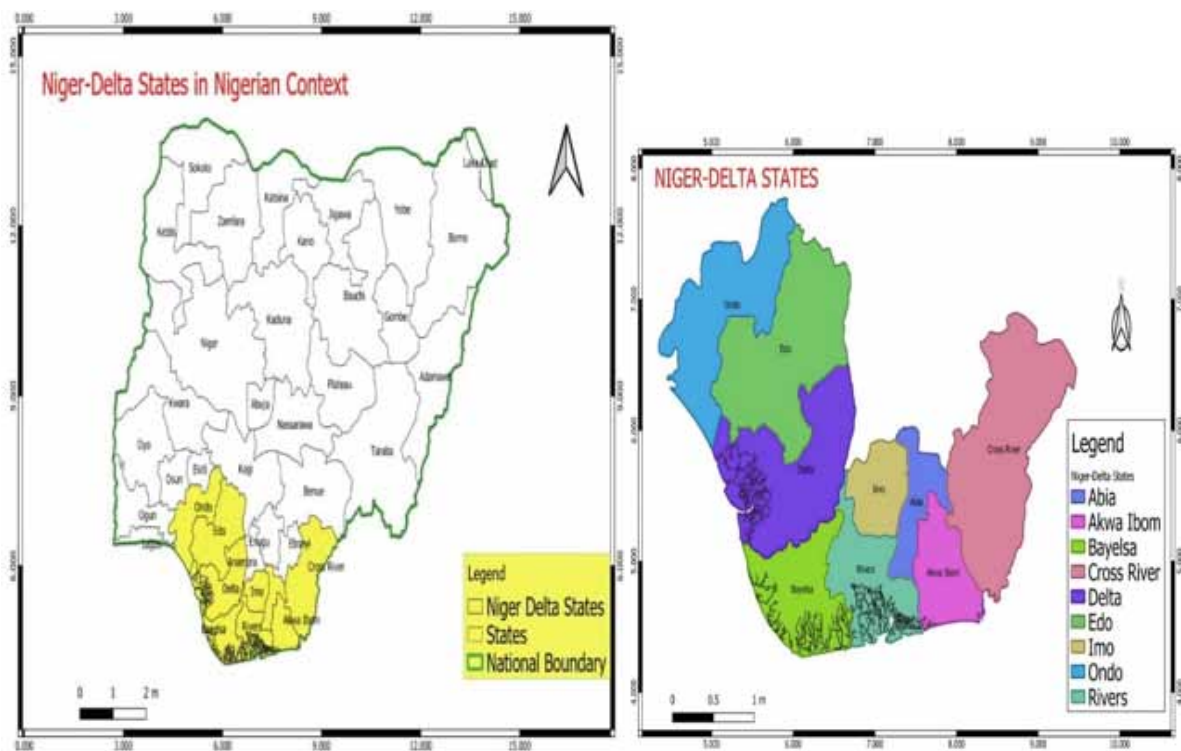


Figure 4. Left, map of Nigeria in context of Niger Delta. Right, Niger Delta states.

For the local inhabitants and the country as a whole, the Niger Delta wetland ecosystem is extremely important economically. Both aquatic and terrestrial biodiversity are abundant in the area, which also provides a major source of income for rural residents and maintains the ecosystem (Chidumeje, Lalit, and Subhashni 2015). Its average temperature monthly is 27°C, and there are between 3000 and 4500 mm of rain each year. The area is home to many indigenous species of mammal, reptile, amphibian, bird, a microorganism, fish, and species of moss, liverwort, pteridophyte, gymnosperm, chlamydosperm, monocotyledon, and dicotyledon species (Izah, Aigberua, and Okechukwu Nduka 2018).

Research Questions

- How has loss of wetland affected the dwellers of Niger Delta communities?
- Is there any enacted policies and regulations enacted and implemented to protect wetlands in this areas?
- What are the communities' economic benefits of the extensive income derived from crude oil production?

Methodology

The study questionnaire was conducted in communities of three (3) states in Niger Delta which are River state, Bayelsa state and Delta state. It was distributed randomly among the residents of the communities.

Research Design

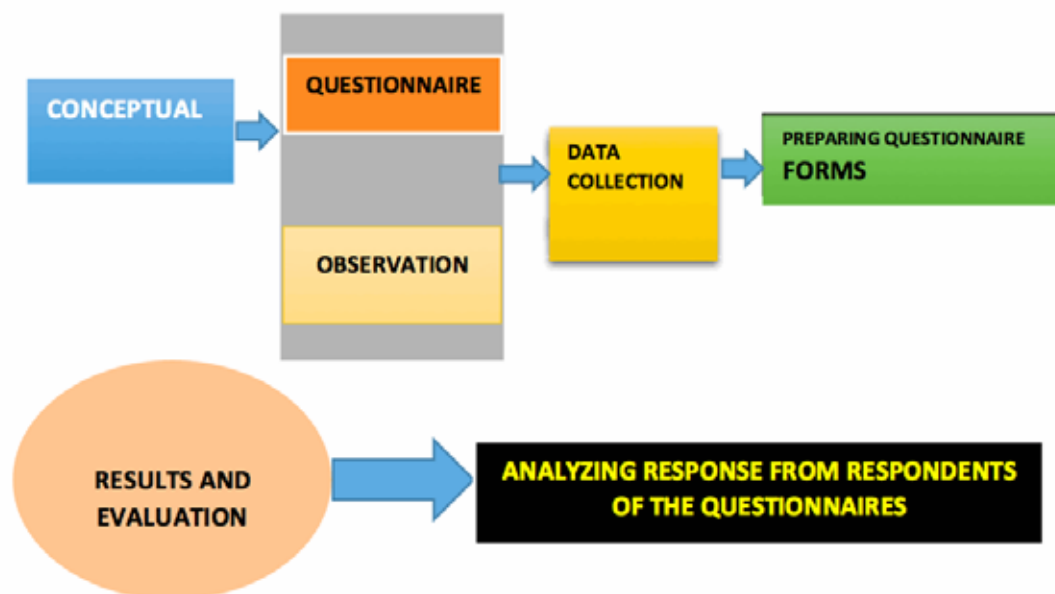


Figure 5. Research Design.

Questionnaire Administration and Content

The instrument that is used in this study is the questionnaire instrument. Data was obtained via an interview-like form of questionnaire to investigate the study's conceptual model.

The questionnaire was issued randomly to some communities and it was input manually into SPSS, where the platform helped with the analysis of collected data.

The Questionnaire was divided into two sections Section A which is titled as “socio-demographic data” they include four questions and Section B “effect of wetland loss on inhabitant” investigates the effect of the loss of wetlands on the dwellers of Niger Delta, they include nine questions, Likert scale was adopted in all questions, (strongly agree, agree, unsure, disagree, and strongly disagree).

Results

This is targeted at the residences of communities in Niger Delta. A total of 150 residents completed the questionnaire were 50 was for each states.

First Section of Questionnaire

The first section of the questionnaire covered the demographics of the respondents, such as gender and age, number of years living in Niger Delta with socioeconomic information including occupational status. The results shows the following:

Section A 1: Gender and Age

The result of the chart in Figure 6 below indicates the G of resender and Age of respondent that live in Rivers, Bayelsa and Delta, state was majority of the contacted were young people between ages 26-40 years and they are male.

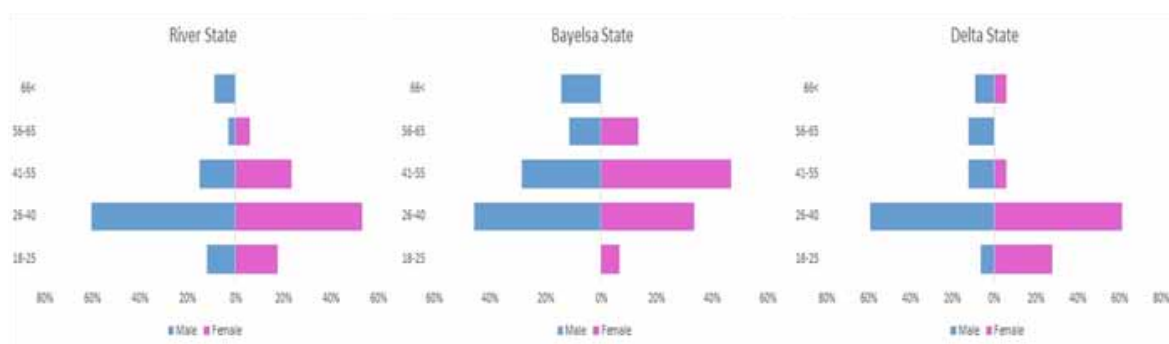


Figure 6. Age and gender distribution in three states.

Section A 2: How long have you been living in Niger Delta

The result of the chart in Figure 7 below indicates the duration of respondent that live in Rivers, Bayelsa and Delta state, were majority of those contacted lived for more than 10 years and they are male.

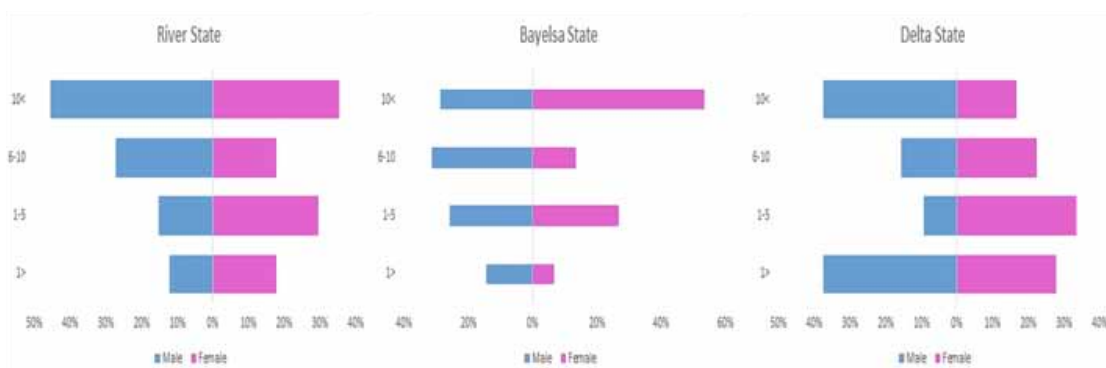


Figure 7. Duration of living in the Delta.

Section A 3: Occupation

The result of the chart in Figure 8 below indicates the occupation of respondent in Rivers, Bayelsa and Delta state were majority of those contacted are employed followed by farmers and fishers.

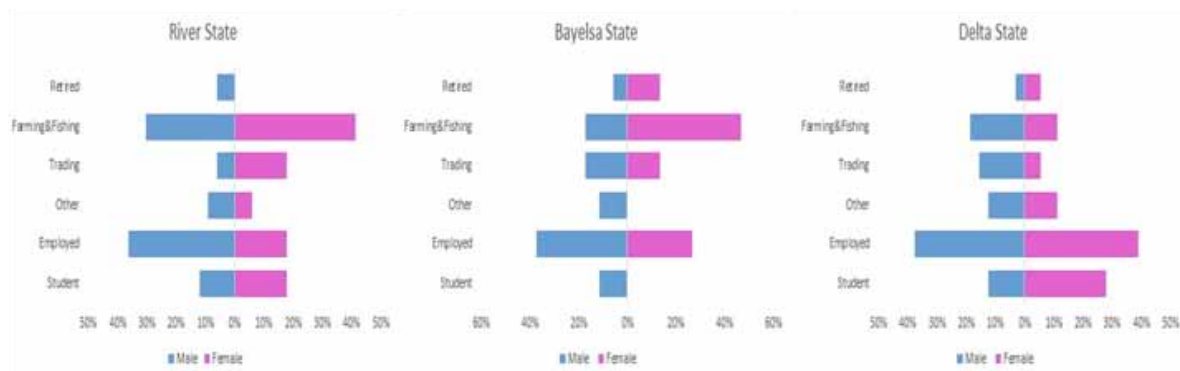


Figure 8. Occupation in the Delta.

Second Section of the Questionnaire

The second section of the questionnaire covered the effect of wetland loss on inhabitants. The results shows:

Section B 1: Wetlands in the community has been converted to others activities

47.3% strongly agreed that wetlands in the community has been converted to others activities, 20% agreed, 20% are unsure, 7.3% disagree, 4% strongly disagree, while 1.4% has no response.

Section B 2: Wetlands are affected by the industrial activities in my community

42.7% agreed that wetlands are affected by the industrial activities in the community, 35.3% strongly agreed, 8.7% were unsure, 8% strongly disagree and 5.3% disagree.

Section B 3: Flooding and other natural disasters has affected my community

48.7% agreed that flooding and other natural disasters has affected their community, 32% strongly agreed, 8.7% disagree, 5.3% strongly disagreed and 5.3% are unsure.

Section B 4: Biodiversity in my community has been sent into extinction due to excessive mining activities

38.7% agreed that the biodiversity in their community has been sent into extinction due to excessive mining activities, while 32% strongly agreed, 16.7% are unsure, 7.3% disagreed and 5.3% strongly disagreed.

Section B 5: No adequate measures has been taken by the government to preserve biodiversity in my community

34.6% agreed that no adequate measures have been taken by the government to preserve biodiversity in the community, 21.3% disagreed, 18.7% are unsure, 18% strongly agree and 7.4% strongly disagreed.

Section B 6: My family health and my health has been affected by the oil and other fossil fuel exploration and exploitation in my community

44% agreed that their family health and their health has been affected by the oil and other fossil fuel exploration and exploitation in the community, 33.3% strongly agreed, 12% unsure, 8% disagreed, 2.7% strongly disagree.

Section B 7: Light, heat and noise pollution has affected agricultural activities in my community

44% agreed that light, heat and noise pollution has affected agricultural activities in my community, 35.3% strongly agreed 10.7% are unsure, 5.3% strongly disagreed, 4.7% disagreed.

Section B 8: My community has benefited economically from the huge income of the oil sector in Niger Delta

32% disagreed that their community has benefited economically from the huge income of the oil sector in Niger Delta, 20.7% unsure, 16.7% agreed, 17.3% disagree, 13.3% strongly agreed

Section B 9: Global warming has displaced residents and biodiversity in my community

42.7% agreed global warming has displaced residents and biodiversity in my community, 32% strongly agreed, 13.3% are unsure, 8% disagree, 4% strongly disagree.

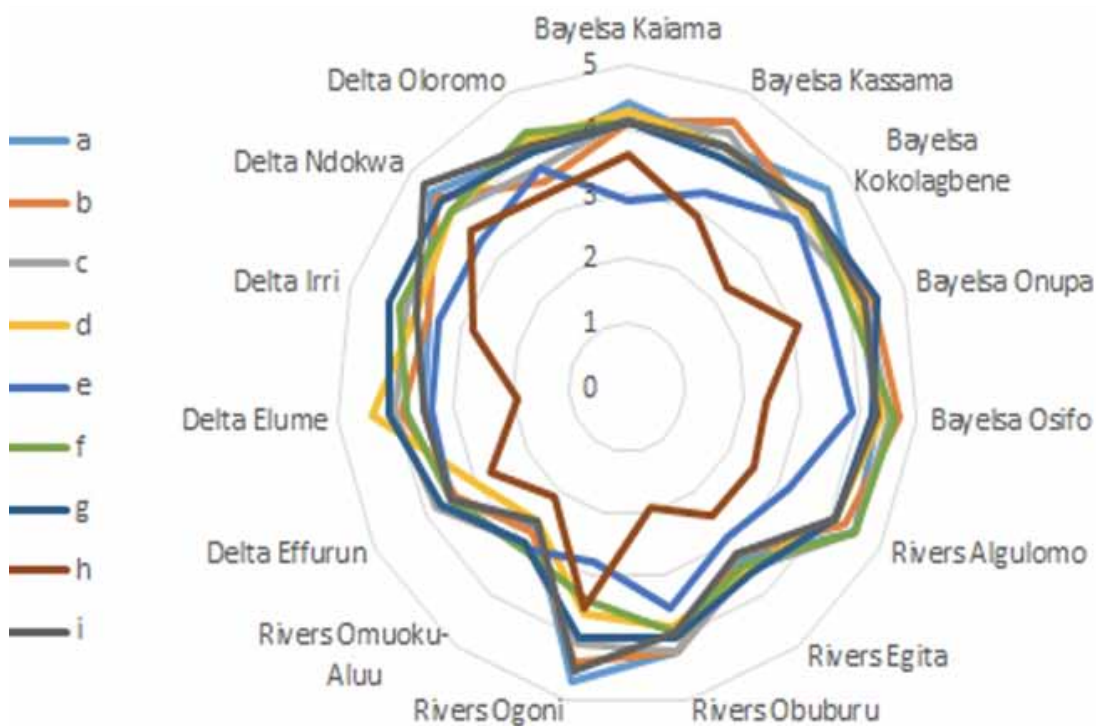


Figure 9. Comparison of the demographic differences.

- (a) Wetlands in my community has been converted to others activities
- (b) Wetlands are affected by the industrial activities in my community
- (c) Flooding and other natural disasters has affected my community
- (d) The biodiversity in my community has been sent into extinction due to excessive mining activities
- (e) No adequate measures have been taken by the government to preserve biodiversity in my community
- (f) My family health and my health has been affected by the oil and other fossil fuel exploration and exploitation in my community
- (g) Light, heat and noise pollution has affected agricultural activities in my community
- (h) My community has benefited economically from the huge income of the oil sector in Niger Delta
- (i) Global warming has displaced residents and biodiversity in my community

Discussion

Research results indicated that Omuoku-Aluu community in rivers state has less awareness on the effect of wetland loss; followed by Egita community next is Effurun community in Delta State (Figure 10). Communities with less awareness is due to little or no sensitization on wetlands loss, whereby the dwellers engage in deforestation, agricultural runoff and improper waste disposal, as a result they experience extreme flooding, loss of livelihood, loss of biodiversity and health issues.

Urbanization and infrastructure development plays a role in the loss of wetlands in Niger Delta were rapid growth cities has conversion of wetlands into settlements and industries from the study results the respondents agreed that wetlands have been converted to others activities and there are no adequate measures taken to preserve biodiversity in their community. The results also indicate that global warming affects the dwellers of these communities. The impact of global warming and climate change also exacerbates Niger Delta Wetlands. The results indicated that most of the respondents from Rivers State are mainly live on farming and fishing (Figure 9). It was clear that too much agricultural activities led to the loss of wetland and this is due to their less awareness of the implication of these activities.

On the other hand, Figure 8 shown that they respondents have been living in these communities for more than 10 years which they were engaged with these activities for long.

We can summarize the answers to some survey questions as follows:

How has loss of wetland affected the dwellers of Niger Delta communities?

From the result 47.3% strongly agreed that wetlands in their community have been converted to other activities and 42.7% agreed that industrial activities have affected wetlands in their communities, this depicts the rate of wetland loss. According to Uchegbulam et al., (2022) gas flaring has led to anthropogenic emission, acid rain and more than 250 different toxins has affected the living and health condition of the communities and its biodiversity, which has also caused climate change and global warming for the entire global communities. The loss of wetlands has caused destruction such as flooding which has displaced dwellers of Niger Delta (Loveline 2015).

Is there any enacted policies and regulations enacted and implemented to protect wetlands in this areas?

There is an extreme resistance in protecting areas in many communities in Niger Delta due to the defendant on natural resources by the residence. According Offiong et al. (2018) there is an ineffective implementation of policies despite several efforts placed by the government such as Niger Delta Development Commission (NDDC) and other regulatory frame work.

What are the communities' economic benefits of the extensive income derived from crude oil production?

The result of the questionnaire shows that the dwellers of this communities have not benefited from the extensive income derived from crude oil production, also as described by Okolo & Anthony (2022) that most of this communities still live in abject poverty despite the huge revenue it contributes to the of Nigeria economy. Amnesty program was initiated

in 2009 to eradicate Poverty but it yielded no effective result (Falana, Adedun, and Familoye 2022). According to Ebegbulem et al., (2022) poverty has become a way of life which is a call for concern in the region.

Recommendations and Conclusion

1. Awareness and sensitization of the communities: the residence should be sensitized on environmental protection and conservation; they should also be able to report the cases of oil spillage.
2. Policies: both national and international organization (IUCN, Ramsar, NESREA, Oil companies) should enacts compulsory polices on pollution. National environmental bodies should enforce acts and legislations that must be strictly adhered to by both the companies and the community.
3. Adequate monitoring and management: there should be adequate monitoring of oil pipelines and wells in case of oil spillage, illegal discharge of crude oil should be monitored and it can be monitored through remote sensing and Geographical information sensing techniques.
4. Sustainable management of wetlands: sustainability is an approach that can be used in the protection of wetlands in Niger Delta area.
5. Industrial management: industries should work on their management system in other to be able to improve on pollution of non-print substances on wetlands
6. Resources: alternative source of energy should be employed in other to mitigate or constrain the total dependence on fossil fuels by the country at large.
7. Ramsar: Only three wetlands are designated by Ramsar in the Niger Delta, more wetlands from the Niger Delta should be included among the Ramsar sites.
8. Wetland conservation and restoration: conserving and restoring wetlands are very important component in the protection of wetlands from human threat.

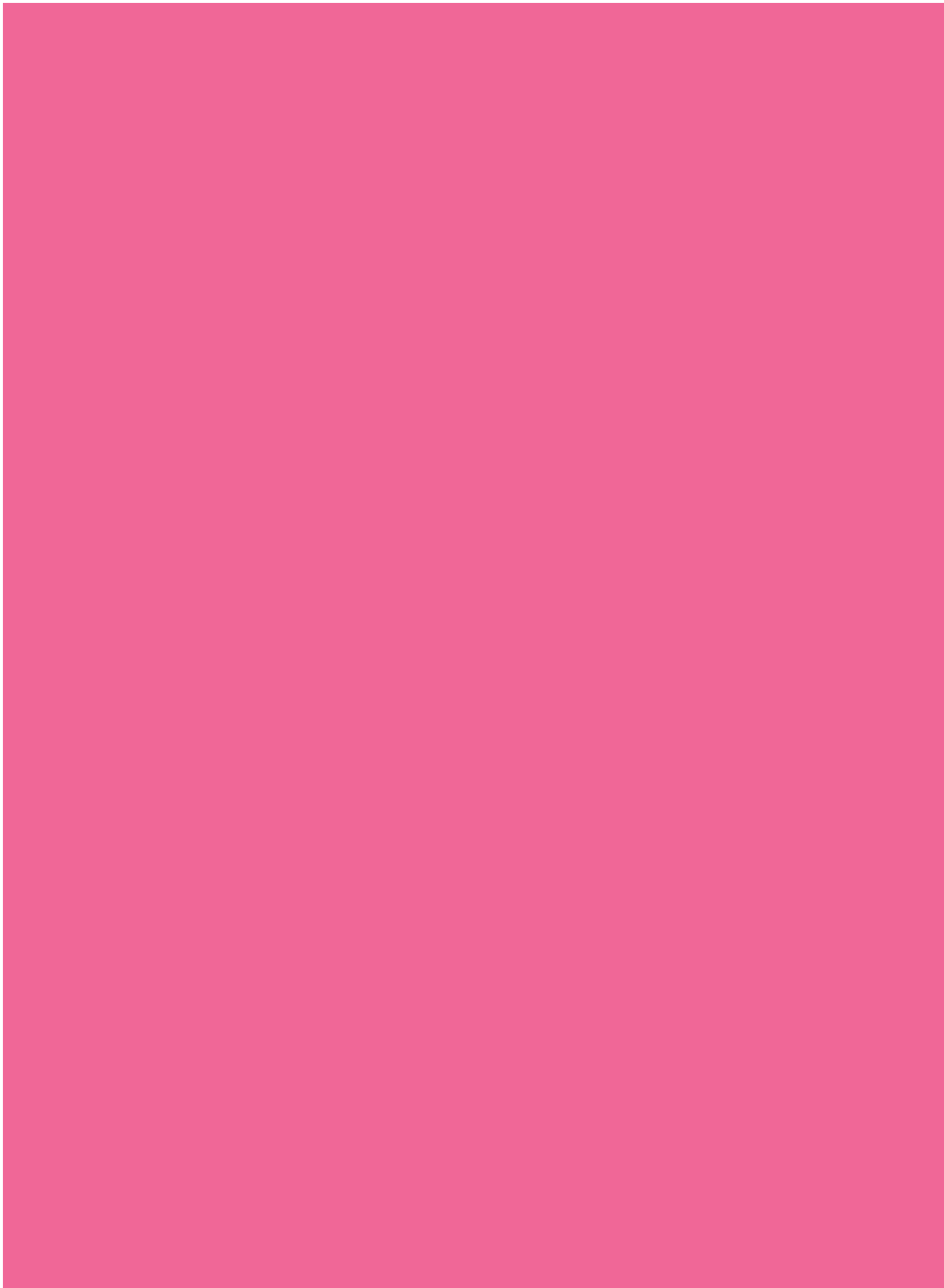
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Journal Policies

Journal Policies

About JUCR

The Journal of Urban Culture Research is an international, online, double-blind, peer-reviewed journal published biannually in June & December by the Faculty of Fine and Applied Arts of Thailand's Chulalongkorn University in conjunction with the Urban Research Plaza of Osaka City University, Japan. JUCR offers its readers two categories of content. One is a window into the latest international conferences and reviews of related sources – books etc. along with guest articles, special features and case studies. Secondly, its main core is a range of peer-reviewed articles from researchers in the international community. No fees are charged.

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This journal on urban culture aims at establishing a broad interdisciplinary platform for studies of cultural creativity and the arts that brings together researchers and cultural practitioners to identify and share innovative and creative experiences in establishing sustainable and vibrant, livable communities while fostering cultural continuity. The journal embraces broad cultural discussions regarding communities of any size as it recognizes the urban community's rural roots. JUCR encourages researchers and the full range of artists in visual art, design, music, the creative arts, performance studies, dance, cultural studies, ethnomusicology, and related disciplines such as creative arts therapies and urban planning. Articles related to either the academic or wide vernacular interpretation of urban culture and the arts as a tool promoting community and individual well-being, health, and diversity are welcome.

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- Stated commitment to contribute to issues affecting the management of JUCR.

Responsibilities

Members of the Editorial Board are directly accountable to the Managing Editor. Responsibilities include but are not limited to:

- Provide input on editorial needs and review manuscripts as requested.
- Complete assigned reviews in a timely fashion. Offer mutually respectful and constructive review of manuscripts to assist in providing the highest quality of papers.
- Maintain confidentiality and objectivity with regard to manuscripts and the JUCR review process.
- Participate in the evaluation of the quality and effectiveness of JUCR so as to help sustain the highest level of excellence.
- Once appointed to the Editorial Board, members are encouraged to submit at least one paper during their tenure.

Nomination Process

Nominations are submitted in writing (via email or post) and addressed to the Editor in Chief or any member of the Editorial staff. Candidates/applicants must submit a CV including a statement addressing her/his interests and suitability for Board membership. JUCR assumes the general readership would be able to identify the candidate by her/his reputation for scholarship in an established line of inquiry.

When a candidate is approved by majority vote of the current JUCR board members, she/he will be invited to serve by the Editor in Chief for a specified term of three years. The Dean of Chulalongkorn University's Faculty of Fine and Applied Arts in turn will finalize the appointment. Continued membership of the Editorial Board will be reviewed every three years by a member of the Editorial Board with a decision about candidates submitted annually. The number of Editorial Board members will not exceed 20 unless otherwise agreed upon.



Journal of Urban Culture Research

The Journal of Urban Culture Research (JUCR) is an international, online, peer-reviewed journal published biannually by the Faculty of Fine and Applied Arts of Thailand's Chulalongkorn University in conjunction with the Urban Resilience Research Center of Osaka Metropolitan University (formerly Osaka City University), Osaka, Japan.

JUCR aims at establishing a broad interdisciplinary platform for studies of cultural creativity and the arts that brings together researchers and cultural practitioners to identify and share innovative and creative experiences in establishing sustainable and vibrant, livable communities while fostering cultural continuity. The journal embraces broad cultural discussions regarding communities of any size as it recognizes the urban community's rural roots.

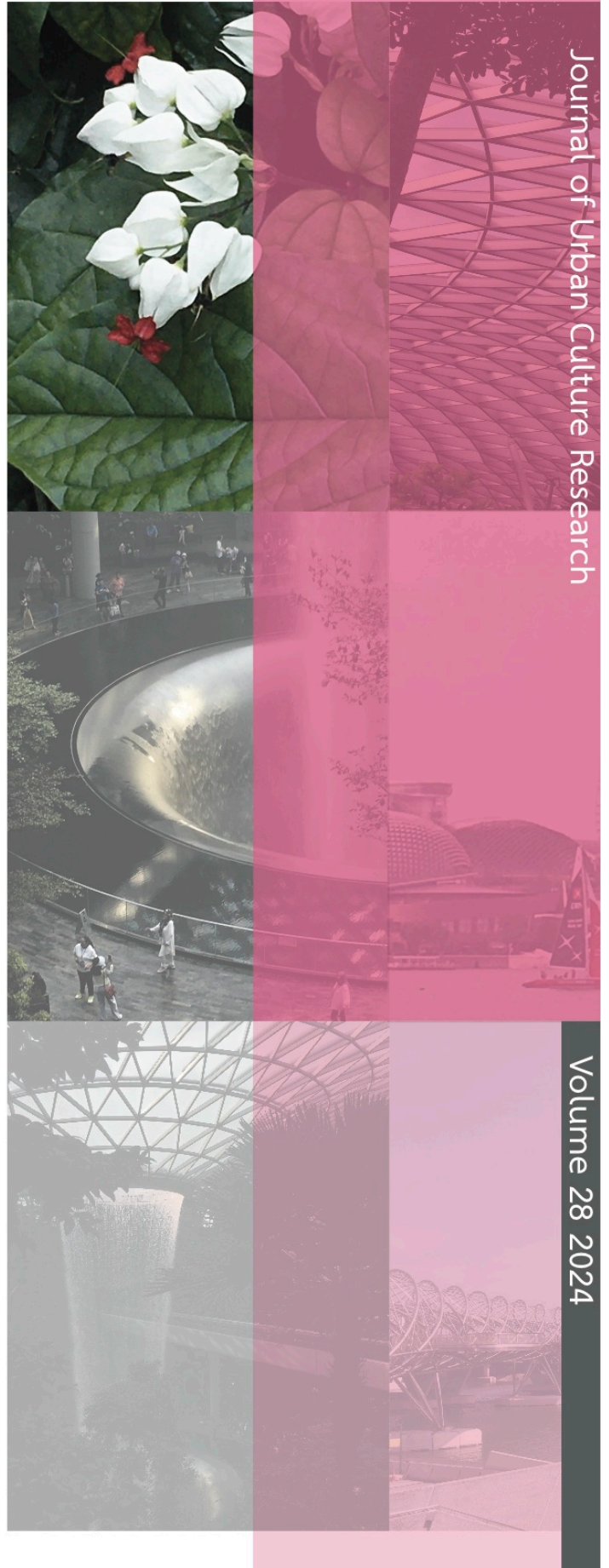
JUCR encourages researchers and the full range of artists in visual arts, creative arts, music, dance, theater together with those in urban studies and planning to seek cross-disciplinary and cross-cultural practices.

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