



INTERNATIONAL
k@Borneo
VIRTUAL
CONFERENCE 2021
PROCEEDINGS

CONFERENCE THEME:

Borneo

INFORMATION DIVERSITY & HERITAGE

14-15 SEPTEMBER 2021



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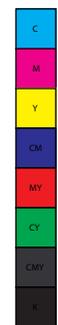
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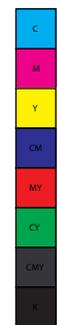
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INTRODUCTION

The 2nd International k@Borneo Conference 2021 is a venue for researchers and practitioners to connect with the international research communities for exchange of ideas and sharing of knowledge in the field of Borneo Study. This is the 1st virtual conference organised by k@Borneo.

Objectives of the conference

- To be a venue for researchers, knowledge workers, policy makers, students and academicians to share knowledge, experiences, interact, network on Borneo.
- To discuss strategies for optimization of information resource sharing countries in view of the United Nations Sustainable Goals (SDGs)
- To identify the potential and suitable applications of ICT in the publication, access and preservation on Borneo information.
- To share human capacity building and responsibilities on information sharing about Borneo

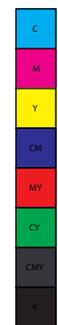
Conference Theme

Borneo: Information Diversity & Heritage

Sub-Themes

The topics involve various multiple disciplines related (but not limited) to the themes and sub-themes as follow:

- Sub -Theme 1: Traditional knowledge**
- Sub -Theme 2: Art & Cultural Diversity**
- Sub -Theme 3: Medicinal Plants**
- Sub -Theme 4: Oral Tradition**
- Sub -Theme 5: Environment Sustainability**



It is with great pleasure and honour for me, on behalf of k@Borneo and the Organizing Committee of International k@Borneo Conference 2021, to welcome and express our heartfelt gratitude to the Right Honourable Chief Minister of Sarawak, YAB Datuk Patinggi (Dr.) Abang Hj. Abdul Rahman Zohari Bin Tun Abg. Hj. Openg, for his time and for the launching of the conference. k@Borneo was initiated in 2001 with the objectives to identify and preserve information on Borneo in the effort to increase accessibility, ensure intellectual continuity and to support research on Borneo. k@Borneo means the key to knowledge on Borneo.

Towards these collective efforts, the first Memorandum of Understanding was signed on 12 August 2002 in Kuching, Sarawak, to collaborate internationally on the identification and preservation of information on Borneo with participating organisations from Kalimantan, Indonesia, Negara Brunei Darussalam, and Sabah and Sarawak from Malaysia.

As of today and the last Memorandum of Understanding signed on 5th May, 2021, there are 10 renown participating organisations committed to the course of achieving k@Borneo objectives. These participating institutions are namely:

- Pustaka Negeri Sarawak, Malaysia,
- Yayasan Sabah, Malaysia,
- Sabah State Library, Malaysia,
- Universitas Tanjungpura (UNTAN), Kalimantan Barat, Indonesia,
- Universiti Malaysia Sarawak, Malaysia
- Tun Jugah Foundation Sarawak, Malaysia
- Institut Agama Islam Negeri (IAIN), Pontianak, Kalimantan Barat
- Sabah State Museum, Malaysia,
- Universiti Malaysia Sabah (UMS), Malaysia, and
- Universitas Mulawarman, Kalimantan Timur, Indonesia



PUAN ARPAH ADENAN
Chairman, k@Borneo
and Chairman of the
International k@Borneo
Conference 2021
Borneo: Information Diversity
and Heritage

WELCOMING SPEECH

This International k@Borneo Conference 2021, held for the 1st time virtually, is the 2nd conference organised by k@Borneo. The first was held physically in Sabah, Malaysia, in 2015.

The objectives of the conference are

- to be a venue for researchers, knowledge workers, policy makers, students and academicians to share knowledge, experiences, interact, network on Borneo.
- to be a platform to discuss strategies for the optimization of information resource sharing countries, in view of the United Nations Sustainable Goals (SDGs),
- to identify the potential and suitable applications of ICT in the publication, access and preservation on Borneo information
- last but not least, to share human capacity building and responsibilities on information sharing about Borneo.

The theme for this year's conference is Borneo: Information Diversity and Heritage and the 5 sub-themes are:

- Traditional knowledge,
- Arts and cultural diversity,
- Medicinal plants,
- Oral tradition
- and Environment sustainability.

25 papers will be presented by speakers from Malaysia, Indonesia and Australia as well as 4 posters presentations. It is worth mentioning here that this conference managed to attract the interests and participation of speakers and posters presenters from various professional backgrounds, not limited to the library and archive world but proudly from what we called as "Borneo enthusiasts", people who love Borneo passionately!

The appreciation of Borneo heritage is essentially important for sustainability. We believe it could be communicated through concerted efforts of all, and as one of the example is through this conference.

Sustainability in the conservation and preservation of Borneo heritage through regional cooperation would be meaningful if all the drives towards achieving the said objectives of k@Borneo could be manifested. It is a way of how our tangible and intangible cultural heritage could be safeguarded. It is the legacy that we inherited from the past generations and it is our responsibility to ensure its preservation for the future generations.

We are sincerely grateful for the support of the Right Honourable Chief Minister of Sarawak, the keynote and fellow speakers, posters presenters, conference participants and the organizing committee who have contributed their valuable time, expertise, and efforts in making this conference a reality. Lastly enjoy the conference!

Preserving Borneo's Diversity and Heritage: Impetuses, Initiatives and Impacts

For decades, learning institutions and libraries across the globe had 3 essential missions: knowledge management, knowledge transmission and knowledge preservation. These missions are aligned to the goal of building a knowledge-based nation. While these missions are common for universities and other educational institutions, the role of libraries such as Pustaka Negeri Sarawak, in this so small feat, are often overlooked. Unfortunately, libraries are traditionally viewed as a storage place for books and reading materials and their roles in advancing open knowledge and preserving cultures and heritage are largely unexposed to the general public. It is indeed timely for these roles to be promoted, elevated and be given due spotlights going forward to a better future. Libraries are no longer a “storage hall” or “warehouse” of books and documents, but an active agent in spearheading many programmes and initiatives that enhance the community, from literacy development to nation building. This is particularly so in a country where the population is a mix of diverse races, religions and ethnicity. A library brings the people together sharing their everyday way of life, preserving their heritage and creating their own identity.

Erik Erikson, the famous psychologist once said, “In the social jungle of human existence, there is no feeling of being alive without a sense of identity”. In other words we must preserve our sense of who we are. Although Erikson was referring to personal identity, his words are also genuinely reflective of cultural and national identities. As we rapidly move up the ladder of technological and economic advancement marked by the increasing cluster of concrete jungles, that very sense of identity (forged on the basis of shared experience) for a community or a state or a country or a region, is desperately needed.

As the world's third largest island, Borneo is home to a rich hot spots biodiversity, diverse cultures and history, spanning across three countries;



YBHG. TAN SRI DATUK AMAR

(DR) HAJI HAMID BUGO

Chairman

Board of Management

Pustaka Negeri Sarawak

KEYNOTE SPEECH

Indonesia, Brunei and East Malaysia. Sarawak in itself has over 40 ethnic groups, packed with their own dialects, languages, cultural practices and heritage. And not to mention the diverse

Borneo is home to a rich hot spots biodiversity, diverse cultures and history, spanning across three countries; Indonesia, Brunei and East Malaysia.

species of plant and animals. Putting the Borneo countries together we have what is described by as "Intangible heritage" and defined as "traditional or living expression inherited from our ancestors and passed on to our descendants". These are reflected in the diverse repertoire of music, song and dance, as well as in the folklore, stories, fables, idioms and riddles, as well as in

our food, traditional medicine, attire and costume. Most of all, there is a whole list of unsung traditional activities associated with traditional religious observances, birth, initiation, marriage and even death. These practices certainly serve as the main impetus for preservation efforts to be systematically intensified.

Furthermore, it is important to acknowledge the fact that the global village of the 21st Century has redefined the need for knowledge and information preservation. Globalization has turned into an impetus for the greater push towards the preservation of local knowledge. As the world becomes more connected than ever, the external cultural influence can erode local heritage and culture. Unless checked the world eventually ended up with a monoculture. Can we imagine that? I think this process would be unnatural and certainly will only be promoted by an ideology (thru biased media) that some cultures are better than others. We have seen the disappearance of many cultures through this mode. Think of the Red Indians, the Aborigines and the Maories.

There is indeed a necessity to re-examine the principles of preservation and incorporate the recent technological advances. By utilizing the right technology, the preservation of local knowledge can be done comprehensively and

enable easier dissemination and retrieval. In this effort the public, the young generation and the media must be brought in and educated.

To cope with today's digital world, where information is at our fingertips, the libraries of the 21st century should also evolve by being an active contributor of knowledge advancement and preservation. Libraries need to be brave and innovative in formulating and implementing initiatives that would promote local knowledge, culture and heritage. One of the initiatives would be to capitalise on the use of social media. While some may argue that social media could bring more harm than good, but recent efforts by libraries around the world have seen a tremendous increase on cultural and heritage awareness among the youth through social media engagement. For example, by preserving local cultural practices and sharing them via YouTube, the videos have the potential to be far-reaching. Infographics or bite-size content

Where information is at our fingertips, the libraries of the 21st century should also evolve by being an active contributor of knowledge advancement and preservation.

which are shared on Facebook or Twitter, on the other hand, would entice the younger generations to be alerted about the diversity and heritage that we have around us. Surely, the sky is the limit and libraries should not shun the influence of social media in providing an unprecedented level of integration and preservation of different cultures.

Besides, greater collaboration among relevant institutions in the region, from libraries, museums, repositories, research centres, universities and NGO should be fostered. This collaboration would allow seamless exchanges of materials related to Borneo. It would also encourage the organizations to have joint events, such as k@Borneo conference and regular knowledge sharing workshops. By working together,

preservation and dissemination of local knowledge and heritage of the peoples of Borneo can be conducted in a more unified and inclusive manner. In addition, further collaborative research works can be proposed to uncover more materials. (Oral History)

Digital preservation of local knowledge should be further enhanced by incorporating technological tools that are effective in preserving the material as well as adding values to its role in educating the young generations. The use of virtual reality or augmented reality, for example, could create a more immersive experience in understanding specific cultural practice. One example of such implementation is Google Arts and Culture, a platform that provides access to various 360 degrees views of places related to arts and culture, apart from highlighting the cultural experience through interactive content and activities. One day perhaps we can have a k@Borneo interactive platform with access to the most interesting diversity and heritage materials related to Borneo being displayed to the rest of the world. The engaging elements would also be a lure for children and adolescence to appreciate our heritage from young.

Clearly, much can still be done in preserving and promoting Borneo's wonderful and priceless collection of diverse cultural practices, languages and heritage. This is in line with UNESCO's vision of "Local knowledge, Global goals". As the diversity of local knowledge and heritage are embraced and celebrated as the roots of Sustainable Development Goals, more efforts in revitalising local knowledge across generations are crucial. Within formal education, there is an urgent need to strengthen inter-generational transfer of indigenous knowledge. Local and indigenous knowledge are usually portrayed as a static body of information that is transmitted intact from generation to generation. The terms "tradition" or "heritage" tend to imply stability and inflexibly as well. However, in truth, local knowledge has always been evaluated, updated and extended. Each generation reinterprets their forefathers' knowledge in order to

address growing challenges and possibilities in a new and changing environment. Such dynamism should be capitalised by injecting "lives" to the preserved knowledge through creative use of technology.

By spearheading the right initiatives in promoting Borneo's diversity and heritage, the impacts on the cohesive society cannot be denied. While we anticipate the economic growth in this region, we should not shut our senses in accepting the importance of strengthening our roots. The preservation and dissemination of local knowledge and heritage are the initial steps to make us proud of our identity. There is no doubt that libraries can be the leader in such effort, perhaps even going beyond the conventional views and embarking on an innovative pathway in championing the appreciation of Borneo's diversity and heritage.

Ladies and gentleman,

I wish you an enjoyable and successful conference.

One day perhaps we can have a k@Borneo interactive platform with access to the most interesting diversity and heritage materials related to Borneo being displayed to the rest of the world.

OPENING SPEECH



**DATUK PATINGGI TAN SRI (DR)
ABANG HAJI ABDUL RAHMAN
ZOHARI BIN TUN DATUK ABANG
HAJI OPENG**

Chief Minister of Sarawak

It gives me a great pleasure to deliver my speech in this International k@Borneo Conference 2021. Though it is a virtual conference and I am not able to be physically present face to face with all of you, what truly important are the spirit and enthusiasm of deepening our learning and knowledge treasures and sense of appreciation on what Borneo is all about. I would like to express my sincere gratitude to k@Borneo for being able to collaborate regionally in organising this conference despite the challenges of a pandemic. To everyone especially the conference participants, I am happy to Welcome all of you to Borneo, virtually!

I am made to understand that k@Borneo is a regional cooperation of Sabah, Sarawak and Kalimantan, Indonesia which was initiated in 2002 with the aim to identify and preserve materials on Borneo with the significant importance to increase accessibility, ensure intellectual continuity and to support research on Borneo. There has always been a strong link between collection identification and preservation to accessibility for intellectual continuity. No doubt, all these have to be seriously taken care of, in ensuring what we have today could be further used and benefited for future generations as proliferation of knowledge is a dynamic engagement which rests on concerted responsibilities.

We learnt from history how great civilization could stand and fall should we ignore the importance of knowledge for sustainable development and well-being of society at large. The same goes to preservation of our heritage as it is our pride. Our heritage provides clues to our past and how our society has evolved. It helps us examine our history and traditions and enables us develop an awareness about ourselves. It helps us understand and explain why we are the way we are. Heritage is a keystone of culture that plays a paramount role in our existence either as an individual or as groups of a society at large. I believe with this as one of the reasons, the organizer, k@Borneo, came up with the profound theme of Information Diversity and Heritage.

Ladies and gentlemen,

We are fortunate today as we are here for this

great conference and we will listen, learn, share and exchange ideas on how we should steadily progress and appreciate the similarities and diversities amongst us which makes Borneo unique by its own. The unity in diversity of Borneo! We celebrate and appreciate our similarities and differences together. In this context, it has to be the integrative approach based on mutual respect and acceptance of diversity. The unity of society can only be preserved, and peace can only be maintained through the recognition of the diversity of society with all that this entails in terms of an integrated understanding and appreciation of economic, social and cultural cooperation.

Congratulations, to the joint efforts of k@Borneo which created the framework of k@Borneo that I believe could be replicated to other areas of disciplines so, could be cherished and the valuable experience gain therefrom could be further benefited to all.

Ladies and gentlemen,

The world is facing a challenging time due to the pandemic COVID-19 and Borneo is not an exception. Given our diversity and strong economic, social and cultural complementarity, there exists a broad room for more cooperation, to further unleash the potential to seek for substantive progress in our efforts to achieve a Sustainable Island of Borneo which we live and share the same beautiful land together. There are many things that we could intensify our efforts together towards achieving higher-quality development such as in environmental protection, digital economy and tourism. For Sarawak Government, I have entrusted Pustaka Negeri Sarawak to lead the awareness and advocacy initiatives towards achieving a Sustainable Sarawak/Lestari Sarawak which puts crucial emphasis on sustainable development. My hope and aspiration that lets together make the Island of

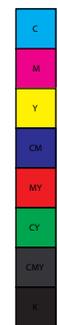
Borneo, a sustainable island for all!

Ladies and gentlemen,

I am confident that over the two days conference, the participants will benefit much from the papers presented. It is hope that the interaction and exchange of ideas, sharing of knowledge, not to mention creation of new knowledge will benefit Borneo immensely.

Last but not least, with the recitation of "Bismillahirrahmannirahim", I declare and launch the International k@Borneo Conference 2021!

We learnt from history how great civilization could stand and fall should we ignore the importance of knowledge for sustainable development and well-being of society at large.



RESOLUTIONS

Resolution 1

i. To have Borneo resources platform

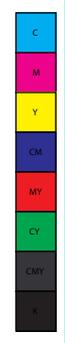
Resolution 2

ii. To generate own funding from respective participating agency for k@Borneo wellbeing

Resolution 3

i. To intensify oral history on Borneo.

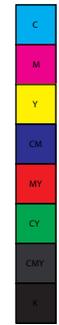




WORKING PAPERS

1. Art and Cultural Diversity
2. Environmental Sustainability
3. Oral Tradition
4. Traditional Knowledge





Gending Sriwijaya dance As Indonesian Cultural Heritage: In The Legal Perspective Of Intellectual Property

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Abstract

Gending Sriwijaya Dance as an Indonesian Cultural Heritage is a traditional dance of the people of the city of Palembang, South Sumatra. Historically, the center of the Sriwijaya kingdom was in the city of Palembang, which is known as the cultural center. Gending Sriwijaya Dance was designated as an intangible cultural heritage in 2014 based on the Decree of the Minister of Education and Culture of the Republic of Indonesia Number 270/P/2014. The purpose of this paper is to describe the existence of the Gending Sriwijaya Dance in South Sumatra which is legally protected in several laws and regulations in Indonesia. The research method in this paper uses normative legal research by examining primary and secondary legal materials. This study uses a statutory, historical and conceptual approaches. The results show that historically the emergence of this dance began with a request from the Japanese government which was initiated in 1942-1943 in the Residency of Palembang to Hodohan (Japanese Information Service). Gending Sriwijaya dance is a symbol of respect for the people of South Sumatra for the great guests who visit the land of Sriwijaya. In the Advancement of Culture, the existence of this dance is a form of cultural advancement where the State advances Indonesian National Culture in the midst of world civilization and makes Culture an investment to build the nation's future and civilization.

Keywords: *traditional cultural expressions; copyright; promotion of culture; gending sriwijaya dance; cultural heritage*

Introduction

Gending Sriwijaya Dance is a welcome dance which is a symbol of respect from the people of South Sumatra to the honorable guests who visit Sriwijaya. The emergence of this dance originated from a request from the Japanese government in the Residency of Palembang (currently a Province of South Sumatra) to Hodoohan (Japan Information Service) to create a song and dance that will be used to welcome guests visiting South Sumatra in an official event. The Gending Sriwijaya dance was performed for the first time on Thursday, August 2, 1945, precisely in the afternoon in a welcoming ceremony for the dignitary of the Japanese nation M. Syafei as Chairman of the Sumatran Tjuo Sangi In (Sumatra People's Representative Council) in the courtyard of the Great Mosque of Palembang City. The first performance of the Gending Sriwijaya dance featured by dancers who were virgin and had beautiful faces (Treny Hera 2016).

The Gending Sriwijaya dance is danced by approximately 13 dancers consisting of 9 core dancers, all of whom are women with their respective roles, namely one main dancer carries the slap (containing betel leaf, gambir, tobacco, areca nut and lime); two dancers carry pridon (a receptacle made of brass metal to spit for people who eat betel), six accompanying dancers (three on the right and three on the left), one person carries a greatness umbrella (carried by a man), one Gending Sriwijaya singer, and two spear bearers (male). Nine dancers symbolize the number of rivers in South Sumatra (Treny Hera 2016). This dance is a combination of dance, poetry, and rhythm. The dancers in front brought slaps as an opening to be served to special guests who came, accompanied by two dancers who brought pridons made of brass. Opening offerings, according to the original dance, may only be performed by princesses, sultans, or nobles. The bearer of the pridon is usually a friend or servant of the princess. So did the other dancers. This dance is inspired by the success of the local wisdom of the Sriwijaya Kingdom. The meaning

of the Gending Sriwijaya dance movement symbolizes the relationship between humans and the creator, the relationship between humans and humans, and the relationship between humans and the universe (Treny Hera 2016). These dance movements contain the meaning of life and commemorate the glory of Sriwijaya in South Sumatra.

Gending Sriwijaya Dance was created by 7 people where each person has their own role in composing the making of Gending Sriwijaya Dance. Achmad Dahlan Mahibat and Haji Gung and Miss Tina worked on the song of Gending Sriwijaya Dance and continued to work on lyrics and rhythms which then was perfected by Nungtjik AR. Then Sukaenah A. Rozak with Miss Tina took care of the property and clothing that the dancers would wear, and motion guide by cultural practitioners RM Akib and R Husin Natodoradjo (Dance Gending Sriwijaya, 2010, retrieved from <https://warisankultur.kemdikbud.go.id/>). Gending Sriwijaya dance was also created with different cultural influences which are reflected in the color and completeness of the clothes and accessories used. The combination of Malay, Javanese and Chinese culture is very harmonious and balanced. Javanese elements can be found in the dresses worn by dancers, namely a kind of dodot, when using a sewn songket or songket. Then one can recognize Malay culture from the characteristics of the clothes in the form of baju kurung, scarves and sarung. The style of Chinese culture can be recognized from the colors, motifs, and images of dancers' accessories, namely golden red clothes, the use of nails, patterned dragons and snakes. This blend of cultural elements is reflected in the clothes of the dancers. In addition, dancers use "aesan gede", an ornament that uses sarung and kemben, the Kasuhun crown (Treny Hera 2016). During the Indonesian Independence period, Gending Sriwijaya was used as a dance to welcome official government guests visiting South Sumatra (Ari Welianto 2021).

The protection of the Sriwijaya Gending Dance has been stated in various

regulations, one of which is Law Number 28 of 2014 concerning Copyright. Dance is a protected creation based on creation in the fields of science, art, and literature as stated in Article 40 paragraph (1) letter e of Law No. 28 of 2014 concerning Copyright. Based on the article, it is explained that the juridical basis for protection from the existence of copyrighted works in the field of dance in Indonesia, such as the Gending Sriwijaya Dance, which originated from South Sumatra. As a classical dance art, Gending Sriwijaya Dance can also be categorized as a Traditional Cultural Expression, wherein article 38 number (1) of Law No. 28 of 2014 concerning Copyright also explains that "Copyrights on traditional cultural expressions are held by the State." Traditional Cultural Expressions/ Expressions of Folklore can be categorized as a form of traditional intellectual property. Gending Sriwijaya Dance can be categorized as an Intangible Cultural Heritage of South Sumatra Province based on the Decree of the Minister of Education and Culture of the Republic of Indonesia Number 270/P/2014 concerning the Determination of Indonesian Intangible Cultural Heritage in 2014. Intangible cultural heritage is non-holdable (intangible/abstract), such as concepts and technology where their nature can pass and just disappear along with the times. There is a dilemma in protecting Intellectual Property Rights regarding cultural heritage in Indonesia, due to the lack of awareness among community members about the importance of legal protection for knowledge and traditional cultural expressions so that undesirable things can happen in the future regarding the ownership of the cultural heritage.

To perform the Gending Sriwijaya Dance, you must apply the applicable Standard Operating Procedure and the Gending Sriwijaya Dance performance is only allowed to welcome certain people, namely:

- a. President as Head of State
- b. Ambassador of the Republic of Indonesia
- c. Commander of the Armed Forces
- d. Incumbent Ministers

Besides these four groups, the Gending Sriwijaya Dance should not be allowed to perform, since it has sacred values that must be upheld, and can be categorized as a traditional value owned by the Sriwijaya Gending Dance as an Intangible Cultural Heritage owned by the

people of South Sumatra (Dian Permata Suri, Interview 9 April 2021). Based on the above background, the problem that will be answered in this paper is how the legal protection of the Sriwijaya Gending Dance as an Intangible Cultural Heritage in Indonesia. The purpose of this paper is to find out the legal protection arrangements for Gending Sriwijaya Dance as Copyrights owned by traditional community groups. In addition, it is also to analyze that the Sriwijaya Gending Dance is an intangible cultural heritage which is implemented in the State of Indonesia, as well as an art that is part of Copyright as regulated in Law Number 28 of 2014, as an Expression of Traditional Culture and as a Cultural Advancement.

Legal Protection Of Sriwijaya Gending Dance As Intangible Cultural Heritage In Indonesia

1. Gending Sriwijaya Dance as an Intangible Cultural Heritage

In 2014, based on the Decree of the Minister of Education and Culture of the Republic of Indonesia Number 270/P/2014 concerning the Determination of Indonesian Intangible Cultural Heritage, the Sriwijaya Gending Dance has been established as one of the Intangible Cultural Heritage owned by Indonesia. Thus, the existence of the Gending Sriwijaya dance has been officially recognized as part of the Intangible Cultural Heritage based on the provisions stipulated in the Regulation of the Minister of Education and Culture of the Republic of Indonesia Number 106 of 2013 concerning the Intangible Cultural Heritage of Indonesia. With the stipulation of the Sriwijaya Gending Dance as an Indonesian Intangible Cultural Heritage, it should be the duty of everyone and the Indonesian people to preserve the existence of such a cultural heritage. The implementation can be carried out in a coordinated manner by the Regional Government to each person and the existing customary law community. This was done as one of the efforts in preserving the Sriwijaya Gending Dance as one of the Intangible Cultural Heritage of Indonesia. The preservation of the Sriwijaya Gending Dance is carried out by continuing to wear or present the dance, if there are dignitaries who visit the Sriwijaya land. This is done as a way to introduce and maintain the existence of Gending Sriwijaya Dance.

2. Legal Protection of Dance under the Copyright Act and the Law for the Promotion of Culture

a. Legal Protection of Dance Based on Law No. 28 of 2014 concerning Copyright

Indonesia as a developing country that is rich in natural resources, arts, and culture have a variety of traditional knowledge. Its requires recognition and legal protection that is able to take care of ownership of traditional knowledge, as the creation of a nation that gained internationally recognition(Rongiyati 2011).In this case, it discusses Law No. 28 of 2014 concerning Copyright and Law No. 5 of 2017 concerning the Advancement of Culture. Article 40 paragraph (1) letter e of Law Number 28 of 2014 concerning Copyright explains that:

“Creation that is protected includes works in the fields of science, art, and literature, consisting of drama, musical drama, dance, choreography, wayang, and pantomime”.

Based on the article, it is clear that the protection of the arts includes dance, such as one example, namely the Gending Sriwijaya Dance which is the cultural heritage of Sriwijaya land (Palembang, South Sumatra). Meanwhile, the protection of classical dance has been stated in Article 38 of the Copyright Law, namely:

- 1) Copyrights for traditional cultural expressions are held by the State.
- 2) The state is obligated to make an inventory, and maintain traditional cultural expressions as referred to in paragraph (1).
- 3) The use of traditional cultural expressions as referred to in paragraph (1) shall regard to the values that live in the community that bears it.
- 4) Further provisions regarding Copyrights held by the State on traditional cultural expressions as referred to in paragraph (1) shall be regulated by a Government Regulation.

Elucidation of Article 38 states that “Traditional Cultural Expressions” include one or a combination of forms of expression such as motion, including, among others, dance; and other folk cultural products as outlined in article 38, in this case including the art of dance whose creators are not known, where this is one way to prevent commercialization or monopoly as well as various actions that can damage or

commercial use without the permission the State of Republic of Indonesia as Copyright Holder(Sukihana and Kurniawan 2018).

Copyright aims to provide rewards for the creator and this is a moral argument, an author’s right system, namely the emphasis on protecting the personality of the creator through his creation more than protecting the copyrighted work itself(Rahmi Jened 2001). Sanctions or criminal provisions for parties who have caused harm to copyright have been regulated in articles 112-120 of the Copyright Law. The contents of Article 112 are “Everyone who without rights commits the acts as referred to in Article 7 paragraph (3) and/or Article 52 for Commercial Use, shall be punished with imprisonment for a maximum of 2 (two) years and/or a fine of IDR 300,000,000 (three hundred million rupiah) at the most.” For a criminal offense against copyright is to adhere to a denunciation offense, where only the aggrieved party can sue. In other words, a denunciation offense is a criminal act that can only be prosecuted if there is a denunciation from the person who has been harmed.

b. Legal Protection of Dance Based on Law no. 5 of 2017 concerning the Advancement of Culture

Article 1 of Law No. 5 of 2017 concerning the Promotion of Culture explains that “Culture is everything related to creativity, taste, initiative, and the work of the community.” Meanwhile, “Cultural Advancement is an effort to increase cultural resilience and the contribution of Indonesian culture in the midst of world civilization through the Protection, Development, Utilization, and Fostering of Culture.” This law explains the importance of providing protection for culture as the identity of a nation. Classify objects of Cultural Advancement as mentioned in article 5 include: oral traditions; manuscripts; customs; rites; traditional knowledge; traditional technology; art; language; folk games; and traditional sports.

Gending Sriwijaya dance can be categorized as art, where in the explanation of article 5 letter g states that “art” is an individual(Roisah et al. 2014), collective, or communal artistic expression, which is based on cultural heritage or based on the creativity of new creations, which is manifested in various forms of activities and/or medium. The arts referred to include performing arts (such as the Gending Sriwijaya Dance),

visual arts, literary arts, films, music arts, and media arts.

In determining a culture to become an intangible cultural heritage, of course, it cannot be separated from the role of the local government which has attempted to collect and register its cultural arts at the Ministry of Education and Culture of the Republic of Indonesia. Article 11 of the Law for the Advancement of Culture explains that:

- 1) District / municipality Regional Cultural Ideas become the basis for preparation and are included in the provincial Regional Cultural Thoughts.
- 2) Provincial Cultural Ideas become the basic material for the preparation of the Cultural Strategy.
- 3) The Cultural Strategy becomes the basis for the preparation of the Master Plan for the Advancement of Culture.
- 4) The Master Plan for the Advancement of Culture becomes the basis for preparation and is included in the long-term development plan and the medium-term development plan.

Article 16 of the Law for the Advancement of Culture also explains the inventory of culture which in this case consists of several stages, namely:

- 1) Inventory of Cultural Advancement Objects consists of the following stages:
 - a. recording and documentation;
 - b. determination; and
 - c. data updating.
- 2) Inventory of Objects for the Advancement of Culture is carried out through the Integrated Cultural Data Collection System.

Regarding the inventory of a culture that exists in South Sumatra, until now, the South Sumatra Provincial Government has continued to carry out a series of activities to collect various cultures that exist throughout the South Sumatra area. One of them is the way that each region is free to recommend its culture, which is then registered as the cultural heritage of the Indonesian state. Since 2013 until now, it is known that there are around 34 cultures from

various regions in South Sumatra have been registered as Indonesian Intangible Cultural Heritage originating from South Sumatra, and one of them is Gending Sriwijaya Dance (Dian Permata Suri, Head of the Cultural Values and Regional Language Section of the Culture and Tourism Office of South Sumatra Province. Interview took place at the Office of Culture and Tourism of South Sumatra Province, April 9, 2021).

Hereinafter, the Central Government and/or Regional Governments in accordance with their respective authorities are required to record and document the Objects of Cultural Advancement (Article 17 of the Law on the Advancement of Culture). Although recording and documentation can be carried out by everyone, in order to ensure that there are parties who record and document objects of cultural promotion, the law imposes obligations on the Government, both the Central Government and Regional Governments, to carry out recording and documentation (Agus Sardjono 2019).

Based on these articles, a series of efforts to protect the culture of each region has been explained. Like the Gending Sriwijaya Dance, which has been designated as an Intangible Cultural Heritage of Indonesia, of course, it has gone through various series. The steps in the Advancement of Culture include:

1. Inventory

Article 18 paragraph (1) of the Law for the Advancement of Culture affirms that 'everyone' can record and document objects of cultural promotion. It means that anyone can freely make notes to the local government regarding their culture to be submitted as an Intangible Cultural Heritage. However, to ensure that the existence of culture belongs to certain community groups, then Article 19 of the Law on the Advancement of Culture emphasizes the necessity to verify and validate that the results of recording and documentation are correct and can be accounted for (Rongiyati 2018).

2. Development

Based on the Law for the Advancement of Culture of 2017, the Government is responsible for carrying out activities for the development of cultural elements. The provisions regarding this development are closely related to the provisions regarding the inventory of objects for the

promotion of culture. To know that an invention comes from the development of traditional knowledge, it is certain that a database on traditional knowledge is a must. Without a database it is impossible to prove that an invention is derived from the development of traditional knowledge.

3. Utilization

The Law for the Advancement of Culture of 2017 opens up wide opportunities for the public to use the object of cultural promotion as a source in making products. In the context of benefit sharing on the utilization of objects of cultural promotion, the community that bears the benefits of benefit sharing after the utilization of objects of cultural promotion. It's just that the use of the object of cultural advancement must be done without destroying the noble values and wisdom contained in the traditional art itself. In addition, the utilization carried out by large companies or foreign parties must be carried out by first obtaining permission from the public authority.

4. Promotion

Promotion effort in intangible cultural heritage is an effort to introduce the existence of Indonesian traditional culture to the world. The promotion is carried out so that Indonesian culture can be known by other nations. When the nations of the world enjoy Indonesian cultural products, it is not impossible that the cultural elements will develop in such a way, which in the business realm will become the superior product of the Indonesian.

5. Preservation

The Law for the Advancement of Culture of 2017 requires the Government to carry out conservation or maintenance efforts. Likewise, the wider community is also given the opportunity to actively participate in preserving the objects of cultural advancement. Preservation efforts have been stated in Article 24 paragraph (4) which includes the following activities:

Maintenance of Objects for the Advancement of Culture is carried out by:

- a. maintain the nobility and wisdom of the Object of Cultural Advancement;
- b. using the Object of Cultural Advancement in daily life;

- c. maintain the diversity of Objects for the Advancement of Culture;
- d. revive and maintain the Cultural ecosystem for each Object of Cultural Advancement; and
- e. bequeath the Object of Cultural Advancement to the next generation.

Based on the efforts that have been outlined, the process of maintaining the Gending Sriwijaya Dance is also carried out by keep maintaining its nobility and wisdom. In this case, the dance form of the Gending Sriwijaya Dance is maintained as the original dance or as it was created. As for the use of Sriwijaya Gending Dance, it is still used with rules that are only intended for certain people. Gending Sriwijaya Dance also continues to be passed on to future generations, by introducing and teaching a series of dances and the rules used by Gending Sriwijaya Dance.

3. Legal Protection of Sriwijaya Gending Dance Based on the Regional Regulation of the Province of South Sumatra Number 4 of 2015 concerning the Preservation of Regional Culture.

Based on the general provisions in Article 1 of the Regional Regulation of South Sumatra Province No. 4 of 2015 concerning the Preservation of Regional Culture, it is explained that "Culture is the whole idea, behavior and work of humans and/or human groups both physical and non-physical which is obtained through the learning process and adaptation to environment." This means that every thing caused or created by humans obtained in the process of learning and adaptation from the environment can be defined as culture. Article 2 of the Regional Regulation of South Sumatra Province No. 4 of 2015 also includes the objectives of cultural preservation, namely: cultural preservation aims to:

- (1) protect and secure regional cultural heritage from becoming extinct or recognized as culture by other countries / regions

Point a of Article 2 of the Regional Regulation of South Sumatra Province No. 4 of 2015 defines that every person or community has a sense to protect and secure the existing regional cultural heritage so that the culture can remain

sustainable. To achieve the goal of cultural preservation, the role of the community is also very. The role of the local community can be carried out by individuals, community organizations in the field of culture and/or cultural communication forums.

Based on article 9 of the Regional Regulation of South Sumatra Province No. 4 of 2015 the Cultural Preservation process is carried out through 5 stages, namely Protection, Development, Utilization, Maintenance, Guidance and Supervision. Based on these stages, the Regional Government plays an important role in the preservation of a culture, in this case the community also helps collect and provide information related to its cultural heritage which can then be processed by the regional government regarding the provision of legal protection. The financing for the implementation of cultural preservation activities is carried out by the Provincial Government which comes from the Regional Revenue and Expenditure Budget and other legal and non-binding sources based on the provisions of the legislation.

Protection of the Art of Gending Sriwijaya Dance based on Regional Regulation No. 4 of 2015 concerning Cultural Preservation. Article 1 explains that the value of tradition, which is an abstract concept of a big problem of humanity is so important and useful in human life which is reflected in attitudes and behavior that always hold fast and are based on customs. Reflecting on the history of the formation of the Sriwijaya Gending Dance, which was intended as a welcoming dance for dignitaries visiting South Sumatra, even now the Gending Sriwijaya Dance is still intended that way.

Conclusion

The form of legal protection for the Sriwijaya Gending Dance has been regulated in Indonesian legislation. The need for this protection is so that in the future there will be no violation of the law, both in the fields of copyright, cultural promotion, traditional cultural expressions and intangible cultural heritage. Gending Sriwijaya Dance is a dance offering for the honorable guests who come to Sriwijaya land as a high respect to them. The meaning of the

Gending Sriwijaya dance movement symbolizes the relationship between humans and the creator, the relationship between humans and humans, and the relationship between humans and the universe.

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Integration Of Local Cultural Heritage In Art And Design Teaching And Learning: Creative Outputs On Sarawak Native Cultures

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Abstract

Cultural heritage is essential and important to every nation in the world. Cultural heritage comprises physical artifacts and intangible attributes of a people or society passed down through generations. Cultural heritage provides an individual or community a sense of belonging and connects the generations through stories and past histories of the people. This paper demonstrates the integration of local cultural heritage contents in art and design teaching and learning approaches at a higher tertiary level through courses in art history and visual communication (branding design). The significance and relevance of local cultural heritage are highlighted in the art and design assessment-based teaching and learning approaches that engender the understanding of cultural diversity and cultural tolerance. This paper focuses on the Sarawak native cultural contexts incorporated into art and design assignments and projects which resulted in creative outputs and visual interpretations. The understanding of Sarawak native cultures is reinforced outside the classroom through implementation of study trips or field excursions to on-site locations, talks, demonstrations and workshops. Communication and interaction with the local peoples took place, added with research observations and visual analysis, eventually instigated new and interesting design ideas and concepts that are both creative and innovative reflective of the Sarawak native cultures in the final design outcome, as well as incorporating the usage of sustainable materials and methods of processes. Examples of creative outputs and visual interpretations of Sarawak native cultures mainly produced by art and design university students in these two courses will be cited in this paper.

Keywords: *Sarawak native cultures, cultural heritage, art and design, teaching and learning, innovative designs*

Background

This paper presents an overview of how local cultural heritage topics and contents are integrated in the teaching and learning approaches of art and design courses at a bachelor's degree level of a private higher institution of learning in Malaysia. This paper will cite examples of the creative outputs in various forms of art, design and craft works by students as a result of such teaching and learning approaches. This paper discusses the relevance and benefits of such teaching and learning approaches to both the lecturer and student, as well as evaluate and review the outcomes and effectiveness of the methods. This paper looks at the Sarawak culture as being one of the country's pertinent and significant local cultural heritage topics that are incorporated and integrated into the teaching contents as well as in the students' assignment or project brief by both authors, relating to their own East Malaysian (Sarawak and Sabah) cultural heritage. This paper presents an alternative approach in art and design teaching and learning in hope to stimulate and encourage the interest and knowledge on Sarawak culture first, and subsequently on Sabah and other states in Malaysia.

Cultural heritage is essential and important to every nation in the world. Cultural heritage comprises physical artifacts and intangible attributes of a people or society passed down through generations. Cultural heritage provides an individual or community a sense of belonging and connects the generations through stories and past histories of the people. The rich cultural heritage of Sarawak forms the basis of this paper. The courses and students' work examples cited in this paper are derived from the 3-year BA (Hons) Design Communication programme offered at the Department of Art, Design and Media, School of Arts, Sunway University. Among the many courses in this

programme, two courses – History of Art and Design, and Visual Communication and Graphic Design form – the basis of the discussion in this paper.

a) History of Art and Design

History of Art and Design is a Year 1 course which is an important fundamental building block in establishing a good knowledge foundation base for the students by drawing references to other well-established examples of art and design in not only of the Western history, but also of some history from Asia and Southeast Asia, including Malaysia. The course investigates on the textual analysis and historical understanding of a subject matter in the context of contemporary art and design practice, encouraging students to use the analysis gained to develop an understanding of themselves and their work within their selected areas of interest. A high level of personal initiative and an inquisitive mind are expected of the student to meet the course's learning outcomes¹; the study should lead to self-awareness and realisation from a historical, contemporary and commercial perspective.

b) Visual Communication and Graphic Design

Visual Communication and Graphic Design is a Year 2 course which aims to develop the necessary skills for graphic design students to communicate their ideas across specialist applications both traditional and alternative. This course covers advance concepts and processes of graphic design and portfolio preparation, encouraging students to explore the creative process by combining traditional art and design media toward original design solutions and incorporating with advanced digital imaging and typography, packaging and digital contents for the present digital era. The course emphasizes on the relationship between individual creative and critical thinking skills and the designer's roles with professional and cultural and historical contexts. Therefore, a state branding topic was introduced to the students and a project was assigned to them to investigate and analyse the context and characteristics of a particular state in Malaysia, as well as its essence and uniqueness. The design output of this project is expected of the students to meet the learning outcome² in this course.

Methods

The teaching and learning method and strategy employed was a qualitative approach in both courses that encourages an in-depth understanding of Sarawak culture with an emphasis on exploring and analysing the context and various aspects surrounding the subject matter of study. Apart from in-class lectures and tutorials that introduce and discuss the ideas and key aspects of the subject matter, other teaching and learning methods and practices have been employed to stimulate interest and participation of students while learning about the subject matter, such as group discussions, literature research, visual analyses, brainstorming sessions, mind-mapping exercises, case studies, informal peer reviews, as well as outside classroom or off-campus activities, such as study trips or field excursions, site observations, talks, workshops and demonstrations.

The most anticipated and well-received teaching and learning approach for our students are the research-based study trips and visual analysis exercises that are embedded into the teaching plans to encourage students in their active exploration and maximise their five main sensory experiences to observe and absorb new sights, sounds, taste, smell and touch that interpret identities. Students' findings, explorations and inspiration of ideas in their own interpretation of the context will be prompted and demonstrated in the creation of a final design project. The assignment or project that we designed are with the intended learning outcome of each course to determine a suitable project for students to work on and apply their knowledge gained and their own interpretation of the context.

a) Study Trips

i) Study Trip to Kuching, Sarawak

During the April-July 2019 academic semester, lecture topics on local cultures which included Sarawak culture were delivered to the students in class. In order to enhance the students'

learning even more, hence a study trip to Kuching, capital of Sarawak, was organized in May 2019 in order to let students know about the Sarawak culture first-hand. The students were immersed in the Sarawakian environment, they saw and experienced for themselves, as well as gained a deeper understanding and appreciation of Sarawak's culture, people, food, clothing, traditions and heritage through on-site observations and casual interaction and conversations with the local people especially the indigenous ethnic Dayak community at the Sarawak Cultural Village in Santubong. This study trip took place on 26th to 28th August 2019, in conjunction with the Sarawak Harvest and Folklore Festival that was held at the same time. A total of 16 students (comprising West Malaysians and foreign/international students) joined the study trip, guided and led by two lecturers who are the authors of this paper.

The study trip to Kuching was planned with the following objectives in mind:

- Learn and experience in person Sarawak ethnic cultures, arts and crafts, architecture, history, heritage, traditions, folklores, foods
- Witness and observe the various Dayak ethnic groups' traditional cultural arts and crafts through demonstrations and workshops at the Sarawak Cultural Village
- Analyse the various arts, designs and crafts as well as the places visited in Sarawak and apply the knowledge gained into own artwork

The programme itinerary of the study trip included the Sarawak Heritage Trail (mainly centred in Kuching south city) as well as the Sarawak Cultural Village in Santubong, a federal constituency of Kuching division. Other places of interest visited included the Sarawak Museum's Natural History Museum and Art Museum, Sarawak Textile Museum, the Main Bazaar, Carpenter Street, Gambier Street, Tua Pek Kong Temple, Fort Margherita, the Astana, the Waterfront and the Cat Statues (Figures 1-4).

1 The course learning outcomes of History of Art and Design course are: Analyse textual and visual sources and apply these in the context of own work; Identify the historical, cultural, social and economic factors that influenced modern design; Recognize and record influential factors and their impact on creative and aesthetic evolution; Evaluate the creative output and visual interpretation as well as the accurate portrayal of subject contents and reflection of the contexts, which impacts on own practice.

2 The course learning outcomes of Visual Communication and Graphic Design are: Analyse research, develop concept and visual planning strategies toward creative solutions for design problems; Transfer the ability that create visual hierarchy within the context of the designer's grid; Apply formal design principles, colour theory and creative typography in design works; Evaluate one's own work and peers' work with critical analysis and constructive comments.



Figure 1
Visiting the Natural History Museum (under the Sarawak State Museum) in Kuching (Photograph by Fiona Wong, 2019)



Figure 3
Group photography at the Sarawak Cultural Village in Santubong, posed against the backdrop of the legendary Santubong mountain. (Photograph by Fiona Wong, 2019)



Figure 2
Group photography in front of the famous huge Cat Statue in Kuching South City. This cat statue is often "dressed up" in different ethnic costumes following the various festivities and celebrations in Sarawak. (Photograph by Fiona Wong, 2019)



Figure 4
Group photography with an Iban lady after demonstrating pua kumbu weaving at the Sarawak Cultural Village. (Photograph by Fiona Wong, 2019)

3 The Sarawak Harvest and Folklore Festival is an annual festival held as a highlight of Sarawak's significant Gawai Dayak harvest festival and celebration. This ethnic festival provides an opportunity for non-Dayaks to understand the cultures, traditions and aspirations of the Dayak communities. It was the 12th year running in the year 2019.

ii) Study Trip to Centre for Malaysian Indigenous Studies (CMIS) of Universiti Malaya, and Pasar Borneo in Seri Kembangan, Selangor

During the August-December 2019 academic semester, another study trip was arranged to learn about Sarawak culture, however, due to unforeseen circumstances and limitations, this time round the study trip took place within West Malaysia instead of having to travel to Sarawak, East Malaysia. One may be surprised to find that it is still possible to learn about certain aspects of Sarawak culture by visiting the Centre for Malaysian Indigenous Studies (CMIS) at the University of Malaya, and Pasar Borneo in Seri Kembangan, Selangor. In May 2019, a group of 24 students were brought on a study trip to visit CMIS and Pasar Borneo. At CMIS, the director of the centre, Dr Welyne Jehom, gave a talk to students about the ethnic groups in Sarawak, and showed the students an assortment of appealing and intricate crafts work ranging from weaved textiles, bags, baskets, hats; beaded bracelets and jewellery; carved works of sorts. Dr Welyne also gave a talk about the Iban's pua kumbu (Figures 5 & 6).

The next destination was Pasar Borneo, a pasar pagi or morning market that exists in only a short stretch of a street with two aligned rows of stalls fronting each other, and only 'opens' and operates on every Saturday morning in Seri Kembangan, Selangor. Pasar Borneo, led by Persatuan Pasar Budaya Borneo, is an open-air market comprising mainly Sarawakian and Sabahan vendors and sellers of goods, foods and crafts that were self-produced or imported from Sarawak and Sabah (Figures 7 & 8). Besides, there are also different ethnic women dressed up in their traditional costumes, parading and flaunting their appealing designs.

These study trips benefitted the students not only in their learning and experiencing local traditional and cultural arts and crafts, places, foods and people of Sarawak, but also promoted their understanding, critical thinking, awareness and appreciation of a local traditional and cultural heritage and visual culture. Through these study trips, students were inspired to innovate and generate their own creative design output by interpreting their understanding of the Sarawakian art, design or craft work.



Figure 5
Group photography with Dr Welyne Jehom in front of a thatched stage in an open space o the CMIS building.
(Photograph by Fiona Wong, 2019)



Figure 6
Dr Welyne Jehom gave a talk and showed the students an Orang Ulu beaded textile at CMIS, University of Malaya.
(Photograph by Fiona Wong, 2019)



Figure 7
Group photography at Pasar Borneo in Seri Kembangan, Selangor
(Photograph by Fiona Wong, 2019)



Figure 8

A colourful assortment of craft work of Sarawak displaying beaded jewellery and accessories, as well as woven bags or pouches. (Photograph by Fiona Wong, 2019)

b) Observations and Analysis

The students were exposed to numerous ways on collecting data during their study trip to Kuching, with the main aim which is to enable them to talk and observe the native in their natural habitat. The students were brought to the Natural History Museum (under the Sarawak State Museum) and witnessed for themselves the vast taxidermist and well-preserved collections of the various types of animal or insect species discovered and preserved since Rajah Charles Brooke's time.⁴ The students also visited the Art Museum (under the Sarawak Museum) where a fine display of Sarawak's history were exhibited and enhanced with some state-of-the-art digital media such as sensorial, interactive and projected animation. At the Sarawak National Textile Museum, the students gained an understanding of the textiles and patterns produced by the native communities of Sarawak. After going through the information that they have gathered from the museums and having understood a little about the history background of Sarawak, students began to analyze the information in a critical manner and prepared a series of questions to ask for more information from the locals or experts.

At the Sarawak Cultural Village (also known as "The Living Museum"), the students gained more

knowledge on how the native people live their daily lives, from cooking, clothing, carving to music and architecture. In conjunction with the Sarawak Harvest and Folklore Festival, the students were fortunate to have witnessed and experienced the vernacular architecture of the various Dayak ethnic groups, such as the Iban, Bidayuh, Orang Ulu. They observed the different architectural design and features by walking through the built structures in various shapes, sizes and length and constructed in wood and thatched leaves. The students also were being presented with a cultural performance in the small theatre hall, with beautiful dancers and talented performers representing the multi-ethnic and colourful Sarawak culture and people. The most exciting performances were a performer dressed as an Iban warrior demonstrating his blowpipe shooting skill, and another performer balancing on top of the long pole held upright vertically in a dance. Apart from the mesmerising performance, the students experienced four different art and craft workshops and demonstrations (that were pre-arranged as part of the study trip itinerary). These included the Iban hand-tapped tattooing and *pua kumbu* weaving demonstration, Orang Ulu bamboo-carving and Bidayuh beads-threading workshops. Another highlight was the students learning and experiencing cooking *ayam pansoh* in bamboo guided by an Iban mentor, after which the students had their cooked *ayam pansoh* for their lunch. The students collected some valuable information of the native communities in Sarawak by interacting and talking to the local Dayak people. From here they could understand and visualize how the native Dayak people live day by day. Students also interviewed informally an Iban tattoo artist who gave them some insights into the meaning of the motif or pattern and how it evolves with each individual personality and achievement in life. Students are also able to see and learn from a demonstration how the traditional hand-tapped tattoo is done on the body.

All these translated to valuable first-hand experiences for the students, the students would record them down by means of photography, video recording or observation sketching, and later analyzed and dissected from the core.

⁴ The students were unable to visit the Sarawak Museum main complex which was going through a renovation at that time, which has today resulted in a newly built museum complex said to be the largest in Malaysia and second largest in Southeast Asia now completed and ready to launch.

Once all these data had been analyzed and the findings devised, students then began to interpret into ideas that inspired their designs and creation to relate to what the intended audience could grasp, understand and appreciate, although simplified or modernized into a more contemporary appeal, the original idea, essence and meaning remained.

In addition, the students also did observational studies at a few spots of the Heritage Trail at Kuching South City, including the Main Bazaar, Carpenter Street, and Gambier Street where they witnessed some traditional Chinese temples including the famous Tua Pek Kong and a Muslim mosque, apart from rows of old double-storey shophouses that consists of some traditional professions such as the glass or mirror maker and aluminium tin maker. They also tried local food delicacies such as laksa, kolo mee, bak so and *kek lapis*. Students also strolled along the famous Waterfront, bypassing the Fort Margherita and seeing the Astana located across river. The students also experienced taking a short 20-minute boat ride “across river” and back in small sampans with traditional designs.

Results

Students were exposed to numerous ways on collecting their data, the main goal is to enable them to talk to the local Sarawak people and observe the natives in their natural habitat. Students were brought to the Sarawak National Museum and Sarawak National Textile Museum to understand and collect valuable information of the history and background of the native and ethnic communities in Sarawak, as well as learning about the textiles used by these people. After going through the information that they have gathered in the museums, students would have to analyze the information in a critical manner and prepare a series of questions to ask for more information to the local and the expert. Students visited Sarawak Cultural Village, to gain more experience on how the native people goes through their daily life, from cooking, carving, musical instrument, performance, and joining a workshop that teaches students on how to create a simple but intricate beading. From here they can understand and are able to simulate, how the native people live day by day. Students also interviewed the tattoo artist, which

gave them a lot of insight on the meaning or how the pattern evolve with each individual personality and their achievement in life. Students are also able to see and learn, how the traditional tattoo tap are done on the body. All of this is an important experience, that is valuable to the students, because every single emotion that the students go through, it will need to be recorded down, and be dissect to the very core. Once all the data have been collected and analyze, students began to interpret the meaning of each information and relating it back to a form that the intended audience are able to grasp, understand and appreciate. To attract and intrigue target audience, visual element from the main source will be simplified or modernize, but it will still carry the essence of the state or the main intended message.

The Assignment/Project Brief

1) *History of Art and Design Final Project “Sarawak: A Cultural Mosaic”*

This final project titled “Sarawak: A Cultural Mosaic” was briefed to the students before the research-based study trip. The students are expected to conduct a preliminary research and gather information on a particular art, design or craft in Sarawak from various sources (such as books, internet, journals, exhibitions etc.) before their on-site visit and observations during the Study Trip to Kuching. By the end of the project, the students will be assessed based on their creative outputs and their level of understanding and re-interpretation of the contexts, as well as creativity, innovation and originality.

Each student will select and research on a preferred art, design or craft from Sarawak’s cultural mosaic and diverse ethnicities, as well as draw reference to its cultural heritage and tradition particularly in the arts and crafts. The student will analyze, interpret and create a new piece of “wearable art”, replicating and emulating as closely as possible the selected original Sarawak art and craft, taking into consideration every detail and element observed, applying them appropriately to the final artwork. Students will then devise a theme or concept that addresses an interesting aspect of the chosen art, design or craft, re-interpret the context creatively using an appropriate medium, material and technique. The final artwork could range from a painting to a sculpture, a fashion piece or an installation work to the viewer and audience. Students were prompted to produce visual

analysis and idea sketches and compile the entire design development process into a workbook, which contains everything from research and analysis to the ideation, the exploration of various media, materials and techniques, and finally producing a different interpretation of a Sarawakian art, design and craft work.

As a result from the study trips, with further research and analysis on Sarawak culture from various sources online and publications from local libraries, the students creatively produced various kind of art or craft works ranging from wood craft, embroidery, jewellery-making, pottery to shoes painting, and so on. One of the most impressive and notable artworks produced by these students is a *sape* wood work that was entirely designed, crafted and tuned by a local student Toh Yi Xuen from Johor. With her background in the Chinese string instrument *pipa* since her secondary school years, she is equipped with the knowledge and interest to research and explore making of a *sape* emulating the traditional *sape* instrument of the Orang Ulu in Sarawak. She had gained inspiration and drew references from online sources and consulted a music (and film) lecturer who has a background in string instruments and also owned a *sape* which he bought years back. Yi Xuen then embarked on a very challenging journey of making and crafting a *sape* of her own with some carpentry assistance from her father, experimented and developed her own version and interpretation of a *sape*-like instrument with actual frets installed and strings tied and tuned (Toh Yi Xuen's workbook, 2019). Yi Xuen successfully produced a *sape*-like wood craft that displays curved and flowing patterns resembling those by the Orang Ulu and consideration to the hollow back that enables it to function almost like a real *sape* when the strings are plucked and resonate (Figure 9).



Figure 9

The frontal, side and back view of a *sape* instrument wood work entirely designed, crafted and tuned by student Toh Yi Xuen (Sunway University Teaching Archives, 2019).

Another impressive craft work is a pair of beaded earrings resembling the Marek Empang of the Iban culture designed and crafted by student Aishath Insha Abbas, an international student from the Maldives. Marek Empang is a piece of beadwork accessory that is worn by traditional Iban maidens during traditional dances and ceremonies, displaying patterns that represent the Iban motifs of animal spirits, which symbolises the connection to spirits that offer guidance and protection to the wearer. This particular motif designed and crafted in this pair of Marek Empang inspired earrings carry the spider motif, which are to the Iban people, a portrayal on the cloths as a means of protection from harm. The red, yellow and black coloured beads were sourced online and were delicately threaded using fishing strings. The beading style used is known as Brick Stitch beading and the colours black, white, red, and yellow used are the common traditional colours used by the Iban people (Aishath Insha Abbas' workbook, 2019). The striking colourful motifs on this large sized earrings with hoops are a bold fashion statement with a contemporary appeal to the present generation, showing a fresh interpretation of a traditional and cultural concept being adapted in present-day fashion (Figure 10).



Figure 10

A pair of Marek Empang inspired beaded earrings entirely designed and crafted by student Aishath Insha Abbas (Sunway University Teaching Archives, 2019).

An intriguing work using sustainable materials such as newspapers is seen in this craft work entirely designed and crafted by a local student, Chan Jing Ning. Inspired by the Bidayuh's hat known as *trinak* or *tukuo* worn by the Bidayuh women, Jing Ning decided to propose her own interpretation of a hat design using a more sustainable and recyclable material in particular the printed newspapers. She rolled up pieces of newspapers into long thin strips, and stated

weaving into a hat with her basic skills in weaving since her secondary studies. She had resorted to using the newspaper material as she did not manage to source for the rattan material which was the basic material of the Bidayuh's *trinak* or *tukuo*. Jing Ning decided to employ only the popular and traditional red colour into the hat design, which she drew and painted by hand onto pieces of canvas cloth later attached and interweaved into the hat design (Chan Jing Ning's workbook, 2019). The final outcome of her craft was pleasantly appealing and striking in shape and colours, the best thing is, it is made entirely of only newspapers! (Figure 11)



Figure 11

A hand-crafted hat inspired by the Bidayuh's *trinak* or *tukuo* made up entirely of rolled up newspapers which are weaved into the shape of a hat and interlaced with hand-coloured motifs and patterns, originally designed and crafted by student Chan Jing Ning (Sunway University Teaching Archives, 2019).

An interesting observation and interpretation of a local food delicacy, Sarawak's famous *kek lapis* or layered cake, is interpreted and designed into a set of three different designs of *kek lapis* stationery pouch by student Nur Nadirah binti Mohd Mustapa. Nadirah was inspired by the *kek lapis* which she tasted for her first time during the Kuching study trip, and she was mesmerized by the colourful designs of the *kek lapis*, with interweaved delectable layers and assortment of flavours and tastes. She then undertook the research and understanding the ingredients and processes of making *kek lapis*, also analysing their colours and patterns. Nadirah first painted her desired water-coloured drawings of three different *kek lapis* designs, then used sublimation transfer paper and the sublimation printing method (a type of transfer printing

method using both heat and pressure that transfer an artwork onto a textile or garment), successfully printing her drawings onto a cotton cloth. She then used the sewing machine and sewed into a pouch shape and installed zippers onto them. The final crafted outcome portrays three different *kek lapis* inspired stationery pouches, which could also be used for other purposes such as to store toiletries or make-up items (Nur Nadirah binti Mohd Mustapa's workbook, 2019). In addition, the *kek lapis* pouches tends to resemble real *kek lapis* when displayed next to each other on a surface (Figure 12).

2) Visual Communication and Graphic Design Final Project on "State Branding"

Branding is an important aspect in every product or service, Branding is about telling a story and hinting the audience of the characteristic of a product or service that is offered. When it comes to state branding, the intended audience must be informed of the essence and uniqueness of the state.



Figure 12

Three different *kek lapis* stationery pouches designed and crafted by student Nur Nadirah binti Mohd Mustapa (Sunway University Teaching Archives, 2019).

Sarawak is rich with a variety of essence from food and delicacies, ethnic groups, natural resources, textiles to their beliefs. All these factors can be used to elevate the tourism sector or even other sectors such as education and investment. A way of doing this is by creating a distinct visual identity that can set Sarawak apart from other states or "competitors" and stand out to be unique and different in both the local and foreign markets.

In the logo design work of an international student Kyrie Newn Hui Lin from Brunei, the main essence of Sarawak culture is obviously embedded in the logo, but with a simplified and modern twist to it (Figure 13). There are three main essences combined into the logo, which are the culture, wildlife, and tattoo art all these are elements and characteristics of the Sarawak culture.

Each student has a distinct style of design that they would highlight in the visual branding mainly for the intended target audience. Based on another local student Yap Ying Hui's work (Figures 14-16), it mainly focused on how the various ethnic group coexist with each other harmoniously in Sarawak. The vibrant colors that have been applied as the visual elements are to pique the interest of the primary target audience, young adult and adult alike, between 18 to 30



Figure 13
Logo design by student Kyrie Newn Hui Lin
(Sunway University Teaching Archives, 2020)



Figure 14
Logo design by student Yap Ying Hui
(Sunway University Teaching Archives, 2020)



Figure 15
Application of the state branding in design collateral
by student Yap Ying Hui
(Sunway University Teaching Archives, 2020)

years of age. Each icon on the logo and visual element has its own interpretation: the circle symbolizes the cohesive living nature in Sarawak among the ethnic group, while the flower is a common motif used in textile and also represents elegance and beauty. As for the pinwheel design, each flap represents the main ethnic group such as Iban, Orang Ulu, Melanau and Bidayuh; the diamond symbolizes the appeal and sparkle of each culture and each ethnic group has to offer. The design is broken down to the very essence of the meaning behind what Sarawak stands for, at the same time it created a much more contemporary design appeal that resonates with the intended audience much better and lures the audience in and discover the hidden jewel within Sarawak.



Figure 16
Stationery designs by student Yap Ying Hui
(Sunway University Teaching Archives, 2020)

As for local student Elysa Jikos Gidiman from Sabah, she has intended the visual identity designs for Generation Z so they could learn and immerse with the cosmological beliefs that Sarawak has to offer. The Dayak communities have an intriguing belief of the afterlife, which would intrigue and appeal to the younger generation, comprising young adults and adults age between 16 and 35 years of age. In her approach, a story book idea was proposed as the design concept to unravel the cosmological beliefs of the native people in Sarawak. Her design idea was a different and interesting approach to be explored, as there is potential to attract a broader market both local and international and unravel the beauty of Sarawak's culture. In her range of design outputs (Figure 17), the logo she designed uses two main colors – dark green and mustard yellow. Dark green represents the lush nature, while mustard yellow symbolizes the state itself and the treasure within the lush nature. The intricate line art is intended to show the talented craftsmanship of the Sarawak native people. In the design collateral, “this is where all the magical stories unfold and reveal” are applied for the intended audience, therefore the designs look more intricate and richer with vibrant colors, and even the illustration style shows a more organic and freeform application to resemble the lush tropical and nature environment of Sarawak. Elysa also produced fully illustrated posters that are filled with everything that makes Sarawak what it is today with a modern feel to it and for her intended audience (Figure 18). Elysa managed to successfully unravel the rich story of Sarawak using her illustrations alone.



Figure 17
A set of design collateral for Sarawak
by student Elysa Jikos Gidiman
(Sunway University Teaching Archives 2020)



Figure 18
Illustrated posters artwork by student Elysa Jikos Gidiman
(Sunway University Teaching Archives, 2020)

By integrating local cultural heritage into the assignment or final project as well as actual sites that are within reach filled with rich cultures and histories, the students had discovered their learning experience to be an eye-opener and a very interesting and exciting journey in understanding the Sarawak culture. The students were able to gather and collect valuable first-hand information in the study trips as well as used various methods of research in collecting their data. They were able to immerse themselves in the actual sites witnessing the local living and asked critical questions that made them more aware of Sarawak's cultural attributes. They also learned about the symbolisms and meanings behind the cultural elements and learnt not to apply these elements “blindly” in their own design work; they have learned to respect and appreciate the culture. The students then analyzed the information gathered which enabled them to go more in depth understanding a specific cultural aspect, subsequently translating and interpreting in a practical and appealing design which could be understood and accepted by the target audience. Students also explored and experimented with various sustainable or practical materials, mediums and techniques in the process of their design or craft. The creative and innovative final outcomes had potential at a commercial level and brought about a positive impact and results. Ultimately, through this learning journey, the students gained a deeper understanding and knowledge of local cultures, as well as reflected on the importance of preservation and conservation of our intangible and tangible cultural heritage by their generation and future generations that follow.

Conclusion

This paper shows the effectiveness of integrating local cultural heritage contents such as that of Sarawak native cultures into the teaching and learning of art and design history, visual communication and graphic design. The various creative and innovative design outcomes produced by undergraduates in their assignments and projects reflect the designer's understanding of the contexts, meaning and representation, subsequently applying and interpreting them into visual outcomes. The various creative outputs and visual interpretations also demonstrate the designer's creativity and innovativeness in utilizing sustainable materials, techniques and processes, with varied styles and expressions, emulating the real native art and designs while still being relevant to the present modern-day society. This is perhaps an alternative means to educate our generations and preserve our local cultural heritage in ensuring its continuity and relevance in the future.

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Kerencaman Fungsi Teka-Teki:

Suatu Penelitian Semenanjung Dan Sabah Sarawak

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Abstrak

Teka-teki menduga akal. Teka-teki berbeza dengan tradisi puisi lisan yang lain. Dalam teka-teki terkandung soalan untuk diteka. Dalam konteks teka-teki bermain mendidik jiwa penutur dan penekanya. Alasannya mudah sahaja, kerana masyarakat dahulu gemarkan berhibur menggunakan lisan. Mendidik sambil berhibur melenturkan jiwa yang keras dan melunakkan nubari yang kontang. Kajian ini akan memfokuskan perbincangan mengenai fungsi teka-teki Alam Melayu. Konteks persembahan berteka-teki melibatkan tiga peringkat iaitu proses berteka-teki, situasi berteka-teki dan kehadiran penutur dan peneka. khazanah teka-teki memperlihatkan adunan yang sangat kreatif penciptanya. Imej-imej dalam teka-teki memancarkan elemen yang menarik perhatian peneka dalam mencari jawapan. Sehubungan itu, bagi mencari jawapan amalan berteka-teki memerlukan interaksi antara beberapa individu dalam sesebuah masyarakat. Teka-teki puisi warisan dalam kalangan orang Melayu di Semenanjung mengaitkan nilai kanak-kanak dalam pembinaan sahsiah kanak-kanak yang diadun sehati dalam bait-bait puitis teka-teki Melayu. Teka-teki di Borneo pula lebih kepada mendidik masyarakat untuk menghormati adat dan kepercayaan. Proses dokumentasi dan ilmiah digunakan dalam melengkapkan analisis makalah ini. Hal ini bagi, menerangkan fungsi teka-teki dalam Alam Melayu dengan menonjolkan nilai didik yang boleh diserap oleh penutur dan penekanya. Dapatan kajian ini menjelaskan kekayaan teka-teki yang dimiliki oleh Alam Melayu yang istimewa dan digunakan dalam banyak konteks.

Kata kunci: *fungsi, konteks, nilai, pendidikan, teka-teki*

Variety Function of Riddle:

An Analysis of Peninsular Malaysia, Sabah And Sarawak

Abstract

Riddles challenge common sense. Riddle differs from other oral poetry traditions that contain questions to be guessed. In the context of riddle, playing educates the speaker and the guesser. The reason is easy, earlier society entertains oneself through oral. Educate while entertaining soften the hard soul and mellowed an empty heart. This study focuses on discussion about the function of Malay World's riddle. The context of riddle presentation involved three levels namely the process of guessing, riddle situation and the presence of speaker and guesser. Riddle shows the creativity of the person who creates it. Images in the riddle contain an element that attracts the guesser to look for the answer. Therefore, to seek an answer, the riddles need an interaction between few individuals in society. Riddle heritage poems among the Malays in the Peninsular Malaysia relate the value of children in the children's personality building that blends well in the Malay riddle. Riddle in Borneo is more to educate the society to respect culture and belief. The documentation and scientific processes are used to complete the analysis of this paper. This is to explain the function of the riddle in the Malay World by highlighting the educational value that can be absorbed by the speaker and the guesser. The findings explain the wealth of the riddle own by the Malay World and are used in many contexts.

Keywords: function, contexts, value, education, riddle

Pengenalan

dalam Alam Melayu dengan menonjolkan nilai didik yang boleh diserap oleh penutur dan penekanya. Berbeza penelitian fungsi teka-teki dalam sebahagian masyarakat Melayu di Semenanjung mengaitkan nilai didik yang dapat membina sahsiah kanak-kanak yang diadakan sehati dalam bait-bait puisi teka-teki. Usaha mengekal tradisi berteka-teki ditemukan dengan mewujudkan pertandingan teka-teki yang diatur khas antara dua pasukan dan penonton sebagai kaedah pengajaran.

Fungsi Teka-Teki

Teka-teki puisi tradisi. Teka-teki permainan menduga akal. Teka-teki permainan kata berbeza daripada tradisi puisi lisan yang lain.¹ Dalam teka-teki terkandung soalan untuk diteka. Mendidik sambil berhibur melenturkan jiwa yang keras dan melunakkan nubari yang kontang. Khazanah teka-teki memperlihatkan adunan yang sangat kreatif penciptanya. Penciptaan teka-teki sebagai satu genre puisi yang tersendiri dari segi isi dan fungsi. Teka-teki dalam kalangan masyarakat Sabah dan Sarawak agak unik. Mereka membahaskan teka-teki dengan mengaitkan alam *supernatural* dan semangat. Selain berhibur dengan susunan komunikasi yang memiliki unsur *humor*. Unsur budaya berteka-teki juga terdapat dalam kalangan masyarakat Irianun di Sabah yang dikenali sebagai Antuka. Mereka menjadikan antuka sebagai alat hiburan. Jenis antuka etnik Irianun menjurus kepada aktiviti harian seperti yang telah diklasifikasikan oleh (Asmiaty dan Lokman (2013). Demikian juga Entelah di Sarawak sebagai alat hiburan yang memiliki fungsional terhadap kepercayaan dan kehidupan serta pemikiran dan nilai didik masyarakat.

Teka-teki dimainkan dengan tujuan yang lebih mendalam sejajar dengan keperluan dalam kepercayaan mereka. Kajian ini telah memperlihatkan penyatuan fungsi teka-teki

Situasi berteka-teki bermula secara spontan dan tidak formal. Keterbatasan konteks berteka-teki meliputi juga unsur-unsur lisan seperti kepercayaan, pantang larang, mitos dan legenda (Harun Mat Piah 1980:360). Apabila meneliti masyarakat Murut Paluan misalnya menggunakan teka-teki dalam adat kematian. Secara lazimnya mereka akan menyimpan mayat si mati sehingga tiga hari. Mereka percaya bahawa mayat si mati perlu ditidurkan untuk mengelakkan si mati mengaus. Mereka akan memberikan peluang kepada ahli keluarga untuk melihat dan menatap si mati sesuai dengan keadaan. Sepanjang kematian mayat akan dijaga oleh keluarga dan saudara-mara si mati tanpa ada yang tertidur. Mereka percaya mayat perlu ditemankan sambil melakukan perbuatan berteka-teki dan meminum tapai. Amalan berteka-teki ini adalah untuk mengelakkan penjaga tertidur dan menjadi aktif untuk menjaga mayat. Teka-teki juga menjadikan penjaga terhibur dan kesedihan mereka dapat dikurangkan.

Selain itu, mereka juga percaya bahawa amalan berteka-teki adalah untuk membawa dan membantu roh si mati melimpasi alam yang akan dilaluinya.

Teka-teki yang terlintas dalam fikiran manusia itulah yang akan disoal kepada si mati ke alam

1 Pantun genre yang seringkali digunakan untuk meluahkan perasaan hati, mantera mengandungi tujuan dan konotasi magis, pengobatan dan pembomohan, seloka berfungsi untuk menyindir, mengejek dan berjenaka, peribahasa memperkukuhkan hujah dalam karangan dan percakapan, teromba ialah menggariskan undang-undang sistem adat, dan talibun atau sesomba merupakan ungkapan pemerian tentang tokoh, alat dan peristiwa dalam cerita-cerita rakyat (Shaiful Bahri 2018:2)

mereka. *"Matoi poyoh sangulun, ano okoponong iloh atu ulian riloh. Gino nga asunggait takau supaya alingu nu ulun mugar ino abuka matono muli ra ulian noh."* [Temu bual: Karimon Lumaing, 2019]. Mereka percaya bahawa berteka-teki membolehkan seseorang yang meninggal lagi cepat meninggalkan alam nyata yang tidak baik ditinggalinya kerana keadaanya telah berubah.

Amalan berteka-teki bukanlah sesuatu yang asing bagi masyarakat Murut Paluan. Malahan mengikut kepercayaan Murut Paluan, jika teka-teki yang dijual tidak berjaya dijawab maka mayat tidak akan dapat diturunkan. Penyelesaiannya penjual teka-teki perlu memberikan gambaran terdekat yang jelas kepada jawapan kepada teka-teki tersebut dan bukan jawapan secara bulat-bulat. Mereka juga percaya kegagalan menjawab teka-teki akan menyukarkan roh si mati untuk mendapatkan kehidupan yang baik di alam barunya. Akibatnya, si penjual teka-teki akan mengalami gangguan atau mendapat nasib yang tidak baik [Temu bual: Karimon Lumaing, 2020].

Berimplikasikan dunia alam ghaib, kepercayaan yang sama juga turut dipegang oleh masyarakat Kadazandusun. Kepercayaan yang mengaitkan teka-teki dengan alam ghaib semasa aktiviti menuai pada. Penggunaan bahasa yang samar, mengelirukan dan pembayang adalah penting untuk melindungi diri daripada semangat tidak baik. Sebagai contoh teka-teki Kadazandusun *Songara gara managed, pakada sogodon. Sumandak oh rumuba tombolog mogidu* (Momuhau do parai) Bising-bising pembunuh, yang dibunuh pula diam-diam. Jumpa gadis burung lari. (Orang-orang menjaga padi) (Low Kok On dan Jananathan Kandok (2016: 220). Lokman Samad pula (2009: 32-33), mengaitkan berteka-teki dipanggil sebagai amalan *monundait* sebagai aktiviti perlindungan daripada semangat padi.

Dapatan tambahan dalam masyarakat Murut Paluan menyatakan bahawa, teka-teki tidak boleh dituturkan secara bebas terutama semasa berpantang. Semasa menuturkan teka-teki seorang penjual teka-teki perlulah melihat jantina orang yang sedang meninggal dunia. "Kalau orang yang meninggal itu laki-laki dia sebut ei akilah kalau perempuan kita sebut *ei aru*." [Temu bual: En. Daibol Limbawang]. Tek-

teki yang dijual menggunakan "*aki*" merujuk kepada "datuk" mewakili mayat lelaki dan "*aru*" merujuk kepada "nenek" mewakili mayat perempuan. Jadi jika yang mati tersebut lelaki penjual teka-teki perlulah menjual teka-teki menggunakan "*aki*" seperti berikut: *Ei aki makau sumundai ra dalayoh muli ra rabubus ando akito bayah noh*. (Si Atuk berjalan kehilir, pulang ke hilir, berjalan ke hulu, pulang ke hilir, tidak kelihatan tapaknya) Jawapan: Perahu yang sedang berjalan di atas air sungai.

Peranan teka-teki (sunggait) ini juga memberikan mitos yang jelas mengenai alam kematian seseorang yang telah meninggal dunia bahawa mereka menghadapi dunia baru. Penggunaan teka-teki dengan menggunakan ei aki atau ei aru dengan betul akan memudahkan perjalanan seorang yang telah meninggal dunia ke destinasi yang terakhir. Dalam konteks ini teka-teki juga mempunyai fungsi secara tidak langsung kepada roh yang telah meninggal dunia. Jika diteliti terdapat teka-teki yang digunakan yang menggunakan frasa "mati" atau "jalan" sebagai menggambarkan situasi tersebut sedang melalui kehilangan atau kematian. Perkataan mugar dan patoi merupakan perkataan yang disesuaikan mengikut situasi oleh Masyarakat Murut Paluan untuk menunjukkan keadaan orang meninggal dunia. Sebaliknya mereka berpendapat bahawa teka-teki yang bersifat lebih kepada hiburan perlu dielakkan untuk menjaga hati tuan rumah. Selain itu, teka-teki yang tidak mengikut situasi adalah dianggap tidak sopan dan roh si mati juga akan tersinggung dan menyukarkan soalan dijawab.

Burung (Susuit)

Tuk! Tuk! Atindukmu kanon ku, salah ki oko kanawai tinumanduk ra raan nu kolobon. Haahh... [Tuk! Tuk! Kau terpatuk makanan saya, bukan kau burung yang hinggap di dahan kolobon (sejenis pokok)]
Sumber: [Temu bual: Karimon Lumaing, 2019].

Ular (kukuo)

Sihh...Sihh... mondolon kaw, oko liga sumunsui ra batang nu togob. Oko poyoh eyau kamu. Salah ko poyoh. Am gitu aku tondon ra gitu. [Sih...sih... sekalian ular, kau yang menjalar di pokok togob. Jika kau itu, kata ya. Jika bukan kau. Sini saya berhenti di sini].
Sumber: [Temu bual: Karimon Lumaing, 2019].

Kancil (Palanduk/karuan)

Landuk! landuk! Karuan nalilis ra kukur noh.
Bah sail kono! [Landuk! Landuk! Pelanduk kaki
kecil itu, Bah lalulah kau!]

Sumber: [Temu bual: Karimon
Lumaing, 2019].

Komponen lain daripada kepercayaan mitos angkapio (omenism) iaitu bahawa masyarakat Murut Paluan percaya bahawa bunyi binatang merupakan bentuk teka-teki kepada manusia untuk mendapatkan maklumat atau terhidar daripada malang angkapio. Misalnya binatang yang dijoloki sebagai pandai seperti pelanduk, ular burung dan monyet selalu digambarkan binatang yang nakal dan suka mengeluarkan bunyi. Jika seorang pemburu ke hutan berjaya menjawab bunyi binatang yang seperti teka-teki untuk diteka maka mereka akan terlepas daripada sesat dalam hutan. Menurut Khalid M. Hussain, 1979 teka-teki menggunakan bunyi terdapat banyak dalam teka-teki yang dalam bahasa Sunda dikenali sebagai wawangsalan. Wawangsalan merupakan teka-teki bunyi yang dimulai dengan sebuah kalimat atau susunan kata teka-tekinya dan jawapan. Misalnya Jenang sela (bubur batu) adalah apu sama dengan kapur. Kata abu akan dijadikan sugestie bunyi atau sampran untuk apurata. Kajian mengenai teka-teki bunyi ini juga turut diteliti oleh Suwardi Endraswara, 2005 dengan penjelasan yang lebih mudah difahami iaitu wangsalan ialah susunan yang perlu diteka perkara yang disembunyikan terdapat dalam susunan kata. Setiap batangan memerlukan pemikiran yang diselaraskan dengan bunyi di hadapannya. Ini menjadikan teka-teki ini hampir menyemai teki-teki Murut Paluan yang banyak menggunakan permainan bunyi yang diambil daripada binatang sebagai soalan yang perlu diteka dan ditafsir. Namun jika mereka tidak dapat menjawab bunyi tersebut mereka akan terperangkap dalam hutan tersebut. Seorang pemburu yang hebat dan baik akan mampu mentafsir bunyi disekelilingnya dan membuat teka-teki sendiri dan menjawabnya.

Mereka percaya bahawa teka-teki tersebut hanya dalam bentuk bunyi dan berasal daripada dunia bunian yang cuba memerangkap mereka. Seorang pemburu yang hebat akan berkata-kata dan menyindir bunyi binatang yang dikatakan seolah-olah bercakap dengan mereka. Jika burung, ular dan pelanduk itu lalu maka kita boleh meneruskan perjalanan, jika tidak kita perlu berhenti dan menunggu lebih lama lagi untuk menunggu binatang seterusnya minta diteka bunyinya. Kearifan sebegini turut berguna pakai dalam sindiran menggunakan teka-teki bunyi binatang untuk memberitahu rasa tidak puas hati kepada orang terdekat secara tidak terus terang.

Teka-teki sebagai petanda ini bukan sahaja terdapat dalam masyarakat Murut Paluan. Ganing & Ktiting (2019) membahaskan bahawa entelah (teka-teki) masyarakat Iban sangat merepresentasikan mengenai petanda. Menurut kepercayaan masyarakat Iban entelah terutama dalam cerita Dewi Kumang mendedahkan bahawa Dewi Kumang selalu membantu manusia dalam bentuk entelah iaitu menerusi mimpi. Tambah beliau lagi mimpi merupakan satu kepercayaan yang sangat penting untuk mereka berkomunikasi dengan Tuhan atau kuasa supernatural yang lain. Misalnya, bagi masyarakat mimpi yang baik akan menjadikan burung atau petanda tentang sesuatu perkara baik (Patricia a/k Ganing & Asmiaty Amat 2017: 24). Jika diselidiki burung seringkali menjadi petanda, kepercayaan ini mempunyai persamaan dengan Murut Paluan kerana masyarakat ini duduk dalam kepulauan Boreno yang sama.

Penyampaian² dan permainan³ teka-teki dalam kalangan kanak-kanak ketika bersoal jawab adalah cara menyampaikan pelajaran kepada anak-anak tentang adab sopan⁴ dan tindak laku yang baik (Harun Mat Piah 1989: 361). Peraturan-peraturan dalam teka-teki akan menyerlahkan adab-adab ketika bermain. Pegalaman berteka-teki itu dapat

2 Penyampaian cerita-cerita lisan, berkait rapat dengan pancaindera yang menerima iaitu telinga, dan bukan mata seperti kita membaca. Unsur-unsur keindahan bahasa dari segi bunyi, rentak dan tekanan turun naik pengucapan (Mohd Taib Osman 1981:15).

3 Seseorang guru ingin menggunakan kaedah permainan dalam pengajaran dan pembelajaran, guru perlu memastikan bahawa permainan tersebut menggunakan konsep, kemahiran dan pengetahuan tentang sesuatu mata pelajaran yang akan diajar (Wan Hasmah Wan Mamat & Nur Munirah Teoh Abdullah 2015:3).

4 Keperluan meninggikan adab dan susila terhadap kemuliaan dan keperibadian insan amat dituntut dalam Islam (Syed Muhammad Naguib Al-Attas 1972:20).

membangkitkan suasana dan peranan tradisi yang menyeronokkan. Kanak-kanak berteka-teki semasa bersoal jawab dengan nada suara yang seronok [Ha! Ikan cikgu! Ikan!] (Nur Dhia Ufaira), bersemangat. [Cikgu! Cikgu!] kanak-kanak mengangkat tangan (Muhammad Adam Thaqeef), gementar [Tak boleh. (sambil menggeleng kepala)] (Nur Dhia Ufaira), atau lemah [Mengetap bibir membaca perlahan menunduk wajah]. Wajah mimik muka yang tegas [tut..tut..tut.. terdengar bunyinya. (meninggikan suara)](Nur Dhia Ufaira), takut [Ala...(mengeluh gagal menjawab)] dan dahi berkerut [Tak tahu apa ni? Sambil dahi berkerut tangan memegang dagu]. Isyarat-isyarat berteka-teki memberi interaksi antara dua kumpulan yang sedang bertanding teka-teki. Penyoal teka-teki seakan ingin mematahkan semangat kepada peneka teka-teki untuk menjawab teka-teki. Aksi-aksi kanak-kanak semasa berteka-teki menyerlah fungsi teka-teki Melayu yang terkandung nilai didik kanak-kanak sangat menghiburkan melalui pertandingan teka-teki.

Kebiasaan teka-teki berlaku secara spontan tetapi direka dan diatur khas antara dua pasukan dan penonton kepada bentuk pertandingan. Pada zaman milenium, sudah tentu rakaman teka-teki dari penutur lisan sukar ditemui. Hasil kajian ke lapangan di Sekolah Kebangsaan Bandar Baru Putra Ipoh, membuktikan kerelevanan teka-teki Melayu sebagai nilai didik terhadap kanak-kanak. Dapatan kajian berdasarkan 7 sampel persembahan⁵ dalam pertandingan teka-teki dirakamkan dan ditranskripsikan. Pertandingan teka-teki Melayu ibarat proses pengajaran secara lisan yang membentuk nilai didik kanak-kanak. Apabila bertanding, kanak-kanak bertindak dalam lingkungan peraturan dan tatasusila pertandingan. Secara langsung kanak-kanak sentiasa berdisiplin sepanjang pertandingan yang membentuk suasana persembahan pertandingan yang menghiburkan.

Pertandingan teka-teki dianggap sebagai permulaan awal '*games and rules*'⁶ yang menuntut kanak-kanak seawal usia 6 tahun. Teka-teki Melayu dijadikan sebagai permainan bahasa dalam mata pelajaran bahasa Melayu. Prinsip pembukaan bermula dengan penyoal yang menyampaikan soalan kepada peneka. Peserta yang memberikan soalan haruslah bertanggungjawab terutama kelancaran berbahasa agar peneka dapat mendengar pembayang lebih jelas untuk menjawab teka-teki situasi pertama:

Per..gi ke hutan men...cari paku pakis
Bu..at hiasan di halaman rumah
Bi..la masak rasa...nya manis
Beram..but lebat dan warnanya merah?

Penyoal membaca lancar. Suara sangat perlahan membaca setiap suku kata sehingga para peserta dan pihak lawan tidak dapat dengar. Pihak lawan dan penonton riuh rendah [Tak dengar! (Muhammad Adam Thaqeef)] kerana tidak dapat mendengar suara penyoal dan sudah tentu tidak dapat meneka pembayang yang disampaikan. Penyoal teka-teki (Nur Dhiya Ufaira) bangun membaca teka-teki dengan lancar namun, suara pula sangat perlahan semasa menyampaikan soalan. Kelancaran berbahasa⁷ penting semasa menyampaikan teka-teki agar peneka lebih mudah faham pembayang teka-teki dan boleh menjawab teka-teki. Guru membantu peserta supaya kumpulan 2 dapat menjawab teka-teki dengan mengulang semula teka-teki bersama-sama para peserta dan penonton:

Pergi.. ke hutan mencari paku pakis
Buat hiasan... di halaman rumah
Bila masak rasanya manis
Berambut lebat dan.... warnanya merah?

Peneka (Muhammad Adam Thaqeef): Berambut lebat dan warnanya merah...ha...rambutan! rambutan! Keadaan ini secara langsung mewujudkan suasana yang teratur dan tenteram apabila guru campur tangan⁸ bersama-sama

5 Persembahan bagi maksud Bauman ialah cara penggunaan bahasa dan cara bercakap sebagai teori seni lisan dalam teks-teks berseni (teka-teki) Richard Bauman (1977:11)..

6 Tingkah laku kanak-kanak bertanding mengikut peraturan ditetapkan. Setiap peraturan yang dibentuk dalam permainan tersebut perlu diikuti dan kegagalan mematuhi peraturan boleh dikenakan denda (Piaget 1965, Suppiah Nachiappan 2014:138).

7 Aspek bahasa sangat penting untuk memperdengarkan kepada pembaca tentang sebuah naratif atau epik disampaikan oleh penuturnya (Richard Bauman 1977:11).

membantu para peserta ketika bertanding. Pembayang 'berambut lebat dan warnanya merah' yang telah dibaca beramai-ramai dengan menguatkan nada suara, menyebabkan dari awal lagi peneka [Mengangkat tangan dan peneka (Muhammad Adam Thaqeef)] dengan mudah boleh meneka jawapan 'rambutan'.

Kepentingan pembayang sangat penting dalam teka-teki. Pandangan (Inon Shahrudin 1988:ii) menjelaskan teka-teki Melayu, kebanyakannya berkaitan dengan benda-benda konkrit kerana peneka yang dihadapkan soalan atau teka-teki itu haruslah dapat menggambarkan gambaran daripada pembayang yang disogokkan kepadanya. Biasanya, sesuatu pembayang itu pendek dan ringkas tetapi cukup menepati sifat jawapan yang dibayangkan itu. Dalam konteks ini, pertandingan teka-teki menggalakkan cara bermain teka-teki dengan mengatur strategi untuk menang ketika menyoal, menjawab yang melihat kelincahan dan merangsang fikiran kanak-kanak.

Hasil kajian ini telah memperlihatkan keadaan yang terkawal kanak-kanak berteka-teki sehingga menarik penonton yang tidak mengambil bahagian lebih aktif bersedia mendengar dan berinteraksi untuk bermain teka-teki. Peringkat awal usia kanak-kanak belajar berteka-teki sebagai pengalaman baru kepada kanak-kanak yang berusia 7 tahun:

Bentuknya... besar dan panjang...,
ia bersayap dan berekor...,
digunakan orang di merata dunia,
terbang tinggi dan sangat... pantas.

Penyoal (Muhammad Adiq Zakuan) nada suara⁹ yang dilontarkan sangat perlahan. Peserta kumpulan 2 tidak dengar soalan. Suasana riuh, [Tak dengar, tak dengar!(Farahiya Ayuni)].⁹ Guru menenangkan keadaan pertandingan [Baik, ulang teka-teki!]. Situasi ini memperlihatkan kesungguhan kanak-kanak bersaing bertanding

teka-teki untuk menampakkan kehebatan diri secara individu. Guru telah mengawal dan mengendalikan kanak-kanak untuk mengulang teka-teki.

Penyoal dibenarkan mengulang semula teka-teki. Peneka berasa gembira kerana soalan diulang. Selesai sahaja peneka kumpulan 2 (Farahiya Ayuni) menjawab [Kapal terbang! (pantas sahaja bangun lalu menjawab)]. Situasi ini membuktikan kanak-kanak sedari awal telah mempunyai pemahaman asas tentang teka-teki.¹⁰ Kesukaran pada awal pembukaan soalan ialah penyoal memperlahankan suara. Penonton teruja lalu menyampuk dengan jawapan kapal terbang.

- Penonton A** : Saya tak pernah naik kapal terbang.
Penonton B : Cikgu, hari-hari saya naik kapal terbang.
Guru : Hari-hari?
Penonton B : Bercuti cikgu

Penutup teka-teki berakhir dengan penglibatan penonton yang teruja dengan jawapan kapal terbang. Objek-objek konkrit yang umum dalam kebanyakan teka-teki mempengaruhi kanak-kanak untuk belajar (Harun Mat Piah 1989:354) dan berteka-teki memperlihatkan kemampuan berbahasa kanak-kanak secara santai bercerita pengalaman penonton bercuti bersama-sama keluarga dengan menaiki kapal terbang. Teka-teki Melayu menggalakkan kanak-kanak bercerita, berkongsi dan memberi pendapat tentang objek jawapan teka-teki. Teka-teki Melayu sebagai gelanggang puisi warisan yang dapat membentuk nilai didik kanak-kanak semasa bermain.

8 Persembahan dalam sebuah penyampaian lisan, ramai orang campur tangan dengan bebas, dengan soalan dan ucapan (Sweeney 2020:19).

9 Nada suara sangat penting untuk diperdengarkan oleh penyoal teka-teki kepada peneka. Richard Bauman (1977:11) mementingkan aspek bahasa untuk diperdengarkan kepada pembaca tentang sebuah naratif atau epik disampaikan penuturnya.

10 Children possess a basic understanding of how to get things done in riddling (Mc Dowell 1979:136)

Setiap sesi berteka-teki kanak-kanak tidak sabar meneruskan pertandingan. [Cikgu saya pulak ke?] Namun, sebelum pusingan yang seterusnya, guru mengingatkan peraturan berteka-teki. [Menjawab perlu mengikut giliran!] Peringatan guru semasa pertandingan membolehkan kanak-kanak terdidik amalan mematuhi peraturan dan arahan. [Baik, cikgu]. Secara tidak sedar kanak-kanak mengikut tertib untuk menguasai 'yang dahulu' hendaklah didahulukan, 'yang kemudian dikemudiankan'. Setiap pusingan sesi pertandingan kedua-dua kumpulan kelihatan kedua-dua kumpulan berhati-hati semasa membuat keputusan serta fokus mendengar soalan teka-teki untuk meneka jawapan teka-teki:

la.. di...ikat, ia ditendang,
di dalamnya a..ngin di luarnya kulit,
ia dibawa bermain di padang,
Ka...dang-ka...dang ditendang jauh
ke parit. (haaa dengar tak?)

Penyoal (Muhamad Afif Sirhan B Fauzi) tidak fokus mengemukakan soalan. Seakan sebagai muslihat sengaja memperlahankan soalan¹¹. Peserta kumpulan 1 meminta mengulang semula. Sekali lagi (Muhamad Afif Sirhan B Fauzi) masih membaca cara yang sama. Guru menasihati Afif agar fokus dalam pertandingan. Afif membaca lebih semangat dan jelas. Pantas peserta (Nur Izzah Damia Bt Muhamad Johari) terus menjawab bola. Tiba-tiba Afif menjerit:

Afif : Wooiii betullah! Bola.

Afif terkejut kerana rakannya pantas menjawab. Suasana berteka-teki ini menghiburkan hati dengan permainan. Suasana sudah tentu lebih tenang dan lebih fokus. Walaupun, Afif sangat teruja bermain dan mengatur strategi untuk menang tetapi perlu bersaing secara sihat. Kanak-kanak secara langsung memperkaya percakapan dalam keadaan formal dan tidak formal (Abd. Aziz Abd Talib 2000:100). Keadaan ini sudah tentu membina pengalaman dan pendedahan bermain teka-teki Melayu yang sewajarnya melatih kanak-kanak mendisiplinkan diri.

Berdasarkan simulasi pertandingan, Persembahan teka-teki Melayu itu bebas, tidak terbatas kepada penutur-penutur profesional dan penuturnya adalah amat bersahaja dalam keadaan-keadaan yang informal serta tidak mengira tempat dan masa (Inon Shahrudin 1988:viii). Keutamaan berteka-teki memerlukan interaksi dua individu tanpa mengira perbezaan umur atau status mereka. Jika zaman tradisi yang lalu berteka-teki antara adik dengan abang, anak dengan bapanya atau datuk dengan cucu-cicitnya. Ia juga mungkin dilakukan oleh individu-individu yang seumur seperti dalam kalangan teman sepermainan, kawan-kawan yang sama membasuh kain di sungai, atau teman-teman berbual dan berjenaka di tempat perhimpunan sosial seperti di majlis kenduri atau di majlis perkahwinan. Kewujudan teka-teki Melayu bukan lagi semata-mata sebagai satu bentuk hiburan masa senggang tetapi sebagai gelanggang puisi warisan yang dapat membentuk nilai didik kanak-kanak semasa bermain.

Kesimpulan

Kesimpulannya, permainan dan manipulasi teka-teki dalam kalangan masyarakat Sabah, Sarawak dan Semenanjung memaparkan keragaman fungsi dalam masyarakat pendukungnya. Kepelbagaian istilah teka-teki juga menunjukkan variasi kreativiti masyarakat ini dalam memaparkan budaya mereka terutamanya dalam menjadikan teka-teki sebagai sumber hiburan. Walaupun terdapat perbezaan dalam menonjolkan teka-teki namun penciptaan dan permainan dalam kalangan masyarakat Sabah, Sarawak dan Semenanjung tetap menunjukkan kesamaan ketinggian intelek dalam kalangan penciptanya. Teka-teki dijadikan sebagai pengungkap budaya masing-masing sebagai hiburan namun hal yang menarik ialah penciptanya telah menghasilkan teka-teki bahasa seperti petanda, ikon dan identiti penutur. Keistimewaan yang dicerminkan dan dimainkan merupakan pesan kecergasan penutur dalam berbahasa melalui manipulasi sekeliling yang secara tidak langsung melambangkan nilai didik dan sahsiah masyarakat.

11 Kisah Pak Belalang sebagai ahli nujum yang berjaya menyelesaikan teka-teki dengan memecahkan masalah dengan tipu muslihat, di samping daya usaha sendiri dan nasib menyebelahnya (Mohd Taib Osman 2007::xxxvi).

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Lian Langgang and the Rise and Fall of Bungan

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Abstract

In the 1950 in central Borneo a new religious belief system emerged a Kayan village in Indonesia and spread rapidly across the border to Sarawak. For converts, Bungan provided an opportunity to address complicated and often prohibitive rules and rituals around animal omens while maintaining links to the old adat and with it long established beliefs and traditions. But even though Bungan caught on quickly, it was also quickly replaced through fast spreading conversion to Christianity in the wake of Sarawak's cession to British colonial rule. And yet, not everybody converted. In Long Moh, Lian Langgang, his wife and a few other Bungan believers continued to engage in rituals and ceremonies in a cautious co-existence with the Christian majority until Langgang's death in 2019. The paper discusses interviews and videos with Lian Langgang taken some years before his death and reviews the rise and fall of Bungan not so much to record its practices and rituals but to consider what we can learn from its last adherents about identity, faith and culture.

Keywords: *Bungan, Adat puun, Sarawak, Long Moh, Kenyah*

Introduction

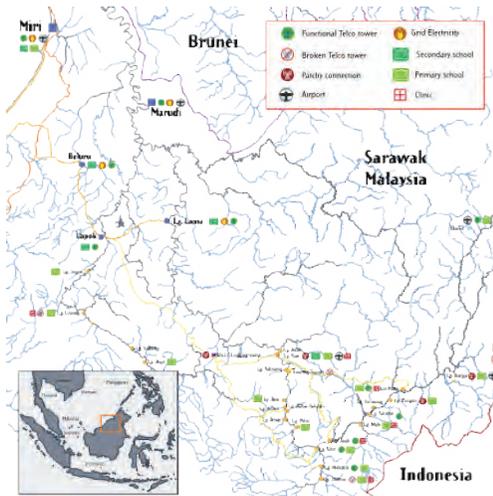


Figure 1
Map of Upper Baram and Long Moh

Religion, traditional practices and in material culture are closely enmeshed in most human societies. From this perspective, any major shifts in religion also often bring about a change in culture, leading to new practices but also to old ones being forgotten. A shift in religion is thus a major change in people's way of life.

In this paper, I want to examine not just one such shift but several. In central Sarawak, in the beginning of the last century, most communities practiced what has sometimes been referred to as 'adat,' 'adet' or 'adet puun' or the old folk religion. This largely relied on animal omens but also on ritual practices carried out by religious priests or shamans.

In Sarawak, religious conversion was slowed by the Brooke's opposition to the presence of missionaries in the interior. By the 1940s and 1950s, however, Christianity slowly spread in the

region, partly coming from across the border in Kalimantan, where missionary activities were less strictly regulated (Harrison, Tom, 1956). In addition, a new religion based on local customs and traditions spread among the communities in the area. It was called 'Bungan' or 'Bungan Malan' after its main deity.

The story of Bungan is that Jok Apoi in Uma Jalai, Long Abang in Kalimantan dreamt of a woman who taught him how, with the use of an egg, he could overcome the traditional prohibitions after observing a bad omen, thus neutralizing his bad luck (Prattis, 1963; White; B, 1956). Bungan is in fact fairly well documented, and a number of observers published their description of the origins of the faith and its practice (Aichner, P, 1956; Prattis, 1963; Tan Chee-Beng, 2016; White; B, 1956). According to Aichner, for example, the founder of Bungan, Jok Apoi was a very poor man, always sick, consequently he could not look after his farm and of course poverty was his sad lot. One night he had a dream. Bungan (who is a female deity of the Kenyahs) appeared to him and told him to follow her advice. Then he would become healthy and prosperous. He had to do away with all the charms, he was not allowed to follow the pantang of his countrymen. If he wanted to obtain some favour from Bungan, he had to take an egg and curse with it all his enemies. He did all that; and he did get well, and his harvests were plentiful. (Aichner, P, 1956)



Figure 2
Bungan ceremony in Long Sobeng, 1956
© (image copyright of the Sarawak Museum)

Bungan spread quickly throughout the highlands. One picture from the Sarawak Museum archive, shows a Bungan ceremony carried out in Long Sobeng on the Tinjar in 1956. However, in many places it was soon replaced by Christianity, as a result of the British colonial government's changed policies regarding the presence of missionaries in the interior (Harrison, Tom, 1956).

Some of the names of these missionaries of the time, who brought Christianity to the region, are still well-known, such as Hudson Southwell, who co-founded the Borneo Evangelical Mission. The Roman Catholic faith also took hold in some communities, and Bungan all but vanished within a short period of time. But it didn't vanish all together. Here and there, a few believers still remained who practiced their faith against the odds. This paper is about one such group and one man in particular: Lian Langgang in Long Moh.

Background

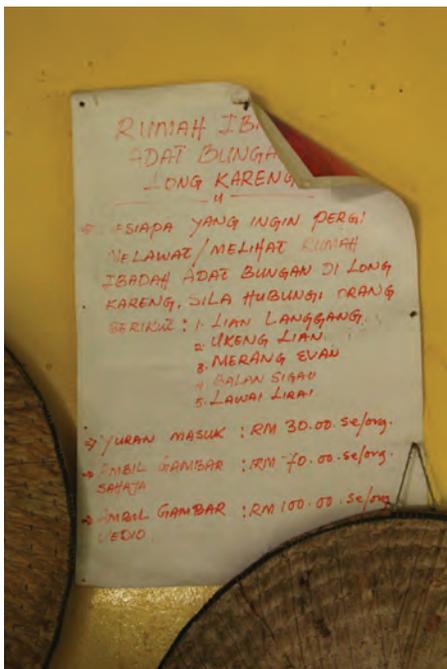


Figure 3
Fees for taking photographs or video of the Bungan believers and their artifacts

I met Lian first when I visited Long Moh during my work at Swinburne University in 2016.

Councillor Simpson Njock who worked together with us on the research and who is from Long Moh introduced me to Lian during one of our fieldwork trips, because he knew that I was interested in Bungan and it's material culture in particular. Councillor Simpson had taken part in Bungan rituals when he was growing up, and so he had some first-hand experience of Bungan practices. I had heard lots about the last Bungans in Long Moh, and about their church, and during several visits to Long Moh Lian was kind enough to show us around and explain some of the artifacts and the practices connected to them. In fact, Lian and his fellow Bungan believers were well prepared for visitors: A hand-written poster near their longhouse doors suggested the kinds of donations they expected from tourists for taking pictures and videos (see figure 3).

While Long Moh does not really receive a lot of visitors, this suggested that people were interested in the Bungans, and they frequently received requests to visit their place of worship. And indeed, Lian spent a generous amount of time showing us the different statues, drums, and the Orang Utan skulls that form the centrepiece of the Bungan religious shrine or place of worship at Long Kerang, just upriver from Long Moh. This paper and the presentation are based on this material, which includes pictures and videos of Long Kerang and of Lian Langgang, as well as several interviews in which Lian explains the way he and his fellow believers practice Bungan. Councillor Simpson kindly translated his words from Kenyah.

In addition to this, we also spoke to Pastor Christian Beh Gau in Long San, who had worked in Long Moh for eight years and who spoke about the way Christians and Bungans lived together in Long Moh. The interview with him was translated from Bahasa Malaysia by our research assistants. This paper, and conference presentation, are largely made up of their contributions. To start out, I will briefly review some of the literature on Bungan to provide an overview of the main concepts.

The Bungan Religion in Long Moh

Bungan took up some of the beliefs of the old adat, as Lian Langgang explained:

We don't actually believe in this omen already given by the birds, by the animals. Anyway, now we believe in Bungan only. We know about it though, [like for example,] the isit. We call it isit. If we go into the jungle and then see the bird fly from your right hand to your left, that one... Buen no nam leh... You go hunting you won't catch anything. If it goes right to the left right in front of you. First if it goes to the left and it doesn't come back again, it will make the sound 'chit chit', you cannot catch anything. But if the bird goes from your left to our right 'chit chit chit', then you'll get, you'll get [something]. That one is good. And then if it goes left after that, doesn't matter, you still can get. That's one... Nu chai ke badak... This one 'tit tit tit tit', this one is... There are so many things. That one says [that] you should not go. But if keyang... If the one 'jiek jiek' also [you won't] catch anything, it will be raining also. We don't believe but we understand the old adat, adet puun.

Lian also explained the difference between the adet puun and Bungan, in that Bungan believers used an egg to communicate to Bungan, the main deity:

Bungan... Bungan is the one not like the adet puun. So the adet puun, they use this eagle, they follow the eagle.. Plaki. But the bungan they don't use the eagle, plaki. [Bungan uses the] egg. Padau. They use this padau to become messenger. To talk to Bungan. Padau is specifically the name of the egg when they use it to go and talk to Bungan Malan. It is a normal egg, they call it padau.

Reports from observers in the Sarawak Government at the time when Bungan first spread in the region also touch on this. A. M. Phillips, a district officer at the time, noted:

"When a person "masok Bungan" it is not that he does not believe there is no power in the old spirits and pantangs [prohibitions] but that Bungan will protect him from them" (Phillips, 1956, p. 229)

What was Bungan?

Observers at the time, in particular the British government servants who contributed to the literature on Sarawak during the time, suggested that Bungan's success was related to it being based on local social and cultural practices, but also that it used some of the strategies implemented by Christian missionaries. According to Tom Harrisson's notes about Bungan, it was also a contestation of local ways over the religion brought by the outsiders:

"Bungan Malan is a new cult or "religion" that now probably commands the more or less allegiance of more people than any one interior Borneo Christian sect. I first met with it in the upper Baram in 1949. Since then it has spread tremendously, largely in secret, always subtly, and always behind the missionaries – behind, that is, in the temporal sense; against them in the moral... That is the positively "pagan", endemic side of Bungan, preservation of the past general approach, centred into a unified, local "native" leadership both on earth and in air (dream); but without all the past trappings. For the past trappings were already vanishing when goddess Bungan's word came to Jok Apoi by night. The missions were earlier off the mark, over the border. The Dutch, who previously administered that side, regulated them but did not severely restrict their rope in the Brooke way. So they had got far by 1940, where nothing was yet impacting in Sarawak. This was essential base for Bunganism." (Harrisson, 1956, p. 147)

According to Harrisson, Bungan's success was related to the way it included elements that were important in practical terms, such as keeping pigs under the longhouse or not having to pay fees, but it also enabled them to practice their traditional culture including telling old stories or singing traditional songs. Harrisson also emphasized an element of identity as the key to Bungan's rapid uptake in the region:

“Bungan teaches:

- *you can work every day, if you like, including Sunday;*
- *You need not give up drinking, smoking or keeping pigs under the house;*
- *You can believe (most of) the old legends, sing the old head songs, etc.;*
- *You do not have to give fees to the teacher, tithes to the mission, offerings to or in the church;*
- *You need offer no submission (beyond the demand of customary goodmanners)to any sort of out-sider [...];*
- *You can be proud of being yourselves, orang ulu only;*
- *You are independent of any beliefs and rituals introduced by white men.*
“ (Harrison, 1956, p. 147)



Figure 4
Bungan statues near Long Karieng

Religious Conversion in the Ulu

Harrison, was sure that Bungan had picked up some of the proselytizing strategies of Christian missionaries in the region, but not all contemporaries agreed that Bungan was a reaction to, or even a contestation of the incursion of the Christian faith. What was true, however, was that Bungan was much more lenient in terms of preserving some of the traditions and the material culture of the old religion, including carvings and statues, and rituals involving reference to the old headhunting days, as we will see below. At the same time, the way that different faiths spread throughout villages in the region often meant that one village, sometimes even one longhouse, could be split into two or even three different faiths, as Lian Langgang explained:

Bungan, come from Long Nawang. [The people from] Long Nawang brought Bungan to Long Moh [while we were] at Long Kareng. Before we built this longhouse. When I was very young, still running naked. At the time, half of the people were bungan, half of the people adat puun. When Long Kareng moved to Long Moh some people still use the old adat, and some already believed in bungan. Setengahsetengah. When Bishop Kelvin brought Christianity to Long Mo [the community was] divided into three. One bungan, one is the adat puun and some Christian. In Long Kareng, that was the old longhouse there before. Long Kareng, some converted already to Christianity then when come to Long Mo, more people converted to Christianity.

Pastor Gau also confirmed this, mirroring Lian's suggestion about how the conversion of the village took place. According to him,

Somewhere after the 1940s [people converted to Roman Catholic]. Before that, Long Mo' was under SIB...Because the pastoring area for the Pendita was too big, he gave Long Mo' to the Catholics. That's how the Catholics take in charge... According to the history, SIB came first in Long Mo' and Long Sela'an actually, under the Pendita Hudson. But after he found out that the pastoring area was too large, he focused on Lio Mato, Long Jaik, Long

Mekaba... That's why there's a lot of SIB church in Lia Mato and Long Jaik, as what people call as Lepo Agak. There is no Catholics.

This suggests a respectful and tolerant approach to religious conversion that was also mirrored in Lian's attitude towards the conversion of his own children:

Those who convert to Christianity we just let them do it, we cannot say no to them because everyone has their own right to choose what their belief is. I believe in Bungan, if I die, that's the end of it. That's my opinion. I won't say no, I won't say yes, it's up to people to choose their religion. Now like for us, me and my wife, and there's another uncle again and the wife. Mostly husband and wife, husband and wife only. Everyone else, the children converted to Christianity already, most of them.... At the moment there are nine people, just four couples and then one single.

Pastor Gau also suggested that the children of the Bungan believers had already converted and that it was only their parents who were holdouts in the village.

[The children of the Bungans,] most of them are SIB. Only their parents still practice Bungan. And if their parents died, I don't think they will follow it anymore. That's why I thought it takes time to persuade the elders to change their mind. Because they are deeply rooted with the Bungan belief, if we just leave them, how will people see us? They won't accept us because they think we have no stand. [Their children,] sudah lama, quite some time already... They changed their mind when they compared their parents' beliefs with Christianity. So they decided to be baptised and they're the ones who mostly joined the SIB church in Long Mo'.



Figure 5
Orang Utan skulls in the Bungan place of worship

Bungan Mamat

I will now review some of the traditional practices that were the centre of Bungan belief in Long Moh. According to Lian Langgang, religious practice in Long Moh revolved around the annual Mamat celebrations.

Every year we celebrate mamat. [There are two,] one smaller mamat before paddy harvesting, and then mamat biok is the bigger mamat, that is after harvesting. The bigger mamat they have perahu, you know the drum that hangs [in their church]. They play that whole night. So during the mamat biok, they perahu. Perahu means they celebrate the whole night and then comes to three o'clock they start playing the drum. Once they start play the drum, betutu they call it, betutu letaan, that's the beat of the drum and they do, they start at 3am and they will do it until dawn, in the morning.

When it's mamat the place [where it is celebrated] is near the place of worship. When people go there, they make a wooden [statue], they make the eyes, the nose, the mouth... But it is just a small piece like this only, just like a head. So they talk to... berbungan with the padau, to the head. They pretend that they go headhunting so they hide [the head] there, then they do all the rituals, talking, talking...

After that, they will go back to see the head, the wooden head that they made. 'Oh, it is sleeping' they say. 'Tidur dia'. Dia cakap bungan sudah bikin dia tidur [Bungan made him fall asleep]. They will go and use their spear, and spear it... After that they bless a lot of things, bless Bungan, they bless their gun, spear, and they bless the tanah [earth]... They will sing the whole night, they will sing. And they will dance [and play] the drum. Jatong do main nang nah....

[After they are done with the wooden head] they come back... when it comes to night-time like around 8 or 9pm, then they will go and tune their jatong. The drum, they call it jatong... After that, they wait, so those who want to dance they dance to the sape music, they just dance like if they do the mamat here then they put the jatong at this side here, far end here. So that people would dance that side. So when come to three o'clock just now, then they start to play the drum already. So when they do that, after they do that they do the dayung. And when in dayung they go into trance for that night... and one whole day, starting from the night...

Tradition, Ritual and Religion

Even though Bungan removed many of the pantangs that made daily life difficult, many elements of the old traditional culture were maintained. Christianity had a more complicated relationship with material culture, as Pastor Gau explained:

According to most of the church elders, whatever musical instrument that was used in the old beliefs should not be used again. [Personally I think that, while] we can't change the music [that is played in the church], but if we use the musical instruments like the jatung utang to praise God, [in my opinion] that is not wrong actually. But some [people] say that the things that we used in the old religion before cannot be taken into Christian practice. [I think that] even the usage of Sape' is not wrong, but some argue that Christians should not bring Sape' into the church.

Pastor Gau also explained his way of thinking about material culture that relates to old traditional beliefs:

For me personally, each pastor has their own way to preach people about Christianity. Once people brought me a tajau which has dragons' motif on it. Of course, I feel bad if I threw it away, but for our faith, let it go... I think our thoughts and beliefs that should be changed. Because back then, the tajau is used to keep bad things. Someone told me before that he took a bear's head for decorating purposes. "Can I do that pastor? I just want to use it as decorations". I answered, "There's no problem if you took it for decorations, but if you took it with the intention to worship it then it is wrong because that thing is powerless". The same thing goes with the orang utan skull. It is just a skull. But when we believe in the skulls' so-called power, then the Devil will take advantage and make it seems like the skull has powers. This will affect our faith...

At the same time, the pastor also understood that some of the old beliefs were deep rooted and people were not always ready to let go:

There are some who still [believe in rituals]. Especially during the farming time. Based on my experience in Long Mo', there are some who also believed in spirits that can [come to] their farms... For example, during the rice harvest, they sometimes pray. For us Christians, that is not a problem. But some of them, even after they prayed, they do other things like inserting chillies or garlic into the rice husk, saying that it will make the rice spicy to eat... Sparrow, monkeys and others. Even though those are the things that we can eat, but if we believe in it, it might influence our life too. Therefore, as a Christian, we should not believe in those kinds of things anymore.

These comments suggest that the pastor was aware of the intermingling of old beliefs and new religious ideas, and the ongoing struggle to separate out one religion from previous ones.

Religion and Material Culture

Pastor Gau's remarks as well as Lian's contributions point to the role of material culture in religion, and points to the cultural loss that occurs as a result of religious conversion. Not only are old practices replaced by new, a rich body of artifacts and the related skills and practices are lost as new religious beliefs take over. However, Lian had held on to many practices and had even continued these throughout the years in which he and his fellow Bungan believers were relatively isolated in Long Moh. For example, with regards to the protective statues around the Bungan place of worship, Lian explained:

One of the statue in that case you see the one the house here, when you come up this side there are some there, and then that two they call it uyat atep, the atep statue, that is to protect the people. This is for protection like security, security guard (laugh). The at those left handed, nobody can go against that. Even if they come in trance, in the dayung, they pull their parang lefthanded. That is the security. This particular security guard, the deity of the security, then they come into the person who go into trance, it will always recognise it by the way it holds its parang. He will be left handed. The other statue, after that, inner a bit, this is the one that protect them from sickness. They make the statue like this. This is the tree, they make the statue, the head, the eyes, the mouth, under the tree. Underneath like that. Not like this, not here. At the side. So that one is to protect from sickness.



Figure 6
Statues near the Long Karieng place of worship

Conclusion

These comments and contributions give some indication of the ongoing relevance of old beliefs, but also about the way that material culture is entangled with religious practices. Indigenous knowledge, in its many embodied and experiential forms, is also embedded in these practices and material objects. My conversations with Lian provided some glimpses of this wealth of knowledge that the Bungan believers had continued to preserve, and regularly renew through their rituals and celebrations. This paper aims to share some of this information, but also to suggest the precious and ephemeral nature of this knowledge, as it fades away with the people who hold it. I hope that sharing these excerpts here may encourage those who know any of the remaining Bungan practitioners to engage with them and with their knowledge of the old beliefs, traditions and practices in a more comprehensive and organised way.

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Orchids in Sarawak: Our Heritage, Pride and Overlooked Wealth

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Abstract

Orchids are magnificent flowers, with fossils dated to the Jurassic period of the Mesozoic era (195–136 million years ago). As early as the 18th century orchid, collecting became established in many parts of the world because of their attractive, unusual flowers and intoxicating fragrances. For centuries, orchids are considered gifts only for nobilities' and royalties, but today people of all walks of life can afford to enjoy the brilliance colours, exotic shapes and aromas while taking in their exquisite grace, unique forms and varieties for each season. There are between 25,000 – 30,000 species of orchids in the world and Malaysia is home for more than 3000 species, distributed from sea level to top of our highest mountains, and Sarawak accounted for about 1200 species with 300 are estimated to be endemic. The first enumeration on orchids by Huge Low in 1860 listed only 160 species from Sarawak. In 2001 Beaman et al. systematically documented 1019 taxa. Despite belonging to one of the well studied groups, interestingly my team continued to discover new species and records from various botanical exploration since year 2000. Warm tropical climate provides the premier conditions for growing the best and most beautiful orchids. Learning to care for them will dispel the myth that orchids are hard to grow. The benefit of orchids as a gift is that it lasted longer compared to other cut flowers and blooming plants. Sarawak has more than 20% endemic and 40% flagship species identified as potentially propagated for floriculture industry. Orchids are most highly prized ornamental plants, and Malaysia very own Gold of Kinabalu (*Paphiopedilum rothchildianum*) is ranked the fifth most expensive flower in the world with price tag at £3,800 @ US\$5,000 per stick. Orchid accounts 88 International k@Borneo Virtual Conference 2021 for a large share of global floriculture trade in recent years both as cut flowers and potted plants, and is estimated at 20% of the international fresh cut flower trade. Their uniqueness of shapes, colors, and exceptionally long shelf life provide a source of profound aesthetic value that have made orchids growing a highly profitable industry all-over the world, with more than 1,00,000 hybrids are known and cultivated. I have produced 9 new hybrids, 5 were already registered. The Malaysian Orchids floriculture industry contributed 40% of total value of country's floriculture production with the annual growth rate 6-9%. The most popular orchid types cultivated are *Dendrobium* (11.17%), *Aranda* (8.0%), *Oncidium* (5.01%) and *Mokara* (3.5%). By including our endemic, rare and flagship species such as *Paphiopedilum*, *Phalaenopsis*, *Cymbidium* and *Coelogyne* that are mass-propagated, the value is expected to be doubled. Therefore, with proper development and marketing strategies, orchid floriculture industry in Malaysia as the next cash crop and not just a specialty crop could be a reality!

Keywords: *Orchidaceae, diversity, endemism, propagation, floriculture*

Reviving the Stalled Portland-Kota Kinabalu Sister City Initiative Through Civil Society Participation

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Abstract

The authors discuss the issues and challenges of inter city linkages from the perspective of international relations, enlarging on the case of Kota Kinabalu's and Portland's attempt to forge a sister city relationship beginning in 2014. The paper discusses some basic ideas of city governance such as the importance of local democracy in addition to the problems besetting cities such as poverty and slums. The authors therefore acknowledge the need for sister city relationships over and above the need for state security in international relations. The paper thus explores the unfortunate inability for Kota Kinabalu and Portland to make good on their attempt to contract a formal sister city relationship. The authors argue that there have been examples of non-elites in the international system forging relations in solidarity with one another. Therefore, there is no reason – why since the elites of Kota Kinabalu and Portland have failed to establish a sister city relationship non elites like the homeless and the squatters in both cities should not be given the opportunity establish genuine people to people links for their mutual benefit and self help. In the process of researching and writing this paper, the authors researched news reports and interviewed residents in both Kota Kinabalu and Portland.

Keywords: *sister city, democracy, homelessness, squatters, elites*

Introduction

The emergence of the city as the prevalent form of human habitation is thus a result of the concentration of more and more production facilities in urban centres. More than half of the world's population currently lives in cities. There are currently 'at least 550 cities,' that is a 640% in the increase of cities of the world since the 1950s (Davis, 2006, p. 1). Rural-to-urban migration was the foundation of burgeoning post 1945 urban populations in Western cities although today inter-city migration contributes to the sharp increase of the population in such American cities like Portland. Therefore, it is worth noting that the units of the international system, which were primarily assumed to be states, and were involved in dictating foreign policy, no longer operate unrivalled in a security dominated international system. On the contrary, the issues of international relations go way beyond state security into areas such as social welfare (Keohane and Nye, 1987, p. 67).

Cities compete with each other in the area of production facilities leading cities to desire being the locale for the headquarters of major multinational companies. Adidas headquarters, for example, is in the city of Portland, Oregon. The Nike headquarters is located in the county just neighbouring Portland. The city of Kota Kinabalu in the Malaysian state of Sabah, on the other hand has an industrial park, which claims to feature 'a total of 242 industrial investors who have started their clusters of operations, 17 research and development and institutions, five utility companies and 24 commercial entities.' These facilities are reported to be worth RM2.69 billion in investment while creating '8,766 job opportunities' (Daily Express, 2016b, p. 1). This author has not come across any reports of the city of Kota Kinabalu being the locale for the headquarters of a major multinational company, although there have been regional offices of such companies located in the central business district of the city.

Cities compete, just like states do, though seldom in terms of high politics or security. They compete for tourism, education/international students, technology transfer and other benefits to be accrued from the international financial, trade and investment regimes. It is therefore noteworthy that competition between cities in the area of low politics involves considerations such whether 'local residents [are] friendly to strangers' (Kolb, 2006, p. 68). This is particularly important for cities that want to cash in on hosting major cultural and sporting events, which draw thousands of visitors from overseas, in addition to drawing international students.

The Sabah-Oregon Collaborative, for example, was a subsequent initiative involving the Malaysian state of Sabah and the American state of Oregon to create a 'greater impact' in 'local environmental, wildlife conservation and social development initiatives' (Daily Express, 2016a). However, it was really the 2014 attempted sister city tie-up between Kota Kinabalu in Sabah and Portland in Oregon that was the fulcrum upon which this wider collaboration was based. The Collaborative therefore continued to hope to 'formalise a Sister City status between the two cities.'

Most Western cities have local council elections. This is a completely different situation when compared to Malaysia. At the 2018 UN Habitat's World Urban Forum (Kuala Lumpur: 07-13 March 2018) a participant from Kota Kinabalu remarked that 'not a single city in Malaysia – [the country] that was given the honour of hosting the World Urban Forum – has local council elections' (International Institute for Sustainable Development, 2018). At the same Forum, another participant, a retired senior civil servant, noted that the forging of Malaysian sister city relationships are still within the purview of Prime Minister's department, which is at heart of Malaysia's central government. It therefore seems that the Malaysian city, like many of its counterparts in Asia, is thus not free to contract formal relationships outside its borders without the explicit approval of the central government.

Because of the non-democratic administration of the nationally embedded city of Asian countries, it is worth exploring the question whether cities like Kota Kinabalu are reaching out to cities in the Western world with a warped impression of how things really work in places like Portland.

The following analysis considers the case of Kota Kinabalu and Portland.

Portland and Kota Kinabalu

In the wake of the 2014 visit by a US President to Malaysia and his joint agreement with the Malaysian Prime Minister to 'establish sister city relationships,' the Portland–Kota Kinabalu sister city initiative was born. The 'big part of the discussion' according to then ambassador to Malaysia Joseph Y. Yun was 'how to elevate the relationship between the two countries and the importance of people-to-people relationship that is outside of formal diplomatic channels so our groups of people can come together' (Daily Express, 2014). Kota Kinabalu had only 536000 residents in 2010 but had expected to see that figure double by 2020 (Senior Administration Staff DBKK, 2019). Portland's population is 654,741 currently but is also said to be growing fast (United States Census Bureau, 2019). In terms of expenditure, Portland city dwarfs the small operating budget of Kota Kinabalu, with Portland operating a \$5.7 billion budget currently and Kota Kinabalu operating a RM32.7 million (\$7.86 million) budget as reported in 2019, just before the onset of the pandemic. Among the more subjective qualities ascribed to the cities was that they both possessed 'human qualities like the warm and welcoming nature of the people' (Malay Mail, 2016). Both cities are gateways to tourist sites such as mountains, seashores, forests.

The Portland-Kota Kinabalu sister city initiative thus began with important government meetings, especially in Portland. The Malaysian state of Sabah, of which Kota Kinabalu is the capital city, sent a high-powered delegation to Portland, Oregon. This delegation included the Sabah Tourism, Culture and Environment Minister and the Mayor of Kota Kinabalu. The Sabah delegation's visit was for the purpose of signing a Memorandum of Understanding between the City of Kota Kinabalu and the Portland-Kota Kinabalu Sister City Association (PKKSCA). The visit was important enough for the US Ambassador to Malaysia to accompany this delegation in order to witness the signing ceremony. The Ambassador was quoted as saying 'we hope this visit and establishing the Sister City partnership between the two cities will

lead to stronger people-to-people ties and increasing tourism, business activity and academic exchanges between the people of both cities' (Inus, 2014, p. 1).

The emphasis on 'people-to-people' is a reflection at least from the US perspective of what the sister city relationship is all about. City Hall Portland (2001, p. 1) thus gives some background to this form of international relations when it notes that the 'Sister City movement in the United States was inaugurated ... in 1956 as the "People to People program," whose purpose was to establish greater friendship and understanding between the people of the United States and the peoples of other nations through direct contact.' Thus while the Sabah delegation did go on to meet with the Mayor of City Hall Portland (at that time one Charles Hales) and several other local governmental officials, the initiative was never quite a government-to-government one since no formal agreements appear to have been signed by City Hall Portland with regard to the sister city relationship with Kota Kinabalu.

This is an important point to remember since on the Kota Kinabalu side there seems to be confusion at the highest levels of authority by those who were subsequently asked about the attempted tie-up. A Linked-In posting by one Amy Webber who at the time of writing in 2014 was the 'Assistant to the President of a non-profit association that is creating a Sister City relationship between Portland, Oregon and Kota Kinabalu, Malaysia' also stated that '[w]e are currently waiting for our 401c3 status. Once this is established, we will be "Friendship" Cities for a year and then "Sister" Cities (Weber, 2014, p. 1). Unfortunately, Portland and Kota Kinabalu never did become sister cities. Our research indicates that it is unlikely that they ever did achieve the probationary one-year period as friendship cities.

Still Sister Cities?

However, we might be forgiven for thinking otherwise from what we read on the Internet and in the Sabah/Malaysia press. Let us therefore look at what some quarters think is the status of the relationship between Portland and Kota Kinabalu. A Wikipedia entry entitled 'Kota Kinabalu' list 'sixteen sister cities' for the former

including 'Portland, United States' (Anonymous (Wikipedia), 2018, p. 1). What is remarkable is that the declaration that Portland and Kota Kinabalu are sister cities is rightly sourced. It is referenced to a report of a major English daily, The Star online. In this report of January 2016, the then mayor of Kota Kinabalu is quoted as saying that 'the sister-city status that was established since Sept 29, 2014, has brought about various potential developments and opportunities' (Lee, 2016, p. 1). The Wikipedia article thus correctly understands the then mayor of KK to be asserting that Kota Kinabalu and Portland are sister cities. It was later in that same year that we perhaps get the first indication of problems when Sabah's leading English daily quotes US Ambassador to Malaysia Joseph Yun's response to a criticism of the Portland-Kota Kinabalu tie where the reporter writes "In case some think the Portland-KK-Sister Cities pact had produced nothing, Yun says nay: 'We have made tremendous progress since the idea was first conceived two years ago'" (Kan, 2016). By 2017, the same Sabah paper had latched on to the idea that 'nothing came of the plan to twin Portland.' The Daily Express reporter went on to note that "there has been criticism that twinning of cities are an excuse for officials to go on paid holidays using taxpayers' money." To this, a subsequent Mayor responded:

In 2014, Kota Kinabalu signed the friendship city MoU with the city of Portland in Oregon, USA...We are, indeed, honoured that they chose Kota Kinabalu...Kota Kinabalu was chosen as a friendship city with Portland because of the similarities between the people in both cities. The relation between the two cities will provide opportunities to connect businesses in both cities, especially in education and environment (Santos and Chin, 2017, p. 9).

The Mayor's response in early 2017 quoted above indicates that the City of Kota Kinabalu, Sabah, Malaysia signed a friendship city memorandum of understanding with the City of Portland, Oregon, USA. However, the City of Portland does not appear to recognise the City of Kota Kinabalu as a sister city or even a friendship city. The latter is the interim stage or the one year probation period during which City Hall, Portland decides whether to confer sister city status on the relationship between Portland and Kota Kinabalu. A public records request put in to the City of Portland on December 4th, 2017 for documentation showing any agreement or

understanding for the City of Portland to be a "friendship city," "sister city" or similar with Kota Kinabalu, Malaysia... from 2014 to present' received a response from the Office of Government Relations that '[t]he City does not possess or is not the custodian of the records in your public records request' (Pfaffle, 2018, p. perscomm). Not even a record of the issuing of the 401C3 document attesting to even friendship city status?

Problems in the 'Asian City'

If elite collaboration between the city of Portland and Kota Kinabalu have failed to formally contract a sister city relationship, should not civil society take over? This is far from being a phenomenon of concern singular to Portland and Kota Kinabalu. While cities are increasingly emerging as important actors in international relations, a less welcome social segment cities are also gaining prominence by their global prevalence. It was reported 'around a quarter of the world's urban population lives in slums. And this figure is rising fast. The number of slum dwellers in developing countries increased from 689 million in 1990 to 800 million in 2014...' (World Economic Forum, 2016). In the biggest economy in the world, 5.8 per cent of the 2003 American urban population dwelt in slums. The most recent 2017 statistics for the state of Oregon reported that homelessness had increased 6 percent over the previous two years to a total of 13,935 persons. Of this number, Multnomah County whose administrative centre is the city of Portland saw the highest increase in homelessness, that is, from 3,801 (2015) to 4,177 (2017) or almost 10 percent (Hewitt, 2017).

A few years back, City Hall Kota Kinabalu acted to order the removal of a cluster of squatter homes occupying state land not too far away from the city centre in order to clear the way for a project funded by the Federal Government. The cluster of squatter homes was self-named Kg. Syarif Osman and was populated by people of Rungus, Kimaragang and Sungai ethnicity, all of whom are indigenous to Sabah. Ironically, among the old, dilapidated houses that they were occupying was one that appeared to have served as the abode of the British colonial Resident of Jesselton (Kota Kinabalu). They themselves

were somewhat aware of this, claiming that the house that they were occupying once belonged to a Dutchman.

'Some 300 squatters in 55 families' were thus targeted for removal or relocation (Chin, 2014, p. 3). Ironically, the project for which they were to make way was the building of the new high court complex for Kota Kinabalu. A couple of researchers managed to interview one of the residents. The interviewee was a woman with two or three young children who hailed from the Interior of the Malaysian state of Sabah and was now living with her with two young children in the squalid conditions of the squatter settlement. She was weeks away from eviction. She reports

I was born in Kampong X in the Interior of the Sugut District. The government went to my original kampong and from there we were chased away because they said that they wanted to make an estate to plant palm oil. Then we moved to Kampong Y in the Kota Marudu District, nine Kampongs were relocated there. But from there some of us were also chased away and now we have moved to this city. So even back then we were saying, 'Why is it the Government wants to give residential settlements to the foreign migrants? But whereas we local people are not given a residential settlement.' This simply is the problem with them (Former Sugut District Villager, 2014).¹

The Sabah State Government did apparently eventually provide low cost housing for her neighbours but for some reason she herself was not able to access the facility. The woman and her children, in fact her entire squatter settlement, were eventually evicted. She spent a few weeks in Kota Kinabalu and eventually returned to her home village in Kampong Y in the Kota Marudu District, although it is not known whether she still remains there. The decision making processes of what is a less than democratic Asian country (Malaysia) – and one which has still no local council elections – appears to have fallen victim to the problem of not sufficiently 'widening the scope of the decision making process' for the city (Abbott, 1996, pp. 3–4). It is a legitimate concern for

'community development' and one that often enough gets left out in urban planning, when it should instead be the case that 'community development activities involve the poor in improving their living conditions....' (Abbott, 1996, p. 70).

Solutions from the 'Western City'

The situation in Portland is somewhat similar and yet dissimilar with regard to illegal squatting on government land. In 2015, a homeless camp known as Hazelnut Grove was set up on a patch of empty land in the neighbourhood of Overlook in north Portland. The city initially and for a number of years offered the residents basic services like portable toilets, trash pickup, and fencing at an affordable monthly cost (Zielinski, 2021). The continued presence of this homeless camp in the Overlook neighbourhood was the cause of much consternation among some office bearers in the Overlook Neighbourhood Association. The City eventually decided in January this year that Hazelnut Grove must relocate from Overlook. Nevertheless, the fact that Hazelnut Grove was able to hold out for years on end – much like their compatriots in Kg. Syarif Osman of Kota Kinabalu before their eventual eviction – is a testimony to their success in community development. As yet, Hazelnut Grove still exists in Overlook and has yet to be dismantled. There could be a number of reasons for the acquiescence of the City of Portland, among which could be that the homeless persons in Portland – many of whom activists themselves – are better organised in claiming their rights to a home in the City. A series of interviews conducted with Hazelnut Grove residents regarding the lessons that can be taught and learned from their successful venture in setting up and maintaining a homeless camp on the fringes of a well to do neighbourhood proved enlightening.

'If Portland and Kota Kinabalu, which are in America and Malaysia respectively,' the first author of this paper asked 'are in the process of becoming sister cities, what does Hazelnut Grove think about their role – being non politicians and not business persons – in relation to how you can form links with the people

¹ This quote has been edited for clarity. The names of villages are withheld, although the names of districts where they were located are retained. However, original video containing the quote was shown at our side event at the WUF9 (Marshall and Wright, 2018).

of Kota Kinabalu?' One Hazelnut Grove resident responded that people's 'basic needs' need to be represented by the 'politicians from my city and from your city, if they are going to be meeting and carrying out the interests of their cities.' So what lessons specifically does Hazelnut Grove have to offer to the homeless people or squatters in Kota Kinabalu? To this question, the same Hazelnut Grove resident responded:

Solutions on homelessness. Here in Hazelnut Grove we are trying to become sustainable, you know, [in terms of] solar power, figure out where to get our own water, you know ... systems of support. And this is true of both cities ... we all need systems of support that don't depend upon the kind of system that is currently in power. So what we have to have is a changing of the power. The power needs to go back into the hands of [the] people, not into the hands of people with money(Ryan, 2017)

Another Hazelnut Grove resident listed down some specific actions that could be taken in relation to the Portland-Kota Kinabalu sister city initiative such as

1. 'creat[ing] (joint) conferences with interested parties (across countries), which are already taking place between [people from] different states inside the USA. [These people] want to solve problems, so they wanted to see how we were doing it, so they can try to do it in their states
2. 'educat(ing) (people) through doing documentaries, like we have done. We have done several documentaries (for example) we went with ideas that I put forth about following the day in the life of a houseless person – what does it take to meet their basic needs. We decided to do a film on the root causes of houselessness.'
3. 'educating people (by) using...curriculums at high schools and colleges....it's (about) changing perceptions, we did an art collective last year, where we gathered a group of houseless folk, who were interested in art...and didn't even know their talent....it was amazing.'

4. 'having communities get together and do these things, promotes a relationship between them, because there's such a level of separation, say (between) city neighbourhoods, governments (state-level), you know it goes all the way up and there are separations...' (Castor, 2017)

Conclusion

Preliminary results from this paper indicate that there could be possible exchanges between non-elites in the two cities, since they share similar problems and they therefore could also actively share common solutions. Such a utopian approach to non-elite collaboration between cities is perhaps not unwarranted. The growing global poverty crisis, which is largely due to structural exploitation of the urban poor, has also contributed to the grassroots demand for an end to the divide between rich and poor. For this to happen, however, it is not just cities that must emerge as international actors but disenfranchised non-elites such as the homeless and the squatters who must appear on the global stage as actors in their own right.

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The Inked Life-Modern Dayak Tattooists

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Abstract

Tattoos and tattooing have a long history in Borneo. Much has been written about the uniqueness of Bornean tattoos and this is rightly so, for it is an important part of indigenous Dayak culture in Borneo. However, while the focus has mainly been on the traditional designs and preservation aspects of tattooing, not much is written about modern Dayak tattoo artists and their world. In this paper we will look at the lives and experiences of contemporary Dayak tattooists, to explore what tattooing means to them-what motivations do they have in pursuing the art and how do they see themselves and the impact of the art that they created on their clients and ultimately themselves. Oral interviews were conducted to record and document the professional life and experiences of the tattoo artists. The preliminary data that was obtained indicated that far from dying, the art is still alive and there is a niche area of female tattooists, both Dayak and non-Dayak which should be explored.

Keywords: *tattoo, dayak, Sarawak, urban, tradition*

The Sustainability of Sarawak's Handicrafts Industry Following Rapid Rural Development in the State

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Abstract

The socio-demographic characteristic of Sarawak is unique in that its indigenous groups form the majority of the population but yet are still largely congregated in rural and remote areas. Culture, custom and hence, craft-making has been the centre of their lives for many generations as these settlements remained detached from the industrialization and commercialization agendas proceeding amongst their urban counterparts. Hence, non-urban areas house the largest pool of Sarawak's craft artisans, practising ancestral craft-making techniques which are endemic to the State. As a collective, rural craft artisans represent the vast majority of resources contributing to the State's craft sector. However, with policies instigating rapid rural infrastructure development throughout the State, Sarawak's primary craft producers no longer rely on handcrafting to supplement their lives or support their livelihoods. A foreseeable consequence is that the State, its people and all other stakeholders may not be able to derive any benefit in the craft industry in the future should the entire population of non-urban craft artisans be motivated to abandon this trade. This paper claims that there is imminent decline in Sarawak's craft industry arising from rapid rural development and the irreversibility of the damage which will happen should Sarawak's craft fall into obsolescence. It reviews present measures towards arresting this decline, and prescribes policy angles to be considered. It shall also discuss actions taken by Tanoti Sdn Bhd, as an intermediary of Sarawakian crafts.

Keywords: *indigenous, culture, rural development, handicraft, extinction*

Introduction to Sarawak's craft resources

Sarawak's population of 2.9 million people¹ comprises of 27 distinct indigenous groups². Each ethnic representation identifies with their respective unique elements such as architecture, costume, dance, design and craft practices. Their ways of life, means of livelihoods as well as belief systems are guided largely by the geography and the geology of their environment.

Craft-making has been a way of life of Sarawak's indigenous populace for many generations. Craft was traditionally used as a means to supplement their lives for instance, plaiting baskets using fibres harvested from the rainforest to transport provisions when they hunt and forage. Later, as they matured into socialised communities, they deployed craftwork into their costumes and customs to signify and celebrate their identities. With Sarawak enjoying such rich ethnic diversity, it is no wonder that the State is sitting on a goldmine of craft resources.

Over time, as resource allocation brought about higher functioning communities, members of these communities would have started to specialise in different activities to achieve efficiency whilst some farmed, others foraged and hunted. In that period, craft also became an avenue for craft artisans to support their livelihoods. Craft became a currency of trade through barter. It was around the 1980s when craft started to be sold for cash across the indigenous groups that it developed export potential: the producer had the ability to infuse outside money into the village micro-economy as craft items were sold outside their community.

Craft is an ideal item of trade for any logistically-challenged producer. Craft items are non-perishable; their production is not confined to any particular space and is not daylight-dependent; does not depend on the availability of external resources such as electricity, gas or petrol; is not seasonal and not generally affected by weather conditions; and for most items, are easy to transport. Craft therefore does not burden the producer with variables which cannot be managed in the same way as

commodities, although they share the same requisite factors such as skills, manpower and time.

The Proliferation of Craft In Sarawak

Within Sarawak's rural and remote communities, craft thrived for many decades after the formation of the Federation of Malaysia in 1963. To understand how this phenomenon was brought about, one would need to appreciate the national and state development policies with specific regard to rural areas.

Pursuant to the formation of the country, an aggressive industrialisation agenda was launched, starting from the First Malaysia Plan.³ At that time, as the government of a new nation, efforts were focused on administering a new country, integration of its peoples and providing for its people's well-being. In terms of economic growth, it was keen to improve per capita income and productivity, hence key focus areas were infrastructure spending, education, primary industries such as plantation and mining, oil and gas, land development as well as manufacturing. In the decades up to the 1980s, Sarawak lagged in development relative to its Peninsular counterparts. Beneficiaries from the early National Economic Plans were predominantly urban areas and high yielding industries in the State such as timber processing, manufacturing, semi-conductors, and palm oil.

Indeed, most of the rural and remote populations of Sarawak only started witnessing noticeable development in the era of SCORE, circa 2006.

The Federal Government implemented the Rural Development Policy in 2019, which further accelerated growth in rural and remote Sarawak.

This meant that while the rest of the country was becoming sophisticated, rural Sarawak lagged by as much as 30 years. Roads in rural areas were poorly funded, and only settlements which were in the pathways of timber or palm oil operations benefited with basic road access and some employment. For many years in Sarawak, there was no light, no clean water, no road access and no means of communication in most rural settlements.

1 2020 – 2,907,500, total population of Sarawak. Source : Department of Statistics Malaysia.

2 Retrieved from www.ictu.tmp.sarawak.gov.my

3 First Malaysia Plan 1966-1970; www.pmo.gov.my

The Rural population is the true custodian of craft in Sarawak

From practising their craft to producing them for income, it is most noted that the largest group of craft producers in the State reside in rural and remote Sarawak.

Comparing rural artisans to urban dwellers, the latter do not practise craft en masse or use traditional methods. Urban society offers the crafter the benefit of modern tools and commercialised fibres, causing the crafter to succumb to shortcuts and minimalistic designs. In contrast, the village artisan sources her materials from around her (just as her elders taught her), and produces her craft in the purist way (because of her lack of equipment to hasten her work).

It is therefore evident that rural Sarawakians are the demographic that hold custody of traditional craft in the State. The fate of Sarawak's traditional craft industry lies entirely in their hands.

Remoteness and the spread of traditional craft development in Sarawak

For many decades, Sarawak's rural sector generally suffered from the following factors: high incidence of poverty, low productivity, lack of basic economic and social infrastructures and market imperfections. The disparity in standards of living between rural and urban centres in Sarawak was and is still very pronounced.

Rapid progress in urban centres coupled with the offering of facilities such as structured education and prospects of employment brought about urban migration in the 1970s-1980s.

Nevertheless, many of Sarawak's rural population continued to remain within close vicinity of their roots.

Because they were largely detached from modern civilisation, subsistence culture and the family economy were notions which thrived amongst rural and remote inhabitants. They

planted and bred their own foods and sourced materials from their environment to sustain their lives. Their craft making customs continued to be relevant as a means of supporting or supplementing their livelihoods.

Indeed, genius is bred when one has to adapt in the face of scarcity.

Globalisation and the active trading of craft in Sarawak

As decades passed and urban centres progressed, there emerged multi-sited households where one family is distributed over multiple locations. Dissemination of kampung culture is made by the communities' urban-domiciled agents to their associates, colleagues and friends, and craft received new eyes.

At the same time, intermediaries emerged to assist craft artisans to find viable markets for their products. Globalisation resulted in free flow of information, ease of communications and enhanced the efficiency in supply chain logistics.

With heightened consumerism came keen demand for craft products of Sarawak. Especially popular were craft items which were manufactured ethically. Urban-based intermediary organisations capitalised on the sustainability movement and assisted their rural contacts in accessing the market and pushing their products globally.

Sarawak crafts developed global appeal as intermediaries spread their stories. Between 2018 and 2020, Sarawak's rural artisans continuously achieved new peaks in craft income.

Rural development and the imminent decline of craft

Many of Sarawak's most remote communities were not installed with basic amenities until as recently as the year 2021. For these communities, physical access was previously very challenging: either by a multi-day trek, longboat or motorbike into a jungle trail.

Of recent years, there has been highly aggressive development throughout the interiors of Sarawak. The State Government authority charged with overseeing Sarawak's central and northern region development is RECODA, whilst the federal authority is the Ministry of Rural Development.

Programmes involving rural water treatment, mini-hydropower, community solar farms, trunk roads and rural roads, as well as Wi-Fi, are being rolled out swiftly under the rural development initiatives of these agencies.

The concern surrounding such rapid pace of development in the rural setting is these policies did not come hand-in-hand with equal effort in addressing the socio-cultural agenda.

RECODA, the Regional Corridor Development Authority, was established with the dual objectives of promoting the Sarawak Corridor of Renewable Energy (SCORE) by stimulating new and existing markets, and to work towards achieving Sarawak's ambitious investment and development goals. In its website,⁴ it quotes ten priority industries to accelerate economic growth and development and facilitating more investment-little was mentioned to protect intangible cultural assets of the SCORE areas from eroding as a result of spending on its key focus areas.

Federal budgets allocated since 2018 for rural development were extravagant compared to prior years. They focused on water, electrification and broadband access, but similarly there was little reference to investment in rural creative economies.

A total erosion of culture is impending, and three causes are identified, as follows:

- **Improvement of access and connectivity**

More efficient road networks as well as ease of communication in the near future will see enhancement of access and connectivity between rural and urban populations.

An increased range of employment options is expected to be available to the non-urban dweller as opportunity costs reduce vastly. Many craft producers with diminishing mobility issues are likely to venture away from

traditional craftwork as they opt for less strenuous and newly accessible employment brought about by connectivity.

- **The introduction of free comforts**

The introduction of comforts into the pre-existing lifestyles of Sarawak's rural dwellers – especially when these new facilities and improved lives are provided free of charge or at negligible cost – will lead to their neglect of the harder more arduous activities such as craft production. They are given the opportunity to enjoy better quality of life for little effort, as compared to their lives before these comforts emerged. Previously, they would have had to toil in the forest to harvest fibres, prep them by hand and weave products by hand. A portion of proceeds from sale of such products had to be directed towards purchasing fuel for their diesel generator, just to enjoy 3 hours of light each day. Today, they are given the option of staying in the shade, watching TV or playing with their devices, waiting for the washing machine to finish a load of laundry, all without having to produce a single article of craft.

- **The introduction of external influences**

The television and social media penetrating the lives of culturally-endowed rural Sarawakians are factors which could threaten the survival of traditional customs and practices. Through these devices, a stronger, more appealing and less engaging culture of the outside world will infiltrate Sarawak's rural population to the extent that they will gravitate towards the cultures propagated by content providers. Demand for, and the inclination to produce, indigenous products will slump in favour of homogenised products and a lifestyle borrowed from this external content.

The overarching fear is that craft may be running its final laps in the wake of the unrestrained installation of infrastructure in rural Sarawak, i.e. one which is not complemented with efforts of cultural preservation.

- **The importance of ensuring that craft survives**

Crafts, in general, may or may not be regarded as deeply rooted in culture, but trade – crafts i.e. crafts made purely for trade purposes – is

⁵ Sellato, B. Crafts, culture and economics between resilience and instability. Borrowing from and trading to farmers among Borneo's nomads. Hunter Gatherer Research, Liverpool University Press, 2015, 1 (2), pp.157-195

often viewed as circumstantial.⁵ The maker's commitment to this trade is tenuous and remain vulnerable to displacement by more interesting economic alternatives.

It is important to discuss the need to ensure that craft in Sarawak continues to exist, and in fact be allowed to thrive. The arguments in favour of preserving this industry are as follows:

• **A viable economic driver in financially-challenged communities**

"Everyone admits that whatever may be the future, the handlooms ought not be allowed to perish" – Mahatma Gandhi

Ghandi insisted that handlooms in India will be able to supply the entire cloth demand of the country. By mobilising handlooms, the country would be able to stave off imported fabric and hence generate income for the rural population of India. He saw the true worth of the handloom as one which empowers a large section of society (ie. the rural population) and which then provided a mainstay to India's economy. Investments, incentives and programmes were instituted in India for the development of the handloom industry, and the coarse cotton fabric popularly referred to as khadi became the savior of many provincial economies as incomes were generated and extreme poverty averted.

Blessed with ample land and a network of clear running rivers across Sarawak's geology, non-urban residents are rarely lacking in nourishment. For generations, they have hunted and foraged for their meals; and for decades many have been practising subsistence farming. However, as the world progresses into more sophisticated dynamics, rural economic poverty becomes very real and the opportunity cost becomes much higher for any individual if he or she does not have a sufficient degree of wealth.

Applying Ghandi's thought leadership, craft development should be an important agenda to eliminate economic poverty and uplift rural economies.

• **High potential contributor to GDP and international trade**

Indonesia – which shares similar cultural diversity attributes with Sarawak – enjoys a matured creative sector. According to the BEKRAF,⁶ the creative economy is set to become an economic driver, with crafts being the third largest of 16 components of the country's creative economy. In 2016, the handicrafts industry in Indonesia contributed USD9.8 billion or 1.5% to national GDP.⁷

At the present time, the local craft industry in Sarawak is showing lacklustre performance compared to its counterparts in Indonesia, Philippines, Thailand and Vietnam. With strategic push to develop the craft industry, Sarawak could be present itself as a formidable player in craft in the region and worldwide.

• **Mobilise underutilised human capital**

In Sarawak, rural and remote residents comprise 46.2% of the State's population. From a population of 2.9 million, only 1.26 million are registered as employed.⁹ For large areas in the highlands of Sarawak and in the upstream of the Rejang River, entire settlements of people do not even participate in the workforce. Therein lie significant catchments of viable human resource with valuable skills, not fully mobilized and hence not contributing to the economy.

The advantage of craft-making for village artisans is that many are able to undertake production in-situ. The artisan's material resources are everywhere around them, and if not, there is land for the artisan to cultivate plantations for their harvests of their stems, roots, barks, seeds and leaves. The uniqueness of the craft is therefore because of the fact that production can only be undertaken at source or close to source, reaping the bountiful harvests of Mother

6 Badan Ekonomi Kreatif Indonesia which existed between 2015-2019 functioned to activate the country's creative assets, before being absorbed into the Ministry of Tourism and Creative Economy Indonesia.

7 YT. 2018, Mengungkap Tiga Besar Penyumbang Perekonomian Ekraf, via www.pelakubisnis.com

8 2020. Department of Statistics Malaysia via <https://statsgeo.mycensus.gov.my/geostats/>

9 Department of Statistics, via <https://www.dosm.gov.my>

Nature. When a consumer comes in contact with a hand-harvested, hand-plaited, naturally dyed rattan piece, the consumer develops an awareness that the piece represents the lush rainforests of today and the same piece is an embodiment of the way of life of the people of these rainforests.

Indeed, rural and remote dwelling Sarawakians are the ideal segment of the population to activate to develop the craft industry. First, they already possess rudimentary skills in crafting; secondly, they have access to resources and possess requisite technical expertise and botanical experience to produce these craft; thirdly, they do not have pre-existing employment; and finally, but most importantly, this trade allows them to generate income without having to suffer the effects of displacement.

• Preservation of cultural integrity

Traditional craft techniques are transferred from generation to generation. As a product, traditional crafts possess provenance far deeper than contemporary crafts provide. To the maker, it cultivates a strong relationship to nature, to one's place and to oneself. It is about connecting the past to the present, whole looking towards the future.¹⁰

For a culturally rich Sarawak, this diversity of cultures should be actively protected in all aspects because it constitutes Sarawak's source of spiritual and intellectual richness. If successfully defended, Sarawak would be able to follow in the footsteps of Bhutan, where culture as a tool to market itself to the rest of the world as distinct from others.¹¹

• Deeply rooted in sustainability

Traditional craft businesses comprise micro, small and medium-sized ventures and involve materials which do not insist on use of external resources nor do they lead to any degradation of natural assets. Activities of Sarawak's craft artisans are undertaken within their communities and in their home environment, and so they help protect family life. Furthermore, the community craft industry has the ability to fund their communities from the

ground up, by generating cashflows, creating ecosystems and supporting the micro-economy.

Sarawak's craft industry, as represented by community craft, is aligned with the United Nations Sustainable Development Goals, specifically SDG1 (No Poverty); SDG8 (Decent Work and Economic Growth); SDG10 (Reduced Inequalities); SDG11 (Sustainable Cities and Communities); and SDG12 (Responsible Consumption and Production).¹²

Existing Measures to support the Sarawak crafts industry

It needs to be understood that although Sarawak's crafts industry involves so many producers, it does not have a matured structure and the supply chains are not complete. Therefore, this is seen to be an industry at infancy stages.

At this stage of its development, the sector remains fragile. The threat of obsolescence is real. The point of inflection of crafts in the rural and remote setting is presenting itself in this window of 1-2 years. We are in an era when craft skills are still superior but trade momentum is still not sufficiently significant for craft producers to continue making craft, as options of less difficult forms of employment become available.

Attrition is expected to happen in the community craft space as the effects of rural development sets in. However, it is important that the craft sector recruits and retains individuals who will make up the backbone of a thriving craft industry, specifically:

- young parents who require a community support group to care for their family units. They ought not to be displaced by the prospects of urban employment opportunities even if access is somewhat easier;
- mature individuals who are disincentivized to undertake craft work because of its poor

10 Simon Sadinsky, Deputy Executive Director (Education) for the Prince's Foundation via <https://princes-foundation.org/preserving-heritage-crafts>

11 Reinfeld, M.A., Tourism and the Politics of Cultural Preservation: A Case Study of Bhutan. Journal of Public and International Affairs. V 14, 2003.

12 United National Department of Economic Affairs announced the 17 Sustainable Development Goals as part of its 2030 Agenda for Sustainable Develop

income earning potential; and

- youth who have received formal education or display talent and skills in design, hand working, marketing or capacity building. They could be given the opportunity to participate and build the local craft ecosystem instead of undertaking employment which exemplifies the cultures of others.

The objectives of targeted measures are firstly, to make decision-making easier for a craft producer to choose this profession over others; and secondly, to help them develop their trade so that they can accumulate wealth.

It is therefore important to now identify some of the measures already in motion to activate the craft industry in rural and remote Sarawak. This paper discusses direct and indirect measures, as follows:

a. Grants

Grant funding are available to practising crafts industry participants to encourage them to continue their work. Craft grants either help to sponsor the construction or improvement of workspaces, purchase materials, undertake or pay for training, or marketing efforts.

Various such grants have been rolled out to Sarawak's craft players by Government-managed units such as the Sarawak Crafts Council, the Sarawak Economic Development Corporation, The Cultural Economy Development Agency (CENDANA) and MyCreative Ventures Sdn Bhd. Community craft recipients included many remote dwelling artisans.¹³

Recipients of such grants are obliged to maintain their commitment to pursue their work in craft making for at least the period over which the grant subsists. Grant conditions generally require the artisans to report on milestones and accomplishments throughout the grant duration.

b. Recognition and Awards

In 2019, in conjunction with the city of Kuching being conferred the status of World Craft City by the World Crafts Council International (WCCI), the Sarawak State Government had rolled out a series of craft awards to recognise their quality of craftsmanship. A total of twenty-two senior craftspersons were recognised as Living Legends, thirteen artisans were identified as Young Masters and six craft communities were acknowledged as Emerging Communities of Craft.¹⁴

The Malaysian Handicraft Development Corporation (Kraftangan Malaysia) has been carrying out award programmes since 1998, and various Sarawakiancraft persons have been appointed AdiguruKraf¹⁵ over the years.

c. Partnerships and Patronage

As craft artisans find it challenging to tap financial resources or access markets for their products, collaborative projects were found to be useful to assist in building their capacity at initial stages. Organisations which have become invaluable support units for these communities include: Kraftangan Malaysia, Sarawak Crafts Council, WWF-Malaysia, Non-Timber Forest Products Exchange Programme (NTFP-EP), Tun Jugah Foundation, Universiti Malaysia Sarawak (UNIMAS), Tanoti Sdn Bhd, Raneé Artisan Gallery, Helping Hands Penan and Penan Women Project. These entities and many more formal and informal partners have directly and indirectly helped to elevate Sarawak's craft micro-industries in specific communities through funding, capacity building, marketing and sales avenues.

d. Design and Product Development

The majority of Sarawak's crafts are underdeveloped. Because the original applications of handcrafted items were to service the lives of the makers, to the consumer, craft products made by the average Sarawak's craft artisan are generally

13 Cendana Craft Industry Choice beneficiaries are listed on www.cendana.com.my

14 Fong, V. (2019, March). Kuching: A capital of craft. The New Sarawak Tribune, Retrieved from www.newsarawaktribune.com.my

15 2006 - Dayang Norsalam as Adiguru Kraf Songket Sarawak; 2000 and 2006 - Bangie ak Embol as Adiguru Kraf Tenunan Pua; 2006 - Andah ak Lembang as Adiguru Pasu Iban; and 2914 - Ngot binti Bi as Adiguru Kraf Anyaman Bergerang

deemed basic, poorly designed, roughly finished and not considered market-ready.

Stakeholders in this sector are executing design and product development initiatives to improve the function and relevance of craft products for the consumer market. Kraftangan Malaysia periodically carries out workshops within the communities to help craftspeople improve on their craft execution and product design.

Several collaboration projects have been carried out to bring about developments in craft. The Borneo Art Collective has organised residency programmes to realise the cross-fertilisation of cultures. International cultural organisations such as the British Council and Goethe-Institut also frequently administer collaboration projects towards the same end.

e. Craft Training

Various agencies offer vocational craft programmes for youth to train in specific craft skills. Facilities offering such programmes include Centre of Technical Excellence (CENTEXS) and Institut Kraf Negara (IKN) but enrolment rates for these courses are on the decline.

Local universities such as UITM and UNIMAS run design and fine art programmes incorporating craft modules. However, rarely do graduates of these tertiary courses find employment in the craft industry when they enter the workforce.

f. Capacity Building

Community craft artisans are provided courses to develop skills to adapt to the changing world and thrive in their trade.

Different types of capacity building programmes have been rolled out by various public and private organisations to upgrade the skills of craft entrepreneurs so that they can make a living from this trade.

Digital marketing is a critical tool today to cultivate a market for handicrafts. For many Sarawakian craft suppliers, e-commerce and social media helped them survive movement control restrictions brought about by the

COVID-19 pandemic. In Sarawak various agencies run programmes to train small businesses and micro-entrepreneurs access their markets through technology.

Other related short-term courses or training programmes available in the market include packaging, design and systems development.

g. Exposure to Market

The highest barrier of the community craft producer is in the ability to sell. As their own community economy is small, producers need to source buyers of their product outside of their own community in order to earn sustained income.

Government-owned organisations such as Kraftangan Malaysia, Sarawak Craft Council, the Sarawak Tourism Board and various other civil society organisations such as Society Atelier Sarawak, Old Kuching Smart Heritage, organize events such as sales bazaars and trade shows to provide craft producers with the forum to sell their products directly to their target market as well as to gather intelligence on the needs and wants of their consumers.

Here, craft artisans get the chance to travel beyond their communities and experience alternative lifestyles as part of their intelligence-gathering.

Whilst these measures are already deployed by stakeholders, they are superficial in nature and do not address the fundamental pull factors to retain a rural craft artisan for the long term. With these measures alone, it is still highly probable that craft as an industry will fall into neglect as Sarawak's craft makers are drawn towards the allure of contemporary culture and lifestyle which is now made more accessible to them.

Cultivating Identity and Ownership

The answer then lies in the need to cultivate a stronger sense of identity and ownership of their culture and customs. The objective is to embed the appreciation that they are custodians of their culture and that they are individually and collectively accountable for the sustainability of their heritage.

a. Creating culture-rich content

As rural and remote communities enjoying electrification and internet connectivity, there will be a surge in viewership of television as well as internet driven content. Such content generally exemplifies the allure of urban lifestyles and tastes, and this same content has the power to influence its viewership.

For audience in the rural and remote setting, there exists a high chance that such modernized and homogenised lifestyle and tastes become aspirational and hence, there is real danger that their existing customs and traditions will be discarded in due course.

It is then very important for content creators and curators to craft content which epitomizes indigenous traditions and cultures. By bringing Sarawak's ethnic richness to the centre stage, exalting traditional techniques and creating heroes out of out-performing rural folk, viewers will develop an appreciation and a sense of pride for their land, their environment and their people.

b. Craft education in schools

Various countries in the world acknowledge the necessity of craft education in formal school syllabuses. In Finland, craft culture is still robust despite economic development, and this is attributed to the Finnish National Core Curriculum where craft is a compulsory subject for all students.¹⁶

In Finland, teachers and instructors who teach methods and promote values play an important role in developing perceptions on craft traditions and are integral in ensuring that these are passed on to new

generations.¹⁷ Sarawak has basis to emulate craft education initiatives instituted in Finland for the sake of protecting its rich cultural diversity. Craft education in schools where students are impressionable and whilst their interests are still malleable is deemed as effective in recruitment for the industry, as opposed to providing tertiary training where craft value systems and the sense of ownership towards one's own culture are not embedded into the courses.

c. Ensuring raw material supply

To ensure smooth commercialization of Sarawak's ethnic craft, stakeholders should ensure that the components are in place the most critical of which are raw materials.

A major challenge of a community craft producer is the eroding stock of raw materials in their environment. This could be the result of various factors: mass land clearing for palm oil, flooding of areas for hydroelectric dams and building of new settlements are the most common causes.

Policies should be in place and efforts should be made to ensure the continuous and long-term availability of non-timber forest fibres for basketry and weaving as well as plant life for natural dyes and beading. Research and innovation activities should also be stepped up to investigate the viability of alternative natural materials for craft.

All three agenda items should be made a priority today and be rolled out in the same velocity as the changing landscape of rural and remote Sarawak. It is the socio-cultural composition of the peoples of Sarawak that should be conserved, and this urgently needs to be executed in tandem with rural infrastructure development. If this is not executed effectively, the loss of the indigenous living cultures of this land will be irreversible.

¹⁶ 2004, Finnish National Agency of Education.

¹⁷ Räisänen, R and Kokko, S. (2019) Craft education in sustaining and developing craft traditions. *Techne Series Vol 26 No. 1*

Adapting the Tanoti model to navigate changes in the craft operating landscape

Tanoti Sdn Bhd is a Sarawak-based accredited social enterprise¹⁸ which functions to pursue the objectives of heritage craft preservation, women empowerment and rural community building. Established in 2012 with 11 songket weaving artisans, Tanoti today engages with more than 400 craft producers across 25 rural and remote communities throughout Sarawak.

Tanoti's existing model is that of intermediation. By marketing the craft skills of its communities of artisans, Tanoti secures orders and delivers them to the producers to execute. Within the organization, work is performed to value add on craft products, to finish them and package them to satisfy the requirements of its clients.

With this model, Tanoti has achieved relative success. Payouts to artisans increased at an average rate of 27% per year or a total of 217% over the period of 8 years.

The initial years of Tanoti's work in the communities between 2014 and 2020 was challenging: much of the terrain was unforgiving and all communications with the artisans were conducted within physical meetings. Commencing early 2020, as infrastructure was installed even in the most remote of village settlements, communications became very smooth and messages were conveyed relatively swiftly.

In view of this breakthrough, Tanoti began to embark on a mission to accelerate the development of craft within its own communities. Measures which were undertaken by this social impact venture were as follows:

- product development and innovation. Tanoti encourages sessions where new products, techniques and / or methods are conceived and developed. In this way, as progress is being identified in their work, craft producers will have confidence that a future exists within their trade;

- exposing craft artisans to new markets, locally and overseas. Tanoti creates opportunities for craft producers to meet their customers in Kuala Lumpur, Singapore, Hong Kong, France and Scotland. These artisans return to their homes with fresh confidence as they convey their experiences and feedbacks to their colleagues, hence they become the de facto authority within their own communities to whom queries are directed;
- application for grants for artisan communities. 6 village-dwelling craft producing groups within Tanoti's community were beneficiaries of the CENDANA Crafts Industry Choice 2020 grant. These recipients are indirectly perceived as examples of successful craft producers amongst their respective communities, and others will tend to work towards higher standards of craft.
- developing new ways in which craft is marketed and sold: as product, product service and product experience. This allows craft to be consumed by different markets and thereby increasing the awareness, marketability and perceived value of Sarawak's craft.
- organizing the proposed TENUN Fashion Week¹⁹ which is the first event in Southeast Asia where the spotlight would be on weaving communities and their fabrics. 42 participants of this event represent 8 ASEAN countries, of which 7 are Sarawak-based weaving communities.

Moving into 2022, as capabilities of craft producers are enhanced with the increased communications infrastructure, Tanoti's core activities would shift and it will assume the dual role of an intermediary and also an advocate for Sarawak's crafts industry, with the objective of creating a quantum leap in an industry which was previously sluggish.

¹⁸ Tanoti Sdn Bhd, in 2019, had received accreditation as a social enterprise by the Malaysian Ministry of Entrepreneur Development, certificate number 775533

¹⁹ www.tenunfashionweek.com

Conclusion

In conclusion, the Sarawak craft industry is teetering on the edge of obsolescence. The onslaught of rural development within the areas of the majority of Sarawak's craft producers is rendering the craft industry as unfashionable, presenting comparatively unpleasant conditions, and offering unsatisfactory returns for the effort. Without targeted strategies to counter the effects of development, the craft industry is geared towards a steep decline and the damage may be irreversible.

At this point, both public and private sector initiatives to arrest the decline of craft are superficial and may not be sufficient to fight this rapid progress.

The solution is to institute measures to instil pride and ownership in the elements of indigenous heritage and culture, to be conveyed through digital content as well as education. A future in traditional craft is also encouraged with the continuity of raw material supply, and the proposed farming of fibres is a policy initiative which should be considered.

There exists a large number of people residing in Sarawak's rural and remote locations who possess the skill but are deemed unemployable. If this demographic can be mobilised to participate in the craft industry, they can contribute to the economy and international trade while operating in situ.

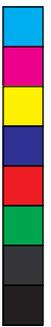
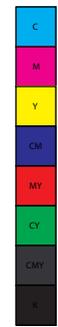
The craft industry is the single most sustainable economic driver with the capability to employ a large amount of people. The opportunity loss would be very significant if all the people who could contribute to the economy were not afforded the chance to. Not only would the economy not benefit from the contributions of these unutilised viable economic agents, Sarawak will be closer to failing in its quest for cultural preservation.

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Characterization Particle Size Of Modified Natural Kaolin From Bengkayang, West Kalimantan

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Sub-theme:
Environmental Sustainability

Abstract

Kaolin from West Kalimantan has been processed into raw materials for ceramics and has been broadly studied for its potential applications as an adsorbent for metal ions, host material, or filler. The use of materials with a high surface area and high reactivity is essential in the industry, either as fillers, additives, or carriers. The surface area of a material can be increased by declining its particle size. In this research, natural kaolin will be modified, and its particle size will be characterized. The modifications will be carried out by chemical treatments such as activation with hydrochloride acid and modification with surfactants. Particle size was analyzed by a particle size analyzer instrumentation using the dynamic light scattering method. The results showed that Bengkayang natural kaolin's activation and chemical modification could change the kaolin particle size from 3205 nm to 374 nm. The average particle size of natural, activated, and modified kaolin was 3.21 μm , 1.17 μm , and 0.98 μm , respectively.

Keywords: *activation, chemical modification, kaolin, nanomaterial, particle size*

Introduction

According to the Ministry of Energy and Mineral Resources (2015), kaolin is included in the category of ceramic materials, namely a group of non-metallic mineral commodities and solid inorganic rocks. The total production of Indonesian kaolin in 2015 was 2,542,013 tons from 1,070,015,564 tons of resources owned. Most of the kaolin production is used for domestic industrial needs. Kaolin is widely used in the paper, paint, ceramic, rubber, plastic, paint, cement manufacturing industries as a filler, ingredient or extender. This application is related to kaolin's nature, which is white or close to white (Nelly Wahyuni et al., 2012).

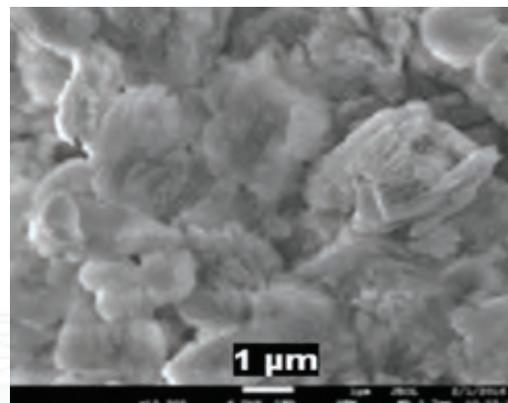
West Kalimantan is one of the provinces that is abundant of this minerals. One of the mining products found in West Kalimantan is kaolin. Kaolin is found in Bengkayang, Sekadau, Landak, Sambas, and Singkawang Regencies. Kaolin (Figure 1) from Bengkayang contains quartz, kaolinite, and muscovite minerals so that Capkala kaolin is a type of kaolinite mineral with micron-sized particles (Nelly Wahyuni et al., 2018a). The kaolin has a slightly brownish color (slightly gray because it is influenced by geographical conditions which are peat soils) with a whiteness value of 87.74 CEC value (cation exchange capacity) of 38.74 meq/100 g (Destiarti et al., 2017) (N. Wahyuni et al., 2021).

Nanotechnology is a widely developed technology and has been applied in many fields such as information technology and electronics, pharmaceuticals and health, environment, agriculture and food, and industry. Nanotechnology is projected to have an impact on the global economy of at least US\$ 3 trillion and absorb at least 6 million workers by 2020 (Roco et al., 2011).

In principle, there are two general methods in the manufacture of nanomaterials, namely the top-down and bottom-up methods. In the top-down method, the manufacture of nanoparticles comes from the change from micro-engraved particles to nano-size. This method can be done by chemical processes, heating, electrification or a combination of the three. However, the milling process is the main process in this method. In contrast, the bottom-up method is carried out through engineering from the atomic or molecular scale to nanoparticles. Currently, a combination of top-down and bottom-up methods is also being developed. The application of kaolin can be increased by increasing its surface area by making the kaolin nano-sized.



a. Kaolin powder



b. Morphology of kaolin
Figure 1
Kaolin

Nanokaolin can be made through a chemical process using a variety of precursors (Zsirka et al., 2015). Nanokaolin with a high surface area (105 m²/g) has an adsorption affinity for the levofloxacin antibiotic (LVOX) residuals in wastewater (Abukhadra et al., 2020).

In this study, we will examine the particles size of the chemically modified natural kaolin from West Kalimantan which can be used as an adsorbent for pollutants or other applications.

Research Method

Equipment. The equipment used in this research included standard glassware, 120 and 325 mesh sieve, centrifuge, and furnace. The materials used in this research were distilled water, Hydrochloric Acid (HCl), silver nitrate (AgNO₃), urea, methanol, ethanol, and HDBr. Natural kaolin sample taken from Capkala Sub-district, Bengkayang Regency, West Kalimantan.

Preparation kaolin. Natural kaolin from Capkala District, Bengkayang Regency was heated at a temperature of 80°C-90°C for 3 hours, pulverized and then sifted with a size of 80 mesh. The clay that passed the 80 mesh sieve was washed with distilled water three times, then centrifuged at 3000 rpm for 10 minutes. The clay fraction was then dried at a temperature of 80 - 90°C for 3 hours. After drying, the kaolin was crushed and sieved using a 120 mesh sieve.

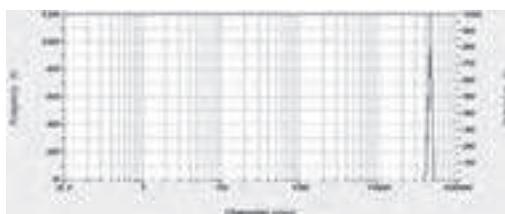
Acid activation of kaolin. Acid activation of kaolin was carried out by the following method (N. Wahyuni et al., 2021): 100 g of kaolin were prepared along with 700 mL of 6 M HCl. Acid activation was conducted at room temperature by slowly pouring the HCl solution into a beaker containing kaolin while stirring using a magnetic stirrer for 24 hours. The solid was then filtered and washed with distilled water until it was free from Cl⁻ ions, as shown by the AgNO₃ test. It was later dried in an oven at 80°C until a constant weight was reached. Then, it was crushed until smooth and sieved using a 325 mesh sieve.

Modification kaolin 25 g of activated kaolin was dispersed in 40 g of urea and 5 mL of distilled water. The suspension was stirred with a magnetic stirrer for 15 minutes. The mixture was reacted at a temperature of 60-80 °C in an oil

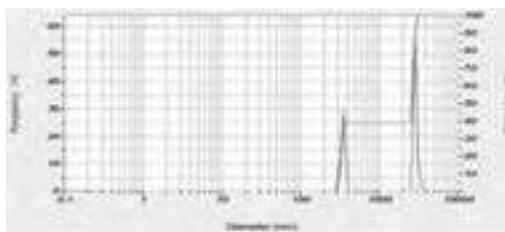
bath for 6 hours. The solids were separated, and washed with methanol twice, and dried at 60 °C for 12 hours. About 10 g of the solid was then put in filter paper and put into the soxhlet chamber. Cooling water is flowed at the rate of 1 cycle for about 15 minutes, then 150 mL of methanol was added. The extraction process was carried out at a temperature of 65 °C for 6 hours. One gram of wet kaolinite/methanol was added 75 mL of HDBr (1 mol/L of HDBr in methanol), the suspension was reacted at 100 °C for 24 hours. The solids were separated by centrifugation at 200 rpm for 10 minutes, washed with ethanol six times to remove the remaining HDBr. Then heated to 80 °C for 24 hours and calcinated at 600 °C for 3 hours.

Characterization of particles size. Particle size was analyzed by a particle size analyzer instrumentation using the dynamic light scattering method with Horiba Scientific SZ-100.

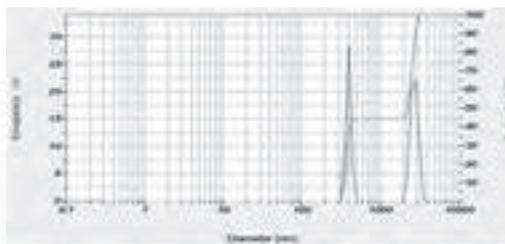
Results



a. Kaolin



b. Activated kaolin



c. Modified kaolin

Figure 2

Diameter Particles of kaolin, activated kaolin, and modified kaolin

Discussion

Nanoparticles are generally crystalline, so they are commonly referred to as nanocrystalline materials. Changes in particle size from micro to nano-size have an impact on changes in physical properties due to an increase in surface area and particle volume. The increase in surface area causes interactions between particles, for example in nano-composite materials will produce distinctive characteristics such as the strength of the material. Nanomaterials with a higher surface area and activity have caused their use to develop rapidly, either as fillers, adsorbents or additives (Khalid et al., 2014).

The particle sizes of nanomaterial can be analyzed using Particle Size Analyzer (PSA). The measurement principle of PSA instrument is based on the scattering of laser light by the particles in the sample. Light from the laser is emitted through a pinhole (a tiny needle) and then sent to the particles in the sample. Particles in the sample scatters the light back through the pinhole and into the detector. The detected analog signal is converted into a digital signal which is then processed into an arithmetic series (Nuraeni et al., 2013).

Based on the data in Figure 2a, natural kaolin has a homogeneous particle size with an average diameter of 3.21 μm or 3210 nm. This result matches kaolin's characteristics, which has micron-sized particles (Nelly Wahyuni et al., 2018b) (Xiaoyu Li et al., 2015). Activation of kaolin using hydrochloric acid (Figure 2b) caused some of the kaolin particles to become smaller, namely 2714 nm (61%) and 325 nm (39%), respectively. Based on the calculation, the average diameter of the particles size is 1.17 μm . Chemical modification by intercalation of urea, methanol, and surfactants, and calcination increased the percentage of particles with a diameter of less than 500 nm to 44% (Figure 2c). The diameter particles of nano-kaolin which was synthesized by chemical process resulted in nano-sized particles with a diameter of 374 nm as much as 44%, while 56% with a size of 2574 nm. The average particle size produced is 0.98 μm (983 nm). Chemical modification caused exfoliation of kaolin sheet (Pi et al., 2007), and delamination (Xiaoguang Li et al., 2015).

Nanokaolin can enhance its adsorption properties that can be applied in water treatment as an adsorbent for toxic heavy metals such as Cd^{2+} , Pb^{2+} , and Cr^{6+} (Abukhadra et al., 2019) or organic pollutants (Abukhadra et al., 2019).

Conclusion

Nanokaolin can be made by activation with hydrochloride and chemical modification through intercalation and calcination of natural kaolin from Bengkayang. This nanomaterial can be used as an adsorbent for pollutants.

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Microplastics in the Urban Water System of Pontianak, Indonesia

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Abstract

Pontianak City is a city that has cultural heritage in the form of river and canals. The growing threat to its canals is microplastic pollution. Microplastics are plastic particles with a size of less than 5 mm. Because of its size, microplastic could easily entering the food chain and combine with other substances to form new pollutants that are harmful to human health and ecosystems. To study plastic pollution in urban water systems, Hydrology and Water Quality Research Group at Integrated Laboratory Universitas Tanjungpura planned a 3 year research. The first activities are aims to test the sampling method and at the same time obtain information about microplastic in the water canal of Pontianak. Samples were taken at five canals that passes through different urban land uses: housing, small and home industries, and business; using a modified version of manta trawler. Results show the abundance of microplastic in the canals are between 348×10^2 to 533×10^2 particle/ m^3 of water. The majority forms are fragments, fibers, pellets, and films with the amount of each type in 1 liter ($0,001 m^3$) of water sample are 984, 679, 203, and 110 particles, respectively. The results of this research can increase understanding of the threat of microplastic and useful for other cities on the coastal region of Kalimantan, which habitually have a culture that is closely related to rivers and canals.

Keywords: *Microplastic pollution, microplastic abundance, urban water system, Pontianak, Manta Trawl.*

Introduction

Indonesia is the second-largest country in the world after China as a producer of plastic waste that ends up in the sea (Jambeck et al. 2015). Most of the plastic waste in the ocean comes from the land through rivers and city drains. With the large amount of plastic waste produced, the risk of environmental damage due to plastic waste can be a time bomb that can endanger the river ecosystem. Plastics contain toxic monomers and addictive substances such as bisphenol A and phthalates which can dissolve into seawater and affect aquatic organisms (Mohamed Nor and Obbard 2014).

Due to ultraviolet radiation, waves, and currents, plastic polymers in water bodies can be broken down into smaller plastic fragments. Larger plastics also degrade into smaller fragments through photodegradation and other weathering processes. According to the size of the plastic particles, the fine particles of plastic waste can be referred to as microplastics and nanoplastics. Microplastics are plastic particles with a size of less than 5mm, divided into two categories, namely large (1-5 mm) and small (<1 mm) (NOAA, 2015).

Sources of microplastics are divided into primary and secondary sources. Primary microplastics are pure plastic particles that reach marine areas due to careless handling. Primary microplastics are plastics that are directly released into the environment in the form of small particles. These plastics come from products containing plastic particles (such as tiny droplets in shower gel), and can also come from the degradation of large plastic objects in manufacturing, use, or maintenance processes such as tire erosion or degradation of synthetic textiles during washing. Secondary microplastics come from macroplastic degradation processes that can occur due to sunlight, currents, and waves in the marine

environment (Eriksen et al. 2014). Since sunlight exposure, water currents and waves do not only occur in the sea but can also occur in other type of water bodies, secondary microplastic can be also formed in the rivers and channels.

Microplastics are very small in size, and their abundance in rivers makes them ubiquitous and highly bioavailable to aquatic organisms. So that microplastics can be eaten by marine biota (Andrady 2011). The plastic fragments that are formed will cause the possibility of these fine particles entering the food chain, thus endangering human health.

There are 61 ditches in the city of Pontianak, which are connected to the sea via Kapuas River, can be a pathway for plastic to enter the sea. Kapuas River itself, which is run through the city, is the longest and one of the most important river in Pontianak. People still use the river as the main source of water for their daily needs, as well as Pontianak Drinking Water Company which also uses it as the main source of its bulk water.

Many types of research on microplastics have been carried out in big cities around Indonesia, with research locations in estuaries or the sea. However, research conducted in small and medium-sized cities is still relatively rare. In addition, research locations in urban drainage are also still rarely done. As is well known, urban drainage is the first container to receive wastewater from several sectors in urban areas, such as settlements, schools, hospitals, markets, and also businesses such as laundry. After that, the water in the drainages will flow out towards the mouth of the river to the sea.

Therefore, this study was conducted to determine the abundance of microplastics in urban canals in Pontianak City, before leaving to the Kapuas river estuary. The number of sampling point locations was taken as many as 5 different locations representing several sectors in Pontianak City such as settlements, hotels, markets, and business units such as laundry. The sample taken is a sample of surface water trapped in the net attached to a specially designed equipment. Then, the sample can be directly processed in the laboratory to obtain the number and abundance of microplastic particles.

To determine which channels and rivers in polluted, we can use the abundance of microplastic. Therefore, this research will be focusing on measuring the abundance of microplastic using multiple methods. The abundance of microplastic also shows that there is plastic pollution in the channel and will end up in the Kapuas River that flows through the city of Pontianak.

It is hoped that with the presence of this research, the public will know that these microplastic pollutants are very easy to find around them, including in some of the daily necessities they use. In addition, so that people can be wiser in using and processing the waste produced, especially plastic waste.

Research Method

In this study, the sampling method was used to obtain samples of microplastics from drainage channels. Microplastic samples are then processed in the laboratory to achieve research objectives. Sampling was carried out purposively at each depth of channels from the sampling location. In addition to the sampling activities, measurement of channels cross-sectional area, water pH and temperature, and current velocity in the channels were also carried out.

The processing method for microplastic sample is refers to the NOAA method sourced from Masura et al, 2015. The method in principle does the following: separating/floating plastics, destroying organic matter using hydrogen peroxide, and filtering. After processing, the samples were observed under a microscope to obtain type, color, and number of microplastic particles present in the sample.

The data analysis in this study uses qualitative and descriptive method which describes type, color, and the abundance of microplastics as particles/m³ in each sample.

Data were collected in five locations around Pontianak City, namely Sungai Raya Dalam (T1), Parit Haji Husin (T2), Parit Sepakat (T3), Parit Media (T4), and Parit Martapura/Tokaya (T5).



Figure 1
Sampling Location Map

Sample processing includes several stages, namely: sample preparation, sample separation, and sample identification. Some of these steps are international procedures carried out by (Masura et al., 2015). Sample preparation is done by preparing samples, making work logs, and preparing materials and tools needed for the next process. Separation of samples using a graduated sieve smaller than 30 mm was used to separate meso and micro waste. The filter results obtained are then treated by adding chemicals to separate organic matter and increase density. After being treated, the sample can be observed visually under a microscope. This guide to the identification of microplastics is based on research conducted by Masura et al, on Laboratory Methods for the Analysis of Microplastics in the Marine Environment: Recommendations for quantifying synthetic particles in waters and sediments.

Results

Surface water samples were taken using a with a very fine sized net. The aim was to obtain microplastic particles either from the primary sources or resulting from the degradation of macroplastic in the water. After going through several treatment processes for the samples as described in the working procedure, the microplastic in each sample were found as follows.

Table 1
Number of Microplastic Particles

No	Sampling Location	Microplastic Particles Form					Total Number of Microplastic Particles
		Fiber	Fragment	Film	Foam	Pellet (Bead)	
1	Parit Sungai Raya Dalam (T1)	150	232	0	43	13	438
2	Parit Haji Husin 1 (T2)	152	169	12	2	13	348
3	Parit Sepakat (T3)	81	239	13	8	12	353
4	Parit Media (T4)	189	76	28	0	68	361
5	Parit Martapura (Tokaya) (T5)	107	268	150	4	4	533

Source: Data Analysis, 2021

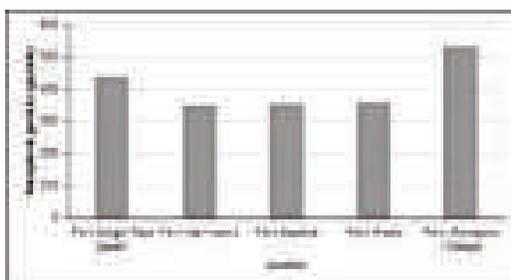


Figure 2
Total of microplastic particles

The abundance of microplastics can be calculated by comparing the number of particles found with the volume of filtered water (Masura et al, 2015) as shown in the following formula.

$$\text{Abundance of microplastics} = \frac{\text{Number of microplastic particles (particle)}}{\text{Filtered water valume (m}^3\text{)}}$$

The abundance of microplastic calculated using the formula is as presented in Table 2

Table 2
Microplastic Abundance in 1 m³ surface water samples

No	Sampling location	The abundance of microplastics (particle/m ³)
1	Parit Sungai Raya Dalam (T1)	438 x 10 ²
2	Parit Haji Husin 1 (T2)	348 x 10 ²
3	Parit Sepakat (T3)	353 x 10 ²
4	Parit Media (T4)	361 x 10 ²
5	Parit Martapura (Tokaya) (T5)	533 x 10 ²

Source: Data Analysis, 2021

Discussion

This study focuses on the presence of microplastics in the drainage channel of Pontianak. These channels accommodate wastewater flowing from settlements or other sectors. This research was conducted by taking samples of surface water from 5 different drainages channels in Pontianak City.

In Table 1, it can be seen that the number of microplastic particles found in drainage channel in Pontianak varied from 348 to 533 particles. As for the first location T1, represents residential area in Pontianak. The residential area is already filled with houses, where from every house there is a sewerage that connected to Sungai Raya Dalam channels and will empty into the Kapuas River.

Trading activities such as small industries and shops can also be found in this location. Therefore, this location is used as an example of a sampling location that can represent activities that cause pollution, especially in waterways and rivers. The existing conditions at the sampling location were that there was a lot of floating wood and the weather at the time of sampling was sunny. In Table 2, the results of the abundance of microplastics obtained at location T1 are 438 x 10² particles/m³.

The second location is Parit Haji Husin with location code T2 representing the vegetated settlement sector and green open space. This location has a lot of housing and is balanced with vegetation that grows around people's homes. The findings of the abundance of microplastics at this location can be seen in Table 2, which is 348 x 10² particles/m³.

The next location is in Parit Sepakat with code T3. The agreed ditch is drainage that accommodates processed water in the agreed area where this area is dominated by the laundry sector, lodging, restaurants, and campus dormitories. Existing conditions that affect the sampling area are the sampling locations near the cemetery with slightly cloudy weather on the day of sampling. At that location, the number of microplastic particles found was 353 x 10² particles/m³.

Parit Media is the next location coded T4. At that location, the number of particles found was 361 x 10² particles/m³. The dominant form of microplastic in this location is fiber. As we all know, hotels have laundry facilities in each hotel with a fairly large washing capacity considering the many washing needs in the hotel. Therefore, the most common form of fiber is found in that location. This fiber comes from clothing fibers that are also exposed to the sewer/drainage.

The last location is in Parit Martapura/Tokaya. At this location, the number of microplastics was found to be 533 x 10² particles/m³. The majority of microplastic forms are dominated by fragments, but there are quite a lot of film forms at location T5. A film is a form of microplastic that resembles thin plastic sheets or lumps with several colors but is generally found in transparent colors.

This form of the film can be found at location T5 because in that location there is a large market that sells basic needs such as fish, chicken, meat, vegetables, and others. The use of plastic in the market is very uncontrolled. In addition, there is also a speed boat stop and captivity so that the detected forms of microplastics can come from these places. The number of particles found at the T5 location is the largest number among other microplastic particles. It can be said that there is a relationship between the number of microplastics and the number of sources or industries in the location.

Conclusion

Based on the results, it can be concluded that the majority types of microplastics particles found in the urban drains of Pontianak from all sampling locations are Fiber, Fragment, Film, Foam and Pellet. The highest number of microplastic particles found at the Parit Tokaya (T5) with an abundance of 533 x 10² particles/m³. The average number of microplastics is 407 microplastic particles in the urban drains of Pontianak city.

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Public Library's Effort To Empower The Borneo Community

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Abstract

Muara Teweh is the capital of North Barito Regency in Central Borneo which is surrounded by a river. This regency has public library that has been the center for lifelong learning, in order to improve the community's education and social activities. In doing so, the librarians do activities in the library and an outreach program and approach the communities, that include teachers, housewives, students, and health workers. This is a qualitative study conducted by unstructured interviews with Borneo's librarians in Muara Teweh Public Library. The Public library has empowered the community by way of inviting the community to the library to take part in the library program and the librarians also visit the community to the outreach programs. The programs are held by the librarians include workshop series writing, cooking, sewing, and mentoring classes at the rural libraries. The activities were attended by many people from various circles such as the community in general, students, teachers, and health workers. The community felt enthusiastic to participate in the activities because they got talents from joining the activities from the library. The community reacted positively with the idea. Empowerment efforts can be done by creating a climate that allows the community's potentials to thrive. The library can be a place where the community develop their talents together with the librarians. This collaboration between the community and the librarians is an example of Borneo's way of developing their people.

Keywords: *public library, outreach program, community development, SDGs, Borneo*

Introduction

Borneo is located north of Java, west of Sulawesi and east of Sumatra, 26% of the island is the Malaysian territory of Sabah and Sarawak and 1% is in the State of Brunei. It is an island geographically divided into three countries: Malaysia and Brunei in the northern part of the island, and Indonesia to the south (Marchetti, 1998). The island is also the third-largest island in the world after Greenland and New Guinea. Seventy three percent of the island is the Indonesian territory (Encyclopaedia Britannica).

Borneo is home to one of the oldest rainforests in the world. It is covered in the dense rainforest. Borneo boasts some of the world's most diverse flora and fauna, including *Rafflesia arnoldi*, the largest monster flower in the world and the rainforest is one of the few remaining natural habitats for the endangered Bornean orangutan.

The population consists mainly of Dayak ethnic groups, Malay, Banjar, Orang Ulu, Chinese and Kadazan-Dusun. It is located especially in the central and southern region of Borneo, each with its own dialect, customs, laws, territory, and culture, although common distinguishing traits are easily identified. The Dayak people category is mostly limited among the ethnic groups traditionally concentrated in the southern region of Sarawak and Kalimantan (Wikipedia, 2021).

The Dayak tribe is a nickname for the inhabitants of the region of Borneo Island who inhabit there. Brunei, Malaysia (which consists of Sabah and Sarawak), and Indonesia which consists of West Kalimantan, East Kalimantan, Central Kalimantan, North Kalimantan, and South Kalimantan.

Indonesia constitutes the largest geographical component of the island (in Indonesian known

as Kalimantan), its territory is divided into five provinces, namely Central Kalimantan, East Kalimantan, North Kalimantan, South Kalimantan, and West Kalimantan.

Libraries and Pandemics: Past and Present

Before Covid-19 (Coronavirus) pandemic hit in Wuhan-China, Spanish Flu was found for the first time in the Camp Funston, Kansas, United States in 1918 (Spinney, 2018). At the time many libraries were temporarily closed, and some libraries had existing policies for dealing with materials and quarantined patrons. The same thing is also happening right now, in which it is important to apply health measures such as social distancing and closing public gathering spaces. In fact, the 1918 flu pandemic was the first in which libraries were central to disseminate public health information. This new library role in educating the public was a shift and made libraries as partners in many public awareness campaigns of health.

Meanwhile before the outbreak anyone can visit a library. Studying, watching movie, playing, enjoying leisure time and many others can be done in a library. Librarians have many activities to serve their users. Users can learn everything, from finding out how to do new things, following the adventures of fictional and real-life heroes, and even solving mysteries and finding the answer to burning questions. When children and their families visit a library, they can learn various lifelong skills, many of which will be helpful at home, at school, and in their community.

The Covid-19 outbreak has a global impact. During the pandemic right now, wearing a mask is mandatory in public spaces, including libraries. Libraries around the world are facing hard choices around which services to offer and how, either it's half-open or fully closed. Libraries have quickly shifted their focus to protect public health, limiting programs while still getting materials for readers, who demand books while they are stuck at home and working from home.

In Indonesia, many library services are provided online during Covid-19 and the libraries also hold programs such as webinar, workshop, and

user education. Currently the libraries have two kinds of services; half open which means that users are allowed to visit the library with limitation of time and seats. Meanwhile the fully closed libraries mean users can only pick up and return books. Since the pandemic hit last year, some libraries are still closed until now, and some others are half open by applying health measures and limiting the number of visitors. The libraries have applied new policies and rules, such as waiver of fines and open drive-thru services and books delivery. With these services, it is easier for libraries to fulfill the information needs. These services minimize the crowds in the public services.

With the presence of these services, it is very effective for libraries to meet the users' needs because it is fast, easy, and efficient. Besides, libraries also develop other services, such as creating digital navigator programs to support digital literacy, launching more online programs, and making use of outdoor spaces to show the possibilities of transformation and partnership.

Method

This is a qualitative study conducted by interviewing librarians through a zoom meeting with unstructured interviews were chosen. The study is located in the Public Library of Muara Teweh, in which Muara Teweh is the capital of North Barito Regency in Central Borneo.

Result and Discussion

The result covers library activities, the community, social inclusion, outreach program, and librarian barriers.

PerpuSeru and Social Inclusion

In recent years, social inclusion has caught the attention of people in various professions around the world. Bill & Melinda Gates Foundation is one of the organizations involved in such inclusion. The foundation invited Coca-Cola Foundation Indonesia to hold programs called PerpuSeru. With the support of the Bill & Melinda Gates Foundation, PerpuSeru develops public libraries

library services. It has a real impact on improving people's welfare through strengthening literacy. It is in accordance with the government's program through the National Library to carry out social inclusion by providing a literacy culture and various training skills for the communities.

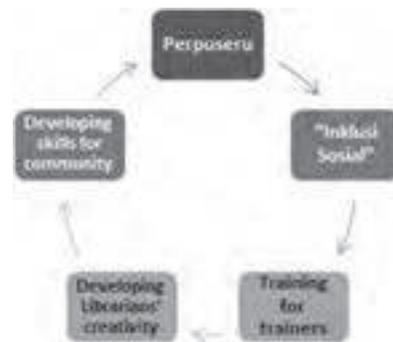


Figure 1
Program for Library and Librarians

In the PerpuSeru programs there is a training for trainers. This training is attended by librarians from public libraries in Indonesia. PerpuSeru has spread across 18 provinces. There are 104 district libraries and more than 1,000 village libraries that have had an economic and social impact on the community (cocacola.co.id). This training provides skills for librarians who will interact with the communities. The PerpuSeru management expects the librarians to be able to share their knowledge, experience, and skills to the communities either in the library or outside of the library which is usually called outreach program.

Designing Outreach and Social Inclusion Program

Libraries are no longer a place just for borrowing books, it's also a place where the community can access e-resources, make use of Wi-Fi, work with computers, occupy meeting rooms, make use of art spaces, and hold activities for diverse child, youth, and adult. In the public libraries the users are the community with various professions. Public libraries collaborate with the local authorities and private institution to provide better services for the community. Public libraries are community hubs that provide access to information. They offer a safe space for social

interaction, digital connection, lifelong learning, and rich cultural experiences regardless of their social or economic interests. Meanwhile to implement the PerpuSeru program, the librarians design activities to give inspirations through libraries that can change the communities to be productive. Librarians hold various events by inviting community to come to the library to attend various events such as training, for example ICT basic training, handicraft making, cooking class, sewing class, beauty class and writing class. Most trainings are free for everyone to join.

The events increase the number of library visitors because the visitors feel that they get benefit including their skills after they attend the training and other activities. As a goal to get closer to the community, the librarian invites the community to improve skills in the library.

libraries bring books to help students to read. In addition, the librarians also do supervision for librarians in the rural public libraries.



Figure 3
Outreach Program and Supervision Libraries the Rurals Areas

The Barriers

Although the librarians are enthusiastic in doing the outreach and other social inclusion programs, the librarians also face some barriers:

1. Bureaucratic issue: Oftentimes the middle managers are reluctant to accept the librarian's idea to hold social inclusion and outreach programs and this may result-in cancellation to realize the idea; therefore, the librarians usually talk to director and the director tells the middle managers to realize the program proposed by the librarians. Therefore, sometimes top-bottom instructions are more efficient than bottom-up.
2. Rural areas in Borneo are not easy for the librarians to visit because the roads are often muddy especially in the raining season and it is far to go from one village to another.

In addition to have routine programs, the librarians also identify what the communities' needs are. Based on the survey by librarians, they hold events for the communities by way of trainings that give much benefit for the communities. The teachers ask the librarians to hold an ICT training for them to get certified, because the teachers must be able to operate some application/software.

Meanwhile in the outreach program the librarians visit schools in the rural areas besides visiting the community themselves. The limited number of collection and little increase in collection development means that the library is unable to fulfill the demand of the users (Priyanto, 2006). Unfortunately there are not many books for students in the school libraries, so the mobile

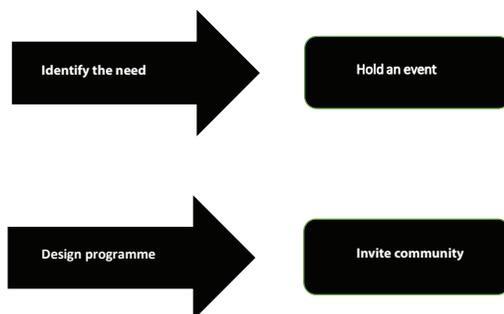


Figure 2
Design Program for Community



Figure 4
Outreach Program in the Rurals Areas

Librarians have transformed the communities through various activities after they get training from PerpuSeru program. Meanwhile the community can get skills and knowledge from the librarian and the public libraries. Social inclusion is a good practice for public libraries.

Conclusion

PerpuSeru is a useful project for developing libraries and the skills of librarians in order to bring libraries get closer to the community. Through social inclusion, the librarians help for the communities to develop by the libraiains' sharing knowledge, experiences, and skills. Librarians are enthusiastic and creative to empower the community through social inclusion and the community get real benefit.

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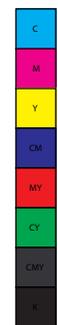
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A Reflection On Dusun Brass Work As Popular Literature

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Abstract

It is widely understood that Dusun local wisdom is transferred visually through its cultural motifs and patterns in various forms. However, few have taken it into consideration beyond the semiotic and aesthetic. Of late, most research has been focusing on deconstructing the cultural patterns into meaning – ‘what is?’. But could it be that the pattern on an object culture is also a form of popular literature? Therefore, the author inquired from the perspective of ‘what for?’, subsequently informing the central idea of the nature of the pattern existence – ‘why?’. In reflecting the author’s experience on traditionally producing the saring, what to portray on the copper object culture was actively negotiated and chosen. Material scarcity, skill demand, and tools and technique limitations all contributed to some things being more important than the others to be portrayed. Combined with the existing body of knowledge on tangon (storytelling), sundait (riddles), and rinait (incantations), the copper object culture then could be seen as an extension to the Dusun oral tradition: popular literary works. This new perspective on Dusun object culture appreciation adds to the depth in evaluating its significance. Crossing into a – postmodernist – artistic direction, the author is keen on re-examining the object culture through exhibiting. This exhibition provides a space for cultural debate hence becoming the site for cultural reconstruction and revival.

Sub-theme: Oral Tradition

Keywords: *Object culture, intangible heritage, Dusun brass work, popular literature, traditional storytelling*

Introduction



Figure 1
Saring tambaga

Dusun copperwork has been recorded as an object culture since late 1800 when Sabah then was British North Borneo.¹ Documented evidence pointed out that these brassworks was intentionally used in three situations: daily, war and raid expeditions, and ritual.² Each situation has its own – sometimes overlapping – set of brass object culture adorned. However, its daily adornment is now uncommon although its consumption is of significant value to its cultural heritage. The evaluating perspective when judging this culture is what needs to be reinterpreted to rediscover the significance of this brass object culture.

The focus will be turned towards the brass object culture used daily, forthwith called tambaga.³ For of this article, the tambaga will refer to both surviving traditional and contemporary brass object culture. They can be divided following the area in which they will be adorned: head, torso, arm, and leg. This system of adornment is one of the consumption methods that survived as part of the Dusun cultural heritage. The author however is cautious with the current cultural revivalism trend. Although it brought about the rediscovery of Dusun cultural heritage, it also increases the risk of appropriation and profiteering. This makes understanding the various perspective ever more urgent to prevent an ill-informed consumption of the culture to become normative.

This brings us to the very nature of the problem inquired in this paper: the meaning of the tambaga. It is not the purpose of this article to describe the semiotic of the object culture any more than that by itself is an embodiment of the Dusun. The existing body of knowledge on the subject matter brought us to explore another problem that warrants this reflective paper. Could it be that the pattern on an object culture is also a form of popular literature? Two subsequent questions then can be drawn to address the main problem. What does the pattern embody? How does the pattern tell a story?

These questions which were drawn from the author's artisanal praxis provided a new perspective that otherwise was given little attention to. Why, if ever, carve patterns on the tambaga? This perspective is significant in a way that it will add to the depth to appraising the Dusun cultural heritage. As mentioned previously, currently there is no serious attempt to interpret the patterns on the tambaga beyond the semiotic. This article then is an attempt to define the topic as a crucial research niche.

1 The earliest dated copper object culture in the online collection of the British Museum is around mid-1800s. Most of these objects were collected and donated to the museum by early ethnographers on their field studies around the same year. In 1888, a treaty was signed in agreement to establish North Borneo as British Protectorate (The British Museum, 2021).

2 The digitised collection of British North Borneo showed the extent of coppers being used as daily adornment. Several photographs also depicted the Dusun in full war attire, copper armours, and weapons but only for the sake of the photograph (The National Archives UK, 2021).

3 From the interviews with coppersmith artisan Adam Kitingan, tambaga in Dusunic language refers to both copper and copper alloy. The contemporary differentiation between copper dan brass is tambaga mirah and tambaga kuning.

4 Cold working is the process of shaping, chasing-repoussing, and/or engraving heat-treated copper. The heat treatment is done by annealing the copper in a water bath to soften the metal before working with it. This method is not specific to the Dusun as it is a universal method to work with non-ferrous metal.

Methodology

The investigation was conducted primarily as the artisanal praxis of the author from late 2020. This is an immersive experience that is intentionally extended into academic research with experiential reflection as the primary analytical method. As an apprentice to a Dusun revivalist copper smith, the author is learning the art of cold working⁴ the copper as were practiced by the Dusun traditionally. Passive interviews were conducted throughout in the form of discussion with the master artisan. This provides insights into the Dusun traditional coppersmithing. Post-extension, the reflection of the artisanal praxis is corroborated with an existing body of literatures concerning the oral culture of the Dusun. This methodology is heavily experiential thus, to prevent the argument from becoming arbitrary, both reflective analyses are grounded with the theories on production,⁵ and constructivism.⁶ The theories provided the framework for the working of society about to the production and exchange of cultures.

The discussion section of this article will be presented following the narrative of the production of the tambaga, its change of hands, and finally its consumption. This narrative is important as the Marxist view of production being incomplete until the product is finally consumed. In other words, an object is only deemed produced as it is used (Marx, 1939). The usage however is never dictated as explained by Glasersfeld; that knowledge is never passed, only reconstructed (Von Glasersfeld, 1995). Therefore, the tambaga as a literary device and its patterns as literature can be understood when looking at this two-part production process, and the consumptions that happen within each.

Discussion

The discussion will address the two parts of the production of the tambaga. The first part will be

focusing on the consumption of oral culture by the producing subject during the making of the tambaga. This is where 'what is being told?' will be explained. The second part will then discuss the subsequent exchange, and consumption by the consuming subject to complete the production. Hence, this explains 'how is it being told?'. Literature and literary work are sometimes used interchangeably in the following discussion. But where the literature is the narrative that contains stories, a literature device is then used to define the material on which the literature exists. Collectively, they will be defined as literary works.

Cultural patterns as the embodied oral culture

Within the artisanal praxis, the obvious consumption is the expenditure of materials and technique in the production. By retracing the traditional process of the Dusun coppersmiths, several constraints⁷ are recognised to affect the embodiment of the cultural pattern. However, this technical complexity is of little concern in this article other than acknowledging that this complexity makes pattern making an active negotiation for the coppersmiths, i.e., the patterns made on the tambaga are never arbitrary.

It is the consumption of transferred knowledge that is of importance here. Having a traditional master-student relationship, the teaching is hands-on and informal. The master teaches at the same time the student appraises his new knowledge. He then put into practice the teaching whilst the master gives his judgement on the attainment of that knowledge. This shows that the apprenticeship cycle itself is an oral culture where the knowledge is transferred verbally between them, thereafter, consumed by the student. This master – student oral culture then is presumed to embody the cultural pattern.

⁵ The seminal work of Marx explained comprehensively the theoretical framework of production concerning the social level. 'Foundations of the Critique of Political Economy' established that consumption is a part of the production, in which the production is distributed evenly across the society.

⁶ Radical Constructivism used mathematical learning as an analogy to the thoughts that posits knowledge can never be handed down; they can only be transferred only to be reconstructed by the student. In 'Radical Constructivism', the reality is constructed by personal experience and only true to the person.

⁷ Whilst retracing the traditional technique of Dusun coppersmithing, some constraints were found to affect the value of a tambaga blank. Scarcity of raw material, limitation on the simple tools, skills required in tool handling, labour-intensive work, and general working to solve technical issues with limited references e.g. do traditional coppersmith have vices?

The deduction is significant as we can now appreciate that there are layers of knowledge that had been transferred from the previous masters embodying the cultural pattern on the tambaga. We can now say that the patterns have a cultural depth to them as it is the methodological reproduction upon reproduction of those before the student. In a way, the student becomes the extension of the masters before him. This is apparent where consensus can be seen on the usage of motifs and its semiotic as a collective. Here, it was the traditional societal order that plays an important role: the Dusun strives to achieve harmony between human-human nature.⁸ Much like the coppersmithing knowledge, this order is also being passed on from one generation to the next within the society (Kok On & Yok Fee, 2012).

This human-human-nature relationship phenomenon can be explained by the theory of inherent beauty and justice⁹ by Al-Attas where he defines justice as 'putting things in their proper place' and achieving justice is to uncover an inherent beauty (of the thing) (Al-Attas, 2015). Beauty in this context is what the Dusun understands as harmony. The aspect of harmony pertinent here is the concept of living as part of¹⁰ society. An example of this concept is the sogit ritual which is carried out to settle disputes. Although this is a form of reprimand, the reasoning behind this is to necessitate submission by recreating dependency with society.

So, the masters' teaching may differ but in essence, the consensus on motifs usage is achieved as the result of doing justice to the teaching of the previous masters. And so too this relationship embodied the patterns. The same pattern in the phenomenon emerged on the erection of watu by the Dusun. Existing literature described the watu being erected as the symbol of peacekeeping in the case of Batu Sumpah Apin-Apin, and as a raid commemoration in the

case of Batu Sumpah Kg. Tebilang. The embodiment here is not the symbolism of the stones, but rather the carved patterns on them. They were carved to describe the events that occurred on the place, hence at the same time it contains the stories of that event (Basrah Bee, 2020; De Silva & Abdullah, 2020). In other words, the watu is not only a literary device but also the literary work of the peacekeeping and victory commemoration.

Ethnological literature suggest that this storytelling is central to the Dusun. Pieced together from several authors on Dusun oral culture (Appell, 2010; Binbang, 2011; Gallus & Kok On, 2016; Williams, 1963), three prevailing variants of storytelling are found to be crucial in this reflection. They are tangon (folktales), sundait (riddles), and rinait (incantations). At the core of these variants of storytelling are the narrative of the social, natural & cosmological value of the Dusun.¹¹ Suffice to say that all variants of storytelling are found to embody the procession aids in each ritual. What concerns this reflection is the social value narrative because it corroborates the social order previously explained. From the desire to achieve the harmonious relationship, the motifs symbolising the human-human-nature relationship emerged, then from there negotiated to create a pattern. This pattern then is effectively becoming the embodiment of popular storytelling.

Embodied domestic objects will follow through as the popular storytelling being practiced within the confines of a house. Storytelling within this domestic scale is seen to firstly embody the family keepsakes. This is because the keepsakes usually contain the story about the family and the generations before them. When they are passed down through generations as heirlooms, the keepsakes become an extension of their previous owners. Hence, the keepsakes are both a story and containing stories as well much like the tambaga.

8 Native customs of the Dusun protect the nature's balance. For example, the ritual of clearing land for planting paddy requires intricate processions that may take up several weeks. The leader of this ritual is the bobolian where through the mediation will dictate which tree to cut down, and to what extent the area to clear among others. This is to ensure only what is needed is taken from nature (Sintian, Taisin, Omar, & Ahmad Tajudin, 2018).

9 Al-Attas explained that nature on its own has the salient nature of beauty, and when justice is served the inherent beauty is made visible. The human then has the responsibility to govern nature with justice through 'adab' where putting things in their proper place will attain justice.

10 Whenever wrong doing occurs, the community is referred to be in a 'hot' state. The offender then must pay sogit to 'cool down' the place. Usually, the sogit is in the form of payment using livestock to the offended. This is crucial because the livestock for the Dusun is not only for consumption but also as farming animals. Having less livestock means his capacity to harvest crops are reduced and therefore must depend on the community to survive (Woolley, 1936).

In the case of heirloom tambaga, only a specific pattern is embodied. Within the artisanal praxis, the main aim is to revive the traditional Dusun coppersmithing. During the production of the tambaga, negotiation in pattern making leans heavily on determining what is true to the tradition. This is to say that to revive the culture one is to negotiate with his aspiration for a self-discovery as a Dusun (Hashim, 2020). In this sense, the consumption scenery patterns are to satisfy the needs for a – social – belonging. For example, the pattern describable as ‘paddy field between two mountains’ will change its story when consumed by someone who is from Ranau. It’s now becomes ‘Ranau plain’ because that is what Ranau is: a paddy plain in a valley of mountains. Furthermore, the consumption of this pattern also embodies the story of that place. The story of the landslide and fallen bundu trees will embody the patterns ‘tree on a hill’ when the tambaga is used by a person from Bundu Tuhan.¹²

From the arguments presented it can be established that in fact, negotiations played a major role in the production of the tambaga, i.e., the production is never arbitrary. This is because the process of negotiation justifies the transfer and reconstruction of knowledge and is therefore consumed in the production of the tambaga (Elliot, 1997). Firstly, it is the negotiations on what to tell in the story that contributed to the embodiment of oral culture in the cultural pattern – the literature. And secondly, the negotiation process extends itself into consuming the cultural pattern post-exchange.

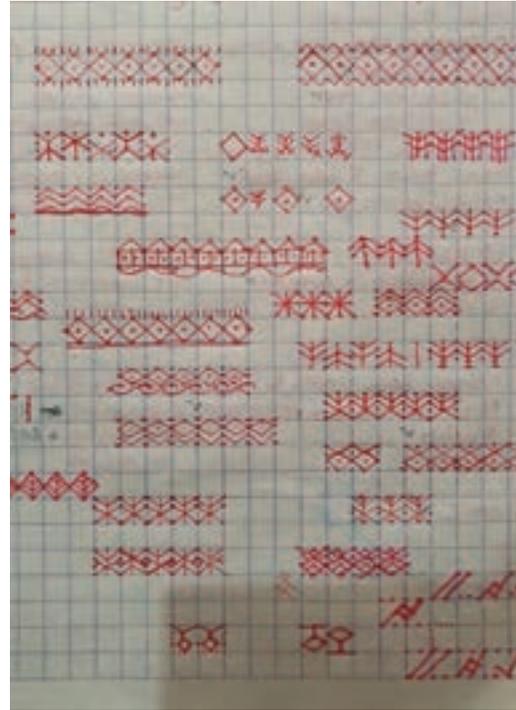


Figure 2
Pattern making exercise – pattern as the composition of the motifs

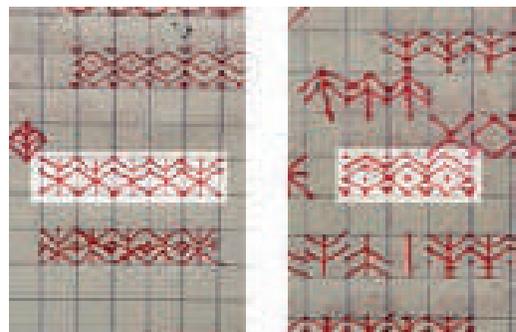


Figure 3
(Left) Trees on a hill. (Right) Paddy field between mountains

11 Bronze gongs were used as the aid to the ritual of expelling evil spirits in Tuaran. Other than the gongs, brass bells, shell castanets, palm leaves, and a bamboo spear were also used by the bobolian and her entourage as aids throughout the procession to cast out evil from the village (Evans, 1912).

12 Bundu Tuhan means ‘fallen bundu (tree)’. The name was given as the place become known for a story where many bundu trees fell caused by a major landslide. Tuhan here is a Dusun word meaning fall.

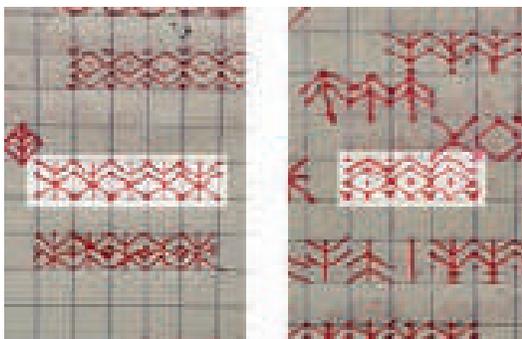


Figure 4
The pattern on each tambaga telling different stories.



Figure 5
Steel punches and chisels to cold work the tambaga.

Post-exchange consumption

The existing body of works have discussed extensively the semiotic of the cultural motifs.¹³ By itself, the motif symbolises the social, natural, and cosmological of human-human-nature relationship. What concerns this reflection is the story told by the composition of these motifs – the cultural pattern. Several authors have described the use of the cultural pattern to tell stories of significant events (Basrah Bee, 2020; De Silva & Abdullah, 2020). This is not unlike constructing a meaningful sentence by the selective use of words. The motif by itself carries only a distinctive meaning. But when carefully arranged in continuity and relation to one another, they form a pictorial narrative to read from.

Aldo Rossi explained this idea of constructing a narrative from the assemblage of visual cues in his seminal book on urbanism. He describes this

consumptive construction of a city as the visual logic that provides a base from which public can read the city while walking through it (Rossi, 1982). The reading public however needs to recognize a pattern created by the distinct and legible motifs. To allow for this appraisal, the exchange needs to happen between the producing subject and the consuming subject – the reader.

In the context of the tambaga, the reader is also the user. Two exchanges happened consecutively, the first one physically as in the tambaga changes hand from the artisan to the user. The second is constructively when the stories narrated on the tambaga are exchange as the user consumed it post-physical exchange. Suffice to state here that the first exchange is important being the first precondition to be able to exchange stories.

The other two closely related pre-conditions are the non-dictating patterns and receptive consuming user.¹⁴ It is only after the three preconditions are fulfilled that the tambaga can be consumed and stories are exchanged to the reader. The consumptive exchange is of importance here as it is closely related to the thesis of this article. As the user reads the cultural pattern on his tambaga, he is at the same time actively reconstructing the stories. In other words, he reads the narrated story, recreates it from the negotiations of his desire & aspiration (Hashim, 2020). The second exchange is therefore where the storytelling happened in literary form. The explanation above satisfies our argument that the storytelling can only happened as the tambaga is being consumed by the user.

The exchange of object culture, the recognition of cultural pattern, the appraisal, and reconstructions make up the production process as the user consumes the tambaga. This consumption marks the completion of that production of the tambaga. As the consumption also at the same time produced a story, its narration embodies the cultural pattern – becoming literature. The produced tambaga is then the literary work of the Dusun. It is helpful to remember that we have established that the tambaga both tells a story and contains stories.

13 For general reading see (Kok On, 2006) and (Chee Cheang, 2020; Masador, Ali, & Wahid, 2021; Yalim & Kok On, 2019)

Like a cultural pattern is an extension to the previous masters through the passed-on knowledge, the tambaga is the extension of its previous owners. This quality is exactly what gives the tambaga its value as a heritage (Susanto, 2021).

Conclusion

The author's artisanal praxis suggests that Dusun storytelling is extended beyond their oral culture into their object cultures. These object cultures in turn become their literary device where the popular stories are narrated through them. Tambaga is such literary work where since it is used daily, such stories narrated through them are domestic in nature. While the cultural motifs have discernible meaning by themselves, the negotiation whilst composing them is what creates a meaningful pattern containing the popular narratives. A description of a name of a place is such an example. Not only it describes the name, at the same time it narrates the event that gives the name of that same place.

This paper has established that the production of the tambaga is analogous to the production of literary works. However, there is some complexity in storytelling that embodies the cultural pattern of the tambaga. The storytelling starts as the consuming producer negotiates his way to create the narration. The production of the tambaga continues as it changes hands with the consuming user.

The storytelling then only ends as the user consumed the tambaga by wearing it i.e., as the production is completed. The post-exchange consumption allows the user to appraise the stories narrated by the pattern, and subsequently give new meaning to it – a new story to tell. This is done by the user reconstructing the stories through the negotiation process according to his experiential values.

Currently, the attachment towards the Dusun object cultures is very low. In the context of tambaga – as with other object cultures – this is due to the exchange of the objects has ceased to

happen. Stories from the past have stopped being told, and the high value of the objects has started to become foreign. Thus, efforts to stop its disappearance altogether are urgently needed. This reflected significance of the proposed perspective of the object cultures can provide more depth to the appraisal of this cultural heritage, tambaga especially. This reflective article also suggests that the traditional coppersmithing and storytelling culture should be held in the highest regard of being one of the Dusun intangible heritages.

It is therefore an also important strategy that more artisanal practises should be encouraged to be set up, whether following the same praxis or not. This is so that cultural revival can grow and effectively be expanded. The artisans are crucial as they are the starting point of the production of the object culture, therefore the start of the story. It is only through them that the public can consume the object culture, therefore giving an end to that story. Making public the inventory of this intangible heritage in the form of collated data i.e., the cultural map can establish the localised volume and intensity of the heritage.

Two suggestions to build up to this academic endeavour are hereby made: The first one is that this reflective article posed a critical nature of the problem that encourages us to inquire on the very meaning of an object culture but with a new perspective. From the reflections discussed, it is suggested that this topic can serve a new research niche. The second one is that from the reflections, the praxis is can be seen to depart from an artisanal line of inquiry to an artistic line of inquiry. This can be done by experimentation through an exhibition where the object cultures will be curated as an exhibition. This is crucial as the exhibition allowed for a cultural mediation wherein the artisanal form it involved only one on one (artisan-user) basis, in art form however the mediation is en masse. On the one part, this art exhibition can be an attempt on a public creative, advocacy for a public-led cultural revival. And on the other, mediation also can be a starting point for a serious discussion on the research niche.

14 The non-dictating nature of a pattern here means the compositions of motifs that allow for ambiguity in its materiality, e.g., superimposition of two diagonal lines from different motifs. Receptive consumers are crucial in the production because he is not defensive and will be open to mediation to produce an object culture (Kossak, 2008)

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Pendokumentasian Bahasa Terancam Di Sarawak: Pengalaman Dari Komuniti Miriek

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Abstrak

Kertas kerja ini melaporkan tentang projek penyelidikan yang sedang dijalankan untuk mendokumentasi bahasa komuniti yang terancam di Miri, Sarawak iaitu komuniti Miriek. Bahasa Miriek tergolong dalam kumpulan bahasa yang dikategori sebagai “terancam”, yang menuju ke tahap moribund. Komuniti Miriek dianggarkan seramai 5,000 penutur. Projek ini bertujuan menghasilkan kamus digital yang mengandungi kosa kata bahasa Miriek beserta dengan maklumat linguistiknya. Projek ini turut meneliti pertalian kekeluargaan di antara bahasa Miriek dengan bahasa-bahasa Austronesia di sekitar kawasan Baram. Berdasarkan perbandingan leksikostatistik, ada lebih dari 51 bahasa sukuan di Sarawak. Namun, deskripsi awal tentang sistem bahasa-bahasa ini kebanyakannya belum diusahakan. Dua bahasa sukuan Sarawak telah pupus, dan ada beberapa lagi akan menerima nasib yang sama sekiranya tiada usaha yang gigih dilakukan untuk melestarikan bahasa-bahasa tersebut. Penghasilan kamus merupakan langkah awal yang perlu dilakukan dalam usaha melestarikan bahasa. Dalam penghasilan kamus, sistem ortografi perlu dibentuk dan analisis struktur bunyi dan kata turut dilakukan. Kajian ini telah menghasilkan sebanyak 1200 entri kosa kata dalam bentuk digital. Dengan kamus berbentuk digital in, khazanah bahasa dan budaya, serta ciri-ciri distingktif bahasa Miriek telah dapat direkodkan secara sistematik untuk dimanfaatkan seterusnya misalnya, bagi tujuan pengajaran dan pembelajaran bahasa ini. Dari segi keluarga bahasa, bahasa Miriek tergolong dalam kumpulan “Lower-Baram-Kenyah Sub-family”. Bahasa ini lebih dekat pertaliannya dengan Belait dan Kiput berbanding dengan Narom, Dalik and Bakong.

Kata kunci: *Dokumentasi bahasa, bahasa Baram, pembangunan bahasa, keterancaman bahasa, bahasa moribund*

Documenting An Under-Resourced Language Of Sarawak: The Miriek Experience

Abstract

This paper discusses an on-going research project that attempts to provide a comprehensive record of the linguistic practices of an under described speech community in Miri, Sarawak through a dictionary resource development. The Miriek population is approximately 5,000 speakers. This project also examined linguistic affiliation between Miriek and other closely related Austronesian languages in the territory. Based on lexicostatistic studies, Sarawak has more than 51 indigenous languages. Basic linguistic description of most of its languages has yet to be conducted. Two languages have become extinct, and more to come if no concerted effort is done to prevent the languages from declining in use. Dictionary resource development is a critical first step towards retention of languages. It involves establishing orthography and requires linguistic analysis of the language to be documented. Miriek is placed in the “threatened” category, in the last stage of becoming moribund. The outcome of this project includes a lexical entry of 1,200 words that is machine-readable, with also includes basic linguistic description of the language. A machine-readable dictionary (MRD) has made it possible to document the distinctive phonological and morphological features of the Miriek language. In relation to language family, Miriek is categorised under the “Lower-Baram Kenyah Sub-family”, of which it is closest to Belait and Kiput than Narom, Dalik and Bakong.

Keywords: *language documentation, Baram languages, language resource, language endangerment, moribund language*

Pendahuluan

Tahap kerencaman atau kepelbagaian bahasa di dunia pada masa kini semakin menyusut dan dijangkakan menjelang tahun 2100, separuh daripada 6,500 bahasa di dunia akan mengalami keterancaman bahasa ke arah kepupusan dalam jangka masa 50 ke 100 tahun (Austin, P. <http://www.hrelp.org/>). Pengaruh (hegemony) bahasa utama dunia ke atas bahasa-bahasa yang lebih kecil dikhuatiri mengugat 'survival' bahasa. Fenomena ini dilihat seolah-olah tidak dapat dibendung lagi (Himmelmann, 2010; Florey, 2010). Fenomena ini mengugat kestabilan ekologi bahasa di wilayah tertentu di pelusuk dunia dan menyebabkan kedudukan bahasa minoriti terancam. Jika dilihat dari segi faktor demografi sahaja pun kita boleh bayangkan lebih banyak bahasa-bahasa sukuan di Sarawak akan terancam pada masa hadapan. Faktor makro-sosial seperti urbanisasi dan migrasi memainkan pengaruh yang besar yang telah dan boleh menyebabkan sesuatu komuniti bahasa terpisah (disintegrate). Setakat ini, Sarawak mempunyai lebih dari 51 bahasa sukuan; 2 darinya sudah pupus, dan sekurang-kurangnya 18 bahasa di tahap keterancaman termasuk bahasa Miriek (Asmah & Norazuna, 2020, hlm. 21).

Jumlah ini (51 bahasa) diperolehi berdasarkan kajian leksikostatistik dan pertalian keluarga bahasa yang telah dilakukan oleh penyelidik-penyelidik dalam bidang ini. Peta Ethnologue (Lewis, 2009) tentang keluarga bahasa menyenaraikan 49 bahasa di Sarawak namun senarai ini termasuk juga bahasa-bahasa yang ada hubungan dialektal. Misalnya, Remun, Balau dan Sebuyau turut disenaraikan sebagai "bahasa" dan bukannya sebagai dialek bahasa Iban. Dalam Statistik Kependudukan bagi setiap kaum di Sarawak, hanya 23 kumpulan etnik disenaraikan iaitu Bisaya, Bukitan, Kadayan,

Kajang, Kayan, Kejaman, Kelabit, Kanowit, Kenyah, Lahanan, Lisum, Lugat, Lun Bawang, Penan, Punan, Sabub, Sekapan, Sian, Sipeng, Tabuan, Tanggal, Tanjung dan Ukit. Etnik Miriek turut tidak disenaraikan.

Matlamat projek Miriek ini ialah membangun satu prototaip kamus digital (Machine Readable Dictionary atau MRD) untuk digunakan dalam pendokumentasian bahasa sukuan. Setakat ini, usaha untuk mendokumentasi bahasa sukuan di Sarawak giat dilakukan oleh komuniti-komuniti dan agensi seperti Dewan Bahasa dan Pustaka, Tun Jugah Foundation dan sebagainya. Namun, kamus digital (MRD) belum diusahakan. MRD merupakan langkah awal dalam usaha kita mendokumentasi bahasa secara sistematik.

Bahasa Miriek tergolong dalam keluarga bahasa Baram-Tinjar berdasarkan kajian awal oleh Hudson (1978). Blust (1972, hlm. 13) pula mengkategorikan bahasa ini dalam kumpulan "Lower Baram subgroup of North Sarawak languages". Bahasa Miriek dikatakan berkait rapat dengan bahasa yang dituturkan oleh komuniti di Baram iaitu Berawan, Kiput Narom, Lelak, Lemeting, Dali, dan komuniti Belait and Tutong di negara jiran, Brunei Darussalam. Justeru itu, kajian Miriek ini juga meneliti pertalian bahasa Miriek dengan bahasa-bahasa tersebut. Di Miri, orang Miriek tinggal di beberapa buah kawasan iaitu di Kampung Pengakalan Lutong, Kampung Bakam, Tanjung Batu Pujut, Lutong, Kampung Lopeng, Riam Road Batu Dua, Kampung Sungai Miri Kecil, Piasau, and Kampung Dagang.

Pendokumentasian Bahasa

Sejak lima dekad yang lalu, bidang ilmu pendokumentasian bahasa sudah mula bertapak sebagai sub-bidang tersendiri. Sebelum itu, sub-bidang ini di bawah bidang linguistik dan merupakan sebahagian aktiviti sokongan yang berkaitan dengan pemerian sistem bahasa. Himmelmann (1998), salah seorang pelopor bidang ini memberikan perbezaan skop penelitian pendokumentasian bahasa dan deskripsi sistem bahasa seperti berikut:

Documentary linguistics provides a comprehensive record of the linguistic practices characteristic of a given speech community... a language description aims at the record of a language, with "language" being understood as a system of abstract elements, constructions, and rules that constitute the invariant underlying structure of the utterances observable in a speech community... The record of the linguistic practices and traditions of a speech community, however, is much more comprehensive than the record of a language system since it includes many aspects commonly not addressed in language descriptions. (hlm. 166-168)

Dalam pengertian yang mudah, sebarang bentuk aktiviti yang berkaitan dengan pengumpulan data primer tentang bahasa boleh dianggap sebagai aktiviti pendokumentasian bahasa. Data primer dalam pendokumentasian yang sistematik akan dapat dimanfaatkan dalam kajian seterusnya dan diaplikasikan dalam bidang-bidang berkaitan seperti pemprosesan bahasa semulajadi (natural language processing) dan pengajaran dan pembelajaran bahasa sukuan. Data primer merangkumi data tentang sistem bahasa dan amalan berbahasa sesebuah komuniti. Data-data ini sedapat mungkin hendaklah dirakam dalam bentuk audio dan video. Matlamat sesuatu pendokumentasian bahasa ialah merekodkan sebanyak mungkin amalan berbahasa dalam bentuk perbualan (communicative event) dan bukan hanya data yang berupa ayat-ayat yang lazim digunakan dalam analisis sistem bahasa. Penghasilan senarai kosa kata dan kamus hanya merupakan langkah awal dalam pendokumentasian bahasa namun usaha perlu diteruskan untuk merakam amalan berbahasa dalam kalangan penutur. Data-data ini juga perlu direkod dalam bentuk digital dan tersusun agar mudah untuk dimanfaatkan dalam aplikasi lain.

Dari segi teorinya, aktiviti pendokumentasian bahasa amat perlu diusahakan untuk menjamin kelestarian bahasa lebih-lebih lagi bagi bahasa moribund, bahasa yang di tahap akhir menghampiri kepupusan. Namun, dalam perlaksanaannya, proses pendokumentasian yang komprehensif dan sistematik amat memerlukan pengorbanan dari segi masa dan wang ringgit. Pendokumentasian bahasa sudah menjadi satu bidang yang memerlukan

kepakaran yang khusus untuk berjaya. Pengumpul data primer harus berpengetahuan dalam bidang linguistik dan budaya bahasa yang diselidiki serta mampu berbahasa dalam bahasa yang didokumentasikan.

Pendokumentasian bahasa yang sistematik memerlukan perancangan berikut: (i) Skop dokumentasi iaitu jenis data yang dikumpul, (ii) Pembangunan ortografi atau ejaan, (iii) Kaedah pengumpulan data, (iv) Analisis data yang diperlukan, (v) digitalisasi untuk penyimpanan dan analisis data, dan (vi) Pembiayaan. Dalam pelaksanaannya, ada isu-isu lain perlu ditentukan seperti apakah kandungan sesuatu dokumentasi dan siapa yang perlu melaksanakannya.

Pendokumentasian Bahasa Miriek dan Permasalahannya

Projek kamus digital Miriek ini merupakan langkah awal dalam pendokumentasian bahasa Miriek. Kamus ini disusun menggunakan perisian WeSay, perisian yang dibangunkan oleh *Summer Institute of Linguistics (SIL)*. Kamus ini mempunyai 1200 entri yang terdiri daripada kosa kata asas dan perkataan yang berkaitan dengan budaya masyarakat Miriek. Setiap perkataan diberi contoh penggunaannya dalam ayat, dan disertakan juga maklumat linguistik seperti kategori kata, dan simbol fonetik untuk penyebutan kata. Sebutan setiap kata juga dirakam dan disimpan dalam perisian ini. Data untuk kamus ini dikutip melalui pelbagai cara iaitu temu bual dengan penutur jati Miriek, dan merekod perbualan, tradisi lisan serta adat istiadat masyarakat Miriek.

Seperti kebanyakan bahasa sukuan di Sarawak, bahasa Miriek masih bahasa lisan. Perkara ini merumitkan pendokumentasian bahasa ini. Jika bahasa bertulis mempunyai korpus yang berbillion banyaknya, bahasa-bahasa minoriti seperti bahasa Miriek, perlu mengumpul korpusnya terlebih dahulu untuk meneruskan kerja-kerja pembangunan bahasa tersebut. Ini merupakan salah satu cabaran projek ini. Pengumpulan data juga memerlukan komitmen yang berterusan daripada komuniti bahasa terbabit. Banyak kelebihan kamus digital ini. Ciri-ciri distingktif sesuatu bahasa seperti ciri bunyi dan struktur kata boleh disimpan dengan sistematik. Setiap projek pendokumentasian

bahasa perlu dirangka dan dilaksanakan dengan berterusan. Dengan ini, walaupun tidak dapat dikekalkan kelestariannya pada generasi yang akan datang, khazanah bahasa ini sekurang-kurangnya boleh didokumentasikan dengan sistematik.

Sistem Ortografi dan Transkripsi

Dalam pendokumentasian bahasa, sistem ejaan perlu ditetapkan terlebih dahulu di peringkat permulaannya. Penetapan sistem ortografi bahasa bukan perkara yang mudah kerana ia harus dapat diterima oleh komuniti penuturnya. Menurut Bradley (2003), penetapan ortografi untuk sesuatu komuniti bahasa boleh menjadi isu yang sensitif kerana perkara itu melibatkan pemilihan salah satu bentuk atau variasi untuk dijadikan standard bagi tujuan penyelarasan. Sekiranya bahasa yang hendak didokumentasi itu mempunyai pelbagai variasi, seperti bahasa Bidayah dan bahasa Melanau di Sarawak, keadaan akan jadi lebih rumit. Sistem ortografi yang berkesan harus mempunyai kriteria berikut: harus dapat mewakili kesemua bunyi bahasa tersebut; diterima oleh komuniti bahasa tersebut; dapat diajarkan dan mudah dipelajari (Cahill dan Karan, 2008, hlm.1). Untuk menetapkan sistem ortografi sesuatu bahasa, secara idealnya, deskripsi sistem fonologinya perlu dilakukan terlebih dahulu. Namun, pada peringkat awal pendokumentasian bahasa, sistem ejaan yang tentatif boleh digunakan bagi tujuan mentranskripsi dan merekod data bahasa.

Setakat ini, sistem ortografi yang dihasilkan untuk bahasa sukuan di Sarawak dipengaruhi oleh sistem ejaan bahasa Melayu dan sistem ejaan yang diperkenalkan oleh mubaligh Kristian dalam penyebaran agama Kristian. Sistem yang digunakan oleh mubaligh Kristian tidak diselarasakan dan padanan fonem dengan ejaan dibuat berdasarkan sistem ejaan bahasa Inggeris. Oleh yang demikian, data primer ini (bahan rujukan agama) tidak dapat digunakan bagi tujuan analisis sistem fonologi bahasa.

Amalan dalam pendokumentasian bahasa pada masa kini ialah menerima pakai sistem ejaan bahasa Melayu sebagai asas untuk membentuk sistem ejaan bahasa sukuan. Semua bahasa sukuan di Sarawak ialah bahasa Austronesia. Justeru itu, kaedah ini agak sesuai. Lagipun, penutur sudah biasa dengan sistem ejaan Melayu. Namun, yang menjadi isunya di sini

ialah untuk mencari keseimbangan antara pembentukan sistem ortografi bagi tujuan memudahkan pengajaran-pembelajaran bahasa sukuan, dan pembentukan sistem ortografi yang turut melestarikan ciri-ciri distingtif bahasa sukuan. Persoalannya, adakah sistem ejaan bahasa Melayu harus dijadikan asas untuk membentuk bahasa sukuan memandangkan penuturnya sudah terlebih dahulu mengenali sistem literasi dalam bahasa Melayu? Secara perbandingannya, ciri-ciri bunyi bahasa Melayu lebih mudah dipelajari daripada sesetengah bahasa-bahasa sukuan di Sarawak. Sesetengah bahasa sukuan di Sarawak mempunyai ciri-ciri yang khusus seperti nasal plosion, pemanjangan vokal, bunyi yang dinyahsuara, rentetan konsonan, konsonan yang dihasilkan di daerah artikulasi faring (pharyngealised consonant), dan sebagainya. Seperka lagi, satu permasalahan yang boleh timbul berkaitan dengan hal ini ialah beberapa ciri fonetik dalam bahasa sukuan tidak diwakili dalam sistem ejaannya, dan kemungkinan ini juga boleh menyebabkan kesukaran untuk mengekalkan ciri tersebut dalam pertuturan generasi akan datang. Atas alasan inilah, maka perlu bunyi bahasa dirakam dan ditranskripsi dengan lengkap agar khazanah bahasa dapat direkodkan.

Menurut Seifart (2006, p.276-281), penentuan sistem ortografi bukan hanya mempertimbangkan aspek linguistik bahasa yang akan didokumentasikan seperti fonologi, prosodik, tatabahasa dan semantik, tetapi juga isu bukan linguistik antaranya, kemudahan mempelajari sistem ejaan yang dibentuk, kemungkinan tidak semua bahasa direpresentasikan (under-representation), kekerapan kemunculan ciri bahasa tersebut sama ada kerap atau tidak (functional load), dan kerumitan ortografi (orthographic depth). Dikatakan sistem ejaan yang rumit mempunyai banyak pengecualian dan rumus seperti bahasa Inggeris. Manakala sistem ejaan bahasa Melayu agak mudah kerana lazimnya satu huruf mewakili satu fonem. Ada juga pengecualian dalam sistem bahasa Melayu kerana sebutan merupakan unsur bahasa yang sukar dibakukan, misalnya unsur keselarasan vokal dalam ejaan bahasa Melayu <putih> disebut /puteh/.

Fonem dalam bahasa Miriek yang direpresentasikan dalam sistem ejaannya terdapat banyak persamaan dengan sistem

ejaan bahasa Melayu. Bahasa Miriek mempunyai 20 bunyi konsonan, 7 bunyi vokal dan 7 bunyi diftong. Fonem dalam bahasa Miriek ialah seperti berikut: (i) Konsonan: p, b, t, d, k, g, ʔ, m, n, ŋ, ŋ, f, s, h, l, ʎ, tʃ, dʒ, w, j (ii) Vokal: i, e, ə, ε, a, o, u (iii) Diftong: uj, ej, ew, oj, ow, aj, aw. Menggunakan pakai cara ejaan berdasarkan sistem bahasa Melayu tidak menjadi masalah. Namun, ada beberapa ciri khusus sebutan bahasa Miriek tidak dapat diwakili dalam sistem ejaannya. Ciri-ciri khusus ini ialah bunyi kepanjangan vokal, bunyi velar frikatif /ɣ/ dan artikulasi sekunder seperti faringealisasi, labialisasi dan nasalisasi. Representasi yang sama digunakan untuk tiga bunyi iaitu /e/, /ə/ dan /ɛ/. Bunyi hentian glottal /ʔ/ dan bunyi /k/ direpresentasikan dalam ejaan sebagai <k>. Rentetan konsonan seperti dalam perkataan /adɟuh/ (pokok), /mata dalluh/ (mata hari) dan /abbuh/ (abu) direpresentasikan sebagai <adjuh>, <mata dalluh> dan <abbuh>. Walaupun ciri khusus ini malar (kerap dijumpai) dalam bahasa Miriek, namun ciri-ciri ini tidak diwakili dalam penulisan. Sistem ejaan yang lebih mudah dipilih. Seperti juga sistem ejaan bahasa Bidayuh dan bahasa Iban, literasi dalam bahasa Melayu telah mempengaruhi penutur Miriek memilih sistem ejaan yang mirip kepada bahasa kebangsaan ini.

Pertalian keluarga bahasa Miriek dengan bahasa-bahasa Baram

Bahagian ini melaporkan dapatan kajian perbandingan leksikostatistik di antara bahasa Miriek dengan bahasa-bahasa di Baram, yang dikatakan mempunyai pertalian keluarga dengannya. Ada sekurang-kurangnya 11 bahasa tersebut yang dinyatakan oleh komuniti Miriek. Dalam kajian ini, pertalian bahasa Miriek dengan beberapa bahasa tersebut diselidiki. Bahasa-bahasa ini ialah bahasa komuniti yang mendiami lembah sungai Tinjar-Baram iaitu Berawan, Bakong, Narom, Kiput, dan Dali'. Hasil kajian ini dipetik daripada buku ditulis bersama oleh Asmah Hj Omar dan Norazuna Norahim (2020).

Setakat ini, masih belum diketahui jumlah sebenar bahasa sukuan di Sarawak. Salah satu sebabnya kerana penentuan status bahasa atau dialek untuk beberapa isolek belum dibuat, dan penerbitan utama tentang keluarga bahasa sukuan di Sarawak sudah agak lama dan kurang data baru tentangnya (Rujuk Kroeger, 1998;

Hudson, 1978; Blust, 1977, 1972), terutamanya tentang bahasa Kenyah dan variasi-variasinya. Di samping itu, label etnik yang dipakai tidak semestinya merujuk kepada komuniti bahasa yang homogenous. Dalam erti kata yang lain, sesuatu komuniti bahasa itu boleh menuturkan pelbagai bahasa sukuan yang mempunyai hubungan bahasa yang berbeza dan bukan hubungan dialektal. Misalnya, dialek-dialek Bidayuh dan Melanau yang disebut dialek sebenarnya berstatus "bahasa". (Rujuk Rensch et.al, 2012, Smith, 2017). Justeru, atas alasan-alasan inilah, kajian pertalian keluarga bahasa ini diusahakan.

Perbandingan leksikostatistik digunakan untuk mengkaji hubungan historikal di antara bahasa-bahasa di lembah Baram-Tinjar ini. Perbandingan ini berdasarkan senarai 100 kosa kata Swadesh (Dyen, 1975). Senarai kata yang asalnya dalam bahasa Inggeris diterjemahkan ke dalam bahasa Melayu. Jadual 1 menunjukkan peratusan kognat di antara bahasa Miriek dengan bahasa-bahasa di Baram. Dapatan dari perbandingan leksikostatistik ini menunjukkan pertalian sejarah di antara bahasa-bahasa di Lembah Tinjar-Baram. Secara keseluruhannya, bahasa Miriek tergolong dalam kategori sub-keluarga Kiput yang juga terangkum dalam sub-keluarga yang lebih besar iaitu Narom-Kiput. Peratusan kognat ini menunjukkan bahasa Miriek lebih dekat pertaliannya dengan bahasa Belait dan Kiput dari bahasa dalam kelompok sub-keluarga Narum yang terdiri daripada Narum, Dalik dan Bakong. Walaupun demikian, pertalian bahasa Miriek masih agak rapat juga dengan sub-keluarga Narum. Kajian perbandingan struktur dan lexicogrammar yang terperinci perlu dilakukan bagi mengesahkan pengelompokan subkeluarga bahasa ini.

Jadual 1
Peratusan kognat di antara bahasa-bahasa di Baram

Languages	Dalik	Miriek	Belait	Kiput	Bakong
Narum	80	73	65	70	80
Dalik		79	66	63	74
Miriek			60	60	67
Belait				74	74
Kiput					65

(Dipetik daripada Asmah dan Norazuna, 2020, hlm. 192)

Metcalf (1976, hlm. 6) seorang anthropologist, menceritakan perihal peperangan dan keadaan yang huru hara di Baram pada separuh penggal kedua abad ke-19 telah menyebabkan komuniti minoriti di kawasan ini berhijrah keluar mencari perlindungan ke penempatan baru di bawah pemerintahan Kesultanan Brunei. Komuniti minoriti ini telah menganut agama Islam dan berlaku asimilasi kepada budaya Melayu. Buktinya kewujudan perkampungan komuniti Baram-Tinjar di pesisir pantai Miri dan Brunei pada masa kini, iaitu komuniti Dalik di Sibuti, Miriek di Pujut, Bakam dan Luak Bay, Narom di Marudi, dan Bakong di Beluru.

Berdasarkan temu bual dengan informan Narom di lapangan, diceritakan komuniti-komuniti di Baram telah keluar dari penempatan asal dan berhijrah ke tempat lain, kemudian memanggil komuniti mereka berdasarkan nama sungai atau nama tempat penempatan baru mereka. Dikatakan juga nenek moyang mereka telah berkahwin dengan kaum Kenyah. Orang Dalik pula berasal dari Belait, dan mereka pindah kerana mencari kawasan yang lebih subur. Informan Dalik dan Miriek juga mengatakan mereka masih ada keluarga yang menetap di Belait. Menurut Martin (1992, dalam Kroeger, 1988, hlm.30) perkataan 'Belait' adalah nama lain bagi bahasa Lementing, bahasa yang sudah pupus. Sejarah penempatan komuniti-komuniti di Baram ini telah menunjukkan bahawa kemungkinan bahasa-bahasa ini dari keluarga yang sama (telah dibuktikan melalui perbandingan leksikostatistik), dan mereka berpisah kerana peperangan.

Kesimpulan

Makalah ini telah membincangkan pendokumentasian bahasa Miriek dan permasalahannya khususnya berkaitan dengan ortografi. Pertalian historikal di antara bahasa Miriek dengan bahasa berdekatan dengannya turut dirungkai. Projek pendokumentasian memakan masa yang lama. Namun ia harus diteruskan oleh komuniti lebih-lebih lagi bahasa merupakan satu-satunya aspek budaya yang ditinggalkan untuk generasi yang akan datang.

Penghargaan

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Imej Suku Dayak Di Mata Pengarang Melayu: Suatu Penelitian Ke Atas Naskhah Syair Perang Cina Di Monterado

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Abstrak

Dayak, suku primitif, terasing, pedalaman dan pemenggal kepala. Bahkan buku sejarah Eropah sebelum tahun 1800 Masihi, turut tidak ketinggalan dari memerihalkan mengenai penempatan mereka iaitu Pulau Kalimantan sebagai sebuah tempat utama yang penuh dengan kekejaman, keganasan dan kematian yang mengejut. Demikianlah gambaran yang sering kali melekat dengan sosok suku ini sewaktu namanya disebutkan sesuai dengan konotasi kata “Dayak” itu sendiri. Menjalani kehidupan jauh diceruk pedalaman yang berhutan tebal dan bergunung-ganang memungkinkan suku ini tidak terdedah dengan beberapa aspek penting dalam kehidupan terutamanya dalam bidang keilmuan dan keintelektualan. Keterlambatan suku Dayak terdedah dengan bidang keilmuan membataskan mereka untuk menguasai sistem tulis dan baca sehingga menyebabkan mereka hanya bergantung kepada tetek tatum iaitu kesusasteraan lisan yang diwarisi untuk mengujarkan latar belakang mereka. Senario ini sedikit sebanyak memberikan kesukaran kepada para sarjana untuk menekuni perihal suku Dayak ini. Namun, dengan menggunakan pendekatan sosiologi dalam meneliti naskhah historiografi Syair Perang Cina di Monterado, analisis mendapati bahawa pengarang naskhah ini tidak hanya merakamkan peristiwa peperangan yang berlaku di Kalimantan Barat semata-mata malah turut memanfaatkan ruang karyanya itu untuk memuatkan sejumlah gambaran mengenai suku Dayak. Imej suku Dayak yang diabdikan oleh pengarang lewat naskhah syair historiografi ini sedikit sebanyak dapat dijadikan sebagai salah satu sumber untuk mencermati dan mengenali suku Dayak dengan lebih dekat lagi.

Kata Kunci: *Suku Dayak, Primitif, Kalimantan, Pengarang, Syair, Imej*

Image Of Dayak Tribe From The Perspective Of Malay's Author: A Study On Syair Perang Cina Di Monterad

Abstract

Dayak, a primitive tribe. Isolated, inland, and head hunter. Even the history book of Europeans before the 18th century was also not exceptional from describing their settlement namely Kalimantan, as the main place full of cruelty, violence and sudden death. This is how this ethnic group was presented in accordance with the connotation of the word "Dayak" itself. Living a remote life of thickly wooded and mountainous area enable Dayak tribe not exposed to few important aspects of life especially in the field of knowledge and intellectuality. The delay of the Dayak tribe introduced to knowledge limiting them to master the system of reading and writing that causes them to only depends on 'tetektahtum', the inherited oral literature to explain their background. This scenario challenged scholars to study the tribe. However, by using sociology's approach in analysing the historiography manuscript, Syair Perang Cina di Monterado, analysis found that the author was not only reporting the war event that occurred in West Kalimantan but make use of his works to put in the image about the Dayak tribe. The image of this ethnic described by the author can be used as one of the sources the to know the Dayak tribe more closely.

Keywords: Dayak tribe, primitive, Kalimantan, author, poem, image.

Pengenalan

Suku Dayak, lambat celik pengetahuan. Ketinggalan dalam tradisi keilmuan dan keintelektualan. Sewaktu tradisi keilmuan mulai berkembang pesat di seluruh seleraan Alam Melayu yang lain dengan menyaksikan beberapa institusi istana yang masyhur sebagai pusat perkembangannya, suku ini masih lagi belum memobilisasikan diri mereka dari zaman kegelapannya. Kelewatan suku ini terdedah dengan tradisi keilmuan barangkali dipengaruhi oleh faktor lokaliti penempatan mereka yang menyukarkan dan membataskan tradisi ini untuk sampai dan seterusnya dikuasai oleh mereka. Ekoran tercicir dalam mengalami ledakan revolusi bidang keilmuan dan keintelektualan sebagaimana yang berlaku ke atas bangsa dan suku lain di Alam Melayu, suku Dayak di Pulau Kalimantan dipercayai oleh para sarjana tidak meninggalkan sebarang bentuk pendokumentasian untuk memerihalkan tentang diri mereka sendiri (Tjilik Riwut 1993: 450). Kekurangan ini sedikit sebanyak telah menyukarkan kerja-kerja penelitian para sarjana ke atas suku ini lantaran ketiadaan sumber-sumber bertulis yang ditinggalkan oleh mereka untuk dijadikan sebagai sumber pengkajian dan penelitian masa silam mereka. Sehingga kini, pengkajian yang dilakukan ke atas suku Dayak hanya dijalankan dengan berdasarkan kesusasteraan lisan milik mereka iaitu tetek tatum yang diperturunkan dari satu generasi ke satu generasi sejak lama dahulu.

Keberagaman penduduk yang mendiami Pulau Kalimantan bagaimanapun memberikan nafas baru buat suku Dayak apabila kemasukan bangsa asing daripada luar Kalimantan berhasil menutupi kelemahan tulis dan baca mereka. Kedatangan orang Melayu ke Pulau Kalimantan umpamanya atas urusan perdagangan yang kemudiannya membina penempatan kekal di sini

tidak hanya membawa budaya mereka semata-mata. Lebih jauh daripada itu mereka juga turut memanfaatkan kelebihan yang dipunyai dalam tradisi keilmuan dan keintelektualan yang dikuasai sejak kedatangan syiar Islam untuk digunakan ditempat baru. Rentetan itu, maka terkaranglah sebuah naskhah historiografi yang berjudul Syair Perang Cina di Monterado yang tidak hanya menjadi refleksi kepada peristiwa peperangan Monterado yang berlaku. Bahkan, naskhah ini juga turut memuatkan sejumlah gambaran mengenai suku Dayak yang julung-julung kalinya muncul dalam naskhah pengarang Melayu tradisional. Justeru, dari kaca mata pengarang Melayu tersebut, perihal orang Dayak sebelum ini yang begitu terbatas untuk diketahui sedikit sebanyak boleh disoroti menerusi naskhah syair ini.

Suku Dayak Di Kalimantan Dan Naskhah Syair Perang Cina Di Monterado

Dayak, suku yang menarik. Unik dari segi istilah, asal-usul dan corak hidup. Keunikan yang dipunyai oleh suku Dayak telah menyebabkan mereka mendapat perhatian yang khusus sedari zaman kolonial lagi dari pakar bidang antropologi, linguistik, arkeologi dan sosiologi. Namun, sehingga kini kesepakatan untuk memuktamadkan beberapa aspek berkenaan suku Dayak terutamanya istilah Dayak itu sendiri masih lagi belum sampai ke garisan penamat walaupun ia sudah mulai ditekuni sedari tahun 1800 Masihi lagi.

Berhubung dengan istilah Dayak ini sendiri, penggunaannya dipercayai dimulakan oleh kuasa kolonial untuk merujuk keseluruhan penduduk asli di Pulau Kalimantan bagi memudahkan kerja-kerja pentadbiran mereka (Sujarni Alloy, Albertus & Chatarina Pancer Istiyani 2008: 9; Hamid Darmadi 2016: 323; Yekti Maunati 2004: 59). Sumber lain pula mengatakan istilah Dayak ini berasal dari bahasa Kawi iaitu "Dayaka" yang membawa konotasi suka memberi. Malah, tidak kurang juga ada yang menyatakan ia berasal dari perkataan Daya yang bererti kekuatan (Sujarni Alloy et al. 2008: 11).

Bagi Hamid Darmadi (2016: 322) pula, istilah

Dayak ini berasal dari kata “Daya” yang membawa maksud hulu atau merujuk kepada masyarakat yang tinggal di pedalaman atau perhuluan sesuai dengan pola penempatan suku Dayak yang tinggal dikawasan pergunungan, dataran tinggi dan di hulu-hulu sungai. Tjilik Riwut (1993: 229) sewaktu menekuni istilah yang sama menyatakan bahawa istilah tersebut adalah satu perkataan yang digunakan untuk merujuk suku-suku yang bukan beragama Islam yang mendiami kawasan pedalaman. Maka, bolehlah disimpulkan bahawa istilah Dayak itu merujuk kepada suku yang mendiami kawasan pedalaman dan tidak beragama Islam.

Dalam pada itu, asal-usul suku Dayak ini mengikut tetek tatum dipercayai berasal dari langit ketujuh. Dakwaan tetek tatum ini diperkuatkan lagi dengan suatu bentuk kepercayaan suku Dayak yang disebut Kaharingan yang mempercayai bahawa nenek moyang suku Dayak ini didatangkan dari langit ketujuh dan diturunkan dengan Palangka Bulau (merupakan anjak, tandu atau gandar yang suci yang diperbuat dari emas dan diturunkan dari langit) oleh Ranying Hattala Langit. Nenek moyang suku Dayak ini dikatakan diturunkan diempat tempat yang berbeza iaitu pertama di Tantan Puruk Pamatuan yang terletak di hulu sungai Kahayan dan Barito, kedua di Tantan Liang Mangan Puruk Kaminting yang terletak di sekitar Gunung Raya, ke tiga di Datah Tangkasiang di hulu sungai Malahui yang terletak di daerah Kalimantan Barat dan yang terakhir di Puruk Kambang Tanah Siang yang terletak di hulu Barito (Tjilik Riwut 1993: 231; Hamid Darmadi 2016: 336).

Nenek moyang suku Dayak yang diturunkan dikeempat-empat tempat yang berasingan ini kemudiannya berkahwin di antara satu dengan yang lain dan seterusnya melahirkan keturunan suku Dayak yang menempati seluruh pelosok Kalimantan seperti yang diketahui pada hari ini. Tidak kurang juga ada pendapat yang mengatakan bahawa suku Dayak ini tergolong di dalam rumpun Austronesia yang merupakan percampuran antara bangsa Kaukasus di Eropah Timur dengan bangsa Mongolia di benua Asia. Dari benua Asia tersebut, bangsa ini kemudiannya menyebarkan ke arah selatan menuju ke kawasan Nusantara (Sujarni Alloy et al. 2008: 11).

Secara umumnya, suku Dayak ini mempunyai sekitar 450 subsuku yang tersebar di seluruh bentangan pulau Kalimantan yang luas. Lahajir et al. (1993) percaya bahawa pada mulanya semua subsuku tersebut berasal dari satu kelompok yang sama namun ia mulai terpisah ekoran proses geografi dan demografi yang berlangsung lebih dari seribu tahun yang lalu. Berhubung dengan subsuku Dayak ini, Tjilik Riwut (1993: 233) mengatakan bahawa setiap suku Dayak yang mendiami Kalimantan boleh dibahagikan berdasarkan kepada suku-suku yang sedatuk manakala yang sedatuk pula boleh dibahagikan lagi kepada suku-suku kekeluargaan. Secara mudahnya, ia boleh dibahagikan mengikut suku asal (rumpun), suku atau anak suku, suku yang sedatuk dan suku kekeluargaan.

Walaupun suku-suku Dayak ini berada dalam satu rumpun yang sama, namun pada suatu masa dahulu mereka saling berperang bagi mendapatkan kepala masing-masing. Faktor inilah yang antara lainnya turut menyebabkan taburan suku Dayak berada di seluruh pelosok Kalimantan lantaran ingin mencari tempat yang dirasakan aman dan selamat dari serangan musuh dan pemanggil kepala. Bagi mengelakkan diri daripada dijadikan sebagai sasaran, kawasan pedalaman antara kawasan yang dijadikan pilihan oleh suku Dayak untuk dijadikan sebagai kawasan penempatan mereka berbanding memilih kawasan persisir. Ancaman pemanggilan kepala ini juga turut memungkinkan suku Dayak membangunkan rumah panjang sebagai kediaman bagi menjamin keselamatan mereka daripada serangan mendadak para pemburu kepala di samping kos membangunkan rumah panjang yang lebih jimat kerana hanya memerlukan beberapa kayu yang diperolehi dari hutan (Geddes 1968: 28-32).

Bagi meneruskan kelangsungan hidup, suku Dayak kebiasaannya menyara diri dan keluarga mereka dengan bergantung dan memanfaatkan hasil-hasil hutan yang berdekatan dengan penempatan mereka. Tidak kurang juga ada di antara suku Dayak yang menjalankan kegiatan memburu haiwan hutan dengan menggunakan sumpitan dan anak panah yang beracun di samping kegiatan lain seperti memancing ikan di sungai. Seiring dengan peredaran masa, suku Dayak mula belajar menjalankan aktiviti

pertanian secara kasar yang bersifat sara diri (Grahim Irwin 1989: 3). Aktiviti pertanian secara kasar tersebut berikutnya memungkinkan suku Dayak memiliki tradisi berladang secara pindah dengan mencari kawasan hutan yang subur untuk berladang dan bercucuk tanam (Hamid Darmadi 2016: 325).

Berhubung dengan naskhah historiografi Syair Perang Cina di Monterado pula, naskhah ini telah diusahakan kerja transliterasinya oleh Arena Wati (1989) dari naskhah asalnya yang bertulis jawi dan kini tersimpan di Perpustakaan Universiti Leiden, Belanda. Naskhah ini antara lainnya merakamkan peristiwa peperangan yang berlaku di antara Belanda, institusi kerajaan tempatan dan penduduk peribumi yang bersekutu dalam menentang migran Cina di Kalimantan Barat.

Kaedah Kajian

Kajian ini merupakan kajian kualitatif yang melibatkan tafsiran untuk melihat fenomena manusia di dalam teks. Justeru itu, hanya satu kaedah sahaja yang digunakan dalam kajian ini iaitu penyelidikan kepustakaan sepenuhnya memandangkan kajian ini adalah kajian teks dengan menjadikan naskhah historiografi Syair Perang Cina di Monterado sebagai data penyelidikan. Kaedah penyelidikan kepustakaan tersebut digunakan untuk mencari dan mencatat semua maklumat yang diperlukan menerusi bacaan rapi bagi memenuhi maksud kajian ini.

Di samping itu, pendekatan sosiologi juga turut dimanfaatkan untuk mengetengahkan maklumat dan gambaran sesuatu komuniti seperti yang terdapat di dalam naskhah. Unsur sosiologi dilihat atau dikesan melalui aspek bahasa, yang menjadi wahana kepada pengarang silam bagi menzahirkan segala maklumat dan gambaran masyarakat seperti yang terakam dalam syair yang dikaji

Analisis Kajian

Sastera tradisional merupakan jambatan yang menghubungkan masyarakat moden dengan zaman silam. Demikian suguhan Siti Hawa Haji Salleh (1999: 148) sewaktu beliau membincangkan mengenai kesusasteraan Melayu tradisional dan peranan filologi dalam makalah beliau. Kenyataan beliau ini jelas

membuktikan bahawa setiap hasil kesusasteraan Melayu tradisional itu tidak diciptakan secara kosong kerana ia merupakan bentuk pendokumentasian yang penting buat sesebuah masyarakat yang memilikinya pada hari muka.

Dalam konteks naskhah Syair Perang Cina di Monterado umpamanya, ia bukanlah sekadar helaian naskhah yang hanya merekonstruksi peristiwa peperangan Monterado di Kalimantan Barat semata-mata. Malah, lebih jauh daripada itu naskhah ini juga turut memberikan ruang untuk mencermati perihal suku Dayak yang sebelum ini begitu sukar ditekuni, lantaran ketiadaan dokumentasi yang ditinggalkan oleh suku ini. Menerusi kaca mata pengarangnya, tersingkap sejumlah imej suku Dayak yang meliputi sifat, budaya, sikap dan sosioekonomi mereka yang mendiami Kalimantan khususnya Kalimantan Barat sekitar abad ke-18 Masihi.

Dayak Masyarakat Yang Berani

Libau atau Rentap, antara ikon keberanian suku Dayak. Sebut sahaja akan namanya, pasti setiap dari orang yang mendengarnya akan terbayang mengenai kepahlawanan, kegagahan dan keberanian beliau dalam menentang pejazahan Rajah Brooke pada suatu masa dahulu. Perjuangan Libau hingga ke akhir hayat beliau tidak hanya mewakili malah membuktikan bahawa semangat juang dan keberanian suku Dayak tidak boleh diremehkan dan dipandang enteng dalam mana-mana peristiwa penentangan mereka.

Keberanian suku Dayak seperti yang dimaksudkan tersebut membuatkan pengarang Syair Perang Cina di Monterado turut tidak terlepas dari merakamkannya dalam naskhah terbabit. Keberanian suku Dayak tertonjol dengan begitu jelas sewaktu berjuang bersama dengan rakan sekutunya dalam memerangi migran Cina di Kalimantan Barat. Keberanian suku Dayak tersebut boleh disoroti menerusi rangkap syair yang dihimpunkan berikut:

*Adapun Dayak Baban Balayuk,
Serta Parigi dengan Dayak Kadok,
Katanya cukup melanggar Mentradok,
Jikalau dilepas dialah mengamuk. (r. 173)*

*Adapun akan Dayak Pahung,
Serta dengan Dayak Karantong,
Hidup mati sebarang untung,
Atasnya ia melawan Thai Kwung. (r. 174)*

*Tiada banyak madah disebut,
Setiap-tiap Dayak tiada diam mulut,
Melawan Cina tiadalah takut,
Jikalau belum dianya mengikut. (r. 175)*

Keberanian Dayak Baban Belayuk, Parigi dan Kadok misalnya boleh disoroti menerusi baris ketiga dan keempat pada rangkap syair yang pertama iaitu "Katanya cukup melanggar Mentradok", "Jikalau dilepas dialah mengamuk". Berdasarkan baris syair yang dipetik, keempat-empat suku Dayak tersebut mengatakan bahawa gabungan subsuku mereka sahaja sudah mencukupi untuk melanggar migran Cina yang berada di Monterado. Bahkan, sekiranya ada yang sengaja melepaskan migran Cina dalam peperangan terbabit, keempat-empat suku Dayak ini tidak akan teragak-agak untuk mengamuk.

Tidak kurang hebatnya juga dengan Dayak Pahong dan Karantong yang mengatakan bahawa "Hidup mati sebarang untung", "Atasnya ia melawan Thai Kwung" seperti yang boleh dilihat menerusi baris ketiga dan keempat pada rangkap syair yang kedua. Menerusi kedua-dua baris syair itu, subsuku Dayak Pahong dan Karantong jelas tidak memperdulikan soal hidup dan mati mereka sewaktu di medan peperangan kerana kedua-dua subsuku ini hanya ingin fokus melawan Cina Thai Kwung iaitu kumpulan kongsi yang paling kuat sekali di Kalimantan Barat.

Begitu juga dengan suku Dayak lain yang diceritakan "Setiap-tiap Dayak tiada diam mulut", "Melawan Cina tiadalah takut", "Jikalau belum dianya mengikut". Baris syair kedua hingga keempat pada rangkap syair yang ketiga ini dengan konkritnya mengetengahkan keberanian suku Dayak sendiri kerana pengarang memperlihatkan keadaan suku Dayak yang tidak takut, dan tidak dapat berdiam diri dari terus melawan migran Cina.

Dayak Masyarakat Yang Mengamalkan Budaya Ngayau

Budaya ekspresi kehidupan kelompok manusia. Relevan dan signifikan kepada yang memilikinya. Ia doktrin yang dibangunkan berdasarkan kearifan yang dimiliki dalam sesuatu bidang yang merupakan hasil dari pembelajaran, pengamatan maupun pengalaman yang dilalui sendiri oleh sebuah kelompok manusia berkenaan. Oleh itu, peradaban di dunia khususnya Alam Melayu mempunyai bentuk budayanya yang tersendiri lantaran budaya tidak keterlaluan untuk dikatakan sebagai elemen penting dalam pembinaan sebuah ketamadunan.

Begitu juga dengan suku Dayak yang turut memiliki budayanya yang tersendiri dan kaya dengan keunikannya. Pembinaan budaya suku Dayak ini sudah semestinya bersangkutan dengan persekitaran dan kepercayaan yang dianuti oleh mereka sehingga terzhahir perbezaan yang nyata dengan budaya suku dan bangsa yang lain di Alam Melayu. Menariknya, salah satu budaya suku Dayak yang paling terkenal dan membina imej mereka dimata suku lain di Kalimantan Barat iaitu "ngayau" turut dirakam oleh pengarang di dalam naskhah Syair Perang Cina di Monterado. Ia boleh dicermati menerusi kutipan rangkap syair yang berikut:

*Kawan berkata titah dijunjung,
Lalu berkata Tua Dayak Pahung,
Cina ini dialah tanggung
Jikalau lari dianya potong. (r. 171)*

*Adapun perintah disebut nyata,
Cina yang durhaka semuanya dipotong,
Dapat harta dianya punya untung,
Jikalau senjata masuk ke gedung. (r. 181)*

*Si Akar Dayak Tua Perigi Dayak Ujung,
Kubu Cina Samalantan yang dikepung,
Dayak yang banyak membunuh serta memotong,
Kain baju dan kuncir muak untung.
(r. 765)*

*Yang lari ke hutan Dayak nin hambat,
Banyaklah Cina mati yang Dayak kerat,
Baik yang jauh baik yang dekat,
Setiap hari itulah dibuatnya. (r. 768)*

Ngayau atau mengayau menurut Hamid Darmadi (2016: 330) berasal dari gabungan dua perkataan iaitu “me” dan “ngayau”. “Me” di sini membawa konotasi melakukan aksi manakala “ngayau” pula merujuk kepada pemenggalan kepala musuh. Dalam suku Dayak sendiri, budaya ngayau ini dilakukan oleh mereka disebabkan oleh beberapa tujuan. Antaranya ialah untuk melindungi hasil pertanian, mendapatkan tambahan daya jiwa, membalas dendam dan juga sebagai persembahan untuk mengukuhkan sesuatu bangunan.

Namun begitu, ngayau yang dilakukan oleh suku Dayak di dalam konteks syair ini adalah bertujuan untuk membalas dendam ke atas migran Cina yang selama ini menzalimi dan menindas mereka dengan kejam sekali. Oleh sebab itu, baris-baris syair seperti “Jikalau lari dianyalah potong”, “Cina yang durhaka semuanya dipotong”, “Dayak yang banyak membunuh serta memotong” dan “Banyaklah Cina mati yang Dayak kerat” pada rangkap syair yang dihimpunkan menceritakan dengan jelas mengenai perbuatan suku Dayak yang mengayau migran Cina di Kalimantan Barat.

Berdasarkan kesemua baris syair yang dipetik tersebut, ramai dari migran Cina di Kalimantan Barat tidak terlepas dari menemui ajalnya apabila kesemua mereka dipotong atau dikerat oleh suku Dayak. Meskipun pengarang tidak memerihalkan dengan jelas apakah yang dipotong dan dikerat oleh suku Dayak di dalam baris-baris syair tersebut tetapi ia tidak boleh tidak merujuk kepada budaya ngayau dalam diri suku Dayak yang sememangnya sinonim dengan pematongan atau pemenggalan musuh mereka terutamanya kepala.

Dayak Masyarakat Yang Dipercayai

Manusia hidup dilindungi oleh pelbagai bentuk nilai. Baik hati, kasih sayang, prihatin, rendah diri dan sebagainya merupakan antara nilai yang akrab dengan kehidupan diri manusia. Kesemua nilai ini wajib dipraktikkan dalam kehidupan seharian untuk membina suatu hubungan yang baik sama ada dengan manusia sendiri mahupun juga dengan makhluk ciptaan Tuhan yang lain. Dari kesemua nilai tersebut, kepercayaan boleh dikatakan sebagai nilai yang paling utama sekali kerana sekiranya nilai kepercayaan itu tercalar ia akan memberikan

tempias secara langsung kepada nilai-nilai yang lain dalam diri seseorang.

Dalam pada itu, besarnya pengaruh nilai kepercayaan ini turut membuatkan Pangeran Suta dari kerajaan Mempawah bertindak mengamanahkan suku Dayak untuk melakukan serangan ditempat-tempat tertentu sesuai dengan strategi yang disusun bersama dengan penduduk peribumi Kalimantan Barat. Kepercayaan yang diberikan oleh Pangeran Suta tersebut secara tidak langsung memperlihatkan bahawa suku Dayak ini merupakan figura yang boleh diharap untuk melakukan sesuatu pekerjaan atau tanggungjawab. Kepercayaan yang diberikan oleh Pangeran Suta kepada suku Dayak boleh dicermati menerusi rangkap syair yang berikut:

*Adapun akan Kadawok dan Paringi,
Itulah Dayak yang masyhur berlari,
Ke Mentrado suruhkan pergi,
Mana yang bertemu jangan ditanya lagi.
(r. 133)*

*Dayak-Mandor jua ke perintahkan,
Serta Balayuk dengan Dayak Baban,
Segenap Lawang rata-ratakan,
Jangan diberi dianya bertinggalan. (r. 134)*

*Adapun akan Dayak Pahung,
Serta dengan Dayak Garuntung,
Serta merta segenap kampung,
Suruhkan ia melanggar Thai Kwung.
(r. 135)*

*Dayak Lumut serta Silu,
Jangan diberi bertalu-talu,
Semuanya ia suruhkan mengayau,
Cina Thai Kwung akan dikayau. (r. 136)*

Berdasarkan rangkap syair yang dihimpunkan, setiap suku Dayak yang terlibat dalam peperangan Monterado diberikan kepercayaan oleh Pangeran Suta untuk melaksanakan tanggungjawab masing-masing. Baris pertama hingga ketiga pada rangkap syair yang pertama iaitu “Adapun akan Kadawok dan Paringi”, “Itulah Dayak yang masyhur berlari”, “Ke Mentrado suruhkan pergi” memperlihatkan Pangeran Suta yang memanfaatkan Dayak Kadawok dan Paringi yang terkenal dengan ketangkasan dan kepantasannya berlari untuk pergi ke Monterado segera bagi membantu Belanda yang sudah bergerak ke sana.

Dayak Mandor, Balayuk dan Baban pada rangkap syair yang kedua pula diamanahkan oleh Pangeran Suta untuk “Segenap Lawang rata-ratakan”, jangan diberi dianya bertinggalan seperti yang disuguhkan oleh baris ketiga dan keempat pada rangkap syair yang sama. Ketiga-tiga suku Dayak tersebut diberikan kepercayaan oleh Pangeran Suta untuk menyerang dan membunuh migran Cina yang berada di Lawang habis-habisan tanpa menunjukkan perikemanusiaan dan membiarkan seorang pun dari migran Cina di kawasan terbabit untuk hidup.

Begitulah juga akan perihalnya dengan Dayak Pahung, Garuntung, Lumut dan Silu yang turut diarahkan untuk “Suruhkan ia melanggar Thai Kwung” dan “Semuanya ia suruhkan mengayau”, “Cina Thai Kwung akan dikayau” seperti yang diceritakan oleh pengarang pada baris ketiga rangkap syair yang ketiga dan baris ketiga serta keempat pada rangkap syair yang keempat. Berdasarkan baris-baris syair tersebut, keempat-empat suku Dayak yang disebutkan dikerahkan untuk melanggar dan mengayau kongsi Thai Kwung yang merupakan antara kongsi yang terkuat di Kalimantan Barat. Percaturan Pangeran Suta meletakkan keempat-empat sosok suku Dayak ini untuk membinasakan kongsi Thai Kwung barangkali disebabkan kegagahan dan keberanian yang dipunyai oleh mereka yang memungkinkan mereka diberi kepercayaan untuk mengalas serangan terhadap kongsi Thai Kwung berbanding dengan subsuku Dayak yang lain.

Dayak Masyarakat Yang Menjalankan Aktiviti Pertanian

Suku Dayak mengamalkan ekonomi sara diri yang berbentuk mudah. Pada peringkat awal, kelangsungan hidup suku Dayak ini diteruskan dengan mengutip hasil hutan, berburu dan memancing. Seiring dengan peredaran waktu, suku Dayak mula belajar menjalankan aktiviti pertanian secara kasar yang bersifat sara diri (Grahim Irwin 1989: 3). Aktiviti pertanian secara kasar tersebut telah memungkinkan suku Dayak memiliki tradisi berladang secara pindah dengan mencari kawasan hutan yang subur untuk berladang dan bercucuk tanam (Hamid Darmadi 2016: 325). Antara tanaman yang diusahakan oleh suku Dayak ialah tanaman padi yang dijalankan dengan sistem perladangan

berpindah melalui penebangan dan pembakaran untuk tujuan penanaman tanaman dengan memanfaatkan abu bakaran tersebut sebagai pembekal nutrisi penting tanaman mereka (Wadly 2007: 112).

Kegiatan suku Dayak sebagai masyarakat yang bertani turut mendapat perhatian oleh pengarang naskhah Syair Perang Cina di Monterado sehingga turut diselitkan penceritaannya di dalam naskhah ini. Meskipun pengarang tidak menyediakan ruang yang khusus untuk memerihalkan dengan rinci mengenai aktiviti pertanian suku Dayak tersebut, tetapi pengujarannya di dalam naskhah ini memberi maklumat yang cukup untuk mengetahui mata pencarian suku Dayak yang berfokus kepada aktiviti pertanian. Di dalam naskhah Syair Perang Cina di Monterado, kegiatan suku Dayak sebagai masyarakat yang bertani boleh disoroti menerusi kutipan rangkap syair yang berikut:

*Kepada Cina Pangeran bertitahlah,
Dayak sekalian jangan kau paksalah,
Sekalian utangnyanya engkau buanglah,
Padi yang hampas Dayak jangan
diambilah. (r. 299)*

*Adapun pada hari ini sekarang,
Utang Dayak pada Cina sudah dibuang,
Beras dan padi serta uang-uang,
Seraya menyahut Seri Pangeran. (r. 446)*

Baris keempat iaitu “Padi yang hampas Dayak jangan diambilah” pada rangkap syair yang pertama dan “Beras dan padi serta uang-uang” pada baris ketiga rangkap syair yang kedua memberikan gambaran yang jelas bahawa suku Dayak di Kalimantan Barat pada ketika itu merupakan masyarakat yang menjalankan aktiviti pertanian dengan mengusahakan tanaman padi. Bagi sebahagian besar suku Dayak sendiri, penanaman padi dilakukan bertujuan untuk memenuhi beberapa perkara iaitu untuk keperluan makanan seharian, upacara ritual dan untuk dijadikan sebagai alat pertukaran dengan barang-barang lain yang diperlukan dalam kehidupan mereka (Ida Bagus Putu Prajna Yogi 2018: 51).

Kesimpulan

Dayak, suku peribumi yang unggul. Mereka mempunyai asal-usul, cara hidup dan bahasa yang tersendiri. Keterbatasan dalam menguasai tradisi keilmuan bagaimanapun tidak memihak kepada keunggulan yang dipunyai untuk diberitakan kepada umum. Senario tersebut membuatkan corak hidup suku Dayak ini hanya diketahui oleh kelompok mereka sendiri ekoran tidak didokumentasikan seperti suku dan bangsa yang lain di Alam Melayu. Namun, kehadiran suku lain di Kalimantan khususnya Kalimantan Barat sedikit sebanyak memainkan peranan pentingnya dalam merakamkan perihal suku Dayak ini dalam hasil kesusasteraan yang dikarang oleh mereka iaitu menerusi Syair Perang Cina di Monterado.

Naskhah syair ini antara lainnya memberikan gambaran yang begitu jelas mengenai beberapa aspek dalam kehidupan suku Dayak di Kalimantan Barat. Gambaran suku Dayak yang boleh disoroti menerusi kaca mata pengarang naskhah ini ialah berkaitan dengan keberanian suku Dayak sendiri dalam peperangan, budaya ngayau, aktiviti pertanian dan juga sikap suku Dayak yang dipercayai. Walaupun naskhah ini tidak memerihalkan suku Dayak secara rinci lantaran fungsinya untuk merakamkan peristiwa peperangan Monterado, namun penceritaan mengenai suku Dayak yang disisipkan secara tidak langsung sudah memberi ruang yang memadai untuk melihat semula kehidupan suku Dayak pada suatu masa dahulu khususnya dalam abad ke-18 atau ke-19 Masihi.

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Fort At Lio Mato And The Life Of Government, Brunei Connections And Brooke Histories

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Abstract

This paper takes the history of the Fort at Lio Mato, recorded as being built in 1911 during the time of Brooke Resident R.S. Douglas and events leading to its institution, through the voice of a Kelabit oral history. According to the Kelabit oral history, “the life of government,” ulunperitah began in the time of Brunei rule in the Baram and continued with the establishment of the Fort at Lio Mato, opening of new routes for trade and new alliances gained by peacemaking. This oral history provides an opening to discuss two points: the perception of “the life of government” having its origins in the time of Brunei rule, the role of local people in the making of the fort. This shifts the historical emphasis away from Brooke records to a layered history at the frontier of the Baram district, which was the geographic and economic hinterland of Brunei before cession to the Brooke administration in 1882. This is a history not determined by territorial boundaries, but it is gleaned through people who moved freely across vast tracts of north-eastern Borneo.

Keywords: *Oral history, Brunei, Baram, Kelabit, Lio Mato*

Voices For The World: Taking Oral History To A Wider Audience

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Abstract

Oral history recordings and transcripts are an important resource for researchers in many fields, using what they discover to augment, confirm, or contradict what they glean from print, manuscript, electronic and other sources, including artefacts and works of art. Drawing on a range of examples, this paper illustrates how oral history has been taken to a much wider, popular as well as specialist audience by skilful selection and editing, and by adopting a creative approach to retelling stories, especially those of ordinary women, men and children. The author hopes that researchers and writers will expand their use of existing oral history resources - and indeed that oral historians will redouble their interviewing activities in order to bring the stories, cultures and traditions of the Bornean peoples to a worldwide audience.

Keywords: *oral history, editing oral history, publishing oral history*

In the nineteenth century Carlyle (1898, p.160) wrote: 'In Books lies the soul of the whole Past Time; the articulate audible voice of the Past, when the body and material substance of it has altogether vanished like a dream.'

This was a confident declaration of the immortality of information, knowledge, perhaps wisdom, carried through the ages by documentary means. It was written when books were printed on rag paper, and were expected to last more than five hundred years. In those days the great libraries could still collect all significant works of science, the arts and humanities from the publishers and learned societies of the world.

Of course, there is a vast amount of valuable information and knowledge which has never found its way into print. Perhaps it has an electronic life today, and can be archived, or simply vanishes into thin air. But that is another story. Knowledge is also conveyed by word of mouth, and spreads within a circle of friends, family or colleagues. Perhaps it goes in one ear and out the other. Perhaps it remains within the individual memory, there to stay until life ebbs away, when it is lost for ever.

This kind of information or knowledge is in what I call the 'human archive'. Oral history interviews can extract some of this knowledge and preserve it, long after we have all vanished like a dream.

Oral history recordings are a vital part of the documentation of our world. They can capture facts, memories, opinions and knowledge which might otherwise never be recorded. Oral history helps researchers in many fields augment, confirm or contradict what they have gleaned from other sources. For example, a snippet from an interview can provide a key which unlocks an entirely new line of enquiry for a historian. Sometimes an interview may be the only surviving source. One has only to scan the sources of historical works, particularly those dealing with events during the past century, to see the debt which researchers owe to the interviewees, interviewers and institutions involved.

A recent publication which captured my attention - partly because it mentioned in passing the father of someone whom I had interviewed, and partly because of its use of documentary sources

of all kinds - was Semut by Christine Helliwell (2021). The author, an anthropologist, deals with the activities of an elite and very small group of Allied troops during the latter part of World War II in the heart of Borneo. In an operation mounted by 'Z Special Unit', Semut operatives were parachuted into the Bario area, from where, with the help of local villagers, they carried out successful reconnaissance and harassment across much of Sarawak.

Helliwell's extensive sources included surviving operatives and residents of Sarawak, and they certainly add enormously to the history of this operation. Significantly, the author draws attention to the part played by indigenous peoples in the success of the operation. This was something which had barely figured in earlier accounts. For parts of this 'untold' story had, in fact, been told before.

Many individual voices found their way into print in Bob Long's Z Special Unit's secret war (1989). Long gathered accounts from twenty surviving Semut operatives. One of them later published his own wartime memoirs (Griffiths-Marsh, 1990).

A major player in Operation Semut was a controversial and divisive figure, well known to many of you at least by reputation. Tom Harrison was one of the first operatives who parachuted into Borneo. He recounted his part of the story of Semut in World within (Harrison, 1959). Just how divisive Harrison really was in this operation one can gauge by another account of 'the most successful Allied guerrilla war in Borneo' with the uncompromising title Kill the Major (Malone, 2020).

Whatever view of Harrison one may have, Semut was successful. Take, for example, the rescue of a number of American airmen, whose aeroplanes had crashed into the jungles of Borneo: Heimann (2007) recounted their story in The airmen and the headhunters.

Harrison's connection with Sarawak is three-fold: he spent part of 1932 in Sarawak, leading an Oxford University expedition. During the War he was part of Semut. After the War he was curator of the Sarawak Museum. This brings me, in a roundabout way, to Mass-Observation, for in 1937 Harrison was a co-founder of Mass

Observation. A British organisation, it described itself as 'an independent, scientific, fact-finding body, run by Tom Harrison' with a 'team of trained, whole time objective investigators and a nationwide panel of voluntary informants' (Harrison, 1943, p.2).

These 'informants' were asked to write down what they thought and felt about various issues. Mass Observation wanted to get to the heart of people's thoughts and feelings, as well as to observe their behaviour. There was a practical application for what Mass Observation was doing, and this came into prominence during World War II. It was realised that morale was important, but how to measure it? And not just the fighting spirit of troops, but the resilience or otherwise of civilians. Listening to people, asking them questions and observing their activities were the key.

Take for example a survey examining problems in factories in Britain during the early years of the War. War factory (Harrison, 1943) is a skilful analysis of a wartime workplace, based on observation and drawing on what employees at all levels of the firm told the investigators. Their actual words - often blunt and vivid - are used to illustrate the observations made and to back up suggested improvements.

Mass Observation's documents were all paperbased. Today the informants might have used a smart phone or social media to record their innermost thoughts and their activities. But back to Semut and Z Special Unit. After the War, operatives were generally reluctant to talk about their experiences some were warned that this was forbidden under the Official Secrets Act. But over time, stories came out, as can be seen from the Griffiths Marsh (1990) and Harrison (1959) memoirs and Long's (1989) compilation. Official papers which had survived culling (or censorship) became available in archives and libraries, serious writers took up their pens, some surviving operatives and locals in Sarawak were interviewed, and gradually a fuller picture is emerging one which has begun to throw overdue light upon the role of indigenous Borneans in the events described.

Part of the picture has been filled in by recorded interviews notably by Helliwell (2021) over the many years she has worked on this subject, and

also by Pustaka Negeri Sarawak. A sample of what Pustaka has gathered is presented in *The unsung heroes* (2013).

This rather protracted example illustrates a stage in the evolution of a valuable documentary form - the beginnings of oral history as a distinct literary genre. Here the sheer volume of transcribed interviews - selected and edited to follow a particular theme - dominates the work. It may be a dramatic event or series of events - such as those surrounding Semut - or a social movement, way of life, or era.

This is not a new phenomenon, but it is one which I believe should be more widely practiced. Several authors have used oral history as the principal source for entire published or broadcast works. Take for example the work of 'Studs' Terkel, the American author and radio personality best known for his oral histories of ordinary Americans.

Particularly compelling for me was a series of publications originating in programmes commissioned by Radio 4 of the British Broadcasting Corporation: *Plain tales from the Raj* (Allen and Mason, 1975), followed by *Tales from the dark continent* (Allen and Fry, 1979) and *Tales from the South China Seas* (Allen and Mason, 1983).

Closer to my own home, a landmark in the use of oral history in publications was Lowenstein's *Weevils in the flour* (1978), in which ordinary Australians spoke of their experiences during the Great Depression. This was followed by *Struggletown* by McCalman (1988). Another work drawing upon the voices of those not usually heard was Goldsmith and Sandford's *The girls they left behind* (1990), based on interviews with women who describe their experiences in Australia during World War II.

It is no surprise that life-changing events, like economic depressions, wars and other catastrophes, figure prominently in works such as these. They have dramatic impact, and for the participants the interview process itself can often be distressing, but cathartic. From the viewpoint of the reader, such works are profoundly important. These works document the stories, experiences and feelings of real and ordinary – and sometimes extraordinary – people. They do

not dissect economic and social conditions, nor dispassionately chronicle military campaigns; they do not scale the political heights, nor plumb the political depths. They enable us to gain an insight into real people – or at least a select sample of real people, with all their virtues and vices – and how they feel in retrospect about what they experienced. In a sense this is a kind of Mass-Observation exercise, with the participants providing the raw material, subject to the selectivity applied by and context provided by the editor.

Take, for example, the much-documented events of D-Day, the 6 June 1944 landings on the Normandy beaches. We may be familiar with the grainy footage of the assault, the Hollywood blockbusters, the memoirs of combatants, the official war histories, the reminiscences of politicians and the post mortems by academics.

But there are also some notable collections of extracts from interviews of military personnel and civilians caught up in the preparations for the invasion and later in front-line action. In what was subtitled 'a landmark oral history of D-Day on the Home Front', Arthur (2015) collected in *The silent day* hundreds of brief recollections of the time when 160,000 troops gathered in southern England. What did the locals think of these temporary residents from many nations? How did the troops themselves feel, knowing that something was afoot, but not knowing exactly what? Many of the recollections are by people who were children at the time: 'We children loved the black GIs because they used to give us sweets – candy, they called them – and they were very kind. I can remember French sailors too, 'cos they were very good at dancing the tango' (Arthur, 2015, p. 55).

Overnight the huge army disappeared, as one eye-witness recalled: 'I came back in the morning and not a soldier was to be seen, they were gone. It was quite eerie. Fires in the camp's ranges were still burning. There were urns of cocoa, coffee, tea, all hot. Cheese, butter, bacon, it was all there in the dining room, half-eaten meals on the table' (Arthur, 2015, p. xi).

Another collection of extracts documents some of the experiences on the other side of the English Channel. *Voices from D-Day* (Lewis, 2014) is frequently disquieting. In this extract an

Allied soldier talks about a French family's hospitality: 'They had so little to give us, but we were given soup with a little meat. We were enjoying this meal when we observed a small boy crying in the corner, and in our best French, enquired why the boy was crying. We were told that we were eating his rabbit' (Lewis, 2014, p. 272). Where would you find such a vignette in one of the clinical military accounts, primarily from the victors, or in any of the scholarly histories?

A concerted effort to record the recollections of veterans of conflicts in which Australia has taken part resulted in the *Australians at War Film Archive*. Over two thousand people were interviewed between the years 2002 and 2005. Preserved for posterity are twelve thousand hours of interviews, 'not dry history, but flesh and blood; not the movements of armies or the piece by piece reconstruction of a particular battle, but the stories of our countrymen and women as they faced the greatest challenges of their lives' (Crawford, 2006, p. ix). Extracts from twenty-one interviews were published in book form, the diverse interviewees including a refugee from Hungary who served with the Special Air Service during the Malayan Emergency, a nurse in Vietnam, a prisoner of war, a dog handler, a survivor of Nagasaki, and a service woman who later became a war bride (Crawford, 2006). Indeed, these are stories of real flesh and blood.

One author who has made oral history interviews a cornerstone of her literary career is Svetlana Alexievich, a Belarusian essayist, oral historian and winner of the 2015 Nobel Prize for Literature. She has made her mark with a series of works dealing, very frankly, with darker times in history, drawing on countless interviews conducted over many years.

In *The unwomanly face of war* (Alexievich, 2017b), she casts light on a neglected corner of history – the role of women in the armed forces of the Soviet Union during World War II. She listened to women who had served in the army, navy, air force and partisan forces, as nurses, doctors, bakers, laundresses, snipers, pilots, engineers and train drivers. In her interviews she is intent on documenting 'the history of small human beings, thrown out of ordinary life into the epic depths of an enormous event. Into great History' (Alexievich, 2017b, p. 19).

'In city apartments and village cottages, in the streets and on the train . . . I listen . . . I turn more and more into a big ear, listening all the time to another person. I read "voices"' (Alexievich, 2017b, p. xix).

One interviewee, on the way to a battle front, recalled being seen off at the railway station by her mother, who 'saw us going to the train, gave me a pie and a dozen eggs, and fainted' (Alexievich, 2017b, p. 23).

Alexievich is constantly trying to bring history down to a human scale. She knows that there will be many differing views, and indeed her compilations are kaleidoscopic: 'We all see life through our occupations, through our place in life or the events we participate in. It could be supposed that a nurse saw one war, a baker another, a paratrooper a third, a pilot a fourth, the commander of a submachine gun platoon a fifth' (Alexievich, 2017b, p. 71).

One interviewee, a hairdresser in civilian life, said: 'My specialty is men's haircuts. A girl comes. I don't know how to cut her hair. She has luxuriant wavy hair. The commander enters the dugout. "Give her a man's haircut." "But she's a woman." "No. She's a soldier. She'll be a woman again after the war"' (Alexievich, 2017b, p. 164).

In other works, Alexievich has dealt with more recent events, such as the Soviet war in Afghanistan (Alexievich, 2017a) and the Chernobyl nuclear disaster (Alexievich, 2016a). Inevitably that brought her up against authorities whose narratives of events and outcomes are vastly different from those of surviving witnesses in her interviews.

A senior lieutenant, commander of a mortar platoon in Afghanistan, told her: 'No-one likes to remember a war that was lost' (Alexievich, 2017a, p. 124). Particularly unpalatable for authorities were accounts of casualties – the title *Boys in zinc* refers to the coffins in which the remains of fatalities were returned to their loved ones back in the Soviet Union. But the accounts of survivors – many with long-term physical and psychological injuries – covered a gamut of governmental failings, from inadequate equipment and training to poor living conditions and inadequate food. 'They gave us one tin of mackerel between four,' one interviewee told her.

'The label had the year it was tinned: 1956, and its storage life, eighteen months' (Alexievich, 2017a, p. 210).

'My doctors have promised that my memory could come back,' a helicopter pilot told her. 'Then I'll have two lives: the one they told me about, and the one that really happened. Come back then, and I'll tell you about the war' (Alexievich, 2017a, p. 93).

Not only were authorities disturbed by the testimony which Alexievich's interviewees presented, but relatives of some of the slain accused her of defaming the dead. A series of legal actions ensued in the 1990s. In the face of political persecution her position in Belarus became untenable and she went into exile, but returned in 2011 and was for a time 'guarded' in her own home by Austrian, Lithuanian, Polish, Czech, Romanian, Slovak and Swedish diplomats ('EU diplomats on guard', 2020).

In *Chernobyl prayer* (Alexievich, 2016a) the author also touched a raw nerve, giving free rein to the voices of people affected by the 1986 accident at the number 4 reactor at the Chernobyl nuclear power plant in the Ukraine, then part of the Soviet Union. The harrowing eye-witness accounts are what make this book different from others on the disaster. As Alexievich writes (2016a, p. 24): 'This is not a book on Chernobyl, but on the world of Chernobyl. Thousands of pages have already been written on the event itself, hundreds of thousands of metres of film devoted to it. What I'm concerned with is what I would call the 'missing history', the invisible imprint of our stay on earth and in time. I am trying to capture the life of the soul. A day in the life of ordinary people. Here, though, everything was extraordinary.'

The same approach is followed in her more recent work, dealing with the end of the Soviet Union. *Secondhand time* (Alexievich, 2016b) draws upon interviews conducted from 1991 to 2012. Some interviewees looked back longingly, from what seemed chaotic contemporary events, to the stability of the Stalin era, bizarre though that may seem to many of us. Others viewed developments with optimism. Others with cynicism. Some with inertia: 'I have no desire to go out into the street and try to accomplish anything,' someone told her. 'It's better to do

nothing. No good, no evil. What's good today will turn out to have been evil tomorrow' (Alexievich, 2016b, p. 295).

So Alexievich tells stories which would otherwise never be told, or would certainly not reach a wide audience. She presents 'small history' and many viewpoints, often suffused with raw emotion.

'I collect details and feelings, not only from an individual human life, but out of the air of the time, its space and its voices. I don't invent things or make conjectures, I gather the book together out of reality itself. This document is what people tell me, and a part of it is also me, as an artist, with my own view and awareness of the world' (Alexievich, 2016a, p. 275).

I have spent some time talking about Alexievich as a recent exponent of what I regard as a very powerful combination of two media: the spoken and the written word. Undeniably she has brought the voices she records to a huge international audience. Her works have been translated into at least thirteen languages. Millions of copies of her books have been sold around the world. This literary genre clearly has appeal, and not just to the Nobel Prize judges.

Works such as this are widely read, they inform, they entertain. They may also spark further interest in the subject, drawing attention to the source material, perhaps stimulating research, encouraging people to record their own thoughts or the thoughts of others, and to present them to a wider audience.

Institutions, for their part, can be more than collectors and repositories, by actively publishing and promoting, or encouraging publications which make use of their oral history resources.

Using this approach, a number of topics suggest themselves to me in relation specifically to Sarawak. Some of these topics have already featured in Pustaka Negeri Sarawak's oral history programme, and could be built upon with a view to wider dissemination.

The establishment of the Malaysia Federation, for example, was discussed in Pustaka's interviews with a number of key figures from the time, including Dato Lim Kian Hock, Tun Datuk Patinggi Haji Abdul Rahman Yakub and Datuk Stephen Jusem.

Sarawak's experience of the Volunteer Service Overseas programme could also be a suitable subject for a publication, providing insights by the volunteers into their experiences and also the reaction of locals in Sarawak. Pustaka staff have already interviewed ten or so former volunteers.

Difficult and sometimes controversial subjects should not be neglected, and Pustaka has indeed tackled issues such as the Anti-Cession Movement in Sarawak, and Konfrontasi, interviewing several former Border Scouts.

Many published oral histories have centred around crises of one sort or another, and the last year or so of COVID-19 has provided a classic example, akin to experience of war. Are the voices of frontline workers, decision-makers, hotel staff, children, market traders, airline workers, spiritual leaders, teachers, ordinary members of the public, being recorded as historical documents, so that we can learn from what we and others have lived through? I suspect there are many books in the pipeline dealing with the clinical, administrative, political, social and economic aspects of COVID. But what about Alexievich's 'little people' and their part in 'big history'?

Going back to local crises of the recent past, there was the East Asian Economic Crisis, which can be viewed from various levels, from decision makers who successfully championed Keynesian economic theory, to people in the street. On an environmental rather than economic level there have been states of emergency declared to cope with smoke haze, and a number of viewpoints merit documenting.

Urbanisation, resettlement, environmental protection, industrialisation and wildlife conservation are all Issues of vital importance, on which voices from the ground up should be recorded. This is to say nothing of the traditional arts and crafts, customs and knowledge, and the literatures of so many kinds transmitted orally, much good work on which is already under way.

Sport at various levels also deserves attention, whether at the village level or at national and international championships, and will be of interest to future generations. So too will accounts of entertainments and pastimes which predominated for generations before we became captives of the small screen.

As for the process of translating oral history recordings into something which is publishable in one format or another, considerable skill will be required in selection, editing and presentation.

Shopes (2016) provides a very helpful introduction to the finer points of editing oral history recordings for publication. She draws on a good range of examples to identify three genres of oral history publication: 'biographical narratives of one individual; works that pivot around multiple narrators talking about a single topic or theme; and more traditional, interpretive studies that draw upon oral history as one of multiple sources' (Shopes, 2016, p. 481).

It is the second of these genres upon which I have concentrated in this paper multiple voices on a single topic or theme and in which I see so many possibilities.

I do hope that the wealth of potential subject matter, Borneo-wide, and some of the examples I have mentioned, will inspire still more brave souls to take up the challenge of collecting further oral histories and, where appropriate, editing them for wider diffusion.

It is, to my mind, an effective way of ensuring that the voices of 'little people' are heard and preserved, thereby documenting Alexievich's 'missing history' before it goes missing completely, and presenting it to the world.

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A Bird and Schoolchildren: Knowledge Sharing About Kenyalang (Rhinoceros Hornbill) By Schoolchildren In Sarawak Via Social Media

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Abstract

Kenyalang, also known as Rhinoceros Hornbill in English and Enggang Badak in Bahasa Melayu, is the state bird of Sarawak. However, many Malaysians including Sarawakians are confused between Kenyalang and other hornbill species. Therefore, this study observes how knowledge sharing via social media by schoolchildren can educate the communities to know about Kenyalang. Students, teachers from five schools as well as parents were involved in creating a short video about Kenyalang. The video was uploaded into the the Kenyalang Lab YouTube Channel, and made it public for many people to watch, learn and share using other social media platforms. Data such as number of views, likes, shares as well as comments were collected within one week. Selected respondents were interviewed virtually via Zoom, or the respondents recorded their interviewed videos and sent via Telegram, WhatsApp and e-mail. The video received good responses from viewers, teachers, students and parents. It is also suitable for public whom want to know more about Kenyalang. By continuously adding informative and interesting videos, the Kenyalang YouTube Channel can be accepted as an educational channel for locals and people outside of Sarawak who want to know more about birds of Sarawak.

Keywords: *Kenyalang, schoolchildren, social media, youtube, community*

Introduction

observer, it passes like a thought ... trying to see it again the eye searches in vain; the bird is gone." The Kenyalang is a sacred bird to the Dayaks of Sarawak, particularly the Ibans and figures prominently in Orang Ulu tattoos and carvings.

Kenyalang refers to the Rhinoceros Hornbill (*Buceros rhinoceros*) (Smythies, 1999), is an official bird state of Sarawak. The bird is one of the largest hornbill species in Asia, measuring from 90 to 110 cm long. The bird species lives in tropical rainforests in Borneo, Java, Sumatra, Peninsular Malaysia and southern part of Thailand (Birdlife International, 2021). The global population of this bird species is decreasing; hence the hornbill species is listed as vulnerable on the International Union for Conservation of Nature (IUCN). In Sarawak, the bird species is categorized as one of the totally protected animal species (Sarawak Government Gazette, 1998).

Kenyalang has a yellow-reddish, large rhino-shaped casque on its yellow creamy, upper bill. The upper and under-wings as well as its neck and breast are in black, while its tummy is white. The tail feathers of this bird are in black and white. The male Kenyalang has orange-reddish eye-rings while the female has white eye-rings. This bird species is monogamous and pairs for life (Birdlife International, 2021; Smythies, 1999). They have a unique nesting strategy. A pair of Kenyalang nests in a natural cavity in a tree, where the female seals herself in for 80-90 days with an egg, and later the chick. During that period, the male feeds them through a small hole in the nest. When the young chick is about 45 days old after hatching, the female leaves the nest. Both parents then reseal the nest with mud leaving the chick inside safely. The parents feed the young chick through a small hole nest, until it reaches 80 days old.

As the mascot bird of Sarawak, all Sarawakians should be able to recognize the Kenyalang as the Rhinoceros Hornbill. As the mascot bird or a Coat of Arms of Sarawak, all Sarawakians should be able to recognize the Kenyalang as the Rhinoceros Hornbill. A Coat of Arms is like a flag, a symbol. Symbols such as flags, emblems and coat of arms like other examples of group symbols (football club emblems, political



Figure 1

Orang Ulu "The Tree of Life" mural at the Sarawak Museum (Old building). The Kenyalang figures prominently at the top of the Tree of Life. Pipiens, R. (Photographer). (2009, September 1st). Orang Ulu' Tree of Life in Kuching, Sarawak, Malaysia. [digitalimage]. <https://www.flickr.com/photos/87453322@N00/3877832454>

Why do so many indigenous cultures place so much cultural and religious significance on avifauna? Probably the natural qualities and abilities of birds made them ideal candidates to be deified as gods. Birds have the ability to fly and soar high above the treetops, over natural and man-made barriers, disappear for long periods of time on mysterious migratory routes and produce sounds which to human ears are hard to mimic. The distinct sound that each bird species produce therefore play an important role in augury, especially amongst the Dayaks of Borneo (Figure 1). John James Audubon, an renown American ornithologist, said that "when an individual [bird] is seen gliding through the woods and close to the

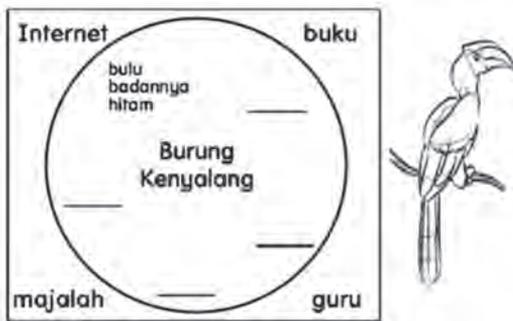


Figure 2

A schoolteacher mistook the Great Hornbill as the Kenyalang.

symbols, company logos etc) are intangible representations of perceived group membership. If we were to examine a nations' flag for example, the stitched pieces of cloth are not only the representations or the symbol that represents the country but also its ideals, values, history and memories, which are strongly related to that nation. Such is the power of the symbolism of a flag that it invokes a feeling of pride when one's fellow citizen were to win the highest achievement like a Gold medal in the Olympic Games, or a sense of deep shame if the flag was associated with negative events like. For example if a member of the country's armed forces were to be involved in war crimes in a conflict zone. Before the existence of the modern state system, there also exists some semblance of what later would be called a national attachment or a sense of loyalty towards the tribe, a powerful chieftains and kingdoms. Having a symbol or flag to rally to, probably fulfils a basic human desire to feel as part of a large family, for being alienated is a psychologically terrifying.

However, present scenario shows that many Sarawakians are still confused and linked Kenyalang with Great Hornbill, all hornbill species in Malaysia or toucan species from South America (Gawin & Dit, 2021). Misidentification of Kenyalang with other bird species are rampant in mass and social media. For example, a school exercise for Primary one (elementary level) schoolchildren extracted from the internet (Figure 2) showed the Great Hornbill (*Buceros bicornis*) as the Kenyalang.

The main objective of this project was to observe how knowledge sharing via social media by schoolchildren could educate the communities to

know more about Kenyalang. The knowledge include biological and cultural-historical perspectives. Besides, through this project, students were exposed to the experiences of collaborating with their teachers (and schools) and professional researchers from local universities in Sarawak.

Materials and Methodology

Pre-video production

Six schools (SK Tringgu, Bau; SJK Chung Hua Buso, Bau; SM Tunku Putra, Kuching; SK Kampung Bakong/ Terus Dalat, Mukah; SK Nanga Gerenjang, Saratok; SK Ba Kelalan, Lawas) were selected for this project. Students were selected based on their short essay writing, pictorial essay and art assignments. Their teachers were in-charge to give assignments to them. Due to the Covid-19 Pandemic, the assignments were given via social media platforms, such as WhatsApp, Telegram and any compatible platforms. Students' responses in rural areas were lukewarm due to limitations in electronic devices and internet connectivity, in comparison with SM Tunku Putra, whereby 75% students responded.

After checking the students' assignments, 4 students from SK Kampung Bakong/ Terus, 3 students from SM Tunku Putra, 3 from SK Tringgu Bau, 2 from SK Ba Kelalan, and 1 each from SK Nanga Gerenjang and SJK Chung Hua Buso were selected to be a part of a short video production.

Video production

The video production took about 3 weeks to be completed. A script was written beforehand and checked by a Bahasa Melayu teacher from SM Tunku Putra. The script was given to all five teachers and sent to the students' parents or students themselves via the social media platforms. The teachers would guide parents to train their children to act, to read while the parents would do the recording using smartphones. Only teachers from SM Tunku Putra directly trained their own students.

After obtaining all videos from all the selected schoolchildren from their teachers, the next step would be audio and video editing. Audacity version 2.4.2 (Audacity Team, 2021) and Wondershare Filmora version 7.8.9

(Wondershare, 2021) were used for the audio and video editing process. An 11 minutes and 30 second long video was produced. It was divided into few parts: 1). Introduction of Kenyalang; 2) Kenyalang and its conservation status in Sarawak; 3) Kenyalang external features; 4) Kenyalang and its other names; 5) Kenyalang and its roles in Dayak communities in Sarawak; and 6) Kenyalang as the Sarawak's coat of arms. The whole recording and editing processes took 3 weeks to be done. The video entitled as "Kenyalang" was published in the Kenyalang Lab YouTube Channel (Figure 3). The video link was shared in Facebook page and other social media platforms such as WhatsApp or Telegram.



Figure 3
The QR code of the "Kenyalang" video.
The video link <https://youtu.be/gMAAtgomayrw>.

Post video production

Data such as number of views, likes, age etc were gathered from the video analytics, starting from 23rd July to 29th July 2021. All data would be analysed in Excel (Microsoft Corporation, 2018). Any comments from the Kenyalang Lab YouTube Channel, Facebook page as well as in WhatsApp were also gathered. In addition, a few teachers, students and members of the public were selected for interview sessions. Their knowledge about the Kenyalang and opinions after watching the You Tube video were also gathered.

Findings and Discussion

Schoolchildren and Kenyalang

It was believed that children from developing countries are usually more knowledgeable about nature and acquired better ecological understanding than children from developed countries (Patrick & Tunnicliffe, 2011). However, the assertion did not parallel with the results in this project which revealed that less 1% of the 51 participated schoolchildren, only know "Kenyalang is the state bird of Sarawak" (n=4), "Kenyalang is the Rhinoceros Hornbill" (n=5) and "Kenyalang is the Rhinoceros Hornbill and the state bird of Sarawak" (n=2). By analyzing answers from the students, majority of them extracted the knowledge from the internet. The issue here is if they extracted information from the wrong websites, pages or posts in the social media such as Facebook, they would end up holding the false beliefs. It is believed that the schoolchildrens' limited knowledge on Kenyalang could be due to a general ornithoapatheia (i.e. to passion to know further of certain items) observed in adults, whom children trusted to acquire knowledge (Pam et al., 2018). Acquiring false knowledge can be avoided if adults who hold strong and true knowledge of Kenyalang can guide them.

Kenyalang Lab YouTube Channel

Within a week, 668 viewers from Malaysia have watched the "Kenyalang" video via the Kenyalang Lab's You Tube channel. Not subscribed viewers who do not have YouTube account (n=662) watched more than subscribed viewers who have YouTube account (n=46). By looking at the Figure 4, the highest number of

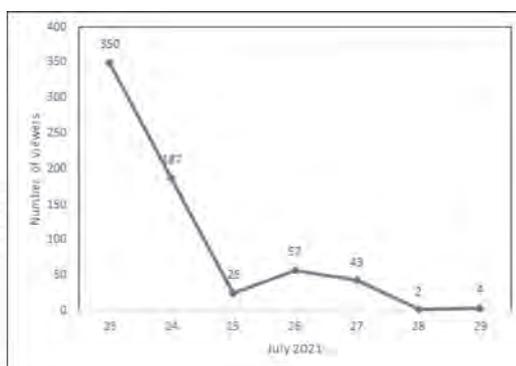


Figure 4
Number of viewers for every day within one week

viewers (n=350) was recorded on the Day 1, and the number of viewers decreased to Day 2 and increased a bit again on Day 4, and finally less than 5 viewers on day 6 and 7. It is interesting also, to note that 64.05% from the 668 viewers are female, and 35.95% are males; and 78.26% viewers are from 35 to 44 years old and 21.54% are from 45 to 54 years old. In addition, majority of the viewers used mobile phone (n=612) to watch the video, followed by computer (n=52) and finally TV (n=4). During the whole one week, 15 subscribers subscribed the Kenyalang Lab.

The total number of 668 viewers is still small probably because the video was promoted amongst a small circle of friends and family members of students, teachers and people who were involved in this video production. A few of them shared the video in their own personal Facebook account. In addition, the Kenyalang Lab's You Tube is still a new channel, which was created on 21st July 2021 with the conjunction of the Sarawak Independence Day. The increment number of viewers and subscribers will take times parallel with the increment number of new, interactive and informative videos about Kenyalang and other Bornean bird species in Sarawak. This is a normal process for any You Tube content creators. It takes a certain period to gain more viewers, subscribers and fans. For examples, at the time this article was wrote, Cornell Lab of Ornithology (Link: <https://tinyurl.com/mxdj2a56>) that was establish in June 2, 2008, with has garnered 101M viewers and 387K subscribers. Another example is the famous science channel, AsapSCIENCE (Link: <https://tinyurl.com/zkycb9er>) that was established in May 2012, with only 374 videos, the channel managed to attract 1.5 viewers with 9.72 subscribers. Using these two channels as examples, the Kenyalang Lab probably can reach many viewers within and outside of Sarawak, by keep uploading interesting and likable videos.

YouTube as a sharing platform

YouTube.com that was founded by Chad Hurley, Steve Chen and Jawed Karim in 2005, is the world's most famous video-sharing platform where people can share music, knowledge, news etc (Chowdhury, 2019; Wattenhofer et al., 2012). The Kenyalang Lab You Tube is an educational channel that focuses on educating and giving knowledge about birds in Sarawak to

the locals and people outside of Sarawak. Academicians, researchers, graduate and undergraduate students can use this video-platform to introduce their researches and share educational contents about birds of Sarawak to communities outside of universities. Indirectly, it is another way for universities to engage with the communities using social media.

Making and distributing videos in You Tube can help introduce researchers to locals and the world. By adding first-person narratives, reshaping science-news information to be more understandable by non-experts, and the videos are readily available to any viewers, the researchers can reach people who are interested in science but cannot read original manuscripts in a journal for few reasons (Smith, 2018). In fact, one of the reasons is the usage of jargon scientific languages, which put off non-experts or "lay audiences" to be interested to read any scientific papers even though they were made public (Smith, 2018). In this project, the "Kenyalang" video was produced together with schoolchildren and their teachers. Information about this hornbill species which retrieved from few sources (Bird Life International, 2018; Birdlife International, 2021; Freeman, 1961; King, 1977; Kitamura et al., 2011; Sarawak Government, 2021; Sarawak Government Gazette, 1998; Smythies, 1999) were reconstructed to be more understandable and easily accepted by schoolchildren as well as public. The whole processes in producing the video content have creating a partnership between universities and public communities.

The outcomes from this partnership positively received from the teachers, students and parents who involved in the production. Few of them stated that their knowledge on Kenyalang have increased before participating this project. They only knew one or three information about Kenyalang, and majority only know "Kenyalang is the bird state of Sarawak". After watching the video, they acquired more information about Kenyalang. For example, a student from SM Tunku Putra who participated in the video production mentioned, "My knowledge about Kenyalang increases..." Besides, one of the teachers said "I feel this video is suitable for students to watch, especially for primary and secondary schoolchildren.... the dialog is in Malay language and the video also includes

English subtitle, hence viewers can choose to listen or read in order to know more about Kenyalang. I'm not bored to watch the video, as the schoolchildren themselves tell what Kenyalang is" Based on these two opinions, the video was considered suitable to be watched by students and teachers to learn about Kenyalang.

Students who did not participate in the video production also shared the same opinions. They agreed the video did educate them to know more about Kenyalang. One of the students stated, "I was thought Kenyalang is a herbivore, but after watching the video, I get to know Kenyalang likes to eat animals (small animals) like snakes and frogs. Also I get to know Kenyalang is a scared bird for Iban and Orang Ulu community in the past." Another student also mentioned, "I learn many things about the bird." The interviews did include a parent and other viewers, and their opinions are similar to the students. The parent mentioned, "The video tells us the history of the bird, especially Kenyalang, from beginning till the end." Kulleh Grasi represents one of the public members and a poet writer of Tell Me Kenyalang expressed, "I feel this initiative shall be supported and continued on in giving accurate information about this species, so that we are called to look after their habitat....and this video is suitable to for public." In addition, the video received comments from few viewers, and they commented "Very nice. Good job. Loves the involvements of the children. So refreshing. Keep up the good work." and "Very nice. Good for MP (syllabus) Science in my district."

Based on the positive reviews or comments from participants and viewers, the "Kenyalang" video did create positive impacts to the local communities. In this digital era, teaching and learning had drastically changed from a passive into a more interactive form. By using multimedia in the process of teaching and learning, this integration created an interactive culture on the internet (Jenkins, 2006). In other words, a social link can be created between people who have never met face to face via social media platforms. Through this project also, students, teachers and parents as well as the researcher formally and informally; this included skills in technology and content creation. In addition, technologies have changed the way researchers and educators distribute or share their knowledge. With YouTube and other social media platforms, many people

can access the knowledge instantly regardless where they are (Wattenhofer et al., 2012).

Conclusion

Many schoolchildren, teachers and parents have accepted the video of "Kenyalang". The collaboration between teachers, schoolchildren and researchers in creating educational contents shall be continued on, since it gives benefits to local communities. By constantly adding informative and interactive educational videos on birds in Sarawak, the number of viewers and subscribers will be increased. Eventually the Kenyalang Lab YouTube will gain its reputation as a channel viewed and subscribed by many people inside and outside of Malaysia. In addition, this study involved only a small number of participants. Hence, further study on children's knowledge and perceptions of birds in Sarawak shall be conducted in order to understanding factors for them to have limited knowledge of Sarawak birds. Besides, it will be interesting how much children in rural areas know about birds compared to the children in urban areas.

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Indigenous Knowledge In Borneo: A Bibliometric Review

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Abstract

The paper is to presents a bibliometric review of the research publication output of indigenous knowledge in Borneo. This study adopted a bibliometric analysis based on the data obtained from the Scopus research database. The main keyword used is "Borneo", to highlight research relevant that reflected through its publications and their research productivity. This study attempts to focus analyses the results using standard bibliometric indicators such as publication year, document type, source type, source title, languages, subject area, keywords analysis, geographical distribution, authorship, active institutions, and citation analysis on the subject of "Borneo" throughout 5 years (2017-2021) impact study. From the major findings, Universiti Malaysia Sabah and Universiti Malaysia Sarawak from Malaysia are the institutions and country that produced the most publications output on this study. The study also shows the results on the most subjects are in agricultural and biological sciences, arts, and humanities, biochemistry, genetics, and molecular biology. Besides that, this study aims to facilitate the search for information, bibliography materials and knowledge topics, especially on Borneo.

Keywords: *Borneo, Indigenous Knowledge, Bibliometric, Scopus, research productivity*

Introduction

Indigenous knowledge refers to the understandings, skills, and philosophies developed by societies with long histories of interaction with their natural surroundings. For rural and indigenous peoples, local knowledge informs decision-making about fundamental aspects of day-to-day life.

Borneo is the third-largest island in the world and the largest in Asia. The island is politically divided among three countries: Malaysia and Brunei in the north, and Indonesia to the south. The island is politically divided among three countries: Malaysia and Brunei in the north, and Indonesia to the south. It is the only island in the world to be politically administered by three countries at once. Approximately 73% of the island is Indonesian territory. In the north, the East Malaysian states of Sabah and Sarawak make up about 26% of the island. Additionally, the Malaysian federal territory of Labuan is situated on a small island just off the coast of Borneo. The sovereign state of Brunei, located on the north coast, comprises about 1% of Borneo's land area. A little more than half of the island is in the Northern Hemisphere, including Brunei and the Malaysian portion, while the Indonesian portion spans the Northern and Southern hemispheres. Table 1 summarizes the understanding of its economy by the countries.

Literature Review

Indigenous knowledge is highly connected to spirituality. According to Clarry Sada (2019), any development must accommodate the indigenous people gradually to preserve the environment and culture. Borneo Island is one of the heartbeats of the world, therefore, the governments should preserve the land of Borneo as conservation areas and forests. However, in

the last few years, it has become the industrial area so many business organizations run their businesses in various sectors such as plantation, mining, and other explorations. Unfortunately, the development has not got much impact on the indigenous people in the area because the local has not yet ready for the impact of industrialization.

Bibliometric analysis is a widely used research method for detecting the state of the art for a particular field. The method can utilize quantitative analysis and statistics to describe patterns of publications within a given period or body of literature. Researchers employ bibliometric analysis for determining the evaluation of a field of study or to ascertain influences and the relationships of several distinct fields. The term bibliometric was first invented by Fairthorne (1969) and Pritchard (1969). Bibliometrics is one of the most systematic measures for analysing literature and most often uses quantitative approaches. In addition, the bibliometric analysis can identify the research gaps and provide guidance for the future studies within the emerging field.

Table 1
Economy by the countries

Countries	Economy
Brunei	Up to 90% of the state's GDP is dependent on crude oil and natural gas. Because of its rich oil resources, Brunei is the fourth-largest producer of oil in Southeast Asia.
Malaysia (Sabah & Sarawak)	Timber export was the main resource of Sabah's economy, but with efforts to save forests and its flora and fauna, the palm oil trade has emerged as an alternative trade. Other agricultural products that Sabah trades in, include rubber and cacao along with fisheries and vegetables. With time, the tourism industry has turned out to be the second-largest contributor to the economy.

	<p>LNG and petroleum are the main sources of the Malaysian federal government's economy for decades, while Sarawak merely receives a royalty. Tropical hardwood timber is the backbone of Malaysian exports and Sarawak is one of the largest exporters of such type of wood.</p> <p>Both the state's economy is also influenced by its rising tourism industry. Almost every year the state witnesses a drastic increase in the number of tourists visiting Sabah and Sarawak.</p>
Indonesia	<p>Around 73% of the island of Borneo is covered by Kalimantan, the Indonesian territory, which is sub-divided into four major parts such as East Kalimantan, West Kalimantan, North Kalimantan, and South Kalimantan.</p> <p>The economy of East Kalimantan is dependent on natural resources such as oilfield exploration, natural gas as well as coal and gold mining. Other sources of income include agriculture and tourism.</p> <p>The economy of South Kalimantan is supported by many economic sectors. Agricultural sectors include rice, corn, peanuts, soy beans, coconut, rubber, cloves, and cacao. Livestock, fish products, and the forestry sector have a major role in the economy of South Kalimantan.</p> <p>The mining sector is ruled by petroleum, coal, diamond, gold, iron ore, and tiles. Wood carvings, rattan and wood furniture, reptile skins, and</p>

	<p>weaving are famous handicrafts.</p> <p>Major exports for West Kalimantan are processed wood, rubber, and fish while log, sawn timber, rattan, and resin come from Central Kalimantan.</p>
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Method

Scopus science database was used in this bibliometric research to analyse collected documents with the title, abstract, and keyword of "Borneo". This study analyses all types of publications released from 2017 to June 2021 in the Scopus database. Scopus is an extensive multidisciplinary database containing citations and abstracts from peer-reviewed papers, industry journals, books, patent records, and conference publications. It offers tools to track, analyse and visualize search data. In addition, currently, the Scopus database contains more than 39,743 titles, of which over 25,000 actives and 14,558 inactive titles (mostly predecessors of the active titles) and it has also contained more than 210,000 books. This kind of database can provide an inclusive overview of the scientific research output of the world. Currently, the Scopus database is considered one of the primary sources of related information by the international scientific community.

Bibliometric analysis was executed by the Scopus database as of June 2021. The following keywords have been used in the Scopus database to search relevant articles which is related to (TITLE-ABS-KEY (Borneo) AND (LIMIT-TO (PUBYEAR, 2021) OR LIMIT-TO (PUBYEAR, 2020) OR LIMIT-TO (PUBYEAR, 2019) OR LIMIT-TO (PUBYEAR, 2018) OR LIMIT-TO (PUBYEAR, 2017)).

- Microsoft Excel 2019 was used to compute the frequency and percentage of each publication and to create appropriate graphical representations.

Objectives

This research conducted a bibliometric analysis published on Borneo by involving the following research questions:

RQ1 What is the current trend and impact of publication on Borneo studies?

RQ2. Which are the most productive and influential countries, institutions, and authors on Borneo studies?

RQ3. Which are the most influential articles on Borneo's studies?

RQ4. How many publications can be collected for bibliographies?

This paper has been divided into four sections containing methodology, results, and findings, and interpretations and discussion of various considerations and elaboration in answering the research questions. This research aimed to gain a deeper understanding and trends research on Borneo studies, especially in its increasing worldwide of information and knowledge on Borneo studies.

This study will also help the researchers to propose future research recommendations by examining the Scopus database publications in the indigenous knowledge in Borneo. Meanwhile, from the results, we can compile and collect those relevant publications into the bibliographies for academic and research references.

Results and Findings

This part shows the results obtained from the bibliometric analysis to solve the problems raised in the research. From the Scopus research database, 1572 documents related to the Borneo study were generated. The current research aimed to answer the current trend and impact of publication in Borneo studies. Secondly, to recognize the most productive and influential countries, institutions, and authors on Borneo studies, and finally, to know the most influential articles on Borneo studies.

Annual growth data up until June 2021 were also presented in the findings, including their frequency and percentage. To understand the current trends and impact of publications in Borneo studies, we used a total of publications divided by year, country, journal, author, and organization to analyse publication trends in Borneo studies. We use bibliographic data collected from the Scopus database to calculate the data for this analysis. The discussion over the annual growth will show the trend and impact of publications Borneo studies is the first point for showing the current trends.

Publication by year

Table 2 shows the number of publications between 5 years from 2017 to 2021. The study on Borneo is growing steadily, in 2020 has the highest peak, with 415 publications reported (26.40%) from the total of 1572 publications generated in Scopus database.

Table 2
Annual growth of publication

Year	TP	%
2021	176	11.20%
2020	415	26.40%
2019	337	21.44%
2018	348	22.14%
2017	296	18.83%

Document type

We also analyse the document gathered from the Scopus database based on the document type, source type, as well as the source title. The document type can be either journal article, conference paper, review, article, book, book chapter, or editorial. Table 3 presents the document type analyses from this study. Journal articles represent highest percentage (80.85%) of the articles published on Borneo research study, followed by conference paper (12.28%) review paper (2.86%) and book chapter (1.97%).

Table 3
Publication by document type

Document Type	TP	%
Article	1271	80.85%
Conference Paper	193	12.28%
Review	45	2.86%
Book Chapter	31	1.97%
Book	1	0.06%

TP: Total publication

Source type

While there are various document types for the published articles on Borneo, there are also different categories of source type identified in this study. Table 4 shows that most of the articles are published in the journal compared to conference proceedings and books.

Table 4
Publication by source type

Source Type	TP	%
Journal	1343	85.43%
Conference Pro-ceeding	184	11.70%
Book Series	28	1.78%
Book	17	1.08%

TP: Total publication

Source title

From the various journals published based on the objective of the studies. Table 5 below shows the top source titles with minimum (TP=10) that have been published and produced by each source title. It can be seen from the table that Iop Conference Series Earth and Environmental Science host the highest paper on relevant study (TP=72). Followed by Zootaxa (TP=45) and

Biodiversitas (TP=34). Meanwhile the Journal of Physics Conference Series, Phytotoxa and Aip Conference Proceedings have published at least (TP=20).

Table 5
Publication by source title

Source Title	TP	%
Iop Conference Series Earth and Environmental Science	72	4.58%
Zootaxa	45	2.86%
Biodiversitas	34	2.16%
Journal of Physics Conference Series	24	1.53%
Phytotoxa	22	1.40%
Aip Conference Proceedings	20	1.27%
Biological Conservation	17	1.08%
Scientific Reports	17	1.08%
Plos One	14	0.89%
Biotropica	13	0.83%
Forest Ecology and Management	13	0.83%
Iop Conference Series Materials Science and Engineering	13	0.83%
Malaysian Applied Biology	13	0.83%
Biogeosciences	12	0.76%
Zookeys	12	0.76%
Environmental Research Letters	11	0.70%
Peerj	11	0.70%
Forests	10	0.64%
Journal Of Sustainability Science and Management	10	0.64%
Raffles Bulletin of Zoology	10	0.64%

Languages of documents

Based on Table 6, English is commonplace for most of the publications in this research domain (TP=1571; 99.94%) and another encountered language include French (TP=1, 0.06%)

Table 6
Publication by languages

Language	TP	%
English	1571	99.94%
French	1	0.06%

TP: Total publication

Subject area

This study next classifies the published documents based on the subject area as summarized in Table 7. The distribution of research on Borneo emerges mainly from Agricultural and Biological Sciences (TP=772, 49.11%), Environmental Science (TP=475, 30.22%) and Earth and Planetary Sciences (TP=277, 17.62%). However, there are also other subject areas that also published articles on Borneo as reported in Table 7.

Table 7
Publication by subjects

Subject Area	TP	%
Agricultural and Biological Sciences	772	49.11%
Arts and Humanities	52	3.31%
Biochemistry, Genetics and Molecular Biology	151	9.61%
Business, Management and Accounting	22	1.40%
Chemical Engineering	6	0.38%
Chemistry	35	2.23%
Computer Science	56	3.56%
Decision Sciences	20	1.27%
Dentistry	3	0.19%
Earth and Planetary Sciences	277	17.62%
Economics, Econometrics and Finance	18	1.15%
Energy	74	4.71%
Engineering	83	5.28%
Environmental Science	475	30.22%
Health Professions	4	0.25%
Immunology and Microbiology	73	4.64%
Materials Science	37	2.35%
Mathematics	13	0.83%
Medicine	158	10.05%
Multidisciplinary	58	3.69%
Neuroscience	13	0.83%
Nursing	4	0.25%
Pharmacology, Toxicology and Pharmaceutics	42	2.67%
Physics and Astronomy	62	3.94%
Psychology	1	0.06%
Social Sciences	185	11.77%
Veterinary	17	1.08%

TP: Total publication

Keywords analysis

Table 8 showed the top of keywords used from the published research on Borneo. This analysis described the research relevant on Borneo studies that emerged the niche areas to further research.

Table 8
Keywords analysis

Subject Area	TP	%
Borneo	769	48.92%
Malaysia	384	24.43%
Indonesia	204	12.98%
East Malaysia	191	12.15%
Article	178	11.32%
Sabah	167	10.62%
Animals	158	10.05%
Animal	155	9.86%
Sarawak	152	9.67%
Human	129	8.21%
Biodiversity	127	8.08%
Nonhuman	122	7.76%
Kalimantan	110	7.00%
Male	99	6.30%
Female	95	6.04%
Southeast Asia	84	5.34%
Tropical Forest	81	5.15%
Elaeis	80	5.09%
Humans	77	4.90%
Forestry	75	4.77%
Rainforest	70	4.45%
Taxonomy	70	4.45%
Phylogeny	69	4.39%
Controlled Study	68	4.33%
Brunei Darussalam	66	4.20%
Forest	61	3.88%
Climate Change	59	3.75%
Deforestation	58	3.69%
New Species	57	3.63%
Adult	55	3.50%
Genetics	55	3.50%
Tropics	55	3.50%
Forests	51	3.24%
Sumatra	51	3.24%
Conservation	49	3.12%
Sunda Isles	46	2.93%
Greater Sunda Islands	44	2.80%
Land Use	43	2.74%

Ecosystem	41	2.61%
Physiology	41	2.61%
Remote Sensing	39	2.48%
Plasmodium Knowlesi	36	2.29%
Species Diversity	36	2.29%
Genetic Variation	35	2.23%
Oil Palm	35	2.23%
Major Clinical Study	34	2.16%
Peatland	34	2.16%
Classification	33	2.10%
Malaria	33	2.10%
Parasitology	33	2.10%
Unclassified Drug	33	2.10%
Brunei	32	2.04%
Morphology	32	2.04%
Isolation And Purification	31	1.97%
Pacific Ocean	31	1.97%
Species Richness	31	1.97%
Tree	31	1.97%
Habitat Fragmentation	30	1.91%
Primate	30	1.91%
Chemistry	29	1.84%
Polymerase Chain Reaction	29	1.84%
Priority Journal	29	1.84%
Selective Logging	29	1.84%
Sustainable Development	29	1.84%
Concentration (composition)	28	1.78%
Ecosystems	28	1.78%
Pongo Pygmaeus	28	1.78%
South China Sea	28	1.78%
Agriculture	27	1.72%
Land Use Change	27	1.72%
Tropical Environment	27	1.72%
Tropical Region	27	1.72%
Wetlands	27	1.72%
Environmental Protection	26	1.65%
Forest Management	26	1.65%
Mammalia	26	1.65%
Plantation	26	1.65%
Carbon Dioxide	25	1.59%
Drought	25	1.59%

Mammal	25	1.59%
Tropical Rain Forest	25	1.59%
El Nino	24	1.53%
Palm Oil	24	1.53%
Peat	24	1.53%
Trees	24	1.53%
Animalia	23	1.46%
Distribution	23	1.46%
Ecology	23	1.46%
Endangered Species	23	1.46%
Logging	23	1.46%
Logging (timber)	23	1.46%
Prevalence	23	1.46%

TP: Total publication

Distribution of publication by countries

Table 9 indicates the top countries that collaborated to produce the publication on Borneo studies. There are 8 countries in the rank produced above (TP=100) on the research. Malaysia is the highest (TP=992), Indonesia (TP=527) and United Kingdom (TP=260). Followed by United States (TP=224), Australia (TP=155), Japan (TP=154), Brunei Darussalam (TP=140) and Germany (TP=104). From the table 9, the remaining countries also shown the high interest to collaborate their research on Borneo from difference perspectives

Table 9
Publications by countries

Country	TP	%
Malaysia	992	63.10%
Indonesia	527	33.52%
United Kingdom	260	16.54%
United States	224	14.25%
Australia	155	9.86%
Japan	154	9.80%
Brunei Darussalam	140	8.91%
Germany	104	6.62%
Singapore	79	5.03%
Netherlands	65	4.13%

China	56	3.56%
France	56	3.56%
Czech Republic	27	1.72%
Switzerland	27	1.72%
Canada	23	1.46%
Thailand	21	1.34%
Italy	20	1.27%
South Africa	18	1.15%
Spain	18	1.15%
India	17	1.08%
Norway	17	1.08%
South Korea	17	1.08%
New Zealand	14	0.89%
Taiwan	14	0.89%
Austria	12	0.76%
Denmark	11	0.70%
Belgium	9	0.57%
Saudi Arabia	9	0.57%
Bangladesh	8	0.51%
Finland	8	0.51%
Pakistan	8	0.51%
Panama	8	0.51%
Philippines	8	0.51%
Portugal	8	0.51%
Sweden	8	0.51%
Vietnam	8	0.51%
Russian Federation	7	0.45%
Hong Kong	6	0.38%
Poland	6	0.38%
Hungary	5	0.32%
Nigeria	5	0.32%

TP: Total publication

Authorship analysis

Table 10 shows the number of author(s) per documents. The top author is by Professor Dr Benoît Goossens from Cardiff University, United Kingdom (TP=46), followed by Associate Professor Dr Henry Bernard from (TP=30), Professor Dr Charles Santharaju Vairappan

(TP=27), Associate Professor Dr Monica Suleiman (TP=23) from Universiti Malaysia Sabah. Other authors also published more than 20 publications are Associate Professor Dr Mohd Azlan Jayasilan (TP=22) from Universiti Malaysia Sarawak.

Table 10
Publications by autoship

Author Name	TP	%
Goossens, B.	46	2.93%
Bernard, H.	30	1.91%
Vairappan, C.S.	27	1.72%
Suleiman, M.	23	1.46%
Mohd-Azlan, J.	22	1.40%
Ewers, R.M.	19	1.21%
Ancrenaz, M.	18	1.15%
Meijaard, E.	18	1.15%
Reynolds, G.	17	1.08%
Struebig, M.J.	17	1.08%
Kamada, T.	16	1.02%
Nilus, R.	16	1.02%
Vijith, H.	16	1.02%
Wong, S.Y.	16	1.02%
Boyce, P.C.	15	0.95%
Dodge-Wan, D.	15	0.95%
Jeffree, M.S.	15	0.95%
Budiman, E.	14	0.89%
Burslem, D.F.R.P.	14	0.89%
Chung, A.Y.C.	14	0.89%
Das, I.	14	0.89%

TP: Total publication

Most active institutions

Table 11 shows the affiliations from which most of the publications produced. Universiti Malaysia Sabah is the top rank with (TP=265), followed by Universiti Malaysia Sarawak (TP=217) and Universiti Brunei Darussalam (TP=115). Other institutions produced below 100 publications on the relevant research.

Table 11
Publications by active institutions

Institution	TP	%
Universiti Malaysia Sabah	265	16.86%
Universiti Malaysia Sarawak	217	13.80%
Universiti Brunei Darussalam	115	7.32%
Forest Research Centre - Sandakan	78	4.96%
Lembaga Ilmu Pengetahuan Indonesia	75	4.77%
University of Malaya	70	4.45%
Kyoto University	57	3.63%
Sabah Wildlife Department	53	3.37%
IPB University	50	3.18%
Universiti Putra Malaysia	48	3.05%
Danau Girang Field Centre	48	3.05%
Universiti Kebangsaan Malaysia	47	2.99%
National University of Singapore	45	2.86%
Cardiff University	45	2.86%
College of Biomedical and Life Sciences	44	2.80%
Universiti Malaysia Terengganu	43	2.74%
Universiti Sains Malaysia	42	2.67%
The University of Queensland	39	2.48%
Universitas Gadjah Mada	36	2.29%
Curtin University, Malaysia	35	2.23%
Imperial College London	35	2.23%

Citation analysis

The productivity of the researchers also can be measured by the number of citations that has been cited per year. Table 12 discloses the topmost cited articles from Scopus database with at least 40 citations received (based on the number of times being cited). The document entitled "Topography shapes the structure, composition and function of tropical forest landscapes" by Jucker T., et al. (2018) has so far received the highest number of citations (84 citations). Followed by Qie, L et al. (2017), document entitled "Long-term carbon sink in Borneo's forests halted by drought and vulnerable to edge effects" (68 citations), and a document entitled "Impact of regional haze towards air quality in Malaysia: A review" by Latif

M.T., et al. (2018) which received 67 citations. Another document entitled "Palaeolithic cave art in Borneo" by Aubert M., et al. (2018) also received (61 citations). This table also shown the most influence document with minimum of 40 citations received throughout the year.

Table 12
Publications by citations

Authors	Title	Year	Source Title	Cited by
Jucker T., et al. (2018)	Topography shapes the structure, composition and function of tropical forest landscapes	2018	Ecology Letters	84
Qie L., et al. (2017)	Long-term carbon sink in Borneo's forests halted by drought and vulnerable to edge effects	2017	Nature Communications	68
Latif M.T., et al. (2018)	Impact of regional haze towards air quality in Malaysia: A review	2018	Atmospheric Environment	67
Aubert M., et al. (2018)	Palaeolithic cave art in Borneo	2018	Nature	61
Voigt M., et al. (2018)	Global Demand for Natural Resources Eliminated More Than 100,000 Bornean Orangutans	2018	Current Biology	55

Santika T., et al. (2017)	Community forest management in Indonesia: Avoided deforestation in the context of anthropogenic and climate complexities	2017	Global Environmental Change	55
Taufik M., et al. (2017)	Amplification of wildfire area burnt by hydrological drought in the humid tropics	2017	Nature Climate Change	53
Sa'adi Z., et al. (2017)	Projection of spatial and temporal changes of rainfall in Sarawak of Borneo Island using statistical downscaling of CMIP5 models	2017	Atmospheric Research	51
Sa'adi Z., et al. (2019)	Trends analysis of rainfall and rainfall extremes in Sarawak, Malaysia using modified MannKendall test	2019	Meteorology and Atmospheric Physics	49
Asner G.P., et al. (2018)	Mapped aboveground carbon stocks to advance forest conservation and recovery in Malaysian Borneo	2018	Biological Conservation	49

Ma C.-K., et al. (2017)	Repair and rehabilitation of concrete structures using confinement: A review	2017	Construction and Building Materials	49
Ashton L.A., et al. (2019)	Termites mitigate the effects of drought in tropical rainforest	2019	Science	48
Usinowicz J., et al. (2017)	Temporal coexistence mechanisms contribute to the latitudinal gradient in forest diversity	2017	Nature	47
Morgans C.L., et al. (2018)	Evaluating the effectiveness of palm oil certification in delivering multiple sustainability objectives	2018	Environmental Research Letters	46
Gaveau D.L.A., et al. (2019)	Rise and fall of forest loss and industrial plantations in Borneo (2000–2017)	2018	Conservation Letters	44
Luke S.H., et al. (2017))	The effects of catchment and riparian forest quality on stream environmental conditions across a tropical rainforest and oil palm landscape in Malaysian Borneo)	2017	Ecology	43

Abram N.K., et al. (2017)	Oil palmcommunity conflict mapping in Indonesia: A case for better community liaison in planning for development initiatives	2017	Applied Geography	43
Santika T., et al. (2019)	Does oil palm agriculture help alleviate poverty? A multidimensional counterfactual assessment of oil palm development in Indonesia	2019	World Development	41
Riutta T., et al. (2018)	Logging disturbance shifts net primary productivity and its allocation in Bornean tropical forests	2018	Global Change Biology	41
Wearn O.R., et al. (2017)	Mammalian species abundance across a gradient of tropical landuse intensity: A hierarchical multispecies modelling approach	2017	Biological Conservation	41
Breitfeld H.T., et al. (2017)	A Triassic to Cretaceous Sundaland-Pacific subduction margin in West Sarawak, Borneo	2017	Tectonophysics	41

Conclusion

This study has initiated a review of all kinds of scholarly works published to date on the topic of Borneo. The study reports the trend of the previous studies using selected bibliometric indicators as obtained from the Scopus database. Overall, bibliometric details of 1572 documents were extracted from the Scopus database. Most of the articles were published in the journal (TP=1343), and English becomes a primary language (99.94%).

Mainly topic about Borneo comes from the subjects agricultural and biological sciences, arts, and humanities, biochemistry, genetics, and molecular biology. As for the contributing institutions and countries, the top rank is from Universiti Malaysia Sabah and Universiti Malaysia Sarawak (Malaysia), Universiti Brunei Darussalam (Brunei) and Lembaga Ilmu Pengetahuan Indonesia (Indonesia).

Overall, this bibliometric data analysis can be one of the best references for the K@Borneo in compiling the resources on the topic of Borneo. The Indigenous knowledge of Borneois presented in the world of academic research and be part of the research niche areas that covers expand in the research journals based on the contribution countries.

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Alhamdulillah, our first collaboration as husband and wife in contribution towards knowledge. Pray for this knowledge be beneficial to Ummah, Aamiin. Also, for our children's, thank you so much and much love from us.

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Perlindungan Dan Pemanfaatan Kekayaan Intelektual Atas Pengetahuan Tradisional Dan Ekspresi Budaya Tradisional Di Provinsi Sumatera Selatan

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Abstrak

Indonesia adalah negara dengan kekayaan dan keragaman budaya serta tradisi yang luar biasa. Bagi masyarakat Indonesia pada umumnya, Pengetahuan Tradisional dan Ekspresi Budaya Tradisional adalah bagian integral dari kehidupan sosial masyarakat. Hukum memberikan sarana perlindungan terhadap sebuah karya cipta yang merupakan produk dari pikiran manusia. Dengan adanya Undang-undang Nomor 28 tahun 2014 tentang Hak Cipta, maka terhadap karya cipta yang dihasilkan dapat diberikan perlindungan. Bentuk nyata ciptaan-ciptaan yang dilindungi dapat berupa ilmu pengetahuan, seni, dan sastra. Perlindungan dimaksud adalah untuk melindungi Pengetahuan Tradisional dan Ekspresi Budaya Tradisional terhadap pemanfaatan yang dilakukan tanpa hak dan melanggar kepatutan. Penelitian ini adalah penelitian hukum empiris dengan menggunakan data primer yang didapat langsung dari lapangan. Provinsi Sumatera Selatan merupakan sebuah Provinsi di Indonesia. Ibu kotanya Palembang. Provinsi ini terdiri dari 17 kabupaten/kota. Dimana masing-masing kabupaten/kota tersebut memiliki Pengetahuan Tradisional dan Ekspresi Budaya Tradisional. Perlindungan yang dilakukan dengan inventarisasi dan mendokumentasi Pengetahuan Tradisional dan Ekspresi Budaya Tradisional asal Sumatera Selatan. Keragaman budaya ini harusnya menjadi fokus perhatian Pemerintah daerah. Karena kekayaan itu tidak semata-mata untuk seni dan budaya itu sendiri, tetapi dapat dimanfaatkan untuk meningkatkan kemampuan di bidang perdagangan dan industri yang melibatkan para penciptanya. Dengan demikian, kekayaan seni dan budaya yang dilindungi dapat meningkatkan kesejahteraan daerah tersebut.

Kata Kunci: *Perlindungan dan Pemanfaatan, Kekayaan Intelektual, Pengetahuan Tradisional, Ekspresi Budaya Tradisional, Sumatera Selatan.*

Pendahuluan

Kekayaan Intelektual (KI)¹ adalah suatu sistem yang sekarang ini melekat pada tata kehidupan modern. Seperti juga pada aspek-aspek lain yang memberi warna pada kehidupan modern misalnya masalah lingkungan hidup serta persaingan usaha, hak kekayaan intelektual merupakan konsep yang relatif baru bagi sebagian besar negara, terutama negara-negara berkembang.

Secara normatif, HKI atau istilah terbaru adalah Kekayaan Intelektual (selanjutnya disingkat KI)² adalah “product of mind” atau oleh World Intellectual Property Organization atau WIPO disebut “creation of the mind”³ yang berarti suatu karya manusia yang lahir dengan curahan tenaga, karsa, cipta, waktu dan biaya. Segala jerih payah itu menjadi kontribusi yang memiliki nilai ekonomi. Oleh karena itu, setiap karya intelektual patut diakui, dihargai dan dilindungi baik secara moral dan etika maupun secara hukum.

Dari segi pranata, KI dibangun sebagai instrumen hukum yang berbasis pengakuan, penghargaan, dan perlindungan terhadap hak atas kreasi intelektual yang diberikan sebagaimana lazimnya hak milik yang mempunyai nilai ekonomi dan sekaligus menjadi pendorong pertumbuhan ekonomi.⁴

Indonesia adalah negara yang keanekaragaman seni dan budaya yang sangat kaya. Hal itu sejalan dengan keanekaragaman etnik, suku bangsa dan agama yang secara keseluruhan merupakan potensi nasional yang perlu dilindungi. Kekayaan seni dan budaya tersebut merupakan salah satu sumber dari karya intelektual yang dapat dan perlu dilindungi oleh Undang-undang. Kekayaan itu tidak semata-mata untuk seni dan budaya itu sendiri, tetapi dapat dimanfaatkan untuk meningkatkan kemampuan di bidang perdagangan dan industri yang melibatkan para penciptanya. Dengan demikian, kekayaan seni dan budaya yang dilindungi dapat meningkatkan kesejahteraan tidak hanya bagi para penciptanya saja, tetapi juga bagi bangsa dan negara.

Apabila kekayaan keragaman budaya dan tradisi itu dapat dikelola dengan baik dan benar, maka bukan tidak mungkin kebangkitan ekonomi Indonesia justru dipicu bukan karena kecanggihan teknologi, melainkan karena keindahan tradisi dan keragaman warisan budaya itu sendiri. Bagi masyarakat Indonesia pada umumnya, pengetahuan tradisional dan ekspresi kebudayaan adalah bagian integral dari kehidupan sosial masyarakat yang bersangkutan.

Secara normatif hukum memberikan sarana perlindungan terhadap sebuah karya cipta yang merupakan produk dari pikiran manusia. Dengan adanya Undang-undang Nomor 28 tahun 2014 tentang Hak Cipta, maka terhadap karya cipta yang dihasilkan dapat diberikan perlindungan. Bentuk nyata ciptaan-ciptaan yang dilindungi dapat berupa ilmu pengetahuan, seni, dan sastra. Perlindungan dimaksud adalah untuk melindungi PTEBT terhadap pemanfaatan yang dilakukan tanpa hak dan melanggar keputusan.

1 Berdasarkan Keputusan Menteri Hukum dan Perundang-undangan RI No. M.03 PR.07.10 Tahun 2000 dan Persetujuan Menteri Negara Pendayagunaan Aparatur Negara dalam Surat nomor 24/M/PAN/1/2000 istilah “Hak Kekayaan Intelektual” (tanpa “Atas”), telah resmi dipakai. Hak kekayaan Intelektual disingkat “H.K.I.”, namun Penulis di sana sini menggunakan akronim “HaKI” untuk sekedar kemudahan penyebutan Lihat A. Zen umar Purba “Pokok-pokok Kebijakan Pembangunan Sistem HaKI Nasional” (makalah disampaikan dalam “Advanced Seminar: Prospect and Implementation of Indonesian Copyright, Patent and trademark Law”, Perhimpunan Masyarakat HaKI Indonesia, Jakarta, 1 Agustus 2000) dan telah diterbitkan dalam Jurnal Hukum Bisnis, Volume 13, April 2001, (Jakarta : Yayasan Pengembangan Hukum Bisnis, 2001)pp-4-8.

2 Istilah Hak Kekayaan Intelektual (HKI) telah diubah menjadi Kekayaan Intelektual (KI) PP Nomor 44 Tahun 2015.

3 Mboi E. Misati, “The WIPO Development Agenda : Maximising On The Patent System”, kipi.go, www.kipi.go.ke/patents/WIPO-DA Articles 040209.pdf, diakses tanggal 2 Pebruari 2017; Mapani Ch

4 Tim Lindsey dan Eddy Damian, Hak Kekayaan Intelektual, Suatu Pengantar, Bandung, PT. Alumni, 2006, hlm.79.

Perlindungan secara normatif terhadap hasil kebudayaan rakyat ini diatur dalam ketentuan Pasal 38 ayat (1) Undang-undang Nomor 28 Tahun 2014 Tentang Hak Cipta menyebutkan "Hak Cipta atas ekspresi budaya tradisional dipegang oleh Negara." Selain itu aturan hukum non KI yang melindungi PTEBT terdapat juga di Undang-undang Cagar Budaya, Hukum Adat dan RUU Kebudayaan.

Konsep-konsep cakupan perlindungan PTEBT sangat erat kaitannya dengan daerah sebagai "pengemban" budaya tradisional, sehingga pemerintah daerah baik propinsi maupun kabupaten/kota memegang tugas dan fungsi penting dalam perlindungan dan pemanfaatannya.

Negara adalah pemegang otoritas tertinggi, dan Pemerintah daerah sebagai representasi negara dalam perlindungan dan pengaturan PTEBT dapat mencegah adanya monopoli atau komersialisasi serta tindakan yang merusak atau pemanfaatan komersialisasi oleh pihak asing tanpa seizin negara sebagai pemegang hak cipta.

Provinsi Sumatera Selatan merupakan sebuah Provinsi di Indonesia. Ibu kotanya Palembang. Provinsi ini terdiri dari 17 kabupaten/kota. Dimana masing-masing kabupaten/kota tersebut memiliki Pengetahuan Tradisional dan Ekspresi Budaya Tradisional. Misalnya mate laun (ilmu pengetahuan dalam pertanian), cerita rakyat Si Pahit Lidah, Serunting Sakti dari Kabupaten Lahat, Tarian Kreasi Daerah Ogan Komering Ulu, Tari Sambut Sekundang, Tari Sambang Berangkai dan lain-lain. Keragaman budaya ini harusnya menjadi fokus perhatian pemerintah daerah. Karena kekayaan itu tidak semata-mata untuk seni dan budaya itu sendiri, tetapi dapat dimanfaatkan untuk meningkatkan kemampuan di bidang perdagangan dan industri yang melibatkan para penciptanya. Dengan demikian, kekayaan seni dan budaya yang dilindungi dapat meningkatkan kesejahteraan daerah tersebut.

Permasalahannya adalah beberapa kekayaan intelektual dan Ekspresi Budaya Tradisional Indonesia telah diakui sebagai milik bangsa lain.⁵

Berkaitan dengan kepemilikan dan klaim-klaim budaya oleh pihak asing ini, Pemerintah Daerah⁶ dalam hal ini Provinsi Sumatera Selatan sebagai penanggung jawab tunggal dalam penyelenggaraan Pemerintah di daerah, dalam menyelenggarakan otonomi daerah mempunyai kewajiban melestarikan dan melindungi nilai sosial budaya masyarakatnya serta dapat membentuk dan menerapkan peraturan perundang-undangan sesuai dengan kewenangannya.⁷

Peraturan Perundang-undangan tentang otonomi daerah tidak secara langsung memberikan penjelasan tentang keterkaitan antara pemerintah daerah dengan sistem Kekayaan Intelektual (KI).⁸ Namun dalam hal ini perlu inisiatif dan kreatifitas pemerintah daerah untuk melindungi Pengetahuan Tradisional dan Ekspresi Budaya Tradisional masyarakatnya yang dikaitkan dengan KI khususnya Hak Cipta.

Selama ini perhatian Pemerintah Provinsi Sumatera Selatan terhadap Pengetahuan dan Ekspresi Budaya Tradisional masih sebatas pada proses pencatatan, belum ada perlindungan dan pengaturan yang jelas terhadap potensi yang berasal dari Pengetahuan Tradisional dan Ekspresi Budaya Tradisional baik dari aspek ekonomi maupun aspek moral sehingga tidak dapat di manfaatkan atau diklaim oleh pihak asing atau dikomersialisasi tanpa pembagian keuntungan (benefit sharing) untuk masyarakat pengemban.

Berdasarkan latar belakang diatas maka permasalahan yang di bahas Bagaimana perlindungan dan pemanfaatan Kekayaan Intelektual Atas Pengetahuan Tradisional dan Ekspresi Budaya Tradisional di Provinsi Sumatera Selatan ?

5 Badan Penelitian dan Pengembangan HAM Kementerian Hukum dan HAM RI 2014, hlm. 3.

6 Pemerintah Daerah adalah penyelenggara urusan pemerintah oleh Pemerintah dengan prinsip otonomi seluas-luasnya dalam sistem dan prinsip Negara Kesatuan Republik Indonesia sebagaimana dimaksud dalam Undang-undang Dasar Negara Republik Indonesia Tahun 1945. (Pasal 2 UU Pemerintahan Daerah No. 23 Tahun 2014).

7 Pasal 12 ayat (1) huruf f dan ayat (2) huruf p Undang-undang No. 23 Tahun 2014 Tentang Pemerintahan Daerah.

8 Ahmad Zen Umar Purba, Sistem Haki Nasional dan Otonomi Daerah, Makalah disampaikan pada acara seminar nasional, Implementasi Undang-undang Desain Industri dan Merek, diselenggarakan bekerjasama Fakultas Hukum Universitas Sam Ratulangi, Fakultas Hukum Universitas Manado, Yayasan Klinik HaKi, JIII, APIC, Asosiasi alumni JIII Indonesia, didukung oleh JPO dan Ditjen HaKI Departemen Kehakiman dan HAM, Manado, 18 Februari 2002.

Penelitian ini menggunakan tipe empiris dengan pendekatan statute approach dan (sociolegal approach). Sumber data primer berupa wawancara dan data sekunder berupa peraturan perundangan-undangan yang berhubungan dengan penelitian.

Pembahasan

Perlindungan dan Pemanfaatan Kekayaan Intelektual atas Pengetahuan Tradisional dan Ekspresi Budaya Tradisional di Propinsi Sumatera Selatan

Perlindungan dan pemanfaatan kekayaan intelektual pengetahuan tradisional dan ekspresi budaya tradisional berdasarkan potensi daerah diperlukan setidaknya karena 3 (tiga) alasan. Pertama, keanekaragaman yang dimiliki Indonesia baik yang hayati maupun budaya sangat melimpah. Antara satu daerah dengan daerah lain memiliki karakteristik dan potensi yang beragam. Karakteristik dan potensi tersebut memiliki nilai ekonomis untuk dimanfaatkan melalui cara-cara yang tepat dan benar. Kedua, adanya pengaturan KI di satu sisi menjadi pintu masuk negara-negara maju untuk dapat mengakses sumber daya genetik, pengetahuan tradisional dan ekspresi budaya tradisional Indonesia. TRIPs memberlakukan asas non-diskriminasi yang mengatur larangan perlakuan yang diskriminatif dari sebuah negara terhadap inventor dari negara lain yang hendak mendaftarkan patennya di negara tersebut meskipun paten yang didaftarkan didapatkan dari hasil penelitian dan pemanfaatan sumber daya genetik, pengetahuan tradisional dan folklor negara tersebut. Negara-negara maju dapat melakukan tindakan pemanfaatan kekayaan intelektual masyarakat di negara-negara berkembang melalui tindakan pencurian maupun penggunaan tanpa hak. Perlindungan dan pemanfaatan pengetahuan tradisional dan ekspresi budaya tradisional setidaknya untuk mencegah tindakan-tindakan tersebut. Ketiga, pengetahuan tradisional merupakan cultural identity atau identitas budaya sebuah masyarakat atau sebuah suku bangsa. Pemanfaatan pengetahuan tradisional dan ekspresi budaya tradisional merupakan bentuk upaya melestarikan kebudayaan Indonesia. Pemanfaatan pengetahuan tradisional dan ekspresi budaya tradisional sebagai modal pembangunan pertama kali dilakukan dengan

menginventarisasi potensi-potensi yang dimiliki oleh tiap daerah antara lain potensi pengetahuan tradisional dan ekspresi budaya tradisional yang berkaitan dengan sumber daya manusia, sumber daya alam, lingkungan, dan infrastruktur. Dengan terinventarisasinya potensi pengetahuan tradisional tersebut, maka langkah selanjutnya adalah membuat perencanaan pemanfaatan dan pelaksanaan pemanfaatan yang melibatkan partisipasi masyarakat dalam arti luas. Keterlibatan masyarakat di dalam pemanfaatan pengetahuan tradisional antara lain dapat dilakukan melalui metode kerjasama, baik antara perusahaan, peneliti, pemerintah, dan masyarakat lokal.

Pemanfaatan pengetahuan tradisional dan ekspresi budaya tradisional yang sinergi dengan potensi daerah akan menggerakkan pertumbuhan berkelanjutan di daerah dan menjadi modal pembangunan Indonesia. Langkah pertama pemanfaatan pengetahuan tradisional dan ekspresi budaya tradisional dilakukan dengan menginventarisasi potensi dan karakteristik daerah antara lain potensi sumber daya manusia, sumber daya alam, lingkungan, dan infrastruktur. Pemanfaatan selanjutnya dengan melakukan perencanaan dan melakukan kerjasama dengan melibatkan partisipasi seluruh elemen bangsa baik peneliti, akademisi, pemerintah, lembaga swadaya masyarakat dan juga masyarakat yang bersangkutan yang memiliki pengetahuan tersebut untuk bisa dinikmati juga oleh generasi mendatang. Undang-undang Hak Cipta dalam melindungi budaya tradisional Indonesia, memberikan kontribusi pada lemahnya perlindungan budaya tradisional di Indonesia. Pemerintah, Pemerintah Daerah, maupun masyarakat harus berkomitmen untuk melakukan upaya perlindungan pengetahuan tradisional dan ekspresi budaya tradisional. Di era otonomi daerah, peran pemerintah daerah dalam mengelola budaya tradisional sebagai aset intelektual daerah menjadi terbuka seiring dengan berlakunya Undang-Undang Nomor 23 tahun 2014 tentang Pemerintahan Daerah.

Permasalahan penting dalam perlindungan pengetahuan tradisional dan ekspresi budaya tradisional adalah tentang siapa pemilik dari sebuah pengetahuan tradisional dan ekspresi budaya tradisional. Dalam keadaan tertentu, adakalanya seseorang menciptakan sebuah

metode pengobatan tradisional atau ekspresi budaya tanpa melibatkan komunitas masyarakat sekitarnya. Tetapi tak jarang pula sebuah pengetahuan tradisional dimiliki oleh beberapa anggota masyarakat yang diperoleh dan diwariskan secara turun-temurun di dalam komunitas tersebut. Pengetahuan tradisional dan ekspresi budaya tradisional tersebut diketahui oleh hampir seluruh anggota masyarakat (common knowledge) dan bahkan hingga ke luar komunitas tersebut. Dalam konteks seperti ini akan ditemukan kesulitan untuk mengidentifikasi pemilik dari pengetahuan tradisional tersebut.⁹

Secara konseptual, pengetahuan tradisional dapat dikelompokkan ke dalam tiga jenis berdasarkan kepemilikannya, yaitu:¹⁰

- a. Pengetahuan individu yang dijaga kerahasiaannya secara turun-temurun oleh keturunannya saja. Pengetahuan ini memiliki akses yang terbatas dengan syarat-syarat tertentu.
- b. Pengetahuan komunitas yang hanya dapat digunakan dan disebarakan secara terbatas di dalam lingkup sebuah komunitas. Tidak jauh berbeda dengan pengetahuan individu, pengetahuan komunitas pun memiliki persyaratan yang ketat untuk dapat mengaksesnya.
- c. Pengetahuan yang menjadi milik publik (public domain) dimana pengetahuan tradisional tersebut telah dibuka dan dibagi secara bebas kepada anggota komunitas atau dengan orang luar komunitas.

Konsep kepemilikan seperti ini pun tidak mutlak bebas dari perebutan. Pengetahuan tradisional dan ekspresi budaya tradisional sering menjadi kepemilikan yang diperebutkan ketika kepemilikannya secara tumpang tindih satu dengan yang lainnya. Menurut Gupta, pengetahuan tradisional dan ekspresi budaya tradisional yang sering bertumpang tindih kepemilikannya dapat diuraikan menjadi beberapa jenis sebagai berikut:¹¹

- a. Kreativitas individual yang dipelihara dan dirawat oleh komunitas, namun tersebar luas di masyarakat;
- b. Pengetahuan tradisional dan ekspresi budaya tradisional milik komunitas yang tersebar secara luas pada masyarakat umum dengan atau tanpa seizin anggota komunitas terlebih dahulu (prior informed consent);
- c. Pengetahuan dan ekspresi budaya individual yang tersebar dalam masyarakat luas dengan atau tanpa izin terlebih dahulu;
- d. Pengetahuan individual dan masyarakat.

Karya-karya dan pengetahuan tradisional dan ekspresi budaya tradisional ini kebanyakan diciptakan oleh masyarakat tradisional secara berkelompok. Sehingga bukanlah sesuatu yang aneh jika dalam sebuah pengetahuan tradisional dan ekspresi budaya tradisional terdapat banyak orang yang memberikan sumbangan tenaga maupun pikiran di dalamnya. Secara prinsip pun masyarakat tradisional tidak mengenal hak individu karena harta kekayaan sendiri dianggap berfungsi sosial dan bermanfaat bagi umum. Dengan demikian para pencipta pengetahuan tradisional dan ekspresi budaya tradisional seringkali tidak mementingkan hak individu di dalam karya-karyanya.¹²

Berkaitan dengan prinsip ini, WIPO memberikan definisi dari pemilik pengetahuan tradisional dan ekspresi budaya tradisional yaitu semua orang yang menciptakan, mengembangkan, dan mempraktikkan pengetahuan tradisional dalam aturan dan konsep tradisional. Dengan demikian masyarakat asli, penduduk dan negara adalah pemilik dari pengetahuan tradisional komunitas tertentu. Karena itu perlindungan pengetahuan tradisional pun lebih condong ke arah kepentingan komunal dibandingkan kepentingan individual.¹³

Pengetahuan tradisional dan ekspresi budaya tradisional diteruskan dari generasi ke generasi serta terbentuk dalam lembaga sosial adat dan merupakan kristalisasi dari cara, kebiasaan,

9 Rohaini, "Perlindungan Hukum Terhadap Pengetahuan Tradisional Melalui Pengembangan Sui Generis Law". *Fiat Justitia Jurnal Ilmu Hukum*. Vol. 9. No. 4. 2015., hlm. 443-444.

10 Zainul Daulay, *Pengetahuan Tradisional: Konsep, Dasar Hukum, dan Praktiknya*. PT RajaGrafindo Persada: Jakarta, 2011., hlm. 68-70.

11 Ibid, hlm. 70-71.

12 Kanti Rahayu, "Arti Penting Folklore dan Traditional Knowledge Bagi Indonesia Sebagai "The Country of Origin"", *CERMIN Majalah Ilmiah Universitas Pancasakti Tegal*, No. 047, 2010, hlm. 8-9.

13 Ibn, hlm.9-10

serta adat yang ada. Pengetahuan tradisional dan ekspresi budaya tradisional ini menimbulkan hubungan timbal balik berupa kesadaran kolektif masyarakat untuk menjaga sumber dayanya. Berdasarkan hubungan timbal balik inilah maka komunitas lokal diposisikan sebagai pemegang hak atas pengetahuan tradisional tertentu.¹⁴

Masyarakat adat tidak hanya berhak atas kepemilikan kolektif dari kekayaan intelektual tradisional yang mereka miliki, tetapi juga berhak untuk menguasai, mengembangkan, dan melindungi pengetahuan tradisional yang mencakup informasi tentang sumber daya genetik dan obat-obatan, pengetahuan tentang sifat flora dan fauna, serta kesenian tradisional sebagai manifestasi budaya.¹⁵

Perbedaan konsep kepemilikan pengetahuan tradisional dan ekspresi budaya tradisional serta kekayaan intelektual pada umumnya adalah karena konsep kepemilikan yang berbeda antara hukum adat dan hukum perdata. Dari perspektif hukum perdata seringkali terdapat kekeliruan dimana pengetahuan tradisional dan ekspresi budaya tradisional merupakan kekayaan yang tidak ada miliknya hingga pengetahuan tradisional tersebut ditemukan oleh individu, peneliti, negara, dan sebagainya. Paham ini mengabaikan fakta bahwa terdapat perbedaan konsep kepemilikan di dalam hukum adat yang dikenal oleh komunitas lokal pemilik pengetahuan tradisional dan ekspresi budaya tradisional. Kepemilikan atas pengetahuan tradisional dan ekspresi budaya tradisional bagi masyarakat adat dipandang bukan sebagai hak eksklusif seperti dalam rezim Kekayaan Intelektual. Kepemilikan atas pengetahuan tradisional dan ekspresi budaya tradisional ini lebih dianggap sebagai tanggungjawab yang kemudian diturunkan kepada generasi selanjutnya di dalam lingkup internal komunitas tersebut.¹⁶

Padahal konsep kepemilikan komunal ini penting perannya di dalam upaya pemanfaatan pengetahuan tradisional dan ekspresi budaya tradisional. Salah satunya adalah dalam

menentukan penerima manfaat (beneficiaries) atas komersialisasi dan pemanfaatan pengetahuan tradisional. Identifikasi dari kepemilikan komunal ini juga merupakan dasar dari diterapkannya pembagian keuntungan dan kompensasi yang adil dan berimbang atas penggunaan, pemanfaatan, dan komersialisasi pengetahuan tradisional dan ekspresi budaya tradisional.¹⁷

Dalam berbagai diskusi baik di ranah nasional maupun internasional, kekayaan intelektual telah mengalami berbagai perkembangan. Salah satunya adalah dengan munculnya pandangan bahwa kekayaan intelektual tidak dapat dilepaskan dari hak-hak manusia yang asasi, baik secara individual maupun secara kesatuan yang terorganisasi. Dalam hubungan inilah kemudian pengetahuan tradisional dan ekspresi budaya tradisional mendapatkan perlindungan di dalam kerangka perlindungan kekayaan intelektual. Setidaknya terdapat lima alasan yang mendasari pentingnya perlindungan hukum pengetahuan tradisional maupun ekspresi budaya tradisional, iaitu¹⁹:

- a. Keadilan (equity),
Pengetahuan tradisional maupun ekspresi budaya tradisional yang dimanfaatkan dan dikomersialisasi mendapatkan hasil dari penggunaannya baik berwujud materiil maupun imateriil.
- b. Konservasi (conservation)
Perlindungan bagi pengetahuan tradisional dan ekspresi budaya tradisional sama halnya dengan perlindungan bagi lingkungan, keanekaragaman hayati, dan kegiatan pertanian yang berkelanjutan;
- c. Memelihara praktik-praktik tradisional dan juga budaya (preservation) Perlindungan pengetahuan tradisional dan ekspresi budaya tradisional yang baik tidak hanya akan menjaga praktik tradisional yang ada melainkan juga meningkatkan nilai serta kepercayaan masyarakat di dalam maupun di luar komunitas tersebut.

14 Miranda Risang Ayu, dkk., Hukum Sumber Daya Genetik, Pengetahuan Tradisional dan Ekspresi Budaya Tradisional, Bandung, Alumi, 2014., hlm.157-159

15 Ibid

16 Ibid, hlm. 161.

17 Ibid, hlm. 161-162.

18 Rohaini, Op. Cit., hlm. 434-435.

19 Ibid., hlm. 435-436.

- d. Mencegah terjadinya penyalahgunaan oleh pihak yang tidak berhak.
- e. Sebagai sarana promosi atas pemanfaatan serta pentingnya pengembangan pengetahuan tradisional dan ekspresi budaya tradisional (promotion of its use). Selain upaya untuk membatasi akses terhadap pengetahuan tradisional dan ekspresi budaya tradisional tersebut, pemerintah juga harus bertujuan untuk melakukan pemanfaatan dari pengetahuan tradisional dan ekspresi budaya tradisional agar mencegah terjadinya penyalahgunaan.

Menurut Moni Wekesa, untuk mencegah terjadinya penyalahgunaan pengetahuan tradisional dan ekspresi budaya tradisional sebuah negara, ada tiga hal penting yang perlu dilakukan. Pertama yaitu pendokumentasian atau inventarisasi pengetahuan tradisional yang dilakukan melalui pembangunan database pengetahuan tradisional yang rinci. Kedua adanya kewajiban untuk mencantumkan asal dari bahan atau material yang akan diajukan perlindungan hukumnya melalui rezim kekayaan intelektual. Serta yang ketiga adalah untuk pihak yang ingin mencari pengakuan hukum dengan rezim kekayaan intelektual haruslah mampu menunjukkan bukti persetujuan, pemanfaatan, pembagian kepemilikan, serta pembagian keuntungan dari pengguna dan pemilik pengetahuan tradisional.²⁰

Dari ketiga hal tersebut, inventarisasi pengetahuan tradisional dan ekspresi budaya tradisional menjadi hal yang sangat penting karena tidak hanya sebagai sarana untuk melestarikan pengetahuan tradisional dan ekspresi budaya tradisional bagi generasi mendatang, melainkan juga untuk melindungi pengetahuan tradisional sebagai aset berharga di dalam sistem Kekayaan Intelektual. Sebagai salah satu bentuk perlindungan hukum terhadap pengetahuan tradisional dan ekspresi budaya tradisional, kegiatan inventarisasi dan dokumentasi ini tergolong dalam bentuk perlindungan defensif (defensive protection).

Perlindungan pengetahuan tradisional dan ekspresi budaya tradisional secara defensif

berguna untuk menjamin agar pihak lain tidak dapat memperoleh hak kekayaan intelektual atas suatu pengetahuan tradisional. Usaha ini menjadi perhatian khusus bagi forum internasional terutama semenjak dilaksanakannya United Nations International Year for the World's Indigenous. Tujuannya adalah untuk melestarikan, melindungi, dan mengembangkan perwujudan budaya yang berasal dari masa lalu, sekarang, serta masa yang akan datang mulai dari bentuk seperti pusaka, desain, upacara, teknologi, seni visual, dan pertunjukan maupun sastra, serta hak menggugat pemberian ganti rugi atas harta budaya, intelektual, agama, dan spiritual mereka yang diambil tanpa izin yang bebas dan wajar atau yang bertentangan dengan hukum dan adat istiadat mereka.²¹

Istilah perlindungan defensif sendiri merujuk kepada mekanisme perlindungan dengan tujuan untuk mencegah digunakannya rezim dan sistem Kekayaan Intelektual oleh pihak asing atas sumber daya hayati dan pengetahuan tradisional khususnya di bidang obat-obatan. Dan ekspresi budaya tradisional.²² Perlindungan secara defensif tidak akan memberikan hak seperti yang ada dalam rezim Kekayaan Intelektual, melainkan bertujuan untuk mencegah dan menghentikan diberikannya hak-hak kepada pihak yang tidak berhak atas sebuah pengetahuan tradisional.²³

Pelaksanaan dari kegiatan inventarisasi pengetahuan tradisional dan ekspresi tradisional ini amat bergantung pada efektifitas dari dokumentasi yang bersangkutan. Meskipun tidak memberikan hak atas pengetahuan tradisional dan ekspresi budaya tradisional sebagaimana rezim Kekayaan Intelektual pada umumnya, dokumentasi ini dapat menjadi upaya untuk mempermudah pembuktian bahwa pengetahuan tradisional dan ekspresi budaya tradisional tertentu adalah milik masyarakat tertentu. Inventarisasi dilakukan berdasarkan pemahaman bahwa pengetahuan tradisional yang dimiliki suatu masyarakat tidak lagi memerlukan proses pendaftaran karena hal tersebut sudah menjadi milik umum di negara tersebut.²⁴

20 Ibid, hlm. 435.

21 Endang Purwaningsih, Seri Hukum Hak Kekayaan Intelektual: Hukum Paten, Bandung: C.V. Mandar Maju, 2015, hlm. 210.

22 Agus Sardjono, Hak Kekayaan Intelektual dan Pengetahuan Tradisional, Bandung: P.T. Alumni, 2010, hlm. 284.

23 Rohaini, Op. Cit., hlm. 430.

24 Afrillyana Purba, Pemberdayaan Perlindungan Hukum Pengetahuan Tradisional dan Ekspresi Budaya Tradisional sebagai Sarana Pertumbuhan Ekonomi Indonesia, Bandung: P.T. Alumni, 2012, hlm. 323-324.

Bentuk perlindungan hukum yang terjadi di masyarakat salah satunya yaitu perlindungan hukum secara preventif, yaitu perlindungan hukum yang diberikan oleh pemerintah dengan tujuan untuk mencegah sebelum terjadinya pelanggaran. Hal ini terdapat dalam peraturan perundang-undangan maksud untuk mencegah suatu pelanggaran serta memberikan rambu-rambu atau batasan-batasan dalam melakukan kewajiban.²⁵

Walaupun, pemerintah dalam hal ini telah membentuk suatu produk hukum yang tercantum dalam UUHC 2014, namun demikian belum cukup memadai untuk memberikan kepastian hukum kepada pengetahuan tradisional dan ekspresi budaya tradisional di Indonesia.²⁶

Secara Nasional Perlindungan hukum terhadap pengetahuan tradisional dan ekspresi budaya tradisional diatur dalam Pasal 38 UUHC 2014 yang diberlakukan di Indonesia yang menyebutkan:

- a. Hak Cipta atas ekspresi budaya tradisional dipegang oleh Negara.
- b. Negara wajib menginventarisasi, menjaga, dan memelihara ekspresi budaya tradisional sebagaimana dimaksud pada ayat (1).
- c. Penggunaan ekspresi budaya tradisional sebagaimana dimaksud pada ayat (1) harus memperhatikan nilai-nilai yang hidup dalam masyarakat pengembannya.
- d. Ketentuan lebih lanjut mengenai Hak Cipta yang dipegang oleh Negara atas ekspresi budaya tradisional sebagaimana dimaksud pada ayat (1) diatur dengan Peraturan Pemerintah.²⁷

Dalam penjelasan pasal 38 angka 1 UUHC 2014 menyatakan yang di maksud EBT mencakup salah satu atau kombinasi bentuk ekspresi sebagai berikut:

- a. verbal tekstual, baik lisan maupun tulisan, yang berbentuk prosa maupun puisi, dalam berbagai tema dan kandungan isi pesan, yang dapat berupa karya sastra ataupun narasi informatif;

- b. musik, mencakup antara lain, vokal, instrumental, atau kombinasinya;
- c. gerak, mencakup antara lain, tarian;
- d. teater, mencakup antara lain, pertunjukan wayang dan sandiwara rakyat;
- e. seni rupa, baik dalam bentuk dua dimensi maupun tiga dimensi yang terbuat dari berbagai macam seperti kulit, kayu, bambu, logam, batu, ke ramik, kertas, tekstil, dan lain-lain atau kombinasinya; dan
- f. upacara adat.

Dalam hal ini negara menjadi wakil bagi seluruh masyarakat Indonesia dalam menguasai pengetahuan tradisional dan ekspresi budaya tradisional yang ada. Perwakilan oleh negara dimaksudkan untuk menghindari sengketa penguasaan atau pemilikan yang mungkin timbul diantara individu atau kelompok masyarakat tertentu. Selain itu, penguasaan oleh negara menjadi penting khususnya apabila terjadi pelanggaran hak cipta atas pengetahuan tradisional dan ekspresi budaya tradisional di Indonesia yang dilakukan oleh pelaku ekonomi. Selain itu negara berkewajiban untuk menginventarisasi (mencatat) menjaga dan memelihara pengetahuan tradisional dan ekspresi budaya tradisional yang ada di Indonesia. Ini dilakukan agar dapat menjadi data konkrit apabila kedepannya terjadi sebuah perselisihan untuk memperebutkan pengetahuan tradisional dan ekspresi budaya tradisional itu.

Dengan demikian peran negara sebagai pemegang hak cipta atas pengetahuan tradisional dan ekspresi budaya tradisional adalah sebagai perwakilan dari seluruh masyarakat Indonesia dalam hal ini adalah masyarakat komunal atau masyarakat pengemban pengetahuan tradisional dan ekspresi budaya tradisional ini untuk mencegah terjadinya penguasaan sepenuhnya terhadap pengetahuan tradisional dan ekspresi budaya tradisional di Indonesia.

Perlindungan dan pemanfaatan kekayaan intelektual atas pengetahuan tradisional dan ekspresi budaya tradisional Sumatera Selatan

25 Ibid., hlm., 20.

26 Riski Kusumastuti, "tinjauan hukum internasional terhadap upaya perlindungan pengetahuan tradisional milik negara-negara berkembang", (Skripsi S1 Fakultas Hukum, Universitas Indonesia, 2006), Hlm : 131.

27 Tetapi sampai saat ini Peraturan Pemerintah yang di maksud belum juga di keluarkan

perlu mendapat perhatian khusus mengingat Sumatera Selatan kaya akan budaya tradisionalnya.

Sumatera Selatan adalah salah satu provinsi Indonesia yang terletak di bagian Selatan Pulau Sumatera. Provinsi ini beribukota di Palembang. Secara geografis Provinsi Sumatera Selatan berbatasan dengan Provinsi Jambi di utara, Provinsi Kep. Bangka-Belitung di timur, Provinsi Lampung di selatan dan Provinsi Bengkulu di barat. Provinsi ini kaya akan sumber daya alam, seperti minyak bumi, gas alam dan batu bara. Selain itu ibu kota Provinsi Sumatera Selatan, Palembang, telah terkenal sejak dahulu karena menjadi pusat Kerajaan Sriwijaya.

Secara administratif Provinsi Sumatera Selatan terdiri dari 11 (sebelas) Pemerintah Kabupaten dan 4 (empat) Pemerintah Kota, dengan Palembang sebagai ibukota provinsi. Pemerintah Kabupaten dan Kota membawahi Pemerintah Kecamatan dan Desa/Kelurahan, Provinsi Sumatera Selatan memiliki 11 Kabupaten, 4 Kotamadya, 212 Kecamatan, 354 Kelurahan, 2.589 Desa.

Masing-masing Kabupaten / kota tentunya mempunyai kebudayaan sendiri-sendiri. Hal inilah yang seharusnya menjadi perhatian pemerintah daerah dalam rangka melindungi dan memanfaatkan kekayaan intelektual atas pengetahuan tradisional dan ekspresi budaya tradisional yang ada di Sumatera Selatan ini. Kita dapat lihat kebudayaan daerah asal Sumatera Selatan berikut ini :

1. Seni Tari Tradisional Sumater Selatan

Ada beberapa seni tari yang menjadi kekayaan seni dan budaya Sumatera Selatan diantaranya adalah Tari Madik (Nindai), Tari Mejeng Besuko, Tari Rodat Cempako, serta Tari Tenun Songket.

2. Lagu Daerah Sumatera Selatan

Selain rumah tradisional dan tari seperti yang tersebut di atas, Propinsi Sumsel juga memiliki beberapa lagu daerah di antaranya adalah Cuk Mak Ilang, Dek Sangke, Gending Sriwijaya, dan Kabile-bile

Sumatra Selatan



3. Rumah adat Palembang Rumah Limas



Rumah adat / rumah tradisional orang Palembang mempunyai sebutan Rumah Bari yang benama asli Rumah Limas, pada umumnya berbentuk dasar hampir sama dengan rumah-rumah adat yang ada di sebagian daerah di Nusantara, yaitu rumah panggung, dan material yang digunakan pada umumnya dari kayu.

4. Pakaian adat Palembang Kain Songket Palembang



Indonesia kaya sekali dengan aneka ragam kebudayaan daerah, diantaranya kain-kain khas daerah yang memiliki corak serta bahan khas dari daerah masing-masing. Sebagai orang Indonesia, Mode Dengan Kain Songket Palembang tentu kita sangat bangga dengan aneka ragam kain daerah yang ada di Indonesia ini.

5. Seni Musik Tradisional Palembang Jidur



Musik Jidur sudah terkenal di seluruh Sumatera Selatan, entah kapan lahirnya musik ini. Nama musik Jidur ini di bawa oleh kaum kolonial yang akhirnya menjadi musik kolonial. Musik ini sering di bawakan pada saat acara pernikahan dan acara perayaan lainnya.

Kota Palembang juga selalu mengadakan berbagai festival setiap tahunnya antara lain "Festival Sriwijaya" setiap bulan Juni dalam rangka memperingati Hari Jadi Kota Palembang, Festival Bidar dan Perahu Hias merayakan Hari Kemerdekaan, serta berbagai festival memperingati Tahun Baru Hijriah, Bulan Ramadhan dan Tahun Baru Masehi.

Kesenian yang terdapat di Palembang antara lain:

- a. Festival perahu hias dan lomba bidar di Sungai Musi
- b. Kesenian Dul Muluk (pentas drama tradisional khas Palembang)
- c. Tari-tarian seperti Gending Sriwijaya yang diadakan sebagai penyambutan kepada tamu-tamu dan tari Tanggai yang diperagakan dalam resepsi pernikahan.
- d. Syarofal Anam adalah kesenian Islami yang dibawa oleh para saudagar Arab dulu, dan menjadi terkenal di Palembang oleh KH. M Akib, Ki Kemas H. Umar dan S. Abdullah bin Alwi Jamalullail.
- e. Lagu Daerah seperti Melati Karang, Dek Sangke, Cuk Mak Ilang, Dirut dan Ribang Kemambang.
- f. Letak geografis dari Palembang dibelah oleh sungai Musi dan dikelilingi ratusan anak sungai, rawa-rawa di sebagian besar wilayah daratannya. Pada tepian sungai banyak terdapat Rumah Limas yang pintunya menghadap ke sungai, dan alat transportasi air seperti perahu, kapal dan getek menjadi alat transportasi utama yang banyak digunakan masyarakat di tepian sungai.
- g. Sebutan untuk Sungai-sungai yang bermuara ke Sungai Musi adalah Batang hari Sembilan terdiri dari Sungai Ogan, Sungai Komering, Sungai Lematang, Sungai Enim, Sungai Hitam, Sungai Rambang dan Sungai Luby. Seiring perkembangan zaman, dan perubahan pola hidup masyarakat

Palembang, lingkungan perairan sungai dan rawa justru semakin menyempit. Rumah-rumah limas yang tadinya berdiri bebas di tengah rawa atau di atas sungai akhirnya dikepong perkampungnya.

Kalau kita lihat kondisi sekarang suatu tantangan besar bagi pemerintah daerah dalam memberikan perlindungan dan pemanfaatan kekayaan intelektual atas pengetahuan tradisional dan ekspresi budaya tradisional, apa yang telah dilakukan pemerintah daerah sejauh ini adalah inventarisasi terhadap pengetahuan dan ekspresi budaya tradisional Sumatera Selatan. Inventarisasi yang baru dilakukan di beberapa kabupaten belum semua daerah terinventaris.

Inventarisasi yang dilakukan sejauh ini di Kabupaten Ogan Komering Ulu, Muara Enim dan Lahat. Langkah ini dilakukan oleh Kementerian Hukum dan Hak Asasi Manusia RI Kantor Wilayah Sumatera Selatan, dengan Surat Perintah Nomor: W6.HI.07.04-0146 Tahun 2016 tentang Pembentukan Tim Inventarisasi Kekayaan Komunal Sumatera Selatan.

Penutup

Berdasarkan dari uraian hasil pembahasan dapat disimpulkan sebagai berikut:

Perlindungan dan pemanfaatan kekayaan intelektual atas pengetahuan tradisional dan ekspresi budaya tradisional Sumatera Selatan sudah dilakukan dengan menginventarisasi PTEBT asal Sumsel walaupun belum dilakukan dengan maksimal. Adanya Peraturan Daerah guna memberikan Perlindungan pengetahuan tradisional dan ekspresi budaya tradisional yang merupakan identitas dan jati diri suatu daerah. Selain itu juga sebagai implementasi kebijakan daerah mengenai mekanisme pemanfaatan dan perlindungan hak kekayaan intelektual di bidang kebudayaan.

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Perundangan

Undang-undang Nomor 28 Tahun 2014 Tentang Hak Cipta

Rancangan Undang-undang tentang Perlindungan dan pemanfaatan Kekayaan Intelektual Pengetahuan Tradisional dan Ekspresi Budaya Tradisional

Pengetahuan Tradisional Tumbuhan Di Sarawak: Rantain Nilai Melalui Pengkomersilan

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Abstrak

Kepelbagaian sumber biologi serta kaitannya dengan pengetahuan tradisional daripada komuniti pribumi di Sarawak berpotensi tinggi membawa kepada penemuan bahan semula jadi yang berguna di dalam penghasilan produk kesihatan dan penjagaan diri. Komuniti pribumi secara tradisional telah menggunakan tumbuhan di dalam kehidupan seharian mereka sebagai sumber makanan, perisa makanan, wangian serta ubat-ubatan. Oleh yang demikian, Sarawak Biodiversity Centre menggunakan pendekatan utama dengan memanfaatkan pengetahuan tradisional komuniti pribumi ini dalam mengenal pasti tanaman yang berpotensi untuk dikomersilkan. Program Dokumentasi Pengetahuan Tradisional dan Penyelidikan dan Pembangunan (R&D) telah dilaksanakan bagi mengenal pasti sumber biologi unik ini. Salah satu bidang keutamaan tersebut adalah melalui penyelidikan berkaitan dengan pengetahuan tradisional tumbuhan asli di Sarawak. Sehingga Julai 2021, sebanyak 6,610 tumbuhan telah didokumentasikan daripada 21 etnik komuniti di Sarawak. Data menunjukkan kebanyakan tumbuhan yang digunakan adalah untuk tujuan perubatan diikuti sebagai makanan dan juga lain-lain kegunaan seperti ritual, kraftangan, perasa, pewangi, pewarna dan perangsang haiwan. Data ini merupakan perintis kepada penemuan sebatian aktif novel yang berpotensi dibangunkan untuk pelbagai sektor industri seperti nutraseutikal, farmaseutikal dan terapeutik. SBC telah membangunkan produk prototaip seperti sabun, syampu, penghalau nyamuk, pencuci tangan dan pewangi bilik dengan menggabungkan minyak pati yang diekstrak dari spesies tanaman ubatan dan beraroma. Melalui projek ini, SBC telah mewujudkan rantain nilai yang sistematik bagi memastikan faedah dapat dikongsi bersama dengan komuniti pribumi.

Kata kunci: Sarawak, pengetahuan tradisional, tumbuhan ubatan dan beraroma, minyak pati, rantain nilai

Traditional Knowledge Of Sarawak's Plants: Creating A Circle Of Value Chain Through Commercialization

Abstract

Sarawak with its rich biodiversity and traditional knowledge from the diverse ethnic communities has great potential for the discovery of natural ingredients in health care and personal care products. The ethnic communities traditionally used plants for food, flavors, fragrances and medicines. Hence, the reliable approach to identify plants for commercial use through leveraging on traditional knowledge of ethnic communities is core for Sarawak Biodiversity Centre. These unique applications of biological resources are enhanced through the Centre's Traditional Knowledge (TK) Documentation and Research and Development (R&D) programmes. One area of focus is the research on medicinal from Sarawak's indigenous plants, associated with traditional knowledge. As of July 2021, about 6,610 plants have been documented, mostly used as medicines followed by as food and for other usage such as in rituals, crafts, flavors, fragrances, dyes, animal stimulants and etc. These represent a potential source of novel biologically active compounds for cosmeceuticals, nutraceuticals as well as pharmaceutical and therapeutic use. For examples, SBC has incorporated essential oils extracted from the medicinal and aromatic plants into development of prototype products such as soaps, shampoos, repellents, sanitizer etc. Through this project, SBC has created a systematic value chain in ensuring benefits are shared with the ethnic communities.

Keywords: *Sarawak, traditional knowledge, medicinal plants, essential oil, value chain*

Pengenalan

Sarawak mempunyai kepelbagaian biologi yang tinggi - 5,500 tumbuhan berbunga dan lebih daripada 20,000 jenis haiwan dan serangga (Fong, 2006), 3,453 spesies pokok (Rantai & Chai, 2007), 150 spesies halia (Puolsen, 2006) dan 25 spesies periuk kera (Clarke & Lee, 2004).

Selain itu, Sarawak juga terkenal dengan kepelbagaian suku kaum yang mempunyai keistimewaan dan warisan budaya tersendiri serta unik. Terdapat lebih daripada 28 etnik di Sarawak, antaranya adalah seperti kaum Iban, Bidayuh, Orang Ulu, Melanau dan Melayu (Chai, 2006). Sehingga kini komuniti-komuniti ini masih mengekalkan hubungan rapat dengan kepelbagaian biologi melalui aktiviti ekonomi tradisional, adat resam dan juga perubatan. Ini menjadikan komuniti pribumi kaya dengan ilmu pengetahuan tradisional dan berkemahiran tentang pengurusan alam semula jadi di dalam menjalani kehidupan seharian.

Chai (2006) di dalam terbitannya merekodkan sebanyak 608 spesies tumbuhan berubat yang digunakan oleh 14 komuniti pribumi di Sarawak. Oleh yang demikian, gabungan kepelbagaian biologi serta pengetahuan sedia ada komuniti pribumi dapat menjadi sumber maklumat awal yang bernilai membawa kepada penemuan baharu. Menurut Hou et al. (2019), kepelbagaian biologi serta komposisi kimia telah menjadi salah satu sumber bioprospektif yang membawa kepada penemuan-penemuan ubat klinikal yang penting. Namun begitu, masih banyak lagi sumber yang belum diterokai untuk dimanfaatkan kegunaannya di masa hadapan.

Dokumentasi Pengetahuan Tradisional Berasaskan Kepelbagaian Biologi

Pengetahuan tradisional (TK) telah digunakan berabad lamanya oleh komuniti pribumi. Pengetahuan ini telah dipindahkan dari satu generasi kepada satu generasi samada secara lisan atau melalui pengamatan. Pengiktirafan pengetahuan tradisional mengenai penggunaan sumber biologi semakin diterima pada masa kini kerana peningkatan permintaan kepada bio-produk yang berkaitan dengan TK. Oleh yang demikian untuk memelihara kekayaan TK ini, usaha secara maksimum perlu dilaksanakan melalui program kesedaran dan pemeraksanaan. Pengetahuan komuniti-komuniti pribumi tentang pengetahuan tradisional dan sumber-sumber mereka perlu diperkukuhkan melalui dokumentasi TK supaya mereka boleh mengurus dan melindungi sumber semula jadi mereka secara lebih berkesan. Dokumentasi TK ini adalah sangat penting untuk diteruskan bagi mengekalkan TK yang diwariskan dari generasi ke generasi. Ini kerana ianya berisiko hilang ditelan peredaran masa memandangkan kebanyakan TK tersebut diwariskan secara lisan. Faktor persekitaran luar juga boleh mempengaruhi kepupusan TK seperti perubahan gaya hidup yang bergantung kepada perubatan moden dan kehilangan habitat sumber.

Sarawak Biodiversity Centre (SBC), ditubuhkan pada tahun 1998 merupakan salah satu agensi di bawah pentadbiran Kementerian Pendidikan, Sains dan Penyelidikan Teknologi Sarawak (MESTR) telah diberi mandat oleh Kerajaan Sarawak untuk menjalankan dokumentasi TK dan penyelidikan berasaskan bioteknologi serta pembangunan sumber biologi di Sarawak khususnya sumber tumbuhan yang digunakan oleh komuniti pribumi di Sarawak.

Menyedari kepentingan TK dalam penerokaan bahan bioaktif serta sebagai usaha membantu komuniti pribumi di Sarawak memelihara TK mereka, SBC telah menjalankan Program Dokumentasi Pengetahuan Tradisional yang berfungsi sebagai pemudah cara bagi memastikan komuniti boleh merekodkan pengetahuan tradisional mereka menggunakan

kaedah yang betul seperti melalui teknik rakaman dan dokumentasi bertulis. Antara tujuan program ini adalah untuk (1) mewujudkan kesedaran di kalangan komuniti pribumi di Sarawak tentang kepentingan TK, khususnya tentang penggunaan dan pengurusan sumber-sumber biologi (2) membimbing komuniti pribumi di Sarawak melalui bengkel latihan untuk membolehkan mereka mendokumentasi TK dengan kaedah yang sistematik (3) mendokumentasi maklumat TK mengenai tumbuhan berguna dan (4) membantu usaha-usaha pemuliharaan ex-situ sumber-sumber biologi melalui pembiakan.

Program ini dijalankan selaras dengan Konvensyen Kepelbagaian Biologi (Convention on Biological Diversity, CBD) di mana persetujuan atau keizinan awal perlu diperolehi daripada komuniti. Ringkasan langkah dan pendekatan yang digunakan oleh SBC dalam melaksanakan pendokumentasian TK ditunjukkan dalam Rajah 1.



Rajah 1

Langkah – langkah Pendokumentasian Pengetahuan Tradisional

Semenjak tahun 2002, sebanyak 21 daripada 28 etnik daripada 99 buah lokasi (mesyuarat bersama ketua komuniti) dan 82 buah lokasi komuniti pribumi di Sarawak telah terlibat di dalam bengkel dokumentasi dan pengumpulan spesimen tumbuhan yang dijalankan oleh SBC (Rajah 2).



Rajah 2

Taburan Lokasi dalam Program Dokumentasi Pengetahuan Tradisional SBC

Sehingga Julai 2021, sebanyak 6,610 tumbuhan telah didokumentasikan oleh SBC di mana kebanyakan tumbuhan yang direkodkan digunakan untuk tujuan perubatan diikuti sebagai makanan dan juga lain-lain kegunaan seperti ritual, kraftangan, perasa, pewangi, pewarna dan perangsang haiwan. Daripada jumlah tersebut, rekod tertinggi kutipan adalah dikutip daripada komuniti Iban sebanyak 1,505 tumbuhan diikuti oleh komuniti Bidayuh sebanyak 1,240 tumbuhan, Penan 1,112 tumbuhan dan bilangan terendah kutipan adalah dari komuniti Tagal sebanyak 20 tumbuhan sahaja (Jadual 1). Spesimen herbarium disediakan dan disimpan di SBC manakala pengenalpastian spesies dilaksanakan oleh ahli botani SBC.

Jadual 1

Bilangan Tumbuhan yang Didokumentasikan dan Dikutip Mengikut Komuniti

No	Komuniti	Bil. Tumbuhan Dikutip
1	Iban	1,505
2	Bidayuh	1,240
3	Penan	1,112
4	Lun Bawang	640
5	Kelabit	500
6	Kenyah	303
7	Kayan	251
8	Melanau	252
9	Malay	213
10	Selako	137

11	Kedayan	85
12	Sa'ban	79
13	Tabun	51
14	Punan	39
15	Kejaman	39
16	Beketan	35
17	Sekapan	33
18	Bisaya	30
19	Tanjong	24
20	Berawan	22
21	Tagal	20
	Jumlah	6,610

Selain daripada kutipan sampel untuk tujuan pemuliharaan secara ex-situ, sampel tumbuhan juga dikutip untuk diserahkan kepada bahagian makmal untuk tujuan penyelidikan. Sampel tumbuhan yang diterima akan diproses dan diekstrak untuk mendapatkan sebatian organik yang kemudiannya disimpan dalam Perpustakaan Produk Semulajadi (Natural Product Library, NPL).

Program Penyelidikan dan Pembangunan

Program Penyelidikan dan Pembangunan (R&D) SBC memfokuskan kepada penemuan sumber biologi terutamanya tumbuhan dan sebatian aktif yang berguna di dalam pembangunan produk nutrasetikal, kosmesetikal serta farmasetikal untuk mengubati penyakit seperti kanser dan penyakit berjangkit. Dibawah program ini, terdapat 7 makmal yang telah dilengkapi dengan peralatan khusus dan teknologi terkini iaitu Makmal Pengekstrakan, Makmal Kimia Analisis, Makmal Biologi Molekular, Makmal Mikrobiologi, Makmal Penyelidikan Alga, Makmal Tisu Kultur Tumbuhan dan Bioinformatik. Antara peralatan berteknologi tinggi yang terdapat di makmal SBC adalah seperti seperti *High Performance Liquid Chromatography (HPLC)*, *Gas Chromatography-mass Spectrimetry (GCMS)*, *Liquid Chromatography-Mass Spectrometry (LC/MS)* dan *Inductively Coupled*

Plasma-Mass Spectrometry (ICP-MS). Berikut merupakan fungsi makmal-makmal tersebut:

(a) Makmal Pengekstrakan dan Makmal Kimia Analisis - pengekstrakan sebatian kimia, pengasingan sebatian sehingga kepada isolasi sebatian kimia aktif. (b) Makmal Biologi Molekular - menjalankan ujian saringan seperti anti kanser, anti radang, anti virus dan anti proliferative bagi mengenal pasti aktiviti biologi daripada spesies berguna dan sebatian aktif. (c) Makmal Tisu Kultur Tumbuhan - pembiakan tumbuhan berguna pada skala besar melalui teknik tisu kultur bagi memastikan bekalan bahan mentah adalah mencukupi untuk tujuan R&D, pengkomersilan dan pembangunan produk.

Perpustakaan Produk Semulajadi (Natural Product Library, NPL)

Li dan Lau (2017) menyatakan strategi pendekatan sumber biologi dan sebatian kimia berpotensi memberi peluang dalam mengakses analog produk semula jadi baru bagi membangunkan kepelbagaian di dalam perpustakaan produk semulajadi. Ini jelas menyokong penubuhan perpustakaan produk semula jadi (NPL) SBC yang terdiri daripada gabungan kutipan tumbuhan berguna melalui program TK dan koleksi mikroorganisma yang dikutip dari pelbagai ekosistem dan persekitaran di seluruh Sarawak. NPL merupakan tapak penyelidikan utama di dalam aktiviti saringan sebatian bioaktif samada oleh SBC ataupun melalui projek kerjasama.

Bagi tujuan kolaborasi, untuk mendapatkan akses kepada NPL SBC, dokumen seperti Materials Transfer Agreement (MTA) and Non-disclosure Agreement (NDA) or Research Agreement (RA) perlu ditandatangani.

Ekstrak organik tumbuhan, minyak pati, scent, alga, fungi, actinomycetes dan enzim merupakan antara produk semulajadi yang terkandung di dalam NPL SBC (Rajah 3).



Rajah 3
Perpustakaan Produk Semulajadi (NPL) SBC

Daripada pengetahuan tradisional, pembangunan Perpustakaan Produk Semula jadi serta penyelidikan yang dijalankan, SBC telah mengenal pasti beberapa tumbuhan ubatan dan beraroma yang berpotensi dimajukan sebagai produk herba dan penjagaan diri. Antara tumbuhan tersebut adalah seperti dalam Jadual 2.

Jadual 2
Tumbuhan Ubatan dan Beraroma yang digunakan oleh Komuniti Pribumi di Sarawak

Nama Saintifik	Kegunaan
<i>Litsea cubeba</i>	Merawat sakit perut, mengubati sakit belakang, perasa makanan
<i>Adenosma nelsonioides</i>	Merawat penyakit kulit dan menghalau kutu dan hama pada haiwan

Membina Rantainya Nilai Bersama Komuniti: Minyak Pati Daripada Tumbuhan Berubat dan Beraroma

Minyak pati merupakan minyak yang diekstrak daripada bahagian tumbuhan yang beraroma samada dari bahagian daun, buah, kulit kayu, akar, bunga ataupun ranting. Ia juga dikenali dengan nama minyak beraroma atau minyak berbau wangi. Ia dihasilkan melalui teknik pengekstrakan yang dikenali sebagai penyulingan hidro dan penyulingan wap. Industri yang memanfaatkan penggunaan minyak pati adalah seperti wangian dan kosmetik seperti

penghasilan produk minyak wangi, penyegar udara, bahan mandian, minyak urut dan aromaterapi. Permintaan yang tinggi terhadap produk-produk tersebut secara tidak langsung telah mendorong kepada permintaan yang tinggi terhadap industri penghasilan minyak pati. Dianggarkan pada tahun 2026, pasaran minyak pati global dijangka melebihi USD 15 bilion (www.eturbonews.com) berbanding hanya USD 7.5 bilion pada tahun 2008 (Asdarina, 2011).

Kajian yang dijalankan oleh SBC telah mengenal pasti dua spesies tumbuhan berubat dan beraroma yang digunakan secara tradisional dan terbukti secara kajian di makmal sebagai bahan asas bagi menghasilkan pelbagai produk kesihatan, penjagaan diri dan minyak wangi iaitu *Litsea cubeba* dan *Adenosma nelsonioides*.

Projek LitSara®

Litsea cubeba dikenali sebagai Pahkak dikalangan kaum Bidayuh dan Tenem dikalangan Orang Ulu dan Kelabit (Rajah 4). Kegunaan tumbuhan dikalangan komuniti tersebut adalah sebagai perasa makanan, mengubati sakit perut dan sakit belakang. Kajian makmal mendapati minyak pati LitSara® bersifat anti bakteria dan anti radang serta mampu menghalau serangga dan nyamuk. Kajian komposisi kimia minyak LitSara® yang diekstrak daripada pokok *Litsea cubeba* di Sarawak berbeza dengan minyak pati daripada spesies yang sama yang terdapat di China dan bahagian lain dirantau Asia seperti di Vietnam dan Thailand. Minyak pati ini telah mendapat perakuan harta intelek iaitu Cap Dagangan LitSara®, Paten Penjagaan Mulut dan Petunjuk Geografi (GI) Sarawak Litsea. Perjanjian Perkongsian Faedah (*Access and Benefit Sharing, ABS*) telah ditandatangani pada 20 Mac 2019 bersama dengan lima komuniti iaitu komuniti Bidayuh dari Kampung Kiding (Kuching), Komuniti Kelabit dari Pa'Ukat dan Pa'Lungan di Bario (Miri) dan komuniti Lun Bawang dari Long Kerebangan dan Long Telingan (Lawas). Perjanjian tersebut bukan sahaja merupakan perjanjian ABS yang pertama oleh SBC tetapi juga merupakan perjanjian pertama di Malaysia. Antara produk penjagaan diri yang dibangunkan menggunakan minyak LitSara® adalah seperti sabun, syampu, pencuci tangan, pewangi, tisu basah dan terkini adalah produk *hand sanitiser* (Rajah 5). Projek ini

dilaksanakan melalui kerjasama SBC bersama UNDP (United Nations Development Programme) dibawah pembiayaan Global Environment Facility (GEF) dan Kementerian Tenaga dan Sumber Asli (KeTSA).



Rajah 4
Pokok Litsea Cubeba



Rajah 5
Siri Produk Penjagaan Diri LitSara®

Projek AdenoSara®

SBC telah melangkah maju setapak lagi melalui projek AdenoSara®. Perjanjian Perkongsian Faedah ke-2 telah ditandatangani pada 17 Oktober 2020 bersama dengan komuniti Bidayuh dari Kampung Semadang (Penrissen) dan komuniti Iban dari Rumah Simon, Lubok Antu. Dikenali sebagai Bunga Ta'ang dikalangan kaum Bidayuh dan Bangkit Engkerawan oleh kaum Iban atau nama saintifiknya Adenosma nelsonioides (Rajah 6), secara tradisional tumbuhan ini digunakan untuk mengubati penyakit kulit (gatal) dan menghalau hama dan kutu. Kajian makmal mendapati, minyak pati AdenoSara® berupaya menghalau nyamuk, bersifat anti kulat, anti bakteria dan anti radang. Seperti juga LitSara®, projek AdenoSara® juga

mendapat perakuan harta intelek iaitu Petunjuk Geografi (GI) Sarawak Adenosma dan Cap Dagangan AdenoSara®. Projek ini dibiayai bersama oleh Kerajaan Malaysia dan dilaksanakan dengan kerjasama UNDP Malaysia melalui kemudahan Orang Asli/Orang Asal Micro-Grant Facility (OA MGF).



Rajah 6
Bunga Ta'ang/ Bangkit Engkerawan



Rajah 7
Protaip Produk Bunga Ta'ang/ Bangkit Engkerawan

Rantaian nilai di dalam Perjanjian Perkongsian Faedah

Dalam merangka strategi yang berkesan untuk memacu industri ke satu peringkat yang lebih tinggi, pemahaman terhadap struktur rantaian nilai serta pihak yang terlibat secara langsung di dalam industri merupakan asas yang terpenting. Secara ringkasnya, model rantaian nilai di SBC ditunjukkan dalam Rajah 8.



Rajah 8
Model Rantaian Nilai SBC

Secara keseluruhannya, rantaian nilai ini adalah selaras dengan Sustainable Development Goals (SDG). Ia merangkumi strategi di dalam menangani cabaran pembangunan dunia moden termasuk yang berkaitan dengan ekonomi, sosial, alam sekitar dan teknologi. Antara sumbangan projek LitSara® dan AdenoSara® kepada SDG diringkaskan di dalam Jadual 3.

Jadual 3
Sumbangan Projek LitSara® dan AdenoSara® kepada SDG

Sustainable Development Goals (SDG)	Sumbangan
SDG 1 (1.4)	Peningkatan taraf hidup melalui penambahan mata pencarian oleh komuniti melalui perkongsian faedah.
SDG 5 (5.5)	Penglibatan kaum wanita dan remaja perempuan di dalam aktiviti pembiakbakaan, penyulingan minyak pati dan kutipan bahan mentah menyumbang kepada penambahan pendapatan seisi keluarga.
SDG 8 (8.3)	Pengenalpastian nilai kepelbagaian biologi dengan memanfaatkan pengetahuan tradisional tumbuhan berguna serta memanfaatkan potensi melalui SBC di dalam penghasilan produk komersil yang akan menggalakkan kepada pertumbuhan ekonomi bagi syarikat kecil dan sederhana.

SDG 9 (9.5)	SBC meningkatkan penyelidikan saintifik dan inovasi berdasarkan sumber biologi tempatan serta pelaksanaan ABS.
SDG 12 (12.1)	Pembangunan rantaian nilai dan kerjasama yang terjalin menyumbang kepada pengurusan serta penggunaan sumber yang lestari dan mapan.
SDG 15 (15.2, 15.6, 15.9)	Penuaian lestari sumber tumbuhan melalui Good Wildcraft Practice menyumbang kepada pengurusan sumber yang mapan. Rangka kerja ABS memudahkan akses kepada sumber biologi dan memastikan manfaat sumber biologi dikongsi secara adil dan saksama.
SDG 17 (17.6, 17.9)	Kerjasama antara pelbagai pihak membolehkan mobilisasi dan perkongsian pengetahuan, kepakaran, teknologi dan sumber kewangan. Projek kapasiti bina upaya turut menyumbang kepada rancangan pembangunan yang lestari.

Ini jelas dibuktikan melalui faedah-faedah yang diterima oleh komuniti sama ada dalam bentuk kewangan dan juga bukan kewangan oleh komuniti-komuniti yang terlibat. Antara faedah faedah yang diperolehi oleh adalah seperti (1) pembayaran daripada bekalan bahan mentah, minyak pati, upah, dan faedah IKBS (Indigenous Knowledge Benefit Sharing) (2) penyediaan pondok serta peralatan penyulingan minyak pati (3) pembangunan kapasiti melalui sesi konsultasi dan sesi bina upaya antaranya penuaian lestari-Good Wildcraft Practice, pemuliharaan-pembiakbakaan, dan penyulingan minyak pati (4) pemindahan teknologi melalui aktiviti penyulingan dan pembiakbakaan (5) peluang mengikuti seminar dan acara antarabangsa bagi mempromosikan pencapaian. Faedah-faedah ini secara tidak langsung membantu meningkatkan pendapatan

komuniti sejajar dengan Strategi Pembangunan 2030 Pasca COVID-19 (PCDS2030) iaitu kearah masyarakat berpendapatan tinggi menjelang 2030.



Rajah 9
Aktiviti Perkongsian bersama Komuniti
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Rajah 10
Aktiviti Penyulingan Minyak Pati
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Rajah 11
Aktiviti Pemiakbakaan
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Rajah 12
Sesi Perkongsian di UN SDG Summit 2019, 6-7 Nov 2019 (KL)
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Rajah 13
Rainforest World Music Festival (2017-2019)
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Kesimpulan

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Penghargaan

Projek ini dibiayai oleh Kerajaan Sarawak dibawah projek Rancangan Malaysia Ke-10 dan Rancangan Malaysia Ke-11 serta dibiayai bersama melalui GEF-UNDP untuk projek LitSara® serta OAMGF-UNDP untuk projek AdenoSara®.

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Utilization Of Natural Dyes For Fiber Dyeing Of Banana Stem

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Abstract

West Kalimantan is one of the largest banana (*Musa paradisiaca* L.) producers in Indonesia. Banana plants have only been used for fruit, even though the banana stem can be used as a source of natural fiber. This study aims to coloring the banana stem fiber using natural dyes. The method used is the extraction of dyes from 3 plants which are the primary color sources, namely turmeric for yellow, sepang wood for red and telang flower for blue. Extraction is carried out by boiling in variations of time and temperature. Subsequently, the banana stem fiber was stained with a variety of fixators including alum, lime water and tunjung. The results showed that natural dyes from 3 primary color sources could be obtained with the highest yield at 60 minutes boiling at 75oC. The results of staining banana stem fiber with various fixators showed that alum was able to generate the best natural dye for banana stem fiber.

Keywords: *natural dyes, banana stem, fiber, coloring, extraction*

POSTERS

1. Anatomy of Keringkam

Suhana Sarkawi & Dayang Sorfina Awang

2. Iban pottery

Rozana Octavia Raymond Umpu, Nurfatini Apani,
Liliana Jalin & Muhd Nur Fikry Abdul Talip

3. Integration of Local Cultural Heritage in Art and Design

Teaching and Learning: Creative Outputs on
Sarawak Native Cultures

Fiona Wong E Chiong &
Bibi Zafirah Hanfa Badil Zaman

4. Sarawakiana Oral History Experience

Muhammad Shahrul Bahro



This poster is for International k@Borneo Poster Presentation on 14-15 September 2021

Anatomy of Keringkam

¹Suhana binti Sarkawi

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Independent Researchers, Sarawak, Malaysia



Analysis: Keringkam A

- ❖ Edge decoration
- ❖ Border decoration
- ❖ Small scattered stars floral motifs
- ❖ Big scattered stars floral motif
- ❖ Water canal

Background:

- ❖ A detailed examination of a subject
- ❖ *Keringkam* embroidery – flat gilded gold/silver ribbon
- ❖ Sarawak Malays & Melanau; Malaysia
- ❖ Headcovers, ceremonial accessories or household decorations

Objectives:

- ❖ To introduce *Anatomy of Keringkam* terminology
- ❖ To introduce the key components of the *keringkam* headcovers



Method and Data Collection:

- ❖ *Keringkam* samples: A (Kuching) & B (Sibu)
- ❖ Via observations and interviews

Result:

- ❖ Merged *Keringkam* - develops the *Anatomy of Keringkam*
- ❖ Seven components in a *keringkam* headcover

Problem Statement:

- ❖ Name of components - yet known by many
- ❖ Needs to research and address the knowledge gap in *keringkam* studies

Analysis: Keringkam B

- ❖ Edge decoration
- ❖ In-Border decoration
- ❖ No Scattered stars floral motif
- ❖ Water canal



The Key Components:

- A. Water Canal (*Tali Aik*)
- B. In-Border Decoration Motif (*Kemasan Sisi Sempadan*)
- C. Big Scattered Star Floral Motif (*Bunga Tabur Bintang Besar*)
- D. Small Scattered Star Floral Motif (*Bunga Tabur Bintang Kecil*)
- E. Border Decoration (*Kemasan Sempadan*)
- F. Edge Decoration (*Kemasan Hujung*)
- G. Body (*Badan / Tanah kain*)



The *Keringkam* Headcover

Conclusion:

- ❖ *Kira-Tebuk-Sulam-Ulang* (Suhana & Norhayati, 2016)
- ❖ Tools:
 - ✓ *Keringkam* @ gold gilded ribbon
 - ✓ 2-hole brass needle
 - ✓ Suitable sheer fabric
- ❖ Florals and geometrics patterns
- ❖ Motifs depend on embroiderers & commissioners choices
- ❖ Basic:
 - ✓ Water canal (*Tali Aik*) & Body (*Tanah kain*)
- ❖ Significant:
 - ✓ Edge Decoration (*Kemasan hujung*)
- ❖ General:
 - ✓ Scattered Stars Floral Motif (*Bunga Tabur Bintang*)

¹Suhana binti Sarkawi is an independent material culture researcher and a corresponding author. Her research is self-funded.
²Dayang Sorfina binti Awang Kelana is a Graduate Enhancement Training Sarawak trainee. Both are currently attached to Sarawak Museum Department.



IBAN POTTERY

By Rozana Octovia Raymond Usagu, Liliana Jalin, Muhd Nur Fikry & Nurfatini Apandi
Pustaka Negeri Sarawak

Known as "*Priok*",

Iban cooking pots are decorated with impressed pattern all over the round body and are admired both for their aesthetic value as well as for their practical use.

Traditional Tools

- *Pesempu* (paddle)
- *Simpul* (circle rattan strips)
- *Batu segala / batu bulat* (round stone)



Functionality

- Cookware
- Food & water storage
- Household utensil

Recommendations

- Only few Iban pottery artisans found in Sarawak with only one master craftsman recognized by Malaysian Handicraft Development Corporation in 2006.
- Encourage local artisans to actively involve in reviving the art of Iban pottery.
 - More awareness & workshops conducted to promote Iban pottery.
- Encourage younger generation to take part in traditional craft- Traditional arts as part of curricular in school.

Renowned Traditional Iban Potters

Master Craftsman
Andah anak Lembang
From Nanga Sumpa,
Batang Ai



Pottery Enthusiast
Nabilah Abdullah
From Temong Putuh,
Tebelu

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INTEGRATION OF LOCAL CULTURAL HERITAGE IN ART & DESIGN TEACHING AND LEARNING: CREATIVE OUTPUTS ON SARAWAK NATIVE CULTURES

INTERNATIONAL K@BORNEO CONFERENCE 2021

CONCLUSION

- This paper shows the effectiveness of integrating local cultural heritage contents such as that of Sarawak native cultures into the teaching and learning of art and design history, visual communication and graphic design.
- The various creative and innovative design outcomes produced by undergraduates in their assignments and projects reflect the designer's understanding of the contexts, meaning and representation, subsequently applying and interpreting them into visual outcomes.
- The various creative outputs and visual interpretations also demonstrate the designer's creativity and innovativeness in utilizing sustainable materials, techniques and processes, with varied styles and expressions, emulating the real native art and designs while still being relevant to the present modern-day society.
- This is perhaps an alternative means to educate our generations and preserve our local cultural heritage in ensuring its continuity and

RESULTS



BACKGROUND

- This paper demonstrates the integration of local cultural heritage contents in art and design teaching and learning approaches at a higher tertiary level through courses in art history and visual communication (branding design).
- The significance and relevance of local cultural heritage are highlighted in the art and design assessment-based teaching and learning approaches that engender the understanding of cultural diversity and cultural tolerance.

METHODS



Sarawakiana Oral History Experience

Muhammad Saiful Bahri | Nadran Muzamel Effendi | Zuzanna
Izzuddin (Aina) | Ezzah Nurul H



Objectives

- To preserve State's heritage especially on social and cultural history.
- To promote awareness on the importance of Oral History
- To initiate discussion and training on oral history practices
- To foster access and use of oral history collections



Activities

- Preservation of the State's Heritage
- Documentation of Oral History
- Awareness and Training of Oral History
- Process, Access & Usage of Collection



Oral History Process

- Project Design
- Preliminary Session
- Recording
- Documentation
- Dissemination
- Preservation



Scope and Theme

- Leaders / Politician In Sarawak
- Sarawak Civil Service
- Historical Events In Sarawak
- Industry In Sarawak
- Oral Tradition Of The Communities In Sarawak
- Festivals
- Biographic Oral History Of Prominent Personalities In Sarawak



Timeline 2002 - 2021

- 79 Oral history Sessions
- 3 Workshops/Trainings
- 1 Retreat Session

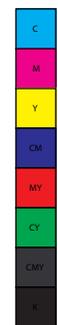


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Augmented Reality (AR) is an interactive experience of a real-world environment where the objects that reside in the real world are enhanced by computer-generated perceptual information, sometimes across multiple sensory methods, including visual, auditory, smell, tactual and cortical.

How to use



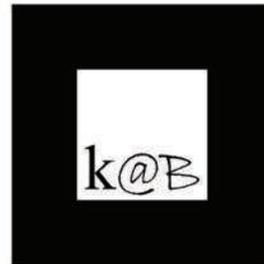
Step 1:

Scan the QR Code that you wish to view



Step 2:

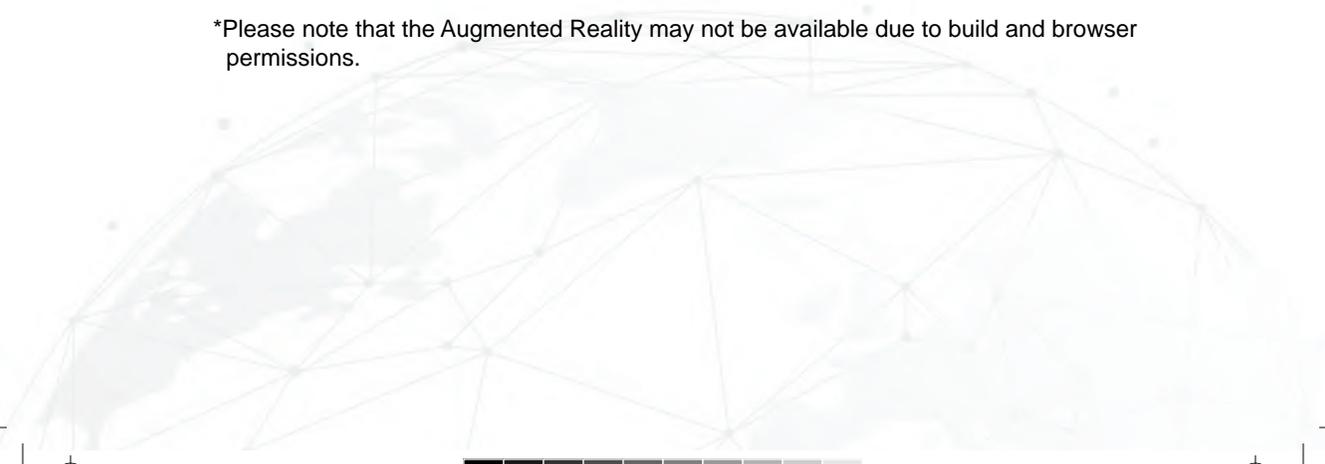
Upon opening the browser, please enable camera

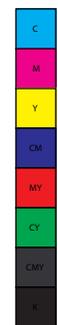


Step 3:

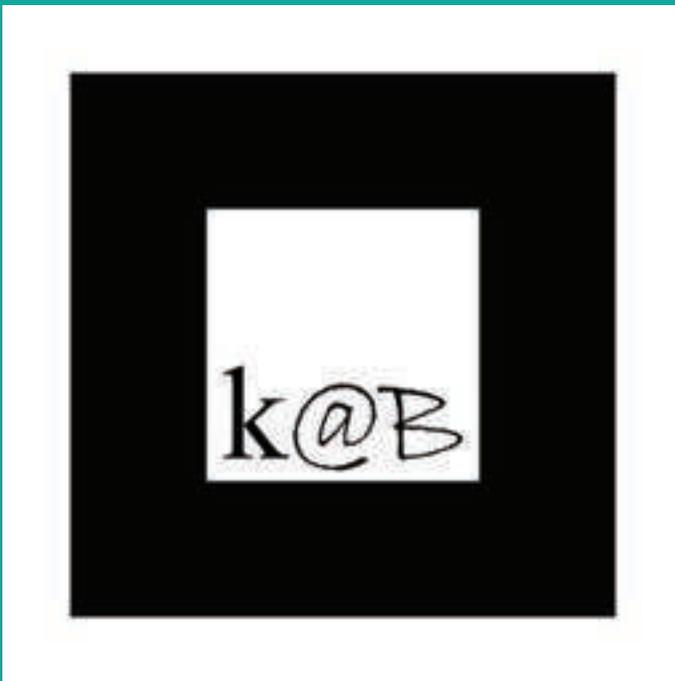
Move the camera to the marker to view the Augmented Reality

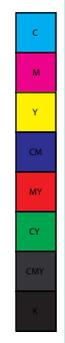
*Please note that the Augmented Reality may not be available due to build and browser permissions.





EXHIBITION





KALIMANTAN TRADITIONAL COSTUME



MELAYU SAMBAS



DAYAK TAMAN



MELAYU KETAPANG



MELAYU PONTIANAK

SCAN HERE

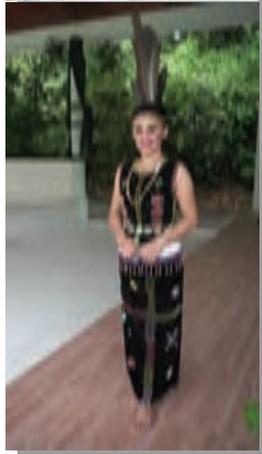
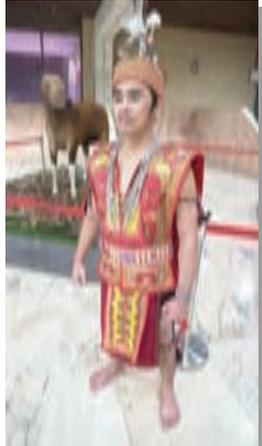
to access AR mode to see the video:



SABAH TRADITIONAL COSTUME



BAJAU



MURUT



RUNGUS



KADAZAN PENAMPANG

SCAN HERE

to access AR mode to see the video:



SARAWAK TRADITIONAL COSTUME



IBAN



MELANAU



BIDAYUH

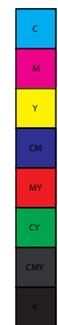


MELAYU

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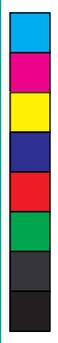
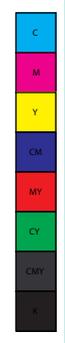
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PROGRAMME





PROGRAMME

    				
14 th SEPTEMBER 2021 (TUESDAY): CONFERENCE DAY ONE				
08:00 a.m - 08:05 a.m	Welcoming speech Arpan Adenan Acting CEO, Putaka Negeri Sarawak & Chairman of k@Borneo			
8:05 a.m - 9:50 a.m	PLENARY SESSION Keynote Speaker: YBhg. Tan Sri Datuk Amar (Dr) Haji Hamid Bego, Chairman, Board of Management, Sarawak State Library Title: Preserving Borneo's Diversity and Heritage: Impetuses, Initiatives and Impacts Moderator: Chua Kee Man (Lecturer, Universiti Malaysia Sarawak)			
9:50 a.m - 10:20 a.m	Launching of the Conference, Bibliography on Borneo Traditional Knowledge book and The Story of k@Borneo book by The Right Honorable Datuk Patinggi (Dr) Abang Haji Abdul Rahman Zohari, Chief Minister of Sarawak			
10:20 a.m - 1:00 p.m	Theme: TRADITIONAL KNOWLEDGE Moderator: Faizmah Abdillah (Director, Sabah State Library)			
NO	SESSION SPEAKER	TITLE	ORGANIZATION	COUNTRY
1	Ani Widyanoro Riza Linda Emi Parica Kurniasih	PAPER 1 Utilization of natural dyes for fiber dyeing of banana stem	Tanjungpura University	Indonesia
2	c	PAPER 2 A Bird and Schoolchildren: Knowledge Sharing about Kenyalang (Thinoceros Hornbill) in Sarawak via social media	Universiti Malaysia Sarawak Curtin University Malaysia	Malaysia
Intermission: - Traditional costume of Borneo exhibition, Sabah				
3	Sn Handayani Muhamad Rasyid Labb Rabbani	PAPER 3 Peringatan dan pemanfaatan kekayaan intelektual atas pengetahuan tradisional dan ekspresi budaya tradisional di provinsi Sumatera Selatan	Sriwijaya University	Indonesia
4	Wan Abdul Rahman Bin Wan Bujang Norlina Binti Kadri	PAPER 4 Indigenous knowledge in Borneo: a bibliometric review	Universiti Malaysia Sarawak	Malaysia

5	Noor Firdaus Bohari Marganta Naring	PAPER 5 Pengerahuan tradisional tumbuhan di Sarawak: rentetan nilai melalui pengkomersitan Traditional knowledge of Sarawak's plants: creating a circle of value chain through commercialization	Sarawak Biodiversity Centre	Malaysia
1.00 p.m - 2.00 p.m		Poster Session Presentation: POSTER 1 Sarawakiana DiH experience Muhammad Shahrul Bahro (Sarawak State Library, Malaysia) POSTER 2 Anatomy of Keringgam Suhana Sarkawi & Dayang Sorfina Awang Kalana (Independent Researchers)		
2.00 p.m - 5.30 p.m		Themes : ART & CULTURAL DIVERSITY Moderator : Janet Rata Noor (Tun Jugah Foundation, Sarawak, Malaysia)		
NO	SESSION SPEAKER	TITLE	ORGANIZATION	COUNTRY
6	Anroesa Y Anesa Annelia, Murzal	PAPER 6 Gending Sriwijaya dance as Indonesian cultural heritage: in the legal perspective of Intellectual property	Sriwijaya University	Indonesia
7	Christine Horn	PAPER 7 Lian Lunggang and the rise and fall of Banjar	RMIT University	Australia
8	Jacqueline Kinnon Fadzilah Binti Abdul Rahim	PAPER 8 Keracunan fungsi Jaka-Maki suatu penelitian Sememangng Sabah dan Sarawak	Universiti Kebangsaan Malaysia (UKM)	Malaysia
Intermission - Traditional costume of Borneo exhibition, Indonesia				
9	Jacqueline Fong	PAPER 9 The sustainability of Sarawak's handicrafts industry following rapid rural development in the State	Tonoli Son Bnt	Malaysia
10	Saheli Marshall Brande Wight	PAPER 10 Reviving the Scaled-Portland - Kota Kinabalu Scaled City Initiative through Civil Society Participation	Universiti Malaysia Sabah	Malaysia
11	Dr. Fiona Wong E Chong Bibi Zafrah Hanifa Saad Zainan	PAPER 11 Integration of local cultural heritage in art and design teaching and learning: creative outputs on Sarawak native culture	Sunway University	Malaysia
12	Terry Justin De Peter Jamba Entai	PAPER 12 The inland pre-modern Dayak tattooer	Conlin University	Malaysia
13	Prof. Dr Rutea Go	PAPER 13 Orchids in Sarawak: our heritage, pride and overlooked wealth	Universiti Putra Malaysia (UPM)	Malaysia

15th SEPTEMBER 2021 (WEDNESDAY): CONFERENCE DAY TWO

9.30 a.m - 3.00 p.m		Themes : - MEDICINAL PLANTS - ORAL TRADITION Moderator : Dr Ida F. Priyanto (Gadjah Mada University, Indonesia)		
NO	SESSION SPEAKER	TITLE	ORGANIZATION	COUNTRY
14	Dr David J. Jones	PAPER 14 Words for the world: taking oral history to a wider audience	Independent researcher	Australia
15	Associate Professor Dr Md Nasrudin Md Akhr Dr Goetha Gondasanny Dr Rohayati Paizi	PAPER 15 Japanese Immigrants in Sarawak Before World War II Assimilation through Inter-Ethnic Marriages	Department of East Asian Studies, Faculty of Arts and Social Sciences University of Malaya	Malaysia
16	Dr Norazuma Norahim	PAPER 16 Pencatumanlisan bahasa herancang di Sarawak: pengalaman daripada komuniti Minek Documenting an Under-Resourced Language of Sarawak: The Minek Experience	Universiti Malaysia Sarawak (UNIMAS)	Malaysia
Intermission: - Traditional costume of Borneo exhibition: Sarawak				
17	Steven Alexander	PAPER 17 ling iuku Dayak di mata pengarang malyu: suatu penelitian tertentu aspeknya tyar pingir cina di Montedadi	Universiti Kebangsaan Malaysia (UKM)	Malaysia
18	Dr Valerie Muehmar	PAPER 18 The Fort at Lic Mado and the life of government, brass connections and Brooke histories	Institute of Borneo Studies, Universiti Malaysia Sarawak (UNIMAS)	Malaysia
19	Mohd Iqbal Hafidza	PAPER 19 A reflection on Dusun brass work as popular literature	Universiti Teknologi MARA (UiTM)	Malaysia
1.00 p.m - 2.00 p.m		Poster Session Presentation: POSTER 3: Integration of Local Cultural Heritage in Art and Design Teaching and Learning: Creative Outputs on Sarawak Native Cultures - Dr Fiona Wong E Chiong & Bizi Zafrah Hanta Basri Zaman (Sunway University) POSTER 4: Iron pottery - Rozana Otevia Raymond Umpu, Nurfarin Agand, Liliana Jatin & Mubid Nur Fitriy Abdal Talip (Sarawak State Library, Malaysia)		
3.00 p.m - 3.05 p.m		Themes : - ENVIRONMENTAL SUSTAINABILITY Moderator : Zareen Tiurinn (Chief Librarian, Universiti Malaysia Sabah, Malaysia)		
NO	SESSION SPEAKER	TITLE	ORGANIZATION	COUNTRY
20	Riki P. Utomo Dita Falchrana	PAPER 20 Microplastics in the Urban Water System of Pontianak, Indonesia	Tanjungpura University	Indonesia
21	Dwi Fibria Cahyaningitas Dr Ida F. Priyanto	PAPER 21 Public Library's Effort to Empower The Borneo Community	Gadjah Mada University	Indonesia

22	Nelly Wamurni Lia Dessari Yopa E. Pratiyasa Muhammad Fahmi	PAPER 22 Characterization Particle Size of Modified Natural Kasoin from Bengkayang West Kalimantan	Tarungpura University	Indonesia
3.00 p.m		<p>Resolutions of Conference Forum Session</p> <p>Moderator: Professor Dr. Shafren Ahmad Zaidi Adruce Member Board of Management, Sarawak State Library, Malaysia</p> <p>Panel 1: Dr. David J. Jones Independent Researcher, Sydney, Australia</p> <p>Panel 2: Sanen Marshall Universiti Malaysia Sabah</p> <p>Panel 3: Professor Dr. Rusea Go Universiti Putra Malaysia</p> <p>Panel 4: Dr. Ida F. Priyanto Gadjah Mada University, Indonesia</p>		
		<p>Closing Session</p> <p>Monnage IKBC2021</p> <p>Group Photo</p>		



LIST OF SPEAKERS

Anisa Amalia, Murzal.
Annalisa. Y
Ari Widiyantoro
Bibi Zafirah Hanfa Badil Zaman
Bibi Zafirah Hanfa Badil Zaman
Brenda Wright
Christine Horn
David J. Jones, Dr
Dayang Sorfina Awang
Dita Fakhvana.
Dwi Fitriana Cahyaningtyas
Erni Panca Kurniasih
Fadzilah Binti Abdul Rahim
Fiona Wong E Chiong, Dr.
Fiona Wong E Chiong, Dr.
Geetha Govindasamy, Dr
Ida F. Priyanto, Dr
Jacquelina Karimon
Jacqueline Fong
Kiki P. Utomo
Labib Rabbani.
Lia Destiarti
Liliana Jalin
Margarita Naming.
Md Nasrudin Md Akhir, Dr
Mohd Iqbal Hashim
Muhamad Rasyid
Muhammad Fahmi
Muhammad Shahrul Bahro
Muhd Nur Fikry Abdul Talip
Nelly Wahyuni
Noor Pahtawi Bohari
Norazuna Norahim, Dr
Norlina Binti Kadri.
Nurfatini Apandi
Peter Jamba Ental
Riza Linda
Rohayati Paidi, Dr
Rozana Octavia Raymond Umpu,
Rusea Go, Prof. Dr.
Sanen Marshall
Sri Handayani
Steven Alezender
Suhana Sarkawi
Terry Justin Dit
Valerie Mashman, Dr
Wan Abdul Rahman Bin Wan Bujang
Yopa E. Prawatya

Fatimah Abdillah
(Director, Sabah State Library)

Ida F. Priyanto, Dr
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Zawawi Tiyunin
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PHOTO GALLERY OF SOME PARTICIPANTS

