Indigenous Innovation in the Changing Landscapes of Borneo

Cultural Assets, Contested Indigeneity and Inclusive Innovation

Thesis

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Figure 1. Landscape of Jagoi Babang in West Kalimantan, 2022. [photograph]. Source: Yohanes Arya.



Figure 2. Landscape of Sagatani Village in West Kalimantan, 2022. [photograph]. Source: Gamia Dewanggamanik.

ABSTRACT

Situated within Indonesia's specific cultural and rural landscape of Borneo, this practice-based PhD aims to identify the role of design within the sustainability discourse in fostering inclusive innovation *with* Indigenous communities. Whilst there has been a growing scholarship positioning Indigenous knowledge as key in an inclusive design process, there remains a need to critically approach the complex and multifaceted nature of the (Indigenous) notion to avoid such homogenisation and romanticisation of the term.

In collaboration *with* a group of *Dayak Bidayuh* rattan weavers in Jagoi Babang and a *Dayak Kanayatn* creative group in Singkawang, both located in West Kalimantan, this research employs Participatory Action Research (PAR) to collectively explore the complexity and the precarious nature of Indigenous craft practices; how the communities' ways of knowing and being were challenged, negotiated and adapted amidst the changing cultural and natural landscapes they were experiencing. In so doing, the research delves into the communities' everyday creativity as an exemplary mode of innovation that demonstrates situated and embodied knowledge. The term 'everyday creativity' highlights the situated material relations and knowledges embedded in the communities' everyday context, emphasising their entanglements with people, place and practice.

This research ultimately seeks to articulate Indigenous perspectives on sustainability and innovation, through exploring everyday creative practice amidst the changing (natural and cultural) landscapes of Borneo. The research promotes design-led Indigenous innovation as a mode of embodied, dialogical practice that builds on intimate knowledge of places, ways of knowing and being that are deeply connected to the land and the community. By foregrounding design-led Indigenous innovation as an embodied and dialogical practice, this study emphasises the dynamic, ever-evolving relationships between Indigenous identity, their landscapes, and their material practices. It demands a nuanced understanding of the dynamic and context-specific constructs of Indigeneity, exploring how Indigenous knowledge systems evolve, adapt, and are challenged over time.

The research contributes to rethinking (design) innovation *with* and *through* Indigeneity, proposing a new positioning of design at the nexus of craft, Indigeneity and sustainability. Through conceptualising Indigenous innovation that is rooted in everyday creativity, this study contestes hierarchical knowledge systems and challenges the dominant understanding

of sustainable innovation. This concept can be used to critically explore the multifaceted challenges in Indigenous practices, as well as articulating the intersectionality of craft practices and sustainable development.

PRELUDE

Travelling into the outskirts of West Kalimantan, there were nascent signs of a changing landscape, demonstrated through the continual flow of pickup trucks transporting oil palms along the main road connecting Pontianak, the province's capital city, with peripheral areas. The lowlands, nestled between the coast and the mountains, were dominated by massive oil palm and rubber estates. The journey from Pontianak to Jagoi Babang took roughly eight hours by a shared taxi.

"If you have any recollection of the situation in Jagoi ten or even five years ago, would you believe what you are seeing now?" The driver asked another passenger, who happened to be a resident of Jagoi Babang, referring to the rapid developments they have been witnessing in the area. They continued reminiscing about how it was impossible to travel to Pontianak on one day's journey, how the roads were muddy and not asphalt, how an old hospital run by Christian missionaries in the middle of the forest had saved many locals lives, and eventually how significantly improved the overall infrastructure has been within the last ten years, and how life has been pre and post *Jokowi's* (Joko Widodo, Indonesia's seventh president) term.

Leaving the main road behind, we entered Dayak villages tucked inside the interior, where large trucks were replaced by smaller pickups and people on foot carrying *basek*, big rattan baskets, filled with various crops. Young women drove scooters, fashioned with a small *juwah* slung from their shoulders. Rattan canes and *bidai* mats were hung and sun-dried outside most houses. Roslinda, a *bidai* master, invited me to her workshop just next to her house. Six people, men and women, all still related to each other, were sitting on the floor making *bidai*: they worked quickly yet with a quiet grace. Their hands were plaiting rattan strips to and fro, fast yet delicate. Instead of making conventional *bidai* mats that were usually plain, they introduced motifs in their works. They did not use sketches or drawings "*Because mostly we simply take inspiration from what we are familiar with, from our surroundings, so they are in our heads already*," explained one of the artisans. Their pattern creation has always been a homage to the landscape. Roslinda only worked with the best quality material, *uwi sogoh*, considered the king of rattan. Unfortunately, like many other types of rattan, this particular variety was being depleted in Jagoi forests; thus, she had to source them elsewhere. Often, trucks drove past her workshop transporting large quantities of this best rattan variety, be it smuggled or not, to the neighbouring country; a familiar sight that she described as heart-wrenching.

Anik, another *bidai* master, took a more practical approach. Instead of using *uwi sogoh* rattan, she opted for *uwi sakot* rattan; they were locally far more abundant but perceived to be in a lower grade regarding their longevity and rough appearance. Undeniably, rattan was increasingly scarce, and oil palm was an attractive crop. The local government even provided support, giving away free oil palm seeds. Anik's family had also embraced oil palm farming, planting part of their land with the lucrative crop while leaving space for rattan plants to thrive.

"These rattan plants are gifts from Jubata (God), so we do not cut them carelessly. If everywhere (forests) has turned into oil palm (plantation), then that's it, it will be impossible to find rattan anymore."

In Jagoi Babang, the balance between craft tradition and survival hangs precariously. The artisans' stories are woven into their *bidais*, each fibre telling of resilience, resourcefulness, and an enduring connection to the land that sustains them.



Figure 3. Towards Sagatani Village in Singkawang, West Kalimantan, 2022. [photograph]. Source: Gamia Dewanggamanik.



Figure 4. Local people in Jagoi Babang carrying rattan baskets, 2022. [photograph]. Source: Gamia Dewanggamanik.



Figure 5. Unfinished *bidai* rattan mats in Jagoi Babang, 2022. [photograph].Source: Gamia Dewanggamanik.

On the Cultural Assets and Vernacular Materials (C&VM) Project

Cultural-Assets & Vernacular Materials (C&VM) was a project funded by the British Council, which the researcher was simultaneously involved in as a Project Assistant whilst the fieldwork was taking place. The C&VM project took place between 2022 and 2024 and was a research collaboration between the Borneo Laboratory (Kuching, Malaysia) and The Glasgow School of Art (GSA). C&VM project cultural assets as a mode of expression that articulates intangible and tangible cultural heritage, which extends to beliefs, traditions, languages, rituals and craft narratives residing in Indigenous communities in Borneo. Undertaking the role as project assistant, the researcher helped facilitate and mobilise craft communities spanning Borneo's Malaysian and Indonesian territories to explore place-based sustainability challenges through engaging with cultural assets and vernacular materials with a particular focus on communities in Jagoi Babang and Singkawang, Indonesia.

A series of collaborations were instigated, with 11 craft communities across Borneo with the key objectives of these collaborations to enable local initiatives and transformative learning. The C&VM project was positioned as a platform for the communities participating to develop and showcase their creative experimentations, to expand their network with other craft practitioners across Borneo, and more importantly, to actively engage with the wider sustainability discourses through their practice. Whilst the C&VM project had indeed been significant in the process as a vehicle for these project pilots to reach a broader audience beyond their communities, this PhD study is nevertheless a separate, independent entity pursuing its own aims and objectives.

Presentation of Submission

This practice-based PhD submission is presented as a thesis with an embedded portfolio comprising stories, images and digital drawings. The portfolio serves as a medium to illustrate the communities' stories and the researcher's authentic visual experience and observation throughout the fieldwork. The portfolio offers an alternative way of telling stories related to the research context through a different format. The role of the portfolio in this thesis is to make visible the dynamic and the highly-nuanced of the contexts being explored; the lived experiences of the communities, their material practice and the everyday sociocultural dynamics entangled together. As such, the portfolio becomes a shared space of experience and knowledge between the researcher and the communities involved.

The conduct of the research and the design practice are dialogical and relational in nature, thus the portfolio of practice is presented as an integral part of the thesis, in which a visual distinction has been made. The researcher's design practice in community development has been deeply embedded in the research process, and both theoretical and practical components of this study are very intricately intertwined. Sections such as the prelude, preface and the portfolio are intentionally written in the first person to underscore the researcher's embodied experiences as both a designer and researcher. Whereas writing in the third person in the main chapters enables the researcher to locate the embodied practice within a broader academic discourse.

The reflexive storytelling section, presented through the portfolio, moves beyond simply recounting experience to offer a critical, reflective account that engages with the research context. The images presented in the thesis play distinct roles: within the main chapters, they function as 'evidential' and 'documentative' components, supporting the research findings, whereas the images in the storytelling are rather evocative, intended to provoke deeper engagement and reflection. Together, these elements underline the thesis's attentiveness to a holistic and richly textured approach to understanding and communicating the complexities of the research context.

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PREFACE

I was born in Bandung, a city in West Java, Indonesia, into a Sundanese family, which is technically indigenous to the western part of Java Island. I am educated in Indonesia and the UK, and have been trained and worked as a designer and researcher in both countries. Growing up in a family of Sundanese scholars, where my mother is an academic-activist devoting her life to the continuity of Sundanese cultural practices, the appreciation and respect towards indigenous knowledges have been fundamental in my works. My research and design practice has provided extensive experience within the community development sector in rural areas across Indonesia.

Before starting the PhD program, my design practice had led me to working within the community development sector in rural areas across Indonesia. Through my design practice in this sector, I often worked with communities in '3T areas', which refers to areas in Indonesia categorised as *terdepan, terluar dan tertinggal* (frontier, outermost and underdeveloped). These areas are often characterised by its many socio-economic challenges such as poverty and the communities' lack of access to public infrastructures, decent education system and economic opportunities. The national creative economy sector has gained recognition for their role therefore such design interventions have become more pertinent in this area. The presence of design has added complexity to development practices, as the design empowerment strategies introduced often risked displacing the local communities' practice and dismissing the local *know-how* in the name of development.

As a designer working in the development sector, I was often challenged to re-evaluate design methods adopted in the field, and to be critical about the hegemonic perceptions of innovation; whether our design processes and outcomes favour growth indicators and design agendas that may not reflect the complexity of communities' realities. Then, how do we understand how the local communities understand and perceive the concept of 'innovation' or 'sustainability' which reflects their sociocultural values and daily contexts? Often, Indigenous communities and the local wisdom rooted in their daily practices are represented as left behind civilizations. Positionality and reflexivity have then become important when carrying out fieldwork in order to understand the impact of our presence, as designers, in a community; that we carry a particular worldview that is based on and influenced by factors such as gender, culture, and socioeconomic status.

The debates around power relations becomes critical and central to the context of this research, given that rural community empowerment within development discourse has often

attracted organisations, designers as well as researchers to work to “fix” socio-economic issues. Amidst the increasingly widespread practice of design and social innovation in the development sector, designers and researchers need to critically question the potential for neo-colonial actions that project their ideas and design agendas on local communities, as well as the potential asymmetric power relations resulting from the engagement. During fieldwork, I needed to pay attention to issues related to power relations, especially in involving communities from various socio-cultural backgrounds and in building relationships with them. It is imperative to address and interrogate my positionality as a designer and researcher, and this is believed to be an important aspect of reflexive design practice that I endeavour. Based on this reason, I must consider the potentially neo-colonial actions of the creative professionals or researchers projecting their ideas and design agendas onto the local community, along with the asymmetrical power relations carried with it. Discussion around decoloniality has become more pertained to the context of my research, amidst the growing number of design practices in the development sector adopting standardised design methods and hegemonic perception of innovation.

My research interest lies in the ecology and social infrastructures surrounding craft practices. Reflections from my previous journey working with diverse craft communities in rural Indonesia have sparked the beginning of this research. Before starting the PhD, I spent two years working in the Wakatobi Islands, where numerous encounters and conversations with ‘Dasa Wisma’ women on the island have been inspirational. I was intrigued by this creative and resourceful group working creatively together, driven by a deep sense of attachment to their place. Dasa Wisma itself is an informal social organisation that exists in most rural villages in Indonesia; it is a family welfare grouping system with each group consisting of approximately ten households/housewives. Most of them were craft artisans; they weaved *ikat* textiles, bamboo or pandan, though they may not necessarily consider themselves as a creative practitioner. Whilst they were not attached to a specific creative practice, their modes of creativity were based on everyday necessity for the sustenance of their family and community. They often worked together as a group and were diverse in skills, resourceful and collaborative in nature. They supported almost every key activity in the village, ranging from beach cleaning to agriculture to productions of craft or running the village cooperation. It was those Dasa Wisma women who inspired my exploration of “everyday creativity”, which has then become the starting point of this study. Their role and practices has driven this research’s ambition to highlight the seemingly ‘invisible’ forms, and actors, of innovation that takes place in the everyday, in a community-setting. How diverse forms of innovation are carried out, reproduced and understood through other worldviews.

My research continuously seeks ways to ethically engage with diverse forms of knowledge and the ways they are reproduced. Working within Indigenous contexts, It has become increasingly important for me to critically reflect on my positionality within the research and contemplate upon the notions of Indigeneity with a broader nuance. As an Indonesian woman of Sundanese ethnicity, I am technically Indigenous to the western part of Java Island. However, growing up in one of Indonesia's largest metropolitan cities and being educated in Indonesia and the UK, I was not accustomed to deeply reflecting on Indigeneity or the complexities it entails. In Indonesia, where nearly everyone identifies as Indigenous to one island or another, I was far removed from the tensions surrounding Indigeneity. This distance itself reflects my privilege: my cultural identity has never been a source of discrimination, and I have benefited from easy access to basic infrastructure, quality education, and opportunities for upward mobility. While I am Indigenous, my experience differs significantly from the communities I engage with in the field, who are also Indigenous. Despite sharing the same nationality, the nuances of our experiences are crucial to acknowledge. This awareness helps me remain attuned to differences and approach my research with reflexivity.

Drawing on discourses in decolonisation and feminist political ecology, I pay attention to issues related to power relations in the fieldwork engagement, particularly in engaging remotely with communities from various sociocultural backgrounds and in establishing a relationship with them. I emphasise on experiential ways of knowing (D'Ignazio and Klein, 2020) by taking into account the diversity of the communities' locations, cultures and histories. In line with the feminist standpoint, I emphasise the value of situated knowledge (Haraway, 1988), which recognises the subjectivity of knowledge; perspectives and lived experiences of the knower and how these have shaped the knowledge produced. As such, I situate myself and my design practice in which this study operates, and I acknowledge that the knowledge generated in this research is shaped by my own perspectives as well as the communities of practice involved here.

My lived experiences—as a female Sundanese, a designer, and a researcher working and living in varied settings—have profoundly shaped my reflexivity in my work. Reciprocity and reflexivity are key throughout conducting the fieldwork to be able to examine my impact and position within the communities this research is located in. Integral to the developing Indigenous research paradigm is an understanding that researchers bring a particular world-view that is predicated on factors such as their gender, culture and socioeconomic status (Russell-Mundine, 2012). During the fieldwork, I see my positionality vis-à-vis the participating communities as a critical observer and long-term interlocutor who is vested in

developing a sustainable craft ecosystem in rural Indonesia. As such, research was framed from the beginning as a platform for mutual learning and exchange.

The journey that this research undertook has laid a foundation for a new community of practice; a network of academics, craft practitioners, designers and creative communities across borders, tied by the same passion, concern and interests in learning about the development of craft practice in Borneo. The collaboration with the craft communities was developed based on trust, albeit slowly, however it has yielded a deep-rooted relationship that is not just based on an academic frame. I see this as an ongoing relationship based on trust and friendship beyond the duration of ‘the project’. This community of practice that has flourished in Borneo took a deep care and respect to create and nurture. This shows me, as a researcher and an individual, that there is hope to continuously train our senses for collective sustaining, storytelling and reliance.

GLOSSARY OF TERMS

Borneo: The largest island of Asia, a part of the Indonesian archipelago. The island is divided into three countries: Indonesia (73%), Malaysia (26%) and Brunei Darussalam (1%).

Creative communities: Groups of people cooperate and act together to solve a local problem or to open a new possibility, and doing so as a positive step in the social learning process towards social and environmental sustainability (Manzini, 2015). They are usually driven by the sense of community spirit and the pleasure of collaborating and building relationships (Meroni, 2017).

Community-based design: The practice of designing *with* a community rather than *for* them.

Community development: The process of supporting community groups to take collective actions on issues which are relevant to them.

Cultural assets: Forms of expressing cultural heritage, beliefs, dreams, ancestral wisdom, rituals, stories, artefacts and relations to people, place and practice(s)

Decolonising design: The process of delinking design knowledge and practices from the system that perpetuates colonial structure of power.

Design Innovation: This will be defined as the activities by design experts to activate, sustain, and guide processes of social change towards sustainability (Manzini, 2015, p. 62).

Ecofeminism: A multifaceted theoretical framework that integrates the concerns of ecology and feminism. It provides a critical lens through which to analyse the connections between the oppression of women and the oppressions of nature, highlighting the interdependence of gender, nature and societal power dynamics.

Embodied knowledge: Knowledge that lives within our actions, practices and the things we create.

Empowerment: The process of sharing and redistribution of power.

Everyday creativity: Material practices embedded in the everyday context and span across different skills. It isn't bound to a specific creative practice or skill, but rather organic, practical and adaptive to its social environment.

Feminist Political Ecology: A theoretical framework that examines the interconnections between gender, politics, and the environment. It explores how power dynamics, social, political, and cultural inequalities influence human-environmental relationships.

New Materialism: A theoretical framework that emphasises the active agency of material entities, challenging traditional dualisms and human-centric views.

Situated knowledge: As theorised by Donna Harraway (1988), emphasises the importance of acknowledging the situated perspectives and positionalities of knowers, recognising that knowledge is always produced from specific social, cultural, and historical standpoints

Tacit knowledge: Refers to the type of knowledge that is embodied, difficult to articulate, codify, or transfer to others through formalised language or documentation. It is often deeply rooted in personal experience, practice, and intuition, and is acquired through observation, imitation, and hands-on learning.

The Global South: The term traditionally has been used to identify less economically-developed countries. In Postcolonial study, it refers to the resistant imaginary of a transnational political subject that results from a shared experience of subjugation under contemporary global capitalism often associated with the Global North. The use of the Global South to refer to a political subjectivity draws from the rhetoric of the so-called Third World Project (Mahler, 2017).

Indigeneity: The state and experience of being Indigenous, that links them to specific lands and places with knowledge. The concept of Indigeneity is complex and multifaceted, encompassing diverse perspectives, experiences, and struggles related to identity, self-determination, and representation.

Indigenous: In the context of Indonesia it often refers to *masyarakat adat,* that is rural peoples who still hold onto their traditions and customary practice, and historically were the victims of the New Order's developmental policies.

PAR: Participatory action research (PAR) is a methodology underpinned by collaborative and democratic approach to research that involves active participation from the individuals or communities affected by the research. It is action-oriented; it addresses social inequalities, promotes empowerment, and generates knowledge that leads to tangible social change.

Pluriversal practices: Practices and ways of thinking and working that uphold pluralism; emphasising relationality, and respecting the diversity and complexity of perspectives.

Subaltern: According to Spivak (1988), the subaltern represents a position without identity and is removed from all lines of social mobility. The term "subaltern" encompasses notions of marginalisation, disempowerment, and the complexities of subject formation within social, political, and economic contexts.

Vernacular materials: Materials that come from, belong to, or signifiers of a particular place, landscape and community.

Worldmaking: The term formulated by Goodman (1978), suggesting that many other worlds can as plausibly exist as the world we know right now. Worldmaking refers to the ways we collectively make the spaces we inhabit through symbolic practices and meaning-making. In this context, worldmaking is an acknowledgement of the interpretive frames and practices that construct and make sense of the world.

GLOSSARY OF LOCAL TERMS

3T regions: Refers to areas in Indonesia categorised as *terdepan, terluar dan tertinggal* (frontier, outermost and underdeveloped).

Adat: Though a complex concept, it can be briefly described as customary localised ways of life, regulations and beliefs.

Bidai: Bidayuh mat woven using the main material of rattan, combined with tree bark cloth.

Bidayuh: One of the Dayak-sub ethnic groups, originally from the West and Northwest of Borneo. Bidayuh is also known as the ‘land Dayak’.

Dayak: Collective term referring to Indigenous people inhabiting Borneo Island.

Dompeng: Informal gold mining practice.

Gawai: Annual celebration and tradition held by the Dayaks as a form of gratitude for the harvest.

Habang: A Dayak Kanayatn settlement situated in the South of Singkawang, also known as Sagatani Village.

Jelai: *Coix lacryma-jobi,* a tropical ornamental wild grass known as Job’s tears plant in English. Locally known as *hanjeli* or *nyalik*, depending on the region.

Juwah: Jagoi Bidayuh language referring to the general term for basket. Also known in Malay as “takin” or “tambok”.

Kalimantan: Indonesian part of Borneo Island.

Keberlanjutan: Formal Indonesian translation of the word sustainability.

Konfrontasi: (footnote) The Indonesia–Malaysia confrontation (1963-1966), was an armed conflict that stemmed from Indonesia's opposition to the creation of the state of Malaysia

Lanfang Republic: or also known as Kongsi Lanfang, a federation established by the Hakka Chinese in western Borneo (1777-1884).

Lestari: Indonesian word meaning *remaining in its original state; unchanging, enduring, everlasting.* Akin to the word *keberlanjutan,* it is an equivalent description of sustainability.

Manai: Jagoi Bidayuh language for weaving.

Masyarakat adat: customary communities or peoples who have ancestral origin in a specific geographical territory and a particular set of values, ideologies, economy, politics, culture and land/ natural resource management (Moniaga 2007). Masyarakat adat refers to Indigenous people in the context of Indonesia.

New Order: An era of an authoritarian regime in Indonesia under the leadership of Soeharto (1966-1998).

Nusantara: Refers to the Indonesian archipelago, from Sabang to Merauke. Nusantara is also used to name the new capital city of Indonesia which will be relocated to Kalimantan, on the Indonesian Borneo.

Sanggar: a platform or place for learning activities of a community group to develop skills and knowledge in a particular field, typically traditional arts.

Serumpun: a bundle of grass that shares the same root (informed by Sujianto, the Ketua Kampong of the Sekida Village in Jagoi Babang), is a term this research draws on to show how knowledges, wisdom and material cultures across the borders of Kalimantan, Sarawak and Sabah interconnect.

Singkawang: A region located in the province of West Kalimantan on the island of Borneo.

Tembawang: a complex form of community-based agroforestry; Indigenous forestry management system practised by Dayak communities in West Kalimantan.

Ulayat: Indigenous (communal) rights to control forests, land and rivers within specific territory, to obtain resources to support livelihoods are regulated by adat.

Uwi: Jagoi Bidayuh language referring to the general term of rattan.

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Declaration

I, Gamia Dewanggamanik declare that this submission of joint thesis and practice for the degree of Doctor of Philosophy meets the regulation stated in the handbook for the mode of submission, and has been approved by the research degree sub-committee.

I declare that this submission is my own work and has not been submitted for any other academic award.

Gamia Dewanggamanik
School of Innovation and Technology
The Glasgow School of Art
2025

1.

INTRODUCTION



Figure 6. The process of making baskets out of rattan and *resam* in Jagoi Babang, 2022. [photograph]. Source: Alfian Widi.

1.1. Introduction

This practice-based PhD asks, *how can an exploration of everyday creative practice articulate Indigenous perspectives on sustainability in Borneo?* This PhD study works *with* Indigenous communities to investigate the relationship between landscape, material practice and Indigeneity for design innovation endeavours. This study seeks to reposition craft in the innovation discourse thereby advancing decolonising design research and practices. In so doing, this research critically engages with the shifting sociocultural, economic, and political landscapes that shape crafts and innovation in West Kalimantan, Indonesia. The concept of 'everyday creativity' refers to material practices and knowledge embedded in the communities' everyday context, emphasising their entanglements with people, place, and practice.

This practice-based study was conducted in response to the pressing need to transform and diversify design and social innovation practices in engaging Indigenous craft communities, particularly within the sustainability discourse. There is also a need for a richer and situated-approach to engage *with* Indigenous context and articulate the multifaceted nature of indigeneity. Accordingly, this PhD builds on design-led community development practices as a methodological framework, foregrounding ethical, collaborative engagement *with* Indigenous communities through design.

The research questions and objectives have been developed iteratively throughout the course of the study. A set of sub-questions were also developed to support the direction of this research:

1. How can appropriate modes of engagement with Indigenous communities be developed for collaborative knowledge production?
2. How can design-led Indigenous innovation address sustainability challenges in rural Borneo, and in what ways can design practice ethically support these efforts?

The overarching aim of the research is to advance collaborative design practices by identifying the role of design in fostering Indigenous values and perspectives, thereby promoting inclusive innovation. Below are the specific aims of the research:

- To articulate Indigenous and decolonising perspectives on sustainability and innovation.

- Foregrounding Indigenous epistemologies in design collaboration through a shared practice.
- to explore ethical and critical ways in which Indigenous knowledge and practice can enrich approaches to learning and doing within design.

To achieve these aims, the following objectives were established:

- Explore and mobilise communities' cultural assets and narratives through collaborative-design engagements.
- Foster long-term relationships through a series of iterative design engagements and facilitated collaboration.
- Embed opportunities for co-production and mutual learning through a combination of participatory and qualitative methods.

Various contexts underlying this research (Fig. 7) were iteratively explored out of literature readings, supervisory discussions and reflections of the fieldwork process. The ever shifting role of design is investigated through exploring everyday creativity in relation to Indigeneity and changing landscapes in Borneo Island. Accordingly, the research will then be particularly focusing on the extended use of design skills and knowledge in community development practices. To start with, this chapter draws attention to the changing landscapes across domains; from the much-needed transformation of design to inclusivity within the innovation and sustainable development sector in the Global South. Subsequently, the chapter will present the cultural and geopolitical context of Borneo, then moves to discussing the extraction economies that have resulted in the exploitation of both land and natural resources across the Island. The following section summarises the chapter of the thesis.

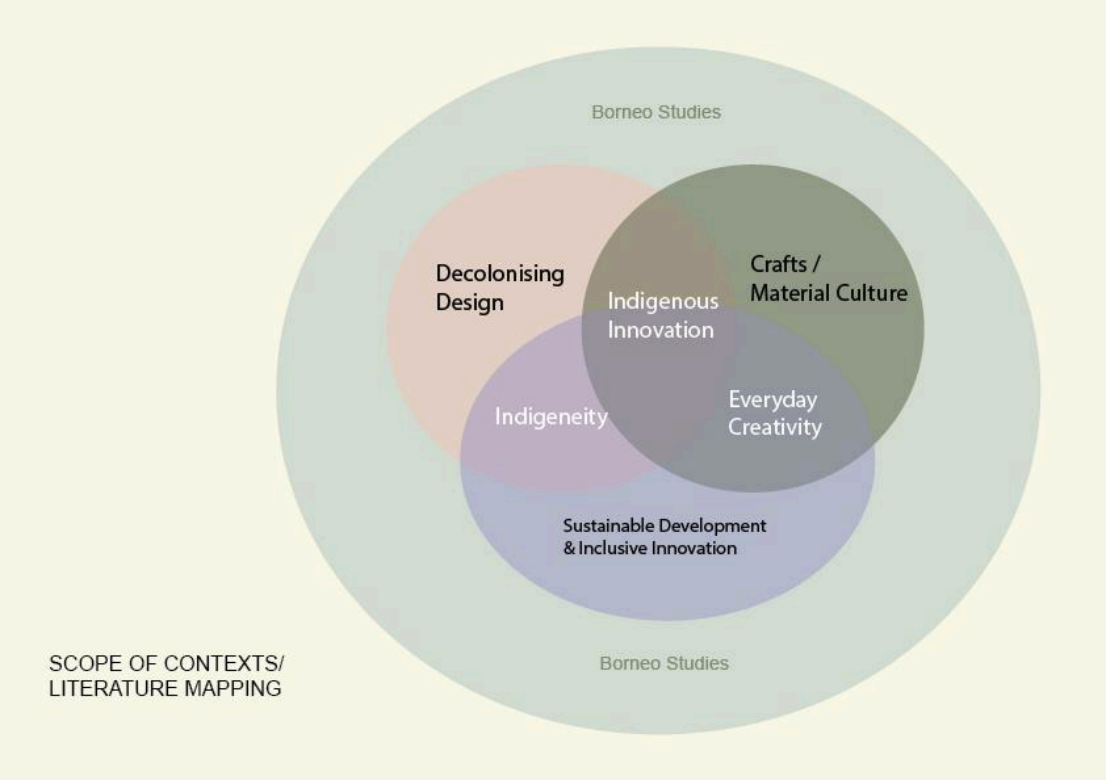


Figure 7. Mapping the research contexts. [diagram]. Source: Gamia Dewanggamanik.

1.2. Thesis Structure

This thesis is organised into several chapters, each developed to address the research inquiry. Below is an overview of the structure of the thesis:

Chapter One sets out the research agenda and introduces the contextual backdrop of the study. This chapter frames the formulation and iteration of questions being addressed, in exploring rethinking inclusive innovation through Indigenous discourses. This chapter explores how reflecting on Indigeneity can inform design (innovation) approaches in engaging with sustainable development challenges in rural areas of West Kalimantan. As design has focused more on a place-based practice, including Indigenous perspectives into design approaches and reflecting through Indigeneity may offer a new pathway for design innovation to move away from the universalised ideals of growth and progress. Engaging with Indigenous discourse to have a more comprehensive understanding of the concept that reflects how it is understood today by the relevant communities and what their aspirations are.

Chapter Two articulates the scoping of context for this research in relation to literature and the debates surrounding community development, empowerment through design and inclusive innovation. This chapter is divided into three main sections.

The first part explores the notion around 'empowerment through design', signified by the growing practice and the shifting role of design. This section examines the debates and practices of design within the community development settings. Reflection on how design has been increasingly used as a strategic tool within the (sustainable) development sector to respond to contemporary challenges, this study explores decolonisation theoretical discourse to critically interrogate the universalisation of design approaches and their colonial legacy. The section interrogates the role of design in the development sector with the premise of empowerment and participation; starting with unpacking the notion of power within socially-engaged design by grounding on the subject of decoloniality then moving to explore how colonial power has sustained within the landscape of mainstream design practices.

The second section draws attention to rethinking modes of innovation in the 'margin'. This first part explores the literature and discourses around inclusive innovation and the cultures of innovation in the peripheries; everyday creativity in rural areas and ones that include Indigenous innovation. This second part explores possibilities for inclusive forms of innovation by specifically looking deeper into situated-knowledge within vernacular practices.

Finally, the last section focuses on rethinking design, as a situated-practice, *with* and *through* Indigeneity. This includes the process and dynamics of community participation in a situated-context, particularly in the context of working with Indigenous communities, that responds to various forms of power relations, culturally-situated narratives, perspectives and values.

Chapter Three foregrounds the theoretical and methodological orientation of the research. The chapter further outlines the practice-based nature of this research, which centres around community-based design engagements with rural communities in Borneo. The practice and the research, situated in a field, in a form of collaborative engagements with craft practitioners in Borneo. Further explained is the role of the researcher and designer in enabling collaborations that highlight the practice of community facilitating, project curating and mobilising assets.

This chapter further outlines the feminist theoretical frameworks underpinning the research. It further describes how feminist framework is useful for the research to articulate the role of

rural Indigenous communities' and women's skills and knowledge in approaching the notion of 'innovation' and 'everyday creativity' being explored in this research's context. This has offered the research a way of understanding about diverse modes of innovation that highlights diverse modes of knowing, being and thinking.

This chapter provides the rationale for the research's methodological approach, Participatory Action Research (PAR), which was chosen to develop and reflect on the data and knowledge gathered throughout the process in response to the research questions. The chapter outlines the research design and elaborates on the approaches, methods, and tools employed to navigate the research. A range of methods and interventions were implemented during fieldwork, including semi-structured interviews, group discussions, peer-to-peer interviews, co-design workshops, creative workshops, assets mapping, and creative project experimentation.

Chapter Four details the researcher's extended fieldwork conducted with Indigenous communities in Sagatani Village, Singkawang, and Jagoi Babang, Bengkayang, both situated in Kalimantan. The chapter opens with a discussion of the ethical procedures undertaken during the fieldwork, setting the stage for an in-depth exploration of the communities' craft practices and the sustainability challenges they face, through initiating creative experimentations. This approach provides insights into how Indigeneity is performed and explored within this context.

The fieldwork examines sustainability challenges in these areas through the perspectives and experiential knowledge of the local communities, which are deeply rooted in their cultural and material practices. It investigates the interconnection between everyday practices, land, and the broader social and ecological crisis faced by the community.

Chapter Five introduces Reflexive Storytelling, offering a distinct format and approach within the thesis to showcase visual narratives. This chapter emphasises the role of visual storytelling in illustrating the reflexive dimension of the research. By integrating these visual elements, it presents the research's portfolio as a complement to the written analysis, providing a more holistic and multidimensional representation of the research findings.

Chapter Six presents the analytical discussion of the study findings in relation to the research questions through the use of thematic analysis.

Chapter Seven discusses the reflections from the study and the original contributions to knowledge from the research and links these to the literature. This chapter considers the

study's limitations, as well as future research directions, and concludes with a summary of the research.

1.3. The Changing Landscapes

The journey exploring the notion of "changing landscapes" in this research has two points of departure. It begins with the circumstances in which Indigenous craft communities in West Kalimantan, Indonesian Borneo, are experiencing tremendous changes, both tangible and intangible, in their surrounding landscapes. Meanwhile, the landscape of design is also transforming; decolonising movements within academia are drawing attention to the systematic devaluation of Indigenous and other marginalised voices in knowledge production. Decolonial thinking seeks to unsettle epistemic coloniality entrenched in the western science tradition that tends to separate nature and culture, as well as creates an epistemological-ontological divide therefore perpetuating science's dissociation of knowing from being (Gatt, 2019). Decolonising movements open up delicate questions about rights, ethics, positionality, representation, and knowledge-production within academic research and practices.

Decolonising efforts promote understanding of the situated, plural and relational nature of knowledges (Watt, 2013), focusing on land and cultural resources to Indigenous guardianship (Tuck and Yang, 2012). Decolonising movements consequently have raised greater awareness of Indigenous pedagogies and diverse knowledge systems. In recent years, scholarly interests on Indigenous topics and their knowledge systems have flourished. Within the sustainable development sector, the need for diverse perspectives underscores the paramount importance of incorporating traditional ecological knowledge (TEK) or Indigenous knowledges (IK) in understanding and finding solutions to global climate change (Newberry and Trujillo, 2018, p.206).

Across the domain of design, the debates problematise design discourses which are largely entrenched in western-centric epistemologies, urging scholars and practitioners to transform and reevaluate design methods and tools to work towards repositioning dominant western-centric discourses. Given the proliferation of Indigenous topics within design scholarship, underlying this research is a deep awareness of how 'Indigeneity' is appropriated and conflated into. As such, woven into the research's process is a set of moral understanding of using the term Indigenous with respect to designing *with* and *among* Indigenous people and is cognisant of the differing legacies of colonialism, neo-colonialism and entrenched systems of 'othering' within research contexts (Akama et al., 2019).

Given its colonial and then a foreign-dominated social science legacy, it does not come as a surprise that Borneo has experienced the increasing “indigenization” of social science research, particularly in Kalimantan (King and Ibrahim, 2019). Conscious of “Borneo’s status in the ethnographic imagination as a quintessential site of non-western alterity—native cosmologies, headhunting, and Indigenous rituals remain popular topics in regional scholarship” (Chua, 2015, p.654)–there is a need to design appropriate modes of engagement to rethink Indigeneity, participation and representation of the communities participating in the research.

Decolonial and Indigenous scholars globally have been working to re-articulate ideas, concepts, and visions shaping Indigenous discourse today. Within Indigenous movements, the debates leap beyond the romanticised and homogenised approach of Indigenous people, and compels scholars to consider going beyond the simple binary of western versus Indigenous. The valorisation of Indigenous knowledge within academia, indeed, has put at risk a tendency to romanticise local knowledge and “the Indigenous”. Mona Abaza and Georg Stauth remark: “Those who claim authenticity by ‘indigenisation’ might not yet be aware of the fact that the local knowledge, upon which they want to construct an alternative, has long since been part of global structures, or of the fact that they play a part in a global cultural game which itself calls for the ‘essentialization’ of local truth.” (Abaza and Stauth, 1988 p. 211). Accordingly, it is the research’s intention to recognise that Indigenous peoples in Borneo are not isolated from the globalisation process. In fact, argued by Micahel Dove (2011), their participation in commodity production for global markets has a long history; it is “ancient and highly successful”. Viola Schreer (2016; 2023), in her research on swidden and rattan cultivation complexes in West Kalimantan, notes that Bornean societies were enmeshed in global commerce long before the onset of the modern era, noting that trading rattan and other forest products is intrinsically tied to the communities’ history and identity (Schreer, 2023, p. 651). Consequently, the romanticised idea of Indigenous communities living in isolation from market forces will lead to a failure to understand their history and identity, as well as the complexities and precarity around their material practice.

Tuck and Yang argues (2012) that land is central to the Indigenous and decolonisation discourse, thus this study focuses on Indigenous communities’ relation to their landscapes. In the context of this study, this author views landscape as both physical and social; dynamic and living. This inquiry into ‘changing landscape’ draws upon Tim Ingold’s ‘dwelling perspective’ (1993; 2017), which challenges the division between humans and landscapes, instead envisioning landscape as a continuously unfolding story. Ingold advocates for

moving beyond visual, representational, and symbolic interpretations of landscapes, urging us to “bring them back to life” by recognising them as socially constructed spaces shaped through temporal processes (Ingold, 1993). Expanding on this idea, Ingold introduced the concept of *taskscape*, which encapsulates the temporality of landscape. Defined as ‘the pattern of dwelling activities’ (Ingold, 1993, p.153), taskscape refers to the interconnected practices of human and non-human beings as they inhabit and engage with their environment over time. Drawing on this framework, this study considers landscape as both a natural and cultural phenomenon—not merely a static visual scene or material backdrop to social life, but a dynamic and temporal space shaped by the lived experiences and interactions of its inhabitants.

Anna Tsing’s (2017) notion of ‘damaged landscape’ has been formative to the thinking of this research. Tsing described a damaged landscape as an environment or ecosystem that has undergone a *disturbance*, a significant degradation or destruction due to human activities or natural disasters. It represents a state where the natural balance and functionality of the landscape have been disrupted, leading to negative impacts on biodiversity, ecosystem services, and overall environmental quality. However, Tsing also stresses that disturbance is not just an end; it is also a beginning (Tsing, 2021), in which new forms of life would emerge from the disruption of ecological relations. New forms of relation and conversations emerge out of these changes; opening up an opportunity and space to foster new sensibilities and transform collaborative design practice. Seeking possibilities for navigating an ethical design collaboration within this space, the research promotes an interrogation of these changing landscapes–where designers and Indigenous communities are not static and are both experiencing all sorts of changes and resistance–to better understand how Indigeneity is ‘performed’ in this context. Indigeneity and working within Indigenous contexts is first and foremost about reciprocity and relationships, which involves acknowledgment of cultural positionalities and relations of place (Smiths et al., 2018).

1.4. Design Engagements in the Sustainable Development Sector

Departing from Victor Papanek’s vision (1974), more designers now have been tapping into the realm of social design, shifting away from market-led and product-oriented design paradigm to a process for designing solutions to complex social, environmental, and even political problems (Margolin, 2007; Koskinen and Hush, 2016). The practice of design within the development sector has been usually accompanied by the growing adoption of design tools and methods from popular design practices such as design thinking, participatory design and service design (Julier and Kimbell, 2019; Julier, 2017).

Today, it is increasingly popular to use design as a means to tackle socioeconomic problems and empower rural communities to meet the sustainable development goals as well as the region's economic growth (Malasan, 2020, 2023; Greru, 2018). In most countries in the Global South such as Indonesia, rural community empowerment strategies often entail the conservation of culture and environment whilst alleviating poverty (Malasan, 2020; Greru, 2018). Indonesian craft has been considered as a prominent sector to increase the nation's economic growth, thus to help reach its potential, various government policies or initiatives bring design interventions into rural craft development (Triharini et al., 2024, p. 50). Notwithstanding the emergence of the creative economy into the development discourse, many rural creative practices are still facing barriers to actively participate in the (development) agenda due to the underappreciation of the practice. The creative economy policies and strategies tend to overly focus on the advancement of economic growth, in which scalability tends to underpin the notion of growth itself. This does not always reflect the nature of many creative practices in the rural context. Furthermore, rural, traditional creative practices within development frameworks also remain circumscribed by the colonial perceptions of exoticism and the commodity logics which risks neglecting the communities' knowledge system and the underlying issues.

Situated within the landscape of sustainability discourse, this research is tapping into design engagements within the community development sector in rural Indonesia. Here, the research investigates how globally-circulated narratives on sustainability, coupled with universalised design practices have shaped dominant community-empowerment practices and design innovation discourses. Informed by the decolonising design agenda, the research seeks to reimagine different approaches and strategies of community empowerment practices, reevaluating the practice practice and reorienting the design development process towards the lived experience of the relevant communities.

In Indonesia, Badan Pembangunan Nasional (Bapennas), or The National Development Planning Agency, has begun to recognise the potential and the challenges lie in the plurality of knowledge in Indonesia, in development processes. On a policy level, Bapennas considers the importance of the integration of local knowledge within the process of democratic policy making and its implementation. Promoting local knowledge in the process demonstrates the agency's awareness of the close and interconnected relationship between culture and development (Nugroho, Carden and Antlov, 2018). However, much local knowledge is still not visible nor well-understood due its tacit nature, and often having little

ability and credibility to legitimate power thus public policy makers show no interests (ibid, p.15).

Undoubtedly, (sustainable) development strategies and institutionalised definitions of what constitutes sustainability and innovation need to be carefully considered when applied locally. As such, in articulating and rethinking the concept of 'sustainability' and 'innovation' in the rural context of Indonesia, design must crucially take into account the 'dynamic' and 'the emerging' of the diverse knowledge and practices of the community. As a designer, this means actively reevaluating the standardised values in design practice and being mindful of not re-worlding everything into one lens. This means reimagining narratives of progress that challenges universal objectivity, and rethinking participation that is not just about giving voices but also listening to diverse stories.

1.5. Design and Inclusive Innovation in the Global South

The United Nations has declared the creative economy's role in the sustainable development sector, acknowledging its potential to address challenges in 'promoting sustained, inclusive and sustainable economic growth' (United Nations General Assembly 2021). Interests in developing more inclusive innovation have been growing in many parts of the world, including Indonesia, which recognises innovation and community empowerment as the driving force for inclusive economic growth (Nugroho et al., 2015, Foster and Heeks, 2019).

In the context of development in the Global South, inclusive innovation means reinforcing plural pathways to sustainable development. Accordingly, debates around inclusive innovation should consider the diversity of innovation processes across different socio-cultural settings (Akama and Yee, 2019). However, existing studies on the role of design innovation in the development sector have mostly focused on the proliferation of formal, institutionalised forms of innovation. Whilst expert-driven innovations that operate in a formalised space (such as university, tech-startups or research lab) have been widely acknowledged, there has been little discussion about the inclusion of the *other* types of innovation, particularly those operating in the margin. These innovations are informal, community-led and usually emerged out of a sense of resourcefulness and collectivism. The research undertaken by the Global Creative Economy Council on the relationship between the cultural economy and the informal economy in the Global South, states that more than 60% of all economic activity is estimated to take place in the informal sector, with the

proportion certainly higher in creative and cultural industries (Joffe and Newbiggin, 2021). Nevertheless, their role within the development sector remains underexplored.

Debates around inclusive innovation have strong relevance with the context of the Global South. Historically, the concept can be traced back to the Appropriate Technology movement in 1970, which also aligned with Papanek's social vision of designing context-relevant technology in developing countries (Bont, 2021; Nesta, 2021). This research concurs with design scholars' concerns with the growing hegemonic paradigm of innovation in the Global South (Akama and Yee, 2019; Escobar, 2018), therefore, discussions on inclusive innovation cannot be separated from debates within the decolonising design landscape. The works of these decolonial design scholars try to re-orient design studies and move away from the further practise of colonialism and centralising trends and instead promotes a plurality of practices and discourses (Schultz et al., 2018; Fry, 2017). It is important to note that decolonising design is an ongoing and complex process that requires critical self-reflection, learning, and unlearning. It involves questioning and challenging the underlying assumptions, biases, and power structures that have shaped design practices. Decolonising design also requires recognising and addressing the historical and ongoing impacts of colonisation on Indigenous communities and their knowledge systems (Leeuw & Hunt, 2018).

An inclusive approach to development needs to interrogate the power relations and hierarchy in innovation practice. As numerous studies have indicated, various forms of discrimination exist within the political economy of design and innovation, with only professionalised design work acknowledged, valorised and credited (Tunstall, 2013; Costanza-Chock, 2020). For example, Tunstall identified that one of the issues in the mainstream design innovation discourse is that it classifies craft or Indigenous practices as subordinate to modern design, thus excluding histories and practices of innovation among the so-called Third World communities. Participatory Design (PD) scholars have also critiqued the approaches to innovation that are exclusive and privileged (Costanza-Chock, 2020; Erete, 2018) for completely ignoring diverse layers of communities, particularly the ones living in the margin. As such, this research explores cultures of innovation that exist on a community level, rooted in the everyday creative practice of rural communities in the Global South. Considering its connection to such global and complex agendas of sustainability, it is essential to understand the socio-economic landscape and acknowledge the plurality and the diversity of the communities' locations, experiences and knowledge.

In line with feminist critiques of development (Shiva, 2016; Quijano, 2007), a growing body of literature on design and social innovation stresses the significance of everyday, vernacular design practices particularly those in marginalised or subalternised sites of innovation (Costanza-Chock, 2020; Akama et al., 2019). Other studies on innovation and development (Fressoli et al., 2014; Campbell, 2017) suggested looking into the grassroots innovation movements in marginalised settings. Whilst the innovation reflects the interests and values of the communities involved, it also demonstrates ingenuity and resourcefulness by generating bottom-up solutions that directly respond to the local condition. These innovations are deeply entangled within the everyday context of the communities themselves and are driven by everyday necessity often without any professionalised knowledge.

Feminist perspectives on innovation seek to unsettle the dominant narratives and structures that perpetuate structural inequalities in the innovation discourses. These perspectives emphasise the importance of the inclusion of marginalised groups in the innovation process. These perspectives critique traditional approaches to innovation that are gendered and racialized (Costanza-Chock, 2020), often overlook the contributions and experiences of these groups. They advocate for a more inclusive and diverse approach that recognises and values the contributions of these groups. By incorporating these feminist perspectives, researchers can gain a deeper understanding of the barriers and opportunities faced by underrepresented groups in the innovation discourse and develop strategies to promote equality in innovation.

Interrogating the power dimension of innovation by focusing on subaltern groups' everyday practices is vital in the increasingly global-oriented development. Here, the concept of inclusivity within design and innovation discourse is interrogated through the framework of intersectionality. For Design scholar and Design Justice activist Sasha Costanza-Chock (2020), inclusive innovation means considering certain design practices that are intersectionally disadvantaged; those that have been gendered, raced and/or otherwise coded as less valuable or not recognisable as innovation. Such a dominant narrative of innovation appears to disregard alternative ways of being, thinking and knowing, which leads to the common assumption that only the privileged few with expert knowledge can hold an important role in innovation. To summarise, an inclusive innovation should allow for plural ways of knowing, doing and being. In contesting the homogenising narrative of innovation and growth, it is necessary to start by investigating existing forms of innovation that are deemed invalid and invaluable.

1.6. Indigenous and Inclusive Innovation

Inclusive innovation, with its emphasis on diversity and inclusivity, may provide opportunities for Indigenous practices to contribute their unique perspectives and knowledge to the innovation process. Whilst there has been a growing scholarship of positioning Indigenous knowledge as central in a more inclusive design process (Akama et al., 2019; Sheehan, 2011), there is a need to articulate the complex and multifaceted nature of the (Indigenous) notion to elude such homogenisation and romanticisation of the term. One critical gap is the limited inclusion and recognition of Indigenous knowledge systems and practices within design innovation discourse and the politics of knowledge production. Indigenous knowledge, which encompasses traditional ecological knowledge, cultural practices, and ways of knowing, is often sidelined in the design process (Tunstall, 2013). This exclusion perpetuates a Eurocentric perspective and fails to acknowledge the rich and diverse knowledge systems that Indigenous communities possess.

In respect toward Indigenous knowledges across the globe, design scholars have voiced widely the call to adopt pluriversal practices and thinking, which promotes ways of thinking and doing, that uphold pluralism. This proposal emphasises relationality and includes diverse worldviews and perspectives in knowledge-making and design processes. Key authors such as Yoko Akama, Joyce Yee and Norman Sheehan have made profound contributions to highlighting Indigenous values in promoting respectful and reciprocal design practice. Sheehan's account of respectful design is rooted in Aboriginal values, whilst Akama draws on the wisdom embedded in the Japanese everyday practice. There has also been a surge of research and design practice recentering the Indigenous Māori's principles (for example Smith, 2015; Akama et al., 2019). In their recent publication, Akama and Yee (2016; 2019; 2023) bring together diverse practices of designing social innovation across Asia-Pacific that address various social, political and environmental challenges. Akama and Yee have published numerous works promoting the recognition of many names, forms and articulations of designing that are often embodied, relational, temporal, ontological and entangled deeply with ecologies (Akama and Yee, 2023, p.3).

In the context of Indonesia, relevant literature is rather fragmented across different domains. Prananda Luffiansyah's works (2020, 2023) focus on the everyday, bottom-up approach to social innovation in Indonesia. More specifically in the context of Borneo, the burgeoning studies on Indonesia' Borneo mostly focused on such issues as rainforest deforestation, changing systems of shifting cultivation, sustainable agricultural systems, poverty, resettlement and transmigration (King and Ibrahim, 2019). Vast amounts of anthropological research have been produced, for example, the works done by Tania Murray Li (2001, 2010,

2021), Nancy Peluso (2018), Lengga Pradipta (2022) and Tanasaldy (2000,2007,2012), covering themes on politics of identity, socio-economic and environmental politics. Liana Chua's works (2012, 2015) largely focus on Borneo's religious configuration. Borneo's literature landscape is filled with a breadth of topics on sustainable developmental concerns, such as the rights of Indigenous groups, the socio-environmental impact of migration, borders, and extractive economies such as logging, plantation and mining. In the other domain, anthropologist Bernard Sellato has produced extensive works examining Borneo's material culture. There has not been any contemporary literature on craft and design addressing these entanglements. It is through the exploration of everyday creativity, this research attempts to draw together those seemingly loose and disconnected elements.

A more critical approach to Indigeneity is needed as problematic assumptions are often made in conflating the notion of Indigenous as a homogenous construct (Ansari. 2018; Akama et al., 2019). As such, St. John (2016) posits that a universal Indigenous paradigm does not exist, therefore it is crucial to recognise the diversity and complexity of many Indigenous cultures. However, the effort to avoid homogenisation is not supported by the relevant key literatures and are limited, thereby potentially running the risk of generalisation. Citing and referring to a uniform set of literature, in some way, seems to 'betray' the context where research is situated, contradicting the place-based nature of Indigenous values and the pluriversal thinking itself.

The term Indigenous should be used critically and advisedly to avoid homogenisation and romanticisation of the term. This relates to the point raised by Li (2010) regarding the 'assessment' and the 'expectations' of outsiders toward Indigenous peoples. "The Indigenous peoples", or *masyarakat adat*, in the context of Indonesia, cover a wider range of peoples with different livelihood systems. Li has convincingly argued that earlier practices of dispossession by the (colonial) government, which forcibly removed Indigenous peoples from their lands and natural resources, have been replaced by new mechanisms often implemented by transnational organisations. These mechanisms confine Indigenous peoples to specific roles, tasking them with safeguarding forests for the benefit of global environmental goals. Whilst environmental issues are central to Indigenous claims for the restitution of ancestral lands, they also dominate international programs aimed at Indigenous communities, particularly those focusing on forest conservation (Li, 2010).

Indigenous peoples are frequently portrayed as guardians of the forests—idealised actors, who, through their way of life and wisdom, will be able to perform the role of the saviours from climate change (Hauser-Schäublin, 2012 (Hauser-Schäublin, 2012). This framing reveals how global development programs often adopt a narrow and romanticised concept of

Indigeneity, reminiscent of the "noble savage" trope from earlier times (ibid), failing to account for the communities' complex historical and social dynamics. Most of them are no longer nomads roaming through the forests and living only from what nature offers them as the term in its original and romanticising sense suggests. Most of them today lead a sedentary life as small-scale farmers and practice cultivation; they also engage in cash crop production, such as coffee, cocoa, rubber, or even palm oil (Hauser-Schäublin, 2012).

While some of these (Indigenous) knowledges and wisdom remain in some places; historical, social and environmental impacts manifest and overlap in various ways. Here, historical (colonial) legacies, globalisation processes, and ancestral wisdom co-exist; transformative relations have emerged through the dynamic interactions and interdependence of the people and their landscape. As such, there is the importance of situating Indigeneity within shifting local and global processes, in social and historical contexts, and amongst places, people and practices. This research attempts to articulate this complex and multifaceted concept of Indigeneity, encompassing diverse perspectives, experiences, and struggles related to identity, self-determination, and representation. In so doing, conveying how Indigenous knowledges, values and practices are situated and contextualised in a given time and locality, and have evolved to fulfil economic, social, environmental, spiritual, or cultural needs.

1.7. The Cultural and Geopolitical Contexts of Borneo

Borneo Island is divided among the Malaysian states of Sarawak and Sabah, the country of Brunei Darussalam and the five provinces of Kalimantan in Indonesia. Kalimantan, Indonesia occupies about 73% of Borneo Island and it is subdivided into five provinces: Central Kalimantan (Kalimantan Tengah), East Kalimantan (Kalimantan Timur), North Kalimantan (Kalimantan Utara), South Kalimantan (Kalimantan Selatan), and West Kalimantan (Kalimantan Barat).

The island is home to the Indigenous people that are collectively called the Dayaks, although in fact they comprise many tribes, and hundreds of sub-tribes, that are diverse in culture as well as in their language. The term 'Dayak' was first employed by Bornean Malays to designate native groups in Kalimantan, which then popularised by European explorers. Dayak, or 'people of the interior,' is a generalised, catch-all term that loosely describes more than two hundred groups living along the hills and rivers of Kalimantan. After their ancestors migrated across Borneo, Dayak tribes settled into small communities and built distinctive

longhouses that define the social organisation of each group. The Indigenous Dayak population was concentrated in the forest, hills and valleys of the highland and hinterland of Borneo. Besides the Dayak groups, Borneo is also home for the *melayu* or malay ethnic group and a large number of Chinese, who have a long history on the island.

1.7.1. Colonial History of Borneo

Although the island is divided into separate political spheres, there are fundamental similarities in culture that pre-date the political boundaries that were imposed by colonial powers. To better understand the colonial history of Borneo, this research delves into publications, documents and archives relating to activities conducted by Christian missionaries, anthropologists and explorers from the West. These detailed materials, mainly ethnographic, provide some of the earliest documentation of contact with Borneo natives, and bear witness to the colonisation and globalisation process on the island. Additionally, these materials help reveal the western colonial perspectives on the lives of the people of Borneo (Fig. 8-10).

Western ethnographers classified the Dayaks into land-Dayak and sea-Dayak. The land-Dayak refers to the groups populating the highlands and hinterlands of Borneo such as the Bidayuh, whereas the sea-Dayak refers to the groups dwelling in the riverbanks and coastal areas such as the Iban. Under colonial rule, Borneo Island was part of a peripheral shatter zone between British and Dutch spheres of influence, “an interstitial space where both empires were concerned about their ability to oversee developments” (Tagliacozzo, 2005). Borneo then became a focal point in the de-colonisation period, with the Indonesian–Malaysian conflict known as the Konfrontasi (confrontation). Kalimantan once again became a relative backwater under the so-called Orde Baru (New Order) from the mid-1960s onwards, though the military continued to maintain a significant presence as the spearhead of nationalism and a key player in resource extraction (Klem, 2021).

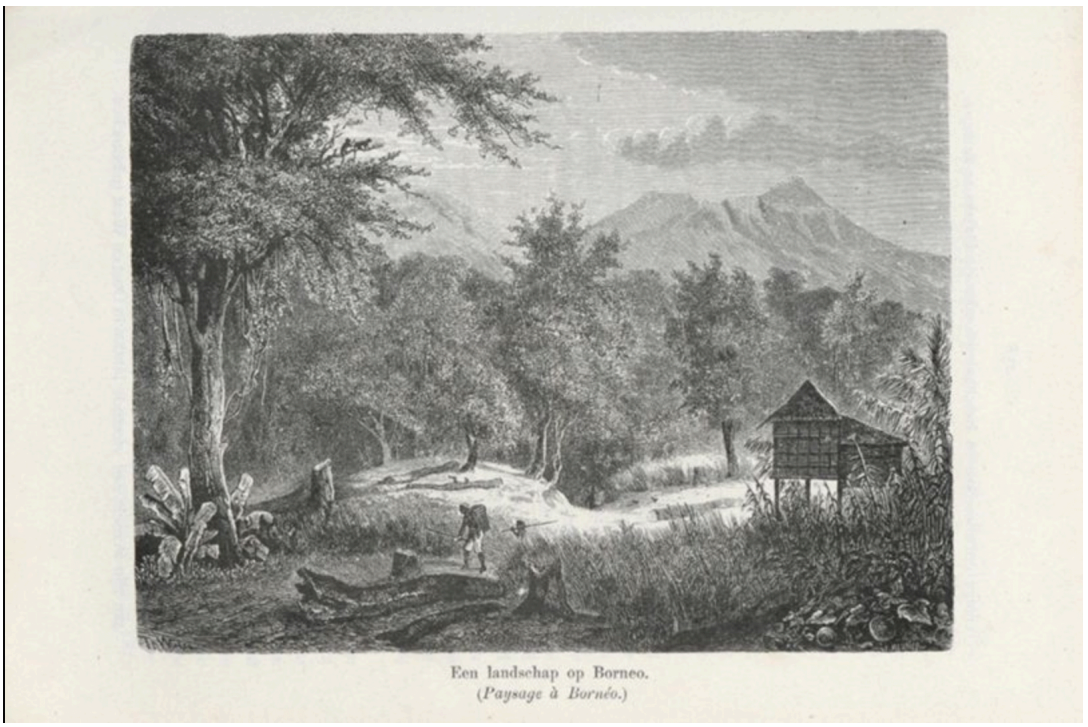


Figure 8. A sketch of Borneo's landscape featured in Beelden uit Nederlandsch Indië by F.J. van Uildriks,1893. [image].Source: Leiden University Libraries.



Figure 9. A sketch of Borneo's landscape featured in Beelden uit Nederlandsch Indië by F.J. van Uildriks,1893. [image].Source: Leiden University Libraries.

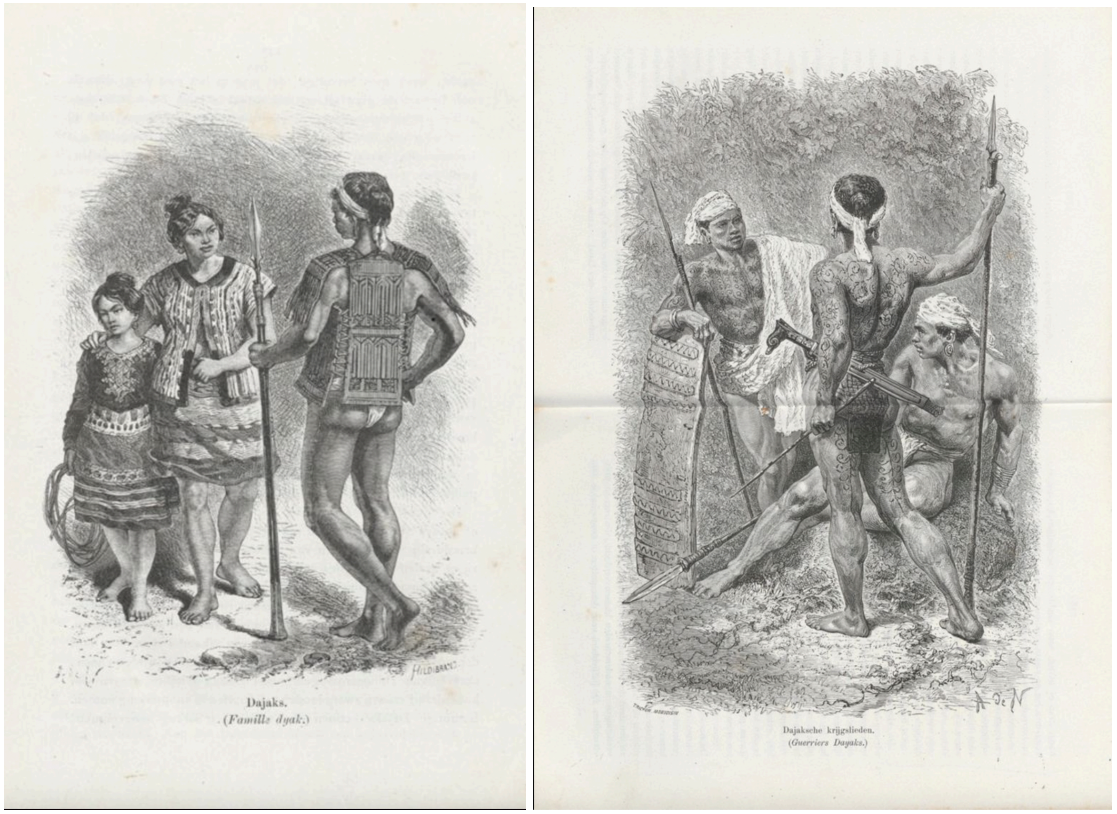


Figure 10. A sketch of Borneo natives featured in Beelden uit Nederlandsch Indië by F.J. van Uildriks,1893. [image]. Source: Leiden University Libraries.

Geographically, while the Dayak communities predominantly reside inland, the Malay groups in Kalimantan, the Indonesian Borneo, primarily inhabit coastal areas such as Sambas and Mempawah. Other ethnic groups, including the Javanese, Madurese, Bugis, and others (constituting around 10% of the total population), are often located in designated transmigration areas. The transmigration programme in Indonesia aimed to redistribute millions of people from the densely populated inner islands of Java, Bali, and Madura to the outer, less densely populated islands, in an effort to achieve a more balanced population distribution. This programme traces its origins to the early 19th century when the Dutch colonial government sought to alleviate overpopulation in Java by providing a workforce for plantations on the less-populated outer islands (Jiwan and Colchester, 2020, p.2).

The encompassing term Dayak was deficient because it described hundreds of heterogeneous tribal groups. These tribal groups were ‘united’ only by external forces, such as discriminatory policies from Malay sultans and Dutch colonists, as well as through religion (Tanasaldy, 2007). During the New Order regime, Indigenous communities living in the margins such as in Kalimantan, were treated as ‘cultural others’. There were normalised, as well as formalised, derogatory terms for masyarakat adat defined by the department of social affairs (now the Ministry of Social Affair), whereby *komunitas adat terpencil* (remote adat

communities) would be referred as *masyarakat terasing*, *masyarakat tertinggal* dan *terbelakang* (backward communities) or ‘uncivilised’ and ‘isolated peoples’. Dayaks in Kalimantan were marginalised socially, culturally and politically. In the 1980s and 1990s, a transmigration programme was introduced as an explicit government policy to forcibly destroy customary rituals and collective dwellings as well as to encourage isolated Indigenous communities to abandon forest living and resettle in government-supervised villages (Jiwan and Colchester, 2020).

> During the colonial era, most Dayaks lived under the nominal rule of the Malay Sultanates and occupied a subordinate place in political and social hierarchy. Before the introduction of Catholic schools in the interior region, Dayaks had very limited access to formal education compared to other ethnic groups in the province [...] Dayaks also had very limited access to employment in the Islamic sultanate administration because of their different religion and low social status. These conditions made them the least emancipated ethnic group compared to the Bugis, Chinese and Malays, the other main ethnic groups in the province. Hence Dayaks were no more than passive observers–in many cases not even aware of nationalist movements unfolding in the Netherland Indies. (Tanasaldy, 2012, p. 2)

Kalimantan and the Indigenous communities living there, particularly the Dayaks, were subject to violent developmental conquest during the New Order regime (see Tanasaldy, 2007;2012;Hauser-Schäublin, 2013). However, the oppression or marginalisation of Indigenous peoples in Indonesia can be traced back to colonial and post-colonial regimes of domination (Hauser-Schäublin, 2012). As mentioned in the above section, long before the independence of Indonesia, officials (Dutch colonies) and missionaries initiated a series of interventions into the landscapes, livelihoods and identities of the Dayaks who live in the Borneo interior. The main objective was to improve and ‘civilise’ the animist Dayak population by introducing religion. This social discrimination is often associated with the traditions as well their animism belief. Tanasaldy (2007; 2012) notes that Dayak culture has undergone rapid erosion since the introduction of Islam and Christianity. Modernity is performed by abandoning some ‘antiquated’ traditions including animism, to convert to Islam or Christianity (ibid). To date, the influence of religious belief such as Christianity among Dayak people remains strong, shaping the communities’ sociocultural values and their material culture (Sellato, 2016; 2017), which reflect the construction of Indigenous communities' ethnocultural identity (Fig.11).



Figure 11. Dayak Cultural Appreciation Community during *ka'angkakng adat* ritual to pay respect for the ancestors, in Singkawang, 2022 (left). Bidayuh community in Jagoi Babang during *adat gawai* ritual, 2022 (right). [photograph]. Source: Gamia Dewanggamanik.

1.7.2. Colonial Borneo: Christianity and Modernity

Historically, the Malays were the old ruling class and the aristocracy of Borneo. Many of those settled in Sumatra and Java and consequently moved to the coastal areas of Borneo. For generations they governed the Island under various sultanates who shared a close historical and cultural connection to the Malay peninsular and Brunei Darussalam. The Malays were also differentiated from the Dayaks mainly by their Islamic faith which is a significant component of their ethnic identity.

It was a well-known fact that the Malays devoutly embraced Islam long before the western colonial government came, thus missionary works on the island focused more on the Dayak and Chinese communities (Steenbrink and Aritonang, 2008, p.494). The missionaries' initial presence was orchestrated and carefully controlled by the Rajah Brooke, the private dynasty which ruled Sarawak from 1841 to 1946 (Chua, 2012, p.515). Those missionaries left numerous archives which are a great source of information since they were expected to report their observations. Christian missionaries during colonial Borneo have observed and noted the prolonged oppressions experienced by the Dayaks in their native homeland.

> The Dyaks surely, in their tribal communities, must have been prepared to grasp very fully the doctrine of the corporate life of the Church. Races, childlike in their primitive conditions, ignorant perhaps of truth, but docile, gentle, pre-eminently honest as regards the property of others, they offer a splendid character as their contribution, a field prepared by the seed by their realisation of the unseen, a realisation now in the

> form of a world of good and evil spirits around them, but only waiting to be quickened by the breath of life into communion with Him (...) Down-trodden and oppressed as they were for centuries, with what a revelation must it come to them that the great All-Father loves them and wants their love (Eda Green 1910, p. 44-45).

Massive influences of Christianity are reflected in the modification of some rituals and craft practices, as the communities make the religious transition, they are making it with full consciousness of their culture, selecting what is appropriate as a means of expressing their inherited spirituality for the next generation (Mashman and Nayoi, 2001). Bernard Sellato's (2016; 2017) studies on the material culture of Borneo indicate the influence of religion on cultural artefacts can be seen in several cases, such as the ones exemplified in the shift in social status and values of weaving in the Iban community. Studying work of Heppel (2005), he describes;

> The government's banning of warfare and headhunting, mass destruction of ritual textiles by Christian missionaries, a later marked switch from rice farming to cash crops, and girls being increasingly sent to boarding school in town and thus removed from a traditional weaving environment led to cumulative "disintegration of weaving" in most Ibanic areas, to the disappearance of the more difficult techniques, to a general "process of amnesia" (p.91) or loss of knowledge regarding the meaning of motifs, and to much confusion in modern composition of textile design (Heppel, 2005, cited in Sellato, 2016, p.163-172).

Large-scale Bidayuh conversion to Christianity began in the 1970s (Chua, 2015). Catholic missions and schools were established in villages, leading most of the community to convert and distance themselves from practices considered "superstitions." This shift has influenced Borneo's material cultures, resulting in a detachment from the meanings and symbols associated with artefacts that embody animist elements or are deemed superstitious. Sellato (2017) highlights this transformation by referencing the work of Mashman and Nayoi (2012) on the Bidayuh basket, known as *juwah bireh*. This basket, traditionally used for sowing and harvesting, also played a significant role in rituals, serving as a container for offerings to the rice spirits and as an item in traditional marriage exchanges (ibid, p.89). Today, the *juwah bireh* is used more mundanely, such as for carrying personal belongings. However, it remains visible during weekly church services, where it is repurposed for collection offerings (Mashman and Nayoi 2012, p.89).

The integration of Christianity has also influenced the Bidayuh's ethnic costume. This new costume, partly derived from the priestess's traditional dress, incorporates the red basket alongside the *raong* hat, which historically was worn to protect a baby's soul. Now, this attire is used for dancing contests, ceremonial occasions, and special church masses.

Whilst a large population of Dayaks have converted to Christianity, they maintain their traditional practices and beliefs: personal, family and community affairs are regulated by *Adat*, which is a body of social and cultural norms, laws, ceremonies and rituals. *Adat* is founded on and intertwined with animist belief (Thomson, 2000; Noor Muhammad, 2018). Accordingly, it is based on a worldview that consists of tangible (physical) and intangible (spiritual) elements whereby there is a mutual influence between these physical and spiritual realms (Thomson, 2000). *Gawai padi* or *gawia* remains the most important Dayak ritual culture and celebration, well-preserved particularly in West Borneo. Gawai is held once a year during rice harvest season as an expression of gratitude to *Jubata* (God) and ancestors for the abundance.

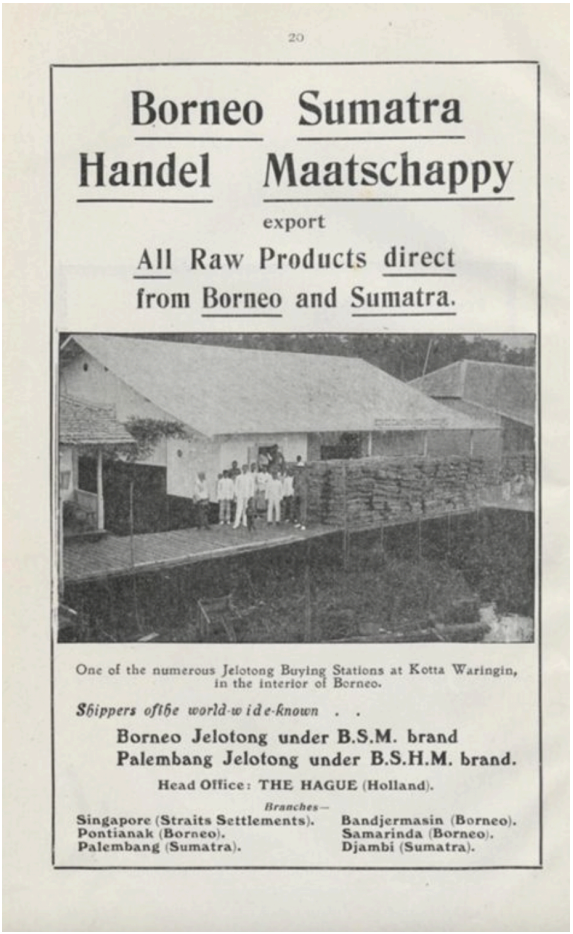
1.7.3. Borneo's Colonial Remnants: Changing Landscapes

Borneo is largely an extractive economy (Goh, 2020; Goh and Potter, 2023), where rapid transformation of forest and agrarian spaces into sites of export-oriented resource extraction have triggered an enduring ecological and social destruction on the island (Cons et al., 2018). Forest degradation on the island has been fuelled primarily by land concessions to extractive industries such as palm oil, mining and oil and gas sectors. Borneo island is a massive 750,000 km2, and the island has been facing serious environmental degradation that contributes to the climate crisis inasmuch as lands and its rich natural resources have been commoditized and plundered for over decades. In Kalimantan, the forest degradation has been fueled primarily by land concessions to extractive industries such as the mining, oil palm, and fuel sectors. Kalimantan's forest areas—even protected ones—are vulnerable to large-scale deforestation by foreign mega-corporations, primarily from the United States of America and Malaysia, which both have local subsidiaries (See Li and Semedi, 2021; Pradipta, 2021).

In 2023, Indonesia saw an increase in deforestation caused by the expansion of intensively managed industrial monoculture palm oil and pulpwood plantations. The data presented by The Center for International Forestry Research (CIFOR) showed that while palm oil-driven deforestation in Kalimantan has levelled off in 2022, pulp-and-paper driven deforestation in Kalimantan has accelerated since 2022 due to the rising global demand for wood pellets,

wood pulp, viscose for clothing, paper, tissue and packaging (CIFOR, 2024). Nowadays many Dayak farmers have turned to the cultivation of cash crops commodities such as rubber and oil palm. As such, besides corporations, a large number of the local communities are also oil palm smallholdings. These small farmers may combine different systems of cultivation and swidden agriculture. Michael Dove, in his book *The Banana Tree at the Gate: A History of Marginal Peoples and Global Markets in Borneo,* argues that this duality–modern cash crops and traditional swidden agriculture–performed by Bornean farmers, is complementary rather than oppositional. According to Dove, Although traditional subsistence crops, such as rice, are heavily ritualised and collective, Dayak small farmers may also participate in modern cultivation systems, such as rubber production and oil palm, which are practical rather than ritualistic and often focus on short-term economic interests. Dove further argues that the combination of market-oriented rubber production and subsistence-oriented swidden agriculture has not only empowered Borneo's smallholders to become actively involved in the global market economy for generations.

Traces of Borneo's long-standing involvement in the global market can be found in colonial archives, particularly through trade catalogues (Fig.12). Viola Schreer (2016) also notes that Borneo native inhabitants have been involved in commodity production for global markets since at least the middle to the end of the 19th century, asserting that trading rattan and other forest products globally is intrinsically tied to the Dayaks' history and identity. Aligning with Nancy Peluso (2017; 2018), argues that the gold stores of subterranean Borneo pulled the region's residents (migrants or Indigenous) into global capitalist markets earlier than did the island's renowned rain forests. Peluso notes that Borneo's gold production started as long ago as 1750, bringing thousands of Chinese migrants to the island. These gold miners and the traders arguably brought early capitalist relations to local social relations in Borneo's forest expanses (Zhu and Peluso, 2018, p.349).



20

Borneo Sumatra
Handel Maatschappy

export

All Raw Products direct
from Borneo and Sumatra.

One of the numerous Jelotong Buying Stations at Kotta Waringin, in the interior of Borneo.

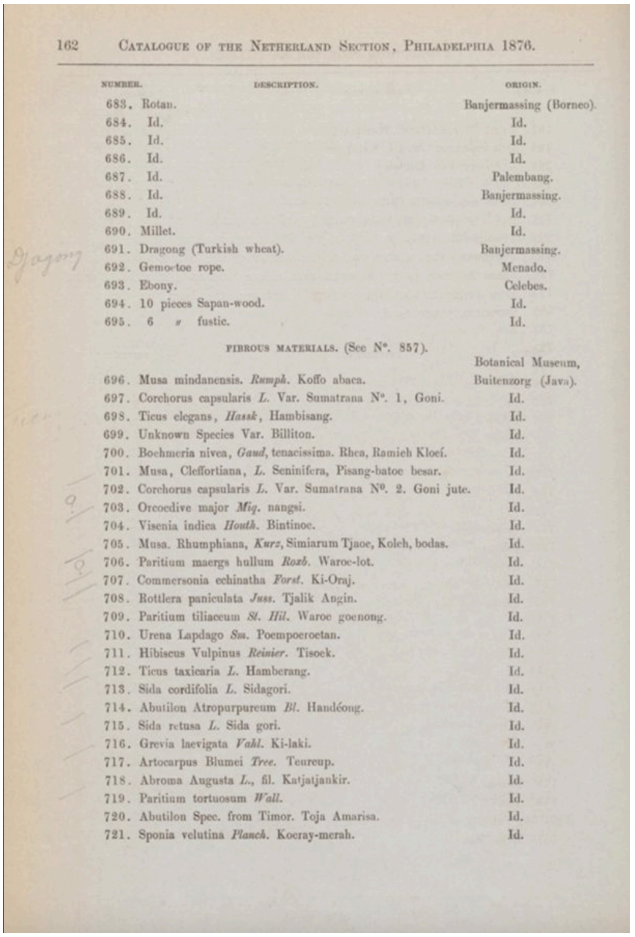
Shippers of the world-wide-known . .

Borneo Jelotong under B.S.M. brand
Palembang Jelotong under B.S.H.M. brand.

Head Office: THE HAGUE (Holland).

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Singapore (Straits Settlements). Bandjermasin (Borneo).
Pontianak (Borneo). Samarinda (Borneo).
Palembang (Sumatra). Djambi (Sumatra).



162 CATALOGUE OF THE NETHERLAND SECTION, PHILADELPHIA 1876.

NUMBER.	DESCRIPTION.	ORIGIN.
683.	Rotan.	Banjermassing (Borneo).
684.	Id.	Id.
685.	Id.	Id.
686.	Id.	Id.
687.	Id.	Palembang.
688.	Id.	Banjermassing.
689.	Id.	Id.
690.	Millet.	Id.
691.	Dragong (Turkish wheat).	Banjermassing.
692.	Gemoetoe rope.	Menado.
693.	Ebony.	Celebes.
694.	10 pieces Sapan-wood.	Id.
695.	6 " fustic.	Id.
	FIBROUS MATERIALS. (See N°. 857).	
		Botanical Museum,
696.	Musa mindanensis. *Rumph.* Koffo abaca.	Buitenzorg (Java).
697.	Corchorus capsularis *L.* Var. Sumatrana N°. 1, Goni.	Id.
698.	Ticus elegans, *Hassk*, Hambisang.	Id.
699.	Unknown Species Var. Billiton.	Id.
700.	Boehmeria nivea, *Gaud*, tenacissima. Rhea, Ramieh Kloeí.	Id.
701.	Musa, Cleffortiana, *L.* Seninifera, Pisang-batoe besar.	Id.
702.	Corchorus capsularis *L.* Var. Sumatrana N°. 2. Goni jute.	Id.
703.	Orcocdive major *Miq.* nangsi.	Id.
704.	Visenia indica *Houth.* Bintinoe.	Id.
705.	Musa. Rhumphiana, *Kurz*, Simiarum Tjaoe, Koleh, bodas.	Id.
706.	Paritium maergs hullum *Roxb.* Waroe-lot.	Id.
707.	Commersonia echinatha *Forst.* Ki-Oraj.	Id.
708.	Rottlera paniculata *Juss.* Tjalik Angin.	Id.
709.	Paritium tiliaceum *St. Hil.* Waroe goenong.	Id.
710.	Urena Lapdago *Sw.* Poempoeroetan.	Id.
711.	Hibiscus Vulpinus *Reinier.* Tisock.	Id.
712.	Ticus taxicaria *L.* Hamberang.	Id.
713.	Sida cordifolia *L.* Sidagori.	Id.
714.	Abutilon Atropurpureum *Bl.* Handéong.	Id.
715.	Sida retusa *L.* Sida gori.	Id.
716.	Grevia laevigata *Vahl.* Ki-laki.	Id.
717.	Artocarpus Blumei *Tree.* Teureup.	Id.
718.	Abroma Augusta *L.*, fil. Katjatjankir.	Id.
719.	Paritium tortuosum *Wall.*	Id.
720.	Abutilon Spec. from Timor. Toja Amarisa.	Id.
721.	Sponia velutina *Planch.* Koeray-merah.	Id.

Figure 12. Catalogue of the Netherlands section of their participation in the international colonial exhibition in Philadelphia in 1876.[image]. Source: Leiden University Libraries.

Numerous scholars have argued that the current socio-cultural and ecological issues happening in Borneo are intrinsically colonial. Li and Semedi (2021) used Ann Stoler's (2016) concept of 'imperial debris' to highlight how the concept of plantation continues to create colonial situations; an 'extractive regime' that appropriates lands and extracts natural resources to be sent overseas which are remnants of colonial rule. These 'extractive regimes' highlight forms of value that plantations extract from the Borneo landscape: as palm oil, as corporate profit and as state revenue. In its largely extractive economy (Pradipta, 2022; Goh and Potter, 2023), development programs such as logging, plantation operations and transmigration impacted Dayak population in Kalimantan negatively and impaired their economic status (Tanasaldy, 2012).

Gold mining has been an important livelihood for the majority of the local people in Sagatani Village of Singkawang. These gold mining operations are most often noted for their environmental destruction, dubious legality, and associated health concerns. However, it is also a shot at economic independence for marginalised rural people in West Kalimantan

(Peluso, 2015). Whereas in Jagoi Babang, one of the other significant impacts of colonialism and the subsequent emergence of post-colonial nation-states is border regimes that have become prominent in the regulation of the movement of peoples and commodities across borders and have significantly re-configured and re-ordered patterns of human social life.

Amidst the promise of 'growth' and the notion of 'progress' that these plantations and palm oil industries have offered to the rural economies of Borneo, the local communities show their ability to protect and maintain control over forest territories ruled by adat (law). A large number of the community still maintain their traditional farming system and subsistence techniques, though facing risks. As captured below (Fig.13), forest lands were cleared to be converted into a more profitable cash crop such as oil palm.



Figure 13. A plot of forested land in Jagoi Babang was prepared for a slash-and-burn process before planting crops, 2022. [photograph]. Source: Wisnu Purbandaru.

1.7.4. Borneo's Colonial Remnants: Border

The colonial government introduced the idea of fixed territorial borders and the wider politics of colonial boundary making. International border, as many understand them today, is a historic product of European state building and of the subsequent rise of nationalism starting

in the eighteenth century, and became essential for the creation of a national identity and nationhood (Eilenberg, 2012).

The colonial legacy of borders is largely characterised by its tendency to divide ethnic groups and to ignore already existing ethnic boundaries. These groups were then placed under different colonial territory and political regimes and consequently exposed to vastly different political, economic and social circumstances (Eilenberg, 2012). State borders throughout Southeast Asia have generally been "established in an arbitrary fashion, where ethnic, linguistic, social, and economic borders never neatly coincided with formal state boundaries drawn on maps" (Lumenta, 2011). As national boundaries have been drawn on Borneo, the impacts of this colonial legacy are particularly more palpable for frontier communities who share territorial borders with other countries. This is reflected in the case of the Bidayuh communities inhabiting the Indonesian Borneo region whose villages are separated by the Indonesia-Malaysia border, dividing one kin into two nations. Sujianto, who was the village chief of Jagoi Sekida village, spoke eloquently about the community's experience regarding to this:

> *'Before the colonial governments came, we used to be 'serumpun'. The Bidayuh people, which is our family and kin, spread around Jagoi to villages in Serikin and Bau in Sarawak (Malaysia) so naturally we'd visit each other not only during the 'gawai' (harvest celebration) but for many other purposes too. People in Jagoi rely on the market in Serikin, Bau and Kuching for trading and fulfilling everyday needs and even until now, we still have that interdependent relationships. We go there to get daily supplies from the supermarkets. They need us to supply affordable produce, vegetables, craft products and affordable labour too. The people here love Ringgit money too [...] Back then, we never understood the concept of border, not until there was the confrontation between Indonesia and Malaysia in the 60's. During that time, there were stricter and bigger numbers of militaries posted on both sides of the border. There were many Indonesian paramilitaries around and there were British troops too on the Malaysian side [...] We are still closely tied to each other and people do cross the border everyday, but the people here would use the 'jalan tikus' (alternative) routes through the forest or 'jalan sawit' (oil palm plantations) to avoid the immigration and customs check at the border control post, because who would own a passport? [...]'* (Sujianto, 2022)

Sujianto used the word 'serumpun' to describe the long-standing ties and continued cross-border kinship connections. Serumpun itself, in Indonesian language, means a bundle

of grass that shares the same root, in which the term is often used to describe a family lineage and kinship. Serumpun also reflects the shared landscapes, knowledges, wisdom and material culture within the communities. In 1963, the Kalimantan borderlands became heavily militarised as a result of an armed confrontation (Konfrontasi) between Indonesia and Malaysia, which was followed by a communist insurgency in the mid1960s and the 1970s (Eilenberg, 2014). Despite the border separation and the presence of the state (military), the forms of life in Jagoi Babang are deeply interconnected to their neighbouring country, where a *jalan tikus* – the cross-border 'mouse tracks' that predated the border itself – through the forest or plantation, exists to allow flows and movements of people and goods. In the border areas of Kalimantan, the community's socioeconomic life is generally oriented toward the neighbouring country due to the fact that they have superior infrastructure (Aminuyati et al., 2022).

The West Kalimantan borderland has historically experienced economic underdevelopment compared to other parts of the province. This is marked by weak socio-economic infrastructure, isolated regional markets, and a lack of large-scale investments (Eilenberg, 2014, p.158). Additionally, the growth of the local economy has been hindered by limited connections to and remoteness from the provincial economic center in Pontianak, further emphasising the importance of cross-border trade (ibid). In border areas such as Jagoi Babang, the interdependent relationships and cultural, customary, and ancestral similarities between communities make it challenging to restrict casual border-crossing activities. As Sujianto noted, the Bidayuh people on both sides of the border continue to visit each other regularly for both economic purposes and kinship-related affairs.

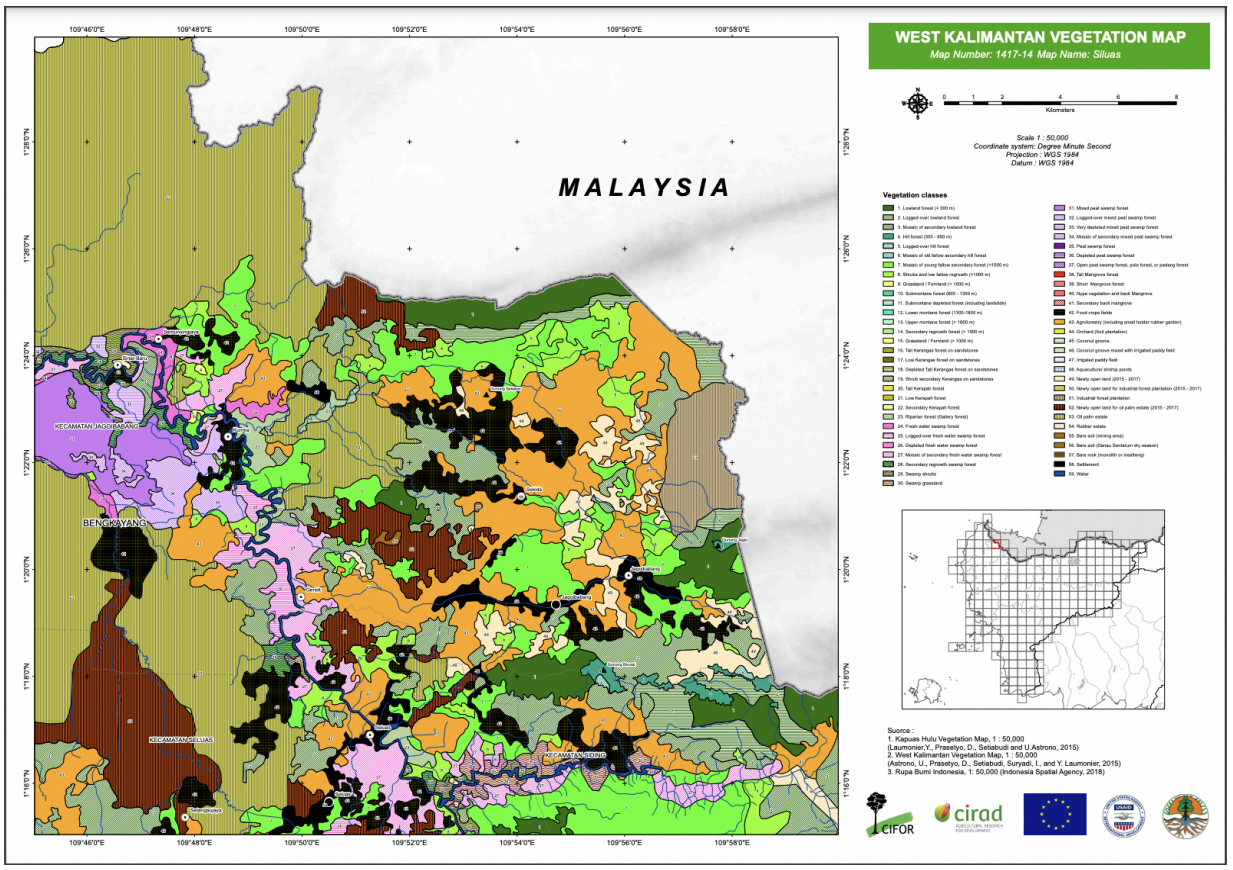
1.7.5. Social and Economic Developments in Borneo: The Nusantara Project

The implementation of socio-economic development agendas and policies in Kalimantan are iterations of colonial practice. This includes Indonesia's agenda to move its capital city from Jakarta to Borneo Island. In January 2022, Indonesia's parliament passed a bill to relocate the country's capital city from Jakarta on the island of Java to Borneo. The new capital city occupies an area split between North Penajam Paser Regency and Kutai Kartanegara Regency in East Kalimantan, which is roughly between Balikpapan and Samarinda. The Nusantara Capital City (IKN) is being built from scratch, covering about 56,180 hectares (216 square miles) in East Kalimantan province. In total, 256,142 hectares have been set aside for the project, with the additional land intended for potential future expansion. The new capital city is in the centre of the Borneo Island and is positioned to drive the rate of economic growth and more equitable growth out of Java to Kalimantan. The new capital city

would also be a way of symbolically centralising the government, which has been perceived as being too Java-centric despite Kalimantan being the natural resources provider for the Indonesian economic development.

This ongoing mega project comes with immense risks, leaving social and ecological scars on the island. Besides the profound environmental concerns (Amir 2023), the IKN project is predicted to bring millions of people to the island (van de Vuurst and Escobar 2020), which will risk social issues of displacement and marginalisation of the island's Indigenous communities (Gokkon, 2023; Pradipta, 2022). In combination with the large-scale deforestation, this programme has caused tremendous socio-cultural challenges as well as change in the physical landscape of the island that is much less fertile than Java (ibid). Forest Watch Indonesia (FWI) has reported that within three years (2018-2021), deforestation in the IKN area has reached 18,000 hectares, and throughout 2022 until June 2023, the total deforested area reached 1,663 hectares. Forest Watch Indonesia reported that the project has pushed out the local communities of their home. Ironically 51% of the land acquired by the new capital city, have now been owned and controlled by corporations in various sectors such as plantation, forestry and mining (Forest Watch Indonesia 2024).

The Indonesian capital relocation agenda is reinforcing the 'imperial debris' that perpetuates the narrative of Borneo as a 'vacant' island, the myth of 'free' natural resources, the 'nation' and the ideology of nationalism and the use of 'development' to normalise the push for extraction (Pradipta, 2022) furthering the legacy of neo-colonialism. The relocation of the capital city undoubtedly will bring massive migration of people from Java to the island, which will have a vast impact on the island's landscape and natural resources. Kalimantan covers two thirds of Borneo territory, but it was for a long time considered to be underpopulated, which was the justification for the New Order regime to intensify a transmigration programme, a policy of relocating people from the overcrowded island of Java to less-populated lands such as Kalimantan to work on allocated plots of land. Originally a policy of the Dutch colonial government to provide 'surplus people' from Java to work on expanding industrial plantations in Sumatra, transmigration was adopted by the Indonesian government after independence with the explicit aims of bringing development to remote areas and forging a single national identity. Massive wave of transmigration has driven forest degradation through four periods of Indonesian history—Dutch colonialism, Republican, Orde Baru, and Post-Reformasi (Pradipta, 2022). Along with plantations, the massive and rapid development of new settlements on the island in recent decades has led to massive and rapid changes in the ecological relationships in the island (ibid). This policy also has led to clashes and serious conflicts over lands and culture (Fig. 14-17).



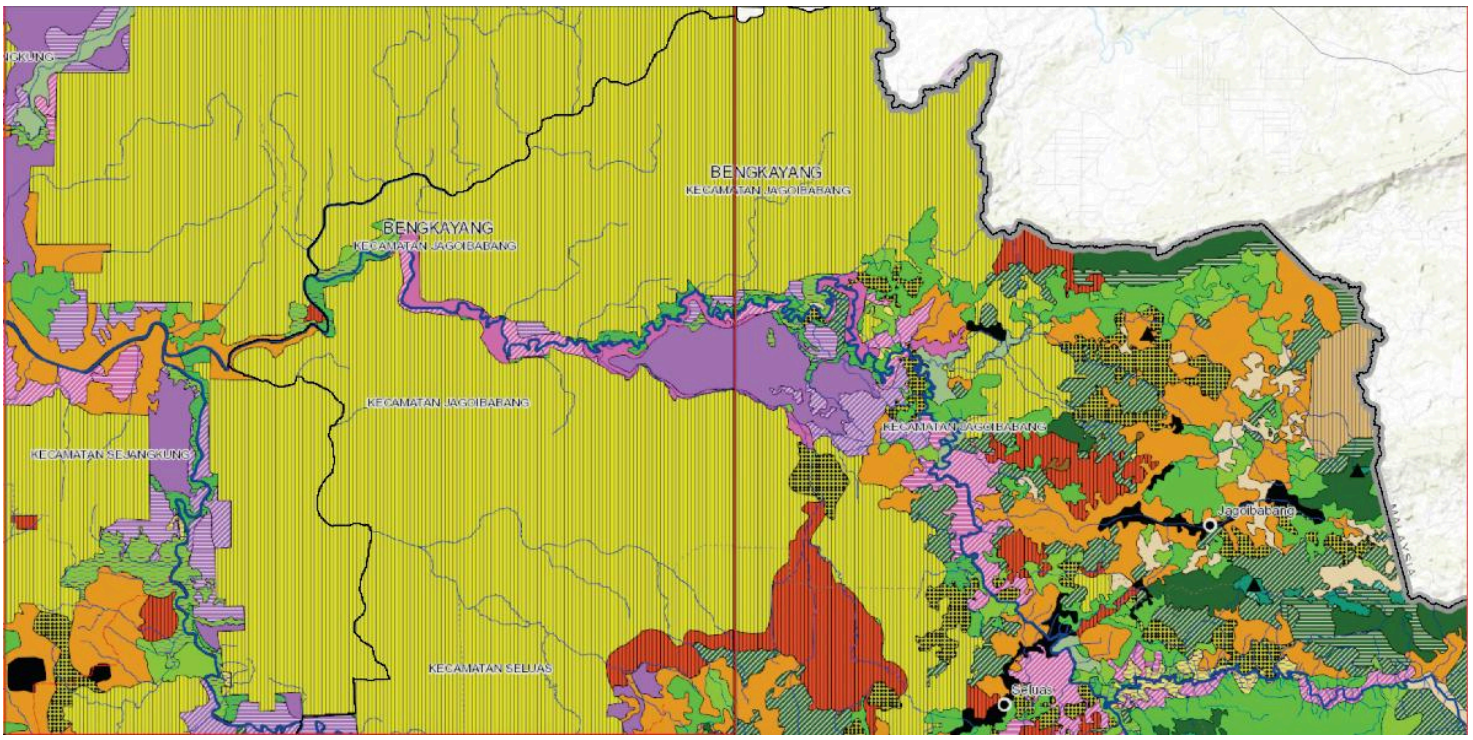


Figure 14. A recent deforestation and vegetation map showing the Jagoi Babang area in the Bengkayang District. Shown in yellow are industrial plantations including oil palm, whereas the red areas are newly opened land for oil palm estate, 2024. [map]. Source: https://www2.cifor.org/map/vegetation/



Figure 15. The forested landscape of Jagoi Babang in 2022. [photograph]. Source: Yohanes Arya.

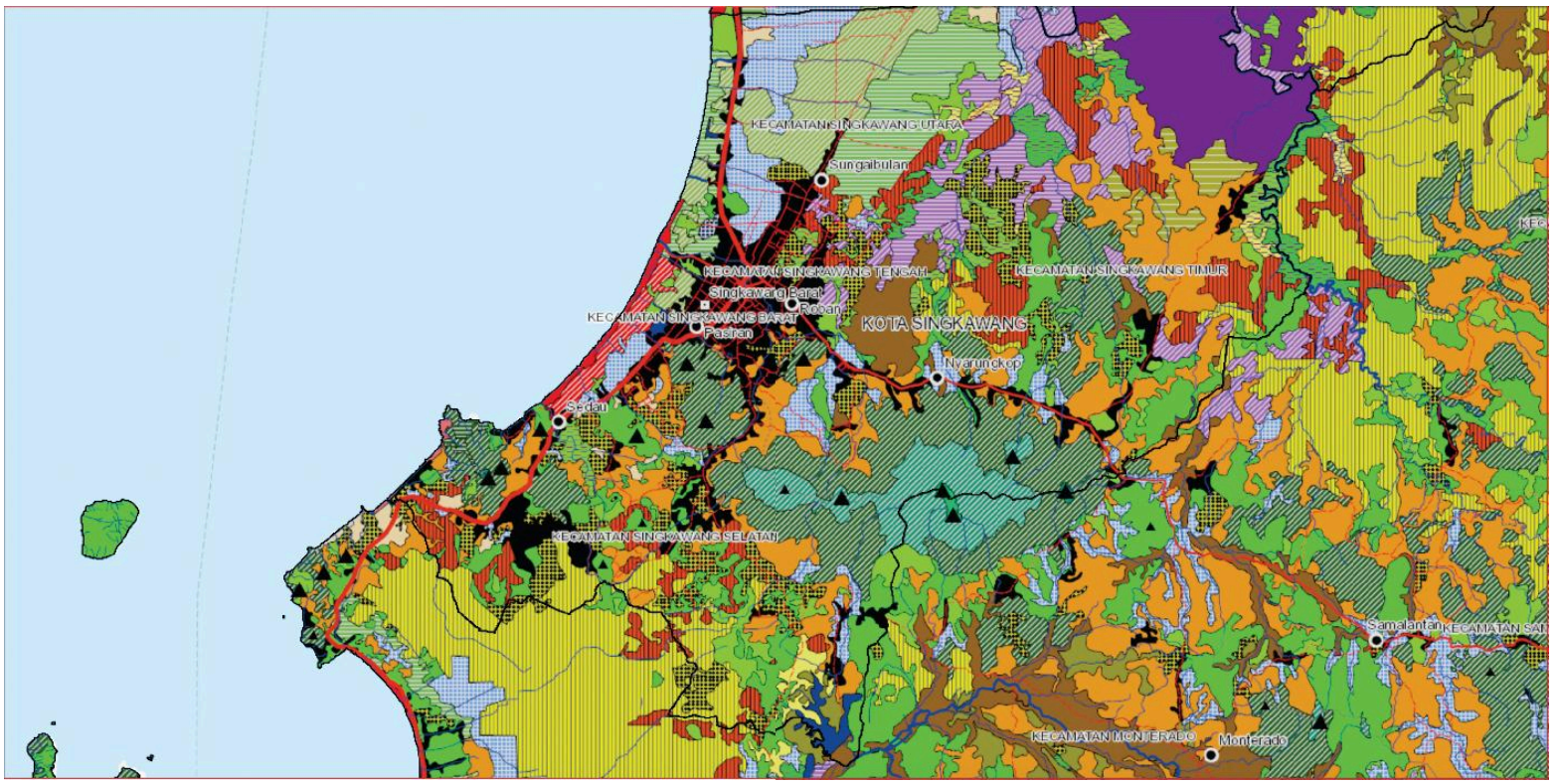


Figure 16. Recent deforestation and vegetation map showing the Singkawang area. Shown in brown colour are the mining sites, whereas yellow colour areas are industrial plantations, 2024. [map]. Source: https://www2.cifor.org/map/vegetation/



Figure 17. Gold mining site in Sagatani village, Singkawang, 2022. [photograph]. Source: Jono Anjasmara.

1.8. Understanding Indigeneity in Indonesia

Within the decolonising design landscape, there has been an increasing interest in investigating the notion of Indigeneity. Prior studies have noted that the concept of Indigeneity widely circulating within global decolonisation debates is only relevant where large-scale white European settler colonisation occurred such as in North America and Australia, thus appears to be inadequate in the Southeast Asia context (see Davidson and Henley, 2007; Hauser-Schäublin, 2013; Arizona and Cahyadi 2013; Baird, 2019; Tamma and Duile, 2020). The concept does not reflect the tension and dynamics in Indonesia and many other countries in Southeast Asia, where the majority of the people are Indigenous though experienced decades of colonisation (Baird, 2019). In Indonesia, and most Southeast Asian countries, such dichotomy is absent as most European colonies have long left. This study concurs with Li (2000), in asserting Indigenous identity as a product of articulation. Hence it has become increasingly relevant to this research in unearthing the specific ways that the concept of Indigeneity is understood and experienced by various groups in the specific context of Indonesia.

To avoid the risk of homogenising the notion into a romanticised, reminiscent portrait of Indigenous people, the research intends to critically reflect upon how the notion of Indigeneity has developed in Indonesia. Indigenism itself is a tricky concept in the Indonesian context; almost everyone is Indigenous to one island or another. In the historical rhetoric, all of those islands joined together to form a nation in which all citizens have equal rights. As a nation, Indonesians are bound by the history of colonisation and are united because of the shared struggles of colonial oppression. Whilst it is hard to argue that one ethnic group is more Indigenous than another, it is important to understand that colonial legacy and structural inequalities caused by the global project of modernity have impacted each group differently. This research concurs with Schultz et al. (2018) who stress that colonialism and modernity mean different things to different peoples and cultures, and therefore lead to different questions, concerns and politics. Therefore, a deep understanding of the encompassing issues related to the political struggles and dynamics of colonial and postcolonial context is required to understand how the concept of Indigenous is developed.

In Indonesia, the term Indigenous often refers to rural peoples who still hold onto their traditions and customary practice, and historically were the victims of the New Order's developmental policies that still carried colonial legacies (Li, 2007; Hauser-Schäublin, 2013). The attempt of the authoritarian New Order regime to unify and homogenise the country

often ended up discriminating against many Indigenous groups, particularly those who live in remote areas or outside Java (Tamma and Duile, 2020; Arizona and Cahyadi, 2013). The island of Java is often viewed as the centre of Indonesia, whereas the 'outer islands' of the archipelagic country emerge as places where state power is less present. The marginality experienced by *masyarakat adat* here is a spatial one, as well as sociocultural and economic. This is evident in how state power, hence public infrastructure, is less present the further one travels outward of Java. This is, for example, relevant to the everyday experience of communities in the less developed islands such as Borneo. On Borneo Island, the Indigenous communities possess an intimate relationship attached to the lands and forests, however, many of them have experienced Intergenerational displacement (Li, 2017) due to their land being used for oil palm plantation zones and mining. Their material practice has been reconfigured due to intergenerational displacement and generations of discrimination. The colonial legacy of territorial border regimes on Borneo Island, separating one kin into two nations, has also shaped intergenerational tensions With the prospect that the quality of life may be significantly better three hours away (in the neighbouring country Malaysia), the communities living in the Island may ponder differently about their experience and attachment to their Indigenous identity.

Whilst the research employs Participatory Action Research (PAR) methodology, this research's fieldwork used some of the key components that are familiar in ethnographic fieldwork where a long-term immersion in the field was conducted. The prolonged immersion in the field has allowed the researcher to develop meaningful relationships with the communities and gain a comprehensive understanding of their culture and social context. It has also enabled the research to capture the nuances, complexities, and changes that occur over time. The study is also indebted to numerous ethnographic studies that provided me with an in-depth contextual understanding of the sustaining colonial and neoliberal impacts on Indigenous communities across Indonesia (Li, 2000;2007;2017; Lumenta, 2011). Those endeavours to make sense of the lived experiences of Indigenous communities and its complexities, elucidate the notion of Indigenous itself. Indigenous identity is a product of continuous articulation; rather than view its identity as a fixed ground, new positionings of self and others and new meanings emerge contingently in the course of struggle (Li, 2000, p.22). It is important to understand that the deep-rooted discrimination and dispossession experienced by many Indigenous peoples in Indonesia have shaped the precarious nature of their assets and material practices, where many Indigenous communities have been disconnected from those wisdoms.

1.9. Indigenous Innovation and Decolonising Design

The study considers Indigenous innovation as a form of Inclusive innovation within the decolonising design landscape. Indigenous innovation refers to the development of new ideas, products, or processes that are rooted in the knowledge, practices, and traditions of Indigenous communities. It is characterised by its connection to Indigenous knowledge systems and the incorporation of traditional wisdom and cultural values. This involves centering Indigenous voices and agency in the design process, and integrating Indigenous perspectives and knowledge systems to design. One characteristic of Indigenous innovation is their focus on the human-nature relationship, and it is believed that Indigenous communities often have a deep understanding of their local ecosystems and have developed practices that allow them to live in harmony with nature.

The relationship between decolonising design and Indigenous innovation is multifaceted. Decolonising design projects aim to challenge and dismantle existing power relations, biases, and western-centric influences in technology design. These works seek to foreground the authentic voices and perspectives of Indigenous people throughout the design process (Smith et al., 2018). Indigenous innovation, on the other hand, is driven by Indigenous agency, governance, and sovereignties. It involves the development of new ways of thinking and being "in place" that are rooted in Indigenous knowledge, teachings, and traditions. Indigenous innovation challenges dominant Western paradigms and offers alternative approaches to environmental management and development (Muller et al., 2019; Lazem et al., 2021). Decolonising design and Indigenous innovation intersect in their shared goals of challenging colonial legacies and knowledge hierarchies. The decolonisation agenda stimulates the renaissance of Indigenous knowledge and traditions, favouring local wisdom and strategies for development. In the context of design, decolonisation involves incorporating Indigenous perspectives, knowledge systems, and ways of knowing into the design process.

The relationship between decolonising design and Indigenous innovation is reciprocal and mutually reinforcing. Decolonising design discourse contributes to the revitalisation and recognition of Indigenous knowledge within design innovation. At the same time, Indigenous innovation provides alternative frameworks and perspectives that challenge dominant Western paradigms hence reshape design practices, promoting more inclusive and culturally sensitive approaches (Lazem et al., 2021). Overall, decolonising design and Indigenous innovation share a common goal of challenging colonial power structures, centering

Indigenous voices, and promoting inclusivity. By integrating Indigenous perspectives and knowledge systems into design processes, decolonization projects can contribute to more inclusive and culturally sensitive design practices.

Design-led Indigenous innovation seeks to incorporate this knowledge into the development of solutions that are ecologically-conscious and promote sustainable development (Capel, 2014). Another characteristic of Indigenous innovation is its community-centred approach, meaning the significance of collective identity and often prioritising the well-being of the community over individual gain. Indigenous innovation seeks to address the needs and challenges of the community as a whole, rather than focusing solely on individual profit or economic growth. Indigenous innovation should recognise the importance of traditional knowledge and practices in maintaining cultural identity and seeks to incorporate these elements into the innovation process. This can include the use of traditional materials, techniques, or design principles in the development of new products or services (Capel, 2014). Indigenous communities have a long history of sharing knowledge and working together for the benefit of the community, thus collaboration and mutual learning are key in enabling a design-led Indigenous innovation (Freitas et al., 2013).Throughout the process, the research seeks to build on this tradition by fostering collaboration between Indigenous communities, researchers, and other stakeholders. This involved partnerships with universities, research organisations, and designers to combine Indigenous knowledge with other modes of knowledge and practice such as scientific research, technological expertise and other creative approaches.

In conclusion, Indigenous innovation is defined by its place-based focus on sustainability, its community-centered approach, and its commitment to preserving Indigenous wisdom while fostering collaboration and knowledge sharing. This practice embraces the interwoven entanglements and interdependencies of diverse entities, creating a space that thrives on collaborative inquiry across varied knowledge systems and practices. Design-led Indigenous innovation integrates design methodologies with Indigenous knowledge and practices to develop new ideas, products, and processes that address the specific needs and challenges of communities. By blending traditional wisdom with scientific research and technological expertise, design-led Indigenous innovation holds immense potential to advance sustainable development and enhance the well-being of Indigenous communities (Capel, 2014).

1.10. Conducting Fieldwork

The research attempts to articulate the notion of Indigeneity through the changing (natural and cultural) landscapes of Borneo. Underpinning this research inquiry is a Participatory Action Research (PAR) methodology centred on mutual learning and co-production. Case studies were constructed focusing in the Borneo context, through conducting community-based design engagements with craft communities focusing in two places in the Indonesian territory of the island; Singkawang and Jagoi Babang, both located in West Kalimantan (figure 18).

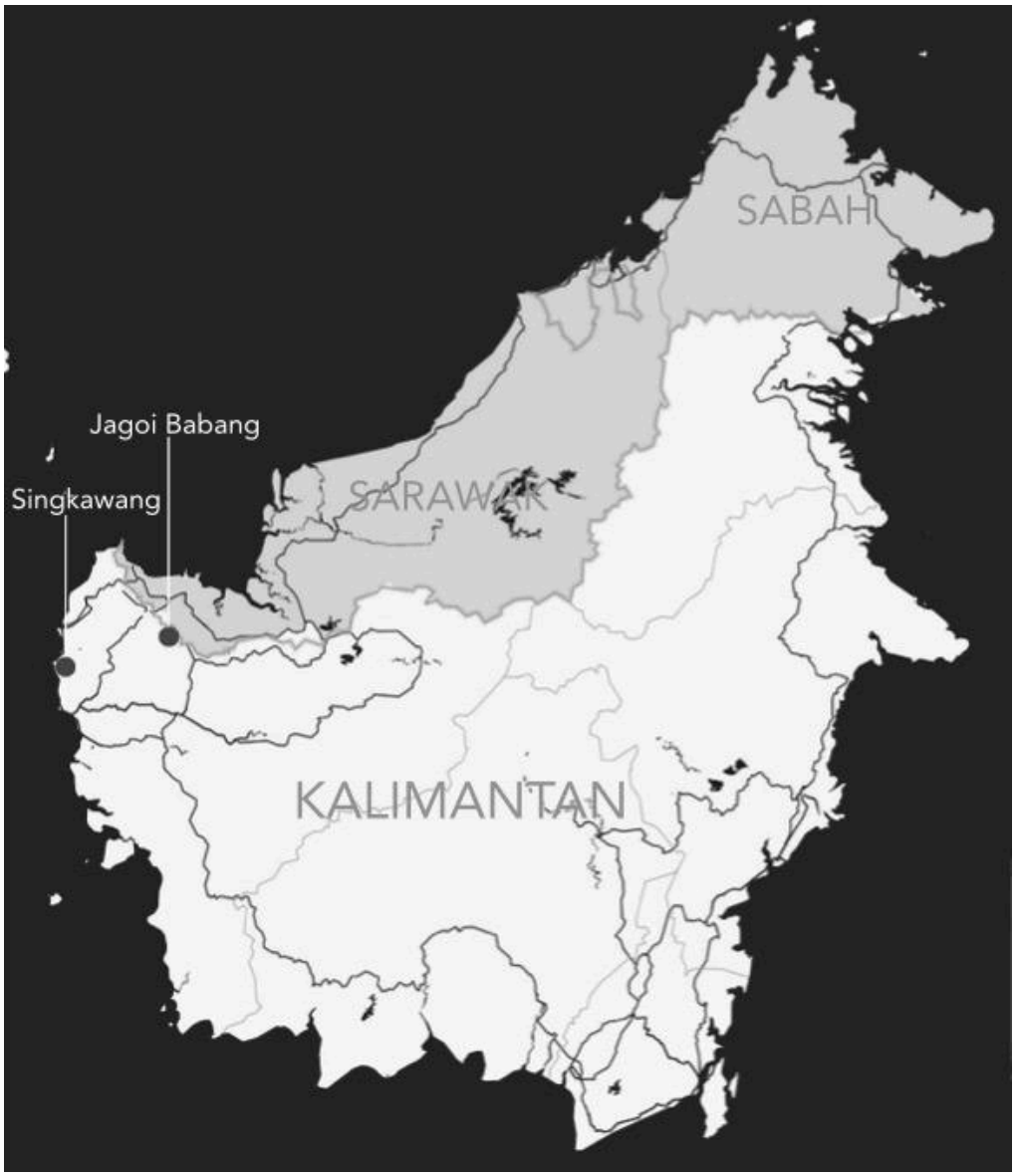


Figure 18. Map of Borneo, showing the fieldwork locations. [map]. Source: Gamia Dewanggamanik.

One of the main fieldwork areas took place in the Sagatani–also known as Habang–which is a Dayak Kanayatn village situated in the interior of Singkawang in West Kalimantan. The researcher engaged with a group of young people who are part of a Dayak-based *sanggar* (studio) in Sagatani Village, West Kalimantan. The whole group agreed to take part in the study. The *sanggar* itself is a platform provided by and for the local young people in the village to learn and reconnect with the material practice of Dayak traditions, with the purpose to enhance their well-being as young people given the everyday and future challenges they are facing. Their motivation is rooted in the socioeconomic challenges that are inextricably linked to the changing landscape around them. During our interactions, A lot of the time the *sanggar* community talked about the lack of opportunities for young people in the area and how they feel conflicted about the mining activities in their village. The impact of gold mining activities cleared the forest and land, and polluted the river. It is common for young people living in the village to leave school early and, in cases, engage in illegal mining activities. Whilst the industries have significantly altered the natural landscape in the village, it has become something that the local community has relied on for generations even though It is a very high-risk and low-income job. The narratives on these local youth of Sagatani demonstrate living between fading traditions and failed modernity which is a reality of their everyday life, and many young people in various parts of Indonesia (especially rural areas). A situation that often places rural young people in a vulnerable reality.

Conducting the research's fieldwork in Indonesia has then led to an encounter with the second group of the research's collaborators, which is made of Bidayuh rattan weaving artisans from a village in Jagoi Babang sub-district, Bengkayang Regency, West Kalimantan. This research's observation and findings would demonstrate the challenges that this community has been facing; the deforestation and the changing natural landscape around them due to oil palm expansion, which then have led to raw material scarcity. Jagoi Babang's geographic location that is situated right at the border with Malaysia has also brought several socioeconomic challenges to the forefront. The economic disparities between Jagoi Babang and the neighbouring country and the high unemployment rate in West Kalimantan led to the rapid migration of Indonesians to Malaysia.

1.10.1. Cultural Assets and Vernacular Materials (C&VM)

The Cultural-Assets & Vernacular Materials (C&VM) project was a research collaboration between the Borneo Laboratory (in Kuching, Malaysia) and the Innovation School, The Glasgow School of Art (GSA), and funded through the British Council International Grant. The C&VM project explored place-based sustainability challenges through engaging with

cultural assets and vernacular materials. The C&VM projects foreground the empirical aspect of this research, as a vehicle for creative collaborations, with the objective of enabling local initiatives and transformative learning. The C&VM project has then been positioned as a platform for the communities participating in the research, to develop and showcase their creative experimentations and more importantly, to actively engage with the wider sustainability discourse through their craft practice.

The first phase of the project took place between March 2022 and March 2023. During the first phase, C&VM mobilised craft communities spanning Borneo's Malaysian and Indonesian territories to explore cultural assets and craft narratives, and put together a collective exhibition. 11 projects were developed and undertaken by a cohort of craft practitioners and artisans, belonging to communities in the regions of Sarawak (Kuching, Betong, Miri and Long Moh), Central Kalimantan (Gunung Purei), West Kalimantan (Singkawang, Sambas, and Jagoi Babang) and Sabah (Kota Kinabalu, Keningau and Kampung Bau Lunguyan). The C&VM was then extended into a second phase, where the project focused on reflecting and putting together the previous journey in a form of publication. Whilst the program engaged with 11 craft communities across Borneo (Fig.31), this thesis focuses on the journey of the groups representing Jagoi Babang and Singkawang. Below is the overall research timeline (Fig.30), overlapping with the C&VM programme:

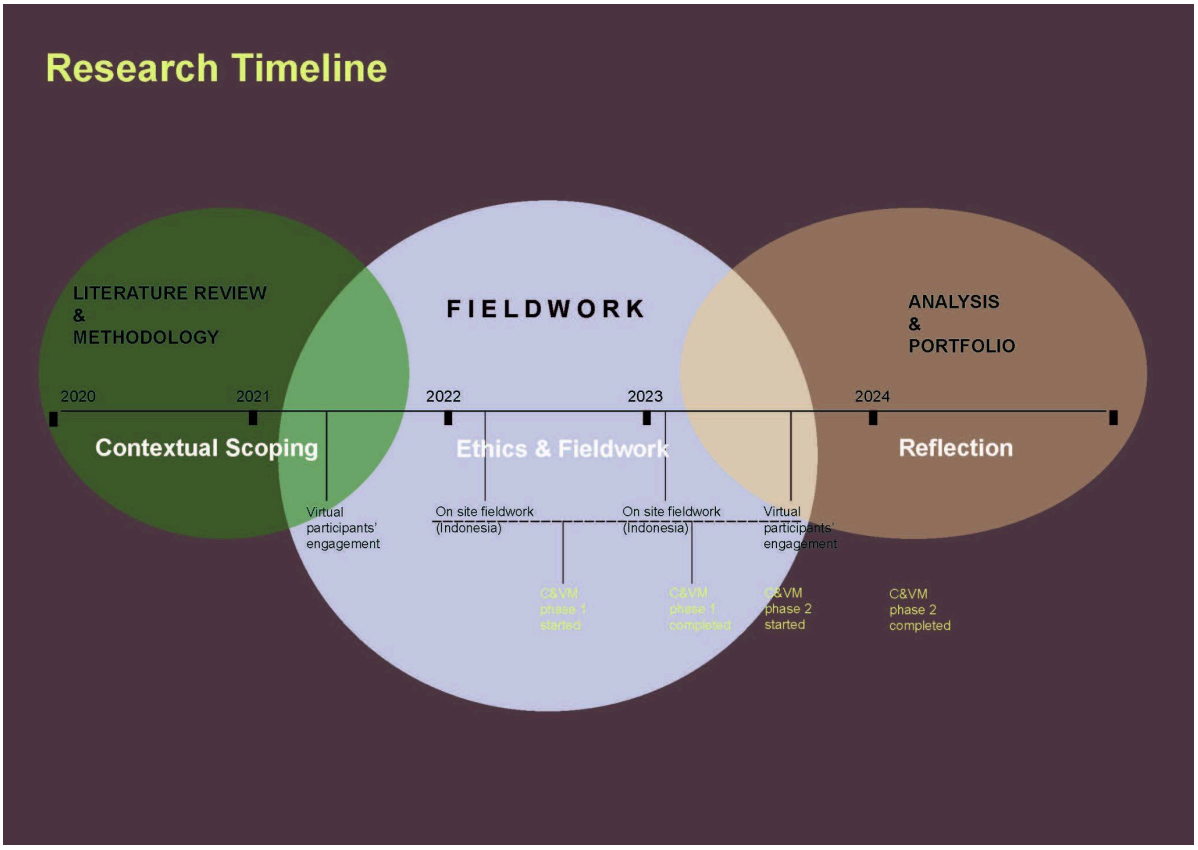


Figure 19. Research Timeline, 2023. [diagram]. Source: Gamia Dewanggamanik.

2.

SCOPE OF CONTEXT



Figure 20. *Jelai* or Job's tears plant gathered from Sagatani Village in Singkawang, 2022.[photograph]. Source: Gamia Dewanggamanik.

2. Introduction of Chapter 2

This research explores opportunities in how design can foster inclusive innovation *with* Indigenous communities through articulating the situated knowledges and challenges entangled in their everyday practices and landscapes. Situated within the decolonising design landscape, the research engages with Indigeneity to reframe community empowerment practices within the sustainable development sector.

This chapter will be divided into three main sections. The first section will interrogate the role of design in the development sector with the premise of empowerment and participation. I will start with unpacking the notion of power within socially-engaged design by grounding on the subject of decoloniality then moving to explore how colonial power has sustained within the landscape of mainstream design practices. The second section moves on to rethinking modes of innovation in the 'peripheries', exploring possibilities for inclusive forms of innovation by specifically looking at forms of collective creativity practised within the everyday of rural communities. Finally, the last section will discuss the process and dynamics of participation in a situated-context; enacting participation and enhancing agency within a collaborative design engagement that responds to various forms of power relations, culturally-situated narratives and values.

PART 1

2.1. Empowerment through Design

More designers are now entering the social realm of design. As observed by Koskinen and Hush (2016), design scholars and practitioners are exploring the role of design beyond the market-led paradigm, now concerning themselves with approaches of 'socially-engaged' design. Departing from Viktor Papanek's (1984) vision, design has shifted from traditional, product-oriented design to a process for designing solutions to complex social, environmental, and political agendas. Here, design is envisioned as a means of transforming social structures and empowering communities (Manzini, 2015; Ehn, 2014) by integrating a democratic and participatory approach (Sanders & Stappers, 2008; Binder et al., 2011; Ehn, 2014), shifting designers' ethos from to 'design for' and to 'design with' (Thackara, 2006). The key challenge for engaging with this new landscape of design is to develop new, more appropriate and ethical practices, and modify design methods that are unsuitable for designing situations (Jantzer and Weinstein, 2015).

Papanek's utopian design vision has been challenged by several scholars (Margolin, 2015; Julier, 2017) including in the Global South contexts. For example, based on an examination in the context of Indonesia, Sulfikar Amir (2004, p.69) argued that Papanek's vision of 'design as problem solving for the Third World societies' remained utopian and did not really work because it lacked political dimension in their implementation. Whereas Koskinen and Hush (2016) argue that Papanek's utopian design vision may have lost its social basis, considering the Foucauldian notion of the omnipresent of power; that power is diffused rather than split into two blocks of left-right axis, urging social designers to find localised ways to make change.

Works committed within the domain of socially-engaged design must be collaborative, culturally relevant, socially applicable, and empowering (Janzer and Weinstein, 2014). This requires designers to attune to the culturally-situated knowledge and various local forms of power that are crucial in shaping the dynamic of such participation and collaboration. As such, the notion of participation has become increasingly relevant, given that participatory approach has been proliferated throughout the process in the development sector. Within this sector, community empowerment is closely associated with participation, as it is perceived as a viable way to better design initiatives that are responsive to local needs, and allow people in the margin to partake in decision-making on matters that affect them (Cornwall, 2009).

Margolin (2006) observed that design has been introduced to the development discourse since the 1960s and is underpinned by a Western ideology that divides the structure of First World, Second World and Third World. Although some nations experienced high economic growth levels, development discourse remained focused primarily on economic development, and it mostly followed development models based on the most industrialised countries. This habit of looking to the 'West' to seek validation (Akama and Yee, 2016; Light, 2017) has been practised through decades reinforced by these development discourses and narratives around the so-called Third World, constructed and maintained by the West (Said, 1979). This discourse is still powerful today under the regime of the post-2015 development agenda over a new set of sustainable development indicators (Escobar, 2018, p.6).

Despite the good intention of socially-engaged design, many designers may be incognizant of ways their actions might be discriminatory or perpetuating colonial power. According to Abdulla (2018), socially-engaged design has not proved to significantly transform design education and practice, albeit the wide implementation across the Global South. Taking an example of how universal social design is being adopted in the Arab region, where

middle-class design students are looking to solve problems of poor refugee communities for their school projects, she argues that designers are maintaining dominance over the production of knowledge by providing a ‘voice’ for the marginalised using aid discourse. Provided that the ideas and methods in social design inherit the structures of Western thinking, therefore, ‘doing good’ in design may inadvertently further reproduce the cycle of colonialism. Onafuwa (2018) suggests that oppression occurs in a circle and is not as binary as one might assume, “the oppressed should also be aware that they too may become oppressors when liberated from the throes of oppression.” Likewise, Schultz et al. (2018) emphasise that there is “no binary logic of oppressor and oppressed, colonised vs. coloniser, and designers cannot be freed from the material and values of the Global North without constantly contesting our own positionalities, or in this case design’s privilege in the Global South” (Schultz et al., 2018). Consequently, the research is conscious to the subtle and expansive nature of colonial power, in which its legacies have been blurred and widely practised in the Postcolonial context, and become a condition that is normalised and deeply entangled in the local practices (Smiths et al. 2020) and (design) education.

Reimagining empowerment practices is particularly important when social designers are facing the task related to rural community empowerment. Many scholars conceived their definition of community empowerment based on Freire and his theoretical concept of ‘dialogic conscientization’ (Archibald and Wilson, 2011), that implies collective action that emerges from self-discovery of power, and a process through which people have control over their lives, able to participate democratically in the community, and gain critical understanding of their environment (Perkins and Zimmerman, 1995). However, empowerment has become rhetoric in many development practices, and as pointed out by Archibald and Wilson (2011), the ubiquity (of empowerment) is troubling largely because ‘power’ has often ironically been omitted from discussions of empowerment. Although this research does not seek to produce a new definition of (community) empowerment, it aims to explore different approaches to the current practice.

The use of the term empowerment needs to be carefully considered by designers or researchers, particularly working with underserved or rural communities. By unpacking the notion of power itself, it is necessary to interrogate ourselves as designers how power is distributed in design processes and what it means to empower and be empowered. These are the concerns that are deeply linked with the decolonising design debates; thus it would be partial to discuss empowerment and power relations in such design practice without talking about the colonial baggage and the power interests it inherits. Otherwise, design practices may further entrench colonialism and continue to lose sight of the margins.

Referring to Freire (1970) in the *Pedagogy for the Oppressed*, he writes that “community empowerment starts when people listen to each other, engage in participatory or liberatory dialogue, identify their commonalities, and construct new strategies for change” (Bratteteig and Wagner, 2014, p.95). There is an urgent need to contemplate and explore more possibilities on how design can exercise ‘non-dominating forms of power’, which Pearce (2012) described as an alternative form of power that is about “enabling others, sharing with others, listening to others, opening things up to benefit the community, being honest and honourable towards fellow citizens and basing their power on respect” (ibid). This concept sets out how design demonstrates the distinction between the term power *to* and power *over* (Pitkin, 1973).

In the discipline of design, Arturo Escobar (2018) advocates that reimagining empowerment and participation (in design) means reconfiguring the design practice, to one that is culturally situated, a place-based approach to design where many worlds fit. This serves as a reminder that designers have the power *to* develop new designerly approaches and methods that allow such knowledge production that is contextually located. Koskinen and Hush (2016, p.68) proposes a socially-engaged design that provides a more theoretically-grounded position than the utopian design approach, by taking into account the situated historical socio-economic inequalities and the structural power imbalance, whilst at the same time gives emphasis on local actions.

Designers working within the social design realms then should acknowledge any power imbalance to better situate their design practice in ways that are appropriate to the context where it operates. In relation to design innovation, one of the paths toward a situated practice is discerning the way innovation is understood and developed within local contexts. This means inquiring into the situated, local everyday creative practices and the emergent sociocultural processes, in which I will talk about more extensively in a later section. Additionally, fundamental values and ways of knowing in such design practices need to be reconfigured, particularly when applied in different geographical, socioeconomic and cultural contexts that are in contrast with its origin (Western/the Global North). Here, concepts such as power distribution, democracy, agency and power will need to be deeply attuned to the local values. A culturally-situated design practice in collaborative knowledge production means to decolonise design itself.

2.2. Hierarchies within knowledge-making tradition

To begin with the task of reimagining empowerment practices within decolonising design agenda, it is imperative to recognise the unjust narratives rooted in the asymmetrical power relations between the Western and the so-called Third World, or what Said (1979) described as the Orient and the Occident. This theoretical concept of Orientalism was developed by Said (1979), describing the idea that much of Western or so-called “occident” studies of “other” cultures were acts of political creation, confirmation of European existence, not results of scientific, scholarly explorations (1979). The construction of the Western culture and identity depends on the Orient as its contrasting image (Said, 1979), creating the binary us/them. Said points out that “the theory of orientalism is a distribution of geopolitical awareness into aesthetic, scholarly, economic, sociological, historical and philosophical texts” (p.12). Said further describes that Orientalism is an elaboration that is based on not only that the world is made up of two unequal halves (the Orient and the Occident), but also of a whole series of “interests” which, by such means as scholarly discovery, philological reconstruction, psychological analysis, landscape and sociological description, it not only creates but also maintains (Said 1979, p.12). Orientalism is an expression of cultural prejudice that was applied to non-European/ non-Western people, to create European supremacy by creating the view of “incapacity in Asia, abnormality in Africa, indolence everywhere” (Ng, 2006, p.128). Said (1979) argued that Western scholars utilised a biased lens that generated a false image of non-Western people as short-sighted and dangerous. Orientalism in contemporary debates does not blatantly attack race or gender, instead it attacks the ideology of the so-called “Third-World” around elements such as religion, as described by Sardar (1999). This newer thesis of Orientalism is creating narratives that “Islam is incompatible in the modern world” (Sardar, 1999, p. 78).

The asymmetrical power relations are maintained through various ways such as academic and economic exploration as well as development discourses. Tony Fry states that “the world of the South has, in large part, been an ontological designing consequence of the Eurocentric world of the North” (2017, p.49). Development discourses and strategies are ‘design dreams’ that have kept Africa, Asia and Latin America underdeveloped and need to be ‘modernised’ (Escobar, 2018). The so-called underdevelopment of these countries was actually the result of a complex discursive intention in the early post-World War II period, the consequences of which millions of people still living out (Escobar 2018, p.59-62). One of the consequences of decades of this maintained hierarchical narrative is that, the colonised, they always exist in relation to a coloniser—their very existence is grounded in power difference (Ansari, 2017). This point was raised by Frantz Fanon (1952), in his writing about

his experience as a black person, describing that he had to modify the way he speaks and acts and that “black people had to prove the existence of a black civilization to the white world at all cost”.

Sohail Inayatullah (1999), a scholar of political science and future studies, argued that the West has maintained its hegemony by securing definitional power—determining what is considered important, truthful, good, and beautiful (1999, p. 53). Similarly, Ahmed Ansari (2019) highlights that the danger of continued coloniality lies not only in epistemic domination but also in ontological disruption. Western political, economic, socio-cultural, and epistemic systems fracture the histories of the colonised, displacing their presents under the guise of international development and progress, while dictating how ex-colonies should exist. As Sardar (1999) observes, colonialism has also conditioned the colonised to think within the frameworks of colonial thought, reinforcing Western power structures. The agenda of decoloniality, therefore, seeks to expose these epistemological and ontological struggles (Ansari, 2019; Escobar, 2018). Decoloniality uncovers the pervasive impact of colonial power on ways of thinking, being, knowing, and acting. It also entails “the recognition and undoing of the hierarchical structures of race, gender, heteropatriarchy, and class that continue to control life, knowledge, spirituality, thought, and systems that are deeply entangled with and constitutive of global capitalism and Western modernity” (Walsh, 2018, p. 17).

Decoloniality as a particular political agenda can be traced back to the Bandung Conference in April, 1955 (Mignolo, 2018; Ansari, 2018). Post-World War II, where 29 African and Asian nations gathered in Indonesia to front a joint attempt to find alternatives to Western political and economic paradigms of development, i.e. to both capitalism and communism. These nations formed Non-Aligned Movement, outlined *“*a global project to delink from what were recognised as global designs and paradigms by the American and Soviet blocs” (Ansari, 2018). What is important in the decolonial process is that it reveals the impact of colonial power to our ways of thinking, doing, being and knowing. It also implies “the recognition and undoing of the hierarchical structures of race, gender, heteropatriarchy and class that continue to control life, knowledge, spirituality, thought and structures that are clearly intertwined with and constitutive of global capitalism and Western modernity” (Walsh, 2018, p. 17). One of the key premises of decoloniality is to challenge the hierarchical order that segregates bodies and knowledge (Prado de O. Martins, 2018; Walsh, 2018; Buckley, 2020). For example, as observed by design historian Cheryl Buckley (2020), the division of labour within design has historically been organised along the hegemonic gender binary, where women are presumed to have ‘sex-specific skills’ that make them particularly suitable for work in decorative arts, and in domestic-associated work such as embroidery, weaving,

knitting, pottery or dressmaking. This division of labour also trickles down to the development of design knowledge with white male theorists still having more exposure, opportunities and recognition in design academia (Prado de O. Martins, 2018).

The decoloniality agenda calls for dismantling structures of privilege within academia. Scholars from various disciplines (Said, 1979; Mignolo, 2011; Fry, 2015; Escobar, 2018; Walsh, 2018) have critiqued the colonisation of knowledge and the persistence of Eurocentric frameworks in knowledge production. These power/knowledge structures often remain unquestioned and must first be decolonised. Catherine E. Walsh (2018) advocates for a decolonial process in academia that shifts from "studying about" to "studying with." Her perspective aligns with Escobar's (2018) argument that decolonial struggles require academic-intellectuals working on colonial difference to foreground the epistemic force of local histories and to develop theory through the political praxis of subaltern groups.

This shift demands rethinking how, and with whom, theory is conceived and understood, emphasising the interconnectedness of local histories, knowledge, political praxis, and place (Walsh, 2018, pp. 27–28). Their critique of decoloniality challenges the centrality of academia, opposing the objectification of marginalised, historically excluded, and subalternised peoples in scholarly inquiry. Instead, Walsh and Escobar emphasise the capacity of those living within colonial differences to produce and construct knowledge. In the decolonising process, knowledge is understood as situated, emerging from and shaped by embodied practices, actors, histories, territories, and places marked by the enduring colonial horizon of modernity (ibid). Nevertheless, disciplines such as design continue to uphold power/knowledge hierarchies and perpetuate discrimination in knowledge-making, as evident in contemporary design practices.

2.3. Contemporary Design Practices: Its limitations and colonial legacies

To begin with, let us consider Foucault’s notion of *dispositif* (1980), or also known as *apparatus*. This notion represents the strategic function of; the network of relations within discourses, institutions, knowledge, ideologies, etc. It indicates how knowledge structures can enhance and maintain the exercise of power, which means, everything designed and brought into being, will only reinforce the (Western) ideological discourse that manifests in the design knowledge and practice. Even though the trend towards universalization of western modes of thought has been actively contested, design discipline is suffered from critiques for being still too ‘euro-centric’ (Escobar, 2018), considering that dominant design practices such as design thinking, speculative design, design for social innovation and participatory design are all rooted in Europe. To date, the design practice in the Global South

is very largely based on perspectives received from the Global North. As Tony Fry puts it, “the world of the South has in large part been an ontological designing consequence of the Eurocentric world of the North” (2017, p.49). Although designing from/by the Global South cannot be totally free from such thinking, it needs to contest and adopt it critically and selectively (Fry, 2017). According to Kiem (2018), the current design practice lacks the understanding of historical and contextual difference, partly because of the failure of Design Studies in both informing practice as well as in widening and deepening its horizons.

Some design scholars have been focusing on the task of decolonising design (See Escobar, 2018; Schultz et al., 2018: Fry, 2017), with some engages with its entanglement with more specific design practices such as participatory design (see Smiths et al., 2020; Winschiers-Theopilus, 2016) and design for social innovation (Tunstall, 2013; Akama and Yee, 2019). These decolonial design scholars are concerned with the role of contemporary design practice in perpetuating colonial power through Western neoliberal capitalism. This global movement in decolonising design is a response to the subtle Western colonialism and domination that still maintains up to the present day (Schultz et al., 2018). This movement opposes the continuing oppression through design that generalises and develops solutions for the “Other” (Smith, 2012). For example, Escobar’s (2018) vision of ‘design for the pluriverse’ is breaking away from the one world-world by embracing the multiple accounts of realities; the multiplicity of cultures and perspectives. The proposal offers a transitioning path from concepts of globalisation to concepts centred on the pluriverse, made up of a multiplicity of mutually entangled and co-constituting but distinct worlds. The works in this decolonising design movement try to re-orient design studies and moves the focus away from further practice of colonialism, modernity, globalising, and centralising trends, and instead promotes a plurality of practices and discourses (Akama and Yee, 2016). Schultz et al. (2018) suggest that “only through the inclusion of the marginalised (such as the previously colonised, Indigenous communities and the socio-economically marginalised), we can break away from the ‘colonised’ minds and achieve plurality.”

The call for stronger pluralism in design is also emphasised within design for social innovation practice by embracing difference and accommodating heterogeneity as its central condition (Akama and Yee, 2016). This is underpinned by the growing visions regarding design for social innovation practices in the non-western contexts (See Akama and Yee, 2016; Akama et al., 2019), which express concerns about design practices emerging from industrial and modernist roots in Europe becoming dominant in the field of Design for Social Innovation (in the non-Western context). While the works of the some scholars such as Manzini and Mulgan are important and a useful departure in this recognised field of study

and practice, Akama and Yee argue that there is prevalent orthodoxy of theory and practise developing in design for social innovation, which attribute to globalised thinking and “trends of looking ‘West’ to seek answers” that results in “theory proposed by a handful of people largely concentrated in Europe and the US whose ideas are continually cited to perpetuate its authority and privilege” (Light, 2019). As such, many dominant design methods such as design thinking, speculative design and participatory design receive critiques of the need to deal with the concern of decolonisation.

A frequent argument against design thinking questions how it dilutes design into a standardised and generalised design process that ignores the diversity of designers’ practices and institutions which are historically situated (Kimbell, 2011). The debates around design thinking questions the modernism values entailed in the practice (Tonkinwise, 2011); that is a cultural weapon of homogenous design ideal that erases non-white aesthetics (Buzon, 2020; Tunstall, 2013) thus prescribing culture of innovation without a deep understanding of the situational context and deep-rooted structural issues. Consequently, design thinking falls short in its implementation in a marginalised community setting, as it often fails to address systemic power imbalance. The premise of design as ‘problem-solving’ the complexity of the world issues has become problematic because it assumes a universal set of tools to address and solve it, therefore situates itself (design) at the centre of the epistemologies (Keshavarz, 2018) and downplays the underlying structural issues. Design practitioners must be mindful of the global cultural context at large; that cultural, political, economic and environmental factors are always embedded in design and produce far-reaching implications, thus the very act of designing is always political.

Speculative design or Critical Speculative Design (CSD), situates its practice as a critique towards the usual ‘designer-as-problem-solver’ approach, therefore its aim is “not to propose implementable product solutions nor to offer answers to the question they pose, instead it is intended to act like a mirror reflecting the role of specific technology plays or may play in each of our lives, instigating contemplation or discussion” (Auger, 2012). CSD practices commonly embrace fiction, materialised in the form of *diagetic prototype* (Kirby, 2011). Quite often, the works appear dystopian in nature and are intentionally ‘unsettling’ (Ward, 2019) in order to raise provocation and conversation. However, many critics have questioned its inclusivity of who is actually included in the debates (Loizeau, 2020; Mitrovic, 2019; Ward, 2019). Hence despite its increasing popularity, the practice has been questioned about its ability to step out of the privileged space of academic or gallery and empower alternative views about the world. CSD has also suffered long standing criticism as a practice of power and privilege (Ward, 2019), ignoring structural inequalities and only amplifying privileged

voices. Take an example from the work of Burton and Nitta's 'Republic of Salivation' (2011) that was published on MoMa's online curatorial experiment in "Design & Violence" in 2013.

It can be postulated that the problem with many CSD works is the practice's ambition of a broad holistic thinking approach often missing a deeper critical engagement with the structural power dynamics embedded in such '*conflictual artifacts'* (Onafuwa, 2018) and the debates it produces. The preoccupation with futures obscures the complexity of both global and situated historical pasts. Even though the practice distinguished itself from the problem-solving paradigm, such problems or debates are framed and presented through a colonial gaze. The apolitical nature of the works in CSD, in which the designers claim to be neutral (Ansari, 2015) and refusing to take a stance, ended up having themselves accused of "trivialising important issues" (Prado, 2014) through the *what if's* questions. This way, the role of critique in this practice may lose its way in the debates. Eventually design has the responsibility for its political and social position; it cannot ignore the historical context that shapes the current society and the structural power imbalance within it, the role (agency) of its 'audience' or the people it tries to engage in the conversation, by taking their views into consideration.

2.4. Tracing New Forms of Colonial Power within Design Discourse: Social Design, Development and Neoliberalism

In the mainstream design innovation discourse, colonial power is sustained through the mechanism and globalisation of Neoliberalism (Ansari, 2018). Eskobar (2018) points out that one of design's main problems lies in the colonialist modernisation perpetuated by the rationalistic tradition of neoliberal globalisation which promotes market-based individualism against relational ways of being, which destroys communal and place-based forms of relating. Within the development sector, social design practices have been infused with Neoliberal values (Julier and Kimbell, 2019), which influences various ways social design conducts their practice and engages with structural issues in the community.

2.4.1. Humanitarian Design, Social Design and Neoliberalism

Social design is increasingly orientating towards social innovation (Manzini, 2015), and according to Guy Julier and Lucy Kimbell (2019), it first emerged as a response to government policies, particularly in welfare responsibilities, in the Global North. This field of design is hybrid and diverse in its practice and location (ibid), as it transcends the boundaries of academia, business and public sector (von Busch, 2016). Therefore, the

norms of social design are “shaped and reshaped by the policy landscape, the system of governance, the economies of welfare provisions and the technologies that are embodied in the array of clients, stakeholders and publics with which the field is enmeshed” (Julier and Kimbell, 2019). Social design practice often operates within the development sector and brings humanitarian aid agenda, thus the term is often interchangeable with humanitarian design. Many of these humanitarian designs, largely operating in developing countries, used to mostly focus on basic ‘survival’ needs and producing ‘humanitarian goods’ (See Cross, 2013; Redfield, 2016). However the practice has also broadened its scope, venturing into designing social innovation (Manzini 2015) and public services (see Schwittay, 2014; von Busch, 2016; Julier, 2017)

The expansion of social design practice within the development sector has been accompanied by the growing utilisation of design methods to develop solutions for social issues and policy challenges (Kimbell and Julier, 2019), eventually improving communities’ resilience and well being (Manzini, 2015). The outcomes of this type of social design are usually not tangible but emphasise adjustments to policies or new systems of support (Julier and Kimbell, 2019). Here, professional designers often use collaborative “development design thinking” to develop interventions, with underserved communities participating as clients in the process of innovation (Escobar, 2018), which Julier (2017) describes as consultant-type social-humanitarian design.

Design practitioners in this consultant-type social-humanitarian design often use human-centred approach inherited from service design (Julier, 2017), and also often adopt methods and techniques from design thinking and participatory design. This practice continues to embrace modernist development intervention and global market forces, which complicates the development sector. This is evident in the growing presence of consultant-type market-driven companies in social/ humanitarian design (Julier, 2017; Eskobar, 2018). Central to this growing trend is IDEO that embodies the corporate version of social design, in which they use social design in search for the new, profitable markets provided by foundations and companies targeting the poor (Schwittay, 2014). Here, Design thinking is considered to be an effective method for conceiving innovative solutions to social problems (Kimbell, 2011), as the process helps transform cerebral ideas to actionable reality (Jantzer and Weinstein, 2014). This approach proliferates rapidly within the development sector, leading to the generation of a number of social design methods toolkits, such as IDEO’s Design for Social Impact Toolkit (2009). These design toolkits dominated the landscape of development practices to guide development practitioners and organisations working in the field. Often, these design tools are picked up rather uncritically on the basis of

their promise of delivering solutions and positive impacts (Ansari, 2016). However, like many international development strategies that were not neutral (Escobar, 1995), these universalised design toolkits are also never value neutral, and in a sense it is a form of epistemological colonialism; suppressing local knowledge and thought in the Global South for the world in a frame predetermined by the Global North (Ansari, 2016). These design tools have defined social designers' material practices that, however, may downplay the situated historical context, thus the practice ends up playing out a performative mode of innovation (Julier and Kimbell, 2019).

Amidst the popular adoption of design thinking in the development sector, anthropologist Anke Schiwttay (2014) raised a question of its translation into a methodology for social change rather than of commercial gain. Although it promotes such a holistic view aiming for a more complete understanding of community living in such poverty, it falls short of addressing the structural drivers of the economic inequalities. Instead, the focus is on the needs and wants of 'the poor' reimagined as clients, thereby individualising what are often social, structural problems. Schwittay (2014) also states that, given its association with market-based models of development in tackling social economic problems of the underserved communities, humanitarian design does indeed lend itself to neoliberal critique. In her examination of the entanglement of design, development and anthropology, she shows that most humanitarian design operates within a colonising politics of development knowledge. By constituting the problems of poverty and developments as one in need of innovative solutions, humanitarian designers are positioning themselves as experts best placed to provide such interventions. In this case, the import of Western expertise and technologies is still presumed to hold the key for solving the majority of the world's problems. As a result, social-humanitarian design has been accused as a form of new soft imperialism (Nussbaum, 2010), suffused with colonial perspective in solving socio-economic problems.

However, the use of standardised design thinking processes within this domain would lack a deeper understanding of the local communities' lived experiences, therefore risking neglecting the deeply-rooted structural issues (Jantzer and Weinstein, 2014).The promise of empowerment and participation is capitalised and in fact may have resulted in new ways to exploit the precarious nature of underserved communities. The rhetoric of empowerment and participation in social design is often used by companies targeting the new market creation at the so-called bottom of the pyramid (Cross, 2013)', where 'the poor' is becoming a future resource, recognised as both producers and consumers (Redfield, 2016). This approach has been criticised for 'marketization of poverty' and instrumentalizing their social and cultural resources (Schwittay, 2014).

Ironically, Julier (2017) notes that the social aspect is frequently absent in this market-based approach in consultant-type social design, which shows how it remains inextricably linked to mainstream commercial design methods. While these works often promote collectivity, its methods and arrangement are driven by or forced into the same pragmatic, problem-solving reductionism and their methods are largely inherited from commercial applications of service design (ibid). Julier and Kimbell (2019) argue that aspects of neoliberal conditions such as precarity and institutionalised logics of design innovation, constrain social design practice for potential significant change (ibid).

As demonstrated in this section, the current landscape of social design and innovation within the development sector is shaped by the roles of various actors and institutions such as government, designers and organisations and companies. The burgeoning practice of social design in the sector has proliferated the use of standardised thinking processes to tackle social issues. Under the Neoliberal conditions, poverty and inequalities become a resource for political and economic exploration accompanied by the rhetoric of empowerment and participation, the creative and resilience nature of communities is also perceived as a source of economic growth. Here, the communities' collective assets and resources are explored as individualisation and commercialisation. As such, this neoliberal condition is also reflected through the current (global) creative landscape that mostly rewards competitive, individualistic endeavours despite the collaborative and collective working it often promotes (Mould, 2018).

Decolonising this practice means rejecting the impositions of this neoliberal framework of result-driven, well-defined and problem-solving design (Oliveira, 2018). Addressing inequalities and complex social challenges requires changing how social design practice is structured and performed. To avoid the reproduction of inequalities and construct inventive methods within this practice, Julier and Kimbell (2019) suggest that designers should have multi stakes, not merely as designers; they can perform a role as public servants, politicians, participants or citizens (ibid).

PART 2

2.5. Fostering Plurality in Inclusive Innovation

This section explores ‘cultures of innovation’ in a community setting, particularly ones that are rooted in the everyday creative practice of communities in the peripheries. The premise is that such innovation cannot be disconnected from the socio-cultural values in which it was created. Moving away from the universalised human-centred approach to innovation (Brown, 2010) and prescribed creative culture (Florida, 2002), this study seeks to explore situated-narratives of innovation within the decolonising design landscape. Thus, this section aims to explore the concepts and processes of innovation that re-center the local (Indigenous) practices and epistemologies, one that is situated in the everyday context of the communities themselves. This section will also discuss forms of design activism as an alternative ‘innovation culture’ that operate and co-exist within the current design innovation discourse.

2.5.1. Rethinking (Inclusive) Innovation in the Global South

The terms ‘Global North’ and ‘Global South’ are not simply geographic divisions, but have economic and geopolitical implications. Whilst Global North describes historically dominant nations and wealthy ruling elites in the South, Global South can be a metaphor for exploited ethnic minorities in affluent countries, as much as the historically colonised or ‘poorer’ countries as a whole. (Kothari et al., 2019, p.xxi-xxii). Accordingly, debates around inclusive innovation have strong relevance with the context of the Global South, or the minorities. Historically, the concept can be traced back to the Appropriate Technology movement in 1970, which also aligned with Papanek’s social vision of designing context-relevant technology in developing countries. This research concurs with some design scholars’ concerns with the growing hegemonic paradigm of innovation in the Global South (Akama and Yee, 2019; Escobar, 2018); therefore, discussions on inclusive innovation cannot be separated from the debates within the decolonising design landscape. The works of these decolonial design scholars try to re-orient design studies and move away from the further practice of colonialism and centralising trends and instead promote a plurality of practices and discourse.

To begin the discussion about inclusivity in innovation, design anthropologist Elizabeth Tunstall’s (2013) calls for decolonising design innovation, driven by concerns about the hegemonic paradigm of innovation. Tunstall critiques the dominant concept of innovation inherited from the Organisation of Economic Cooperation and Development, which appears to promote modernist values and ignore alternative ways of being, thinking and knowing.

The current discourse of design innovation assumes that only individual elites and companies can generate such innovation (Tunstall, 2013). Similarly, concepts such as von Hippel's democratising innovation (2017), despite its highlight on participation in the process, only benefits privileged 'lead users' or individuals who have better access to information, design tools and technology. These ideas of innovation fail to engage with structural inequalities, showing that the concept of democratisation in the design innovation process does not automatically align with inclusivity.

Also challenged by many design scholars (Ehn, 2016; Bjorgvinsson et al., 2016: Tunstall, 2013; Erete et al., 2018; Costanza-Chock, 2020), the concept of innovation that is seemingly exclusive and privileged completely ignores larger and diverse layers of communities, particularly ones living in the margin. Design innovation practice in this setting, despite the conscious effort for inclusion, may fail to recognise the everyday innovation of inherited traditions and to fully incorporate local knowledge (Redfield, 2016; Cross, 2013). Several studies have indicated that various forms of discrimination exist within the political economy of design and innovation, with only professionalised design work acknowledged, valorised and credited (Costanza-Chock, 2020; Tunstall, 2013). This is echoed by Tunstall (2013), in which she identified that one of the issues in the mainstream design innovation discourse is that it classifies craft or Indigenous practices as subordinate to modern design, thus excluding histories and practices of innovation among the so-called Third World communities. This conception has led to the common perception of rural, Indigenous culture, craft practice as old, backward and something from the past. On the other hand, innovation is associated with newness and futures. This appears to shape a logic—particularly in the development context—that separates rural Indigenous practices and innovation; that rural communities are not capable of generating such innovation—or it does not even exist at all—and innovation is only made possible by the external help of designers or scientists etc. Therefore Indigenous communities and rural landscapes have become sites for capacity building and development**.** In turn, this relates to Appadurai's (2013) explanation of how culture has been dominantly viewed as a matter of one or other kind of pastness—the keywords here habit, custom, heritage, tradition—as opposed to development's association with futures. He argued:

> This opposition is an artifact of our definitions and has been crippling. On the anthropological side, in spite of many important technical moves in the understanding of culture, the future remains a stranger to most anthropological models of culture. By default, and also for independent reasons, economics has become the science of the future, and when human beings are seen as having a future, the keywords such as

> wants, needs, expectations, calculations, have become hardwired into the discourse of economics. In a word, the cultural actor is a person of and from the past, and the economic actor is a person of the future. Thus, from the start, culture is opposed to development, as tradition is opposed to newness, and habit to calculation (Appadurai, 2013, p.180).

In fact, as Appadurai argues, “most approaches to culture do not ignore the future, but they smuggle it in indirectly, when they speak of norms, beliefs and values as being central to cultures, conceived as specific and multiple designs for social life” (p.60-61) In this essay Appadurai is talking about the cultural capacity in future-making, describing that the boundaries of cultural systems are permeable, therefore cultures are and always have been interactive to some degree. Here, Appadurai proposes the need to locate a sense of agency in such culture, that is a capacity to aspire that links the notion of culture, voice and future.

However, the concepts of futures have become an instrument of colonisation, validated by the technology and knowledge resources from the West (Sardar, 1999). This has led to universalised ideals of innovation and development that eliminate ‘the other’ (Inayatullah 1999), perpetuating the power imbalance between the West and the rest. Ansari (2017) points out that such false dichotomy was articulated by designers like Christopher Alexander in the first Design Methods in the 1960s, in which he stated that “Western designers plan and design while non-Western civilization merely imitate and produce craft.” This implies that non-Western craft then takes the place of curiosity and novelty in Western design education, and acts as a counterpoint to design that is problem-solving oriented (Ansari, 2017). This further implies that non-western craft belongs to a cultural past that is opposed to design innovation and economic futures. Design scholars and practitioners are urging to embrace plural forms of designing and thinking about innovation. This means taking into account diverse modes of designing that are situated in the everyday (Akama and Yee, 2019; 2023).

Such a dominant narrative of innovation appears to disregard alternative ways of being, thinking and knowing, which leads to the common assumption that only the privileged few with expert knowledge can hold an important role in innovation. To summarise, an inclusive innovation should allow for plural ways of knowing, doing and being. Contesting the homogenising narrative of innovation and growth requires investigation into existing forms of innovation that are deemed invalid and invaluable.

2.6. Inclusion and Plurality in Innovation

One of the overriding concerns in developing inclusive innovation is to consider which groups or which practices are being included or remain excluded. In this context, ‘inclusion’ means engaging with underrepresented groups as well as taking into account unrecognised forms of innovation practice. A growing body of literature on design and social innovation stresses the significance of everyday, vernacular design practices particularly those in marginalised sites of innovation (Costanza-Chock, 2020; Akama et al., 2019). Other studies on innovation and development (Fressoli et al., 2014; Smith et al., 2017; Bhatti et al., 2018; Campbell, 2017) suggested looking into the grassroots innovation movements in marginalised settings. Whilst the innovation reflects the interests and values of the communities involved, it also demonstrates ingenuity and resourcefulness by generating bottom-up solutions that directly respond to the local condition. These innovations are deeply entangled within the everyday context of the communities themselves and are driven by everyday necessity often without any professionalised knowledge.

Inclusion in innovation also means recognising Indigenous knowledge systems within the field and centering the agency of subalternised groups. Here the term subaltern is used to refer to groups who have been historically excluded from dominant narratives, power structures, and discourses. Interrogating the power dimension of innovation by focusing on subaltern groups’ everyday practices is vital in the increasingly global-oriented development. Design scholar and Design Justice activist Sasha Costanza-Chock (2019;2020) stresses that it is important to interrogate the concept of inclusivity within design and innovation discourse through the framework of intersectionality. For her, inclusive innovation means considering certain design practices that are intersectionally disadvantaged; those that have been gendered, raced and/or otherwise coded as less valuable or not recognisable as innovation. Some examples include rural craft artisans, Indigenous practices, women initiatives and creative communities with socioeconomic disadvantages.

Precarity within innovation practice can be seen in the craft sector in rural areas in the Global South. Notwithstanding the emergence of the creative economy into the development discourse, many rural creative practices are still facing barriers to actively participate in the (development) agenda due to the underappreciation of the practice.The craft sector is often considered a prominent development tool to improve national and regional socio-economic conditions, particularly in the rural context. However, the creative economy policies and strategies tend to overly focus on the advancement of economic growth, in which scalability tends to underpin the notion of growth itself. This does not always reflect the nature of many creative practices in the rural context. Furthermore, rural, traditional creative practices within

development frameworks also remain circumscribed by the colonial perceptions of exoticism and its commercialisation aspect, which risks neglecting the communities' knowledge system and the underlying issues.

Whilst design innovation is often associated with a highly professionalised field; there has been a growing body of literature on design and social innovation investigating the significance of everyday, vernacular design practices particularly those happening in informal sites of innovation (Costanza-Chock, 2020; Akama et al., 2019). These other modes of innovation are often linked to community-based practices such as grassroots innovation movement, Indigenous practices and craft tradition. It has been argued that innovation practice exists across cultures in different names and forms (Akama et al., 2019) with many important socio-technical knowledge and practices being constructed and shared through social interactions within communities. This mode of innovation demonstrates a "collaborative survival" (Tsing, 2015), a place-based form of relating and continual process of world-making where histories, natures and cultures are entangled. In this mode of innovation, including craft practices, their form of knowledge is usually tacit, emerging from knowledge and skills embedded in the lived experiences (Ingold, 2013).

Understanding diverse modes of knowledge is key in an inclusive innovation. This means viewing craft practices as an ecology of knowledge tied to its place and everyday social environments, and more importantly, shift away from approaching them as isolated commodities. The significance of these community-based practices should be understood in relation to the importance of the local network that supports the practices and how these practices maintain community resilience. Rethinking these community-based innovations in terms of their ecology means considering the interdependency across local actors (human and non-human) in the community. This concept and wisdom are often embedded in many Indigenous practices which will be discussed in the next section.

2.6.1. Indigenous modes of innovation

One of the agendas in decolonisation is to promote for a world where many world fits (Escobar, 2018) by challenging the totalising narratives from the orthodoxy of dominant design practices through recognising heterogeneous design practices and worldviews (See Akama and Yee 2019; Akama et al., 2020; Light, 2019 ; Escobar, 2018). Akama and Yee (2019) argue that the heterogeneity of design practices have always been present across various sociocultural settings under other names, which are "continually constituted by

various blends of cultures, relationships, materials, histories, philosophies, and world views to become relevant to certain localities and situations".

Against the modernist, dualist tradition that tends to separate nature and culture, there has been a rise in the Indigenous turn, in which scholars urge to take a step back and reconsider the knowledge and innovation embedded in Indigenous world-making practices. Modern society often overlooks Indigenous beliefs as myths despite them encapsulating enduring ecological knowledge (Watson, 2019). Particularly in this era of Anthropocene, Indigenous knowledge has been increasingly considered as an essential part of the solution to the most pressing environmental issues. Indigenous knowledge and practices have become a rich landscape of explorations of non-dualism, particularly in dealing with ecological matters (Escobar, 2018) as it is believed that many of these groups possess knowledge that embodies the importance of maintaining symbiosis between humans and nature. Many Indigenous communities enact their worlds through the practice of interbeing and recognise interrelations and interdependence between things.

Indigenous peoples possess traditional ecological knowledge that is conveyed through mythology forms the foundation of a complex understanding of the natural world (Watson, 2019). This is what motivated the Lo-TEK movement to archive and catalogue various Indigenous innovations that demonstrate everyday responses for human survival that are designed to work with complex ecosystems. As documented by Julia Watson through the Lo-TEK movement, Indigenous knowledge encapsulates the complex interactions within ecosystems in which humans are embedded. In the Indigenous world, spirituality in the landscape is directly related to sustainability and resource management through customs and belief systems (Watson, 2019). The movement collected this evidence and narratives across the globe. Such as the Javanese sawah tambak rice-fish aquaculture system that shows an example of resilient and sustainable Indigenous innovation that catalyse multispecies interactions from the bottom of the food chain up. The system of trenches and combination of rice and fish farming in the system offers great potential for diversifying traditional rice growing, which is vulnerable to flooding when located in intertidal landscapes. Some other Indigenous technology; water infrastructures developed to harness water resources for drinking, domestic and irrigation water. For example the *surangam* underground aqueducts, a man-made water caves system originated in the Western Ghats of southern India, that is dug horizontally and relying on gravitational force to extract groundwater. The construction process of *surangam* requires a heightened sensitivity towards the profile of the landscape such as soil texture and plant species. The process

includes ceremonial techniques of listening to the soil at night to detect the direction and presence of water (Watson, 2019, p.153). The examples above capture the intimate relationship between Indigenous communities and their social environment, thus the knowledge is attached to its dwelling place.

Indigenous knowledge, as Watson (2019) asserts, is not primitive but primal—a fundamental wisdom inherent to all of us. This place-based knowledge and wisdom is passed down through generations via everyday social co-participation, where engaging in these practices reinforces a profound sense of belonging to place, people, and ecologies. To differentiate these practices from the dominant narratives of design innovation, Akama et al. (2019) describe them as a form of “design with other names.” This encompasses “a variety of skills, spaces, artefacts, practices, instruments, knowledge, and ontologies embedded in everyday environments.” These practices demonstrate a deep commitment to honouring dwelling places shared by beings and non-beings alike. Akama found such wisdom through Japanese philosophies. For instance, the etymology of the Japanese word for human being (*ningen*) reveals its meaning as "between person," emphasizing humans as inherently relational rather than individualistic. Similarly, the Maori concept of *Kaitiakitanga*—intergenerational guardianship of people and place—embodies an eco-philosophical understanding of humans as integral to nature, not separate from it.

Stipulating from these studies, the most distinctive aspect of this form of knowledge is that it is honed through a deep observation of relation between humans and the movement of natural systems, and manifested in forms of heightened sensitivity to landscape and climate that “requires a respect towards places, situations, knowledge and relationship of things” (Akama et al., 2019). This further indicates that acknowledging, and understanding, the (Indigenous) knowledge system is critical to articulating modes of innovation that conveys deep respect towards place.

2.6.2. Grassroots Innovation

Designing is a universal aspect of human practice, but the way it is carried out varies considerably across different societies and cultures. As such, in the milieu of diffuse and expert design innovation, Manzini argues that in a world where everybody designs (2013), his idea of innovation lies in a form of activism that contributes to a culture of resilience in societies (Manzini & Till, 2015). This is echoed by design educator Angus Donald Campbell (2016) as he challenged the modernist approach of design expertise being implemented in international developments, stating that “its (design) ethnocentric view on the world is

resulting in lack of attention to local contexts and cultural diversity." Instead of praising expert solutions offered by professional designers, he focused on the importance of the lay designer or non-expert, which is a person who designs without any professionalised knowledge. His exploration of 'lay designers' demonstrates forms of participation and innovation in a complex and highly networked society with particular relevance to ethical, political and power inequalities. Campbell documented samples of grassroots innovations from Southern Africa, through which he demonstrated the resourceful and self-sufficient nature of the marginalised communities therein. Their invention is driven by necessity. These grassroots innovators all applied their abilities and sought knowledge to develop new technologies that would meet the needs of their local context. This represents a new and highly localised path to development (Campbell, 2016). This everyday, informal form of innovation resonates in the context of Indonesia, as a way of rescripting and challenging standardisations (Gerrard and Luffiansyah, 2023, p. 68).

Elsewhere, Luffiansyah's (2019) research on craft artisans in rural West Java in Indonesia, highlights the resilient and resourceful nature demonstrated in their practice. The case study describes that the community's daily operations and strategies are heavily influenced by the geographical conditions and their surrounding physical environment (Luffiansyah, 2019: 131). Craft in rural areas have resources of abundant supplies of vernacular materials, tools made specifically for particular craft products, inherited craftsmanship skill and social interaction. These resources are key elements shaping their practice; and strategies built on flexibility, trust and collectivity.

The everyday resilience and resourceful characteristics of communities inspired design scholars such as Ehn, Nilsson and Topgaard (2014) to promote more democratic forms of innovation through participation. They re-vision the landscape of design innovation by proposing the concept of innovation that is connected to ideas of place, locality and community. Their exploration of the intersection between participatory design and innovation elicits a critique towards the elitist notions of creative class, which reduce innovation to a matter of expertise at the service of capital (expertise-driven). This is exemplified by Emilson, Hillgren and Seravalli (2014) through their project with the Malmo Living Labs platform, where they facilitated a series of design intervention by collaborating with marginalised communities. Away from the usual creative elites groups, the project partnered with the Herrgard's Women Association (HWA), a highly innovative and skillful group of immigrant women in Malmo. Most of the members of the groups were living on social security, lack fluency in Swedish, low levels of literacy and generally lack of higher education. Despite the difficulties of the social situation they had been facing, they initiated a

number of activities that have positive impacts to the area where they live, particularly concerning social integration. Their perspective on such issues and opportunities embedded within their communities, gave them the ability to be highly creative to create solutions to local problems in ways that outsiders cannot. The project has brought reflection on the concept of social innovation that positions the knowledge and experience of so-called marginalised groups as legitimate. The project also challenged the definition of creative communities, it gave a fresh take on what constitutes creative in a community. Taking Meroni's (2017) notion of creative communities, they regarded HWA as creative for the women's demonstration of authenticity, vitality and spirit of initiatives in their community. The creative act demonstrated by HWA resonates with Manzini's (2015) argument regarding the role of creative communities in contributing to the culture of resilience. Manzini describes creative communities as groups of innovative people organising themselves to solve a problem or to open a new possibility, and doing so as a positive step in the social learning process towards social and environmental sustainability.

The examples above have shown that innovation is not just about an advanced means of production, instead relying on community participation and giving emphasis on their everyday, familiar resources. This demonstrates how everyday practices can provide insights on place based-innovation. The mode of innovation explored in this chapter is one that emerged from the everyday context of the communities. This sheds light on a concept of innovation in communities as something that organically aligns with their everyday creative practice. This view supports fostering different conceptions of innovation by seeing the relational aspects it entails. This is critical in discussing innovation and the everyday creativity of rural Indigenous communities, especially when these communities are characterised by poverty and inequalities becoming sites for many development projects. One of the paths is to examine craft practices in the lens of the everyday, moving away from the usual Neoliberal approach of treating them as cultural commodities. Furthermore, instead of promoting the hegemonic perception of what is 'valid' as innovation, the research advocates everyday creative practices to investigate how innovation is understood and carried out on a community level.

2.6.3. Creative Activism

Set against neoliberalism, Julier (2013) argues that design activism has emerged as a movement that contests the mainstream design culture and searches for alternative models of practice. Whilst design activism coexists with the mainstream design culture, it implies an

intention to act on a situation and it has political motives that work both in a utilitarian and politicising sense (Julier, 2013, p.218).

Crosby's (2019) study examines a form of design activism practiced in Kandangan Village, Indonesia, through the Spedagi Movement—a grassroots initiative focused on village revitalisation. This movement emphasises redesigning village life toward sustainability, where needs are met using local resources. The design activism here embodies cultural activism, blending art, design, culture, agriculture, and social enterprise. These practices empower local communities facing challenges such as poverty and limited political agency. According to Crosby (2019), these practices are particularly significant because "they converse with global design culture in a way that contributes to its decolonisation while creating the necessary language for collaboration." The movement seeks to redefine the concept of dwelling in so-called rural and remote areas, challenging the colonial nostalgia for "rural" and "village" life (see White, 2017) that persists among policymakers and academics. By reframing the village, the Spedagi Movement reimagines its relationship with cities, regions, and the world (Crosby, 2019). This work highlights that design activism rooted in villages is inseparable from broader global practices, while local practices themselves remain deeply interconnected with global design discourse.

Whilst rooted in the places where they happen, these forms of activism demonstrated by the Spedagi movement are about the flows of resources and power across and between the urban and the rural (Crosby, 2019). The initiative aims to empower local communities and develop their local economy through a series of interventions. One of the most renowned initiatives is called Pasar Papringan, a local market designed for supporting small local enterprises, remapping local food production and redirecting consumption practices. The initiative also demonstrates their appreciation of the local material and craft practice through their design of bamboo bikes (Spedagi Bamboo Bike) and wooden radio (Magno Radio)—these products are aimed to support their goal of village revitalisation. While their design activism is locally focused, they wanted to challenge the perceptions of Indonesia as a source of cheap labour and natural resources, rather than of design innovation. Resonating with Julier's understanding of design activism (2013), the creative practice demonstrated in Kandangan Village has a political motivation, and that their design outcome acts as co-articulation, giving focus to wider concern and facilitating engagement (Julier, 2013, p.228).

Elsewhere, Burcikova (2017) proposes craft as a means of self-empowerment, in which she believes that craft has played a significant role in re-imagining existing societies, arguing that craft has been a vehicle to think about self-sufficiency and empowerment. For example, the craftivism movement championed by Betsy Greer (2014), believes in the transformative power of 'creativity of resistance' that enables self-empowerment and anti-consumerist activism. By using their creative energy to help make the world a better place, the craftivists help bring about positive change via personalised activism' (Greer, 2014). The (craft) activism idea proposed by Greer somewhat differs in context from the form of activism proposed by Crosby and Julier.

The forms of activism demonstrated in this section provide insights on the motivations driving creative communities to act collectively, that are attached to a sense of place and sense of connecting. The sense of self-empowerment emerged from this activism is inherently relational. This form of resistance also challenges the dominant narrative and assumption; this account of grassroots initiatives not only demonstrates the narrative that is moving away from the expert-driven, professionalised approach to innovation, but also indicates a change of scale. They re-centre their local practice as a means to give voice, make statements and facilitate a dialogue that offers a localised path that can be described as hyper-local.

2.7. Everyday Creative Practices

The previous section highlights modes of 'informal' innovation that operate within a community setting. This section will draw together views from across disciplines to discuss forms of innovation that are rooted in communities; how communities are working creatively together and why it is meaningful to view creativity through the lens of the everyday within this context (inclusive innovation).

Speaking from a Design for Social Innovation point of view, Manzini (2015) identifies creative communities as an important asset, integral to a resilience culture. Manzini rather approaches the concept of resilience in a more positive and productive way, instead of thinking about it in a way of survival. He argues for a concept of resilience culture that embodies diversity, redundancy and continuous experimentation, which also means that the corresponding society must be a diversified, creative one (Manzini and Till, 2015). His argument suggests a creativity that is diverse and rich with a sense of community. In this context, creativity is relationship-driven and collectivity is prerequisite. Whilst Neoliberalist design emphasises individualised and market-based approach to creativity, Manzini's

creativity is collaborative and collective. Manzini urges to abandon individualistic lifestyle (2015, p.94) in order to achieve dialogic collaboration that builds on “the power of doing things together” (2015, p.24).

This social, collective values in creativity is largely supported by scholars on creativity studies. Drawing from the cultural psychology background, Glăveanu (2014) challenges the standard and limiting view that creativity comes only from within an individual by stating that creativity also exists ‘outside’ of the mind or more precisely, that the human mind extends through the means of action into the world. He laments that one of the most pervasive separations creativity researchers tend to make is between the person of the creator—or, in more ‘radical’ versions, his/her mind, even brain—and the social and material world of culture the creator is not only surrounded by, but actually immersed in. He argues that, “This view however ends in paradox considering the fact that creative people are actually expected to make a contribution precisely to the world they are separated from. The view of seeing creativity as about getting new ideas emerged in individual minds, will end up in the old myth of creation *ex nihilo* or creativity out of thin air which is detaching individuals from their culture and society” (2014, p.2). Assumptions that creativity is innate have been challenged by many other scholars (see Csikzentmihalyi, 1988; Glaveanu, 2014; Becker, 2008). The justification starts with the basic premise that creators are never alone in producing their work but immersed into a complex social and cultural system. Together with Bordieu’s rejection of the “single creator” (1984), Csikszentmihalyi (1988) rejects the classical notion of ‘creative genius’ and instead observes how creativity emerges from a particular supportive environment. In Csikszentmihalyi’s definition of creativity, it brings together person, field and domain and places their creativity within their interrelation. Correspondingly, Glăveanu promotes the notion of distributed creativity (2014), which challenges the assumption that creative processes are bound to one single ‘centre’, one privileged ‘location’—in the individual mind. He advocates a social and collective approach to view creativity, in which he asserts that creativity is a distributed, dynamic, socio-cultural and developmental phenomenon. In the word of Glăveanu:

> ..it is not the creativity of one individual but the creative action of many, young and old, working together or apart, at different times and in different settings, all immersed within a physical and symbolic environment that affords but also constrains their expression. This is, in fact, the creativity that concerns me here, creativity as it takes place in everyday life and real contexts, the creativity of the ‘ordinary’ (Glaveanu, 2014, p.1-2).

This kind of distributed everyday creative practices according to Glăveanu (2014), is brought together by key characteristics: creative action is distributed between multiple actors, creations, places and times. Becker (2008) argues that even the most individualistic moments of creativity depend on access to tools and technologies, and these are produced by others in a society that accumulates cultural resources, as she states creativity is based on division of labour within society (Lebuda and Glăveanu, 2019). Here, relationality is emphasised in this distributed creativity, as highlighted by Glăveanu, as he approaches the creative process as a dynamic relation between the self and other, emphasised primarily on social distribution within networks of collaboration (Sawyer and deZutter, 2009). This version of collective creativity fits with what has become a dominant paradigm in creativity theory, described by Keith Sawyer as the 'sociocultural' model (Sawyer, 2006, p.4). By situating creativity in the social realm, the implication is bound up in the sense of 'everyday' and 'ordinary', and sociality is integral to the creative act.

This social aspect in creativity resonates with Gauntlett 's (2011) notion of 'making as connecting', in which he raises an awareness of replacing the idea of individual creativity, that by sharing ideas and working collaboratively, ordinary people can achieve collective creativity. Gauntlett (2011) views creativity as something that has social meaning as well as social power as he promotes the notion of making as connecting. He states;

> Making is connecting because you have to connect things together (materials, ideas or both) to make something new. Making is connecting because acts of creativity usually involve, at some point, a social dimension and connect us with other people. And making is connecting because through making things and sharing them in the world, we increase our engagement and connection with our social and physical environments (Gauntlett, 2011, p.10).

Approaching creativity in the realm of the everyday, Platt (2019) concurs with Gauntlett (2011) that the meaning of everyday creative activities was to be found within the process, not so much in its outcomes, stating "In this type of creative activities, quite often the end product is not the priority for the amateur maker, but the immaterial that is embedded in the material. " Her research illustrates the role of everyday creative practices in creating a sense of self and attachment to a place, and emphasises how this (practice) goes beyond the narrative of nostalgia and austerity, but is rather part of how one experiences places and makes sense of their environment.

Generating social connection quite often is a motivation for this kind of everyday creativity. Such as in the craftivism movement (Greer, 2014), for example, creativity seems to be practically identical with handwork in which communal aspects of shared creativity are at the centre of their interest, with the product itself often not being of primary concern (Burcikova, 2017). For these reasons the craftivist's projects usually involve relatively undemanding craftwork (both in terms of skill and also with regards to portability of tools), such as knitting, stitching, crochet or quilting (patchwork). In other words, craftivism is an extension of DIY tradition (Burcikova, 2017) and thus, 'emerges from a culture that does not seek professional validation within traditional art methodology but rather is motivated by joining with others in shared, creative activity'.

The discussion above highlights the social aspect of everyday creativity, and how communities are driven by an urge to connect and build relationships. The concept of creativity of the 'ordinary' (Glăveanu, 2014) opens up a path to connect to similar concepts in broader landscape of communities and design, such as lay designer (Campbell, 2017), professionals of the everyday (Meroni, 2007), creative communities (Manzini 2015) and the everyday expert. These approaches to creativity offer broader views and dimensions of the forms and role of creative practice that exist in the community, particularly ones that revolve around the everyday. This view is particularly helpful in locating everyday creative practice and particularly understanding rural vernacular practices, moving away from approaching them as a cultural commodity.

2.8. Understanding Everyday Creativity through Craft Practices and Vernacular Materials: Making and Being

Everyday creativity in the rural context is often defined by their craft and vernacular practices. Vernacular is normally regionally focused and it implies 'made by the people for the people', therefore it relies on community aesthetic, locally-sourced materials, technical skills shared between peers or with different generations (Bunn, 2015). Vernacular practice is deeply tied to their environment, highlighted by Susan Luckman (2012) as "environmental affordances of place" as a defining and enabling infrastructure of everyday creative practice in the rural area. There is a nurturing relationship between craft practices and their surroundings, where such awareness of place provides a profound practical and emotive link between lives and work.

Rural craft practice exemplifies well the social process of everyday creativity within the community. From a perspective of cultural psychology, Glaveanu (2014) remarks that

examining creativity through rural craft practice is particularly interesting since the ‘box’ of creativity in craft cannot possibly be reduced to the individual mind of a single creator but necessarily includes affect, objects and tactility as well as a long historical trajectory that engages entire communities.

Anthropologist Ingold (2013) remarks “it (making) is about becoming than being”, supporting the discussions around creativity and the act of making that highlight the process rather than the end outcome or finished artefacts. Besides looking at creativity as its social process, Ingold’s view suggests that there is also a need to emphasise on materiality aspects in the complexity of creative process, or what he described as the forces and circulations of material that give rise to the end artefact. He argues that creativity emerges from within an on-going, improvisational process between makers, materials and other non-human things such as tools and physical environment. He describes that the forms of things emerge within fields of force and flows of material. Ingold suggests that making is a process of *growth* carried out in a constant dialogue, a c*orrespondence* with materials. Within this process, creative practitioners are participating in the flow of materials and sensory awareness within which ‘”images and objects reciprocally take shape’” (Ingold, 2013). He states that, “making is a matter of finding the grain of the world’s becoming and following its course.” Elsewhere (Ingold, 2010), he compared making is like a practice of weaving: practitioners bind their own pathways or lines of becoming, into the texture of material flows comprising the lifeworld. Rather than seeing creativity backwards, from a finished object to an initial intention in the mind of an agent, this entails reading it forwards, in an ongoing generative movement that is at once itinerant, improvisatory and rhythmic. This particular view conceptualises creativity and making as a socio-material process; where things, materials, spaces, shapes and bodies become entangled in the creation process.

The socio-material approach to creativity as a process of the making of the world (Tanggaard, 2013) and ‘to bring form into being’, is particularly valuable in illustrating the reciprocity between humans but also non-human actors or their environment. Ingold illustrates this dynamic between humans (agent) and their environment (materials) as the process of correspondence of every living being, which implies the mode of existence or agency of materials itself. Ingold’s account of makers’ reciprocal involvement with the material world indicates a creative and thinking process that happens through making. As such, Ingold rejects the hylomorphic idea of making, which is an assumption that making entails the imposition of form upon the material world, by an agent with design in mind. Here it can be postulated that the material world is not passively subservient to human designs (Ingold 2009), whilst at the same time materiality cannot be understood outside of a social

context (Lebuda and Glaveanu, 2019). Such a creative process contains a relational dynamic between self, others and materiality (environment), which supports the notion of place-based innovation against the individualist approach to creativity.

Sociologist Richard Sennett (2008) argues that such a creative process never takes place exclusively in the mind. Drawing from a case study of the communal practice of decorating eggs for Easter in Romanian rural communities, Glăveanu (2014) observes that the creativity of the (craft) practitioners does not reside in the end outcomes, but rather as part of the constant making and remaking of culture in thriving in everyday conversations, in the interaction between people. The case study of Romanian egg decoration practice demonstrates the distributed and shared process of creative work; different stages of this activity (i.e., drawing motifs etc.) make it ideal for distributing and dividing tasks between more people (Glăveanu 2014, p. 34). The practice also reflects mutuality and collaboration in its process, as the decorators frequently check with others the progress of their work and ask for feedback. This act of ornamenting an egg takes place in the relational space between decorator a varied array of material tools, but the creative ideas themselves are shaped by distributed action across people and artefacts (Glăveanu, 2014, p.49). The creative value of a decorated egg does not reside, however, only in the act of making it and the collaboration taking place around it, but it fundamentally relates creators with a series of ‘audiences’ as a form of validation. This social validation does not necessarily have to come from a ‘professional’. In this case of egg decorating practice, the decorators receive feedback as a form of validation mostly from fellow decorators and families. Another form of validation is when the ornaments or patterns they create are being inspiration for others (Glaveanu, 2014). This process of interaction shapes their community aesthetics. Stipulating from this example, rural craft practice is a conjunction of heterogeneous activities where skills and (tacit) knowledge are reproduced and diffused through everyday social co-participation. This social aspect in craft practice is often demonstrated through the nature of the work where the process is shared and distributed.

The act of making is intrinsically dynamic and temporal, it entails the relationship between human, culture and environment (Glaveanu, 2014). This illustrates how “making things” is connected to humans’ awareness of material and their social and physical environment. Within the context of vernacular practices, makers are weaving a relationship with the surrounding natural material to make objects that serve the purposes of their daily life. Here, craft and making can be viewed as a way to problem solve and work within limitations, through responding to the physical environment as well as the constraint and culture of materials (ibid).

In the case of rural craft practices, quite often the makers repeat the same design, making it increasingly habitual and less likely to change. Ingold highlights this distinction in his essay on skills (2018) in which he illustrates the role of repetition and imitation as a skilful production. Ingold argues that skill is the ground from which all knowledge grows, that such 'imitation' is "shorthand for processes of attunement and response of great subtlety and complexity and that skilled practice entails the working of a mind that, as it overflows into the body and environment, is endlessly creative" (Ingold, 2018, p.159). He further describes what distinguishes skill with habit; whilst habit lies in the execution of motor operations, skill lies in the sensitivity and such heightened awareness. Skill does not lie in the exact replication of operations, but in their variation in response to the conditions at hand. And this is what brings complexities in craft practices; it is the skills that take many years to acquire and the makers' heightened awareness and responsiveness to environmental differences.

Responsiveness is of the essence of skill, as it is constantly challenged by unfamiliar situations and environmental variation. To practise any skill means exposing oneself to the befalling of things and enduring whatever they have in store (Ingold, 2018). This is true of Ewart's (2013) case study of bamboo-bridge making of the Kelabit ethnic group in rural Borneo, Malaysia. His observation found how building a traditional bamboo bridge was a familiar performance and normal part of life in the community–something that happens frequently. The design of the bridges were based on the materials they were familiar with, maintaining routines and traditions through repetitions. As noted by Ewart, "their standard ways of making are detailed yet flexible enough to cope with uncertainties or unforeseen problems" (Ewart, 2013). This practice demonstrates an intuitive, embodied form of knowledge, where the design is fixed through repeated acts of making, and not the result of abstract preconception.

This responsiveness is usually applied when interacting with material, as material support both facilitates and constrains creative action (Glaveanu, 2014); and this is commonly exemplified in vernacular practices. Exemplified through the Scottish vernacular basketry, Stephanie Bunn (2015) illustrates how these (Scottish) basket forms have remained quite stable over long periods of time, tied to local practices of handwork of craftsmanship, fitness for purpose and constraints of materials. Bunn further describes that the qualities lie more within the priorities of community aesthetic, linked to necessity, or traditional values, rather than to be due entirely to the judgement or actions of an individual maker. Bunn's observation suggests that the constraint and culture of materials that characterises vernacular practices are exemplified through limitation of materials that are varying

according to locality. The case of Scottish basketry demonstrates the adaptable nature of vernacular practice, driven by necessity closely linked to local plant biodiversity, “where the result is that the weave may be the same, but works differently for each different material” (Bunn, 2015).

Most craft (and vernacular practices) is only understood as an end product, in terms of its final aesthetics and tangible materiality in relation to economic value, and this view is limiting. When rural creativity is often appreciated only based on the end-products (as cultural commodity), the ontological meaning embodied in the process is dismissed; along with other forms of world-making and diverse modes of creativity that exist in the communities. Understanding the nature of vernacular practices is key in identifying (Indigenous) innovation in rural areas. These practices reflect the community’s ability to work and adapt with materials, which are vital skills for a future where such resources become increasingly limited, and challenges related to shifting environments are present (Carr and Gibson, 2016).

PART 3

2.9. Situated-Design Practice

It is important to remember that decolonising design is not about creating a movement of the powerless against the powerful nor creating opposition between ‘decolonised’ and ‘colonised’ design practice, it rather promotes the ontological change in how design is understood (Oliveira, 2018). To decolonise in design means to listen to the ones who have not been heard (Smith et al. 2020) and to give visibility to the subaltern voices (Spivak, 1985). This suggests a shift of focus to the situated, relational, geopolitical, temporal, and spiritual dimensions of design (Akama and Yee, 2019). However, the knowledge of how design for social innovation and PD works outside of the Europe and US context is still insufficient due to the limitations that are inherent to the prevailing perceptions, methods and tools developed for this context.

The notion of participation was used as a colonial strategy, where colonial anthropologists used techniques resembling today’s participatory strategies to engage with local populations, in which some local elites had served as vehicles for colonial administration. This pattern still remains in current development intervention with the formulation of local champions or community-based committees. Functional participation and participation for incentives are

also used for public work. The notion of participation in development discourse is often a matter of pragmatism to make more effective interventions rather than principle; it is about achieving cost-efficiency and compliance (Cornwall, 2009).

There is no universal form of participation. Treating participation as a situated practice calls for approaches that locate spaces for participation in the places in which they occur, framing their possibilities with reference to actual political, social, cultural and historical particularities (Cornwall, 2009) otherwise the idealised notions of democratic practice is resorting into a tokenistic approach.

2.10. Situated Participation

The notion of participation has been one of the key tenets of design innovation. Koskinen and Hush's (2016) write about the omnipresent nature of power, suggesting that designers have to find local ways to make changes; this suggests designers to attune deeply to the various local forms of power to understand the micro-politic situated in the everyday. Local forms of power are crucial in shaping the dynamic of participation. As such, slowly building rapport with the communities and earning their trust are crucial to gain inside perspective (Janzer and Weinstein, 2014).

Examining design as a situated practice requires interrogating what constitutes participation and a (design) process that equitably distributes resources and power (Costanza-Chock, 2018). By its very nature, it could be argued that design methodology such as PD is aligned with constructs of decolonisation (Smith et al., 2020), given its political values and democratic tradition in local knowledge production (Ehn et al., 2014) that challenge existing power structures through bottom-up engagement, embrace participation by those previously excluded. Within the context of decolonised PD, the discussion has moved beyond the common normative of PD. Situated-PD requires profound consideration of how colonialism has affected the discriminatory traditions of knowledge-making, therefore it is imperative in our design practice to constantly reconsider what counts as "valid knowledge" (Prado De O. Martins, 2018), whose voice is heard and whose privileges cause others' oppressions (Canli 2018). A meaningful participation means recognising community-based design traditions, knowledge and practices (Costanza-Chock, 2018).

Such heightened consciousness and a critical lens are required to locate the multi-layered sites of power (Akama and Yee, 2016) in the design process. It is necessary to understand that the power dynamics being addressed may not be limited to the designer-participant

relationship bound in the research environment. Besides the various functional power relations arising within design or research activities (Bidwell et al., 2011), there are inescapable existing power relations between knowledge systems and sociocultural values that may affect the design processes and decisions. Design practitioners should acknowledge ”the ways that design reproduces, is reproduced by, and/or challenges the matrix of domination (white supremacy, heteropatriarchy, capitalism and settler colonialism” (Costanza-Chock, 2018).

2.11. Situated Challenges: Designing *with* Indigenous Communities

In reorienting from the homogenising ontology of so-called global design, design scholars promote embracing plurality in design discourse through promoting design practices in the ‘peripheral’ locations, cultures and people’, such as of Indigenous knowledge and practices (Escobar, 2018; Akama et al., 2019; Akama and Yee, 2019; Light, 2019). The Indigenous turn is perceived as a way to challenge Western’s dualism tradition that tends to create the separation between human and nature.

Norman Sheehan (2011) recounts that Indigenous Knowledge (IK) operates from the assumption that the world is alive and active in the same way that humans are. His account of respectful design framework promotes a socially responsible and environmentally engaged vision of design that involves the recognition of IK as a case in point for the wicked problems embedded in modern progress. There have been findings that relational and reciprocal designing systems have been implemented in their everyday practices. Some of the values central to PD and co-design, such mutual learning and reciprocal partnership, have already existed in some Indigenous practices such as of Maori’s (Akama et., al 2019).

Involving Indigenous communities’s participation in the design process would allow for a reconnection to their values and customs, and empower them to find sustainable solutions to the challenges they are facing (Marques et al., 2018). This approach has the potential to enhance the economic, political, and social freedom of Indigenous cultures, as it is aligned with their own cultural values (ibid). However, Akama et al. (2019) argue that encounters between Indigenous knowledge and design will always potentially bring risks of displacing Indigenous wisdom, given the colonial legacy carried by some widely popular design methods due to its Eurocentric origins. Emphasis on replicability aspects of problem-solving design in some of the dominant approaches in design innovation detach the practice, knowledge and people from the sites of design embodiment, thus neglecting the

situated-nature of design itself. In this context, design approaches need to decouple from its modern and industrialised roots so that it can be-situated and re-conceptualised. It requires sensitivity to design's location and deeply attunes to the multi-layered sites of power, knowledge, practices, cultural values and power relation as the condition of participation/ collaboration (ibid). In this context, questions around power relations must be attended to prior and during engagement with Indigenous communities. Sheehan's (2011) account of respectful design explores the intersection of Indigenous and design practice, and has stimulated insightful and meaningful discussion within the design academic landscape. He asserts that a respectful design could emerge from "deeper situational awareness that generates many divergent spaces where innovation can contribute positively to the well-being of the whole". Rooted in his Aborigines origin, his work picks up on questions and discussion regarding what kinds of dialogues and considerations needed when engaging with Indigenous communities in a design process.

Efforts have been made to implement pragmatic approaches to Indigenous design research by adopting Sheehan's concept of respectful design (Reitsmaa et al., 2019; Bowen and Hinze, 2020; Evans, 2021). However, these attempts often fail to address the diversity of lived experiences among different Indigenous communities. For instance, in a study highlighting co-design activities with Indigenous communities in Malaysia (Reitsmaa et al., 2019), they fall short of engaging with the specific wisdom and knowledge systems of those communities. As a result, they fail to re-situate their design practices within the local contexts in which they operate. Many of these pragmatic studies overlook critical elements such as the diversity of locations, heritage, and lived experiences of Indigenous communities, as well as the intercultural dimensions that shape their design practices and engagement. Given the deeply place-based nature of Indigenous knowledge and practices, the research would have been more impactful if it had included situated narratives and context-specific Indigenous principles and wisdom, rather than relying solely on Sheehan's framework, which is rooted in Aboriginal values. Indigenous knowledge systems are inherently situated and contextual, evolving within specific times and localities to address economic, social, environmental, spiritual, and cultural needs. This omission underscores the importance of grounding design research in the unique, dynamic contexts of the communities it seeks to engage.

Drawing from Akama et. al (2019) account, respect, reciprocity and relationships between interbeings emerge as common themes in foregrounding approaches to designing with Indigenous knowledge. These concepts encompass an intrinsically relational system, as Sheehan (2011) asserts that the conception of respectful design is "founded on how design positions itself in relation to natural systems and the world". Going towards a world where

many worlds fit (Escobar, 2018), a commitment to practise respectful design requires a deeper situational awareness that generates many divergent spaces where innovation can contribute positively to the well-being of the whole (Sheehan, 2011). Posited by St. John (2016), a universal Indigenous paradigm does not exist, therefore it is crucial to recognise the diversity and complexity of many different Indigenous cultures.

The rise in the Indigenous turn urged scholars to take a step back and reconsider the knowledge and innovation embedded in Indigenous place-based knowledge and wisdom. It is important to stress that Indigeneity is such a contested term. Whilst there has been a growing scholarship of positioning Indigenous knowledge as central in a more inclusive design process (Akama et al., 2019; Marques et al., 2018), there is a need to articulate the complex and multifaceted nature of the (Indigenous) notion to avoid such homogenisation and romanticisation of the term. A more critical approach to Indigeneity is needed as problematic assumptions are often made in conflating the notion of Indigenous as a homogenous construct (Ansari, 2018; Akama et al., 2019). As such, St. John (2016) posits that a universal Indigenous paradigm does not exist, therefore it is crucial to recognise the diversity and complexity of many different Indigenous cultures. Dimensions of Indigeneity are woven through diverse histories and experiences of colonisation and its sustained impact. To avoid the risk of generalising the notion into a romanticised, reminiscent concept of Indigenous people, it is essential to have a critical reflection upon how the notion of Indigeneity has developed in specific contexts. Designing *wit*h Indigenous knowledge is intrinsically relational; it foregrounds respect, reciprocity and relationships between interbeings (Akama et al., 2019). A commitment to respectfully practise this is built on how design would position itself in relation to diverse knowledge systems and “in relation to natural systems and the world” (Sheehan, 2011). This, as a practice, requires a deeper situational awareness that generates many divergent spaces where innovation can contribute positively to the well-being of the whole (ibid).

2.12. Participation and Distributed Agency

How such agency is enacted is important in demonstrating the exercise of power shared between designers and participants to establish trust and mutual learning (Greenbaum, 2012), which are all considered means to provide researchers and designers with the proper knowledge of situated use practices (Bratteteig and Wagner, 2012).

From the Sociology point of view, Giddens connects the concept of distributed power to the recognition of agency. He points out that the recognition of agency is enhanced by control

over resources, which reflects the capabilities of actors to act intentionally (Giddens, 1981). He expresses (Giddens, 1984, p.9-10), it is important to recognise the potential for agency in just about everyone, by virtue of their participation in multiple social systems (domestic, economic, political and so on). Agency here, according to Giddens (1984) is the capacity to do otherwise; to follow one system of practices and to refuse another. Such agency makes a difference to the world as it contributes to the reproduction or negotiation of each particular system. In this sense, everybody has some sort of social power.

In discussing agency in the context of decolonisation, it is important to understand the power dynamics of the colonial condition that are, according to Postcolonial scholar Bhabha (1994), contingent upon the division between the self and other; the coloniser and colonised. Infusing Gidden's conception of agency in this context, participatory practice should be understood as building relationships through negotiating values between designer and participants. This process of negotiating values resonates with Bhabha's (1994) cultural concept of third space; a fluid space where diverse knowledge intersected and different boundaries overlapped, allowing cultural hybridity to happen and new meaning emerged. Third space offers the possibility of repositioning and empowering the marginal voice.

This concept of hybridity and third space has been influential to various disciplines including PD. The exploration of third space in PD highlights several important attributes such as; challenging assumptions, learning reciprocally and polyvocal (multi-voices) dialogues across and through differences (Muller and Drain 2012).This suggests that the act of giving voice and agency means recognising the other ways of being and knowing by drawing upon local values and epistemologies (Winschiers et al., 2012; Smith et al., 2020), whilst creating a common space for mutual learning. Within this framework, agency means acknowledging the relational and heterogeneous nature of communities, as pointed out by Di Salvo (2020), and that communities are experts in their own local environment, no matter how experienced the designers are. This also resonates with Jantzer and Weinsten (2014)'s proposal of designing a situation 'with an inside perspective' in seeking to build on values based on knowledge and solutions developed locally, and ultimately avoid the neo-colonial practice. Contextual knowledge therefore is a prerequisite not only for understanding why and how certain concepts or ideas can work or not, but also for understanding the communities' capacities to act.

2.13. Challenges in Designing Participation

Different sociocultural contexts affect the participatory design process dynamic, especially as societies in different parts of the world may have different understandings of participation.Discussions concerning cross-cultural design practices have risen in prominence (see Gray and Boiling, 2017; Clemmensen et al., 2017), purposefully given the universal way design is often taught and practised (Akama, 2019). Smith et al. (2020) argue that although PD is equipped with a rich toolkit of adaptable tools and techniques for developing new PD practices, it does not adequately address the task of decolonising knowledge. It has also been argued that community-based PD, in particular with Indigenous or minority groups, does not rely on the application of the right method. Rather, it implies defining and negotiating design tools, methods and processes around the needs of a specific locality, including a contextual definition of local forms of participation (Winschiers-Teophilus et al., 2010).

Critics toward PD practices are concerned with its generalised values and universalised approaches for collaborative knowledge production, particularly when dealing with underserved communities and/or in cross-cultural settings. Some PD scholars (Mainsah and Morrison, 2017; Smiths et al., 2019) use Postcolonialism theory to address some of the challenges encountered by PD in addressing knowledge and power, agency and representation. They argue that postcolonial theory offers understanding and localised means to address the uneven distribution of power ingrained in design processes. The theory opens up new ways for designers and participants to negotiate power relations.

Producing such participation in the cross-cultural context brings various challenges such as, apart from language barriers, understanding and respecting the roles and agendas of the people involved, supporting trust and acceptance and managing and controlling dynamic processes (Winschiers-Theophilus et al., 2010). Different sociocultural contexts affect the participatory design process dynamic, especially as societies in different parts of the world may have different understandings of participation. Oftentimes the values that shape and the tacit and explicit rules that guide participation are not obvious to, or appreciated by, outsiders of the community (Winschiers-Theopilus et al., 2012). Some social situations might seem counterproductive to participatory, when participation is merely associated with egalitarianism or democracy. This demands a profound knowledge and understanding about various ways social hierarchy can influence the design process (Hussain et al., 2012; Tjahja and Yee, 2016; Drain et al., 2017) as well as different empowerment ideals for different communities (Lindtner and Lin, 2017).

Social hierarchy, which is firmly rooted in many non-Western societies, appeared to be a recurring theme within the discussion of appropriation of PD or design for social innovation in the context of Asia. Some scholars pose a question of PD approaches when transferred to cultures that have much stronger social hierarchical structures than Scandinavian societies and more disparate education and income levels (Hussain, Sanders and Steinert, 2012). This means design efforts and approaches that attempt to bring diverse stakeholders together to share ideas and to generate collective consensus could be further constrained by specific cultural barriers. For example, In a community that is so used to a highly centralised decision making, the inherent power structures within the local communities themselves affected the dynamic of the design engagement process (Drain et al., 2017). Tjahja and Yee (2016) highlight various ways social hierarchy influences their practice in Design for Social Innovation in Thailand through engaging with various stakeholders such as government, creative communities and education institutions. Their study shows that social hierarchy, rather than being identified as problematic or needing to be flattened, is regarded as a type of relationship that requires people to treat it more subtly and fluidly. Hierarchy is viewed as important and needed, but it is also fluid as hierarchy structures keep subtly changing depending on the situation. In some situations, the fluidity of hierarchy can be productive.

Smith et al. (2020), describes that when applied in non-Western contexts, PD often lacks a deeper understanding of the cultural realities and ontological entanglement of everyday practices. They argue that PD orientation toward future solutions can sometimes lead the researchers to fail to recognise the situated historical pasts and presents of local communities. The methods and techniques in PD are ingrained with generalised values, assumptions and ideas that may overshadow the situated cultural contexts of. Smiths et al. (2020) demonstrates the situated-nature of design, which emphasises its various ways of engaging are required to explore and deconstruct such cultural narratives and memories entangled with their current realities, as they do not readily exist but are formed dynamically as a part of the process itself (ibid).

Decolonisation design discourse has informed a new approach to participatory engagement. Distributing power through participation is not a straightforward process; instead of relying on general approaches, the method used is culturally, geographically and historically specific. Designing participation needs to take into account that the values, assumptions and logics ingrained in our design practice may not align with the situated narratives and micro-politics of where our practice operates. Situated-design approaches enable involved-communities to speak their voice by externalising knowledge and memories that are often hidden. To reveal this (local epistemology and ontology) is by relating to and embracing diverse ways of

'articulating'. Escobar (2018) argues that "ontologies do not precede or exist independently of our everyday practices; worlds are enacted by practices. Ontologies often manifest themselves as stories" (p.92-93). In the context of this study, these stories and narratives are embodied and embedded within the everyday practices of a community. It is through delving into these narratives and stories that designers would gain understanding about the communities' way of being and knowing, and these should inform the process of participation and empowerment.

2.14. Conclusion of Chapter 2

This chapter investigates the relevance of inclusive innovation processes within decolonising design debates which requires a continuous *un-learning* and *re-learning of our* design practice and perspectives. As for designers who engage in the social development sector, Julier and Kimbell (2019) assert that tackling inequalities within the neoliberal condition requires changing how social design practice is structured and performed. As previously discussed, there are several key aspects to consider in reconfiguring design practice; deep understanding of the local narratives and knowledge rooted in the situated historical, cultural and socio-economic contexts. Within the frame of decolonisation, it is crucial to consider that "colonialism means different things to different peoples and cultures, and therefore leads to different questions, concerns and politics" (Schultz et al. , 2018).

The first part of this chapter has focused on debates on decolonising design. This chapter has identified that in the discussion of decoloniality within the interrelation of design and development discourse, there is an entanglement between ontological/epistemological struggles and creative struggles; that the current mainstream design landscape obscures the incredibly resourceful everyday design agency in Indigenous practices/rural communities. Decolonising design is about subversion and transformation of Eurocentric thinking and knowledge, a knowledge that is produced *with* and *from* rather than *about* (Walsh, 2018; Abdulla, 2018). This suggests the importance of liberating design practices from the universalised approaches and relocating it within the socio-cultural context it operates in appropriate ways. Therefore it is also false to think of a universal set of tools and strategies to resolve this tension in design practice.

This second section has focused on exploring alternatives for cultures of innovation that exist on a community level, rooted in the everyday creative practice of rural communities in the Global South. Debates around inclusive innovation require an understanding of the political-economy of innovation socio-economic landscape and should acknowledge the

plurality and the diversity of the communities' locations, experiences and knowledge. Scholars suggest that a more comprehensive discussion on inclusive innovation should explore the processes of innovation that reflect the knowledge and values of diverse practices. This means exploring innovation in informal and rural community settings, including articulating the knowledge that make up craft practices. This section articulates craft practice as a conjunction of heterogeneous activities in which knowledge is reproduced through social co-participation. Collectivity in craft is not limited to the communal nature of producing it or the work distributions, but it spans to the interrelatedness to other social activities. The practice itself is distributed and infused though many social situations.

Within the decolonising design landscape, there has been a rich discussion on the significance of acknowledging the other worldmaking practices of Indigenous communities which often embody deep respect towards place. This brings the discussion to the importance of understanding and articulating this knowledge and wisdom, and how this can inform a way of designing participation in collaborative practice within the decolonising design landscape, which brings us to the final section in this chapter.

The third section examines key challenges and tensions in designing with communities, particularly when engaging with cross-cultural, underserved groups. While participatory design (PD) and co-design practices are often regarded as empowering, they risk becoming privileged activities if they fail to address contextually located challenges. Designing with communities requires an acute sensitivity to the unique characteristics of each context, alongside a commitment to constant negotiation. This involves co-constructing methods and tools collaboratively with participants, rather than imposing pre-determined frameworks. When designing with Indigenous communities, it is especially critical to acknowledge the diversity and complexity of their cultures. This entails moving beyond a one-size-fits-all approach to embrace the nuanced interplay of cultural, social, and historical factors that shape each community's needs and perspectives. Recognising and respecting these intricacies is fundamental to fostering genuinely inclusive and transformative design practices.

Despite the rich debates developing in decolonising design, there is still a lack of empirical examples and strategies of design in navigating with the diverse, complex realities of Indigenous people. The theorisation of decoloniality in design has been well-articulated, however it is not a well-trodden path as a praxis within design innovation discourse, particularly in engaging with the diversity of designing *with* Indigenous communities. This has led to the overarching question to the research; **How can an exploration of everyday creative practice articulate Indigenous perspectives on sustainability in Borneo?** As

design operates within the wider ontological settings, this research's aim is to transcend collaborative design practices by identifying the role of design in fostering Indigenous values and perspectives in realising inclusive innovation.

Vasquez (2017) argues that what is at stake in the discussion of decolonising design is our relation to our world and earth. Ingold's account of making unfolds the entanglements of humans with materials and environment, which demonstrates such a relational dynamic and active engagements with the constituents of our surroundings (2000). His ideas demonstrate a rejection of dualism that divides nature and culture, which positioned his works as a rejection of modernity's anthropocentrism. Ingold's work signifies a post-dualism spirit that, as noted by Eskobar (2018), asserts the importance of relational ontologies (interrelation among worlds) and distributed agency. Although it is still debatable whether this line of work manages to move away from the Eurocentric features of modern social theory (Escobar 2018), the key concepts being embraced responds to the ontological struggles that against the universalising dominant forms of modernity and promote plural worlds and ways of worlding (ibid). In relation to the central question and aim of this research, this study considers the importance of re-centering rural Indigenous' everyday creative practice and vernacularity within the discussion of rethinking inclusive innovation in the periphery. As asserted by Carr and Gibson (2016), making is central to human's legacy as a society—materially, economically, ecologically and socially. The everyday experience of making, and thus of labour, is 'resolutely political, a geographical imperative, and a critical means of operating a meaningful relationship with material life' (ibid).

This exploration of everyday creativity and vernacularity provides insights in ways of doing, knowing and being embedded in skills, knowledge and lived experiences. It is particularly useful to rethink the concept of inclusive innovation as something that builds on the communities' intimate knowledge of its place and way of knowing and being through understanding the relational dynamics in their creative practice. It is through seeing the communities' everyday craft practice as a process of 'becoming rather than being' (Ingold, 2013); it is conceivable that craft practice is a dynamic, continual process of world-making. This exploration of craft and vernacular practices offers a broader account of a situated knowledge; it provides a route to re-centre and understands diverse epistemologies that eventually provides designers a way to design *with* and *among* Indigenous communities.

3.

METHODOLOGY



Figure 21. Workshop activities with Sanggar Sarantangan in Singkawang, 2022. [photograph]. Source: Gamia Dewanggamanik.

3.1. Epistemology and Theoretical Perspective

As a practice-led research, this study is reflecting on my design practice in the community development sector. As demonstrated in the previous chapter, this research highlights the tensions and the complexities of power within this sector, stemming from issues around knowledge production in which the divides between researchers and the 'others' are so prevalent. Whilst power and hierarchy is enacted through universalised forms of knowledge that is perceived as an ultimate truth, there are rich debates where the objectivity of truth is actively questioned and challenged. From that standpoint, this research follows a social constructivism epistemology which is situated firmly on an assumption that knowledge is constructed in a social context. Postulating Dewey's (1958) assertion on experiential learning, social constructivism provides a valuable framework for understanding how value and meaning are generated and appropriated through social interactions among individuals. This perspective highlights the possibility of multiple, co-existing realities, thereby challenging the notion of universal knowledge and pure objectivity. Research within this paradigm recognises the subjective interpretation of data by the researcher, emphasising the role of social context and individual experience in the construction of knowledge.

Following the study's epistemological stance, this research draws on feminist perspectives, particularly the Feminist Political Ecology (FPE) theoretical framework, as it provides critical perspectives on the politics of knowledge-making that are embedded within critiques of domination and marginalisation. From those (feminist) perspectives, the concept of situated knowledge is highlighted by Donna Haraway (1988), which recognises the subjectivity of knowledge; that is always produced in a certain context and is influenced by social, cultural and historical factors. This concept challenges the idea of objectivity in knowledge production, by emphasising that what the knower knows is influenced by biases shaped by experiences, identity, and position in society.

Situated within the decolonising design agenda, this study intrinsically resonates with the feminist perspectives that are particularly attuned to the manifold relational ways of being that correspond to the colonial matrix of power and oppression (Quijano, 2007). Feminist framework is often used as a suitable approach to decolonisation, as it naturally challenges the logic of domination and acknowledges "other forms of world making" (Escobar, 2018). Critiquing essentialism in knowledge (universalised claims and one dimensional), works within feminist perspectives are deeply embedded within the debates surrounding epistemological and ontological struggles of more diverse groups, especially communities in the Global South.

Feminist Political Ecology (FPE), along with relevant body of work such as decolonial FPE and ecofeminism, brings together feminist theory, objectives and practices to political ecology and explicitly seeks ways to decolonise knowledge research and practice that is dominated by patriarchal western tradition, with debates around knowledge production, dispossession, resource access and control (Elmhirst, 2018). Here, FPE scholars establish a link between production of knowledge, colonial and patriarchal power and ecological destruction. Sundberg (2015) describes FPE as a theoretical framework based on the assumptions that "ecological issues are analysed in relation to social political economy; social identities and sense of agency are constituted in and through relations with nature and everyday material practices." In essence, this framework seeks to reveal the connection between the oppression of marginalised groups such as women and the destruction of the environment. FPE believes in relational ontologies and makes a concerted effort at reconnecting nature and culture as a way to decolonise knowledge.

The impact of socially constructed dichotomies of thinking to social and environment has become one of the primary explorations in FPE works. FPE particularly opposes the Cartesian rationalist worldview in modern science that denies subjectivity and separates mind and physical reality (Mies and Shiva, 1993), FPE scholars raise concerns with such ontological dualism and binary constructs as they believe that the divides between mind/body, culture/nature have established colonial logic of hierarchies and forms of oppression with immense social, economic, ecological and political consequences. Here, environmental destruction and social inequalities (racism, poverty, sexism) have a common cause; a particularly kind of binary and hierarchical thinking.

FPE provides particularly prevalent critiques of development discourses. The pervasive binary constructs (Global vs. local, urban vs. rural, nature vs. culture, man vs. nature, economy vs culture etc.) have led to false strategies in common development narratives (Shiva, 2016), thus have led to ecological destruction and marginalisation of 'others'. Vandana Shiva and Mies (2014) challenge the universalised ideals of development and progress for it often resulted in the development projects carrying the notion of empowerment that depicts people and the women in the so-called third world countries in such homogenising portrayals of victim that needs western help, and denies the diversity of their locations, experiences and knowledge. These critiques focus on the development strategies that have displaced communities, especially women, in the sustenance economies (Shiva 2016). In her argument, Shiva points out that reductionist science is a source of violence against nature and women because its implementation has dispossessed them of their full productivity, power and potential. This reductionism has also produced a

narrative of valid knowledge based on alienation and non-participation, projected as ‘objectivity’ that divides experts and non-experts; in which experts are therefore projected as the only legitimate knowledge seekers and justifiers (Shiva 2016, p. 23).

Likewise, the whole debate around dispossession of knowledge in the so-called third world resonates with the concern of my research. In particular, how craft and vernacular practice in the non-west remains confined to the colonial legacy and re-orientalised for being perceived as merely exotic, thus dispossessing the communities of their power and knowledge. Shiva and Mies (2014) asserted that within the binary construct in patriarchal capitalism, the notion of local is more inferior to global. Indigenous communities are perceived as the exotic others, with their local cultures “deemed to have value only when they have been fragmented and can be justified by market mechanisms, and skills are harnessed to the production of exotic objects for the tourism industry” (Shiva, 2016). However, this development strategy, situating craft as a commodity, has pushed out its community and narrative values; thus, its practice becomes disconnected from its community and situated knowledge. Traditional craft practice has become precarious in some places; the economic development attached to it has exacerbated, rather than diminishing, the disempowered condition of artisan communities. It has also placed rural craft practitioners subordinate in the creative industries and innovation landscape (Greru, 2018).

Feminist scholars have long criticised how development discourse and research practices are implicated in reproducing asymmetrical power relations. Feminist-postcolonial scholar Anibal Quijano (2017) contends that this western paradigm in modern science has produced cultural destruction and such inequalities in knowledge production that situates non-west cultures in subordinate relation “not only to the western view but also in their own bearers.” On the other hand, European/ western culture was made seductive and transformed into an aspiration, where it gave access to power and to conquer nature. These inequalities are then perpetuated by the subject-object relation in knowledge production, in which the western is the subject whereas other cultures can only be objects of knowledge or domination in practice. From that perspective, other cultures are perceived as inferior and the relationship between the west and the rest was established and has maintained a subject-object relation. This subject-object relation constructs a binary of west and rest that divides whose knowledge is valid and invalid. In the context of development discourse and design engagement with Indigenous communities, oftentimes a designer as expert represents the dominant rational one (Greru, 2018).

Feminist scholarship works on a range of topics that are not restricted to analysis of gender, however, their standpoint can help deepen a person’s reflexive self-awareness as to how

they themselves are served by existing power relations (Terreblanche, 2019, p.164). It is particularly evident in FPE works (Sundberg, 2015). Today's FPE can be said to be a transnational practice space of understanding and caring that builds on the realisation that attachments to body, place and nature have ontological status (ibid), with an explicit aim to repair the damage inflicted by the oppression of colonial and patriarchal oppression. In essence, a primary claim within FPE is that the liberation of the oppressed groups is intertwined with the liberation of knowledge production and the liberation of the environment from human destruction. FPE provides useful theoretical concepts and framework for a relational, situated practice that is beyond the west/rest and culture/nature dichotomies. It contests the dominant notion of progress and development; it believes that knowledge-making should not be separated from its social-material practice, foregrounding mutuality, reciprocity and relationality. This is an important theoretical insight for this work, given how prevalent the researcher-as-expert paradigm is in the development discourse. Situating this research within this perspective, it is paramount to explore and understand knowledge that is bound within specific locations; the particularity of innovation processes in the peripheral communities; how knowledge is transferred, adapted, reproduced and enmeshed within an 'ecology of practice' (Ingold, 2000; Pink, 2015). Therefore, FPE provides this study a firm rationale for choosing the research methodology which will be explained in the next section.

3.2. Feminist Theories within Participatory Action Research

This section focuses on the research methodology and the influence of feminist theories; how key concepts in feminist theories inform the research's methodological approach in planning design engagements with communities.

The research delves deeper into the power relations between researchers and participants or communities, thus naturally, it aligns with the Participatory Action Research (PAR) methodology. The critical and emancipatory tradition of PAR is rooted in the principle of liberation of knowledge; widely associated with practitioners like Paulo Freire and Fals Borda who develop a critical approach to PAR that combines theoretical science and practical social engagement. This approach incorporates community-based needs, knowledge and action that are intended to challenge the oppression caused by conventional science (Chevalier and Buckles, 2019, p.48). As throughout his writing Freire outlines the importance of working with the 'oppressed', PAR practice within this tradition promotes radical democracy and 'transformational liberation' (Chevalier and Buckles, 2019), that is

particularly common in the education setting. In this tradition of PAR, the focus is to create dialogic reflection between the oppressors and the oppressed, or colonisers and the colonised. Freire's concept of critical conscientization has been largely adopted by researchers to promote grassroots self-reliance and development. Within this tradition, PAR practitioners commit to enabling active engagement in the research process involving marginalised groups and community members. Rahman (2008) defined PAR process as suitable for working with marginalised groups by declaring that PAR was an approach where "the central thinking in this perspective is that ordinary, underprivileged people will collectively investigate their own reality" (Rahman, 2008, p.49).

PAR is underpinned by a democratic and emancipatory ethos which embraces participation as key to breaking down the barrier between researchers and communities. PAR bridges the gap between theory and practice by generating knowledge-in-action through engaging with broad community stakeholders in order to produce meaningful social change. PAR projects are characterised by active participation of researchers and participants to co-construct knowledge, the promotion of self and collective critical awareness and emphasis on mutual learning process. Thus within the process, it is essential for PAR researchers to develop equal partnership, relationship and trust with the participants. PAR aims to develop the community's capacity by liberating plural ways of knowing through a participatory approach, thus it is emancipatory in a sense that not only it leads to new practical knowledge but it also leads to new capacities to generate knowledge (Reason and Bradbury, 2007).

PAR has influenced and been influenced by feminist frameworks as they share mutual goals (Guy and Arthur, 2022). Feminist scholarship has been a key contributor to the development of PAR's scholarship; their perspectives have particularly enriched the field of PAR with debates and critiques around power structures in science tradition that tends to segregare bodies and knowledge and devalues the knowledge of marginalised groups. PAR aligns with feminist theoretical framework in its orientation in nurturing relationality and emancipatory aspects in knowledge making. It fosters agency through research processes and outcomes that democratic, equitable, liberating and transformative; thereby mutual learning and shared experience are key.

Alice McIntyre (2008) claims her PAR approach to be informed by feminist theories because of the active roles of participants and researchers in the co-construction of knowledge and the promotion of self- and critical reflexivity, which sometimes means negotiating our role as academic in order to enhance our ability to listen. Her particular work that drew on feminist theories explored the lived experiences of one particular group of working-class women living in Belfast (McIntyre, 2010). The feminist framework that was developed for this project

allowed for a contextual approach to understanding the relationship between gender, space and identity.

As well as within design, feminist theory is perceived to be able to transcend design practices such as PD in terms of its scale as well as supporting its democratic values (Bardzell, 2018; Bannon et al., 2019). The intersectional approach (in feminist theories) potentially helps designers to avoid simplistic views of participation (Bannon et al., 2019), and enable them to address structural issues such as social inequalities and injustice. PAR shares similar goals with feminist research in regards to democratisation of knowledge, by assuming that 'everyday people' or ordinary community members carry deep knowledge about their lived experiences. Feminist-PAR principles enable me to attend to my research's concerns, in which the notion of power and hierarchical structures in knowledge making are something that needs to be addressed as well as continuously contested and negotiated. Feminist-PAR fundamentally challenges the traditional status quo of 'expert knowledge' and aims to render visible the invisible and to re-centre the margin, thereby often considered as a suitable approach for conducting research with disempowered groups.

This is particularly relevant to the context of this research. Local communities involved in traditional research or development activities are often considered as passive recipients, somehow situated as subordinates within their own social environment whilst researchers are the expert. However, within feminist PAR, marginalised groups, particularly women in the Indigenous communities, considered as valid knowers, as contends by Shiva,

> (...) women, tribals, peasants as the knowing subject are violated through the expert/non-expert divide which converts them into non-knowers even in those areas of living in which through daily participation, they are the real experts–and in which responsibility of practice and action rests with them, such as forestry, food and water systems (Shiva, 2016, p.26).

Feminist-PAR opens up intersubjective spaces in my research that embraces "social totality as sites of knowledge production" (Quijano, 2007). As my research contemplates on the concept of situated knowledge referred by feminist scholar Donna Harraway (1991), who suggested that knowledge emerges in relation to embodied social location, inter-subjectivity, indeed, is an important aspect in the implementation of PAR in this research. The concept of situated knowledge aligns with social constructivism, that every knowledge is contextually located and as it is socially constructed, therefore its applicability depends on various contexts (Taboada et al., 2020). The situated nature means that the knowledge reflects a reality with a particular sociocultural and environmental context this study is immersed in. It is also grounded in the researchers' relationship with the research context (people, place).

This allows the creation of knowledge that is not intended to be universalised nor generalised, but rather deeply-situated and context-bound, relying on the shared experience and interpretation of the people immersed in it. Adhering to that, this research would benefit from acknowledging the particularity of the context and bringing reflexivity where different knowledge, skills and histories are all enmeshed. Transmission of knowledge is then located within this meshwork of 'ecology of practice' (Ingold, 2000), generated through participation in the social and material environments. This suggests practical means in knowledge making, as asserted by Ingold "we know *as* we go, not *before* we go" (2000, p.239), which PAR affirms this by highlighting its action orientation to instil mutual learning in the process.

A knowledge-in-action generated within 'the meshwork' entails the researchers, as well as the participants, to move between and integrate diverse ways of knowing and constantly alternate their roles to break away from the traditional subject-object relation and expert/ non-expert divide. In the process, roles would travel across myriad boundaries of practice as the researcher is going beyond the conventional roles of a researcher as well as expecting roles reversal (Chevalier and Buckles, 2019); switching from academic researcher to designer to facilitator, whereas the role of the community involved may change from being participant to co-researcher, collaborator or leader.

This research draws upon the concept of communities of practice (Lave and Wenger, 1991; Wenger, 1998) to highlight the process of distributing knowledge through embodied practice, and most importantly within this participation and action-oriented research, "we work with rather than simply study people" (Bradbury and Reason, 2001). As such, as opposed to many social science approaches (ethnography) where researchers gain knowledge and insights through observing and studying their participants in which subject-object relation is maintained, the knowledge generated within PAR is co-constructed *with* the participants, through dialogues, mutual learning and shared experience. This entails what is considered agential in a research or an innovation.

The process should enable the involved community itself to be an active agent with the capacity to generate knowledge, not just a mere object of study. This process of co-producing knowledge affirms what was stressed by Mignolo and Walsh (2018), that a decolonial turn within academia requires a shift from 'studying about' to 'studying with'.

3.3. Positioning New Materialist Thinking within the Research

Central to this research is Indigenous perspectives, which are often grounded in relational ontologies, thereby viewing all beings—human, non-human, and spiritual—as

interconnected and interdependent. In this manner, new materialism and Indigenous worldviews share emphasis on the interconnectedness of humans, non-humans, and the environment. Both frameworks challenge Western dualistic paradigms, such as the separation of nature and culture, and foreground relationality and agency as central concepts. Both frameworks also view the material world as an active participant in shaping relationships, rejecting anthropocentric hierarchies. Accordingly, this section foregrounds new materialist practices and theories, which considers the role of materials in research processes, challenging traditional dualisms between mind and matter and emphasising on the recognition of the active role of non-human entities in shaping the world (Müller, 2023).

A central tenet of new materialist thinking is that 'matter' is fundamentally multiple, self-organising, dynamic and inventive, moving between nature and culture, the animated and automated, bodies and environments (Coleman et al., 2019). Highlighting the profound interrelationship that exists between theory and practice, Barrett (2007) asserts that practice can 'be viewed as the production of knowledge or philosophy in action'. New materialism highlights work that entangles practice with research, theory with practice, bodies with methods; opening up fruitful connections across and between seemingly diverse disciplines (Coleman, Page and Palmer, 2019). It is interested in how narrative and materiality are entangled within networks of human and non-human actors, thus considers materiality as dynamic and relational, highlighting the interconnectedness of humans, non-humans, and the environment. Karen Barad (2003) theorises the intra-action of the observer, the observed, and observing instruments, all of which are "agential." In the context of Karen Barad's work, the term 'entanglement' refers 'not simply to be[ing] intertwined with another, as in the joining of separate entities, but to lack an independent, self-contained existence' (2007, p.ix).

In a research context, new materialism challenges the politics of knowledge production; it opens out what might be considered as agential within research, and stresses the need to continue to prioritise questions of ethics, reflexivity, embodiment and participation in the research process. It challenges the exclusion of groups or things who usually sit outside the dominant discourse related to knowledge production. By giving special attention to matter, new materialism rejects the primacy of human agency and dualistic traditions that tend to separate nature-culture; it explores the entanglements between human and non-human elements. More importantly, new materialism seeks to rethink our ontological concepts of nature, matter, agency and reality in order to radically rethink nature and our interactions with it.

Key ideas in new materialism include the recognition of the active role of materials in shaping human experiences and social phenomena, the rejection of the primacy of human agency, and the exploration of the entanglements between human and non-human actors. On an epistemological level, is an effort to think outside the duality of objectivity-relativism, which alludes the interrelations between epistemology, ontology, ethics, and politics, the agentic capabilities of 'objects' and methodologies, human and non-human (Rogowska-Stangret, 2018).

Barad's work shares some concerns with other new materialist scholars for demonstrating the need to look beyond the human as a location of meaning, value and agency (Moffat, 2019). Key to the new materialist paradigm, then, is an emphasis on the "material-discursive" or "material-semiotic" that is known from the work of Haraway:

> […] bodies as objects of knowledge are material-semiotic generative nodes. Their boundaries materialise in social interaction. Boundaries are drawn by mapping practices; 'objects' do not pre-exist as such. Objects are boundary projects. But boundaries shift from within; boundaries are very tricky. What boundaries provisionally contain remains generative, productive of meanings and bodies. Siting (sighting) boundaries is a risky practice (1988, p.595).

New materialism, though critical of anthropocentrism, has been critiqued for its lack of postcolonial sensibility, where engagements with the question of power, politics and identity seem to be absent (Shomura, 2017; Hinton et al., 2015). Casselot (2016) proposes to think ecofeminism and new materialism together, that bringing them together is a fruitful project because ecofeminism can offer illuminating insights to new materialism especially when it comes to analysing oppression and the effects of oppressive structures on humans, 'natural others' and more-than-human elements. Casselot identifies that they connect in their mutual opposition to dualism and dichotomies and they have a similar goal of positing new ethical practices and new political understandings of the world (Casselot ,2016).

Several authors (Kimmerer, 2013; Tsing, 2015; Ghosh, 2021) have exemplified the active role of non-human materials, offering perspectives on human(ity)'s relationship with the environment; whose works critically engage with, and draw heavily on non-human relations to humanity, human actions and forms of meaning creation. Though not fully subsumed by this framework, or claiming to be feminist-new materialist scholars, these works above posit the agential power of non-human things– of nutmeg, matsutake mushrooms, fungi and

sweetgrass–therefore sheds light on the interconnectedness of all living beings, and the powerful disposition shown by those actors where stories are formed and lived.

Amitav Ghosh (2021) recounts the histories of Western colonialism through the nutmeg, the now-ubiquitous spice that was originally found in the Banda Islands of Indonesia and has since travelled far and wide through global trade and commerce. The nutmeg becomes a parable for today's environmental crisis, revealing the ways human history has always been entangled with earthly materials such as spices, tea, sugarcane, opium, and fossil fuels. Through the story of the nutmeg, Ghosh argues that today's crisis is ultimately the result of a mechanistic view of the earth, where nature exists only as a resource for humans to use for our own ends, rather than a force of its own, full of agency and meaning (Ghosh, 2021). Ghosh problematises the dualist western thinking that tends to perceive nature as universal and passive, which could be tamed and appropriated. The colonial logic regards landscape, earth as inert resources that could be extracted for profit. For them, the Banda Islands were simply a "nutmeg-producing factory" and not how the Indigenous community understood the landscape; a living-being filled with stories and spirits.

Anna Tsing (2015; 2019) explores the interconnectedness of human and non-human actors, particularly through her focus on the matsutake mushroom (Tsing, 2015) and its ecological, economic, and social entanglements. This relational view echoes the new materialism ethos which emphasises the agency and interdependence of all entities. Tsing (2015), through mushroom, examines the relation between capitalist destruction and collaborative survival within multispecies landscapes. Tsing explores the theme of precarity in multiple forms, through *matsutake* mushroom as the centre of the narrative. Another example, Sheldrake (2020) showcases the world of fungi and the many ways it interacts with other humans and other life-forms on the planet; the interconnectivity and interdependence. Through sweetgrass, Kimmerer (2013) intertwines Indigenous wisdom, scientific knowledge, and the teachings of plants to offer a profound perspective on humanity's relationship with the natural world. Kimmerer emphasises the interconnectedness of plants, people, and the environment, weaving together narratives of history, weather, and the seasons of harvest. Kimmerer advocates for a reciprocal relationship with nature, rooted in Indigenous cultural and spiritual understandings of the land, and underscores the significance of incorporating traditional ecological knowledge into broader discussions of sustainability and environmental ethics.

Anna Tsing's work shares significant overlaps with new materialism, particularly in her focus on relationality, non-human agency, and ecological entanglements. However, her grounded attention to historical, political, and ethnographic specifics sets her apart. Her work can be seen as a critical complement to new materialism, bridging its theoretical insights with pressing socio-ecological realities.

Overall, new materialism provides a lens for understanding the dynamic interactions and interdependencies between materials, societies, and the environment. . This expanded notion of agency opens up possibilities for more ethical and sustainable relationships with the material world (Müller, 2023). Stipulating from above, new materialism encourages a critical examination of the entanglements of colonial history, environmental impact, and societal dynamics, offering an alternative perspective on issues such as climate change, environmental degradation, and social equity.

Whilst both new materialism and Indigenous perspectives challenge the notion that humans are the sole agents of change, Indigenous views often embed agency in cosmological or spiritual frameworks. Recognising the spiritual dimension in Indigenous practices further enriches discussions on material agency, offering a more layered understanding of human-nature interactions. In the context of this research, these perspectives offer a way to present a holistic approach to understanding and addressing sustainability challenges, emphasising the value of integrating the knowledge, lived and felt experiences of Indigenous communities into research and development narratives. Bridging these perspectives necessitates an acknowledgment of colonial histories and an effort to situate new materialist ideas within these power dynamics. The relational ethics inherent in Indigenous worldviews, when combined with new materialist insights into matter's agency, can inspire context-sensitive models for sustainability and regenerative practices. Together, they offer transformative perspectives for addressing complex challenges such as environmental sustainability and cultural preservation.

3.4. Putting PAR into Practice

This study focuses on the varying methods and tools that embodies the wider ethos of community-based participatory research to generate knowledge-in-action. Active participation and mutual learning between researchers and participants are guiding principles in conducting PAR projects. PAR research is carried out in teams and partnerships with the participants; the term 'co-produced' tends to be used when the communities involved working as 'co-researchers' alongside the professional researcher (Banks et al., 2019). This means, the research will deeply integrate the participants from ordinary

community members in the learning process about issues that are affecting them, and transcend the discussions into actions.

The implementation of community-based PAR shares similar approaches and overlaps with community development processes. PAR and community development is deeply interrelated as the processes are interwoven. What distinguishes PAR from a conventional community development project is that PAR researchers set out to generate knowledge and explicitly study specific problems by using community development processes as a means and leads to community development outcomes (Banks et al., 2019). Another key component of PAR that distinguishes itself from traditional community development projects is its commitment to foster agency of the participants both as a collective as well as individual (ibid). PAR must create the conditions allowing all actors involved to navigate the porous border between science and community action (Chevalier and Buckles, 2019).

Given the context-specific nature of PAR, there is no fixed prescription for how PAR must be done. With no overriding theoretical framework that underpins it, there is a malleability and flexibility in the framing and implantation of PAR. However, a typical PAR process involves recurrent stages of planning, action, reflection and evaluation (McIntyre, 2008) describes this continuous cycle of PAR process as adaptable steps, that include 1) questioning a particular issue 2) reflecting upon and investigating the issue 3) developing an action plan 4) implementing and refining plan. This process of questioning, reflecting, dialoguing and reflecting resists linearity; it demonstrates a process that is fluid, iterative and transformative.

Whilst choice of tools used to collect and construct knowledge is crucial, the community's understanding of the definition of participation and of their roles and responsibilities in the PAR process is equally important. McIntyre (2008) points out that one of the challenges in PAR is to connect 'the meaning of participation' to the actualisation of participation', which means both researchers and community/participants should allow some degree of flexibility and redefine 'participation' as the process moves along. However, when breaking down the tasks and roles between participants and researchers, it is important to ensure that the community members are neither tokens nor advisors but co-creators in the research process (Chevalier and Buckles, 2019, p.27).

Creating a suitable environment for participation can also mean creating a safe space (Smith et al., 2020; Taboada et al., 2020;Harrington et al., 2019) that provides 'cultural safety' (Taboada et al., 2020) for the community. This culturally-safe space encourages the community's knowledge and practices to flourish. This creation of cultural safety is important given that some groups are accustomed to a hierarchical environment and the power dynamics that may not just be limited to the designer-participant relationship bound in the

research environment. It can be argued that whilst this cultural safe space can encourage the participants to articulate their thoughts and design for their own benefit (Taboada et al. 2020), it also enables a design process that equitably distributes resources and power. A number of suggestions are made in regards to integrating local cultures in community-based design engagements (Taboada et al., 2020; Smith et al., 2020; Akama et al., 2019) or 'cultural brokering', to engage the local community in a cultural safe space. Cultural brokering is about integrating local knowledge (ways of knowing); which means incorporating local procedures and protocols as grounds for designing the methods to elicit and define actions (Taboada et al., 2020).

Besides the various functional power dynamics arising within design or research activities (Bidwell et al., 2011), there are inescapable existing power relations between knowledge systems and sociocultural values that requires careful ethical consideration. This consideration is particularly crucial in the case of producing such participation in the cross-cultural context which brings various challenges such as, apart from language barriers, understanding and respecting the roles and agendas of the people involved, supporting trust and acceptance and managing and controlling dynamic process (Winschiers-Theophilus et al., 2010). A more detailed account of engaging ethically with the participants will be explained in the next chapter.

3.5. Practice-Based Modes of Research

This section explores the role of (design) practice within the research and how the researcher situated it within the broader research context. The researcher applied her community-based design practice to the context, drawing on her interest in enhancing the agency and capacity of rural Indigenous communities within the sustainability discourse in Indonesia.

The researcher's design practice primarily operates within the community development sector, where design knowledge and skills are used as tools for collaboration with communities across Indonesia, particularly within the craft sector. Informed by her previous work, community development approaches and strategies shaped the nature of this practice. The process involved active engagement and the development of long-term relationships with local communities and other design practitioners within the sector. This research adopts an approach that responds to sustainability challenges, reorienting the development process to center on the lived experiences of communities directly impacted by these concerns and development policies. This process involves creating a shared practice of creative experimentation to facilitate dialogue between the researcher and the communities involved. The outcomes of the collaboration reflect the experiential knowledge co-constructed through

ongoing interactions and dialogue, illustrating the dynamic process of mutual learning. The artefacts produced capture the transformative nature of the engagement for both the research and the community.

Scrivener (2002) argues that a PhD study in the practice-based mode is characterised by its focus on issues, concerns and interests that are explored and manifested through the production of creative artefacts, with reflection is key in the creative-production processes. Here, works in this mode articulate the dynamic relationship between theory and practice. Linda Candy (2006) succinctly clarifies the distinction between practice-led and practice-based research lies in the form of knowledge generated. Whilst the outcome of practice-led research leads primarily to new understanding about practice, practice-based research relies on creative artefacts as the basis of the contribution to knowledge. Practice-led research advances the knowledge about practice or within practice, with the outcome of the research "may be fully described in text form without the inclusion of a creative work" (ibid). Practice-based research, on the other hand, refers to research that generates new knowledge partly by means of practice and the outcome of the practice. Certainly, the role of the artefact here is not merely about the end-product, instead it is what informs the knowledge-making processes. This resonates with Schön's (1991) account of reflection in action, which he asserts that a researcher does not separate thinking from doing. Knowing and making are intricately linked, therefore the knowledge is in the action.

As highlighted by Scrivener (2003), the act of making and doing is integral in the production of knowledge, therefore the thinking is embodied in the artefacts. In this regard, the artefacts should demonstrate critical reflections, and only through a direct reference to the artefacts that a full understanding of the significance of the research context and the knowledge produced can be achieved. Hence, the role of artefact in practice-based research is not merely illustrative or complementary but "rather is a subject of interest in itself" (Candy and Edmonds, 2018). Certainly a broad view of the meaning and forms of artefact can be taken; it might be a functional object or something that is less persistent in time such as an exhibition or performance (Scrivener, 2002).

Following Candy's distinction provided above, although this Ph.D is situated at a convergence of the two, this study complies with particular characteristics of practice-based research. Whilst my research intends to advance design practice with an operational significance (Candy, 2006) in the community development sector, equally significant is the critical reflection upon the artefact produced from the collaboration. The aspect of practice is indeed essential to both of the research processes and outcomes. Given the vital role of the

artefact in practice-based research, creative works produced from the research processes are included in the final outcome of this mode of PhD study (Candy and Edmonds, 2018). In this present study, the creative works or prototypes are produced through the participants' engagement process to gain new understanding about the relationship between design and rural Indigenous practice. This process of designing the prototypes provides opportunities for further exploration, reflection and evaluation.

3.5.1. Practising slow-research in the fieldwork

The practice of slow-research adopted in the fieldwork, moves towards experiential transformation, and following Schön depiction of the role of design, as a conversation with the materials of the situation. A slow research approach may heighten senses; of awareness, embodiment, empathy, and interdependence. This heightened sensitivity allows a researcher to attune to colonial histories, capitalism processes and cultural wisdoms that manifest and overlap in various ways. A slow research approach acknowledges these complex entanglements in order to recognise the researcher's role within the research context.

> When we reject the traditional view of professional knowledge, recognising that practitioners may become reflective practitioners in situations of uncertainty, instability, uniqueness, and conflict, we have recast the relationship between research and practice. From this perspective, research is an activity of practitioners. It is triggered by features of the practice situation, undertaken on the spot, and immediately linked to action (Schön, 1983, p.308-209).

Schön defines reflective practice as the practice by which professionals become conscious and aware of their implicit knowledge base and learn from their experience. Then this study is not only about the researcher's attempt to draw verbal descriptions of the communities' intuitive way of knowing and doing things, it is also a reflexive account on the researcher's embodied practice emphasising the rigour of 'knowing-in-action', of navigating the process, defining and understanding problems, amidst situated-challenges and her positionality.

> In real-world practice, problems do not present themselves to practitioners as givens. They must be constructed from the materials of problematic situations that are puzzling, troubling, and uncertain. In order to convert a problematic situation to a problem, a practitioner must do a certain kind of work. He must make sense of an uncertain situation that initially makes no sense (Schön, 1983).

Ruminating on Schön's assertion above, this research problematizes the nature of design that often over prioritises on problem solving, which may ignore the importance of problem setting; the process by which problems are defined, the ends to be achieved, and the means that may be chosen. In line with feminist approaches on the doing-making of research, the problem-setting phase addresses intersectionality; where the locations and histories, of where it is situated, and the researcher's positionality should be taken critically into account. This stresses the danger of separating thinking from doing, or 'only ideas count', detaches knowledge from the body who produces it. The slow-research approach then lends itself a space for both reflection in action and reflection on action; the process of learning through and from experience towards gaining insights and knowledge. Within this a slow, meditative and reflective approach to research, the process unfolded slowly.

3.6. Applying an Asset-Based Approach

The planning process of engaging remotely with the communities raised an immediate concern of how this study could address challenges and problems in the community whilst at the same time accessing, applying and promoting their capacities. Underpinned by the democratic ethos of PAR, this research uses values and principles of capabilities approach (CA) or asset-based approaches (ABA) to enhance the participation process. This approach focuses on enabling people to achieve well-being by creating opportunities for them using their own capabilities (Sen and Nussbaum, 1993).

Whilst being mindful about the issues and barriers the community are facing, the researcher is aware that a deficit approach to community development may have some consequences that not only ignores the communities' capabilities and strengths, it may also give the implication that only outside experts can provide solutions therefore potentially undermining the community's internal relationship (Campbell, 2017). Applying an assets-based approach (ABA) in the research design would provide a better understanding of the participants' abilities to engage in the research process in ways that support their participation and development. This approach helps to construct the research design with a balanced consideration of their challenges and needs, as well as harnessing and maintaining their capacities.

Assets-based approach promotes local knowledge, skills and capacity to flourish. Applying this approach potentially brings values associated with the purposes and processes of a participatory approach, that helps to approach participatory techniques not as an end in themselves but as a means to achieve positive outcomes and advance such values. An

assets-based approach can also help the process of reflecting on the participatory practices; who is included and excluded and what are the conditions that are affecting the process of participation. For example, in engaging with underserved communities, ABA may have some approaches to overcome the unintended technocratic dominance that participatory approaches have assumed in some instances, which leaves the root causes of inequalities unchallenged.

The human development approach or capabilities approach (Sen and Nussbaum, 1993) has been perceived as an appropriate theoretical framework from the discipline of development studies (Frediani, 2007). Within design research, capabilities approach is used to examine grassroots innovation in the peripheral communities (Campbell ,2017). This approach is seen as a means of amplifying people's existing creative agency through appropriate intervention, and practically implemented in community development projects through the method of asset-based community development (ABCD) or asset-based approaches (ABA). The key components of the approach is its focus on assets rather than deficits and its participatory element (Lightfoot et al., 2014). Recognising the community's assets promotes self-sufficiency and community leadership, as Kretzmann and McKnight (1993) argued that community developments should not focus on identifying needs, shortcomings and deficiencies in order to create serious positive impacts. ABA's focus on assets rather than deficits are often perceived as ignoring or obscuring actual problems and challenges in the community. However, it is argued that they are about a reorientation and rebalancing of deficits with assets (O'Leary, Burkett and Braithwaite, 2011).

In engaging with the participants, a typical process of ABA will be implemented in the research such as 1) identifying and recognising assets, 2) raising awareness of assets, and 3) enabling assets to thrive. One of the methods within this approach is asset mapping, originally developed for strategies in community capacity building by Kretzmann and McKnight (1993), or known as Asset Based Community Building (ABCD). However it has been increasingly used as an appropriate method for community-based participatory research (Frediani, 2007; Lam et al., 2017). According to a study conducted by Lam et al. (2017), the 'open' nature of asset-mapping exercise enabled the community to uncover both tangible and intangible assets and identify key areas for future collaboration. Their study demonstrates that asset-mapping exercises can stimulate further dialogue with the community and are more efficient at particularly uncovering intangible assets. In the context of this study, asset-mapping exercises are positioned to encourage communities to explore and consider their own strengths as assets that are rooted in their everyday knowledge, skills and social environments.

3.7. Developing the Research Design

Underpinned by Participatory Action Research (PAR) values and approaches, this research constructs two case studies centered on the Borneo context, engaging in community-based design collaborations with communities from Jagoi Babang and Singkawang. The PAR orientation acknowledges the unpredictability of outcomes but emphasizes the transformative potential of the process (McAra, 2017). To ensure a meaningful and productive journey for both the researcher and the communities, the fieldwork was structured into three main phases of engagement (Fig. 22). These phases were iteratively developed to align with the typical stages of PAR—planning, action, and reflection. Participants were actively involved in all phases of the project, from shaping the project's focus to collaboratively making sense of the findings.

The data collection employed a variety of methods including semi-structured interviews, group discussions, workshops and creative experimentation. Some activities were designed to encourage the use of the participants' everyday resources and materials. The use of vernacular material and local resources as situated tools and probes (Smiths et al., 2020) in participatory workshops have been considered in several studies, as they have the potential to stimulate critical thinking or articulate things that are ingrained or hidden in the participants everyday's experiences.

The participants were encouraged to be actively involved from the scoping phase until they identify and define (sustainability) issues relevant to their community. This phase of problem framing is considered the critical, ethical element of the process, in which participants collectively explore, discuss and define a problem and jointly explore, develop and evaluate possible solutions (Schon, 1991). In relation to the challenges being explored, the intention is to encourage the community to develop ideas and strategies to a point where they can identify their role within this, so they would have control over the process involved as well as the outcomes. Ultimately, the objective is to produce artefacts and resources that can empower researchers, designers and community groups to respond to local issues, work together towards meaningful goals and eventually reimagine an alternative sustainability model.

3.8. The Three Phases of Fieldwork

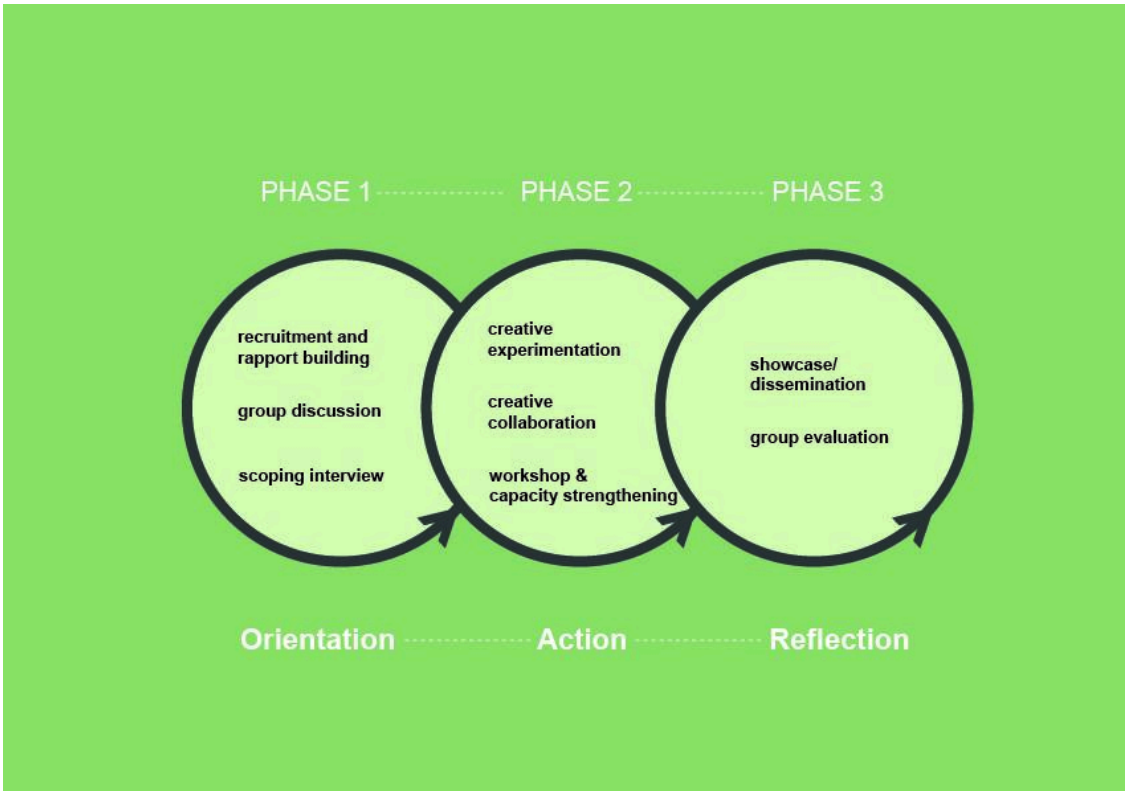


Figure 22. Fieldwork structure. [diagram]. Source: Gamia Dewanggamanik.

3.8.1. Phase 1: Orientation and Initial Exploration

The orientation phase technically happened before the fieldwork officially took place. This initial phase was conducted during the pandemic, alternative strategies were made to recruit and engage with potential research participants. Before formally recruiting research participants, a series of scoping conversations were held via Zoom meeting with Indonesia-based design practitioners whose practices were in the domain of rural community development. These conversations were recorded and subsequently analysed to better understand, from their perspectives, the experiences and challenges in engaging with Indigenous communities in their works. This early analysis helped create a basis for contextual mapping and identify more specific research participants criteria.

After recruiting participants, introductory meetings and ethics workshops were also held, where the researcher had the opportunity to explain in person about the research and the participation process. The researcher also used the sessions as an opportunity to go through

the ethics form together with the participants, and more importantly to discuss the technical aspects of the participation as well as the limitations of the communication platform that will be used. This phase was useful for initiating the fieldwork as it allowed the researcher for a more tailored participants' engagement strategy and built rapport with them.

The orientation phase served as an initial exploratory and observational stage, focused on understanding the community's inquiries as well as identifying appropriate means and forms of participation. This phase also aimed to establish a foundational research network. During this stage, several scoping conversations (Fig. 23) were conducted with creative practitioners and craft communities based in Indonesia. These interactions provided an opportunity to refine the research inquiry while fostering a more intimate and collaborative network of practitioners. Additionally, the first set of interviews took place during this exploratory phase to deepen the understanding of the context and issues related to the research topic.

Based on initial reflective analysis from the first set of scoping conversations, and building on a more established and informed relationship with the communities, a new set of questions and format was developed for the second series of interviews. The second phase followed a semi-structured interview method, which allows more flexibility (as opposed to structured interview) as the questions can adapt to the flow of the conversation and the direction the participant, in order to develop a deeper understanding of how the person thinks surrounding the research topic and question. The follow-up interviews focused on the participants' lived experiences where they were asked to share their personal experience and views on the issues and challenges they have been experiencing in their respective practice. These participants were also asked about what they hoped to achieve in and with the community through their practice.



Figure 23. Conducting initial scoping interview with craft practitioners in Jagoi Babang, 2022. [photograph]. Source: Geofani Jebat.

To gain a deeper contextual understanding of the communities, a participatory visual method was introduced, utilising photos and cultural probes to trigger discussion and help participants articulate their experiences. Visual data not only aids in understanding participants' realities and their relationship with their lifeworlds but also serves as a medium for reflection and dialogue. An indirect observation approach was thus employed, in which visual materials such as photos and videos were produced by the participants themselves. These visual materials became discursive tools to stimulate richer discussion and conversation. This technique, commonly known as photovoice, was highlighted by McIntyre (2010) in her research with women in Belfast. It was used both as a tool for investigation and as a means for the women to communicate their experiential knowledge. Photovoice enabled the women to create a ‘visual diary’ of their daily lives from their own perspectives, offering them an opportunity to highlight aspects of their lives and communities that they took great pride in. As McIntyre expressed, “by putting cameras in the hands of local women, we hoped to enrich our understanding of how they perceived themselves as Irish women living in a context of struggle and possibility” (ibid).

The use of participatory visual methods such as video or photovoice is common within ethnography research practice. Sarah Pink argues that this method invites participants to show their lives performatively (Pink and Leder Mackley, 2014) and it can generate and share empathetic encounters (Pink et al., 2017) with the community. Pink also suggests that video helps us generate subjective understandings of 'how other people perceive their multisensory environments, constitute place through everyday practice and live "in their bodies"' (2017, p. 246).

3.8.2. Phase 2: Creative Experimentation and Capacity Strengthening

The second phase focused on bringing the communities' creativity to flourish and staging a nurturing collaborative space. The process incorporated the principle of capabilities approach, using methods such as assets-mapping to identify how creative projects could be enacted and how the participants could initiate and undertake creative projects using existing resources, skills and assets. This creative experimentation was a form of action prototyping that responds to local sustainability challenges.

This phase put emphasis on actions and activities built on the communities' interests and aspirations, supported by capacity strengthening attempts. Following the brainstorming and planning sessions from the previous phase, the participants were then invited to to conduct creative projects in response to the previous discussion. This creative experimentation was used to strengthen the community's individual and collective assets through a project that captures and/or responds to local issues or other matters that are relevant for the community. The form of the project was collectively planned and decided by the participants, where they were encouraged to set their own creative briefs and goals

To start with, this phase begins with a problem scoping exercise where the participants will be encouraged to identify and define relevant issues and challenges. This activity will be followed by a mapping exercise as a means of creative brainstorming that is designed to encourage the participants to reflect on their aspirations and take further action through the project. The mapping activity also aimed to support the participants to identify and articulate their interests, skills, aspirations and their challenges. Also explored in this phase was the concept of community assets that include both individual and collective, as well as tangible and intangible. These assets include cultural objects or natural landscapes and intangible assets such as histories, cultural traditions, social support networks, local organisations and individuals' skills. This mapping stage is crucial for the development of creative projects taking place in the next phase.

The following session invited the participants to identify and capture what they considered as assets (knowledge, skills, social activities etc) as well as incorporate storytelling to the process. This phase will rely on the use of visual materials to observe through their lens and generate discussion. The modes of narrating and documenting used visual participatory methods such as participatory video or photo. In this stage, the researcher inquired into the participants' imagination, stories and experiences through situated tools and probes (Smith et al., 2020). A workshop pack providing questions, guidelines and instructions was provided to help participants explore the narrative around these assets. Here, the workshop participants co-curated their own discursive materials.

Whilst carrying out the creative experimentations, this phase also focused on activities that potentially strengthened the communities' capacities and creative confidence, through facilitating them with needed support. Activities were focused on enriching the participating communities with skills and tools that enable them to better articulate themselves or stimulate their confidence. There were other forms of support too, such as connecting them with relevant stakeholders or collaborators. Accordingly, several creative practitioners were invited, either to volunteer as a mentor, or collaborate. This process had been productive, ultimately resulting in two collaborative works.

To foster the communities' self-confidence, it was also necessary to create 'culturally safe spaces', where participants were encouraged to express themselves in the language or media they were most comfortable with. In most interviews or recorded activities, many of them felt more comfortable speaking in the local language, then providing translations after, off-record. Some participants in Jagoi Babang were more comfortable sharing stories in intimate settings: at home weaving baskets or in the forest foraging materials.

The discussions about the capacity strengthening phase started to take place, as the participants started the planning process of their creative projects. The model and structures of this phase were then designed based on the participants' needs, interests and aspirations. The communities were involved in the planning for the project that not only reflected their interests and aspirations but also to discuss the barriers to accessing them. To support this process, group discussions and mapping activities were conducted where the participants identified their skills and interests. This process collectively explored what the participants expect to gain from the creative experimentations, and what kind of support was needed to realise the vision of their projects. This activity also provided insights on what they identified as assets and how they perceived local knowledge and resources. The process may inform strategic planning to enhance the capacities of the community to bring about meaningful local change.

The communities' participation in the Cultural Assets and Vernacular Materials (C&VM) programme has presented them another form of capacity strengthening. Community representatives from both groups (Singkawang and Jagoi Babang) were selected by their peers to participate in C&VM events such as design workshops and exhibitions held in Kuching, Malaysian Borneo. These events provided opportunities for them to expand their network with other Borneo-based craft practitioners, present their work and share their stories outside their community for the first time (Fig.24). For the Singkawang group, this was also their first time travelling outside their region and across the border.

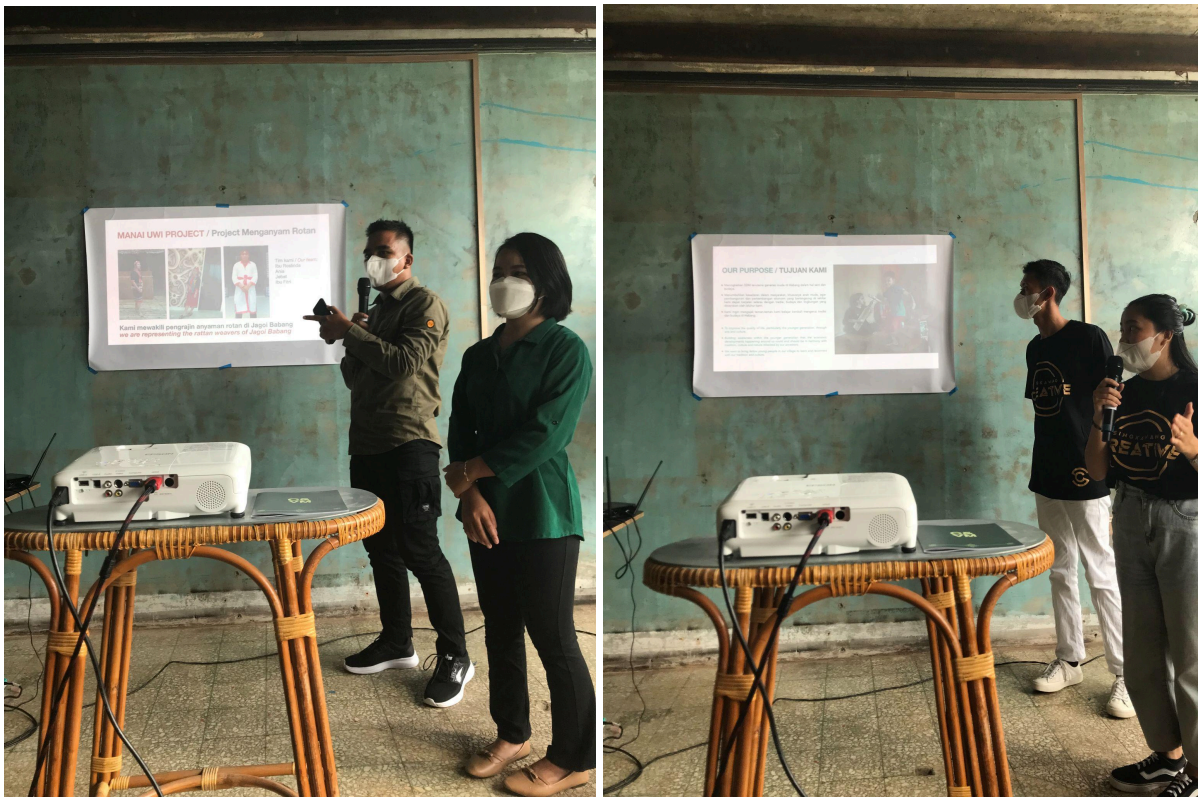


Figure 24. Community representatives from Jagoi Babang (left) and Singkawang (right) gave a presentation about their craft practices, 2022. [photograph]. Source: Gamia Dewanggamanik.

3.8.3. Phase 3: Reflection

The final phase focuses on sharing the communities' final works to a wider audience and ultimately fostering a reflexive space for the communities to reflect on their individual journeys and outcomes and to explore opportunities for the future. The dissemination of the communities' works took place at the C&VM exhibition at the Borneo Cultures Museum in Kuching, Malaysia. The exhibition was followed by a series of discussion, reflection and evaluation sessions joined by the entire C&VM network of practitioners. The reflective

session formed an ‘appreciative dialogue’ (Dewar and Sharp, 2013) that enabled each participant to share their experience and aspiration and to engage in meaningful conversations.

In the final phase of the fieldwork (Fig.25), the researcher conducted a follow-up group evaluation in the communities' respective villages. During this session, the researcher shared her reflections and presented the research outputs to the communities, aiming to sense-check the findings, receive feedback, and, most importantly, sustain an ongoing dialogue.

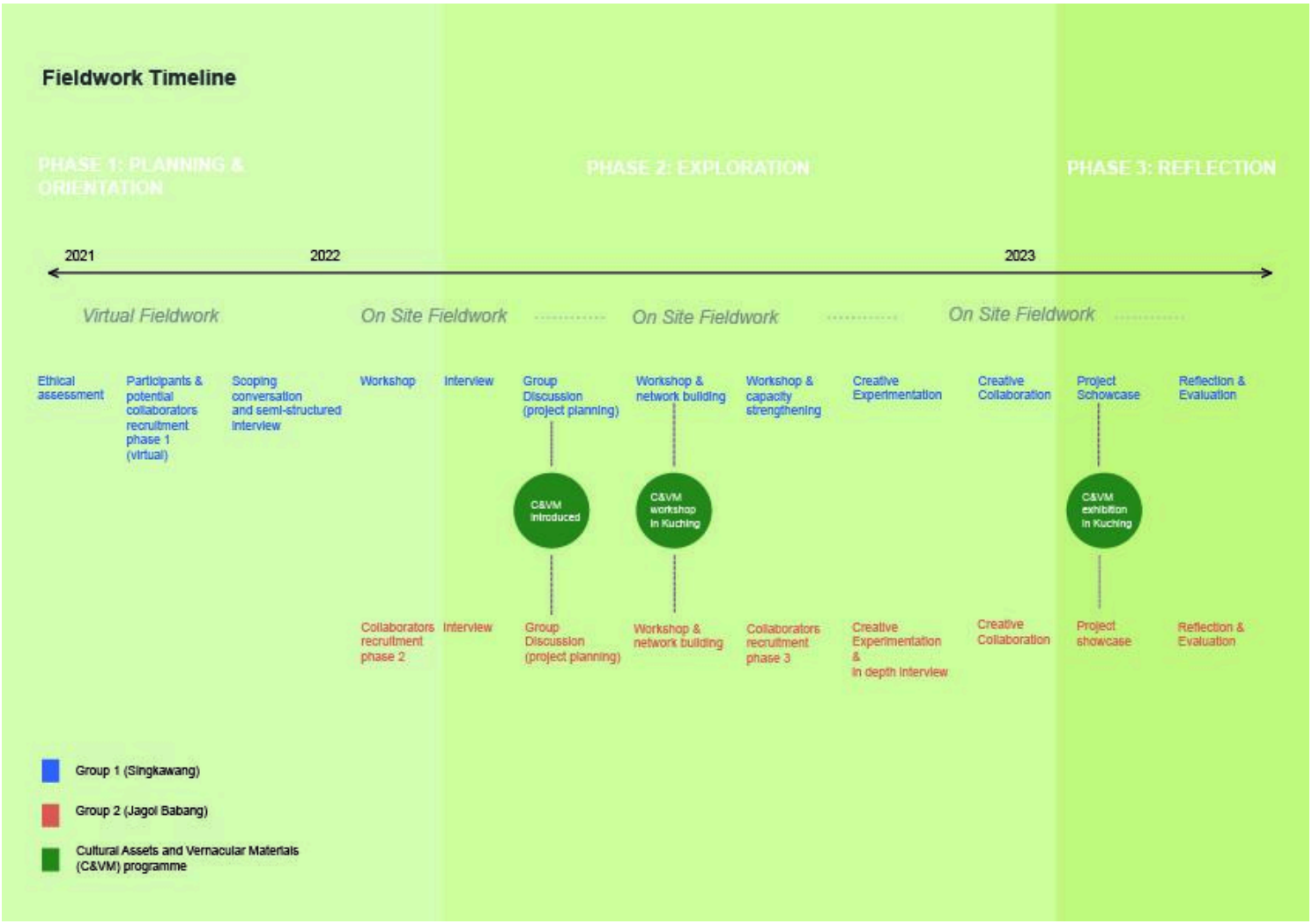


Figure 25. Fieldwork timeline. [diagram]. Source: Gamia Dewanggamanik.

3.9. The Role of Portfolio: Reflexive Storytelling

Embedded in this thesis is a portfolio segment that presents a combination of visual and written accounts of the researcher's immersive experience in the field, documenting everyday sights, encounters and stories of place. This segment tries to illustrate the lived and felt experience of the communities and craft practitioners in relation to their landscape.

This portfolio presentation shares a root with visual anthropology, as visual methods such as drawing, video and photography, have offered increasingly accessible and popular resources for ethnographic research (Pink, Kurti and Alfonso, 2017). Andrew Causey uses drawings as an ethnographic method, asserting that visual documentation eliminates part of the translation act and might, therefore, be able to render more ‘‘accurate’’ representations (Causey, 2017). As such, the portfolio segment uses digital drawing as a way of encoding the researcher's visual experience, transferring what the researcher saw and encountered during fieldwork. Setting it apart from ethnographic drawings, the drawing method used in this research serves its purpose for sense-making purposes. Rather than using drawing to “catch the moment”, the (drawing) process was retrospective and reflexive. Drawings, photos and stories were put together in a format that allowed the researcher to transfer her experience in the field.

The vast amount of information, notes and images collected during fieldwork (Fig.26) were tidbits loaded with important cultural meanings and narratives. Events and incidents that happened during fieldwork did not always occur in an orderly, structured and sequential manner but were somewhat fragmented and distributed randomly. The portfolio is then put together as an attempt to reconfigure the experience, contemplate and tell the story, therefore functions as a window to grasp the essence of the journey.

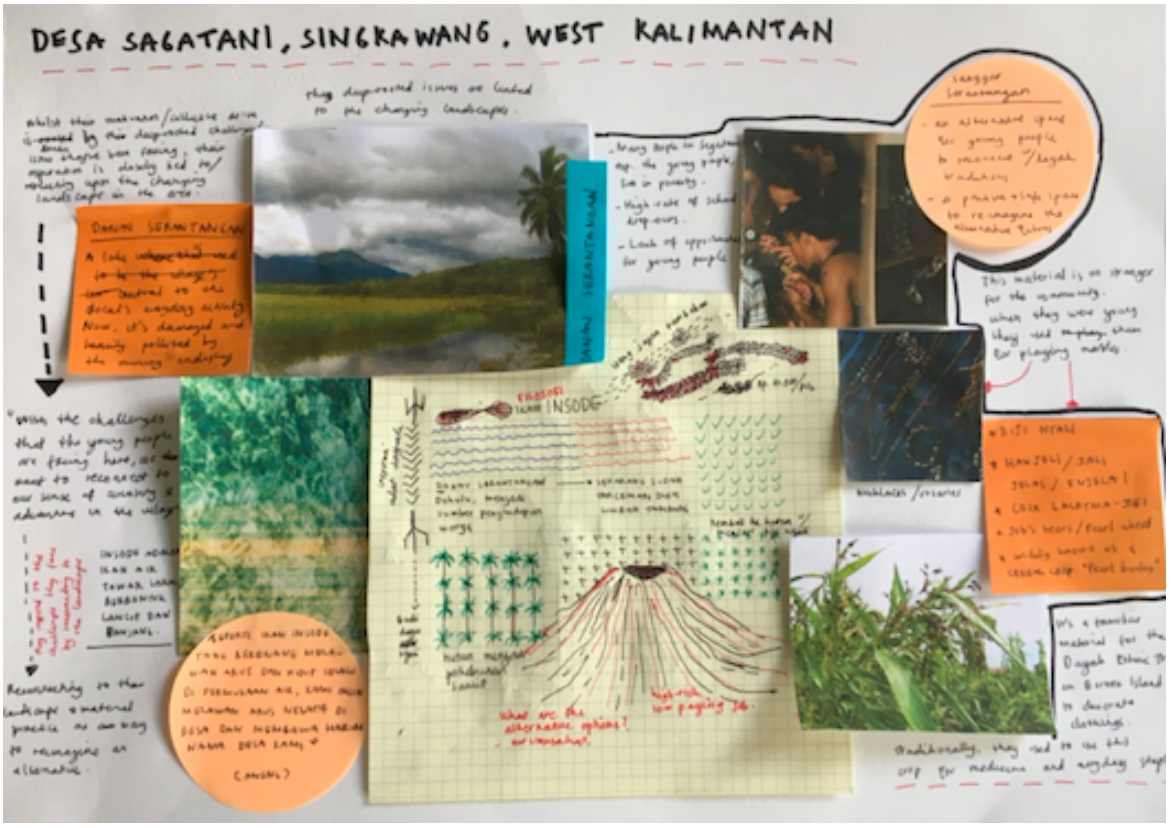


Figure 26. Grouping and sorting field notes, visual data and information. [diagram]. Source: Gamia Dewanggamanik.

The portfolio is highly-situated; presenting stories and memories from multiple perspectives where everyone's own subjectivities were embedded and embodied. The communities were involved to different degrees and in different ways in working on the portfolio, offering some consultation (fact and sense-checking), feedback, and involvement in the image collection. The portfolio is then regarded as a medium of shared experience and knowledge between the researcher and the communities involved in the research; it recognises that such collaborations are a vehicle through which knowledge, understandings and visual representations are produced.

The portfolio is not supplementary to the thesis nor a stand-alone complement. On the contrary, this portfolio is inseparable from the thesis. Its significance lies in its role to deepen understanding of the communities' realities, stories, histories and, ultimately, the various elements that make up their everyday creativity. This portfolio makes visible the dynamic and the highly nuanced contexts explored in the research; the lived experiences of the communities, their material practice and the everyday sociocultural dynamics entangled together.

3.10. Mode of Analysis

Due to the qualitative nature of the research, thematic analysis (TA) will be used for examining and analysing the qualitative data generated from the fieldwork. Engaging in a Reflexive TA, according to Braun and Clarke (2021), means identifying and analysing patterns within data by foregrounding the researchers' reflexivity and theoretical sensitivity. Referring to Braun and Clarke (2006), the flexible nature of TA means that it can be applied across a range of theoretical and epistemological approaches. Whilst some analytic methods for qualitative data are theoretically bounded, such as IPA and grounded theory, TA is not adhered to any pre-existing theoretical framework and through its theoretical freedom, thus potentially provides a rich and detailed, yet complex account of data (ibid). TA also allows more flexibility in interpreting the data and helps researchers to approach large data sets more easily by sorting them into broad themes. Therefore, a reflexive TA is a useful analytical tool to provide a more detailed and nuanced account of one particular theme, or group of themes, within the data.

An inductive, data-driven approach is used in this TA, which means the themes identified are strongly linked to the data themselves. This research particularly follows Braun and Clark's (2012) guideline of the thematic analysis process which is divided into 6 phases; 1) familiarising with the data, 2) coding, 3) generating initial themes, 4) reviewing themes, 5) defining and naming themes, and 6) writing up the report. Braun and Clarke (2021) stress the plurality in reflexive TA, which means avoiding such bias in a qualitative research would be an incoherent task, where meaning and knowledge are understood as situated and contextual. A reflexive TA emphasises the importance of the researcher's subjectivity as an analytic resource, and their reflexive engagement with theory, data and interpretation. Therefore, the analysis in this research is a situated interpretative reflexive process.

Insights were drawn from transcribed conversational data generated through the fieldwork phase to identify elements that were under tension, repetitive, hidden or implied. As an inductive study, informal analysis was organically carried out throughout all stages of the fieldwork through writing up field notes containing ongoing observations, reflection and interpretations. Data was collated from the interview phase, focus group, workshops and the interview transcripts. All stages of the fieldwork are written and documented through field notes, visual materials (photos, drawing and video) and journals. In addition, written materials produced by participants through the workshop were also considered, with their

permission. As it is a recursive and iterative process, these datasets were continuously revisited to help sensitise with the subtle features of the data.

Analysis was done iteratively after the end of each phase, to provide insights and inform strategies for the next phase. Instead of using digital software such as Nvivo, all transcription and coding were done manually. The purpose of doing both the transcription and analysis process manually was to avoid the risk of misrepresenting, considering the interviews were conducted in Indonesian with a lot of variations of slang, dialects and local references. This process has also helped to immerse and familiarise with the data. A set of coding terms is created, in which each text was analytically and iteratively coded. The data sets were then transcribed and analysed thematically and then constructed into findings and themes (Fig. 27-28).



Figure 27. Image grouping for sorting visual data and information. [photograph]. Source: Gamia Dewanggamanik.

Each text was then analytically read and iteratively coded several times. Initial codes were created based on the researcher's subjective interpretation of the text. The second analytical reading of the text sought to synthesise and distil down these basic premise codes.Further analytical reading includes classifying and grouping texts into clusters, which then mapped out to draw connections and relationships between themes.

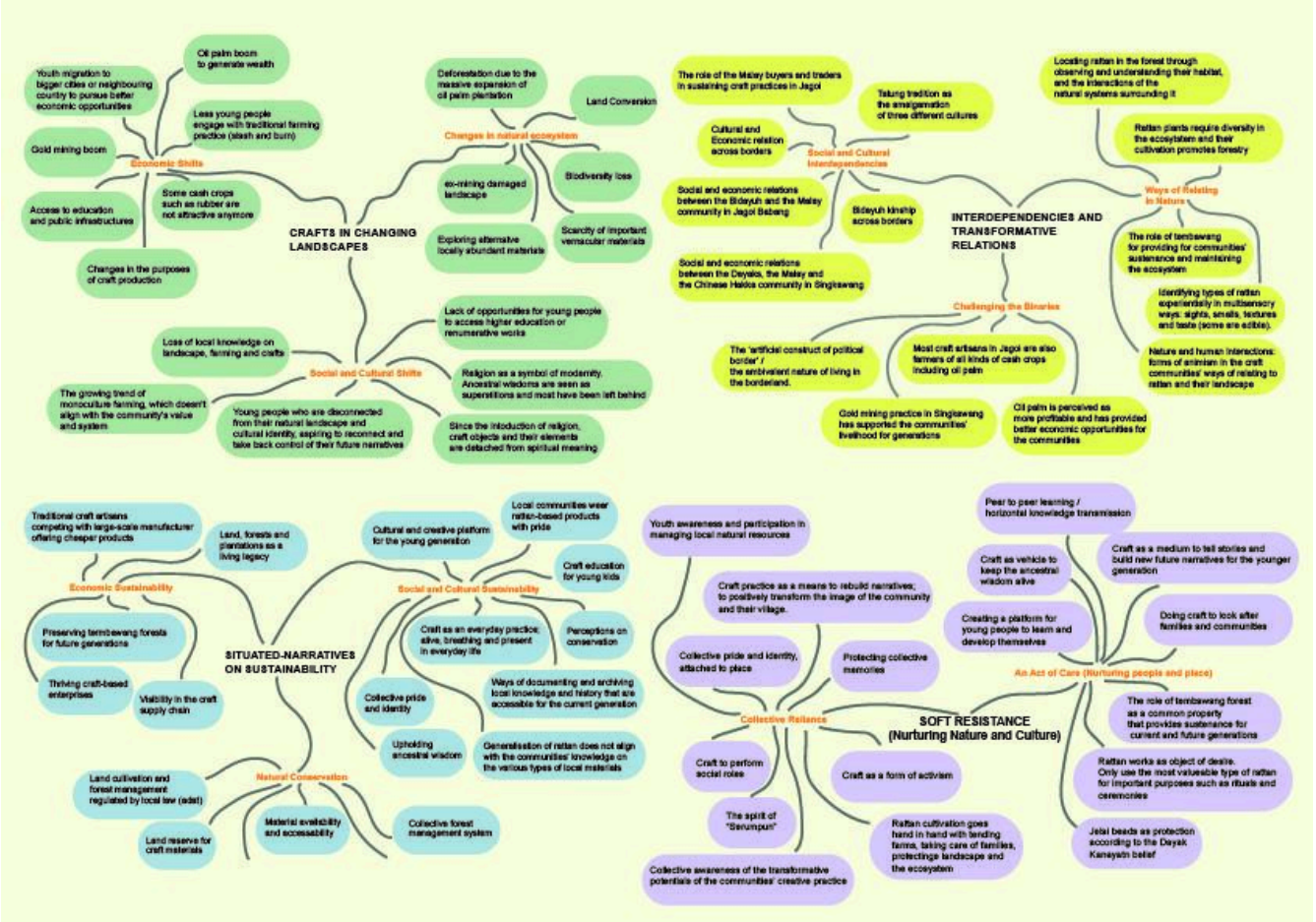


Figure 28. Thematic mapping. [diagram]. Source: Gamia Dewanggamanik.

3.11. Summary of Chapter 3

This chapter has outlined the researcher's epistemological and theoretical stance as well as the methodological framing, which sets a foundation for the fieldwork approaches (Fig.29). This chapter has foregrounded how theoretical discourses that can be ‘usefully’ integrated into participatory practices *with* Indigenous communities in and through equitable design research and practice. The research falls under Participatory Action Research in which five phases of participants' engagement will be implemented in the fieldwork stage. The data collected throughout the fieldwork stage will then be analysed through thematic analysis. In the next chapter, the ethical considerations for the implementation of this research design will be outlined.

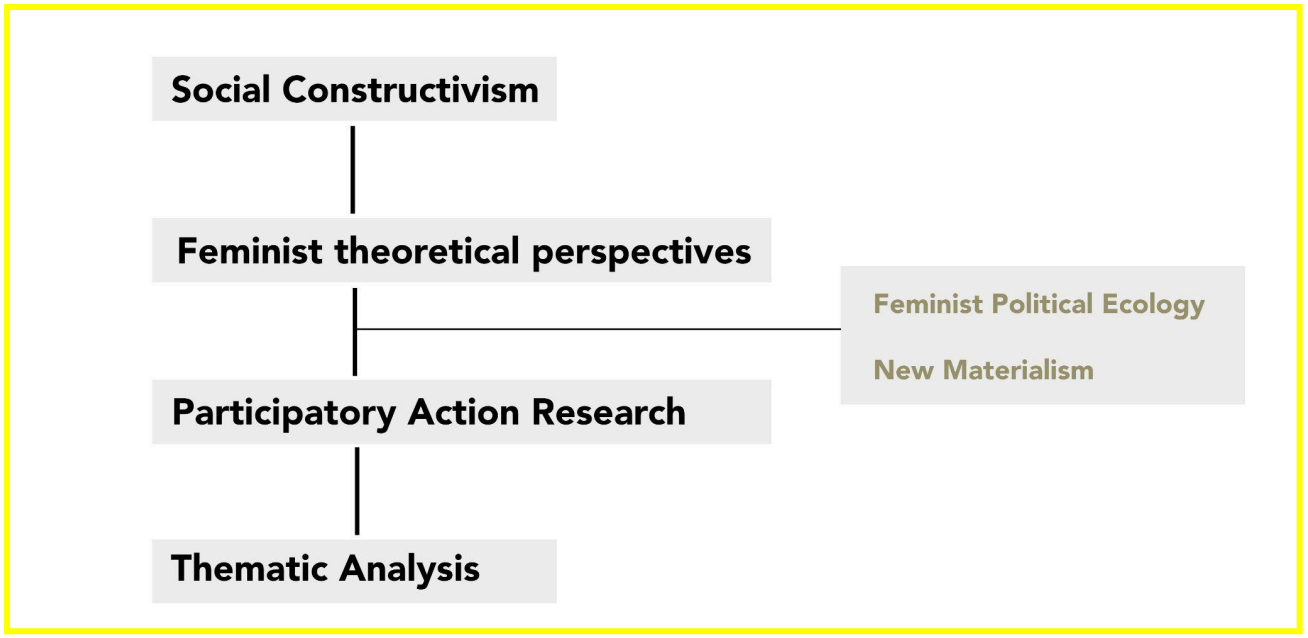


Figure 29. Summary of research design. [diagram]. Source: Gamia Dewanggamanik.

4.

FIELDWORK



Figure 30. Mak Timon, harvested rattan in the forest in Jagoi Babang, 2022. [photograph]. Source: Alfian Widi.

4.1. Overview of Fieldwork

This chapter presents the research engagement in a relational and situational fieldwork engagement. The chapter is based on 12 months of intensive fieldwork research during 2022 and 2023, and remote engagement spanned between 2021-2022. The intensive fieldwork sought to develop an in-depth understanding at a local and granular level.

The data collection for this study took place mainly through engagements with the participants in the fieldwork. However, an initial contextual scoping occurred beforehand to help plan and shape the fieldwork strategies and most importantly to build mutual trust and respect, which is central to PAR processes. The fieldwork engagement took place between 2021-2023. The initial phase of participants' engagement was conducted remotely between 2021-2022. Due to the travel restriction caused by global Covid-19 pandemic, initial interactions with the group were arranged through Zoom, and this phase officiated the start of the formal fieldwork study. Conversations and semi-structured interviews were scheduled to meet individual participants' needs, and took place over Zoom video call. In the beginning of 2022, the researcher finally had the opportunity to travel and conduct on-site fieldwork allowing to engage further with the group through in-person activities.

This fieldwork chapter is divided into two case studies with two different communities in West Kalimantan in two different geographical areas. Both case studies focus on exploring sustainability narratives and enabling local actions. This chapter is structured following the iterative phases, as outlined in the methodology chapter, divided into stages; 1) contextual scoping 2) creative project 3) exhibition.

4.2. The Fieldworks' approach

Drawing on discourses related to decolonisation and feminist political ecology, issues related to power relations in the fieldwork engagement are increasingly relevant, particularly in engaging and establishing partnership with communities from various sociocultural backgrounds. This study puts emphasis on experiential ways of knowing (D'Ignazio and Klein, 2020) by taking into account the diversity of the communities' locations, cultures and histories to understand place-based challenges. In line with the feminist standpoint, the value of situated knowledge is highlighted (Haraway, 1988), which recognises the perspectives and lived experiences of the knower and how these have shaped the knowledge produced. As such, the researcher situated herself and the learning contexts in which this study is operated. It is important to note that the knowledge generated in this research is shaped by the researcher's perspectives as well as the communities involved in the study.

In accordance with the principle of PAR, the fieldwork emphasises on the ‘action’ and active participation from the communities taking part in the research. This fieldwork was then framed to re-orientate the development process from the ground-up, towards the lived experiences of the communities directly affected by the sustainability concerns. In doing so, this engagement brings together a community of practice, consisting of designers and community groups, to develop appropriate design tools, methods and strategies based on the community’s own knowledge and practices, rooted in their understanding of sustainability and innovation. The fieldwork emphasises on establishing a long-term research engagement with a group of practitioners who share common concerns and interests, with an intention towards collective learning and joint endeavour. Through observation and reflection, methods and strategies were developed iteratively and adaptively to engage the communities in the research. This rather reflective, slow approach to the research required time to develop relationships with different actors and stakeholders in the villages to identify appropriate ways to encourage and enhance community participation. An extensive and intensive journey with the communities allowed me to engage in rich conversations and conduct in-depth interviews.

The fieldwork aimed to develop a contextual understanding of the communities’ lived experience and practises through several approaches: observation, in depth and semi-structured interviews, group discussion and creative experimentation. The journey of setting up community engagements during the fieldwork has not been a linear process. The approaches and strategies have gone through an iterative process, contingent on situations and unpredictable developments, yet guided by ethical considerations.

Embedded in the fieldwork engagement was an awareness towards ethical considerations (for example practical concerns surrounding accessibility and supporting in-person inclusion and participation) and equally towards relational and situational ethical engagement (reflexively acknowledging our own positionality to and within multiple sociocultural contexts). The first step includes having a conversation with potential collaborators, exploring their interests and assets, as well as barriers experienced and ways to address these. The fieldwork was then designed for equitable relationships where all individuals taking part in the project were part of the decision making, planning, setting up goals and ways of working. More importantly, the researcher’s regular presence and interaction among the communities was done to ensure safeguarding, capacity strengthening and providing support when needed in executing their projects.

4.2.1. Embedding Cultural Assets and Vernacular Materials (C&VM) into the Fieldwork

This fieldwork chapter focuses on two communities within the Cultural Assets and Vernacular Materials (C&VM) network and the creative process behind their creative projects. With a deep subjective knowledge of the context, the researcher, as the project's assistant, played a key role in recruiting and engaging communities across the Indonesian Borneo regions. Together with Wendy Teo of the Borneo Lab and the team from the Glasgow School of Art, the researcher oversaw the overall project while curating initiatives, nurturing active participation, and building relationships with the communities as project collaborators. This hands-on involvement included facilitating on-the-ground activities, supporting the practitioners' needs and enabling the community-based projects to flourish. The facilitation strategy adopted a model of participation that centred on reciprocity, respect and building creative confidence.

The creative experimentation phase of the fieldwork commenced in July 2024, approximately four months after the participants' recruitment. Integrating the C&VM project into the research has undoubtedly enriched and intensified the complexity of the fieldwork. Integrating the C&VM project into the research has enriched the fieldwork but also introduced layers of complexity. Fostering community participation at the scale and format of the C&VM project was far from straightforward, the challenges emerged in the field–recruitment, consent, project management, logistical constraints, language barriers–have added layers of complexity especially in the facilitation process.

Gathering participants' consent required more than usual due diligence. Beyond drawing up formal individual agreements, the researcher sought consent from the broader community, recognising its collective stewardship over shared spaces like forests and community halls where research activities—such as filming and interviews—took place. In close-knit communities like Jagoi and Habang, such collective approval was essential. Recruiting participants necessitated embedding within the village ecosystem. Initially, as an outsider coming into the village representing institutions that are not well known to the community, the researcher took a direct and personal approach by actively participating in community activities before extending invitations to join the research. Subsequent recruitment involved collaboration with the village office and community leaders.

The creative experimentation phase has provided insights into *what* the participants came up with in responding to the (C&VM) brief and *how* they answered it and took on the challenge. Many decisions around the project activities were made to avoid friction in the community; this includes the distribution of the project's fund. It was within the participants' awareness that participation of the wider community in the village was important: that the project should include or benefit people beyond their immediate group, and it should bring the community together. As a result, the projects led by both groups had high community engagement.

This commitment to social harmony also influenced decisions regarding the equitable distribution of project funds.The C&VM programme provided each group of practitioners with a limited fund to support a short-term project. The fund should cover their resources, time and materials spent working on the project. Both the Jagoi and Singkawang group showed hesitation when it came to the discussion about budget. They were apprehensive due to their lack of experience in managing their own projects and grants, therefore they preferred to have the village office keep and distribute the money. Consequently, throughout the process, funds were managed transparently, with unused portions allocated to village facility upkeep.

Travelling into the C&VM's base in Kuching, in Malaysian Borneo, presented complexities that were only experienced by grassroots craft practitioners such as the Jagoi and Habang groups. Moving across the border for them was not as simple as it would have been for the others. For example, there were complications with the participants' passport application and immigration at the border, as this was their first time traveling far outside their region and crossing the border. Facilitating participation in the C&VM project has offered insights into ways of working and engaging with communities and international organisations. Reflecting on the decisions, actions, and events that, at the time, felt like practical situations in the field, this thesis will reflect further on the complexities surrounding the fieldwork and what ethical safeguards in this research entail later in the discussion chapter.

4.3. Recruitment and Ethics

Various situated strategies were employed in the recruitment process, pre-engagement, execution and delivery of each project. Engagements with the communities were carefully designed and adapted to align with specific contexts, in exploring ways for understanding and fostering local innovation grounded in Indigenous values.

Embedded within the fieldwork was an awareness towards procedural ethical considerations (for example practical concerns surrounding accessibility and supporting in-person inclusion and participation) and equally towards relational and situational ethical engagement (reflexively acknowledging the researcher's positionality to and within multiple sociocultural contexts). Accordingly, the scope of the C&VM project considered explicitly those underrepresented, intersectionality disadvantaged and who operate at community-level and in more informal sites of innovation. As such, the fieldwork involved active participation and recruitment of diverse groups and craft practices operating at a range of different stages and scales of creative development and positioned at different proximities to the market. This included recruiting grassroots practitioners as well as other practitioners in positions to influence change (for example being able to channel resources and support for the craft sector). Recruiting for diverse representation supported the development of a more holistic understanding of the context and fostered opportunities for greater knowledge exchange within and across the programme cohort. At the time of conducting this study, Jagoi Babang and Singkawang, where this research is located, were within the categories of '3T areas', referring to development status of areas in Indonesia categorised as *terdepan, terluar dan tertinggal* (frontier,outermost and underdeveloped). These areas are often characterised by its many socio-economic challenges such as poverty and the communities' poor access to adequate public infrastructures, education system and economic opportunities.

To reach these communities, a call for participation was coordinated by directly inviting craft practitioners and artisans to highlight their interests in joining the project. Their decision to participate was guided by shared interests in vernacular materials and motivations to explore sustainability challenges faced by their craft practices. From the outset, as part of the informed consent process, a Participation Agreement was drawn up to acknowledge the ownership of the project outputs (ensuring it remained with the craft practitioners) and how the researcher, representing the C&VM team, would document and report on project processes and outcomes. Throughout the process, the researcher spent a great amount of time with the participating communities in Jagoi Babang and Singkawang. An intensive, in-situ facilitation was required to gain experiential understanding of the place-based sustainability challenges being explored in the communities' project, to capture the process and insights through interviewing, as well as to offer support when required. The intensive facilitation has enabled participation and to ensure that communities in a particularly remote place can equally connect, participate and collaborate to engage in critical issues impacting their (everyday) creative practice.

4.3.1. Collaborator Recruitment in Singkawang

Sanggar Sarantangan, who are a creative community from Habang, Sagatani Village in Singkawang West Kalimantan. Two generations ago, the Sagatani village was surrounded by lush rainforest and the Sarantangan Lake. However, the impact of gold mining activities cleared the forest, excavated the land and polluted the river. Against this backdrop, Sanggar Sarantangan was established in response to the challenges faced by the younger generation in their village. With limited economic opportunities, it is common for young people to leave school early and, in cases, engage in illegal mining activities (known as dompeng). Sanggar Sarantangan centres on creative capacity-building in harmony with tradition and the nature inherited from their ancestors.

The fieldwork engagement with Sanggar Sarantangan took place between 2021-2023. The initial phase of participants' engagement with Sanggar Sarantangan was conducted remotely between 2021-2022. Due to the travel restriction caused by global Covid-19 pandemic, initial interactions with the group were arranged through Zoom, and this officiated the start of the formal fieldwork study. Conversations and semi-structured interviews were scheduled to meet individual participants' needs, and took place over Zoom video call. In the beginning of 2022, I had the opportunity to travel and conduct on-site fieldwork allowing me to engage further with the group, in which more in depth interviews and discussion were arranged.

As the timeline aligned with the C&VM programme, I used this as an opportunity to use the program as a platform for the creative project. This has peaked the level of enthusiasm of the group, having to do something like this for the first time. The sanggar members were not familiar with the British Council nor experienced in initiating a project. Before, they were always positioned as passive recipients of any development programs. In fact, some of them had participated in the British Council's previous training program on 'Digital Craft Toolkit' which was tailored for rural craft communities. The training itself was delivered by an organisation who received the grant from the British Council. However, they were not aware of the British Council and its role, and the aim of the training they received.

4.3.2. Collaborator Recruitment in Jagoi Babang

Jagoi Babang is a sub-district in Bengkayang Regency, West Kalimantan, Indonesia. The area is located on the West Kalimantan-Sarawak (Malaysia) border, making it a significant area in terms of cross-border relations, culture, and trade. There are six villages in this sub-district, namely Jagoi Village, Sekida Village, Sinar Baru Village, Semunying Jaya Village, Kumba Village, and Gersik Village. Almost the entire population of Jagoi Babang is

Dayak Bidayuh, with a minority of Malay and Javanese people. Most residents were farmers, traders, and craft artisans.

The recruitment process in Jagoi Babang tapped into the village ecosystem. After seeking advice from Sujianto, who was the village chief of Jagoi Sekida at that time, several members of the community were approached to participate in the research. After pitching the project individually to all of the participants, they agreed to form a working group comprising 'core members' to manage the C&VM project. The team picked a title of "Manai Uwi Jagoi" for the project, using their Bidayuh language. *Manai* means to weave, whereas *uwi* means rattan.

The team consists of Sujianto, who was at that time the village chief of Jagoi Sekida, Geovani Jebat, working at the Jagoi Sekida village office and cooperative, Roslinda (a *bidai* master weaver from Risau Hamlet in Jagoi Village), Ania (a young basket weaver from Kindau Hamlet in Jagoi Sekida Village) and Fitriana (Sujianto's wife, running a small enterprise selling local craft products in Kinday Hamlet). As the project progressed, more people from the community participated, including: Yohana Anik (a *bidai* maker from Belida Hamlet in Jagoi Sekida Village), Di'i and Mak Timon (basket weavers from Kindau Hamlet).

4.4. Designing Creative Experimentations

This section focuses on the process of mobilising the craft communities in Singkawang and Jagoi Babang to undertake a creative project for the C&VM programme. Underpinned by design-led innovation and PAR, the fieldwork was instrumental in foregrounding creative practitioners' and artisans' capacity and skills to respond to local sustainability challenges. Within this phase, the researcher along with the communities, were working together in the entire process; defining the project, identifying the challenges, planning, implementing the project and organising the project's showcase.

The research inquiry was pitched to the community within the global and local framework of sustainability. Discursive materials such as leaflets and posters illustrating the key sustainability challenges were designed to be accessible in terms of language and vocabulary. The group discussion aimed to explore the communities' cultural assets, opportunities, issues, and concerns faced by craft practice and was addressed on several occasions, including group discussions and interviews. It should be noted that this was the first time for everyone in the team to manage a grant for conducting creative experimentation, responding to an open-ended brief and translating it into a creative project.

4.4.1. Introducing the Sustainability Challenges and Themes

Following initial orientation amongst the participants, the researcher presented the C&VM objectives and goals. In this session, the researcher broke down the sustainability challenges, mapped out with the C&VM team, for the participants to discuss and reflect on.

For this purpose, the researcher applied a range of hybrid digital and analogue methods for distributed collaboration to visually and virtually map this network and foreground key themes, practices, and assets that lie at their intersections.

The C&VM objectives were grounded in addressing place-based sustainability challenges that are affecting the creative economy across Borneo (Fig. 31-32). One example is the changing landscapes in Borneo, driven by climate change and compounded by deforestation and land clearance, which have led to a scarcity of the natural raw materials traditionally used in craft practices. As a result, craft practitioners and artisans are being forced to adapt and find alternative, nature-friendly ways of making.

At the same time, large-scale, low-cost mass production and imports are impacting artisanal trade, putting ancestral knowledge and handcraft traditions at risk of disappearing. In response to this growing competition, artisans are innovating by exploring new materials and finding unique ways to create and market their products. However, access to craft markets is not always equitable, particularly for women and young people. Barriers such as limited access to education, training, and financial support can significantly affect the choices and livelihoods of these practitioners. Moreover, engaging and motivating younger generations to preserve and continue craft practices is a challenge, as many view the skills and knowledge passed down through generations as less relevant in today's world. There is a need to explore new ways for older generations to teach, inspire, and potentially guide young people into pursuing craft-based careers.



Figure 31. The C&VM Sustainability Challenges and Themes, 2022. [image]. Source: Gamia Dewanggamanik.



Figure 32. Sustainability Themes Poster in two languages, printed for the participating communities, 2022. [image]. Source: Gamia Dewanggamanik.

4.5. Engaging with Sanggar Sarantangan in Singkawang

The first phase of the fieldwork in Singkawang was aimed to investigate the contextual background of the participating community. This first phase consisted of a series of in-depth, semi-structured interviews, group discussion and asset mapping workshop. During these

interviews and discussions, the participants were asked to share about their personal experience as an individual and as a community about their everyday practice. They were also asked to share their views on the issues and challenges in the area where they live or where their project is located.

Their main motivation to take part in the C&VM program was to gain new experience and knowledge, and more importantly to introduce their collective to a wider audience, expand friendship and creative networks and to “see the world”. For many of them, this would mean an opportunity for the first time travelling outside Singkawang and making friends with fellow creative practitioners from across Borneo which they would find inspiring and eye-opening. Taking part in the programme was their very first experience working on a creative project from scratch to finish: from developing the project brief, producing creative works, preparing and setting up the exhibition themselves to presenting their own works to the public. They had been invited to participate in several local craft fairs before (through the local tourism department), but only to showcase their products without close involvement.

4.5.1. Design-led workshops

The main objective of this phase was to instigate a shared understanding of cultural assets and the (local) concept of sustainability. Through hands-on workshops with elements of capacity building in them, collective reflection and ideas were formed. The capacity building strategy was built on the conversations and insights from the engagements.

A series of design-led workshops were designed to support Sanggar Sarantangan in designing and planning their creative project in the C&VM program. The workshop focused on planning and developing the project and, more importantly, to nurture their community’s creative confidence. The workshops were devised to enable a sharing and learning ‘with’, where participants experimented with various creative approaches, including asset mapping, creative writing and photo collaging (photo story). The aim was to enable translations of ideas across different media, thinking through materials.

None of the group members had prior experience in organising a project, including managing grants, which heightened their enthusiasm as they embarked on this endeavor for the first time. However, alongside their high spirits, the group also expressed several concerns. These included challenges related to attending meetings and events in Kuching with the broader C&VM network. Specific issues emerged, such as language barriers, navigating their first experience of initiating and managing a project grant, traveling outside

their region for the first time, and delivering presentations for external audiences. To address these challenges, a series of activities centered around the Sanggar Sarantangan were carefully designed to help the group overcome these barriers. In this process, the researcher occasionally assumed the role of mentor, providing guidance and support where needed.

4.5.2. Assets mapping workshop with Sanggar Sarantangan

The first workshop took place in March 2022. Due to the initial conversations held with some of the participants prior to in-person meeting, there was already a familiar tone to conducting the workshop, which had a positive impact on the direction of the discussions and the interviews. The workshop took place in the sanggar's informal 'basecamp', which was the living room of Sela's house. The workshop was titled "Riset Kreatif Habang" (Habang Creative Research Workshop). Prior to the trip to Singkawang, eight people agreed to participate in the workshop. However, upon the workshop's introduction, sixteen people–all of them were members of the sanggar–turned up and expressed their interest to take part. Given the unanticipated excitement and curiosity, more workshop tools were reproduced in-situ rapidly.

The asset-mapping workshop aimed to explore the community's creative aspirations by unpacking their assets, needs, and goals. The overall objective was to involve the participants in the research process, positioning them as co-researchers. During the workshop, the group worked together to explore, capture, and map out the community assets within their village, allowing the researcher to view their world through their lens. Participants also curated their own visual materials and brought them to the workshop, providing a foundation for questioning, exploring, and understanding the community's cultural assets in relation to place.

The asset-mapping workshop was structured as follows:

1. First phase: To observe and collect data (individual task)
2. Second phase: To collectively discuss the findings
3. Third phase: Creative exercise. To translate and develop the findings into concepts of creative projects. (divided into five groups)
4. Fourth/ final phase: Presentation. Each group to share their ideas, everyone gives feedback and votes for the projects they want to see realised.

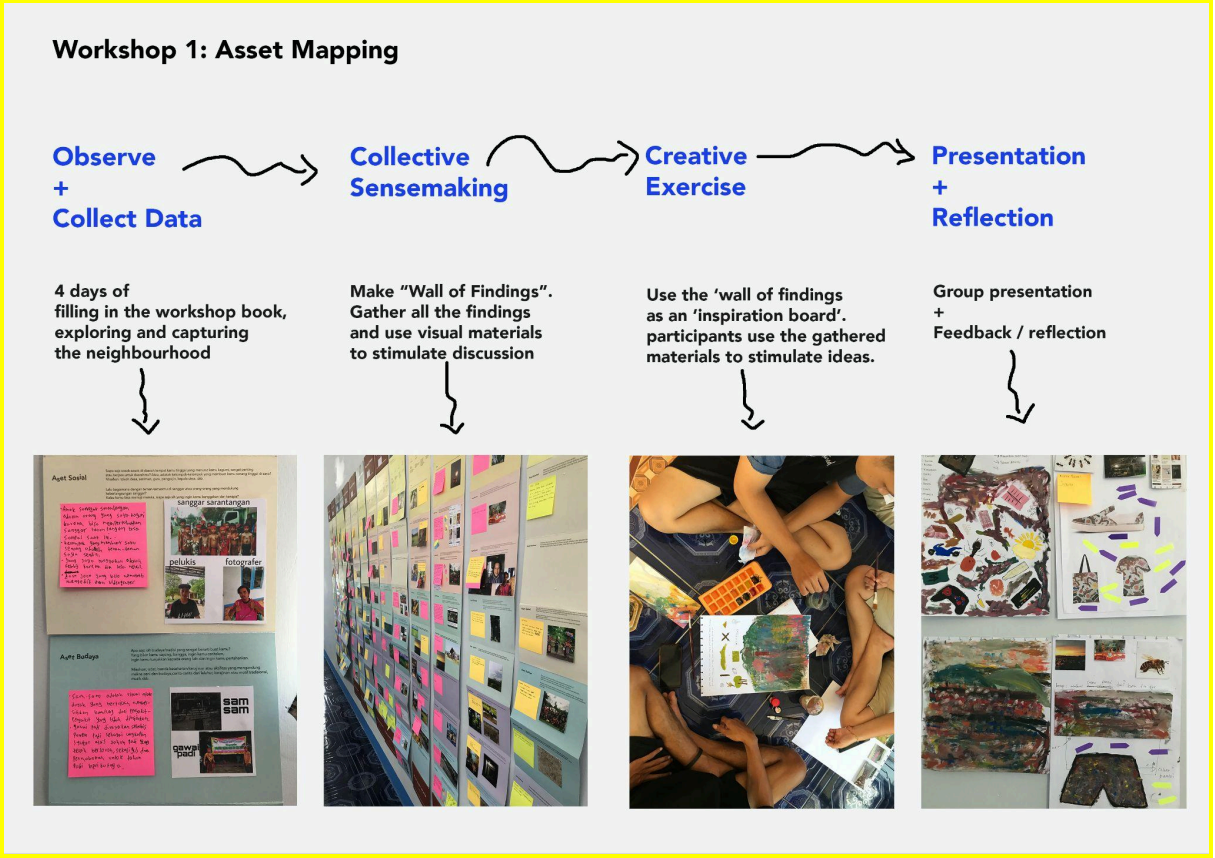


Figure 33. Asset-mapping workshop structure, 2022.[image]. Source: Gamia Dewanggamanik.

This first workshop (Fig.33) combined a few data collection methods: asset mapping, photovoice, group discussion and creative exercise. The workshop involved their active participation to gather their own material, which required them to be 'consciously engaged' with their everyday environment. This means being particularly attentive to their senses and memories.

A workshop toolkit in a booklet form (Fig.34) was provided for each participant to guide them in collecting them. The data they gathered was in the form of visual material such as photos, drawings and notes, and some of them brought actual material as well. The booklet contained prompts to help them to identify the different assets around them ranging from personal assets, social assets, cultural assets, nature, shared space or public facilities. They were also asked to observe and identify the negative aspects or problems in their area, as well as writing down their aspirations. The prompts were written in a tone that was considered familiar and accessible. This data gathering enabled the participants to showcase their daily lives through their own perspectives but also provided opportunities for the researcher to attend to aspects of their lives that otherwise would be overlooked or what they found meaningful, or take great pride in. These images became points of entry into

seeing beneath surface issues, relationships, community events, and the extent to which a place informs identity (McIntyre, 2010).

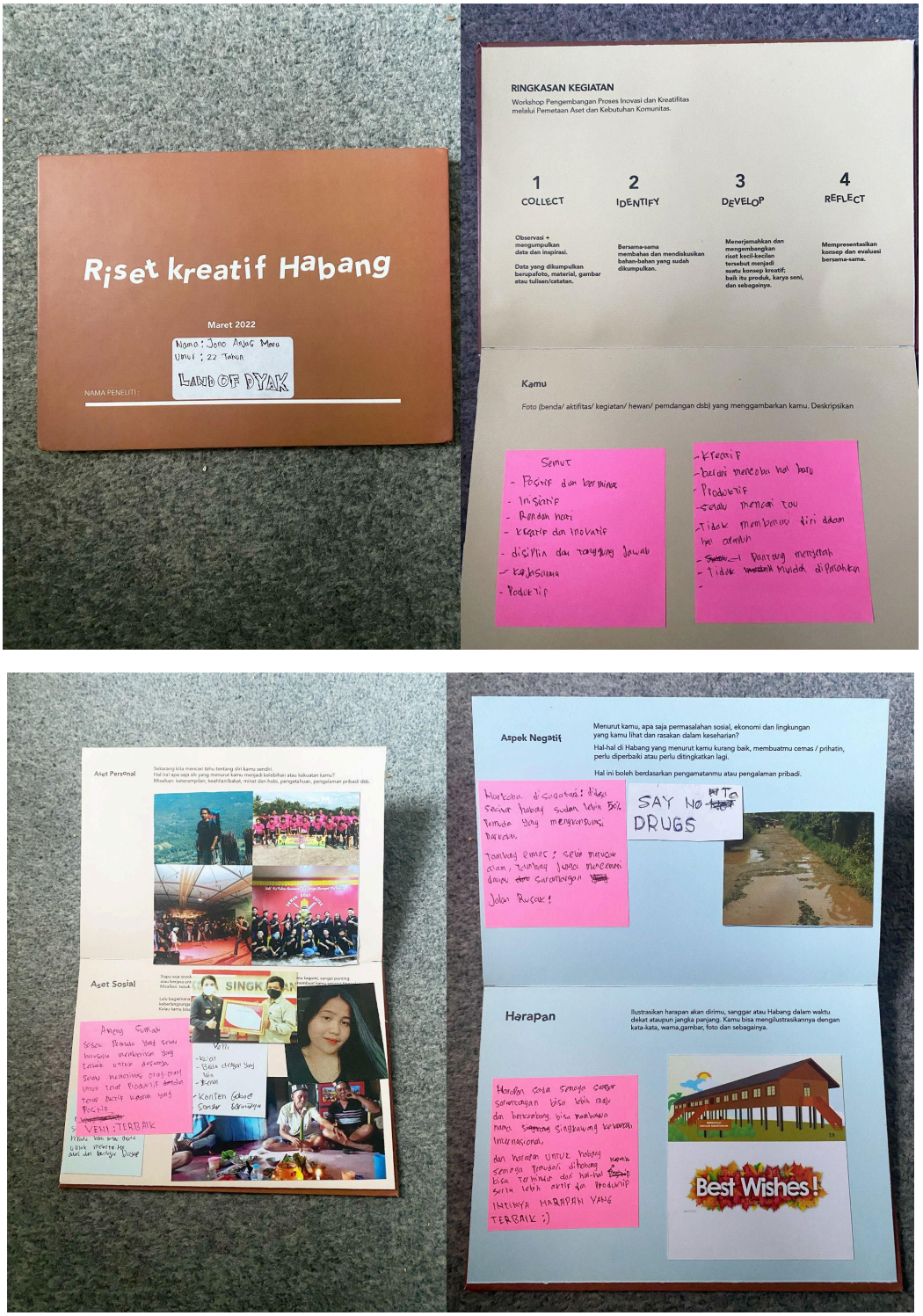


Figure 34. Workshop toolkit: asset-mapping booklet, 2022. [photograph]. Source: Gamia Dewanggamanik.

Prior to the workshop, the participants were asked to share images or videos of their village and daily activities that they found meaningful. These images were useful to provide insights into their everyday life and their perception of what cultural assets mean to them. Those images were collated to inquire further conversation and stimulate discussion. The workshop participants had five days to collect and gather the data with the researcher's presence to support and guide them in working out the task. The data-gathering phase allowed the researcher to explore the village and its surroundings and participate in local rituals with the participants as they took pictures for the exercise. The workshop participants explored their village by foot or scooter and used their cell phones to take pictures. They went to various places such as the village shops, a chinese temple up on the mountain, the local lake and river, rice fields as well as rapids.

After the data were collected, all participants displayed their booklet on the wall. As the findings were all put up on the wall, the wall became an 'inspiration board', serving as a tool to guide the following exercises: collective sensemaking, discussion and creative brainstorming. Each participant presented their work to the entire group. The booklet and the presentation provided insights into collective and personal experiences and aspirations. Many shared about Dayak Kanayatn rituals and traditions still largely practised in the community. Equally, many of them talked about the lack of opportunities for young people.

The participants saw the *sanggar* served an important role for the community; They took pride in the sanggar because their works could give a positive reputation to their village. Before, the village was only known for its negative aspects such as illegal mining, unemployment, poverty or drugs.

> '*What motivated me in the beginning to start the sanggar was my interest to learn and preserve Dayak culture and traditions. Also, I wanted to create a positive platform for the young people around here and for our future 'brothers and sisters.'* (Jono 2022).

According to the group, jobs were scarce–it was difficult for young people to find work of any kind. The terrible road condition has impacted their accessibility to town. Most female members have completed high school, though only a few can afford to continue at a higher level. Most male sanggar members used to engage in dompeng practice, and none of them continued higher education. In Habang, the usual pathway is to become a migrant worker in the neighbouring country Malaysia, or other high-risk-but-low-payment jobs in mining or plantations. Though perceived undesirable, it is still common for young people in the area to

follow those footsteps. This opened up an opportunity to delve into the group's perception on aspects counted as 'positive' or 'negative'.

When it comes to discussing the aspects in the village that they find negative, the participants unanimously mentioned the *dompeng* practice. *Dompeng* had damaged the natural landscape around them and left them (the young generation) with exhausted natural resources.

> *'Habang has been famous for its wealth of gold resources, therefore dompeng (illegal mining) is pervasive around here. Many locals work in dompeng, and equally many people from other areas also came here to mine. Now that the wealth is depleting, many of them have left the village. We are left with nothing–what remains is only toxic waste. Honestly I feel disappointed because our natural surroundings are damaged, and the future generation will receive no benefits from it all.'* (Jono 2022)

However, it should be understood that the large number of the community is still relying on the informal gold mining practice. The group overtly laid their cards on the table when asked about the negative/ challenging aspects about their community, or living as a youth in the village. Poor infrastructure and terrible road conditions, *dompeng* and *pengangguran* (unemployment) were the common answers among them. Although they were somewhat reluctant to categorise unemployment in the 'negative' category or as a serious problem, it was indeed a challenging condition.

> *'Yes and no.. I don't think it's (unemployment) as serious as a problem though. I mean, it is a problem in a sense that of course we need to make money and we want to improve our economic condition. But, it is not as problematic as dompeng or doing drugs..which is a common problem in other areas of Sagatani, but not Habang. So our condition (of being unemployed) does not harm the community..most of us are still helping our family to look after the farm, and we are actually productive in the sanggar even though it doesn't make a lot of money.'* (Veni, Feby and Leo in Habang. 2022).

The slow unfolding of the method and the many opportunities for discussion and reflection that it allowed, and its material artistic practices of bringing images together with words, stickers, colours, collages etc., supported the emergence of narratives of value ("what matters") that are both considered and nuanced, and that can offer them a sense of control to filter and share the narratives about their community that they wanted to present. For

example, a discussion about gold as one of the village's natural assets that , considered both an asset and a negative aspect.

The discussion transitioned into a series of creative brainstorming exercises (Fig. 35–37), designed to generate ideas based on the assets mapping exercise. In these sessions, each group selected a few pictures from the wall and transformed them into narratives, illustrations, and color schemes. In the final stage, the groups developed concepts for creative projects inspired by their chosen pictures or assets. At the end of the session, each group presented their project concepts, and participants voted on the projects they wanted to see realised in their village. The participants were prompted with the question: "If you were to create a concept for a creative project inspired by this (inspiration board), what would it be?" During the ideation session, a lack of confidence among participants became evident regarding what constituted 'creative outcomes.' Nonetheless, several creative proposals were pitched, and the participants collectively voted for the most promising ideas to pursue. Two projects were ultimately selected: (1) jewelry and accessories inspired by the village's vernacular visuals and materials, and (2) a book or an alternative medium, such as a video, to document and illustrate the village's stories, histories, traditions, and cultures. Initially, the idea of producing a book was not perceived as particularly creative, however, they found that "some sort of documentation about the village" would be a meaningful outcome for the community.

> *'Habang is the only Dayak Kanayatn village in Singkawang, though it originally hails from the Landak region. Due to a past ethnic conflict, many of its people migrated and established a new settlement here. Unfortunately, few are familiar with the stories of our community, and there seems to be a lack of literature on the subject. Only the elders still remember; if no one takes the initiative to document them, the memories and stories of our origins will be lost forever.'* (Jono and Doddy).

The participants have done similar exercises before where they participated in a group discussion and they had to identify the negative and positive aspects of their village. Following the discussion, they had to present their future aspirations about their village. While it was a fun exercise, the results were perceived as unrealistic and not feasible in the near future, such as building shopping malls and fancy hotels in their village.

In the feedback session, the workshop participants expressed that they were "pleasantly surprised" that they had the capacity to take part in the research and were able to translate them into generating creative ideas. It was a revelation for them the fact that they did it all

themselves and they came up with those ideas. Even though some of them found the process a little bit difficult (they said it's like going back to school), the participants finally fully understood the aim of the exercise after going through the entire process. When consciously engaged with their everyday environment, They also started to gain understanding of the reason there was some sort of geographical restriction in the exercise, and why they were only allowed to develop projects that were based on the data they collected.

> *'In the beginning I found the process a little bit difficult; to take notice of everyday things that are so normal to us, even nothing special. Now we understand why the exercise is restricted only in Habang. Because we have to think of something that's beneficial for ourselves, and we have to train our own sensibility of our own surroundings. Because sometimes it's more difficult to see what's good and bad when we're in it*.' (Jono 2022)

The assets mapping exercise offered ways for the researcher to get to know each individual within a large group in a short period of time. The exercise gave another revelation for the group: a way to learn their own group dynamics and assess their members' potentials, that would be quite useful to develop strategies for their organisation. Particularly a useful exercise for a group whose practise and interests are diverse.



Figure 35. Collective sense-making and creative exercise within asset-mapping workshop sessions, 2022. [photograph]. Source: Gamia Dewanggamanik.



Figure 36. Asset-mapping workshop participants presenting their works, 2022. [photograph]. Source: Gamia Dewanggamanik.



Figure 37. The asset-mapping workshop participants with their booklet after the session ended, 2022. [photograph]. Source: Gamia Dewanggamanik.



Figure 38. Vernacular visuals of Habang drawn, painted and composed by Sanggar Sarantangan as a part of asset mapping workshop, 2022. [photograph]. Source: Gamia Dewanggamanik.

4.5.3. Workshop 2: Photo-Story as a tool for group discussion and reflection

Following up the result from the previous workshop, this second workshop focused on investigating specific local cultural assets for the documentation project. Following the asset-mapping workshop, the second session was designed to hone the community's storytelling capacity, particularly in building narratives of their cultural assets. For this purpose, a 'photo-story' workshop was devised and implemented. The photo-story workshop drew on verbal and visual expression. It mixes photography with storytelling, and importantly, takes a contextual and reflexive orientation towards working with participants in data collection and analysis. In social research, this method is often used to work with individuals and groups who are underrepresented in the community (Varvantakis and Nolas, 2021). The photo-story methodology provides spaces for reflection and the sharing of experiences and perspectives on issues of common concern.

This follow-up workshop aimed to encourage Sanggar members to explore the narratives of their cultural assets using photo-storytelling as a tool. Photo-storytelling was chosen in response to the participants' expressed interest in enhancing their photography skills and creative writing. Alfian Widi, a photographer, volunteered to lead and co-facilitate the workshop, providing participants with practical guidance on how to construct narratives through photographs. The participants were divided into several groups, each selecting a specific cultural asset as a theme to explore (Fig. 39). The themes were organised into categories such as food, craft, and ritual (see figure). Several themes were chosen, including jelai beadwork, pandan weaving, *pantak* (wood-carved ancestral figures believed to be Dayak guardians), and *mandau* (traditional Dayak weapon). To help familiarise the participants with the task and method, a series of preparatory exercises (see figure) were conducted.

The photo-story workshop was delivered to support the community in honing the narratives of the cultural assets (Fig.40-42). The workshop facilitators stressed the hierarchical importance of 'storytelling' aspect', more so than the technical capacity. Whilst photography skills may enhance the overall work, the workshop encouraged the participants to use their everyday cell phones to capture pictures and construct a story. Photo sequencing (Fig.43) means arranging a number of photographs in a particular order to convey information or story, and finally creating a story out of the final photo composition. This technique helped the participants in picturing what really matters, and make such narratives visible. The workshop encouraged the facilitators to think with participants about what and how to make the things that matter to them public beyond the group. Ending the session, the participants were asked to present their selected images. The presentation session encouraged the

participants to articulate their story to their peers, where constructive feedback was welcomed (Fig.44-45). This session also provided the group with an opportunity to nominate a member to lead their project and represent Sanggar Sarantangan in the C&VM programme.



Figure 39. Project themes, based on Kanayatn cultural assets, selected by the workshop participants, 2022. [image]. Source: Gamia Dewanggamanik.

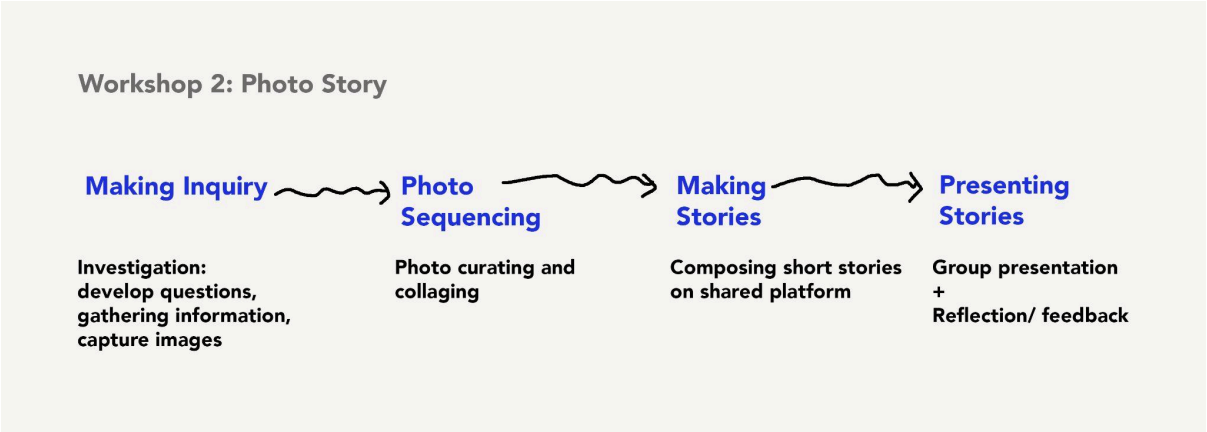


Figure 40. Photo-story workshop structure, 2022. [diagram]. Source: Gamia Dewanggamanik.



Figure 41. Making-inquiry exercise, 2022. [photograph]. Source: Gamia Dewanggamanik.



Figure 42. Participants' notes from the making-inquiry exercise, 2022. [photograph]. Source: Gamia Dewanggamanik.



Figure 43. Photo sequencing session with Alfian Widi, 2022. [photograph]. Source: Jono Anjasmara.



Figure 44. Sri Nengsih and Febi presenting their selected subject, *cucur* rice cake, 2022. [photograph]. Source: Gamia Dewanggamanik.



Figure 45. Workshop participants presenting their selected subjects, 2022. [photograph]. Source: Alfian Widi.

This follow-up session focused on designing a creative project that will be executed collectively by the group (Fig. 46). The session also encouraged the participants to consider future purposes of their role and practice, exploring ways of sharing their knowledge and experiences with their wider educational community.

The session was designed as a reflective activity-based focus group, which brought the participants together for a group discussion supported through the photo story method. The focus group format has enabled the participants to build on the responses and ideas of others, thus increasing the richness of the information gained. This was implemented as a means of gaining the participants' collective reflections upon being presented back with key themes from the previous workshop.

The topic that sparked the discussion during the session was the intergenerational gap regarding perceptions of the preservation of cultural assets. At the same time, many young people have lost interest in maintaining culture due to economic pressures or because they are considered incompatible with modern lifestyles. Although they still practise their Dayak Kanayatn traditions, they expressed that some knowledge and skills seemed to have stopped at the hands of their parents without any regeneration. Not many young people could, for example, weave or understand the meanings of cultural assets inherent in their community. There was an intergenerational gap issue as they found it challenging to learn from their parents or vice versa. Most of the making skills, as well as dancing, were then acquired from YouTube or learning together with friends. The group then spoke about taking a critical role in using their creative practice to nurture the community's understanding of their cultural assets, mainly to promote peer-to-peer knowledge transfer in the younger generation. This topic resonated with some of the challenges the group has faced in relation to the perceptual gap within their own community in valuing traditional Dayak craft practice.

The Sanggar Sarantangan members wanted to use this (creative experimentation) as an opportunity to explore and enhance their skills in video making as this would be their first time making a documentary. They learned how to prepare and conduct interviews, develop interview questions, how to build their stories, and how to make a storyboard. In the process of making and developing the film, they learned how to research and how to communicate their research. The final outcome of the film will be shown publicly, aiming at the young people in their community.



Figure 46. Collective analysis during Project Designing and Planning session, 2022. [photograph]. Source: Gamia Dewanggamanik.

4.5.4. Participatory film-making

For their C&VM project, Sanggar Sarantangan produced two short video documentaries. One of which is a video documentary of the rattan weaving practice in Jagoi, which will be explained later in a different section. They produced their first short documentary films without professional or formal training. They received technical support from the researcher as well as other collaborators, the Sepatokimin Initiative, who is also a part of the C&VM network.

Sanggar Sarantangan used the filmmaking process as an opportunity to retrace the historical and cultural roots embedded in *jelai* seeds (Fig.47-48). The documentary project was led by Jono, Yoga and Feby. They worked together to build a storyboard and develop interview questions. The project focused on refining their skills in creating a documentary film and honing the narratives of the *jelai* seeds. Through the documentary, the sanggar explored the cultural and historical narratives of the *jelai* beadworks, which are significant to their Dayak Kanayatn roots. In doing so, they interviewed Pak Iwan, the respected village

elder as well as the community's customary leader. They also conducted 'street interviews' in the village where they asked the locals their knowledge and awareness of *jelai* seeds.

The participatory filmmaking provided an opportunity for the group for upskilling and nurturing their self-confidence in their practice.

> *'Through the project, [we] had the opportunity to produce […] short documentary films. It was our very first time making a documentary without professional or formal training [...] so much new knowledge has gained from the process; from preparing interview questions, developing storyboards and other technical aspects we learned along the process. [We] created two short-docs. The first one was a collaboration and knowledge exchange project with the team from Jagoi [...] the second film had the opportunity to trace and learn about the historical and cultural narratives of jelai beads, and its significance to our Dayak Kanayatn roots [...] before [the C&VM program], we only knew how to make products out of it [jelai], but through making the film we learned about the stories linked to our cultural identity.'* (Petronela Veni, Herkulanus Edo and Januarius Feby, Evaluation Interview, Feb 2023).

Framed through the perspective of young people attempting to reconnect to their tradition, a video documentation was produced to trace the cultural narratives and significance of *jelai* seeds (Fig. 49-50). During this phase, participatory filmmaking was used to document this process and engagement, which later became a key device for sharing the creative practices, reflections, and insights. The participatory filmmaking became deeply relational in nature; whereby the film content was not predefined by the researcher and remained unscripted and intentionally explorative for the community to self-determine and direct. Furthermore, the filming became a cross-collaborative and capacity building process as the community developed their documentary and storytelling techniques, co-developed their narratives through storyboarding, undertaking interviews and in so doing intuitively becoming peer-researchers.

On reflection, the process of co-producing the film footage became more significant in the approach than the final film output itself; which resonates with Smith et al. who, in the context of participatory design, contend that approaches need to 'support the participants' "takeover" of content, form, and duration' (Smith et al., 2020, p.104). In examples, the filmmaking process had multiple layers of value for the cohort as a dialogical process, which became peer-to-peer in nature.



Figure 47. *Jelai* plants and the seeds, 2022. [photograph]. Source: Jono Anjasmara.



Figure 48. *Jelai* beads necklace and charm, 202. [photograph]. Source: Jono Anjasmara.



Figure 49. Short documentary film made by Sanggar Sarantangan, 2022. [image]. Source: Sanggar Sarantangan.



Figure 50. The process of making the documentary film, 2022. [photograph]. Source: Yuprianto Prayoga.

4.5.5. *Jelai* beads workshop and film screening

The film and workshop were used to engage fellow young people in the area, reconnecting them with the natural and cultural assets around them. Here, Sanggar Sarantangan then worked with local schools to use local *jelai* beadworks as part of their extracurricular activities. For Sanggar Sarantangan, one of the ways to reconnect with their Dayak traditions is through learning traditional crafts utilising locally abundant material such as *jelai* plants, also known as *nyalik* or *hanjeli* and similar to pearl barley. These materials are traditionally used as embellishment on Dayak costumes.

Sanggar Sarantangan has the purpose of creating awareness and understanding within the young generation about the community's cultural and natural assets. The project involves young people in the village to explore natural materials around them that can be used to make various products, one of which is *jelai* plants. Through this C&VM project, the young people from the sanggar facilitated craft workshops to fellow young people in their village to learn about the cultural context of *jelai* and the potential of the material to become creative products and alternative economic sources for the community (Fig.51)



Figure 51. Making beads at home, 2022.[photograph]. Source: Gamia Dewanggamanik.

Sanggar Sarantangan centres on creative capacity-building in harmony with tradition and the nature inherited from their ancestors. Through their C&VM project, Sanggar Sarantangan worked with young people in the village to explore the natural materials around them that can be used to make various products, one of which is *jelai* plants. The young people were supported to conduct their own workshops to learn together and better understand the cultural context of *jelai*; exploring the potential of the material to become creative products and alternative economic sources (Fig. 52-53).



Figure 52. Leonardus facilitating the bead making workshop, 2022. [photograph]. Source: Gamia Dewanggamanik.



Figure 53. Workshop participants from SMAN 8 Singkawang, 2022. [photograph]. Source: Gamia Dewanggamanik.



Figure 54. Veni presented Sanggar Sarantangan works to the students and teachers of SMAN 8 Singkawang, 2022. [photograph]. Source: Gamia Dewanggamanik.

In this project, they sought support from the local high school, SMA Negeri 8 Singkawang, to conduct craft workshops for the students; which then led to opportunities given by the school teachers and principals. The workshops they did received such a positive reaction from the school, so much that they were invited to conduct more workshops and host extracurricular activities, to impact a larger audience at the school. The production process, as well as the dissemination of their projects (Fig. 54-55), provided the group with various learning experiences. These can be broken down into several key areas: project management, product development, creative writing, familiarity with operating computers (such as using spreadsheets and Microsoft Word), photography, filmmaking, organising workshops, and presentation skills and hosting film screening.

> *'We were pleasantly surprised that the workshop had received such positive reactions, especially from the young people. We learned that, apparently, they (young people) are still interested in learning about our craft and our tradition. With the right approach, they actually engaged well in the process. Perhaps it helped that we are also still young, and the age gap is not big.' (Edo and Veni 2022)*



Figure 55. Screenshots of the documentary film made by Sanggar Sarantangan, 2022. [image]. Source: Sanggar Sarantangan.

4.6. Conclusion of Fieldwork *with* Sanggar Sarantangan

Through their creative experimentations, Sanggar Sarantangan worked with young people in the village to explore the natural materials around them that can be used to make various products, one of which is *jelai* plants. The young people were supported to conduct their own workshops to learn together and better understand the cultural context of *jelai*; exploring the potential of the material to become creative products and alternative economic sources. The participatory filmmaking provided an opportunity for the group to nurture creative confidence and capacity-building:

> *'Through the project, [we] had the opportunity to produce […] short documentary films. It was our very first time making a documentary without professional or formal*

training [...] so much new knowledge has gained from the process; from preparing interview questions, developing storyboards and other technical aspects we learned along the process. [We] created two short-docs. The first one was a collaboration and knowledge exchange project with the team from Jagoi [...] the second film had the opportunity to trace and learn about the historical and cultural narratives of jelai beads, and its significance to our Dayak Kanayatn roots [...] before [the C&VM program], we only knew how to make products out of it [jelai], but through making the film we learned about the stories linked to our cultural identity.' (Petrola Veni, Herkulanus Edo and Januarius Feby, Evaluation Interview, Feb 2023)



Figure 56. Sanggar Sarantangan in Sagatani Village, 2022. [image]. Source: Sanggar Sarantangan.

4.7. Engaging *with* 'Manai Jagoi' in Jagoi Babang

The Manai Jagoi team are: Sujianto who was the village chief of Sekida Village, Fitriana who was Sujianto's wife and running a small enterprise selling local products, Jebat who was working at the village office and often take charge of organising community events, Ania who was one of the young artisans, Roslinda, a *bidai* master who was running a medium-sized *bidai* enterprise "Koperasi Hasta Karya" with her family. A series of creative experimentations were also conducted as a means of gathering insights and mutual

learning. However, employing a slightly different strategy, dialogues were built and nurtured by actively participating in their lifeworld.

4.7.1. Group Discussion and Reflection on Sustainability Challenges

To initiate the investigation and position the research within the local context, the research inquiry was formally introduced and pitched to the newly-formed "core team" during a group discussion. Participants in this first meeting included core team members Sujianto and his wife Fitriana, Ania, Roslinda and her husband Gunarto (a subdistrict officer), and Jebat. The team gathered at Sujianto's house, seated in a circle on a *bidai* mat, to discuss the project and define the roles each member would undertake. To ensure the information and discussion format were accessible to everyone, a poster and a brochure were prepared in Indonesian, outlining the C&VM themes and challenges. The purpose of this group discussion was to gain initial insights into how the team understood the concept of sustainability in relation to local craft practices.

The Manai Jagoi team focused on several challenges, with material scarcity due to deforestation emerging as a recurring theme in discussions. Rattan, a vital vernacular material for local communities, played an integral role in their daily lives. However, access to this resource has become increasingly tricky as large swaths of land and forest have been converted for oil palm plantations. Almost every household owned and managed at least a small plot of palm plantation, contributing to this shift in land use. For medium-sized craft enterprises like the one managed by Roslinda and Juniarto, sourcing rattan locally had become unsustainable. Instead, they must procure their supplies from Central Kalimantan. The local availability of *sogoh* rattan, the variety traditionally used for making *bidai* mats, could no longer meet demand. Valued for its exceptional quality, *sogoh* rattan is considered the "king of rattan" due to its durability and ability to develop a natural shine over time. Once a month, Roslinda received bulk shipments of *sogoh* rattan to sustain their craft production.

According to the group, besides forest conversion, rattan overharvesting has become a significant issue, highlighting the need for greater community awareness and a shift in the local mindset. Before the widespread conversion of forested areas to oil palm plantations by corporations and the local community, the Bidayuh people of Jagoi held a deeply rooted belief that the forest was a sacred gift from God and their ancestors. This belief fostered a non-exploitative approach to nature, where the forest was seen as an enduring provider of resources, including rattan, which served as a staple for their craft practices. Traditionally, the community only harvested wild rattan from the forest in quantities necessary for their

immediate needs, allowing the resource to regenerate naturally and quickly. This sense of sufficiency and balance meant there was never an urgent need to cultivate rattan deliberately.

The second theme being explored in the discussion is related to the community's craft identity**.** According to the group, almost all of the Bidayuh craft products sold in Serikin Market and souvenir shops in Kuching are supplied by artisans in Jagoi. Roslinda, Fitri and Ania admitted that the majority of their buyers have been from Serikin. There were not many craft artisans left in the Bidayuh community in Malaysia. Unlike in Jagoi, the younger generation of the perceived 'wealthier siblings' in Malaysia have better access to education and job opportunities, so the traditional craft practice has been left behind. As such, handcrafted products from Jagoi, especially *bidai* and *juwah,* have always been in great demand in Malaysia.

However, while rattan-based craft in Jagoi remains one of the most sought-after commodities, with a consistent demand from the Malaysian market, the group expressed concerns about how their (craft) identity had been challenged. Current craft artisans have become accustomed to tailoring their products to meet the demands of the Malaysian market. Within Indonesia, however, rattan-based craft of Jagoi Babang (especially *bidai*) is not very well-known, and it has been mostly marketed through and by Malaysian middlemen. The *bidai* sold to the Malaysian middleman mostly will be rebranded and labelled 'Made in Malaysia'. Furthermore, current generations of craft practitioners (*bidai* makers) are getting more disconnected from the historical and philosophical narratives embedded in the practice. They have been focusing a lot on commodity-based practice with no space to reflect. This led the group to further explore the characteristics of Jagoi craft; what makes Jagoi craft, Jagoi? Gunarto and Roslinda felt that the local craft community in Jagoi has produced numerous works and masterpieces for generations throughout their lifetime, however those works have gone unnoticed or undocumented.

4.7.2 Competition as a Mode of Creative Inquiry

Commercial over-harvesting and deforestation due to the expansion of oil palm plantations have already eradicated wild rattan from the forests of West Kalimantan. As more land and the forest has been cleared for plantation, it has been increasingly difficult to obtain rattan. With the growing concern of the scarcity of rattan and the urge to instil pride in their craft's identity, weaving competition was chosen as a mode of creative inquiry for one of their creative experimentations.

The team felt that the artisans would respond positively to this (competition), given that traditionally, rattan weaving symbolises pride, and a certain social status in the community. An artisan would only weave together with their family, but never, or very rarely share their work-in-progress with neighbours. Unless the artisans wanted to make a 'modern' version by adding zipper and lined fabric, they would ask their neighbours with sewing skills to work on the finishing. Weaving competition itself was not an unusual event in the village. The community has organised this activity before and according to them, proved to be an efficient way of bringing together artisans to showcase their skills. The team provided their rationale to organise a competition for their project:

> *'On (the theme) education, such as providing or upgrading skills training for the community, but what's the point? Our community is very skilled (at weaving) already; what usually happens is we're competing instead. The culture of 'gotong royong' (mutual cooperation), which is still very strong in our community, weirdly does not apply to rattan weaving. It just never is. (Rattan) Weaving can be a communal activity, but usually people do it together with their family. It is not an activity carried out together with friends or neighbours. I think this is because, in the past, and perhaps still remains, weaving used to be perceived as very dignified, it reflects someone's social status, especially of women. The more skillful they are at it (weaving), the more respect they would receive from the community. For other purposes, such as making thatched sago roofs, building houses, cleaning up the village, cooking for festivities, the community is enthusiastic about working together, helping each other. But weaving is special and very personal.'* (Sujianto and Fitriana, 2022)

Responding to the sustainability themes in the brief, the team then set up the objectives of the competition:

1. Revitalise the communities' craft identity through reviving traditional patterns and developing new patterns inspired by the Bidayuh narratives and Jagoi natural landscape.
2. Giving added value to their craft tradition through development of the pattern and the design (more contemporary).
3. Experiment with alternative materials. Combining rattan with other locally abundant materials such as *bemban*, bamboo, *resam* (wild fern) etc.
4. To explore and develop new patterns that take inspiration from their bidayuh culture and their natural surroundings.

The team used their budget to cover all participants' production costs. The winning artisans will receive prizes of basic cooking equipment. A localised open call for the competition was organised by the Manai Jagoi team. With the support and assistance of the village chief, the team commissioned Timon, a local artist in Kindau Hamlet, to design and distribute the information using visual aesthetics, language and methods that would resonate better with the community. The competition posters (Fig. 57) were produced and distributed around the village; at churches, shops and the village office.

The poster says:
"To fellow craft practitioners, let's participate in the upcoming weaving competition to develop our creativity, economy and innovation. Let's make and innovate together!"

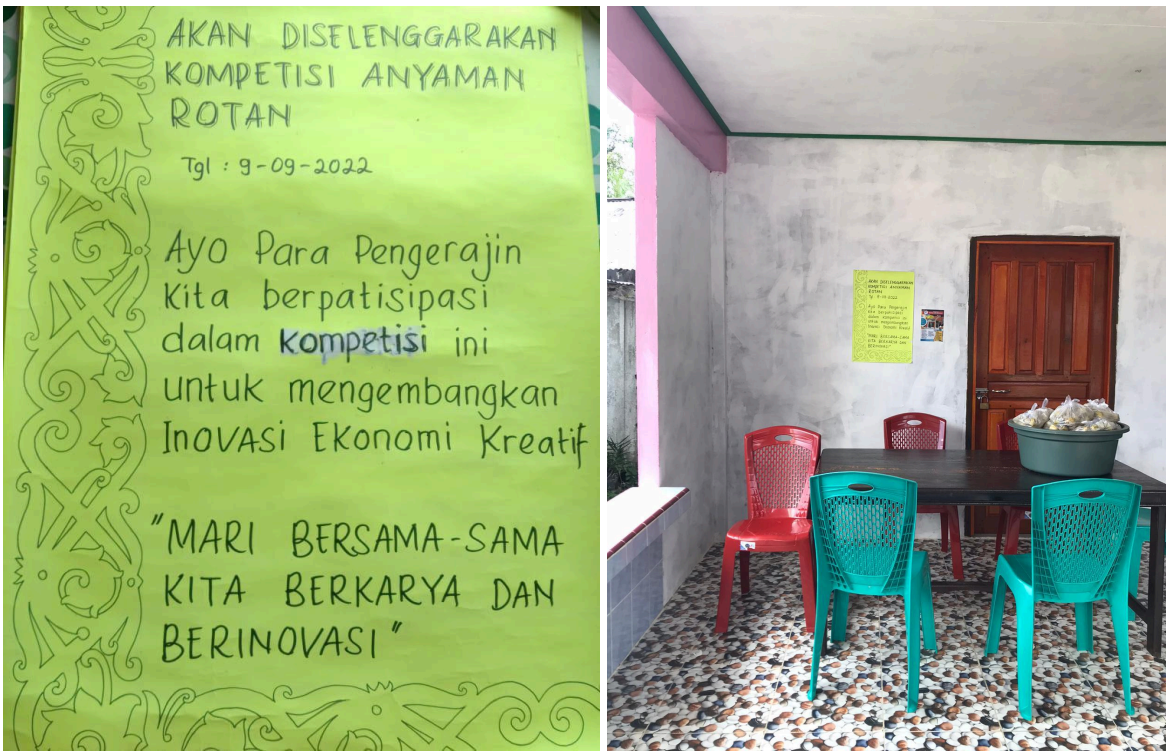


Figure 57. Localised open-call posters distributed in several public spaces in Kindau Hamlet , one of them spotted at a local small shop in Kindau Hamlet, 2022. [photograph]. Source: Gamia Dewanggamanik.

The first competition brought along more than twenty artisans from Kindau hamlet (Fig. 58-59). The competition brief itself was open-ended, as the Manai Jagoi team informed the participants who signed up to approach and interpret 'innovation' as they liked. When disseminating the information about the competition, Fitriana mentioned that the term

‘innovation’ may not sound ‘friendly enough’ for many local people. As such, the team rephrased ‘innovative’ as ‘unique’.

Many participants responded to the brief by exploring and sourcing locally abundant alternative materials to rattan (Fig. 60-62). Natural materials such as *bemban*, bamboo and *resam* (wild fern) were the most popular substitute or complementary to rattan. Some others approached the brief by creating functional objects that aren’t traditional, such as handbags, purses and tissue holders. Some were experimenting with new weaving patterns or reviving old motifs. Besides displaying the artisans’ mastery in weaving and creating intricate designs, the competition demonstrated their skills and knowledge of local materials and product development, and more importantly, it gave insights into their understanding of innovation.

> *‘For our project, we did a competition bringing together more than 20 artisans to explore alternative materials to be combined with rattan. This wasn’t our first time doing a weaving competition, the artisans here are always positive and excited about participating in a weaving competition. However this is the first time we created a specific brief which added extra challenge and complexity to it; the brief was to explore alternative (locally abundant) fibres to combine with rattan, or to explore new patterns or revive old patterns or to explore new functions or forms of woven products. It was exciting seeing them showcasing their skills and knowledge, some of them even came up with natural material that is unique and so underexplored like ‘bokah’; not many of us knew or were aware about it anymore even though they are everywhere. (Jebat, 2022)*



Figure 58. Kindau rattan weavers, 2022. [photograph]. Source: Alfian Widi



Figure 59. Kindau rattan weavers, competition participants, gathering at the village's community hall, 2022. [photograph]. Source: Alfian Widi

In Risau Hamlet, Roslinda hosted a *bidai* competition. The competition focused on one of the objectives, which is the exploration of a weaving pattern that reflects the natural and cultural narratives of Jagoi. Ten *bidai* artisans participated in the competition. The competition took place in-situ, at her large open-space *bidai* workshop, where multiple artisans made multiple large-sized *bidai* at the same time. Through the competition, the artisans introduced various motifs into the weaving inspired by the cultural and natural landscapes of Borneo, such as mountain, the hornbill motif, and *pakis* or wild fern (Fig. 63-65).



Figure 60. Lusia Si'ang and her creation for the competition, a drink holder made of wild fern and *soga* rattan, 2022. [photograph]. Source: Gamia Dewanggamanik.



Figure 61. One of the craft submissions for the competition, a sling bag made of wild fern, *awoh* and *sibayu* rattan, and barkcloth, 2022. [photograph]. Source: Gamia Dewanggamanik.



Figure 62. One of the craft submissions for the competition, a storage box made of bamboo and wild fern, 2022. [photograph]. Source: Gamia Dewanggamanik.



Figure 63. A *bidai* artisan in Jagoi Babang, 2022. [photograph]. Source: Wisnu Purbandaru.



Figure 64. A *bidai* artisan at Koperasi Hasta Karya, Risau Hamlet, Jagoi Babang, 2022. [photograph]. Source: Wisnu Purbandaru.



Figure 65. *Bidai* works made for the Manai Uwi competition, 2022. [photograph]. Source: Gamia Dewanggamanik.

4.7.3. Telusur Ragam Rotan Sekida: Collaborative Rattan Archiving

One of the challenges that the community has been facing regarding raw material scarcity is rattan cultivation, especially where land and forests are increasingly precarious. The local government once tried to help by supplying rattan sourced from other regions, but it turned out that the rattan type differed from the variety usually used in Jagoi. Like most people, the government only knew rattan as one type. It is not widely known that rattan consists of many kinds. The artisans in Jagoi identified more than ten varieties of rattan used in their practice, each type serving different needs. However, they are identified by local names specific to the Jagoi Bidayuh community. Each region has different names for each type of rattan, and the local community does not recognise other words in Indonesian or scientific language, complicating the process of exchanging information.

Sujianto and the community spoke about their ambition to sustain and further develop the rattan weaving practice in Jagoi Sekida. Concerned by the growing scarcity of the raw material, Sujianto has been persuading the community in the village to start the conservation of rattan. His aspiration was to protect the *tembawang* and community land in Kindau, to

conserve the rattan diversity. *Tembawang,* a community-managed forest, holds an important role for the sustainability of rattan weaving practice. The local communities have been exploring ways of ensuring the material availability. It is Ania and her family's dream for Jagoi to have a land reserved for craft materials.

"**Telusur Ragam Rotan Sekida**" (Tracing the Rattan Diversities in Sekida), is a collaborative project between the Sepatokimin Initiative and Manai Jagoi, documented the diversity of rattan found in the Jagoi forest (Fig. 66-68). Following the many discussions and conversations regarding material scarcity and land conservation with the Manai Jagoi team, the researcher initiated and facilitated a collaboration between the local community with designers who were also a part of the C&VM network. The collaborative project focused on the documentation and archiving of vernacular materials in Jagoi that will link up with the community's ambition to initiate a land-reserve for craft materials in the area. The idea was then proposed to the Sepatokimin Initiative based on the researcher's knowledge of their previous works on craft documentation.

This project was then initiated as an attempt to protect the wisdom and experiential knowledge attached to land and rattan cultivation; one that highlights the role of (women) artisans in nurturing nature and culture amidst the ecological crisis the community is facing. In so doing, the project engaged closely with the Initiative and rattan weaving artisans from the Jagoi Sekida village. This project has also given a meaningful process and a necessary step towards the communities' aspiration in rattan conservation and land reserve for craft materials. An important start for the project would be to have the communities' intangible knowledge around the material cultivation archived before going further with the conservation project.

The material archiving project focused on 1) mapping the diversities of local rattan species 2) documenting the communities' know-how on processing the materials 3) the communities' know-how on rattan & land cultivation, intangible knowledge on how they are relating to their land. In this project, the Sepatokimin Initiative took up the leading role in the creative direction, allowing them a novel approach to their craft documentation practice. Prior to this project, their works focused a lot on the documentation of craft techniques and tools, whilst this project delves into the entanglement of natural material, landscape and craft practice. For this project, the Sepatokimin Initiative has shared the work in several formats; short film, publication and interactive website.



Figure 66. Mapping varieties of rattan, specimens collected from the Jagoi forest, 2022. [photograph]. Source: Gamia Dewanggamanik.



Figure 67. the researcher, post-foraging rattan, with research collaborators: Sepatokimin Initiative team, Pak Timon and Di'i, 2022. [photograph]. Source: Wisnu Purbandaru.



Figure 68. Arya and Wisnu of Sepatokimin Initiative in the process of rattan documentation [photograph]. Source: Gamia Dewanggamanik.



Figure 69. Screenshots of the documentary film, 2022. [image]. Source: the Sepatokimin Initiative.

In the project, The Sepatokimin Initiative worked with Sujianto, Di'i and Mak Timon (basket weavers from Kindau hamlet) and Yohana Anik (*bidai* mat maker from Belida hamlet). The documentation used film-making to get further insights into the artisans' relationship with the vernacular materials and their landscape. In doing so, interviews were set up in the artisans' working environment whilst foraging rattan in the forest with Anik and Di'i (Fig.68-69), or sitting on the floor in their living room whilst they were working. This set-up of the interview and film-making was intended to make them feel comfortable sharing their stories, where they were also encouraged to answer the questions in their native Bidayuh language. Jebat and Ania from the Manai Jagoi team would then assist with the translation process.

The short documentary film can be accessed through this link:
Telusur Ragam Rotan Desa Sekida or scanned through the QR code below:

Conducting interviews as natural conversations allowed the researcher to immerse herself more deeply in the artisans' natural environment and the context being explored. This approach enabled her to participate in the process and gain a deeper understanding of the artisans' relationship with the materials. The conversations explored the challenges and difficulties surrounding rattan cultivation and the entire weaving process, beginning with the collection of raw materials, followed by material processing, and ultimately crafting the finished objects. Additionally, the discussions addressed issues related to material availability. The documentation process also included going inside the forest to trace, forage and collect the different types of rattan, guided expertly by the Manai Jagoi team. During the process of collecting the rattan, they showed their familiarity with over 10 types of the rattan (Fig.71), in which they could quickly identify them experientially in multisensory ways through the characteristics of the leaves and thorns, and by particular smells, such as *soga* rattan. They could also locate the rattan through observing and understanding their habitat, and the interactions of the natural systems surrounding it. Their capability of locating different types of rattan displays an embodied knowledge that reflects a heightened sensitivity and deep observations of their natural landscape:

> *'Sibayu rattan grows in clusters in hilly areas whereas 'dangak' rattan likes to grow near the water, so we could just follow where the swamp or the river is, there we are most likely to find it. And with 'uwi awoh', you see, we can tell because they always have those big ants on them [...] The most abundant [type of rattan] would be 'uwi sakot' and 'uwi pilodos' because the birds like them [the fruits]. It's usually the punai bird.'* (Di'i. Fieldwork Interview, Kindau Hamlet, Jagoi Babang, Oct 2022).

The craft practitioners could locate the rattan through observing and understanding their habitat, and the interactions of the natural systems surrounding it. Their capability of locating different types of rattan displays a heightened sensitivity and deep observation of their

natural landscape, that is embodied. Most of this knowledge is being transmitted as implicit knowledge that is embedded in their everyday, cultural practices. As such, the conversations with the artisans covered topics surrounding their experiential knowledge in rattan weaving such as 1) the various objects and materials being used in their practice, 2) Aspirations and worries related to the sustainability of rattan weaving practice in Jagoi. It should be noted that this was the community's first time actively participating in a creative collaboration and research.

> *'In relation to the increasing scarcity of rattan due to the oil palm plantation, initially we wanted to do something related to the preservation and conservation of it.. But we didn't know where to start. We are so thankful to be connected with another group (Sepatokimin) to creatively approach this matter. Along the process, we learned that to go into the direction of conservation, we first need to identify the rattan species available locally and then as importantly, we need to preserve the knowledge attached to it.. So that's one way to start (...) The collaboration on rattan archiving was a revelation…it is inspiring to see the process and the final work which focused on a new way to learn about our cultural assets and natural surroundings, particularly on highlighting local rattan diversities. Many people are not aware about the diversities of rattan, people tend to think of rattan very generally… Even people in our village, especially the younger ones, wouldn't know about it anymore if they are not involved in the practice and the process. In fact, each rattan has its own characteristics and serves different purposes. Not only can this educate us and the market, we think the outcome of this collaboration will be especially valuable for the future generation here.'* (Sujianto and Jebat, 2023)



Figure 70. Samples of local rattan varieties collected from the forest in Jagoi Babang, 2022. [photograph]. Source: Gamia Dewanggamanik.



Figure 71. The interview and film-making process with Anik in Belida hamlet, 2022. [photograph]. Source: Wisnu Purbandaru.



Figure 72. Sepatokimin Initiative's publication on the rattan documentation, 2022. [photograph]. Source: Gamia Dewanggamanik.



Figure 73. The rattan weaving artisans in Kindau Hamlet, sitting together and looking through the publication on the rattan documentation, 2023. [photograph]. Source: Gamia Dewanggamanik.

This documentation project illuminates the significance of knowledge in identifying different types of material, treatment, harvesting methods, and crafting motifs. However, this knowledge will be gone if development is not coupled with efforts of documentation (Fig. 70-73). The importance of preserving and recording the cultural values that come attached to local crafts for their communities and their place in modernity cannot be underestimated (Fatmawati, 2020). The result of this collaborative works can be accessed through the project website https://web-rotan.netlify.app/ or scanned through the QR code below:

4.7.4. In Conversation with Ania: a Collaboration and Knowledge Exchange with Sanggar Sarantangan

“In Conversation with Ania” is a knowledge exchange project between Sanggar Sarantangan and Ania of the Manai Jagoi team, facilitated by the researcher through the C&VM project. As the C&VM program progressed further, each practitioner within the network got to know each other which led to potential collaboration. One of the cross-collaboration resulting from the process was between Sanggar Sarantangan and the Manai Jagoi team.

Sticking to their strategy of peer-to-peer engagement, they engaged Ania, who was of similar age, in the project. The project was a three day making workshop led by Ania and Veni, where the Sanggar Sarantangan group learned how to make rattan baskets, and in exchange they taught Ania and her family beads-making out of *jelai* seeds. Honing in their film-making skill, Sanggar Sarantangan also created another short documentary in Jagoi Babang. The format of the documentary was made to be conversational, between two young people. Here, Veni sets up a conversation with Ania in her house whilst making a basket, inquiring into the ebb and flow of being a young rattan artisan in Jagoi Babang (Fig.74-77).



Figure 74. Veni of Sanggar Sarantangan interviewed Ania of Manai Jagoi, 2022. [photograph]. Source: Jono Anjasmara.



Figure 75. Sanggar Sarantanggan's visit to Jagoi Babang for conducting a workshop and making a short film, 2022. [photograph]. Source: Jono Anjasmara.



Figure 76. Setting up and preparing for filming at Ania's house, 2022. [photograph]. Source: Jono Anjasmara.



Figure 77. Screenshots of the documentary film on Jagoi craft practice made by Sanggar Sarantangan, 2022. [image]. Source: Jono Anjasmara.

The film produced by Sanggar Sarantan can be accessed through this link https://youtu.be/A93067lXcTE?si=zhgPPVfxQ-tYx3R_ or scanned through the QR code below:

4.8. Serumpun: Craft Across Borders Exhibition

The creative experimentations culminated in the final phase of the Cultural-Assets and Vernacular Materials (C&VM), through the inaugural Exhibition 'Serumpun: Crafts across Borders, where all the 11 projects were shared at a public-facing exhibition. The Serumpun exhibition was hosted at the Borneo Cultures Museum, which was the second largest museum in South East Asia. The title of the exhibition ‘Serumpun’ (meaning *a bundle of grass that shares the same root*) helped the C&VM network to convey how knowledges, wisdom and material cultures across the borders of Kalimantan, Sarawak and Sabah connect together as part of a wider ecosystem.

The Serumpun exhibition highlighted the strengthening of the pan-Borneo craft community; a supportive creative network who gives affirmation on the significant values in the efforts in preserving their material and cultural practice. Whilst there was a wide range of exhibits (Fig. 78-79), what connected the works were stories of innovation, creativity and education, which invited audiences to reflect on the deep wisdom and knowledges that live in the hands and materials of the craft practitioners and artisans, and forward towards sustainable futures. The exhibition attracted more than 2500 in-person visitors, and for many in the cohort, including the Manai Jagoi and Sanggar Sarantangan group, this was their first-time sharing work outside of their local communities. Significantly, this community-based exhibition was the first of its kind hosted at the museum, which was opened by the Sarawak Permanent Secretary.

Alongside the exhibition, a complementary programme of live demonstrations and craft-based workshops was held over four days, as well as the Gotong Royong (meaning *cooperation in a community*) event, which brought together key project stakeholders and advocates with the C&VM network in a plenary-style forum. During this time, the C&VM

cohort shared challenges surrounding confidence in defining and articulating their own narratives pertaining to their practices, as well as some who considered themselves as outsiders and would find themselves deferring to other community representatives to speak on their behalf. In this opportunity, the Jagoi Sekida village chief, Sujianto, shared local issues surrounding deforestation and oil palm expansion impacting the sustainability of craft practice in Jagoi.

The C&VM project and the 'Serumpun: Crafts across Borders' exhibition had been transformative for artisans across Borneo's Indonesian and Malaysian borders in Kalimantan, Sabah and Sarawak. Serumpun reflects the spirit of collaboration and collectivism that is unified by a deep attachment to a place and shared-concerns of sustainability, beyond the arbitrary concept of borders and states, reimagining a transnational and transcultural collaboration.



Figure 78. Bidai, designed and made by Koperasi Hasta Karya for the Serumpun exhibition. [photograph]. Source: Roslinda.



Figure 79. Natural beads made by Sanggar Sarantangan showcased during the Serumpun exhibition at the Borneo Cultures Museum, 2022. [photograph]. Source: Gamia Dewanggamanik.

4.9. Fieldwork Projects and Community Participation

The creative experimentation phase began in July 2022. To support the participants in initiating and executing their projects, the researcher assumed multiple roles, including facilitating workshops and mentoring participants. As the projects progressed, the participants took on active roles and increasingly led their initiatives, deciding how, when, and where to implement their ideas and identifying their intended audiences.

Given the participants' unfamiliarity of conducting a creative experimentation, the researcher initially guided participants in conceptualising their projects and developing execution strategies. Workshops, such as an asset-mapping session with Sanggar Sarantangan, helped participants identify community strengths and cultural assets. The researcher created a workshop book filled with prompts to assist participants in gathering their own discursive materials and constructing their project briefs. Additionally, the researcher redesigned and translated the broader C&VM project briefs into a more accessible format for the participants.

Whilst the researcher oversaw all phases of the project, from initial scoping to execution, the participants developed their own briefs for the creative experimentations. As a facilitator, the

researcher’s role was to help set objectives and goals, outline budgets, and devise strategies to realise their vision. This role included connecting participants with relevant stakeholders, facilitating conversations and transforming these connections into fruitful collaborations that benefitted all parties. For example, the collaborative rattan archiving project between the Manai Jagoi team and The Sepatokimin Initiative was one of the significant outcomes. This collaboration was about highlighting and celebrating the stories of craft artisans in Jagoi Babang. In this project, The Sepatokimin Initiative, who has the expertise of film-making and digital design, retained full creative control, while the researcher conducted interviews and framed the narratives. The participating craft artisans provided inputs in the narrative-building process, and this collaboration positioned them as experts, giving them the platform to share their knowledge and stories.

As a mentor, the researcher provided training in essential skills such as budgeting, bookkeeping, and visual storytelling. Tailored workshops prepared participants for specific tasks; for instance, before Sanggar Sarantangan began filming, the researcher arranged workshops in filmmaking and storyboarding and mentored them with interview techniques to ensure readiness. Overall, the researcher's involvement was pivotal in transforming the initial concept into a cohesive and actionable project. The chart below (Fig.81) illustrates the key activities undertaken during fieldwork, highlighting the varying levels of participation and contributions of each role.

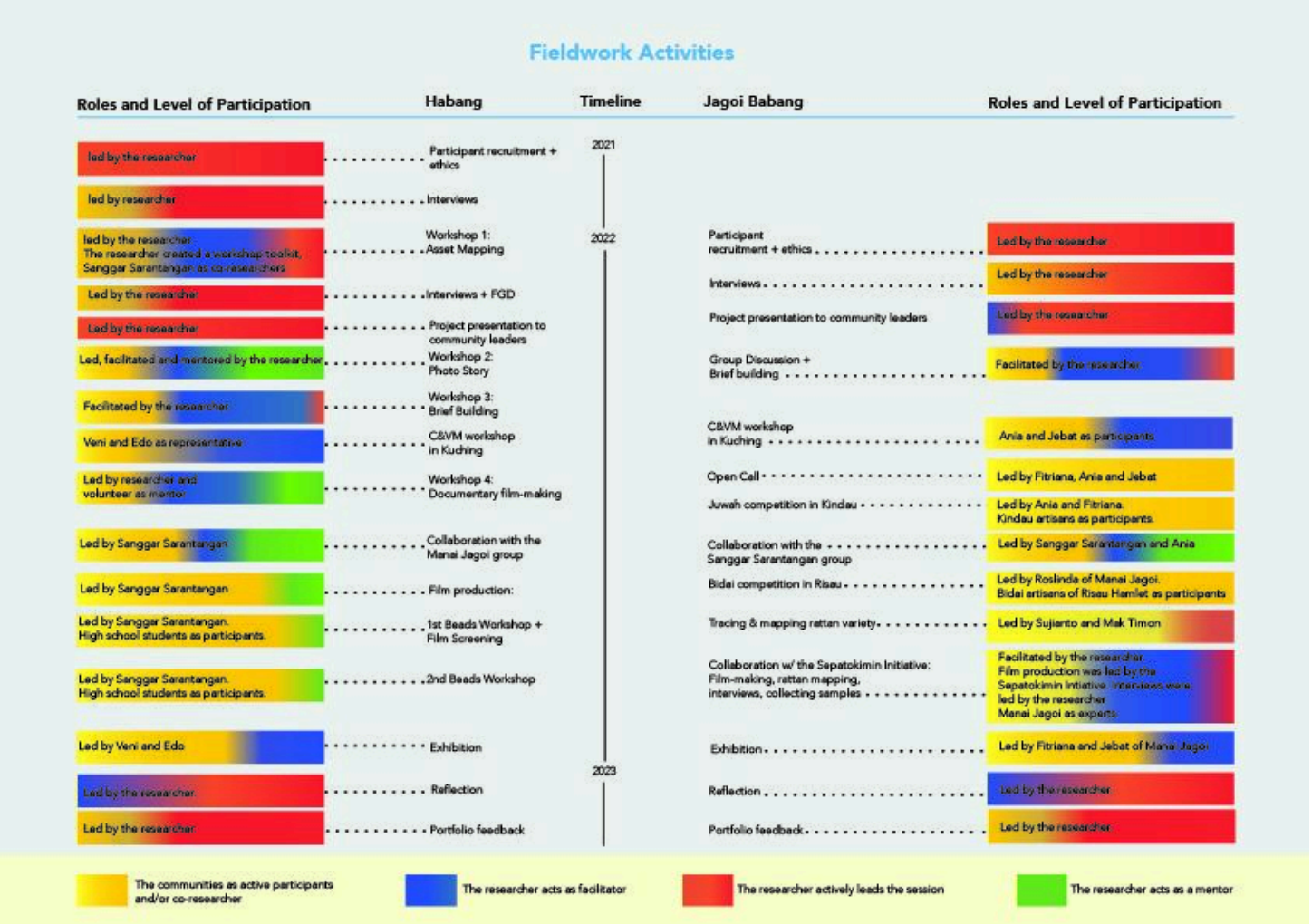


Figure 80. Fieldwork activities and participation chart. [diagram]. Source: Gamia Dewanggamanik.

4.10. Summary of Fieldwork

This chapter has described the study's fieldwork taking place between 2021-2022. Through the fieldwork, the researcher facilitated craft communities in Singkawang and Jagoi Babang to initiate and orchestrate their own creative experimentations, 'using' C&VM programme as a platform to mobilise and showcase their community's cultural assets.

In Singkawang, the research was primarily conducted in the Dayak Kanayatn-dominated village in South Singkawang subdistrict, with the participation of Sanggar Sarantangan. In December 2022, three projects were realised; *Mutiara dari Hutan Habang* (Pearl of the Forest) which is a short documentary on the cultural narratives of *jelai* beads, a collaborative project with Manai Jagoi, and concluded with a *jelai* beads making workshop for the local high school students. Through their project, Sanggar Sarantangan worked with

young people in the village to explore *jelai* plants around them that can be used to make various products. Through this research, the group was supported to conduct their own workshops to make craft products and better understand the cultural context of jelai. The practice of Sanggar Sarantangan demonstrates how youth engagement and education was done in a collective effort. Their practice revealed how horizontal knowledge transmission and peer-to-peer learning can be fruitful when the intergenerational gap in the community was identified as a tremendous barrier for young people to learn about their roots.

A collaborative knowledge-exchange project between Sanggar Sarantangan and other communities from the C&VM network was also facilitated. Six members of the Sanggar Sarantangan had the opportunity to visit their fellow craft practitioners in Jagoi Babang to get to know more about the Bidayuh rattan weaving tradition. Besides having the opportunity to learn first hand the weaving techniques, they produced a short documentary to further explore the challenges faced by the community to sustain their practice, as well as talking about their experience as young craft practitioners.

The fieldwork in Jagoi Babang was primarily conducted in Jagoi Sekida village, working with the Bidayuh craft community to explore alternative natural materials and the documentation of rattan weaving practice. The fieldwork revealed the increasing scarcity of natural materials like rattan, driven by deforestation and its disruptive impact on the local craft ecosystem. In response to these challenges, the craft communities showcased their adaptability, drawing upon their deep knowledge and honed skills to navigate and mitigate the effects of these environmental changes.

5.

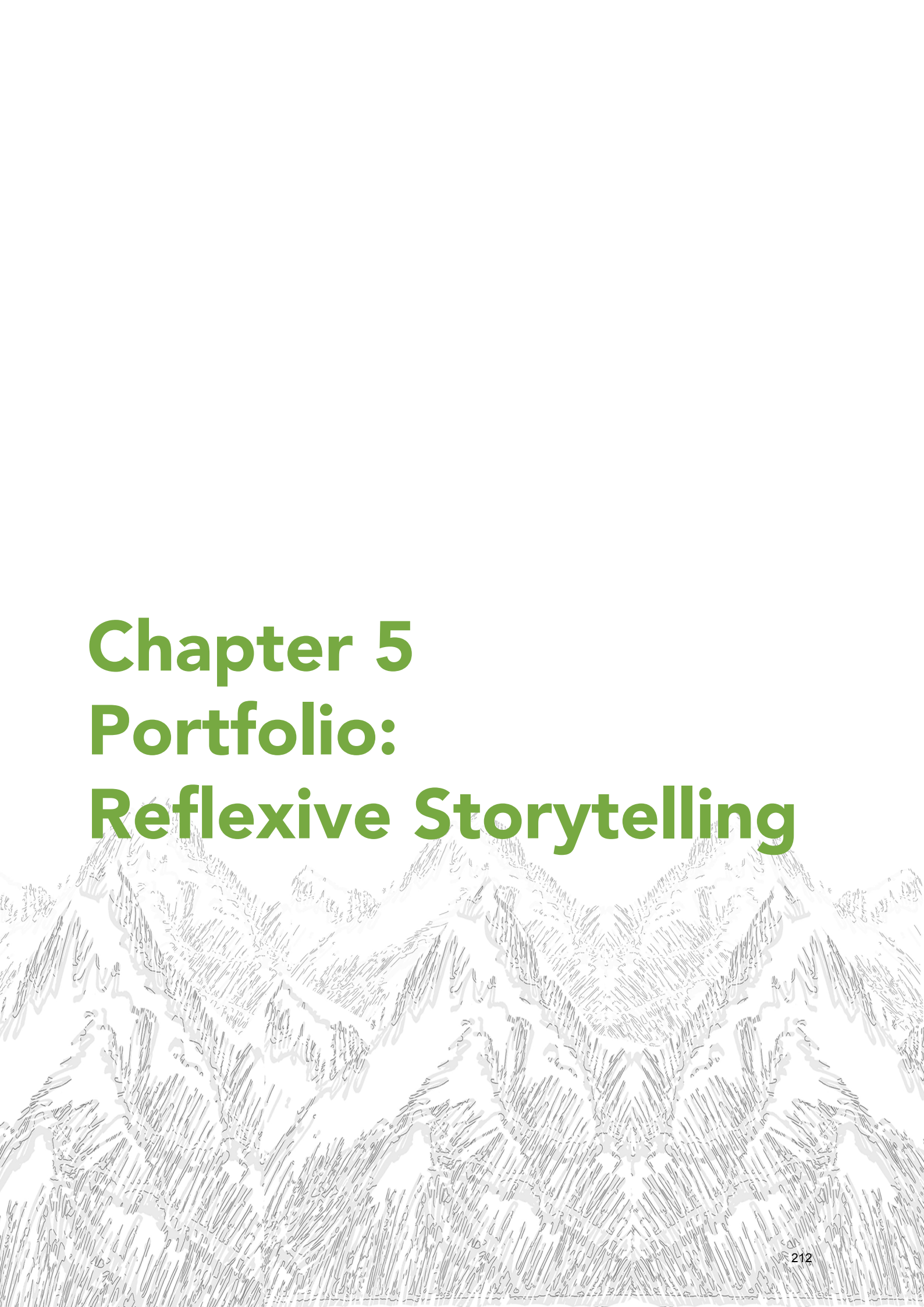
PORTFOLIO: REFLEXIVE STORY

This chapter presents the research portfolio compiling notes, diary, reports and images gathered during the fieldwork phase. A different format and layout is used to distinguish this portfolio chapter with the remainder of the thesis, which highlights the reflexive journey of the research. This portfolio illustrates a reflexive encounter in the field: between the researcher as a researcher, the researched, and their subjectivity.

The fieldwork was both extensive and intensive, allowing the researcher to engage in rich conversations with the communities participating in the research and beyond. Throughout the fieldwork, stories were collected from a diverse range of voices including craft practitioners, village chiefs, adat leaders, as well as local governments and enterprises associated with the local craft sector. This journey has provided an intimate perspective of the communities' everyday lives and their worldviews. Equally, narratives derived from literature research were integrated with the researcher's observations, experiences, and interpretations of the communities' stories and explanations. These accounts were primarily captured through interviews and conversations, with certain names pseudonymised to uphold ethical considerations.

Throughout the fieldwork, images were captured primarily using the researcher's mobile phone, supplemented by contributions from participants and some were done professionally using more advanced equipment. This chapter aims to present these images authentically, allowing readers to gain a genuine sense of what the researcher saw and experienced in Borneo during that time. While the images possess varying levels of quality in terms of their definition or technique, they were uniformly processed through digital illustration and manipulation for presentation purposes. This approach ensures consistency in visual representation while preserving the integrity of the original moments documented.

Chapter 5
Portfolio:
Reflexive Storytelling



Portfolio:
Reflexive Storytelling



The author, going inside the forest in Jagoi Babang, West Kalimantan, to collect samples of rattan materials. (2022).
Digital illustration based on Alfian Widi's documentation. (2022).



Part 1: Jagoi Babang

1. Overview

2.The Practice: Manai Uwi

3. Wisdom from the Land

4. Craft and Spirituality

5. Craft and Youth Aspiration

6. Craft, Identity and Commodity

7. One Homeland, Two Nations



The landscape of Sekida Village in Jagoi Babang. (2022).
Digital illustration based on Yohanes Arya's documentation. (2022).

It is through this journey, that I can only"speak nearby", of the diverse perspectives, knowledges and narratives that may have previously remained at the periphery.
In this manner, I inscribe every element of this portfolio to the craft communities whose stories, passion and dedication permeate every fibre of their work.

> ***"We, the Bidayuh Jagoi, do not have many friends in Indonesia. Most of our relatives live on the other side."***

Prelude

One of the most common comments or questions I received when visiting Dayak villages in the Kalimantan interior was "What do your people in Java think of us, Dayak people? People there think that we kill and eat humans, right?" Such false, derogatory stereotypes of Dayak people being backward and cannibalistic exist and spread widely in Java. Many of this rumour/stereotype derived from outsiders' perception, particularly Javanese, in regards to the Dayaks past tradition of headhunting. In addition to the remaining forest-based survival culture of hunting and eating snakes, monitor lizards and monkeys, which is considered as pests in Kalimantan but regarded as unusual or even illicit in Java. The (cannibalistic) rumour has been intensified particularly since the violent conflict between the Dayaks and Madurese transmigrants in Kalimantan during the 90s.

I visited Jagoi Babang alone without prior experience of the area or its community, hence often left the local people I interacted with wondering. Sujianto, who served as village chief, expressed one of the reasons he trusted and would participate in the research. *"You were brave, you came here by yourself not knowing anyone and not having any prejudice about us. You accepted our invitation to participate in gawai, you socialise with the community. The Bidayuh Jagoi, we don't have many friends in Indonesia, most of our relatives are in the other side (Sarawak). Dayak people, especially us Bidayuh, respect friendship very much. We really appreciate when people take their time to understand our ancestral heritage"*

Digital illustration based on Yohanes Arya's documentation. (2022).





Digital illustration based on Yohanes Arya's documentation. (2022).

OVERVIEW

Jagoi Babang sub-district is situated within Bengkayang Regency in the northwest of Borneo Island. It is one the outermost districts in Indonesia, immediately adjacent to the Sarawak State of East Malaysia. The sub-district consists of six villages and fourteen hamlets. The fieldwork activities predominantly took place within the Bidayuh hamlets of Kindau and Belida in Jagoi Sekida village and Risau hamlet of Jagoi village.

Traditionally, daily activities of the Bidayuh communities in Jagoi Babang are always a rotation among farming, hunting, fishing and gathering which demand them to utilise everything that their natural surroundings provide for their sustenance. The abundant weaving natural materials like rattan, bamboo, nipah leaves, pandanus palms and bemban reed have been used for generations in producing useful daily objects. Rattan, particularly, is considered to be one of the most important vernacular materials especially for forest-based communities such as the Dayaks in Borneo. Indigenous Dayak communities across Borneo, uphold rattan weaving traditions nonetheless possessing distinct patterns, plaiting techniques as well as styles. Their craft practice demonstrates the significance of rattan that is linked to the communities' cultural identity as well as their livelihood. Locally crafted objects made of rattan such as juwah and bidai are constitutive elements of social life for the community and strongly contribute to building and upholding their cultural identity. These objects have significant functions and meanings in their ritual ceremonies.

Social relations in the villages are strongly hierarchical; each hamlet and village has its own elders, ritual specialists and ketua adat or customary leader. Hierarchy and social status is often marked by ownership of lands and livestock. Craft skills such as rattan weaving used to have implications on social status for the women in the community. Throughout his journey researching Borneo's material culture, Anthropologist Bernard Sellato noted that "status among the interior peoples was always gained through expertise and, since Borneo people have a keen eye for beauty, the best artisans—weavers included—could achieve local fame for their work."





‘Pondok’, traditional hut for resting in a plantation in Sekida Village. (2022).
Digital illustration based on the author’s own documentation. (2022).



‘Rumah Baruk’, traditional Bidayuh round house architecture at Bung Kupuak, customary area in Jagoi Babang. (2022).
Digital illustration based on the author’s own documentation. (2022).



“Ramin Bantang” long house in Bengkayang District town (2022).
Digital illustration based on the author’s own documentation. (2022).

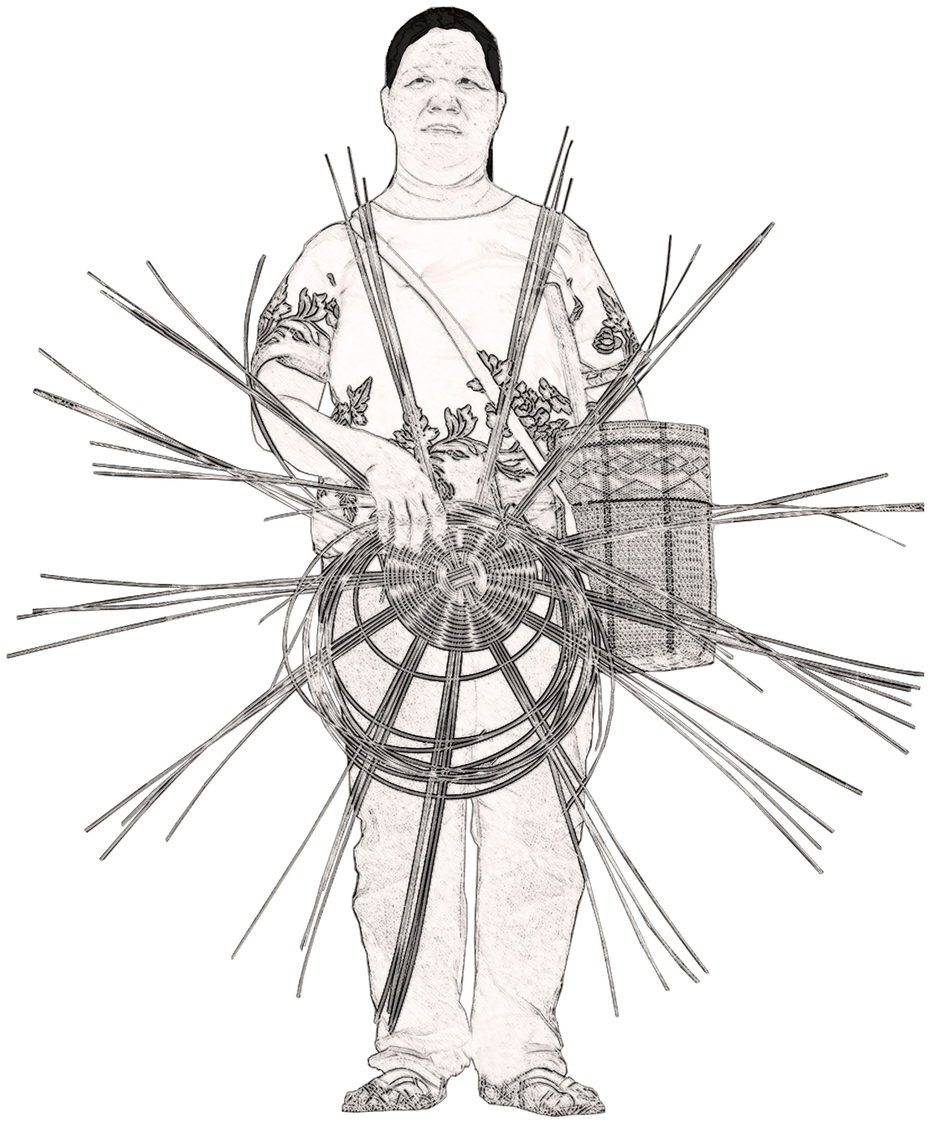


River Babang flowing through Kindau Hamlet. (2022).
Digital illustration based on the author's own documentation. (2022).



Roslinda, a bidai master weaver, in Bidayuh costume. (2022).
Digital illustration based on the author's own documentation. (2022).

The Practice: Manai Uwi



Digital illustration based on Alfian Widi"s documentation. (2022).

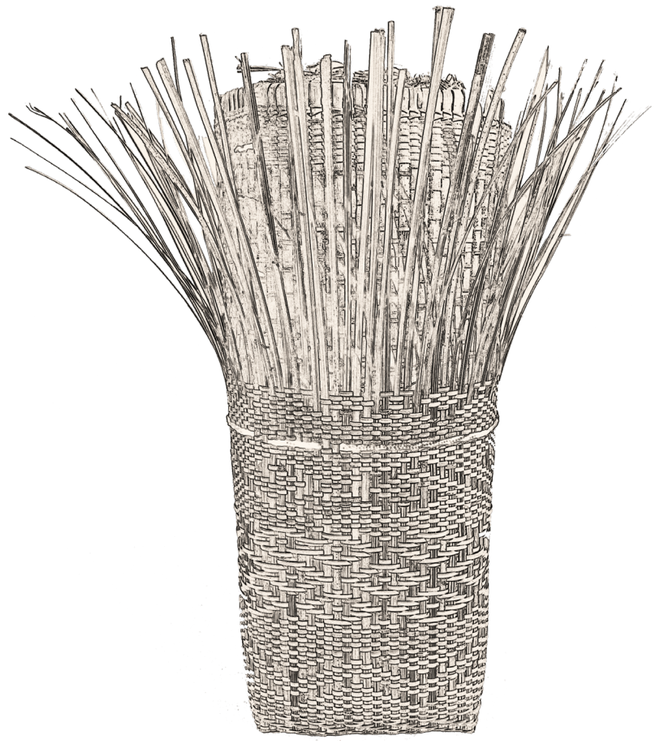
'Manai uwi' is one of the most important traditions for the Bidayuh community in Jagoi. In the Bidayuh language, *manai* means to weave, whereas *uwi* means rattan. Rattan is an important vernacular material for the Bidayuh communities in Jagoi Babang and is deeply attached to their everyday life. The significance of rattan is linked to the communities' cultural identity as well as their livelihood. The majority of the village population are farmers and almost 80% of them are skilled rattan weavers.

Traditionally, the Jagoi Bidayuh community meets their daily needs from rattan weaving. They make a broad range of woven objects adapted to specific functions, especially to go to the farm and to the forest. Many of the objects used in the village, from everyday household needs to sacred ritual purposes, are mostly made of rattan. Juwah or baskets, are primary tools; either as a carrier and some form of a container. Interestingly, different types of baskets are made for different purposes; the forms and sizes are primarily dictated by function. There is a specific basket for planting, for harvesting, for storing and for winnowing the rice, besides those used for collecting vegetables and edible ferns, for fishing and for keeping personal belongings. Bidai mats are made not only for sitting but also serve a purpose for drying padi in the sun and extensively used in rituals, ceremonies and especially gawai (rice harvest celebration).



Digital illustration based on Wisnu Purbandaru's documentation. (2022).

Rattan is an important vernacular material for the Bidayuh communities in Jagoi Babang and is deeply attached to their everyday life. The significance of rattan is linked to the communities' cultural identity as well as their livelihood.



Unfinished juwah basket. (2022).
Digital illustration based on the author's own documentation. (2022).



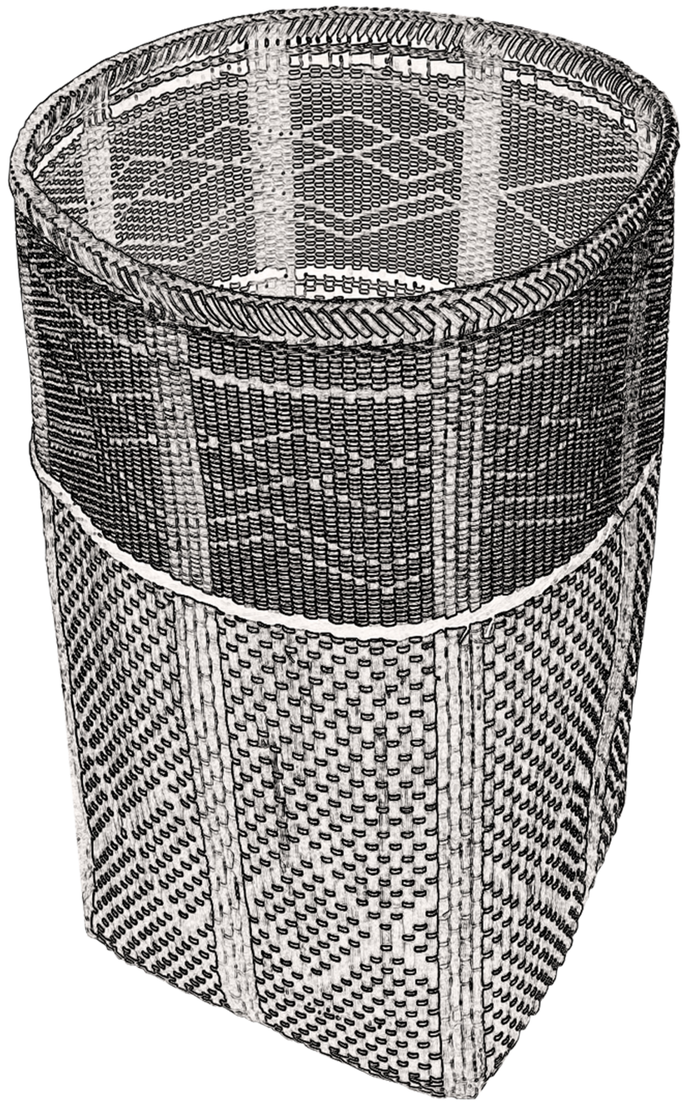
Rattan craft artisans gathered at the community hall in Kindau Hamlet. (2022).
Digital illustration based on the author's own documentation. (2022).

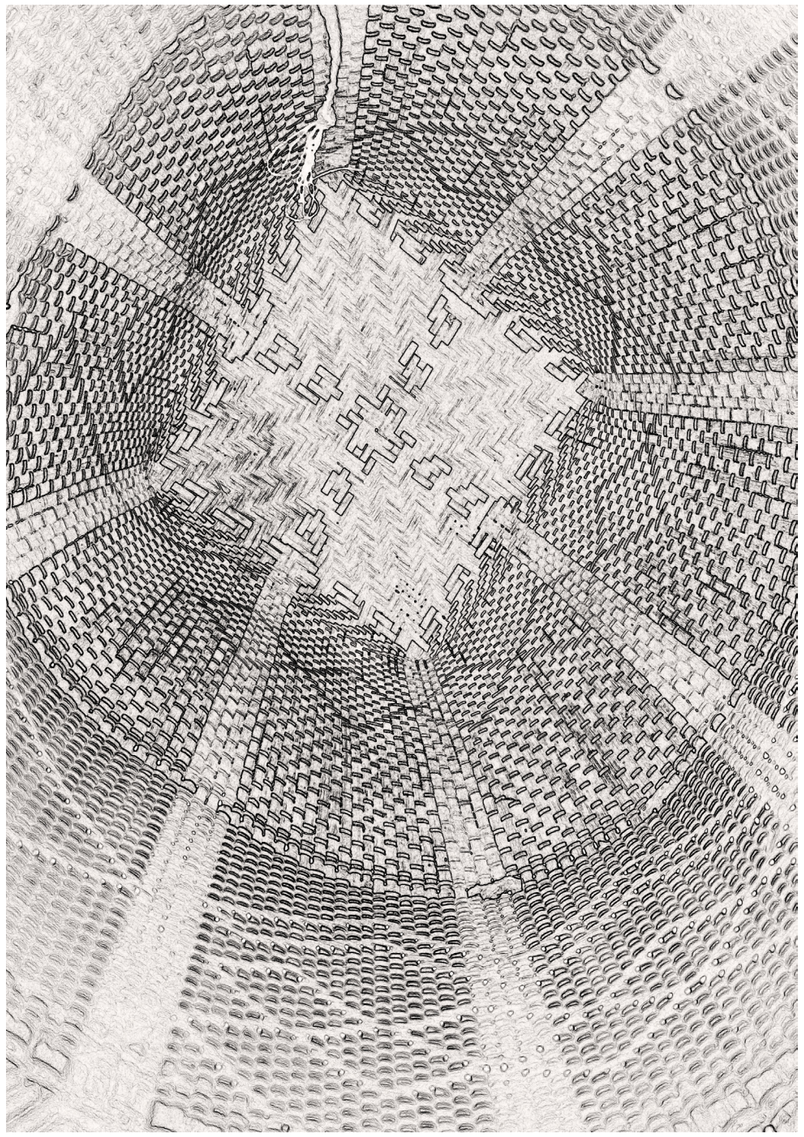
The Characteristics of Bidayuh Rattan Weaving

The Bidayuh makes a variety of woven objects and baskets of different sizes. The most popular is juwah; which is a general term for basket. Juwah is also known as 'tambok' or 'takin' in Malay language. Juwah is cylindrical in shape and supported with four vertical sticks. Basek, a bigger size of juwah, is used to carry harvested rice from the field to home. It is also used to carry other forest produce to the market. Basek is carried on the back, with a tree bark-cloth head strap over the forehead .

The Bidayuh makes their juwah mainly using vertical interlacing (+) technique, plaiting with vertical and horizontal strips of rattan. This technique makes a salient contrast with woven baskets made by other ethnic groups, such as the diagonal interlacing (X) pattern practised by the Dayak Iban community.

Juwah features 'tongon' (vertical warp) and pa'an (horizontal weft) interlacing rattan strips that start at the base. An additional weft strand is added, after which the strands from the base are folded up to form the sides. Four rattan sticks are tied to the corners of the juwah to help keep its form.





Digital illustrations based on the author's own documentation. (2022).

Di'i started weaving rattan when she was ten years old. Her daily activities include tapping rubber in the morning, tending her swidden rice field and pepper farm, and weaving juwah baskets for personal use or for neighbours. She often brings her weaving materials into the farm, where she'd make juwah at the farm hut. Rattan plants growing wild in the patch of forest-garden behind her house, but Di'i also planted some herself. Some types of rattan are increasingly difficult to find, so when she or her husband found some, they collected the seeds and fruits to replant them somewhere more accessible to her.

Di'i is a known skilled artisans. Whilst the staple craft material is rattan, Di'i also utilises various plants from her natural surroundings; bamboo, bemban, pandan leaves, sagoo sheath and wild fern.



Di'i made herself a personalised 'juwah mand' with her initial on it. The basket has aged almost 10 years.

Di'i sitting on her special chair, a legless wooden chair she made herself, especially designed for weaving. Her cat is her loyal company, sleeping on his 'special bed' which is a rattan 'talam'.

Digital illustrations based on the author's own documentation. (2022).



Di'i sitting in her kitchen, filled with broad variety of woven objects made of various local materials but mostly rattan.
Digital illustration based on the author's own documentation. (2022).



Ibu Anik from Belida Hamlet, makes variety of plaitwork but more known for her bidai-making. She occupies a small workshop next to her house, making bidai with the company of neighbours, but mostly Bobby the dog. She enjoys listening to Christian religous music whilst weaving.
Digital illustration based on the author's own documentation. (2022).

Yohana or better known as Anik, is a well-known bidai maker from Belida hamlet. She started learning to weave from her grandparents when she was fourteen years old, but has been consistently making bidai since 1994, mostly by herself, sometimes with the help of her son. Though most people in the area can make bidai, Anik is one of the few who makes a living out of it. Despite the relatively small-scale workshop set-up and enterprise, she has always been flooded with demand, especially from buyers in Sarawak. Besides bidai, Anik also makes varieties of juwah.

Anik is very passionate about her work. She admitted that she spent most of her time in her little workshop, from 6 in the morning until 12 at night. When not tending the farm, she prefers weaving in there usually accompanied by her dog or neighbours. She always seems to welcome people visiting her workshop to learn about bidai; when I first met her in 2022, she was enthusiastic showing me the process of making bidai and even going through each step from harvesting the material to finishing the end product. Each of the raw material used in her work is sourced from her own forest-garden. Including the tree bark cloth used in bidai, she processed the material herself from cutting down the timber to flattening the sheet.



Digital illustrations based on the author's own documentation. (2022).

Harvesting and Preparing Rattan

Harvesting rattan is a skilled and tedious labour; identifying which canes are ready for harvest, pulling them down from the canopy while simultaneously stripping thorns on their skins and ripping of the skins with a machete.

After the rattan canes are cut to length needed, they are then bundled and bound together. According to the farmers and artisans, sogoh rattan, in particular, is the most difficult one to harvest; as it creeps up at height, entangled between tall trees, therefore climbing is needed to harvest them.

The process begins with the careful harvesting of rattan canes in the forest. The artisans carefully select mature rattan plants, ensuring that they only collect canes that have reached their optimal growth stage. If done correctly, the rattan will regrow very fast.

Once harvested, the rattan canes are chopped, with the leaves and smaller branches removed to prepare them for further steps. The next stage is soaking the rattan canes in water to prevent the growth of mould and insects, as well as to remove any residual sap. Some artisans in Kindau, like Di'i and Mak Timon, soak theirs under the river, tied to some wooden planks. This process also helps to soften the canes, making them more pliable and easier to work with. To achieve black colour, rattans are also soaked in the mud for days, before boiling them with natural dye.

Following treatment, the rattan canes are sun-dried for several days allowing the fibres to dry naturally, this is a crucial step that enhances their strength and durability. The sun-drying process also helps to give the rattan its distinctive colour, ranging from pale white, a light golden hue to a rich, dark brown.



The process of harvesting rattan. (2022).
Digital illustrations based on Alfian Widi's documentation. (2022).



After harvesting rattan, Di'i soaks them in the river for a couple of days. (2022).
Digital illustration based on Wisnu Purbandaru's documentation. (2022).



Mak Timon, after harvesting rattan from the forest in Kindau Hamlet. (2022).
Digital illustration based on Alfian Widi's documentation. (2022).

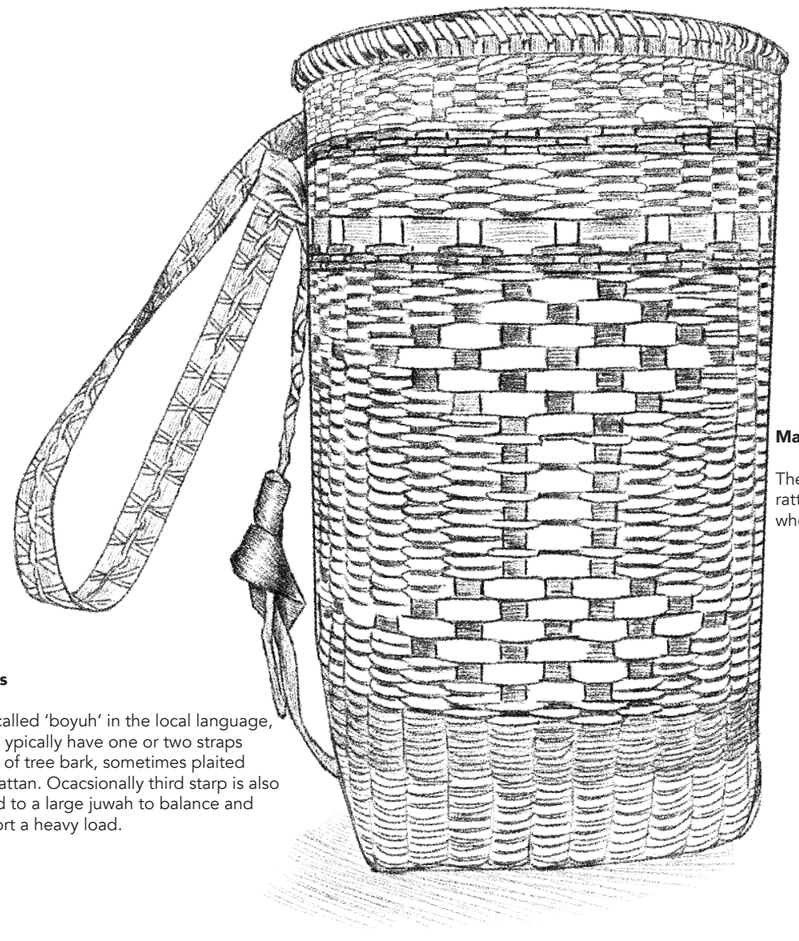




THE ANATOMY OF JUWAH

Top rim

The top rim is called ‘simu’. The intricacy of the finishing of the rim usually indicates whether the basket is used for utilitarian or special purposes.



Straps

Also called ‘boyuh’ in the local language, juwah ypically have one or two straps made of tree bark, sometimes plaited with rattan. Ocacsionally third starp is also added to a large juwah to balance and support a heavy load.

Main body

The juwah’s main component. Vertical rattan sticks are added to stiffen the whole structure.

Base

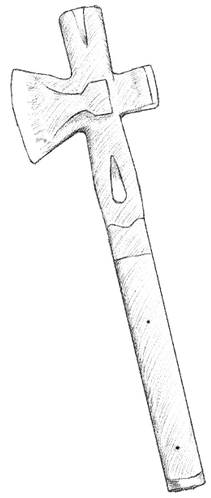
Or ‘lagan’ in the local language. Typically reinforced by adding sticks cross-bracing on the underside of the basket

All drawings by Nurul Farizah Ridzuan based on the author’s own documentation. (2023).

THE TOOLS FOR MAKING JUWAH

Tukul

A metal hammer, is a tool commonly used in rattan weaving to help beat the weft threads into place. The weft threads are the horizontal threads that run across the loom, while the warp threads are the vertical threads that are held taut during the plaiting process



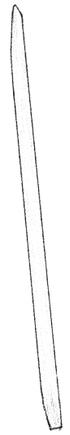
Bikilu

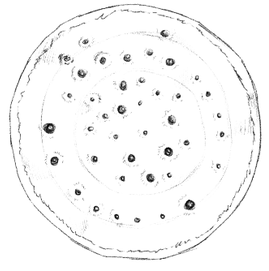
The awl is used to create holes in the rattan strands or to weiden existing holes so that they can be threaded onto the frame or other rattan strands. The artisan can also use the awl to adjust the tension of the strands during the plaiting process.



Pingasig

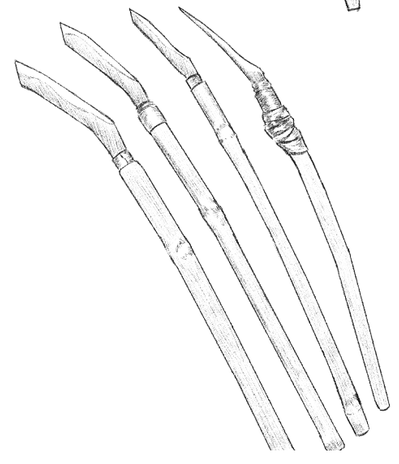
A common tool used to tighten the weaving of rattan, is a cane webbing stretcher. This tool is designed to help artisans maintain even tension on the rattan strands as they plait, ensuring that the finished object is sturdy and well-made. The cane webbing stretcher typically consists of a long, slender piece of wood or metal with a curved hook on one end. The artisan will use the hook to grasp the rattan strands and them taut, while the other end of the stretcher is used to push down on the weaving, creating even tension throughout the piece.





Kilikan

Tin lids with holes are commonly used in weaving preparation, to create loom weights, which are use to help maintain tension on the warp threads and help the artisans producing fine rattan strands. The tin lids are typically lightweight and can be easily attached to the warp threads.



Sinak

A short-bladed knife used to help cut and trim rattan threads. The knife typically has a sharp, pointed balde that is hirt in length and easy to maneuver. Artisans use the knife to trim loose threads as the end of the row or when changing colours or types of threads. It is also used to cut away any excess or unwanted thread during the process. Sinak can vary in size and dhape, depending on the specific needs of the artisans and the type of weaving being done/ It may have a handle or be designed for a comfortable grip to prevent hand fatigue during prolonged use.

THE TOOLS FOR MAKING BIDAI

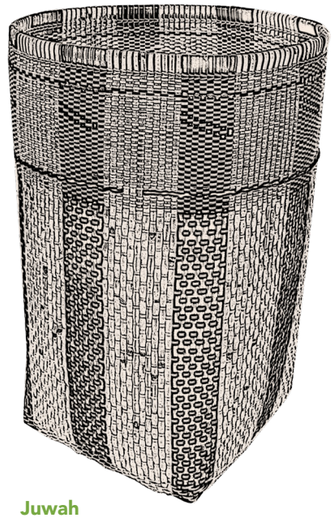


All digital illustration are based on the author's own documentation (2022).



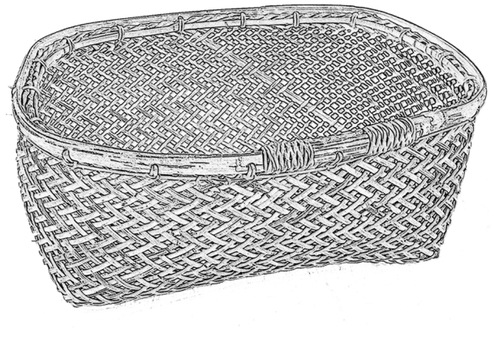
Anik finishing up making bidai in her workshop in Belida Hamlet. (2022).
Digital illustration based on the author's own documentation (2022).

Everyday Objects in Jagoi



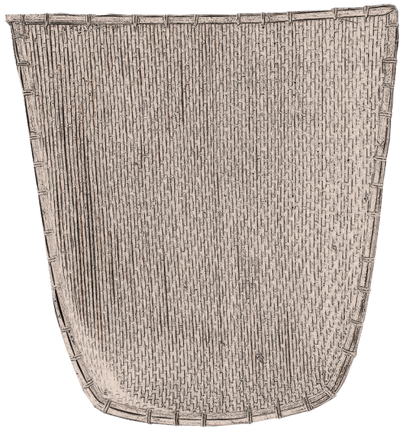
Juwah

is a general term for basket. Also called 'takin' or 'tambok' in Malay. The size can vary depending on the purposes and each type has specific name.



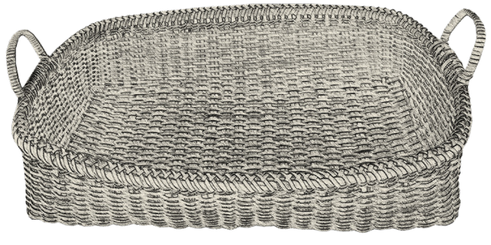
Sokuap

Used to scoop freshwater fish or shrimp in the river.



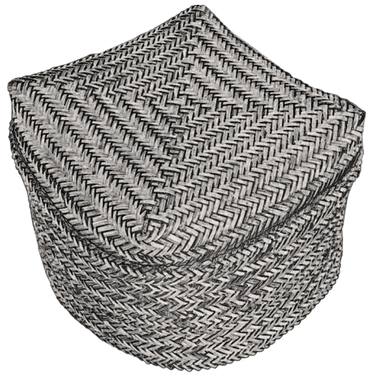
Tapan

winnowing tray, used to separate rice from chaff by repetitively throwing the rice in the air to blow away



Talam

Used as serving tray.



Subuay

A special basket only used during Gawai Padi ritual. During the gawai, subuay is used to put lemang (dayak rice cake) and meat (pork) as offerings. When not in use for gawai rituals, subuay is used to store valuable personal belongings. Subuay is made only using the best quality rattan such as *uwi sogoh.*



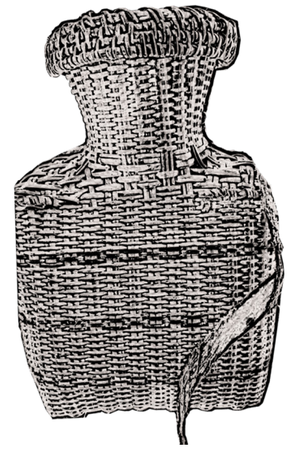
Kobuk

Used to store fruits or vegetables at home.



Ragak Kapit

Used to carry fruits from the forest or as shopping carrier when going to the market.



Juwah Gilogag

Container for frogs. Frogs are particularly abundant in the swidden.

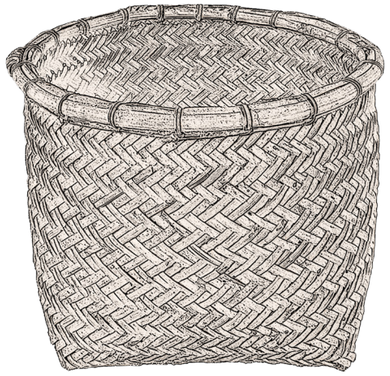
All digital drawings are based on the author's own documentation (2022).

Everyday Objects in Jagoi



Situpap

fly swatter



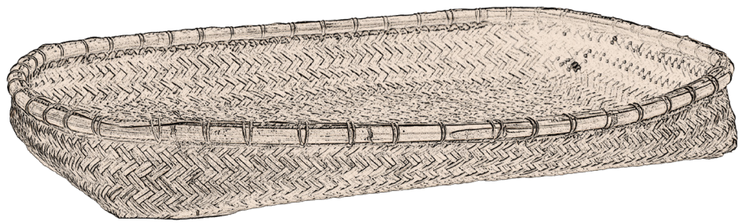
Bakul

Traditionally used in the ktichen to store rice or other crop seeds.



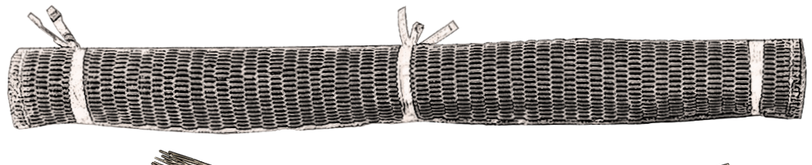
Everyday objects made of various natural fibres; rattan, wild fern, pandan leaves, sagoo sheathes, bemban, bamboo and tree roots.

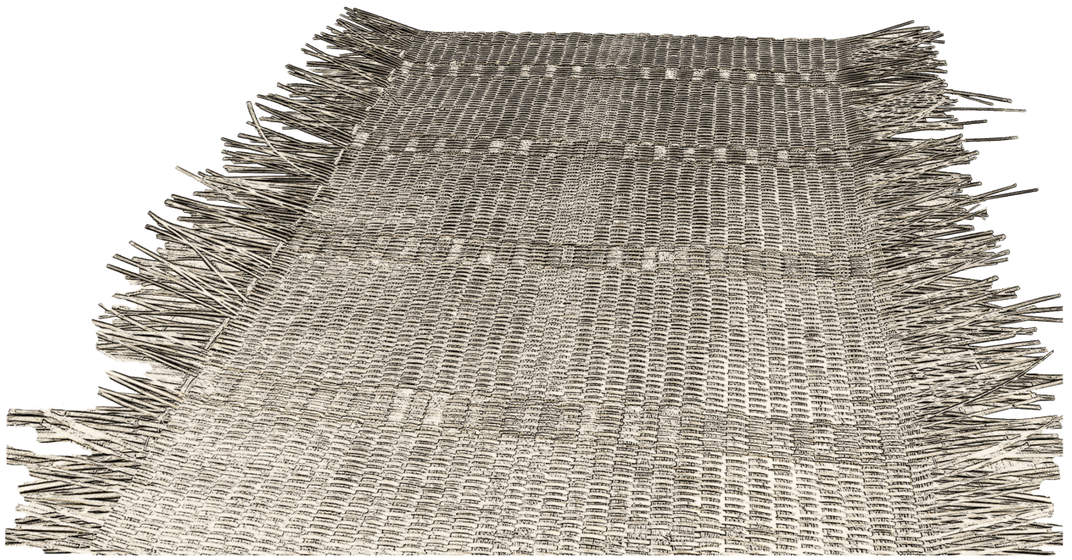
All digital drawings are based on the author's own documentation (2022).



Atang

To dry harvested rice (in small amount).

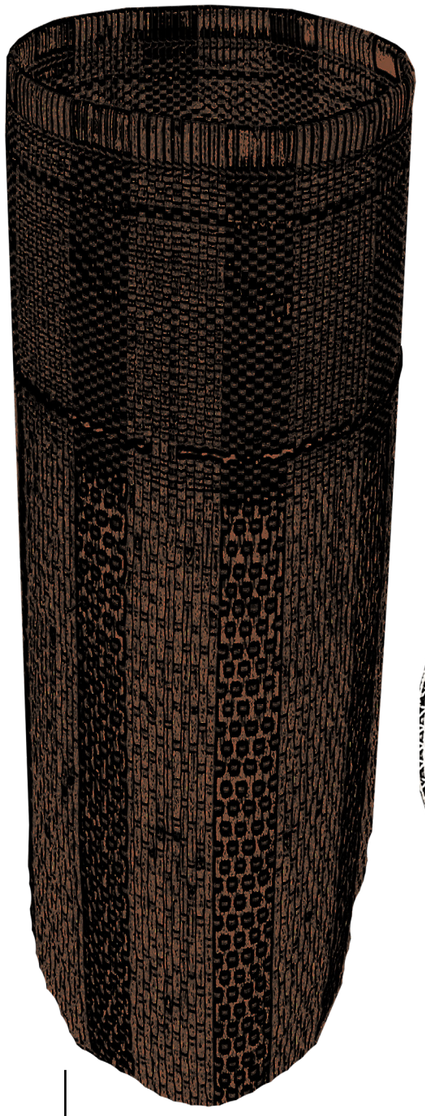




Bidai

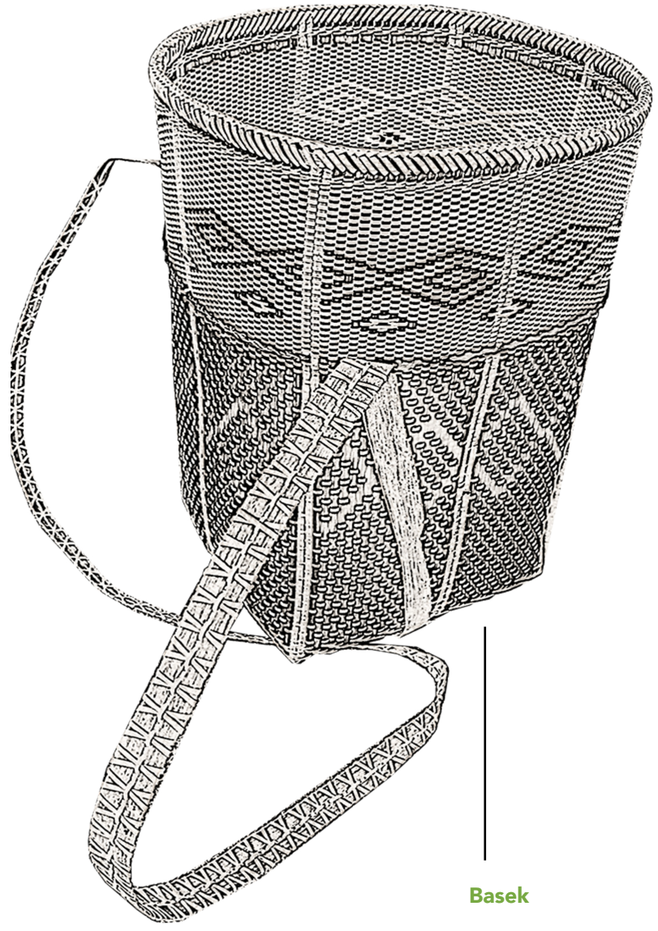
Used as a floor mat for sitting, as well as for drying rice. It is made of split rattan with a simple horizontal weft weaving technique and bark fibres warped vertically to maintain its structural integrity.

All digital illustrations are based on the author's own documentation (2022).



Sajua

The largest size of juwah, used for storing rice that has been dried cleaned



Basek

big sized juwah, used to carry harvested rice from the field to home. It is also used to carry other forest produce to the market. Basek is carried on the back, with a tree bark-cloth head strap over the forehead .

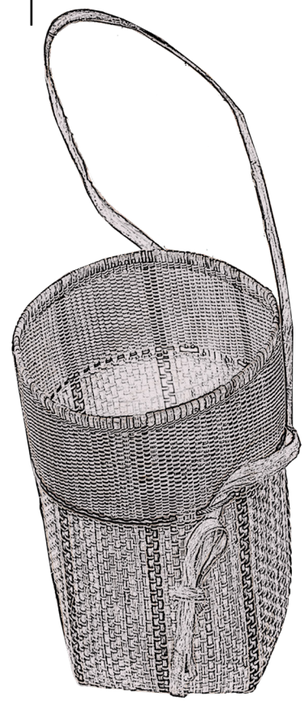


Juwah Pingutuam

To collect/ harvest rice in the field. *Pingutuam* means rice harvesting.

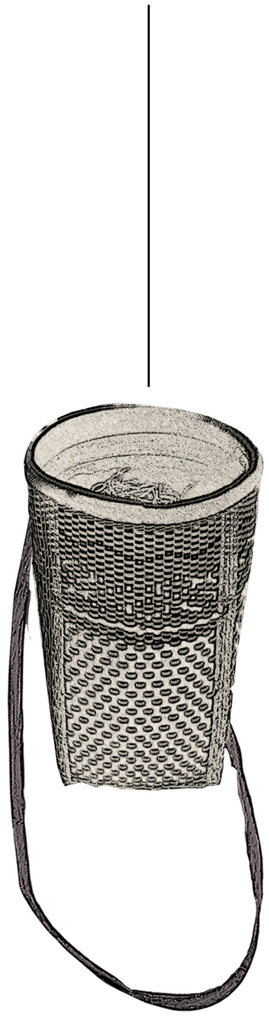
Jumuak Mand

Medium size juwah used during farming/planting season, people use it to carry (rice) seeds. It is also used as a carrier for vegetables. Mand means 'to sling', so it is always worn by slinging on the shoulder



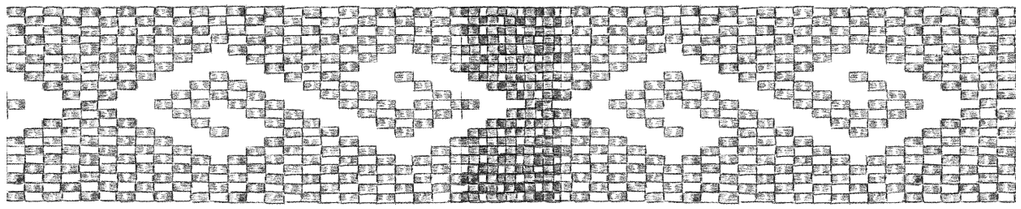
Juwah Isok

a small juwah to carry around in the neighbourhood to socialise.

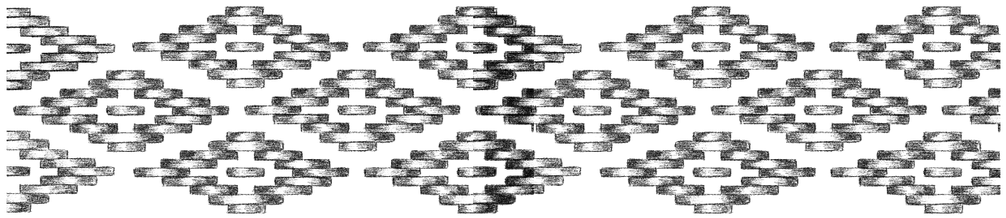


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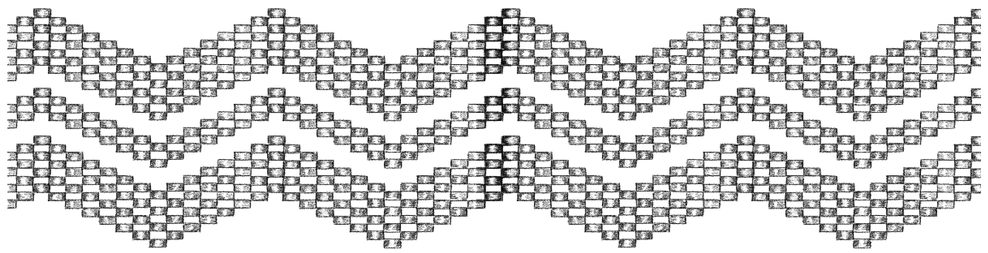
Traditional Bidayuh Motifs



Koling Pokuh (Wild Fern)



Boton Puni (Green Pegeon's Eyes)

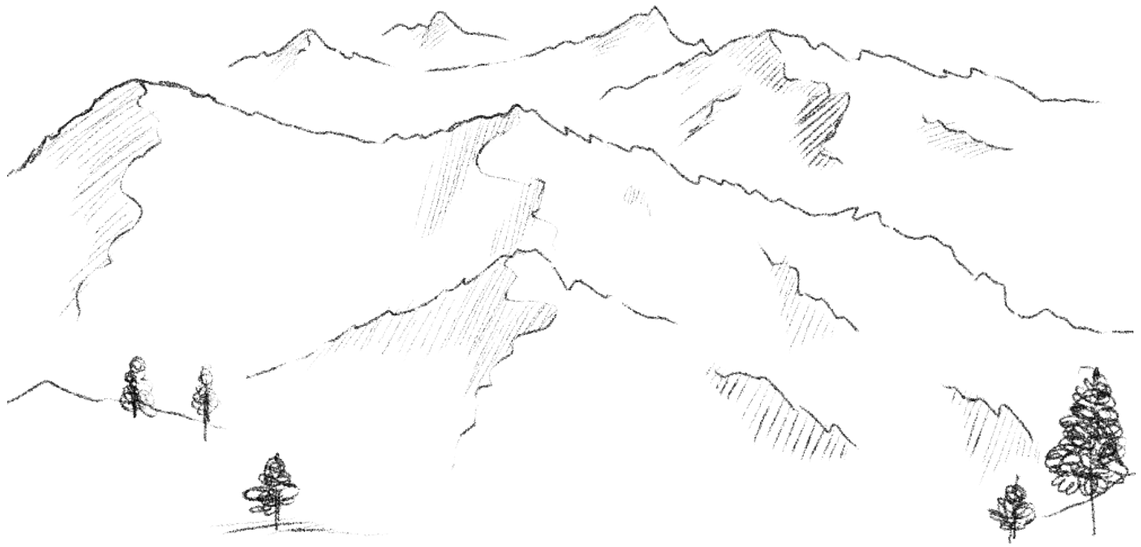


Dolod (Mountain)

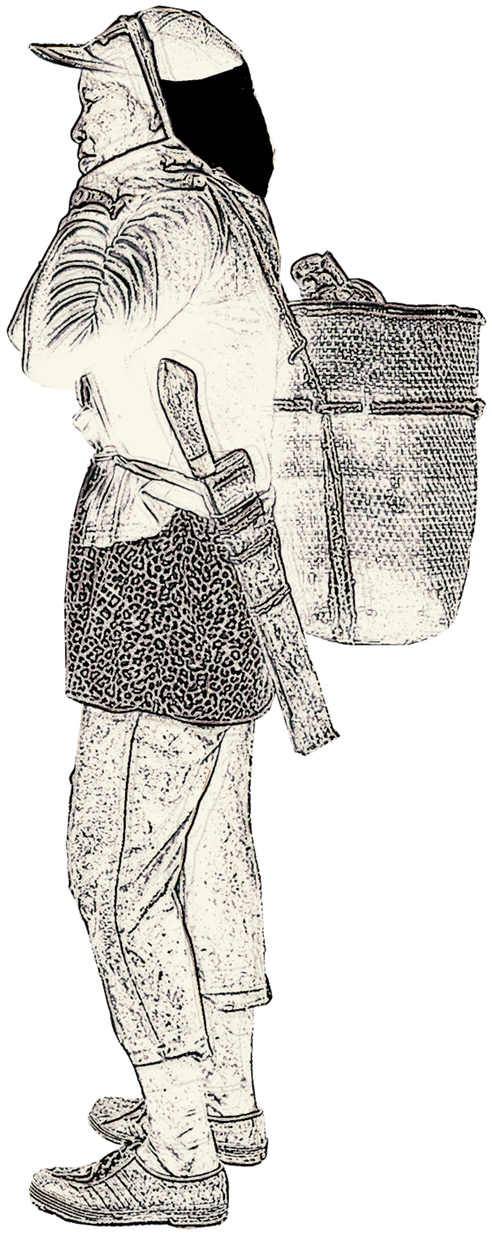
All digital drawings by Nurul Farizah Ridzuan (2023).

Decorative elements on juwah are usually named after elements from the local natural environment. However, as Sellato notes, the question of the meaning of such names, is usually a complex one. Equally complex are the questions concerning the actual relation between the motif and the name, or between the name and a possible cultural or symbolic value behind it. Some motifs like mata punai (pigeon's eye) or buton poni in Jagoi Bidayuh language, can be found throughout Borneo, sometimes under different names depending on the region.

Some motifs and patterns also evolved through stylization, expansion, or reinterpretation. Thus, despite technical constraints, local creativity has allowed for the development of a huge variety of decorative motifs and patterns, many of which have become particular to certain ethnic groups or emblematic to certain regions.
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Different Ways of 'Wearing' Rattan



Digital illustration based on Wisnu Purbandaru's documentation (2022).



Digital illustration based on the author's own documentation (2022).

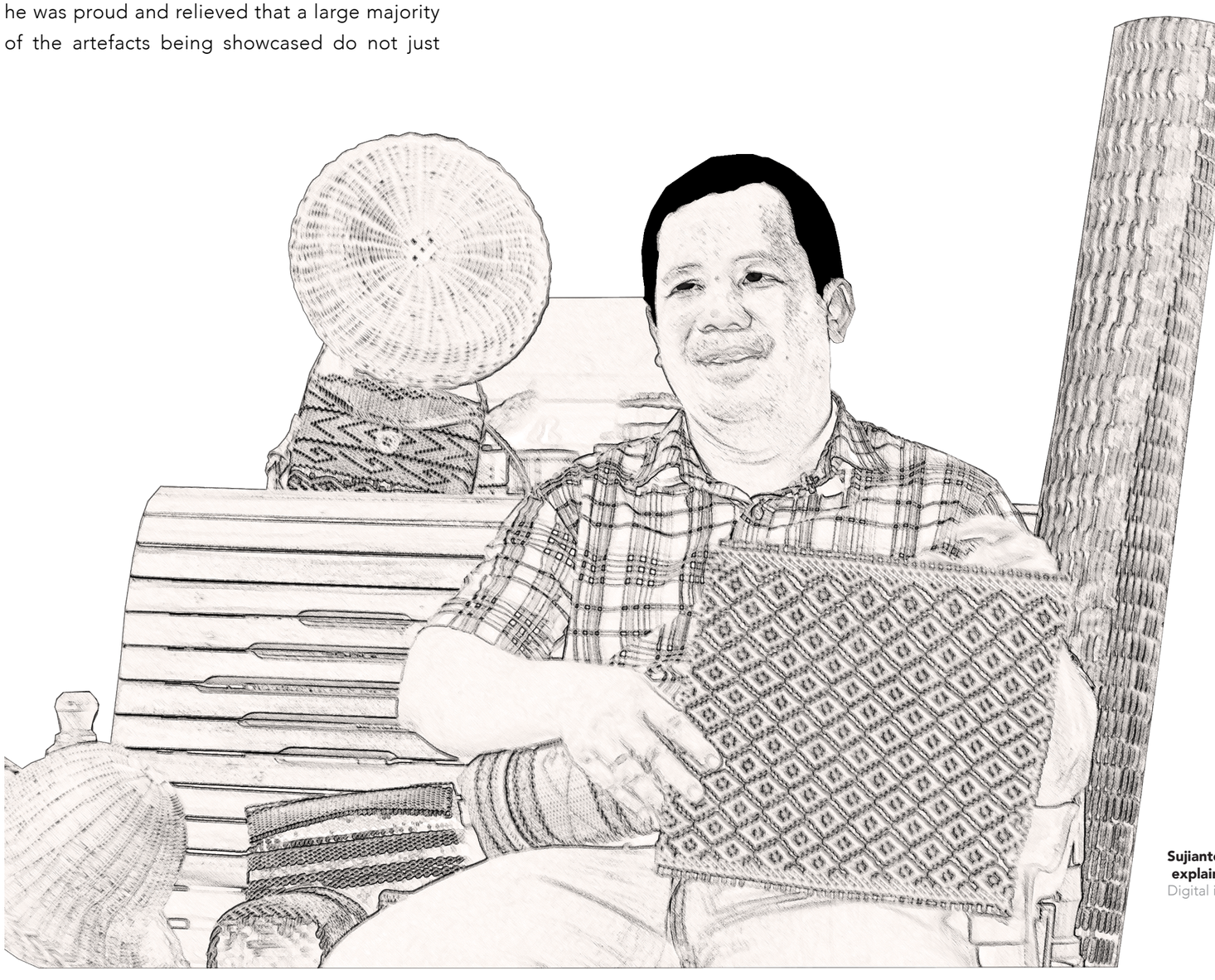


Digital illustration based on the author's own documentation (2022).



Digital illustration based on Alfian Widi's documentation (2022).

During one occasion (Serumpun exhibition), the group had the opportunity to explore the collection of Bidayuh artefacts at the Borneo Cultures Museum. Sujianto admitted he experienced a mixed emotion witnessing many of Dayak Bidayuh objects being showcased as the museum's permanent collection. He was feeling both excited and sentimental to see some Bidayuh artefacts that he could only remember from his parents' stories. However he was proud and relieved that a large majority of the artefacts being showcased do not just belong to the past; they are still being largely used today in Jagoi, present in the community's everyday life. He did not want them to end up only existing at the museum. Sujianto's sentiment reflected the communities' ideal concept of "conservation", which is distinct from the western concept of "museum" as "conservation". For him, the best way to preserve is to have the craft being alive and breathing; practised and present in their everyday life.



Sujianto showing the locally crafted objects showcased in his house and explaining Bidayuh weaving pattern. (2022).
Digital illustration based on Wisnu Purbandaru's documentation. (2022).

"When I saw the many Bidayuh artefacts on display in this museum, I had mixed feelings; sad, moved and proud too. There were some objects that I only learned through my parents' stories, and there were some that I don't remember ever seeing again. But I am proud, most of the Bidayuh artefacts in the museum are still alive today, largely used in our daily lives in Jagoi. I personally do not want these objects to end up only existing in a museum like that." (Sujianto)



Ania's grandmother splitting rattan at home. (2022).
Digital illustration based on Jono Anjasmara's documentation. (2022).

The hands of these skilled weavers possess intergenerational knowledge, practised with nurture and care. This knowledge and skills continues to live and breath, as they meticulously weave each strand of rattan, delicately tending to their cherished work.

Weaving reflects their profound connection to their family, ancestors and their landscape. Their love for weaving knows no bounds; It is how they make sense of their world and part of being a human.

Vernacular material and wisdom from the land

Land is an important natural, cultural and economic asset; it is inseparable from the communities' identity as well as an important source of livelihood. Craft artisans in Jagoi forage raw materials from their surroundings; they collect their rattan, usually from the forest and their "tembawang".

Tembawang holds a vital role in the sustainability of rattan weaving practice as most of them are abundant with a diversity of rattan.

Mak Timon harvesting rattan in the forest. Source: Alfian Widi. (2022).



Overlooking hutan adat or customary forest stretching along Jagoi. (2022).
Digital illustration based on the author's own documentation. (2022).

Tembawang is a traditionally managed forest grown in areas used in the Dayaks' indigenous farming, hunting and gathering. Tembawang is generally a secondary forest inherited from the ancestors, which family and kin manage collectively and can collect forest produce for their consumption. In a tembawang, selected species of fruits, rattan, bamboo, timber, and other plants are planted. Tembawang is classified as a complex agroforestry, incorporating selected species of large trees, fruits, and craft materials such as rattan, bamboo, and herbaceous plants. Its maintenance relied on local wisdom, and while most were owned by families and passed from one generation to the next, some were managed on a communal basis. Complex customary adat ruled and controlled the use and inheritance of these forests to avoid overexploitation..

Tembawang is a legacy that connects the current generations to their ancestors. The system incorporates agricultural techniques in harmony with local wisdom and social rules, involving plant use and rehabilitation, to form an intermingling of agriculture and forest resembling a natural forest ecosystem. The value and significance of tembawang is not only in its complex biodiversity, but it also serves the community's economy and sustenance. The Bidayuh people in Jagoi classified types of land or forest into *tolun tu'uh* and *tolun molak*. Tolun tu'uh, literally meaning old forest, is a primary forest, whereas tolun molak, literally meaning young forest, is a secondary forest. The Bidayuh people in Jagoi have access to customary land and tembawang. They would also inherit land, mainly secondary forest fallows and rubber groves planted by their ancestors. .



Small river dividing two tembawang forests in Kindau Hamlet. (2022).
Digital illustration based on the author's own documentation. (2022).

Tembawang is a legacy that connects the current generations with their ancestors.
The value and significance of tembawang is not only in its complex biodiversity, but it also serves the community's economy and sustenance.

Tembawang typically consists of various wild fruit trees, craft materials such as rattan and bemban, and construction materials such as bamboo, timber and sagoo.Tree bark clothes from the artocarpus genus (breadfruit, tarap and jackfruit) trees are important material in bidai making.



Jackfruit tree



Sibilai fruit

Langsat tree



Traditional cabins/hut are built in the forest, on swidden farms or plantations. Typically, the main construction of the cabin is made of bamboo, and the roof is thatched with sago leaves.
Digital illustration based on the author's own documentation (2022).

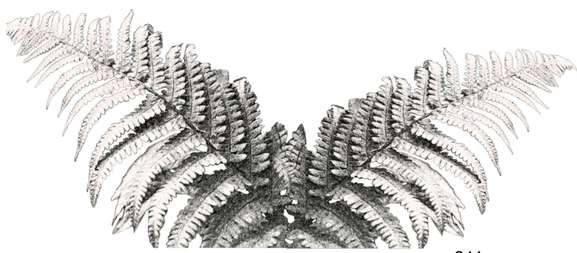


Bemban plant, is also utilised to make particular baskets. Bemban plants are spread near the rivers.
Digital illustration based on Alfian Widi's documentation. (2022).



"Daun yam", used as dye in local crafts. The leaves are boiled together with stripped rattan, giving a natural black colour.
Digital illustration based on the author's own documentation. (2022).

"Pokuh", also known as "pakis", are ferns that grow wild in the forests of Borneo. They are one of the Dayaks' staples, both edible and useful for craft materials.
Digital illustration based on the author's own documentation. (2022).





Wild rattan plants in the forest.
Digital illustrations based on Wisnu Purbandaru's documentation. (2022).

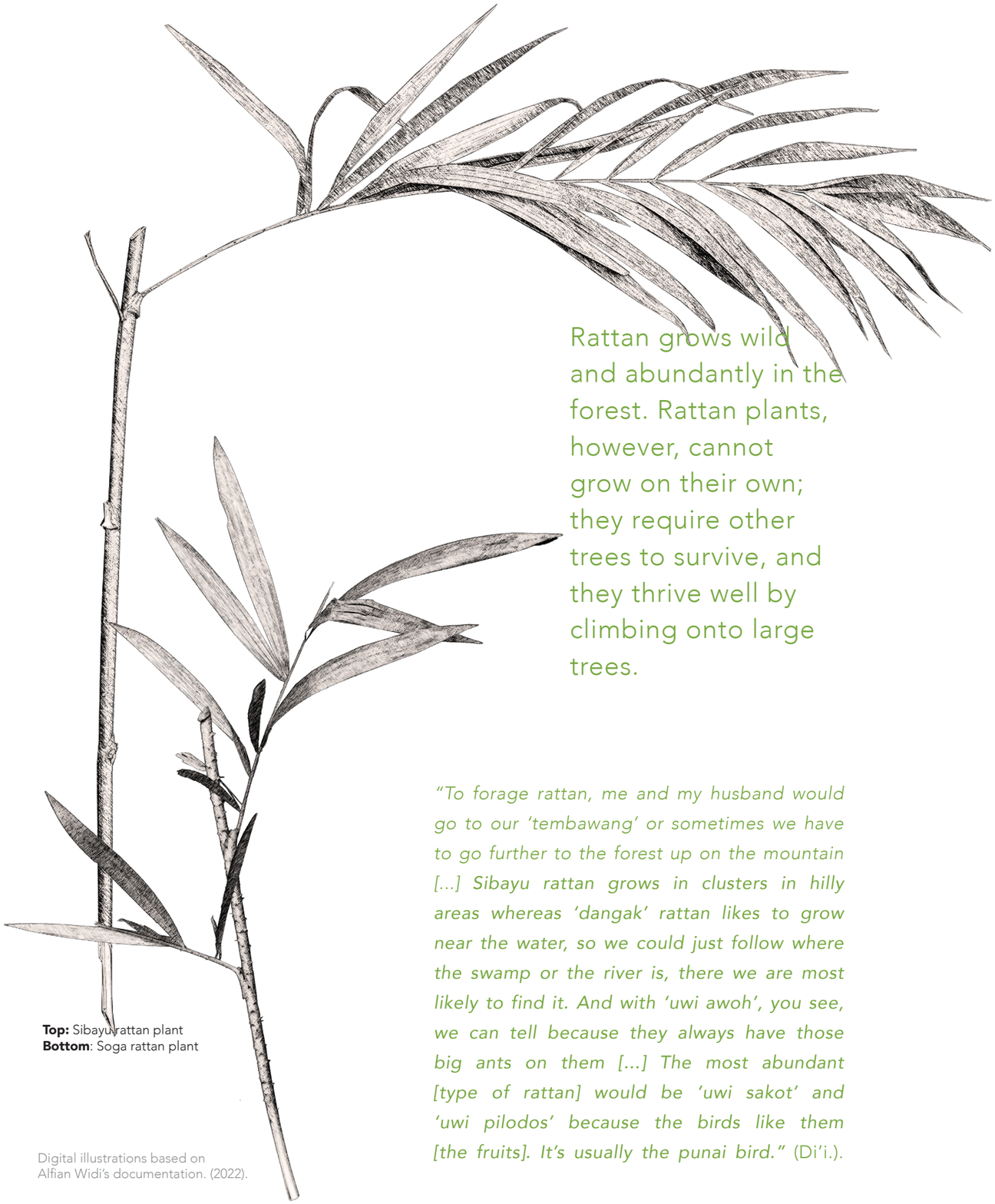


Top: Sujianto explaining various types of attan plants. (2022). Bottom: Mak Timon, carefully pulling rattan vines. (2022).
Digital illustrations based on Alfian Widi's documentation. (2022).

In the indigenous community such as in Jagoi Babang, knowledge is attached to the landscape and the place where the communities dwell. This is exemplified by the complexity of the tembawang system that reflects the community's embodied knowledge in maintaining ecological systems and biodiversity, as well as preserving cultural heritage, wisdom, and spiritual practices – all of which are passed from one generation to the next.



Anik carrying a log of Kapuak wood that she had just cut down herself. The kapuak wood was then used to make bark cloth.
Digital illustration based on the author's own documentation. (2022).



Rattan grows wild and abundantly in the forest. Rattan plants, however, cannot grow on their own; they require other trees to survive, and they thrive well by climbing onto large trees.

Top: Sibayu rattan plant
Bottom: Soga rattan plant

Digital illustrations based on Alfian Widi's documentation. (2022).

"To forage rattan, me and my husband would go to our 'tembawang' or sometimes we have to go further to the forest up on the mountain [...] Sibayu rattan grows in clusters in hilly areas whereas 'dangak' rattan likes to grow near the water, so we could just follow where the swamp or the river is, there we are most likely to find it. And with 'uwi awoh', you see, we can tell because they always have those big ants on them [...] The most abundant [type of rattan] would be 'uwi sakot' and 'uwi pilodos' because the birds like them [the fruits]. It's usually the punai bird." (Di'i.).

Sujianto's ambition was to sustain and further develop the rattan weaving practice in Jagoi Sekida. Concerned by the growing scarcity of raw materials, he has been attempting to persuade the village community to start the rattan conservation. He aspires to protect the community land in Kindau and conserve the rattan diversity.

The craft artisans I spoke to share the same sentiment. Mak Timon told how she cried when some of the rattan plants had to be cut down by her husband because their vines had spread to their oil palm trees nearby, so there was a risk of knocking down those palm trees, considering how robust rattan vines are. Di'i and her husband collect various rattan seeds from the forest in the mountain and replant them somewhere more accessible, such as in the garden in her backyard.

"I have an aspiration that one day Jagoi has a land reserved for craft materials, ideally one that is accessible by foot or scooter so I don't have to keep relying on my grandfather (to go to the forest up on the mountain) because he's too old now.. I hope the government doesn't just care about palm oil, and can ensure the availability of rattan for us." (Ania).

A rattan conservation area would be different from a typical plantation; here, heterogeneity is a precondition. Rattan grows wild and abundantly in the forest. Rattan plants, however, cannot grow on their own; they require other trees to survive, and they thrive well by climbing onto large trees. Craft artisans such as Di'i, Anik and Mak Timon also planted their own rattan and let them grow near large trees such as jackfruit trees.

"No fertiliser is needed to grow rattan, but we usually place a rotting wood log nearby. When planting rattan, we need to consider what kind of trees around it, the taller the trees the better they are for rattan. I usually plant (rattan) near durian or langsat trees; because they're sturdy enough to support the rattan to climb, therefore the rattan can grow really long." (Di'i)

Anik saw the earth as bountiful, where rattans are a gift from God and her ancestors. When humans interfere too much with them, they will not flourish. In the right environment, rattans are robust, tireless creepers. Di'i described some rattans as "gentle" and "quarrelsome" but others as relentless.

"Sibayu rattan plants are very quarrelsome; we need to be patient and understand their 'behaviour'. They take their time slowly (to grow), they are very homeloving, they need to grow at the right altitude, otherwise they won't live long. They could not survive near the river or swamp. When they bear fruits, they aren't very abundant."

The way rattan grows, the vine grows vigorously by climbing and riding on other trees in a mutualistic symbiosis. When harvested, it is very easy for rattan to regrow. Reflecting on this, the conservation and cultivation of rattan would contribute positively to forest conservation attempts because rattan itself requires other trees to grow. In other words, its use does not increase deforestation and instead, it supports the practice of reforestation. Like their tembawang practice, rattan weaving also reflects the community's moral values and knowledge of ecological conservation.



Anik harvesting rattan in the forest in Belida Hamlet. (2022).
Digital illustration based on Wisnu Purbandarui's documentation (2022).

As Bernard Sellato (2020) noted, knowledge about basketry encompasses three areas: botanical knowledge of plant resources and their uses; technical expertise in the processing of fibers and dye plants and of weaving techniques; and the command of an inventory of decorative motifs and patterns.

The artisans in Jagoi demonstrates their familiarity with over 10 types of the rattan, in which they could quickly identify them experientially in multisensory ways through the characteristics of the leaves and thorns, and by particular smells, such as soga rattan. They could also locate the rattan through observing and understanding their habitat, and the interactions of the natural systems surrounding it. Their capability of locating different types of rattan displays an embodied knowledge that reflects a heightened sensitivity and deep observations of their natural landscape:

Sakot rattan and pilodos rattan are commonly regarded as the easiest to obtain due to their availability and their proximity. As described by Di'i, these particular rattans grow abundantly and are pollinated mainly by birds around the lowland and mountain forest area. Burung Punai (the green pigeon) is a bird species native to Borneo and prevalent in the forest around Jagoi, has become an inspiration for one of the traditional weaving patterns, called boton puni which means the green pigeon's eyes.

"I normally use pilodos rattan and simoih rattan particularly for the weft part, or sometimes I also use young soga rattan. For the warp, I like using inang rattan and awoh rattan. Sibayuh rattan cane has multiple layers of peel and the outer peel can be very sticky and difficult to remove. So we need to clean it again thoroughly during the drying process by using a wire. Uwi inakng is also suitable for the weft especially because the black colour dye sticks well on it. It is not too sturdy nor too soft, but we can get a really fine rattan thread from it." (Di'i)

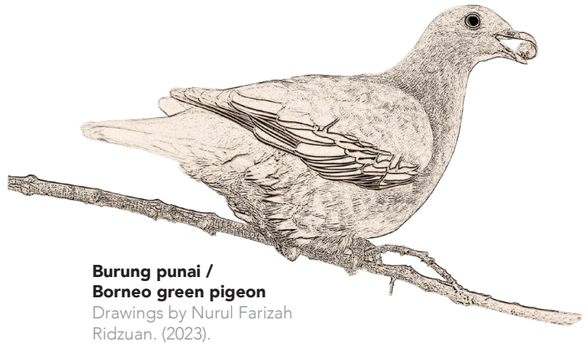


Anik displaying rattan fruits picked from rattan plants in her garden. The fruits can also be consumed.

Digital illustrations based on the author's own documentation. (2022).

The Life of Rattan

Anthropologist and scholar on Borneo, Bernard Sellato, described rattans as "a world of their own". Rattan (family Arececae) is the common name of a large and complex group of climbing palms and has more than 600 identified species worldwide, however each place has its local name for each variety according to the local language and dialect. Sellato noted that rattan's trade names vary with places and periods (colonial and post-independence), and they are not congruent with the taxa in local tongues, nor with the scientific taxonomy. The colonial administration often listed "rotan" without differentiating among species.



Burung punai / Borneo green pigeon
Drawings by Nurul Farizah Ridzuan. (2023).



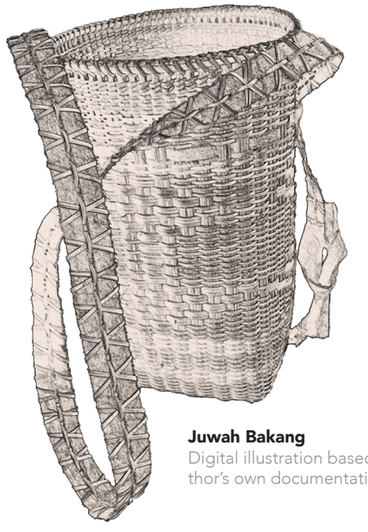
pores rattan plant leaves
Digital illustration based on Alfian Widi's documentation. (2022).



Dangak rattan plant leaves
Digital illustration based on Alfian Widi's documentation. (2022).



Rattan flowers
Digital illustration based on Wisnu Purbandaru's documentation (2022).



Juwah Bakang
Digital illustration based on the author's own documentation. (2022).



Sakot rattan fruits.
Digital illustration based on Wisnu Purbandaru's documentation. (2022).



Simoih rattan
Digital illustration based on Alfian Widi's documentation. (2022).



Sakot rattan
Digital illustration based on Alfian Widi's documentation. (2022).



Inakng rattan
Digital illustration based on Alfian Widi's documentation. (2022).



Rattan plants in the wild.
Source: Wisnu Purbandaru. (2022).



Rattan plants in the wild.
Source: Wisnu Purbandaru. (2022).

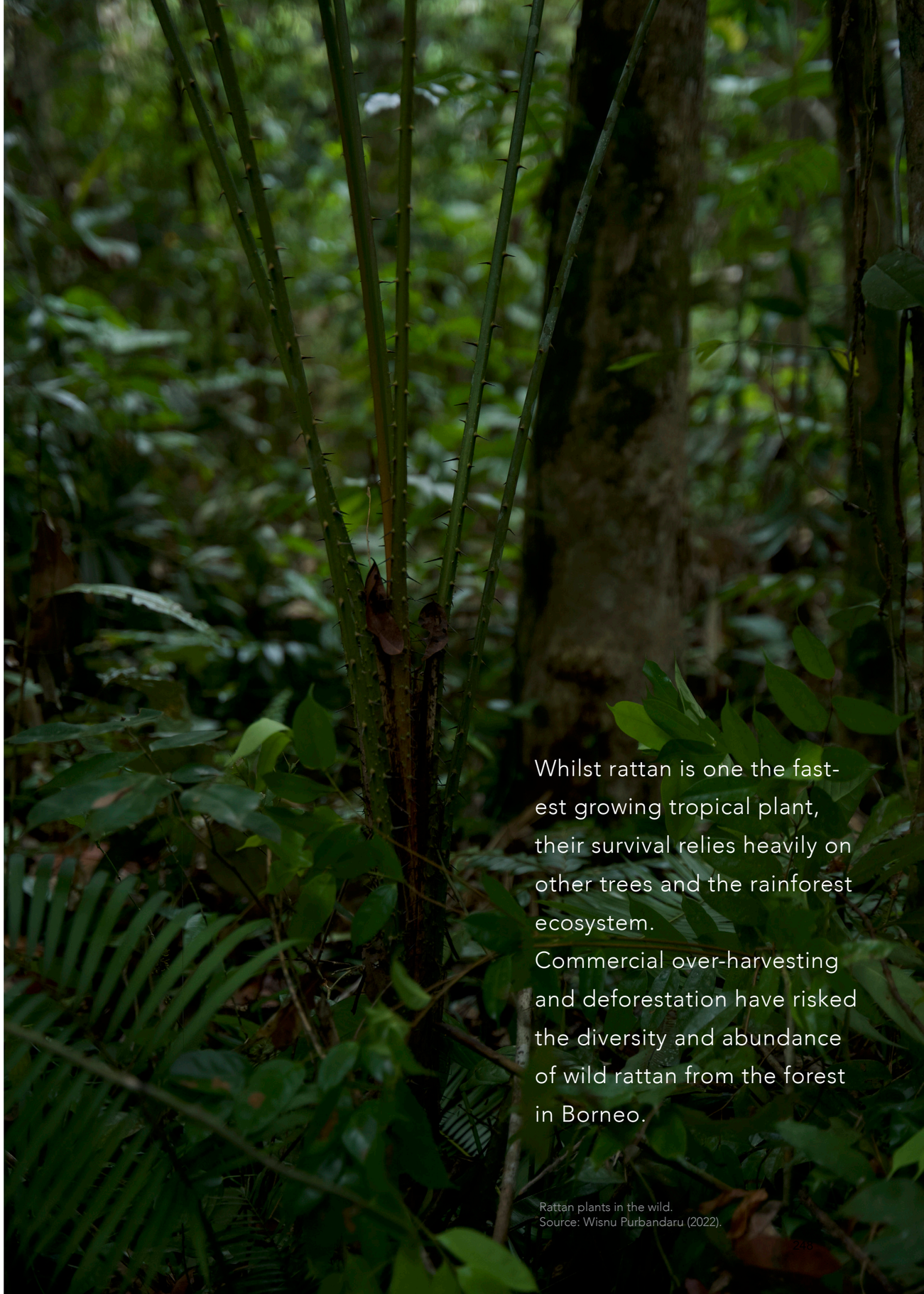
Risks of further destruction

Hutan adat and the large majority of tembawang would be in a category of primary forest. There are risks and concerns over the destruction of tembawang, and even hutan adat, as globalisation processes have generated new opportunities for smallholders to participate in global agro-commodity markets.

Recently, a public poll took place in Sejaro Hamlet regarding converting the hamlet's tembawang forest into a plantation. The proposal was to turn a few hectares of the tembawang into a mono-cropped oil palm plantation to generate more cash for community purposes. The money will go towards the residents of the hamlet: loans, donations, scholarships, community events and aid, and improvement of infrastructure. This proposal was put forward based on the precedent shown by Belida Hamlet, which turned their tembawang into an oil palm plantation and successfully turned over a reasonable sum of money.

Despite its volatile industries, oil palm commodities have supported the locals' livelihood since the industry's boom in 2014 and remain perceived as the most feasible and desirable option for the locals' economic source. As it currently stands, much of the land has been converted into palm plantation, in which almost every household in the village manages and owns at least a small patch of palm plantation. The ever-expanding oil palm plantations have altered the natural landscape, leading to deforestation. This has brought to the surface another issue of scarcity of important vernacular materials such as rattan, which risks not only the sustainability of rattan weaving practice but also the livelihood of the artisans. This also threatens the loss of (rattan) biodiversity and such narratives, practical and intimate knowledge woven into the land and rattan cultivation.

"Personally I'm really worried that we'll be running out of the material, so I have started planting some rattan in my backyard. I have a hope that we will be able to do (rattan) conservation, and hopefully we, and future weavers, will not run out of materials so that we can keep weaving and continue our tradition." (Di'i)



Whilst rattan is one the fast-est growing tropical plant, their survival relies heavily on other trees and the rainforest ecosystem.
Commercial over-harvesting and deforestation have risked the diversity and abundance of wild rattan from the forest in Borneo.

Rattan plants in the wild.
Source: Wisnu Purbandaru (2022).



Anik's husband, a farmer, manages most of his family's rubber and oil palm plantation. (2022).
Digital illustration based on Wisnu Purbandaru's documentation. (2022).



Swidden field, slashed and burned.
Digital illustration based on Wisnu Purbandaru's documentation. (2022).



Oil palm plantation in Jagoi Sekida.
Digital illustration based on Wisnu Purbandaru's documentation. (2022).



Palm fruit kernels.
Digital illustration based on Wisnu Purbandaru's documentation. (2022).





Digital illustrations based on Yohanes Arya's documentation. (2022).

Indigenous people in Borneo face formidable challenges to their way of life, affected by the material and social changes. The extractive economies in Borneo, such as logging and mining, have been rapidly destroying the forest, land and rivers which are central to their subsistence.

In Kalimantan, the transmigration programme turned land over to people who migrated from overpopulated parts of the country, especially Java. This has led to cultural clashes as well as competition in resources.



Tembawang forest in Sekida Village. Photography. Source: Wisnu Purbandaru. (2022).

Craft and Youth Aspirations

Rattan weaving practice has survived many generations, and the skills and knowledge continue to regenerate. Almost every family can weave, old and young. In Jagoi, transmission of knowledge and skills in weaving is mostly vertical, from mother to daughter in a household, from one generation to the next.
Jembelia Ania is a young rattan weaver from Sekida village of Jagoi Babang. She first learned to weave when she was twelve; her mother and grandmother passed down the skills. Ania grew up in a family of weavers; herself, the mother, the grandmother, aunts and siblings would sit together making juwah at home every day.

"If we are consistent, the money is not too bad. We don't have to work in Kuching–illegally. If there is any problem, who knows if it'd be difficult to return home?" (Ania)

Ania did not finish her education; she left school at the age of fourteen. Rattan weaving is a fulfilling profession for Ania. According to her, weaving brings her happiness and pride. This conversation had been brought up on several occasions, in which she reflected on what makes her proud of her craft practice. According to Ania, fewer and fewer people of her generation were interested in rattan weaving anymore. Though most people still have the (weaving) skill because their parents still do it at home, they would no longer practise it or hone it. She aspires to preserve rattan weaving by sharing her skills and knowledge with the younger generation so the tradition would not disappear from the village. This came to fruition as the support came through from the village chief, assigning her to host rattan weaving extracurriculars at the local primary and middle school.

"I am proud to be able to do this consistently, make a living out of it and preserve tradition. I'm also proud that my whole family still does this. Nowadays, when people look for craft products from Jagoi, they always come to our house. Through weaving, I've also gained much experience; I can travel, see more places and meet new people. Every time the village receives an invitation from the government to participate in an exhibition or training program, they always nominate me and send me to Bengkayang or Pontianak (the capital city of West Kalimantan). Perhaps it's an advantage that I'm still young and not married, so I'm more flexible [...] You see, I didn't finish SMP (middle school), but now I teach SMP students." (Ania)



Ania with her pupils at a primary school in Kindau Hamlet. (2022).
Digital illustration based on the author's own documentation. (2022).

Sujianto was the kepala desa, or village chief, of Desa Jagoi Sekida in Jagoi Babang sub-district. He lives with his family in Kindau hamlet, where the most significant numbers of rattan artisans are. Besides doing his daily job as a kepala desa, he and his wife, Fitriana, set up a small enterprise to help promote and sell craft products made by local artisans. Long before he became the village chief, when he was younger, like many other people from Jagoi Babang, he used to live in Kuching, working for a small shop selling 'kolo mee'. Working in Kuching remains desirable for young people, especially those from less-wealthy hamlets such as Kindau and Belida hamlets in Jagoi Sekida. This has become Sujianto's concern for the regeneration of rattan weavers.

"There are many of us (Jagoi Sekida people) working in Kuching, especially people from Kindau and Belida hamlet. I think there aren't many from Jagoi village, not anymore. Unlike us, the people there are generally wealthier now; there are more oil palm, more people running businesses, big and small–there's no need to find a job in Malaysia anymore." (Jebat)

Jebat was one of the Jagoi youths working as one of the Sekida Village office staff as Sujianto's aide. Whilst taking charge of village administration, he is completing his education at an open university in Bengkayang. He was one of the few people in the village who continued higher education. Like many other young people there, he inherited several hectares of land, which now have been planted with oil palm.

Ania's family is one of the few who do not own an oil palm plantation out of the many local people who have done so. Her grandfather is the head of the household; he was the respected village elder and the community's customary leader. Under his roof, three generations of rattan weavers live together: his wife, daughters and granddaughters. He encouraged his family members to continue the tradition and understood that all the women in his house relied on wild rattan to sustain their livelihood

Almost every household in the village would own at least a small patch of their own (palm) plantation, including the craft artisans themselves. Di'i, Anik and Mak Timon were among them. Besides oil palm, they also grow other cash crops such as rice, rubber and pepper. Every year, their oil palm plantation kept expanding..

A typical day at Ania's house, women from three generations of the family, gather and weave rattan together.



Tesa carrying her baby whilst showing off a small juwah she just made. (2022)
Digital illustration based on the author's own documentation (2022).



Ania making 'simpai', a bracelet made of rattan and fern. Simpai is a popular product for tourism souvenir. (2022).
Digital illustration based on the author's own documentation. (2022).



Ania's grandmother, making basek at home.
Digital illustration based on the author's own documentation. (2022).

Oil palm cultivation has experienced massive expansion in Kalimantan starting in the 1990s. According to Sujianto, Jagoi Babang witnessed the oil palm boom in the area peaking around 2014. Farmers started to plant less rubber and convert to oil palm instead. Releasing some land to an oil palm plantation also may seem a good trade-off where land was abundant, and infrastructure poorly developed. Unfolded in Tania Li's extensive research on oil palm plantation in Kalimantan, landholders often hope that the plantation (company) will bring with them a decent road infrastructure, hence improving access to schools, markets, health services and jobs. Studies also indicate that smallholders with access to these factors can profit significantly from oil palm, however, the threshold for successful entry is too high for ordinary farmers. Many local smallholders of rubber plantations were experiencing relative prosperity due to high rubber prices. However, compared to oil palm, the process of maintaining and processing rubber is arduous, more time-consuming, labour-intensive, and weather-dependent. Farmers usually tap rubber at four in the morning every day. More people in the village started to leave rubber as a cash crop, and many more young people aspired to accumulate wealth from oil palm, too, so they could live more comfortably. When the oil palm reaches 3-5 years of age, the plant will start bearing the fruit then can be harvested every two weeks. A productive single hectare of oil palm may yield 1 ton of fresh fruit bunches, equivalent to 5,000 kilograms of crude oil, making the crop remarkably profitable when grown in large plantations. However, they were aware that for the oil palm plantation to become profitable, it would require large plots of land and high maintenance costs. Small-holding growers would not prosper much, and the locals also seem to be aware of how volatile the palm oil industry is; the local price keeps fluctuating, depending on the global energy trade. Despite all the downsides, oil palm is still considered to be the most promising investment.



Pick-up truck loading harvested oil palm.
Digital illustration based on the author's own documentation. (2022).



Drone view of oil palm occupation in Jagoi Sekida. (2022).
Digital illustrations based on Yohanes Arya's documentation. (2022).

The economic disparity between Indonesia and Malaysia resulted in a gap in available employment opportunities. Limited employment opportunities in Indonesia have caused the high unemployment rate in West Kalimantan, which has been driving the migration of the Jagoi people to Malaysia. Many young people in Jagoi Babang choose to migrate and work, sometimes under precarious conditions, in Kuching and other parts of Sarawak, which is a socioeconomic condition widely acknowledged by the community, including Seli and her family. Many of her extended family members work and live in Sarawak, and some have not returned. On one occasion, I met with Seli, arriving in Kuching with her cousin, Ria, who was one year younger than her. Like Seli, Ria grew up in a family of weavers. Her family shares the same household as Seli's. According to Seli, Ria is a skilled weaver; thus, she expressed frustration with her cousin's decision to quit weaving.

"Her weaving is really delicate, just like her mother's. She is able to weave motifs that are very intricate. But I don't know why, I think she has become lazy now, and she just wants easier money." (Seli)

Ria decided to leave the village to Kuching for better economic opportunities. Someone she knew from the village promised her a job with a good wage; she was told it would be around 1,600 MYR or 5 million IDR a month, which is double the average income in Jagoi Babang. That day, she arrived in Kuching, without knowing what kind of job she would undertake. Someone would then pick her up to take her to the workplace. Later, we learned that she'd be working at a cafe where she'd be provided with a bed above the premises, sharing the room with other workers. She wasn't worried, as there would be few other workers from Kalimantan. Only a week later, Seli found out that Ria had been having a hard time. Due to many undocumented migrant workers (mainly from Kalimantan) in the area, the cafe had been a target of the police for a while, meaning that the workers needed to hide, and activities outside the premises were extremely limited. Concerned for her safety, Ria decided to leave the job and took refuge in the hotel where Seli was sharing the room with me until the end of our stay in Kuching and left for Jagoi. At night, Ria and Seli sat on the floor in our hotel room, making juwah together

.

"It's okay, get over it. Just stay in Kindau. Let's just keep weaving."

"There's not enough money in weaving though."



Digital illustrations are based on Alfian Widi's documentation. (2022).

Craft artisans of different generations



Nyohem

50+ years of practice



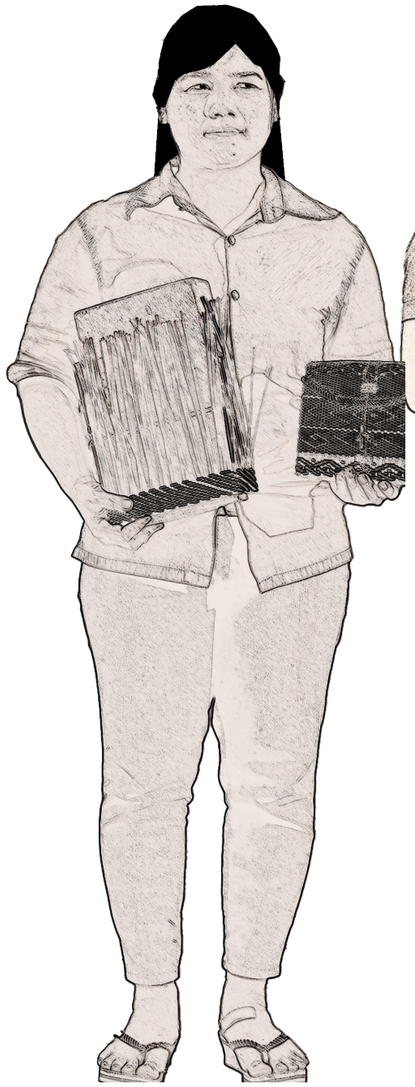
Lusia Si'ang

30+ years of practice



Yani Rini

20+ years of practice



Rusmiatu Apu

10+ years of practice



Markos Daduoy

3 years of practice



Dala

5 years of practice

All digital illustrations are based on Alfian Widi's documentation. (2022).



Mural painted by the local artist in Kindau Hamlet. (2022).
Digital illustration based on the author's own documentation. (2022).



Kindau hamlet entrace, 'Ton Sowa' means 'blessings all year round'. (2022).
Digital illustration based on the author's own documentation (2022).

Craft and Spirituality



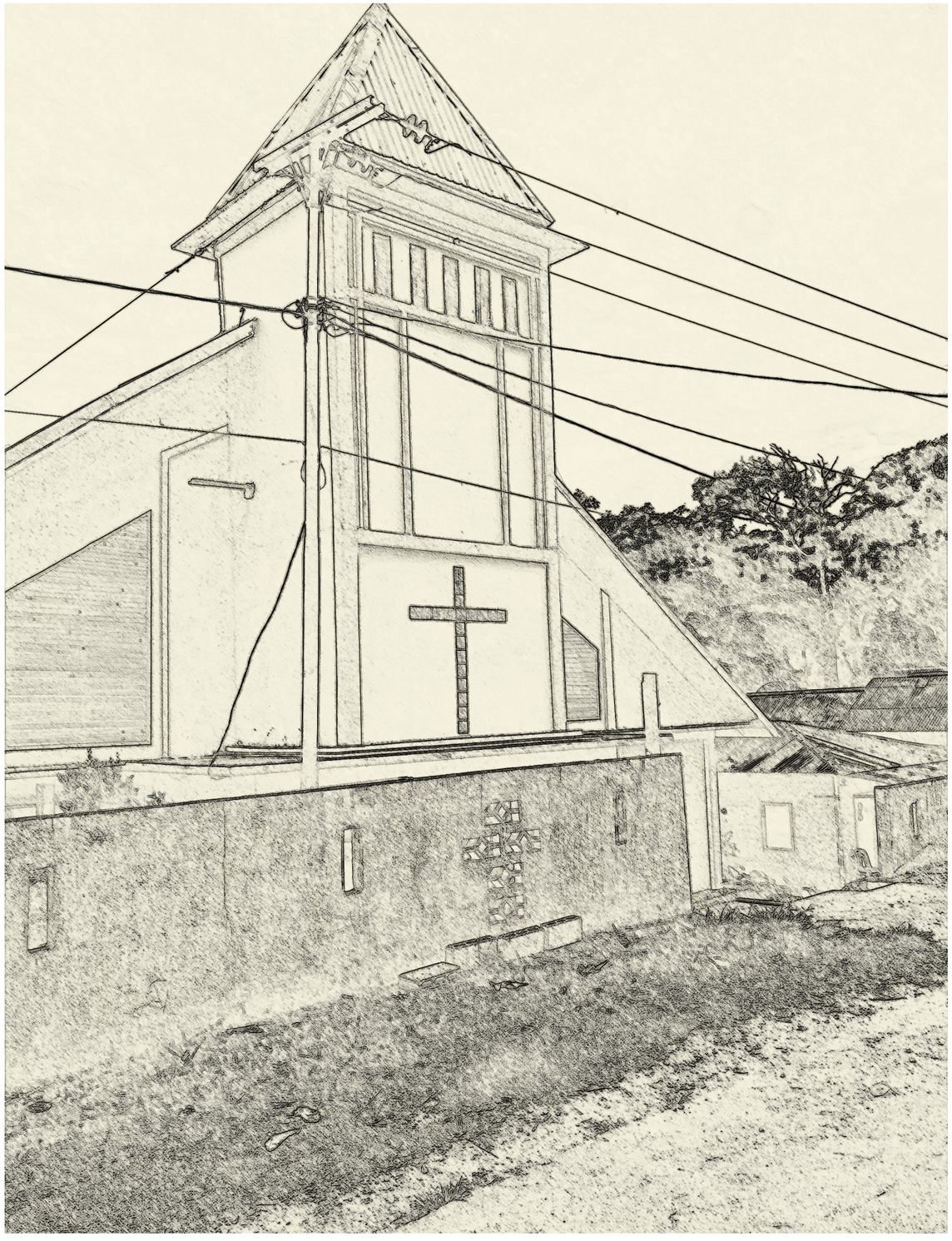
Local ritual committee getting ready for performing gawai ceremonies in Jagoi Babang. (2022).

Digital illustration based on the author's own documentation (2022).

To date, the influence of religious belief such as Christianity among the Bidayuh people remains powerful, shaping the communities' sociocultural values and their material culture (Sellato, 2016; 2017), which reflect the construction of Indigenous communities' ethnocultural identity. These influences are reflected in the modification of some rituals and craft practices, as the communities make the religious transition. They are making it with full consciousness of their culture, selecting what is appropriate as a means of expressing their inherited spirituality for the next generation (Mashman and Nayoi 2001). With the steady disintegration of traditional religious practice in favour of Christianity, many traditional forms which were formerly invested with layers of meaning have become simplified to overt and self-conscious ethnic identifiers(Tillotson 1994).

Sellato (2017) highlights the work by Mashman and Nayoi (2012), with the bidayuh basket in which the massive influence of Christianity had led to detachment of meanings and symbols in certain artefacts that with animism elements or considered 'superstitious'. Mashman and Nayoi (2012) wrote about juwah bireh, the Bidayuh basket used for sowing and harvesting, particularly during gawai rituals, "as a container for offerings to the rice spirits, and also features in traditional marriage exchanges" (ibid p.89). However, '[i]n its most profound context', the red basket is used for supernatural purposes during the healing ceremonies, with each household owning one; here called 'soul basket', it is a container for the soul of a sick person (ibid:80, 91). In the 1960s a Catholic mission and school were set up and most of the community have since converted, the basket is now put to mundane use—for carrying personal belongings around—but '[i]t is most publicly conspicuous at the weekly church service, when it serves for the collection' (ibid:89). The integration of Christianity can also be seen in the Bidayuh's new ethnic costume, partly deriving from the priestess's dress, includes the red basket, along with the typical raong hat, which was worn to protect a baby's soul. This costume is worn for dancing contests, ceremonial occasions and special masses in church.

Whilst a large population of Dayaks, including the Bidayuh, have converted to Christianity, they maintain their traditional practices and beliefs: personal, family and community affairs are regulated by Adat, which is a body of social and cultural norms, laws, ceremonies and rituals. Adat is founded on and intertwined with animist belief (Thomson 2000; Noor Muhammad 2018). Accordingly, it is based on a worldview that consists of tangible (physical) and intangible (spiritual) elements whereby there is a mutual influence between these physical and spiritual realms (Thomson, 2000). *Gawai padi* or *gawia* remains the most important dayak ritual culture and celebration, well-preserved particularly in West Borneo. Gawai is held once a year during rice harvest season as an expression of gratitude to Jubata (God) and ancestors for the abundance.



Catholic church in Kindau Hamlet, Jagoi Sekida. (2022).
Digital illustration based on the author's own documentation (2022).



Getting ready for performing gawai dance ritual in Jagoi Babang. (2022).
Digital illustration based on the author's own documentation (2022).



Bidai is an important element for ritual purposes during gawai.
Digital illustration based on the author's own documentation (2022).



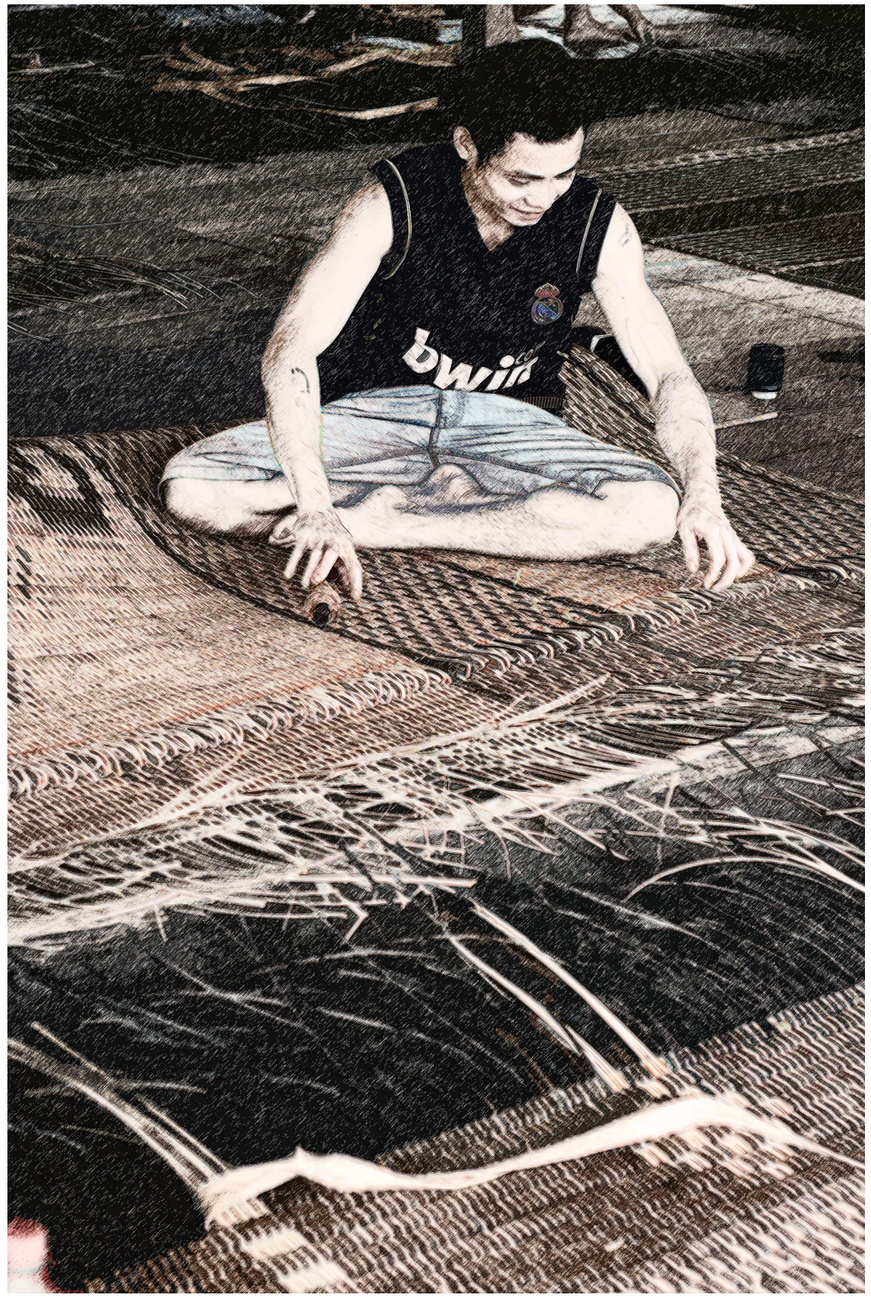
Dance performace during gawai ceremonies in Jagoi Babang. (2022).
Digital illustration based on the author's own documentation (2022).

Craft trades, identity and commodity

Bidai is inseparable from the Bidayuh daily life, hence an important aspect of their cultural identity. In Jagoi Babang, bidai is omnipresent; rolled out inside everyone's living room, outside the house for drying rice, as well as during rituals and ceremonies. The large majority of the people in Jagoi Babang have the skill to make bidai, however, not many people commit to do it as a profession. Unlike basketry, today's practice of bidai making does not recognise division of labour that is based on gender; male and female could master each step of the making.

Roslinda is one the well-known bidai masters in Jagoi Babang. Bidai making was first introduced to her by her parents when she was a kid. Roslinda did not finish primary school, and making bidai is something that she's proud to be a master of. Her bidai workshop, just next to her house, is situated in Risau Hamlet, on the main street. The large open-space workshop allowed multiple artisans making multiple large-sized bidai at the same time. There were six people making bidai on a daily basis, and three additional people to work by commission. Roslinda and her husband set up the workshop under the name Koperasi Hasta Karya. Her husband, Gunarto, is from Java. He moved to Jagoi Babang in the 1980s and has been settling there ever since. Their bidai business remains consistent with demand, and probably the most successful one in the whole district. According to Roslinda, her husband was the entrepreneurial one, and it was his Javanese origin that led them to initiate and expand the business. Her bidai enterprise has indeed adopted a cottage-industry model widely practised in Java.

Hasta Karya's bidais are innovative and the best quality. Whilst conventional bidai is plain, they introduce various motifs into the weaving. They use the best rattan variety for their bidai. Awi sogoh, or also known as soga emas, is considered by the locals as the 'king' of rattan, especially desirable for bidai. The material does not snap easily therefore preferred by the maker. It also has higher durability and it ages very well; as the bidai gets older and used up more frequently, the surface gives a certain shine and glossiness quality to it. Sourcing good quality raw materials, such as sogoh rattan, has always been the biggest challenge for her business. The local availability of the particular type of rattan can no longer meet the demand and the production scale. A medium-size bidai enterprise such as Koperasi Hasta Karya, needs to source the raw material from Central Kalimantan. Regularly once a month, they would receive bulks of processed rattan, peeled and stripped to size ready for plaiting.



Frans, one of the bidai artisans of Koperasi Hasta Karya in Jagoi Babang.(2022).
Digital illustration based on Wisnu Purbandaru's documentation (2022).



Elis, one of the bidai artisans in Koperasi Hasta Karya, Jagoi Babang. (2022).
Digital illustration based on the author's own documentation. (2022).

Small-scale artisans also experience this scarcity. As more forests have been converted into plantations, rattan harvesting skill has started to decline. Whilst artisans like Di'i, Anik and Mak Timon often gathered the raw material themselves, they also sometimes relied on their husbands or neighbours. Back in the day, it was not difficult to find wild rattan as they were abundant. The current young weavers in particular do not harvest rattan. Ania mostly depended on her grandfather to obtain rattan from their tembawang. These days, a lot of the artisans in Jagoi often can purchase their rattan from people of Sentabeng hamlet, a Malay enclave neighbouring Kindau. The hamlet was a designated area of the transmigration program, hence predominantly populated by Malay people who migrated from the Sambas region. The Malay community from Sentabeng harvest and trade rattan canes to the Bidayuh artisans in Jagoi. Roughly once a week, these traders arrive on their scooters loaded down with rattan canes to deliver to the weavers houses. Whilst the Sentabeng community do not have the rattan weaving tradition themselves, they have played an important part of the local craft ecosystem. Their role as local rattan supplier has provided the Jagoi artisans accessibility and availability of raw materials, hence ensuring the continuity of the craft practice.

Whilst rattan-based craft in Jagoi remains a promising commodity with a consistent demand from the Malaysian market, the community agreed that its craft identity has been challenged. Current Jagoi craft practitioners have been so used to making products to meet demands from the Malaysian market and industry. In Indonesia itself, rattan-based craft of Jagoi Babang (especially bidai) is not very well-known, and it has been mostly marketed through and by Malaysian middlemen. The bidai sold to the Malaysian middleman mostly will be rebranded and labelled 'Made in Malaysia'; the truth that often triggered many nationalistic individuals and governments. However, it needs to be considered that as the craft community struggled to make themselves visible in the value chain, artisanal weavers in Jagoi face competition from larger entities that mass-manufacture synthetic baskets for local use or tourism and offer them at a reduced price

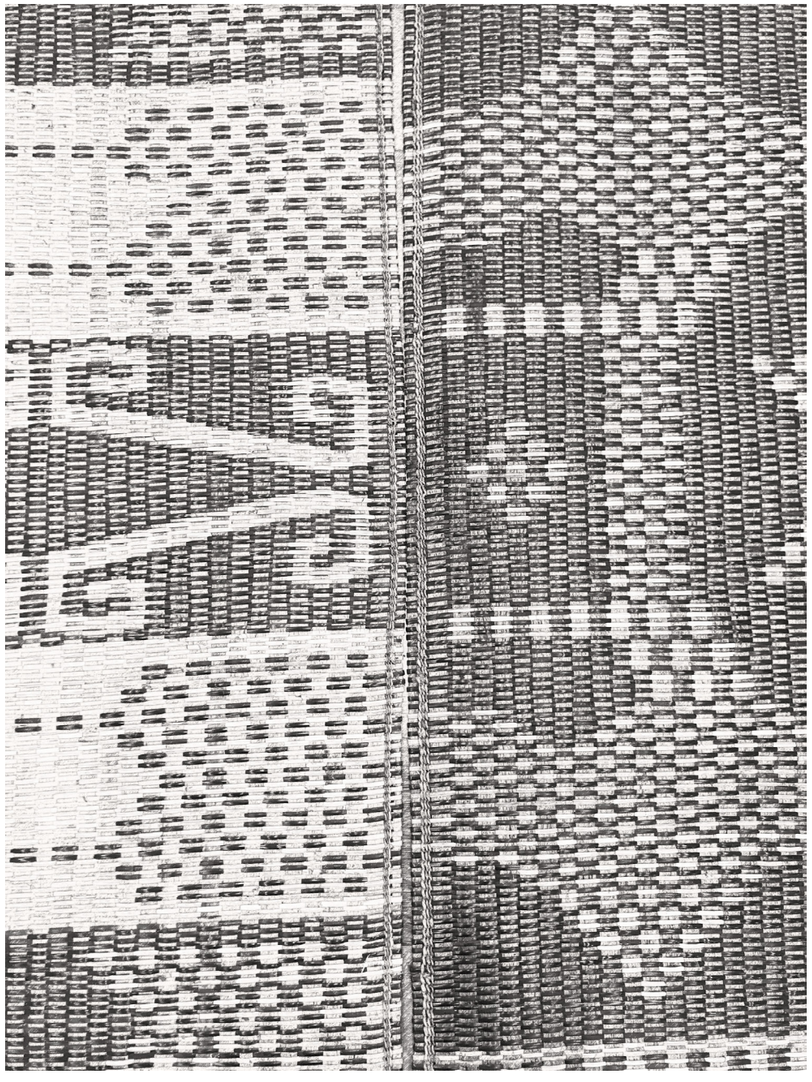


Nuriati, showing one of Koperasi Hasta Karya's bidai creations, featuring wild fern motif. (2022).
Digital illustration based on the author's own documentation. (2022).



Large sacks of processed rattan in Koperasi Hasta Karya's workshop, just arrived from Central Kalimantan.
Digital illustration based on the author's own documentation. (2022).

Development of Rattan Craft Products in Jagoi



Patterned bidai created by Frans (left) and Deddy (right).

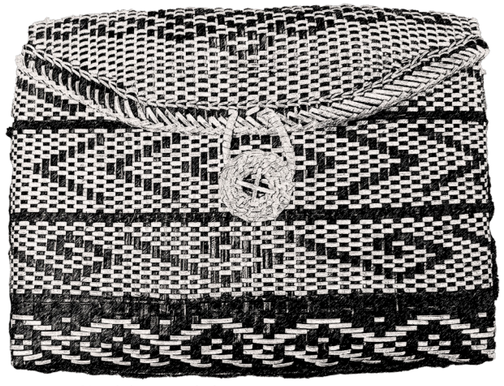
All digital illustrations are based on the author's own documentation. (2022).



Single pen pouch made by Di'i



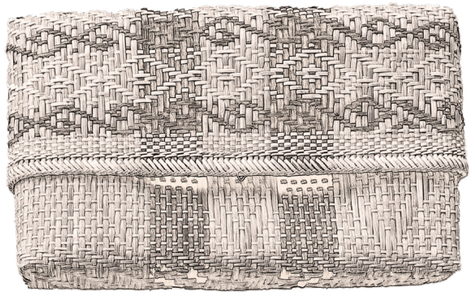
Handbag made by Ania and Fitri



Clutch bag made by Rusmiati Apu



Clutch bag made by Sadiah



Clutch bag made by Lusiana Si'an









Craft products on display for sale at the Serikin Border Market.

Most craft artisans in Jagoi sell their handcrafted products at the market, both directly or through Malay traders. The weekly market also attracts traders from other regions such as Pontianak and Sambas. Besides craft products, agricultural and forest products are also sold in the market.

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All digital illustrations are based on the author's own documentation (2023).



Border crossing pass issued for Indonesian residents living at the border, can be used to enter the territory of Malaysia within a limited distance and duration. Unlike a passport, the pass is restricted to its holders, duration and distance; it is only applicable for residents living by the border and nearby villages, valid for one day and it can only allow them to travel as far as Bau town. There are three sub-districts within the Bengkayang Region eligible for this pass; Jagoi Babang, Seluas and Siding. The pass is especially useful for visiting the border market.

Digital illustration based on the author's own documentation (2022).

One homeland, two nations

The borderland area, such as Jagoi Babang, whilst part of the Indonesian state, is economically integrated with Malaysia. Pasar Serikin is the most important market for the Jagoi locals, which only takes about a 10-minute drive from the Jagoi Babang border. It is located within Malaysian territory right after passing the Indonesian border post. Most people in Jagoi Babang have been relying on the Serikin market to conduct economic and trade activities: selling craft products, vegetables and forest produce.

Almost all of the Bidayuh craft products sold in Serikin Market and souvenir shops in Kuching are supplied by Jagoi artisans, keeping the artisans in the Jagoi villages busy with orders. There aren't many craft artisans left in the Bidayuh community in Malaysia. Unlike in Jagoi, the young Bidayuh generation in Malaysia has better access to education and job opportunities; thus, the traditional craft practice has been left behind. Handcrafted products from Jagoi, especially bidai and juwah, have always been in great demand in Malaysia.

Jagoi Babang has been somewhat isolated from the national economy. The West Kalimantan borderlands as a whole have a long history of economic underdevelopment compared to other parts of the country. They are characterised by a weak socio-economic infrastructure, isolated regional markets and a scarcity of large-scale investments (Eilenberg 2014). Many locals owed their business to the looseness of the region's long-standing informal border regime. Almost every consumable and every piece of material in Jagoi Babang has arrived from Malaysia. The Malaysian currency, Ringgit, is commonly used in Jagoi and is preferred as it has higher values. It is very common for the local community to follow Malaysian standards in terms of prices, time zones (despite being located in different time zones), and measurement units for some handicraft items such as bidai mats.

During the Covid-19 pandemic, the border, hence the market, had been shut down, causing a significant impact on the artisans who have mainly relied on their neighbour market. The construction of the mega-project PLBN (Pos Lintas Batas Negara), or a border-crossing post, has prolonged the closure of the border.

The construction of PLBN is a part of the economic and defence strategies of strengthening the border areas, in accordance with Joko Widodo's (current president of Indonesia, presidential regulation plan, Nawacita (nine points development plan). This prioritisation of the country's neglected border areas has become a more urgent matter in Kalimantan, mainly linked to the building of Nusantara, the new capital city of Indonesia, on the island.

One of the other significant impacts of colonialism and the subsequent emergence of post-colonial nation-states is border regimes that have become prominent in the regulation of the movement of peoples and commodities across borders. This has significantly re-configured and re-ordered patterns of human social life. State borders throughout Southeast Asia have generally been "established in an arbitrary fashion, where ethnic, linguistic, social, and economic borders never neatly coincided with formal state boundaries drawn on maps" (Lumenta 2011).

As national boundaries have been drawn on Borneo, the impacts of this colonial legacy are particularly more palpable for frontier communities who share territorial borders with other countries. This is reflected in the case of the Bidayuh communities inhabiting West Borneo whose villages are separated by the Indonesia-Malaysia border, dividing one kin into two nations. Sujianto, the village chief of Jagoi spoke eloquently about their experience regarding to this:

"Before the colonial governments came, we used to be 'serumpun'. The Bidayuh people, which is our family and kin, spread around Jagoi to villages in Serikin and Bau in Sarawak (Malaysia) so naturally we'd visit each other not only during the 'gawai' (harvest celebration) but for many other purposes too. People in Jagoi rely on the market in Serikin, Bau and Kuching for trading and fulfilling everyday needs and even until now, we still have that interdependent relationships. We go there to get daily supplies from the supermarkets. They need us to supply affordable produce, vegetables, craft products and affordable labour too. The people here love Ringgit money too [...] Back then, we never understood the concept of border, not until there was the confrontation between Indonesia and Malaysia in the 60's. During that time, there were stricter and bigger numbers of militaries posted on both sides of the border. There were many Indonesian paramilitaries around and there were British troops too on the Malaysian side [...] We are still closely tied to each other and people do cross the border everyday, but the people here would use the 'jalan tikus' (alternative) routes through the forest or 'jalan sawit' (oil palm plantations) to avoid the immigration and customs check at the border control post, because who would own a passport?"

Sujianto used the word 'serumpun' to describe the long-standing ties and continued cross-border kinship connections. Serumpun itself, in Indonesian language, means a bundle of grass that shares the same root, in which the term is often used to describe a family lineage and kinship. Serumpun also reflects the shared landscapes, knowledges, wisdom and material culture within the communities. In 1963, the Kalimantan borderlands became heavily militarised as a result of an armed confrontation (Konfrontasi) between Indonesia and Malaysia, which was followed by a communist insurgency in the mid1960s and the 1970s (Eilenberg 2014). In the border areas of Kalimantan, the community's socioeconomic life is generally oriented toward the neighbouring country due to the fact that they have superior infrastructure (Aminuyati et al. 2022). As such, despite the border separation and the presence of the state (military), the forms of life in Jagoi Babang remain deeply interconnected to their neighbouring country, where numerous jalan tikus – the cross-border 'mouse tracks' that predated the border itself – through the forest or plantation, exist to allow flows and movements of people and goods. The interdependent relationship and similarities in culture, customs, and ancestry in border areas such as Jagoi Babang makes it difficult to prevent casual border-crossing activities. As described by Sujianto above, until now the Bidayuh people in both countries still frequently visited each other, both for economic and kinship affairs.



Border crossing area Aruk (ID) - Biawak (MY)

Digital illustration based on the author's own documentation. (2022).



Trans-border bus serving route from Bengkayang to Aruk.
Digital illustration based on Wisnu Purbandaru's documentation (2022).



Jagoi Babang sub-district area.
Image taken from Google Maps.



Road access from Jagoi Babang to Sarawak, via Sajingan area. Due to the border closure in Jagoi Babang, residents could only enter Malaysia through the Aruk border post in the Sambas District. Despite being only 15 minutes away from Serikin Market, the legal route would take 3-4 hours.
Digital illustration based on the author's own documentation (2022).



Ani, Dii's daughter, sitting on a tree in to seek phone reception. Until recently, most villages in Jagoi Babang do not have a decent network coverage, lacking in telecommunication infrastructure development. (2022).
Digital illustration based on the author's own documentation (2022).



Sadiah and her family in Kindau hamlet. (2022).
Digital illustrations based on Wisnu Purbandaru's documentation (2022).



Top: The author and Ania, chatting on the terrace of her house in one afternoon in Kindau Hamlet. (2022). Bottom: Residents of Belida hamlet. (2022).
Top: Digital illustrations based on Triastuti Dina's documentation. (2022).
Bottom: Digital illustrations based on Wisnu Purbandaru's documentation. (2022).



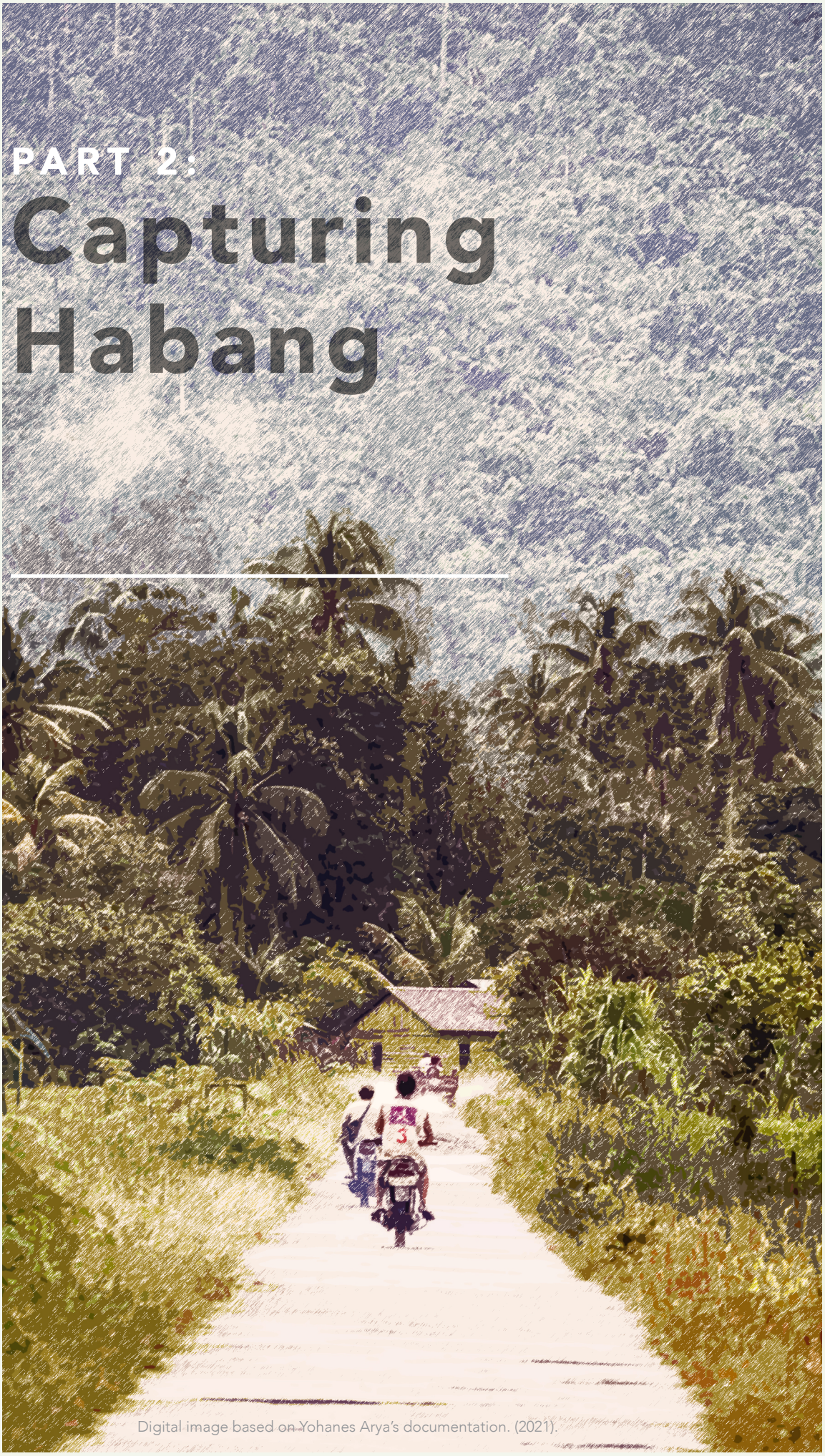
Ania, peeking from inside her house. (2022).
Digital illustration based on Wisnu Purbandaru's documentation. (2022).



Digital illustration based on Wisnu Purbandaru's documentation. (2022).

PART 2:

Capturing Habang



Digital image based on Yohanes Arya's documentation. (2021).

Contents

Overview

Tidayu: An Acculturation

Sanggar Sarantangan

Fields of Gold

Pearl of the Forests



Digital illustration based on Jono Anjasmara's documentation. (2022).



Wild jelai plant (job's tears plant) in Habang. (2022)
Digital illustration based on Jono Anjasmara's documentation. (2022).

OVERVIEW

Singkawang, West Kalimantan, is famously known as the capital of the Chinese population in Kalimantan, and its history is inseparable from Kongsi Lan Fang, or The Lan Fang Republic (1777-1884), which was a unique chapter in Borneo's history. Kongsi Lan Fang was established by Hakka immigrants whom the Sambas Sultanate brought due to the gold mining potential of the region. The Republic boasted its own army, currency, and administration system, thriving for 107 years before Dutch colonial rule.

Singkawang used to be the capital of the Sambas Region; in the eighteenth and early nineteenth centuries, it was a layover town and major port of arrival for the Hakka Chinese goldminers destined for the gold mine in Monterado (now part of Bengkayang District) and elsewhere in Sambas. The name Sambas itself derives from Hakka, *Sam* (three) *Bas* (ethnic), which means the three major ethnicities consist of Malay, who are Muslim, Dayak and Chinese. These three ethnicities have co-existed for hundreds of years.

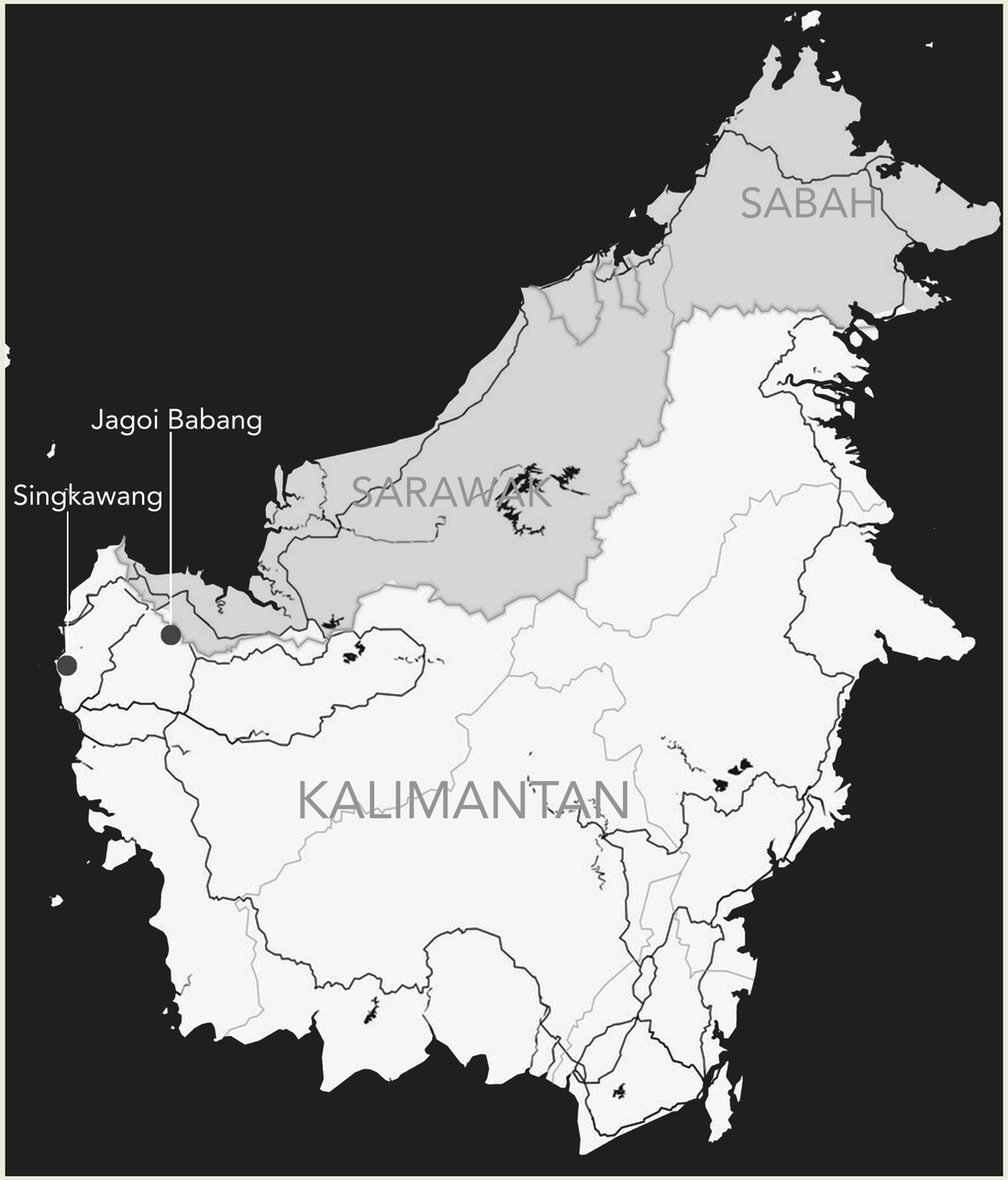
Due to its geographical location, the Hakka Chinese immigrants named this area in Hakka as "*San Khew Jong*", menaing "mountain, forest and river and the sea". The name describes the geographical location of Singkawang, which is surrounded by mountains and adjacent to the sea and has a river that flows from upstream to downstream and empties into the mouth of the river (estuary).

Settlement patterns in Singkawang have generally been grouped based on its major ethnicities: Malay, Dayak, and Chinese. Dayak settlements are situated in the hinterland and highlands in the South and East parts of Singkawang. Malay people in Singkawang typically populate the north and the coastal areas located in the western part of Singkawang. Chinese settlements are often in the center, which is the market areas. Some Chinese (Hakka) people also live in the interior, side by side with the Dayak people.

The majority of the Dayak in Singkawang are Dayak Salako and Dayak Kanayatn. The story highlighted here mainly took place in the Sagatani–also known as Habang–a Dayak Kanayatn village situated in the interior of Singkawang.



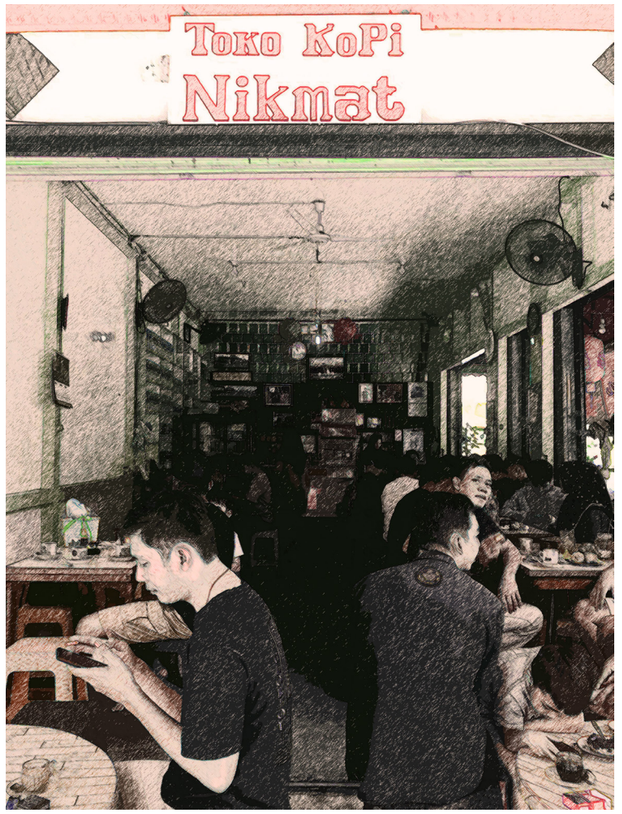
Singkawang town centre. (2022).
Singkawang is also known as "Chinatown of Indonesia" or the "City of a Thousand Temples" due to its large number of Chinese population.
Digital illustration based on the author's own documentation. (2022).


SABAH
SARAWAK
KALIMANTAN
Jagoi Babang
Singkawang


Selakau
Singkawang
PATENGAHAN
Habang
Samal
Batoepajoeng
PANGKALANBATOE
Monterado
Soengairaja
Tjapkala











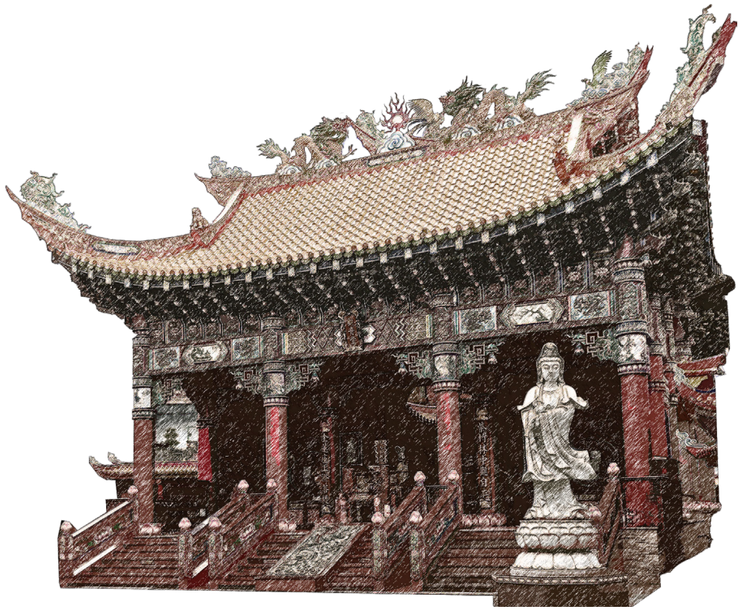


Singkawang market town. (2022).
The Chinese population is concentrated in the central area, where most economic and trade activities take place, whereas the Dayak settlements (Salako and Kanayatn) are situated in the hinterland and highland, which is in the South and East part of Singkawang. The Malay communities mostly reside in the central and northern part of the town.

Top left to right:
1. Niaga Street
2. One of the coffee roasteries in the market
3. One of the flourishing “kopi tiam” coffee shops

Bottom left to right:
1. Pasar Beringin wet market
2. “Bubur gunting” trader
3. Noodle joint on Diponegoro Street.

All digital illustrations are based on the author’s own documentation. (2022).



Pe Kong Dewi Kwan Im in the Singkawang town centre. (2022)
Digital illustration based on the author's own documentation. (2022).



Chinese pottery made in Singkawang. (2022).
Digital illustrations based on Wanda Emelia's documentation. (2022).

Tidayu: an acculturation

Singkawang was the Chinese's trading centre for the agricultural products from Monterado. Initially the Hakka or Kek people inhabited the inland areas and worked as miners, farmers or small traders. They then built residences and markets and shops in Singkawang. Those who live in market areas are generally involved in trade, and those who live in inland areas (far from cities) are generally involved in agriculture and crafts.

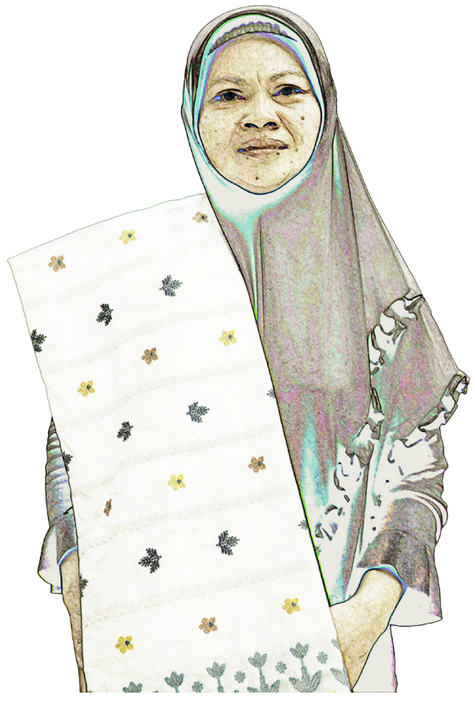
"Tidayu", a blend of Tionghoa (Chinese), Dayak, and Melayu, represents a fusion of the three distinct cultures in the Singkawang region. This cultural amalgamation is vividly expressed through rituals and the motifs found in local craft products, including Songket weaving and pottery..



The use of 'tempayan', chinese pottery, in Dayak ritual. (2022)
Digital illustration based on Jono Anjasmara's documentation. (2022).



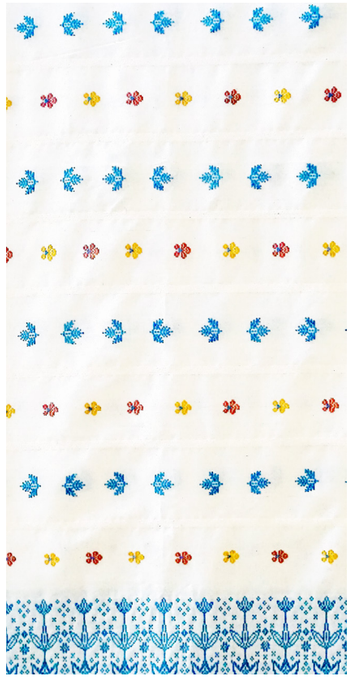
Tatung artist, Datuk Kumis Merah (2022).
Digital illustration based on Alfian Widi's own documentation. (2022).



Rohani, Malay songket weaver from Gang Kelapa in Singkawang.
Digital illustration based on Wisnu Purbandaru's documentation. (2022).



Collection of Chinese potteries made in factories in Singkawang, exhibited at Bentara Budaya Jakarta (2022).

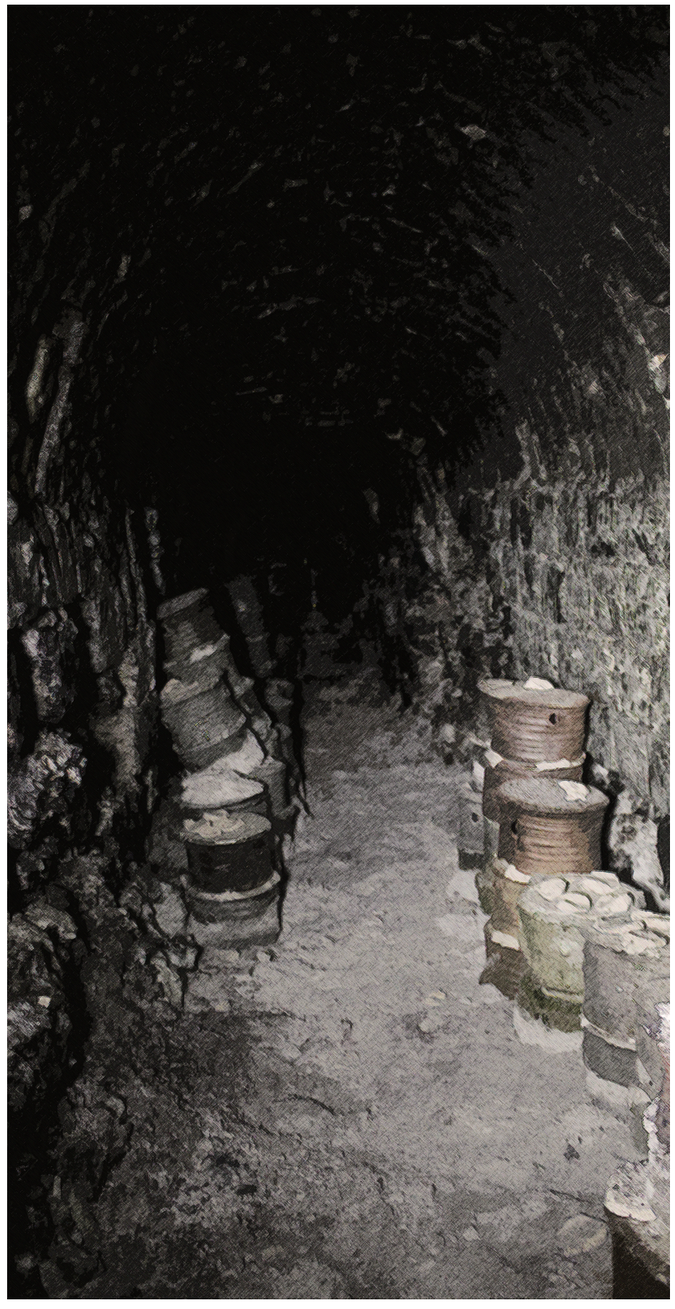


Songket pattern created by Rohani in Singkawang. (2022).
photographs by Wisnu Purbandaru (2022).

The Chinese immigrants in Borneo, particularly Singkawang, have revived the region's economy and have become an integral part of the community while maintaining their roots and cultural identity.

Some remaining ceramic factories in Singkawang still maintain the uniqueness of Southern-China ceramic making, maintaining the combustion process using the traditional method, namely with a Dragon Furnace or "Dragon Kiln" that has an elongated shape like a snake.

In the past, Dayak people considered tempayan or chinese jugs as prestigious and valuable items, it serves as a means of payment, a medium of exchange. It has a symbolic meaning that can indicate the social position of the owner.







One of the remaining dragon kiln, located in Sedau in South Singkawang. This kiln is still operated by Borneo Sinar Lentera, a pottery manufacturer owned by Ajung. Source: Lubang Tanam Archive. (2022).

Digital illustration based on Lubang Tanam's archive. (2022).





Left: Tatung artist, Datuk muka putih
Right: Tatung artist, Datuk Tindah
Digital illustrations based on Alfian Widi's documentation. (2022).

Tatung: an embodiment of multiculturalism

In Singkawang, Dayak culture has undergone a process of acculturation with Chinese and Malay culture (Tidayu). The most prominent acculturation of Dayak and Chinese culture is manifested in the tatung ritual, which has been practised for hundreds of years. Tatung in Hakka means a person possessed by a spirit, god, ancestor or supernatural power. A tatung uses their body as a medium to host one to multiple spirits, which gives them special abilities or strengths that make them pain-resistant.

The ritual of warding off evil and curing disease was carried out by Chinese healers and Dayak saman together, and eventually became a tradition passed down from generation to generation. Tatung performances have quite a strong religious ritual aspect and reflect the blending of ancient Taoist beliefs with local animism.

The New Order regime limits the freedom of cultural expression and beliefs of indigenous peoples in Kalimantan, as well as the Chinese community. During that time, Indigenous animism rituals and the celebration of Chinese traditions, including the lunar new year, especially the tatung ritual, were prohibited. However, through former President Abdurrahman Wahid, the reform era witnessed the passing of a law that recognised the indigenous communities' rights and customary law and Chinese communities' rights to practise their beliefs. In this way, Chinese residents in Singkawang, in particular, have more freedom to carry out their traditions or religious ceremonies.

Tatung is a complex work of art, combining healing rituals, elaborate artistic performances, and spirituality. The spiritual element of it embodies a multicultural value system, embracing worship of Chinese, Dayak and Malay ancestors.







From left to right:

1. Kiu Thian Hian NG, the Sin Min Sang host. She held the ritual and event at her house. (2022).

2.Kiu Thian Hian NG, Summoning the spirit.

3. Tatung guest performer at the Sin Min Sang event of Kiu Thian Hian NG's. (2022).

Digital illustrations based on Alfian Widi's documentation. (2022).

The pictures above were all taken during a *Sin Min Sang;* that is a birthday celebration of one the spirits or a temple's anniversary. The celebration would normally take place in their homes, making the alleys in the neighbourhood very packed especially given that the tatung hosting the event would invite hundreds of other tatungs to come celebrate. Sin Min Sang is also the occasion for temples and tatung to rekindle their ties and strengthen their rapport.

To reach a transcendental state and become a tatung, they perform a ritual to summon the spirits of gods or ancestors to possess their bodies. This ritual is usually carried out in Pe Kong or their home altar. The summoned spirit is adjusted with tailor-made costumes.

Towards the interior







From left to right:

1. Roads in Habang
2. Scooter ride from the town towards Habang
3. Chinese cemetery with the Pasi Mountain backdrop, in Sagatani area.

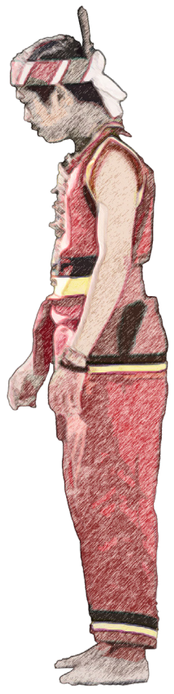
Digital illustrations based on the author's own documentation. (2022).











Story of place: Habang

Sagatani–also known as Habang– is a Dayak Kanayatn settlement in the South Singkawang subdistrict, situated in the interior of Singkawang in West Kalimantan. The splendor of Mount Pasi led us along our journey to the heart of the village.

Dayak Kanayatn, one of the sub-tribes of Dayak in West Kalimantan, is distributed within the districts of Landak, Pontianak, Sambas, Singkawang and Bengkayang. Based on oral tradition, the Dayak Kanayatn people are believed to have originally come from Mount Bawank in Bengkayang.

Digital illustrations based on Jono Anjasmara's documentation. (2022).







Most Habang residents are Dayak Kanayatn, who previously migrated from the Landak area. Like most other Dayak groups, the people in Habang depend on agriculture as their main livelihood. The Dayak people in the village still practice slash-and-burn farming and work on hill rice cultivation, while a small number of Malay people cohabiting in the village work on irrigated rice fields. The main cash crop in the village is oil palm, corn and avocado.

Digital illustrations based on Jono Anjasmara's documentation. (2022).



Digital illustrations based on Jono Anjasmara's documentation. (2022).

Sanggar Sarantangan



Amidst the bleak, widespread narratives of the social and environmental devastation in Habang, an alternative story of the place has emerged through creative activism promoted by its youth. A group of village youths brought their peers to take a step back, reflecting on the future of themselves and their beloved village. In 2018, they spearheaded a *sanggar*.

Sanggar is a platform or place for learning activities of a community group to develop skills and knowledge in a particular field, typically traditional arts. They named the sanggar after a local lake, Danau Sarantangan, that has been central to local communities' daily life but is now heavily polluted from mining activities. Sanggar Sarantangan is a creative platform provided by and for the local young people in Habang to learn and reconnect with the material practice of Dayak Kanayatn traditions, with the purpose of enhancing their well-being as young people given the everyday and future challenges they are facing.

Aneng is the main person who initiated the sanggar. He was assisted by his fellows, Markus and Jono. They started this studio as a creative platform for young people as the village is battling high school dropout rates. Through the platform, Aneng aims to create alternative economic opportunities for the sanggar members to ensure that the future of village kids does not end up being illegal gold miners, (oil palm) plantation wage labourers, or becoming illegal migrant workers.

Sanggar Sarantangan

Through the sanggar, kids and young people in the village are facilitated to express various artistic and cultural activities. The range of activities in the sanggar is quite diverse, from producing crafts and learning traditional music and dance to learning photography and film-making. One of the ways to reconnect with Dayak traditions is through learning traditional craft practice utilising locally abundant material such as jelai plants, also known as hanjeli, or job's tears plant. The beloved jelai plant is traditionally used as embellishment on Dayak costumes.

Sanggar Sarantangan is named after a local lake, Danau Sarantangan, that has been central to local communities' daily life but is now heavily polluted from mining activities.



Rendi, Dodi and Jeffri. (2022).
Digital illustration based on Jono Anjasmara's documentation. (2022).



Wanda, Devi, Veni, Sela and Sri Nengish. (2022).
Digital illustration based on Jono Anjasmara's documentation. (2022).



Sela and Sri Nengsih. (2022).
Digital illustration based on Jono Anjasmara's documentation. (2022).



Jono and Feby. (2022).
Digital illustration based on Yuprianto Prayoga's documentation. (2022).



Sling bag made of jelai beads. (2022).
Digital illustration based on Jono Anjasmara's documentation. (2022).



Jelai beads necklace. (2022).
Digital illustration based on the author's own documentation. (2022).



Lake Sarantangan in Sagatani Village, South Singkawang. (2021).
Digital illustration based on Jono Anjasmara's documentation. (2022).

"We are reconnecting with our traditions and the natural and cultural resources of our village. We are reconnecting with our senses, curiosity and adventure around us or in life. That way, we can think positively about our futures, and hopefully, we can positively impact the wider communities in the village."



Top: The boys of Sanggar Sarantangan all dressed up in Dayak Kanayatn costume to participate in the Naik Dango ceremony. Bottom: Getting ready to climb into the pickup truck, and head to the longhouse.
Digital illustrations based on Jono Anjasmara's documentation. (2022).

Naik Dango Ceremony

The first big event that Sanggar Sarantangan participated and organised was Naik Dango ceremony. Naik Dango is an annual ritual held by the Dayak Kanayatan people as an expression of gratitude towards Nek Jubata (God) for the blessings of the harvest. The ceremony is held after the harvest period as the culmination of the gawai celebration. Naik Dango also aims to ensure that the crop in the following year can be abundant. Even though the younger generation of the Kanayatn community in Kalimantan has become increasingly secular, the ceremony celebrates friendship and the spirit of "gotong royong" in strengthening the ties within the Dayak Kanayatn community. The tradition is rooted in a myth among the Dayak Kanayatn people that tells the story of the origin of the rice, which is derived from a stalk of rice plant belonging to Jubata on Mount Bawank.

Dango means a granary where rice is usually stored, built around residential areas, and huts for shelter, typically built on the swidden farm. "Naik dango" literally means trasnporting rice to the granary. The Dayak Kanayatn people believe padi, or rice, is the living spirit. The ceremony includes *nyangahatn* ritual, which is a process of blessing the rice that has been harvested so that it can last for a long time and not run out quickly. There is also *"tingkakok nimang padi"* procession, where the community will bring rice from each year's harvest to the 'dango' accompanied by dances.

During Naik Dango, All Dayaks (Kanayatan) in town will gather near the traditional longhouse (Rumah Betang) to pray towards Jubata. They will also bring their own cooked harvest crops to eat together. On this day, the people in Habang wear traditional clothes and perform a dance parade around the village. Then they went to the long house together, transported *en masse* on the back of a truck.









The festive atmosphere of the village feast in Habang.
Digital illustrations based on Jono Anjasmara's documentation. (2022).



Sanggar Sarantangan at Rumah Betang (long house) during the Naik Dangau celebration.
Digital illustration based on Jono Anjasmara's documentation. (2022).

The Fields of Gold

The livelihood of the local community in Sagatani village, or also known as Habang, relies upon farming and mining. Gold mining has been an important livelihood for the majority of the local people in Habang. These gold mining operations are controversial – they are most often noted for their environmental destruction, dubious legality, and associated health and safety concerns. But it's also a shot at economic independence for marginalised rural people in West Kalimantan (Peluso 2015). Gold mining has been an important livelihood for the majority of the local people in Habang Village. Dompeng, as the locals call it after a Chinese brand of dredge sets 'Dom Fenk', refers to an informal, unlicensed gold mining practice which started with humble artisanal mining and then proliferated during Borneo's gold rush. Dompeng activities have been carried out in many parts of West Kalimantan, particularly in Singkawang and Bengkayang. Habang is infamously known for this practice, where locals and miners haul from nearby villages and from all over the island, come to the village where a large mining campsite near the lake (Sarantangan) has been built. Gold is then sold through underground networks. According to the local communities, now that the gold deposits in Habang have been exhausted, more people have moved to dig for gold elsewhere in other parts of West Kalimantan, primarily to Bengkayang District.



Lake Sarantangan in Sagatani Village, South Singkawang.
Digital illustration based on Jono Anjasmara's documentation. (2022).

"These gold mining operations are controversial – they are most often noted for their environmental destruction, dubious legality, and associated health and safety concerns. But it's also a shot at economic independence for marginalised rural people in West Kalimantan"
(Peluso 2015)









Gold mining in Borneo, particularly West Kalimantan, has a long history. The sultanates on the western coast of Borneo, including Sambas and Mempawah, brought the Chinese labourers in the 18th century to work in gold mines. The promise of gold brought tens of thousands of migrant labourers from China to the forested and marshy shores of western Borneo in the mid-eighteenth and early-nineteenth centuries. Settling in for the short or long term, along and inland from the sparsely populated coasts, those early miners created patchworks of small mines and farms—and farms on top of spent mines— as they produced one of the first smallholder-driven gold frontiers in the world. In the province of West Kalimantan (Indonesian Borneo) today, a new kind of gold frontier is being carved, again by small-scale miners, digging out new pits and shafts or working the planted-over sites of those centuries-old mines. (Zhu and Peluso 2021). The gold stores of subterranean Borneo pulled the region's residents (migrants or indigenous) into global capitalist markets earlier than the island's renowned rain forests. As long ago as 1750, large and small pit mines became classic frontiers of gold production by tens of thousands of Chinese men coming to Borneo and the local people they allied with (ref). These miners and traders arguably brought early capitalist relations to local social relations in Borneo's forest expanses (Heidhues 2003; Peluso 2018).

Anthropologist Nancy Peluso (2015;2018) has been conducting ethnographic research on gold mining in West Kalimantan. According to her work, there are three main economic reasons of why the locals keep returning to informal gold mining, despite its persist criminalisation and severe risks; the decline in agroforestry commodity prices, the high potential returns from participation in gold mining, and the organisation of work among small-scale mining crews–are what keep interest in mining alive even when gold sources seem to be running thin (Peluso 2018).

1. Excavated gold mine pit
2. Mining activity
3. The river in Habang, which is the main route for boats delivering equipment to the mine site.
4. Dom Fenk machine used in the gold mines

Digital illustrations based on Jono Anjasmara's documentation. (2022).



Digital illustration based on Yohanes Arya's documentation. (2021).

Habang is situated in the interior of Singkawang, and the terrible road condition has impacted their accessibility to town. The village is reasonably close to the market town, but the poor road condition has reduced a lot of access. This has significantly limited the community's job opportunities and access to other public facilities (healthcare, education and economic centres). To work in town, they must own a scooter to travel back and forth daily or rent accommodation. More young people have left working on the farm. The usual pathway is to become a migrant worker in the neighbouring country Malaysia or other high-risk jobs in mining. Though perceived as undesirable, it is still common for young people in the area to follow in those footsteps.

With limited economic opportunities, it is common for young people to drop out of school and, in some cases, engage in dompeng activities. Against this backdrop, Sanggar Sarantangan was established in response to the challenges faced by the younger generation in their village. Currently, Sanggar Sarantangan has around 20 active members who live in Habang.

Some of the sanggar members and their families had experience working in Malaysia before. However, there aren't many positive stories around it. People did not return home, or they simply disappeared, like like Veni's aunt. Veni's family had not heard anything about her aunt who has been working in Kuching since ten years ago. Feby's story was different. Feby left school to work in Kuching–he just turned seventeen. He did odd jobs working from one place to another. As an undocumented migrant worker, he did not have much freedom, as he often had to hide from the police. When the COVID-19 pandemic hit, many businesses closed down and he, along with many other illegal workers, faced uncertainties. He decided to return home, but because he had been there illegally, he had to walk through the jungle to cross the border.

"Many young people in Habang left school because of their families' financial situation, so they turned to 'dompeng' or left the village to earn Ringgit, work as a migrant worker in Malaysia. Some of us (sanggar members) have also experienced those, working in Kuching and mining gold in the lake (Sarantangan). Now, we are trying to bring the young people in our village to reconnect and learn about our culture for better future opportunities." (Edo)







1. Fishing at Lake Sarantangan
2. A man on motorcyle hauling mining equipments and fuels.
3. River port in the Habang village, an important trade hub where vessels, barges and boats are docked to unload and transport mining resources.

Digital illustrations based on Jono Anjasmara's documentation. (2022).



Digital illustrations based on Jono Anjasmara's documentation. (2022).

Most of the male members of Sanggar Sarantangan used to engage in dompeng practice; from as minimum as hauling the equipment, panning for gold in the river and the lake, and even dredging the ground to make tunnels. Some of their family members still rely on dompeng, as crew miners or mine bosses. The village and the city nearby offer little remunerative work, though some families have access to several hectares of farmland. However, everyday living costs are just increasingly high without off-farm work. As such, dompeng incomes underwrites low labour wage and supports the high living cost of young people in Habang who aspire to live and study in town. Dompeng was a lucrative job for the locals; however, financial literacy was poor.

"Back in the day, my older brother had three cars and ten motorcycles. He had a multi-storey house made of concrete. Now, he has lost everything. He's in a lot of debt, and now he's just a wage labour at an oil palm plantation. I used to take part in the (dompeng) activities too when I was in middle school. I don't do that anymore since I have obtained my high school degree, and I don't want to waste that; it'd be embarrassing, wouldn't it?" (Edo)

Edo, at that time, apart from being active in the sanggar, also worked at a fertiliser factory. Edo had also engaged in dompeng while in junior high school. However, reflecting on his older brother's experience, he was then committed to completing his education. Aneng, the leader of Sanggar Sarantangan, used to work in the dompeng site too. On a good day, he could easily earn 1-2 million rupiah daily, equivalent to the region's minimum monthly wage. However, as the money came easily, it also disappeared quickly. Some who prospered from the mining would soon become the gold mining boss, claiming/ buying back lands, opening up plantations and expanding their business.

The locals, mostly the men, were fluent in explaining the mining activities in Habang; some mining goes on under rivers, lakes, or in wet swamps. The locals are by all means conscious of the negative, dangerous impacts of dompeng. They talked about ten locals who had recently lost their lives getting submerged in the pit. Not only is the practice very damaging to the environment, it is also a dangerous job that is life-threatening. In pits, the threat of landslides and burial alive is ever present. The mining activities also pose risks to the local community, who are not involved in the practice. Massive gold pits would be left abandoned, and sometimes, kids would play around in the area. The uncertainties in all these risk scenarios are regarded as fate and are well-known among miners and the local community.



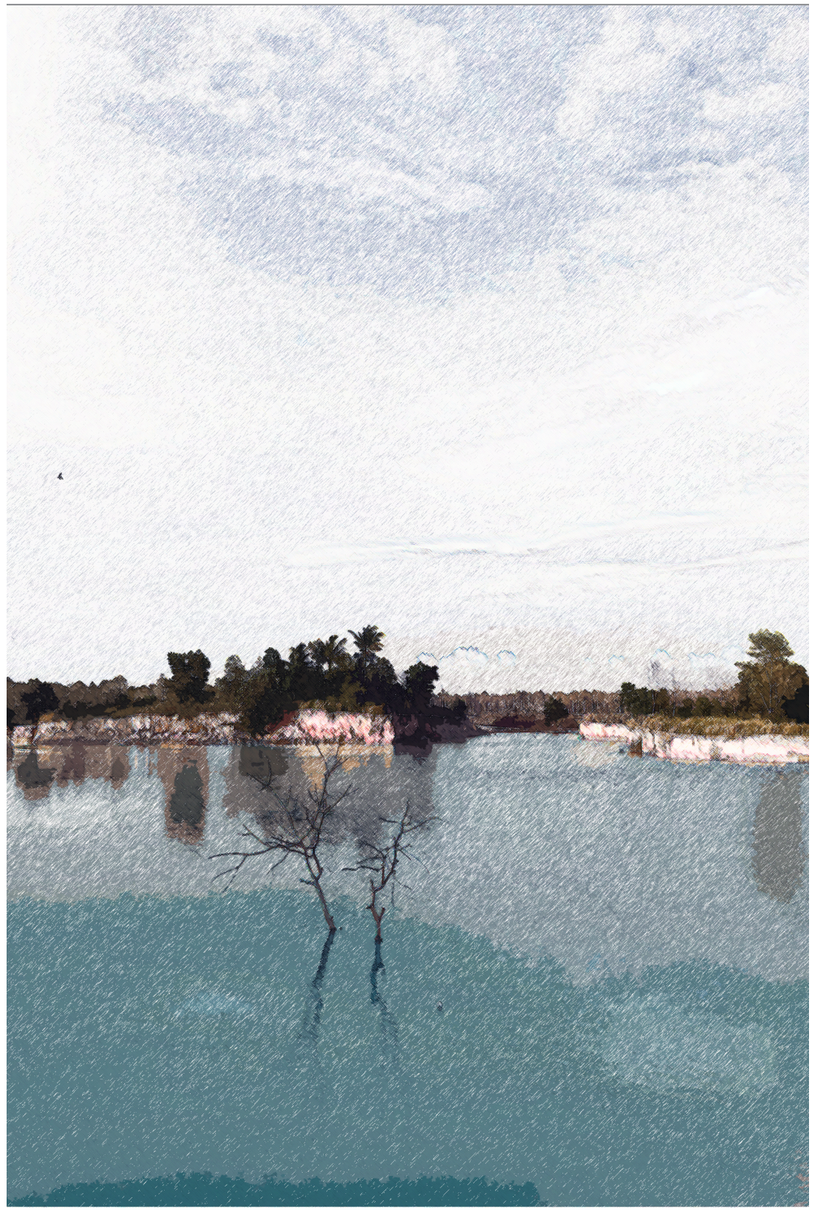
Digital illustration based on Jono Anjasmara's documentation. (2022).

Aneng left the practice eight years ago, mainly because he did not like the social issues surrounding the dompeng environment; gambling, drugs and many young kids would leave school for it. According to him, fortunately, the church has saved many young people in the area, including himself. Aneng, the co-founder of the sanggar, was perceived as a role model for the young people in the village. Every Sanggar Sarantangan member considered him one of the most influential figures in their village. Each expressed admiration for Aneng, someone they perceived as the community's asset. Their respect towards Aneng is primarily based on his initiative to start the sanggar from nothing.

Sanggar Sarantangan has been the only platform for the young people in the village to develop themselves through creative practice, learning how to make craft products, learning traditional Dayak dance and music and, more recently, learning photography and videography. They believe that the sanggar will present them with better future opportunities. They took pride in the sanggar because their work can give a positive reputation to their village. Before, the village was only known for its negative aspects, such as illegal mining, unemployment, poverty and drugs.

Especially with the lack of structural support (for young people) in the area, they see the sanggar serves a vital role for the community, a role that they would also take on to look after each other and the village's future generations.





“Danau Biru” against the backdrop of Mount Pasi, a deserted gold mine site turned blue lake in Pajintan, East Singkawang. (2022).

Digital illustration based on the author’s own documentation. (2022).

Landscape in Disturbance

Smallholder gold mining has exploded across Indonesia over the last 20 years. Both the mining activities and the gold produced in these sites compete with those from the gigantic corporate miners known around the world: Freeport, Newmont, and Aurora.

The unregulated development of illegal mining results in several negative consequences, such as: environmental degradation as a result of mercury use, changes in landscapes, forest/soil damage, water pollution, poor handling of mining waste due to the rudimentary skills use

In some place, dompeng activities have left giant puddles forming ponds and even lakes, such as the one in East Singkawang.The striking blue colour of the water is formed due to chemical contamination from the mining activities. From a socio-environmental perspective, the area has experienced a ‘disturbance’ (Tsing 2015) which refers to profound changes in the natural ecosystem and social relations.

Hanjeli:
Pearl of the Forest



Jelai beads charms.
Digital illustration based on the author's own documentation. (2022).

The usage and benefits of jelai plants are no longer widely known. Some of them might remember from their childhood, using the beads to play 'marbles' or shooting wild chickens in the forest. Some of them remember seeing their grandparents or their elders eating them. Nowadays the community utilises the beads to make rosaries. Through the documentary, Jono, Yoga and Feby attempted to explore the cultural and historical narratives of the jelai beads, which are significant to their Dayak Kanayatn roots. In doing so, the group interviewed Pak Iwan, who was the respected village elder and the community's customary leader in Habang.

Jelai serves a cultural significance particularly for the Dayak Kanayatn community. According to pak Iwan, jelai is considered as one of the most important components in the Dayak Kanayatn tradiiton, after yellow rice, used in almost all rituals. The seed of the plant is believed to provide safety and security, protected by the earth and the sky, especially when one travels around. Jelai seed is divided into two categories based on its function; one that people can eat and one that is considered as sangga or a shield, which people use to protect themselves–which is called *nyalik panguincir.* One who wears them (usually on the ankle, arms or wrists), will be given safety and health, protected by their Jubata (God). Jelai seed symbolises a Dayak person who is brave and gentle.

Jelai plant is abundant in Habang; it grows wild and thrives easily everywhere. Indeed, it is believed that jelai is best to germinate on their own–no need to plant them–ideally in front of the house. However, if planting is necessary, it must follow certain calculations according to their Dayak belief. It is best to plant them on certain dates and times, ideally based on the grower's age and date of birth. There are also ideal, specific times to harvest the seeds. The plant should be regularly cleaned, weeded, and wait until their first fruits. The first fruits would be considered sangga or shield, and the remaining are decoratives.



Edo and his mother cultivate various types of hanjeli plants in their yard so they don't have to go all the way to the forest to pick them.

Digital illustrations based on Jono Anjasmara's documentation. (2022).

Hanjeli

by: Edo and Sela



Jelai or Hanjeli is a wild ornamental grass, a tropical perennial plant that grows in the forest and in people's yards. In a tropical climate, the plants are abundant where they self-sow prolifically and can be invasive. The seeds, or what the locals usually call biji nyalik, are oval-shaped and pearl-like. They begin as greyish-green orbs and then ripen to various colours, from white to rich tan-brown or dark mocha. When it is ripe, the skin is tough. The seed's hard and shiny shell makes it suitable for making jewellery.

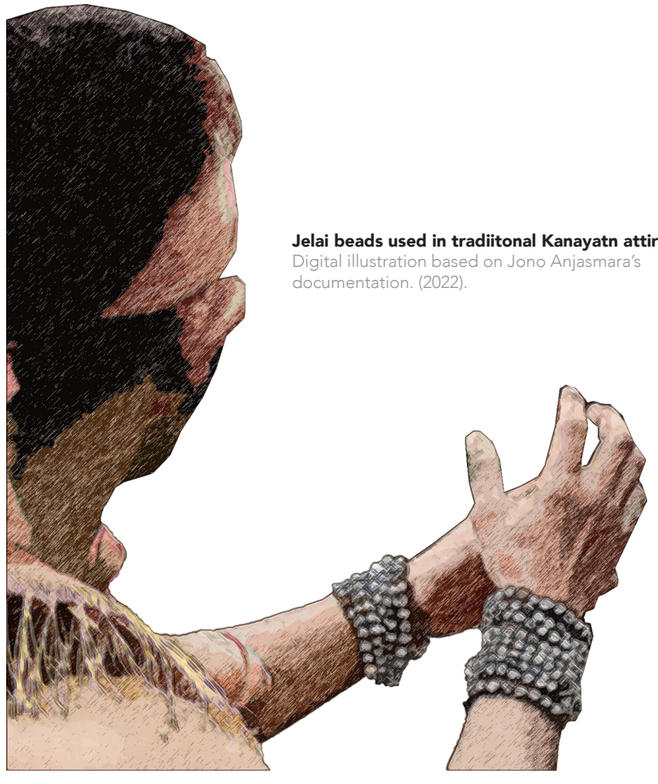
For Sanggar Sarantangan, one of the ways to reconnect with their Dayak traditions is through learning traditional crafts utilising locally abundant material such as jelai plants. These materials are traditionally used as embellishment on Dayak costumes.



Jelai beads rosary made by Edo, as a present for his mother.
Digital illustration based on Jono Anjasmara's documentation. (2022).



Pak Iwan, the respected village elder of the Kanayatn community in Habang.
Digital illustrations based on Jono Anjasmara's documentation. (2022).



Jelai beads used in tradiitonal Kanayatn attire.
Digital illustration based on Jono Anjasmara's documentation. (2022).





Devi taught local high school students to create jelai beads products.
Digital illustration based on the author's own documentation. (2022).

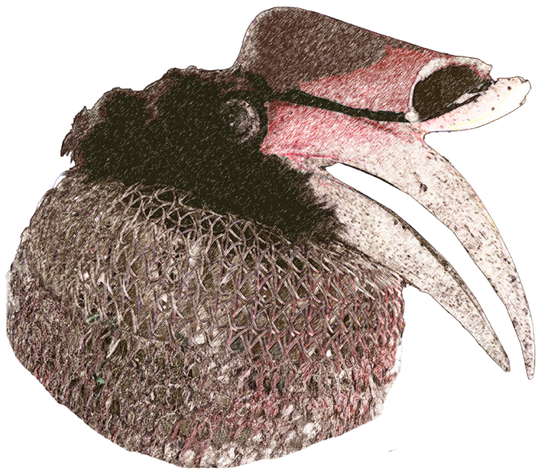


Photograph by Jono Anjasmara. (2022).

The narratives from Sanggar Sarantangan in Habang, reveal how their (jelai beads) craft practice is framed as a hope, a modality of connecting with the world.

Their story reflects how (craft) communities affected by extractive economies in Borneo, constantly refined and reworked their sense of pride, in dialogue with their cultural and natural assets.

Amidst the disturbed landscape in which the community dwells, transformative relations between people and place have thrived.





Digital illustrations based on the author's own documentation. (2022).



Digital illustration based on the author's own documentation. (2022).

Everyday Objects / Cultural Assets

The people of Sanggar Sarantangan have shared some of the everyday things in their village, which they regard as meaningful cultural assets.



Jelai natural beads, necklace made by Sanggar Sarantangan.
Digital illustration based on Jono Anjasmara's documentation. (2022).



Pantak statues from Nyarumkop,East Singkawang, made by Ono of Sanggar Taras Nibukng.
Digital illustration based on the author's own documentation. (2022).



Mandau, traditional Dayak weapon. This particular mandau is Sela's family heirloom.
Digital illustration based on Jono Anjasmara's documentation. (2022).



Tarinak or tanggui, farmers' sunhat made of pandan laeves. Made by Sonia, Edo's mother.
Digital illustration based on Elsa's documentation. (2022).



Bangkat, used to carry firewoods, corn and tubers. The basket is constructed with bamboo slats arranged together by tying them with rattan threads. They are usually carried at the back, using a cloth strap worn on the head.
Digital illustration based on Jono Anjasmara's documentation. (2022).



"Tempayan" earthenware jugs, important element in Dayak rituals. brought by the Chinese early immigrant to Borneo.
In the past, the Dayaks considered tempayan as more valueable than gold.
Digital illustration based on Wanda Emelia's documentation. (2022).



"Sangga" or a shield, used in tha past as a war attribute. Now often used in ceremonies and dances.
Digital illustration based on the author's own documentation. (2022).

Tempayan (Tajau)

by: Wanda and Veni





Digital illustrations based on Wanda Emelia's documentation. (2022).

"Tempayan", or tajau in Malay, is an earthenware jug made from pure clay. There are two types of commonly-used tempayan based on their size: small and large. Small tempayan are divided into two types: male and female. Tempayan jugs are generally used as containers for storing valueable goods or rice and fermenting *tuak* (rice wine). More specifically for the Dayaks, tempayan is an essential element used in traditional rituals. Small tempayan jugs are used for ordinary customs, such as weddings, *tepung tawar, sam-sam*, and so forth. However, the female jugs can only be used for small-scale traditional rituals conducted at home as they are believed to represent a 'soft and gentle' characteristic. Also, large jugs or tempayan siam are used for 'big' traditional rituals such as traditional law rituals. The complementary elements for the jar in ceremonies is called "panjangangkabakng" which consists of *cucur (tumpik), lemang (poe),* yellow rice, *bontokng,* betel leaves, whiting, eggs and turmeric. For the Dayak Kanayatn community, tempayan conveys the message of "tumbuh dunia tumbuh adat" (world exists, therefore adat exists), symbolising orders in the lifeworld, that worldly existence cannot be separated from the existence of *adat* law.



A potterer making tempayan at Borneo Lentera, one of the few remaining traditional pottery manufacturers in Singkawang.
Digital illustrationsbased on Wanda Emelia's documentation. (2022).



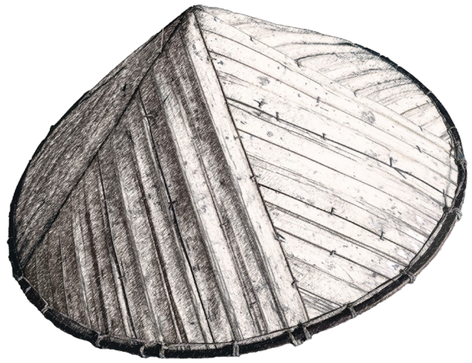
Norjeni, harvested pandanus leaves in the forest. (2022).
Digital illustration based on Elsa's documentation. (2022).



Digital illustration based on Jono Anjas-mara's documentation. (2022).

Tarinak (Tanggui)

by: Virna and Elsa



Thorns pandan grows wild, in forests, especially around swamps and rivers. The leaves can reach two metres in length, they are sturdy with thorns on the sides of the leaves. In Habang, there still are people who utilise the material, weaving for utilitarian purposes. one of them is Mrs. Sonia, Edo's mum, who lives in RT09 RW04. Mrs. Sonia usually makes woven tanggui (tarinak), a conical hat which farmers in Habang use when tending their swidden farm, to protect their heads from heat and rain.

Sonia makes tarinak for her own use, as well as making it for neighbours. The process of making tarinak takes approximately 2 hours. Before the process of making tanggui, the leaves are cleaned first and then dried in the sun, which takes 2 or 3 days. Mrs. Sonia usually picks or looks for thorny pandan leaves (sakek) in the village of Kampung Melayu Habang. In the process of collecting the leaves, many obstacles were experienced, one of which was the difficulty in cutting the leaves due to sharp thorns which usually scratches the skin.

Pantak

by: Dodi and Leonardus



Digital illustration based on the author's own documentation. (2022).

Before the introduction of religion and modern technologies, ancient Dayak Kanayatn people documented and immortalised figures in the form of statues called "pantak". The pantak statue-making was carried out by the Dayak people in Kalimantan, especially the Kanayatn group, to honour respectable figures or heroes who have contributed to the community. such as the village shamans, ritual and agricultural leader and wars commanders. Pantak is believed to be a guardian figure. Besides being placed in a home altar, it is also a territory marker, usually placed near rice fields or village borders to protect the area from malevolence. The Dayak Kanayatn people believe that pantak statues can protect the village from "evil spirits" or disease outbreaks. For example, when outsiders of the village come in with bad intentions, they will not survive and will be hit by a disaster (jukat, mambadi, babadi bamangka'). Everyone who passes through the pantak must give a greeting "ba tabe" as a form of respect for the ancestral spirits.

Pantak is also a medium that can create a relationship between ancestral spirits (awa pama) and their living descendants, as well as a means to remember them. The pantak itself is made of ironwood and should last for generations. Not just anyone can make pantak. A skilled pantak maker should carve the statue with an interpretation or resemblance of the ancestors. Despite the widespread Christian belief, the Dayak community in Habang maintains and cares for the existing pantak in the village.



Pantak in Habang, placed by the village entrance.
Digital illustration based on Dodi's documentation. (2022).



Offerings for village pantak are replaced regularly by the locals.
Digital illustration based on Dodi's documentation. (2022).

Mandau

by: Jono and Yoga



Traditional mandau weapon.
Digital illustration based on Jono Anjasmara's documentation. (2022).

Mandau is a traditional dayak weapon, which is a type of machete. Mandau is a valuable heirloom associated with the Dayak headhunting past tradition, nowadays used for both ceremonies and everyday practical tools.

The hilt is made of animal horns, such as deer antlers, although some variations with human bones and wood also have been found. The blade resembles a hornbill, whereas the scabbard, called kumpang, is elaborately carved and plumed.



The process of mandau making.
Digital illustrations based on Jono Anjasmara's documentation. (2022).



Mandau maker in Habang.
Digital illustration based on Jono Anjasmara's documentation. (2022).







Kue cucur

by: Sri Nengsih and Febi

Kue cucur, or bowsprit cake, is a sweet fried dish made of rice flour and brown sugar. It widely spreads across Indonesia; however, it bears significance for the Dayaks. Kue cucur are usually made during gawai, weddings and other traditional events. For the Dayak Kanayatan community, cucur is essential for offering (buis). The Dayak Kayanatn believes that cucur symbolises unity or one spirit of all Dayak people. Before eating, the cucur is prayed for (sangahatn) first or kept in certain places, such as in the ventilation of the main door, at the kitchen door, and in the rice bowl (pabarasatn), symbolising the Dayak people's respect for their ancestors. On every special occasion in Habang, the community, especially the women and girls in Habang, will come together to make cucur.

All digital illustrations are based on Sri Nengsih's documentation. (2022).



All digital illustrations are based on Janet's documentation. (2022).



Lemang

by: Janet and Devi

Lemang is the Dayaks' staple; made of glutinous rice cooked inside a hollow bamboo shaft. The process of making lemang in Habang village is carried out by men, where they work together to make lemang. In Habang, lemang is grilled over an open fire using a makeshift wood stove (rahan't).

Habang Local Champions

(voted by Sanggar Sarantangan)

"Habang is the only Dayak Kanayatn village in Singkawang, which actually originates from the Landak region. However, due to an ethnic conflict in the past, many ended up migrating and establishing a new settlement here. Not many people know the stories about our community, nor does it seem like there is much literature. Here, only the elders remember; if no one takes notes, all memories and stories of our origins will be lost." (Doddy).





All digital illustrations are based on Alfian Widi's documentation. (2022).

"Habang has been famous for its wealth of gold resources, therefore dompeng (illegal mining) is pervasive around here. Many locals work in dompeng, and equally many people from other areas also came here to mine. Now that the wealth is depleting, many of them have left the village. We are left with nothing–what remains is only toxic waste. Honestly I feel disappointed because our natural surroundings are damaged, and the future generation will receive no benefits from it all." (Jono 2022)







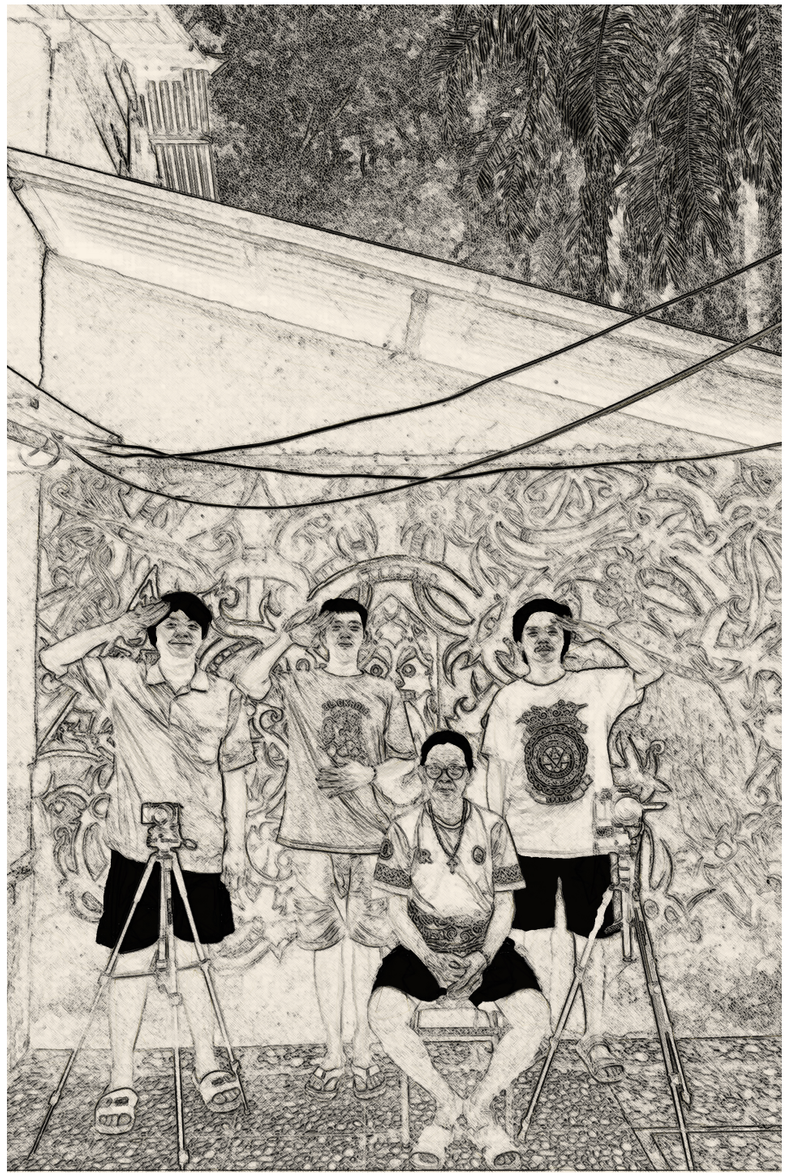
The process of making jelai beads. (2021).
Digital illustrations based on Yohanes Arya's documentation. (2022).



Spending an afternoon while making jelai beads together. (2022).
Digital illustration based on the author's own documentation. (2022).



Sanggar Sarantangan led jelai beads making workshop for local highschool students. (2022).
Digital illustrations based on the author's own documentation. (2022).



Film making process. Yoga, Febi and Jono with Pak Iwan. (2022).
Digital illustrations based on Jono Anjasmara's documentation. (2022).



Pak Iwan leading ‘sam-sam’ ritual. (2022).

Digital illustrations based on Jono Anjasmara’s documentation. (2022).

6.

ANALYSIS



Figure 82. The interview and film-making process with Roslinda in Risau Hamlet, Jagoi Babang, 2022. [photograph]. Source: Adeline Kueh.

6.1. Introduction

This chapter provides an initial analysis of the data collected during the first phase of the fieldwork. Referring to Braun and Clarke (2006), thematic analysis is used, implemented through the stages of immersion, searching for themes, reviewing themes, defining and naming themes and producing a report. Insights are drawn from analysing transcribed conversational data generated through the fieldwork phase. As outlined in the previous chapter, the analysis is done iteratively after each phase. In this context, using the interviews to identify Indigeneity that are deeply-entangled in communities' everyday practices.

Inductive thematic analysis was primarily developed. An inductive approach is normally used in cases where no previous studies deal with a phenomenon, meaning that coded categories are derived directly from raw text data (Hsieh and Shannon, 2005). The themes identified are linked directly to the data.

First, key words and associations were gathered from the original research question. The central question being asked is; *How can an exploration of everyday creative practice articulate Indigenous perspectives on sustainability in Borneo?*

A set of sub-questions were also developed to support the direction of this research:

- How can appropriate modes of engagement with Indigenous communities be developed for collaborative knowledge production?
- How can design-led Indigenous innovation address sustainability challenges in rural Borneo, and in what ways can design practice ethically support these efforts?

The overarching aim of the research is to identify the role of design in fostering cultures of inclusive innovation in the peripheries.

- To articulate Indigenous and decolonising perspectives on sustainability and innovation
- Foregrounding Indigenous epistemologies in design collaboration through a shared practice.
- to explore ethical and critical ways in which Indigenous knowledge and practice can enrich approaches to learning and doing within design.

Below are the objectives set to achieve the research's aims.

- Explore and mobilise communities' cultural assets and narratives through collaborative-design engagements.
- Foster long-term relationships through a series of iterative design engagements and facilitated collaboration.
- Embed opportunities for co-production and mutual learning through a combination of participatory and qualitative methods.

6.2. Initial Analysis

This chapter provides an initial analysis of the data collected during the first phase of the fieldwork. Referring to Braun and Clarke (2006), thematic analysis is used, implemented iteratively through the stages of immersion, searching for themes, reviewing themes, defining and naming themes and producing a report.

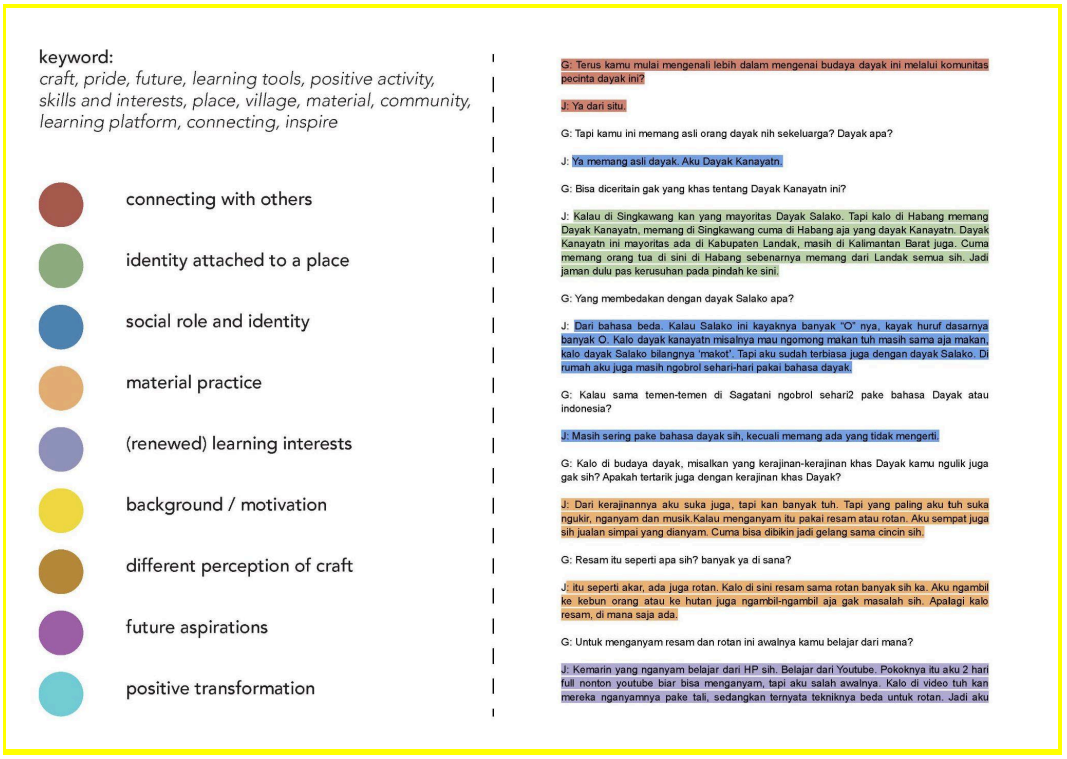


Figure 83. Initial coding of transcribed data. [diagram]. Source: Gamia Dewanggamanik.

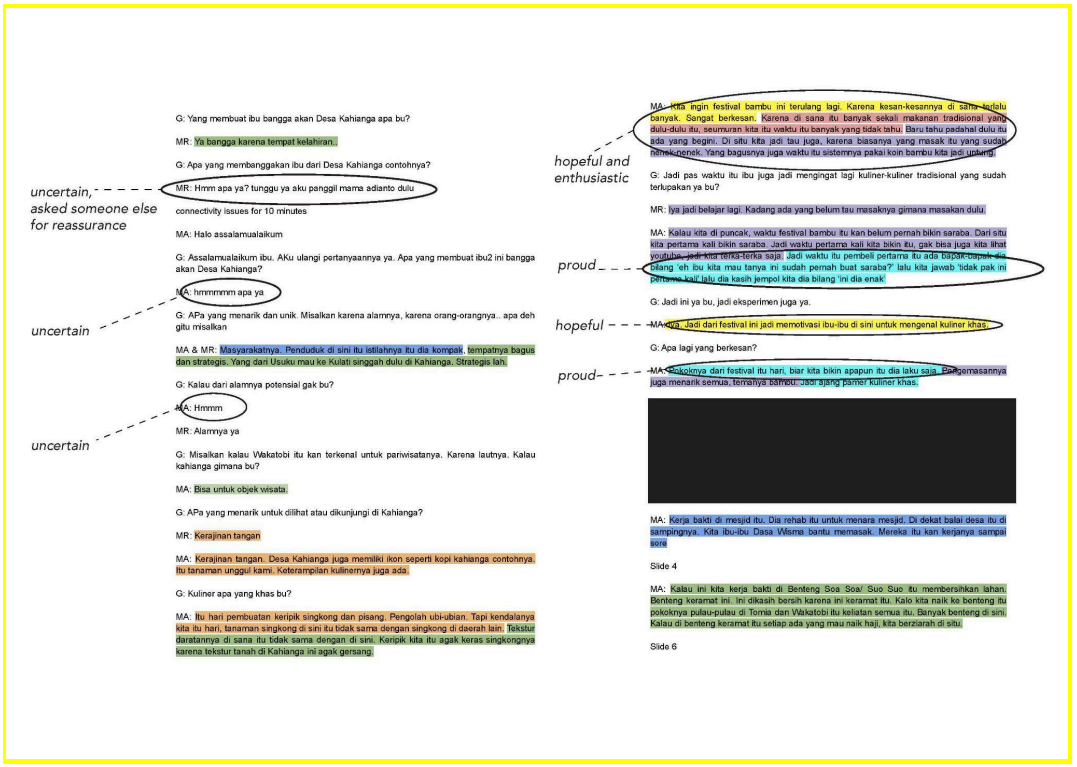


Figure 84. TA initial coding. [diagram]. Source: Gamia Dewanggamanik.

Initial insights are drawn from analysing transcribed conversational data generated through the fieldwork phase (Fig. 83-84). As outlined in the previous chapter, the analysis is done iteratively after each phase. In this context, the data from the interviews is used to identify the subtle nuances and elements that were under tension or could be perceived as hidden in communities' practices. The key words were as follows: everyday creativity, Indigenous being (identity), embodied wisdom, local sustainable challenges, participation, engagement, rural community.

Using these keywords as a first coding framework, the main set of interview questions was then coded, and an initial thematic framework with basic themes constructed and used to begin to code interview transcripts. This framework consisted of seven basic themes: 1) responsibility referring to nurturing people and place, 2) tensions referring to maintaining tradition/cultural values and future aspiration, 3) expertise and formal/informal innovation referring to Indigenous knowledge and wisdom and everyday creativity, 4) crafts in the changing landscapes referring to new forms of everyday practice, 5) renewed Indigenous identity referring to emerging positioning, pride and confidence, how the communities make sense of their practice, modern dreams, traditional/contemporary Indigenous identity, identity attached to place, and 6) kinship and 7) knowledge transfer 8) hope referring to future aspirations and pride and confidence. The next step was to adjust and refine the coding framework, based on analytical readings of all the transcripts and fieldwork notes. This

required detailed readings of the transcripts involving extracting and organising basic themes.

The references and nuances in the conversation with the communities in Jagoi and Habang would have been lost in translation if the interviews had been put through analysis software such as NVivo or transcribed by someone other than the researcher. This hand-coded approach was referenced in McAra's single case study PhD with teenage youth in order to capture nuances of language and accent (McAra, 2017, p.80). The interpretation required the researcher's knowledge of the context and relationships to make a more in-depth sense of the transcripts. The theoretical background of feminist political ecology, together with the researcher's particular viewpoint, was a factor in the coding analysis of the interviews and tools to effectively identify 'sticky mediations' or knowledge gathered along the way (Bellacasa, 2012, p.88, cited in Higgins, 2020, p.163). Through the process of engaging with the community, an exploration of everyday practice has provided the research with several themes and insights:

6.3. Theme 1: Craft in Changing Landscapes

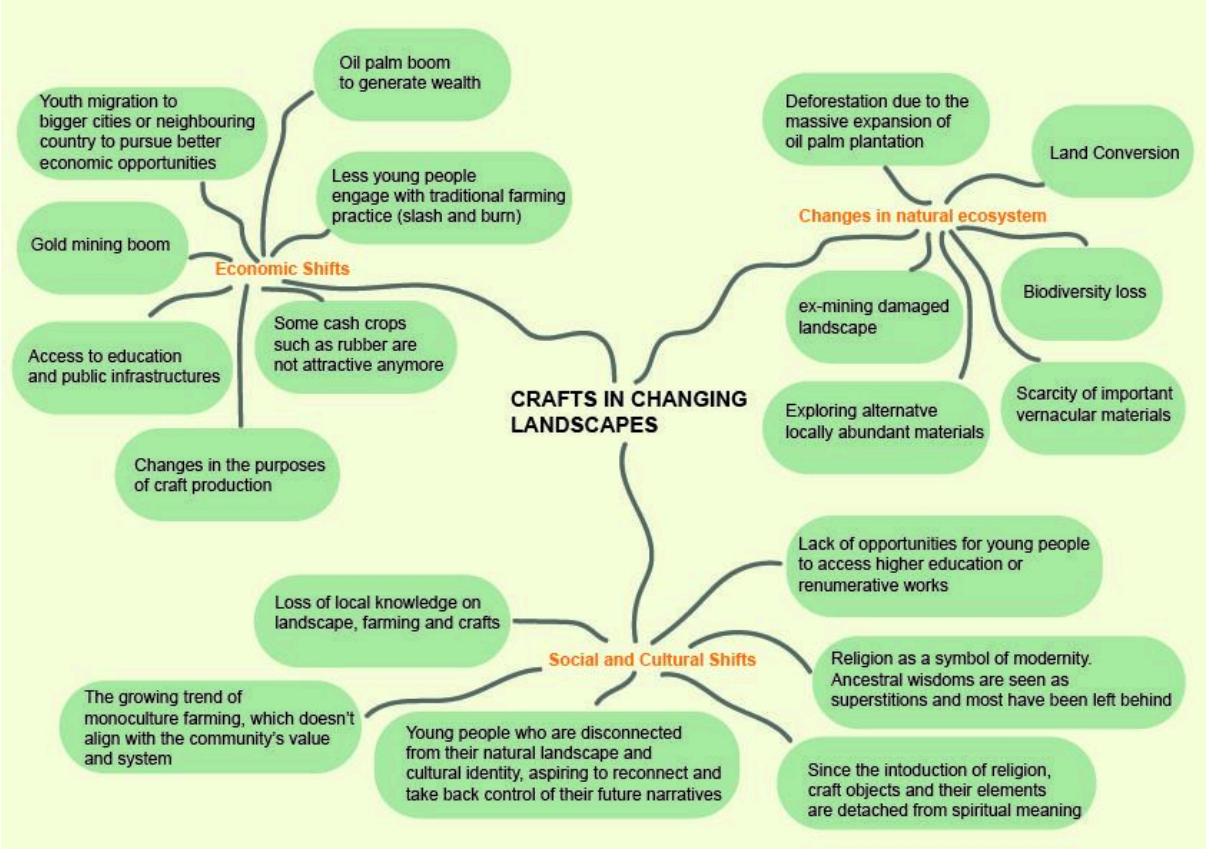


Figure 85. Thematic network 1: Crafts in the Changing Landscapes. [diagram].Source: Gamia Dewanggamanik.

Source: Gamia Dewanggamanik.

This theme (fig.85) illustrates how Indigenous knowledges and practices in Jagoi Babang and Singkawang were gradually impacted by scarcity, precarity and modernity. In this context, craft practice and new forms of life emerge and thrive in anthropogenic landscapes. Here, craft practices, ecological destruction and colonial legacies are colliding.In this context, craft practice emerges at the nexus of extractive economy/ land appropriation, demographic changes (youth migration) and Indigenous wisdom. Cultural identity, land and modern dreams are entangled.

Despite its volatile nature, the oil palm industry has significantly supported local livelihoods since its boom in 2014 and continues to be perceived as the most feasible and desirable economic option for many. Currently, much of the land in the region has been converted into oil palm plantations, with nearly every household in the village managing and owning at least a small plot. However, the rapid expansion of oil palm cultivation has drastically altered the natural landscape, leading to widespread deforestation. This transformation has exacerbated the scarcity of important vernacular materials, such as rattan, posing a serious threat to the sustainability of rattan weaving practices and the livelihoods of artisans. Furthermore, this scarcity jeopardises the biodiversity of rattan and risks the loss of the narratives, practical knowledge, and intimate connections woven into the land and rattan cultivation practices.

Amidst the promise of ‘growth’ and the notion of ‘progress’ that gold and palm oil industries have offered to the rural economies of Borneo, large numbers of the community still maintain their traditional practices as their main subsistence, though facing risks. Land is an important natural, cultural and economical asset; it is inseparable from the communities’ identity as well as an important source of livelihood. Against the vast oil palm plantation and gold mine that has altered the landscape of many villages in Borneo, traditional land cultivation systems still exist such as the practice of swidden agriculture and rotational farming. *Hutan adat* (customary forest) as well as *tembawang* (community forest) are still preserved where the local community extract fruits, wild plants and craft materials such as rattan, bamboo, bemban etc. Most Dayak families would have access to ancestral land, and each village and hamlet has their own ancestral forest land which is divided into *hutan adat* and *tembawang.* Hutan adat or customary forest is restricted and strictly ruled by adat, which the communities are not allowed to intervene and certain rituals are required when entering the area. *Tembawang* is a communal forest inherited by the ancestors in which family and kin are allowed to collect fruits or other forest produce for their own consumption.

The community's daily life includes tending the *sawah* (rice field) and *ladang* (swidden farms) as well as their plantations, maintaining popular cash crops such as oil palm, rubber and pepper. As an important part of this (farming) rotation, local rattan artisans and farmers are preserving the rattan ecosystem, keeping the local biodiversity rich. Elsewhere, Viola Schreer's (2023) research on rattan smallholders in Central Kalimantan has demonstrated that among the increasing land and economic pressure, the foremost reason why local farmers kept their 'rattan garden' were non-economic. However, it is neither purely environmental; "rattan gardens are not simply a form of tropical forest management (...) rather, rattan gardens are affective spaces allowing people to recall and narrate the past and relate to their forefathers" (ibid, p. 650).

The fieldwork in Jagoi Babang has revealed interconnected themes; how the threats of material scarcity and biodiversity loss are interlinked with the challenge to protect the community's embodied knowledge surrounding rattan and land cultivation. Whereas in Singkawang, the socioeconomic challenges impacted by the mining activities are interlinked with the challenge to protect the younger generation. The various projects that have been executed demonstrate the communities' intimate and sometimes precarious relationship with their natural and cultural assets.

In Singkawang, the majority of the members of the Sanggar Sarantangan were young people grappling with challenges related to the high rate of school dropouts and lack of economic opportunities. The collective's *raison d'être* itself was rooted in these socio-economic challenges, which was inextricably linked to the changing landscapes around them. In Singkawang, illegal gold mining practices have profoundly transformed the area, while in Jagoi Babang, the expansion of oil palm plantations has had a similar impact. From a socio-environmental perspective, these areas have undergone what Tsing (2015) describes as a 'disturbance', which refers to profound changes in the natural ecosystem and social relations. However, disturbance is not merely an endpoint; it also signals a beginning (ibid). Disturbances lead to new assemblages, new forms of life and emerging positionings of self. These disturbances have shaped the local community's livelihood with particular social, material and political dynamics. For the younger generation in particular, the socio-economic landscape in both areas offers limited opportunities for upward mobility.

In Habang, these conditions have bound the group together in which they established their role in their village to explore alternative scenarios for the community. In Habang, their craft practice has become a social capital. It has become one of the ways to respond to the

challenges they are facing; reconnecting with the communities' assets, such as Dayak histories and traditions, including their traditional craft utilising local material such as *hanjeli.*

Amidst the bleak, widespread narratives of the social and environmental devastation in Habang, an alternative story of the place has emerged through creative activism promoted by its youth. A group of village youths brought their peers to take a step back, reflecting on the future of themselves and their beloved village. The narratives from Habang demonstrated how (jelai beads) craft is framed as a hope, as a modality of connecting with the world. The story of Sanggar Sarantangan captures how (craft) communities affected by extractive economies in Borneo, constantly refined and reworked their hope as well as sense of pride, in dialogue with their natural and cultural assets. Amidst the disturbed landscape in which the community dwells, transformative relations between the people and the place have thrived. It is possible that reconnecting to their cultural assets may empower the communities to enhance a sense of agency and confidence in their futures. It appears that the younger generation and the older generation appreciate and use their cultural assets differently, which means they explore various ways (mediums and tools) to reconnect with those assets.

6.4. Theme 2: Contesting Conservation Narratives

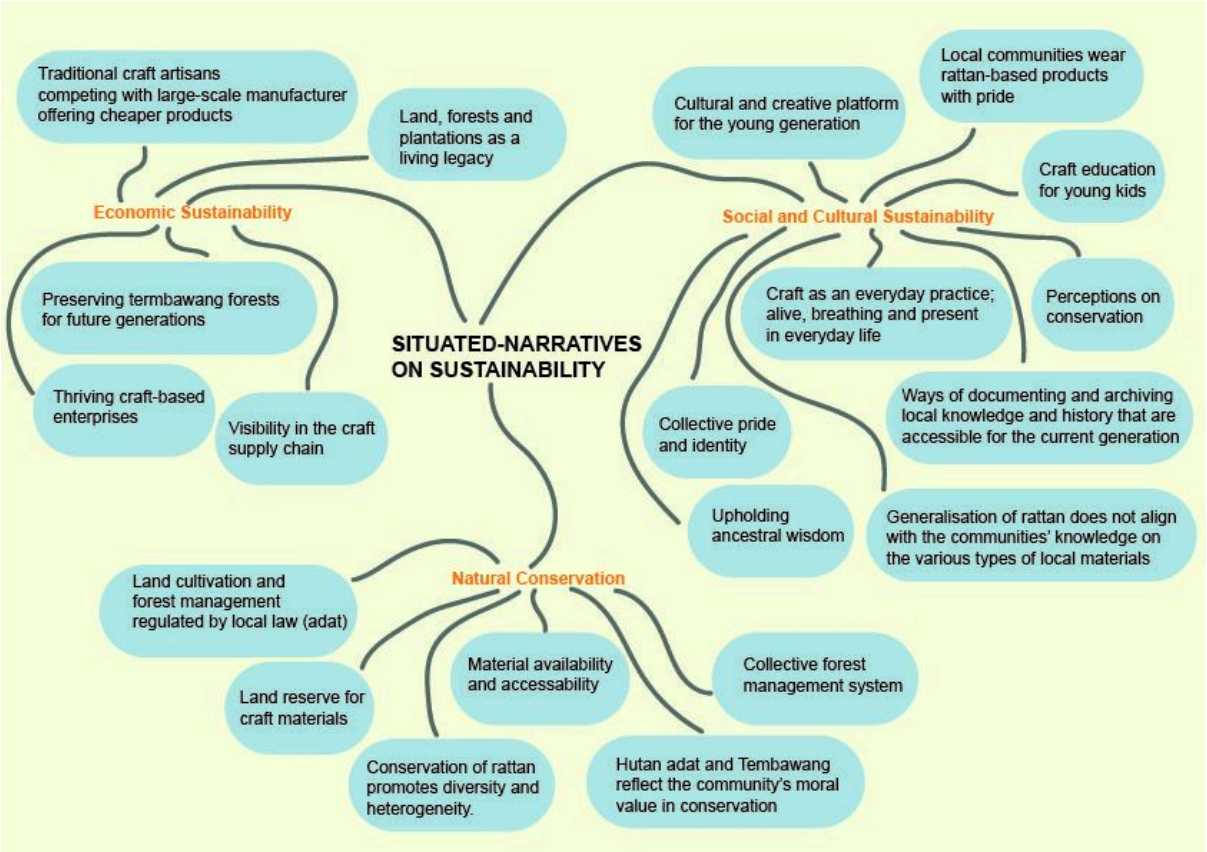


Figure 86. Thematic network 2: Contesting conservation narratives. [diagram]. Source: Gamia Dewanggamanik.

This theme (Fig. 86) highlights the contested narratives surrounding conservation that emerged during the fieldwork. During the Serumpun exhibition at the Borneo Cultures Museum, the participating communities had the opportunity to explore the museum's extensive collection of Bidayuh artefacts. Sujianto shared his mixed emotions as he observed many Dayak Bidayuh objects showcased as part of the museum's permanent collection. He felt both excitement and sentimentality, recognising artifacts he had only heard about in stories from his parents. At the same time, he expressed pride and relief that the majority of these artifacts were not relics of a bygone era but remained an integral part of everyday life in Jagoi. Sujianto emphasised that he did not want these objects to exist solely within the confines of the museum but to continue as living elements of the community's culture.

> *'When I saw the many Bidayuh artefacts on display in this museum, I had mixed feelings; sad, moved and proud too. There were some objects that I only learned through my parents' stories, and there were some that I don't remember ever seeing*

> *again. But I am proud, most of the Bidayuh artefacts in the museum are still alive, largely used in our daily lives in Jagoi. I personally don't want these objects to end up in a museum like that'* (Sujianto, 2022).

Sujianto's sentiment above reflects their value in "conservation" to support the sustainability of Bidayuh craft practice, challenging the western concept of "museum" with their role in "conservation". For him, the best way to preserve is to have the craft being alive and breathing; practised and used in their everyday life. Kreps (2017) has argued that local and Indigenous ways of preserving heritage do not necessarily overlap with the western style of preserving artefacts and practices in museums. As the cultural techniques and the embodied knowledge are highly environmental and sensitive to their surroundings and context, so is the situation in which they are transmitted and learned. Krämer and Bredekamp (2009) have defined this nexus of practice, body, and embodied knowledge as cultural techniques which "are operative procedures for dealing with things and symbols, which are based on a dissociation of the implicit 'knowing how' from the explicit 'knowing that', thus to be understood as a bodily habitualised and routinised skill, which becomes effective in everyday, fluid practices […]." (Krämer and Bredekamp, 2009). From this perspective, culture becomes something not just to be had but to be actively engaged in.

Most of the knowledge in rattan weaving is being transmitted as implicit knowledge of cultural practices. Rattan knowledge is acquired informally in the course of daily routine by attending and helping elders in practical activities. Learning it, is seeing the knowledge-base of basketry in action and reproducing it. Learning cultural craft techniques like Bidayuh basketry is an iterative process, with the transmission of knowledge and skills are done through constant practice in a generational context of long duration. Transmissions and developments of rattan knowledge occur through an active engagement with the surrounding world and rattan itself, with environmental knowledge as a compensation (Schreer, 2016), therefore embeddedness in the social and natural environment is an integral component of practices and knowledge. As such, bringing Bidayuh basketry into the museum for objects showcase might threaten to superimpose western notions of knowledge, preservation and teaching that conflict with local concepts of teaching and learning.

Another significant finding related to conservation narratives emerged from Jagoi, where the community expressed aspirations to establish a land reserve dedicated to craft materials. Rattan, which naturally thrives in the forest, cannot grow independently—it relies on other trees for support and survival. Flourishing through a mutualistic symbiosis, rattan climbs and entwines itself around large trees, enabling it to regenerate easily after harvesting. Stephen

Siebert (2012), who has extensively studied rattan cultivation in Indonesia's tropical forests, highlights the resilience and robust growth of rattan species he encountered during his fieldwork. His observations align with local knowledge in Jagoi, where communities recognize the ecological interdependencies essential for sustaining rattan biodiversity. This understanding underscores the importance of conservation strategies that not only preserve rattan but also protect the broader forest ecosystem upon which it depends.

For example, the vigorous *Calamus exilis*, locally known by the Bidayuh Jagoi people as *uwi sibayu*, exemplifies this characteristic.

> I investigated and confirmed some of the local assertions about eco-logical effects associated with cane harvesting and the potential sustainability of extraction. I found that *C. exilis* coppices vigorously when cut, is abundant in park forests, and that harvesting does not require climbing into or cutting supporting trees and has no discernable effect on other vegetation. Furthermore, experiments that I conducted suggest that *C. exilis* can be readily cultivated and repeatedly harvested. Thus, managed *C. exilis* harvesting has the potential to be both sustainable and compatible with biodiversity conservation objectives (Siebert, 2012, p.75).

Everyday practices surrounding rattan—harvesting, growing, and processing—illustrate a model of regenerative material resourcing. Conservation and cultivation of rattan could significantly contribute to forest conservation efforts, as rattan depends on other trees for its growth. Unlike many material extractions that drive deforestation, the use of rattan inherently supports reforestation practices. Rattan conservation would differ from conventional conservation projects, which often feature monocultural landscapes. Instead, rattan conservation promotes ecological diversity and heterogeneity. This approach aligns with the community's forest management practices, reflecting their deep moral values and ecological knowledge. Similarly, rattan weaving embodies these values, serving as a tangible expression of the community's moral values and knowledge of environmental stewardship.

6.5. Theme 3: Ethics-Material Practice-Identity

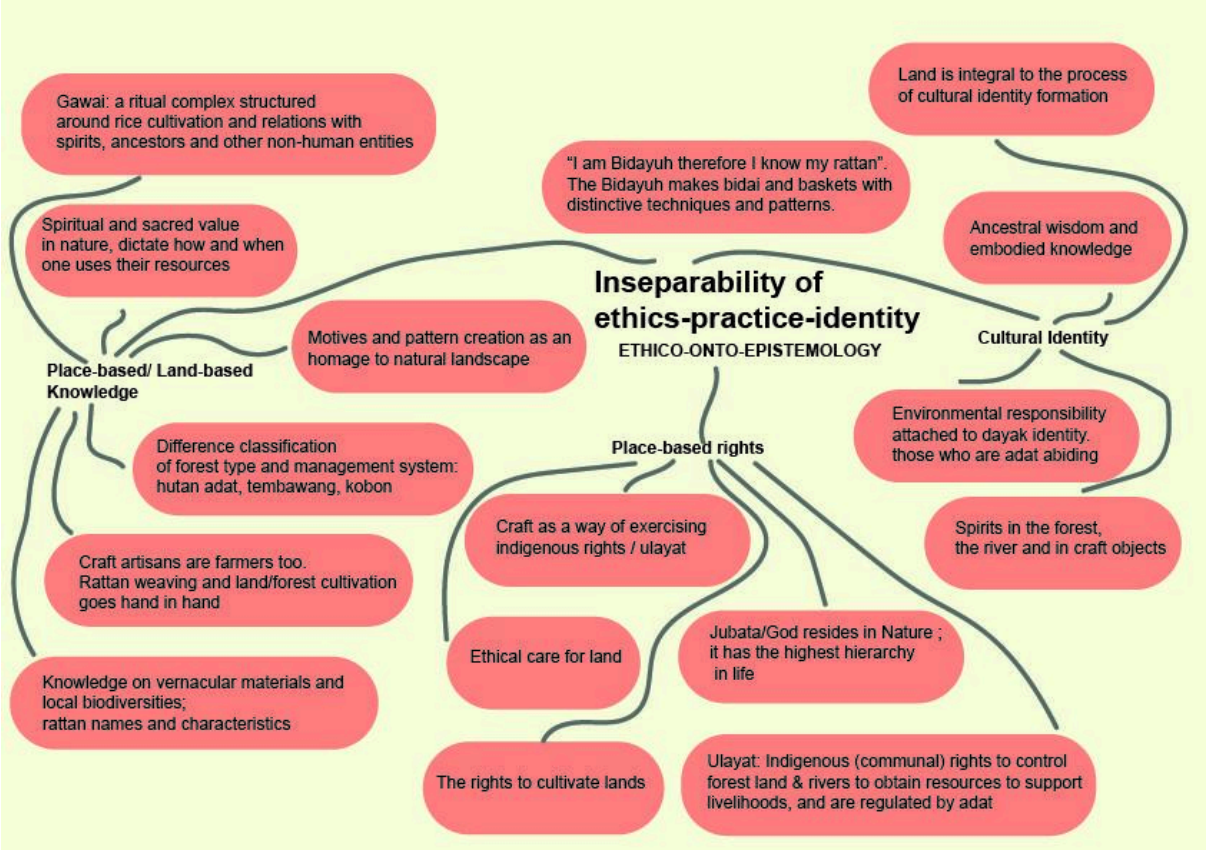


Figure 87. Thematic network 3: Inseparability of ethics-practice-identity. [diagram]. Source: Gamia Dewanggamanik.

The conversation on the previous theme regarding (contesting) the conservation narratives can not be separated from understanding place-based knowledge and values rooted in the everyday, local narratives. This third theme (Fig. 87) demonstrates how Indigenous modes of knowing and being are intertwined. There is a degree of inseparability of ethics-practice-identity, they are all intimately relational and reciprocal.

However, to truly understand the significance of these, there is a significant challenge in articulation, especially from the position of the researcher as an outsider to the community. Akama and Yee question the problem of ‘naming’, those that may not have an equivalence in English, asking “what other dimensions of being, beyond knowing, are we excluding by trying to describe the ineffable?” (2023, p. 6). For example, the term ‘adat’, does not have an English equivalent, however in Indonesia it is widely understood without the need to define its meaning within a conversation or a text. Adat, though a complex concept, can be briefly described as customary localised ways of life, regulations and beliefs that are attached to relationships with ancestors. Adat is inseparable from Indigenous communities.

> The power to name, or rather rename, was thus one of the greatest privileges of the empire, because it created the scaffolding of what is now the dominant mode of relating to the living world” (Ghosh 2021, p.93) (..) a necessary first step toward telling a story about, say, nutmeg is to leave behind a monoculture of naming that is intended to make all things comparable (Ghosh, 2021, p. 97).

Ghosh’s argument above proves relevant in the case of rattan. Rattan (family Arececae) is the common name of a large and complex group of climbing palms and has more than 600 identified species worldwide, however each place has its local name for each variety according to the local language and dialect. Anthropologist Bernard Sellato (2002) noted that rattan’s trade names vary with places and periods (colonial and post-independence), and they are not congruent with the taxa in local tongues, nor with the scientific taxonomy. The colonial administration often listed “rotan” without differentiating among species.

While most people, *or the market*, are only familiar with rattan as one homogenous material, the craft artisans of Jagoi recognise and distinguish between various types of rattan, each with its own unique names. Not only do they know the names, these artisans remember the stories tied to each type and possess an intimate understanding of their habits and characteristics. As explored in the fieldwork during the process of documenting the practice, the artisans in Jagoi gave different types of rattan the kind of description that reworks some form of animism. The knowledge of rattan is entangled with land, often articulated by the artisans in stories and through their memories. They explained that in the right environment, rattans are robust, tireless creepers. Anik saw the earth as bountiful, where rattans are a gift from God and her ancestors. For her, when humans interfere too much with them, they will not flourish. Di’i described some rattans as “homeloving” and “quarrelsome”, very picky in choosing where to grow. Some others are relentless.

> *'Sibayu rattan plants are very quarrelsome; we need to be patient and understand their 'behaviour'. They take their time slowly (to grow), they are very homeloving, they need to grow at the right altitude, otherwise they won't live long. They could not survive near the river or swamp. When they bear fruits, they aren't very abundant'*

The craft practitioners in Jagoi Babang showed that intimate relations to vernacular materials - growing, harvesting, preparing - are integral to Indigenous approaches. In Jagoi Babang, Land is deeply intertwined with adat (law). The communities' access to the forest and natural resources is bound by *hak ulayat,* which is Indigenous (communal) rights to control forests, land and rivers to obtain their resources to support livelihoods, regulated by *adat* in a specified territory. Land cultivation and rattan weaving practice, in this context, are a way of exercising their Indigenous rights, therefore embracing their ways of being. Crafts and land cultivation in the context of *ulayat* rights, are rooted in responsibility towards people, the environment and the ancestors. This means that not only that their knowledge is place-based, it is also ethics-bound.

The work done with the Manai Jagoi team during fieldwork illuminates the significance of place-based knowledge in identifying different types of material, treatment, harvesting methods, and crafting motifs. Practising rattan weaving tradition is deeply tied to protecting the forests' ecosystem. The practice not only accommodates practical social and economic needs, but is also a form of caring; keeping relationships with nature and ancestors alive. This complex relation is reflected from the way they choose particular (rattan) material for specific objects. For example, *uwi sogoh* is high in longevity and visually appealing; the older the Sogoh rattan, the stronger and shinier it becomes. It requires a highly skilled artisan to cultivate *uwi sogoh*; they have the spikiest thorns and are strenuous to harvest, and plaiting them is equally challenging as the strips have sharp edges. For the Bidayuh communities in Jagoi, *uwi sogoh*, considered as the king of rattan, makes a perfect object of desire that represents their cultural pride. As gathered from the conversations with Di'i,

> *'Treating rattan, especially uwi sogoh, requires respect from start to finish; from the harvesting process, weaving to using the final object.'* (Di'i, 2022).

Uwi sogoh rattan is the material of choice for making ritual objects that are considered sacred and special, such as *subuay*. *Subuay* are used during gawai ritual for serving offerings, or when not being used in rituals, many people use them for storing valuable items. Every Bidayuh household would keep a *subuay* in their house, lasting from one

generation to another because the durability of the material. In that way, these objects are tied with the ancestors, respected and are believed to have spiritual value. This yields critical importance of relational, ethical care in Indigenous craft practices. This example provides understanding of knowledge that is relational and situated through their everyday practice, rattan weaving; as an ecology of knowledge tied to its place and 'responsibilities' towards everyday social-natural environments.

Numerous research has mentioned the role of rattan for keeping the forest standing in Borneo. Land is not just a physical landscape, it also represents temporality; pathway connecting to the pasts and the futures. These situated values demonstrate how their everyday craft practice is intertwined with *adat,* and reveal the communities' respectful disposition for their craft practice and their landscape. Further description and narratives around these (rattan and land) have been illustrated in the portfolio chapter.

The fieldwork in Singkawang also shows an example that foregrounds the deep connection and inherent link between vernacular materials and Indigenous identity in craft practices, which was demonstrated by Sanggar Sarantangan, who used the filmmaking process as an opportunity to re-trace the historical and cultural roots of their *jelai* beadworks. Their practice of beads-making was driven by the group's moral value in caring for their surrounding community. *Jelai* seeds have given the group new ways of narrating and relating to their cultural identity and their village. In this context, *jelai* plant possesses a new meaning for the new generation of craft communities. As *jelai* seed itself conveys knowledge and wisdom for generations, representing their cultural roots, the young people of Sanggar Sarantangan have now attached new meanings and hopes to the material.

6.6. Theme 4: Activism and Soft Resistance

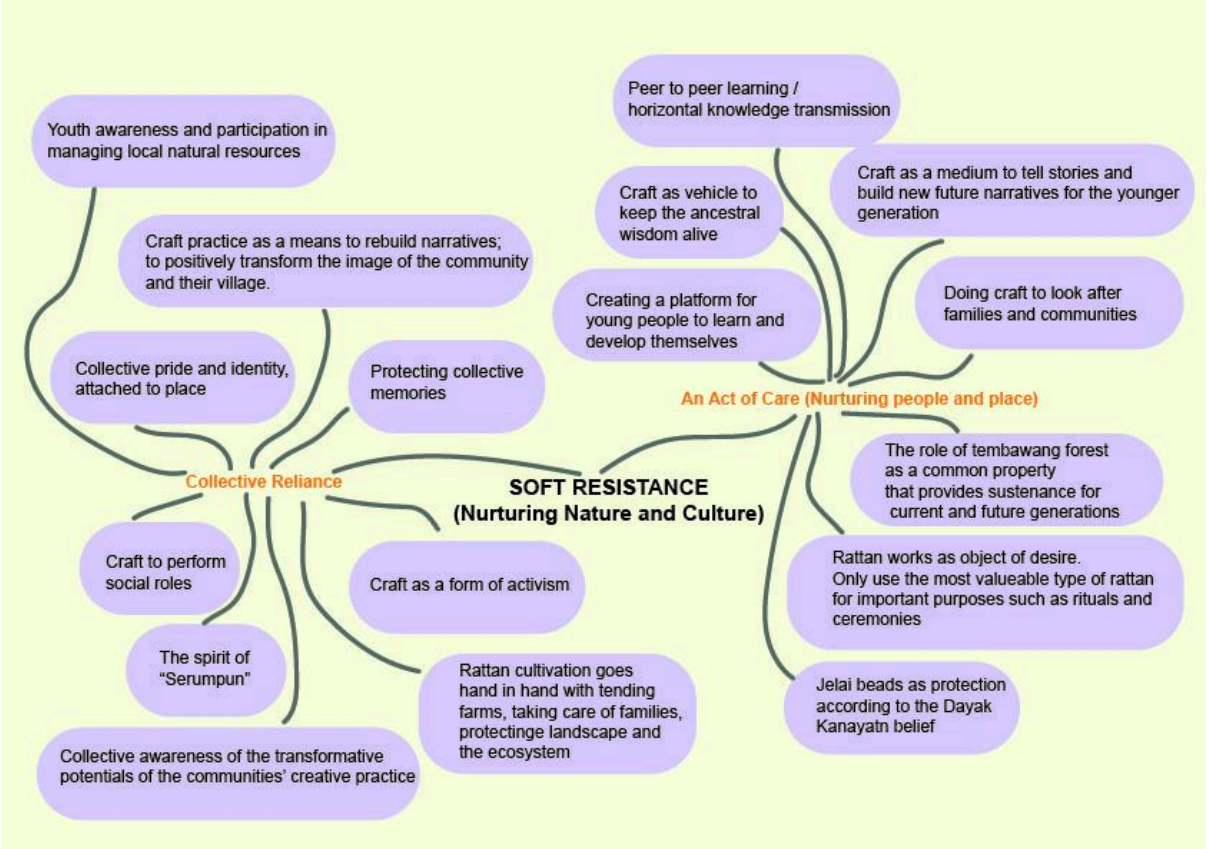


Figure 88. Thematic network 4: Soft resistance (nurturing nature and culture). [diagram]. Source: Gamia Dewanggamanik.

Another emerging theme from an exploration of everyday creativity is the role of craft as an act of care, to nurture their community and place (Fig. 88). In Singkawang, as demonstrated by the Sanggar Sarantangan, youth engagement and education through craft has become a form of 'soft resistance'. Amidst the bleak, widespread narratives of the social and environmental devastation in Habang, an alternative story of the place has emerged through creative activism promoted by its youth. A group of village youths brought their peers to take a step back, reflecting on the future of themselves and their beloved village.

As in Singkawang, the creative practice has become a way to ‘look after’ young people in the area. The sanggar has become a platform to accommodate the cultural and creative exploration of these young people. Their craft and creative practice has functioned as a tool for the sanggar members to explore their future pathways. They also see their practice as a way to connect with others and broaden their community. The sanggar people described their participation in the C&VM project as a positive experience, which was revealed many times during the interview.

Amidst the promise of ‘growth’ and the notion of ‘progress’ that gold and palm oil industries have offered to the rural economies of Borneo, a large number of the community still maintain their traditional practices as their main subsistence, though facing risks. Land is an important natural, cultural and economical asset; it is inseparable from the communities’ identity as well as an important source of livelihood. Against the vast oil palm plantation and gold mine that has altered the landscape of many villages in Borneo, traditional forest management systems such as *tembawang* and *hutan adat*, as well as land cultivation systems still exist such as the practice of slash-and-burn agriculture and rotational farming.

This theme reflects the renewed interests in the communities’ cultural assets that are associated with empowerment, renewed sense of identity, and agency. This sense of identity is attached to their place as well as their social roles. In the case of the community in Habang (Singkawang), it appears that the sanggar people have reinterpreted their ways of doing craft as well as reinterpreting its values. Through the sanggar, they have built a collective awareness of the transformative potentials their creative practice may bring / have brought to their community. They see their creative practice as a means to positively transform the image of their village.

As one of them expressed,

> *‘In my opinion I think Habang is great, people know Habang for how the young people here are sticking together and having a great sense of collectivity. People from nearby villages also praised us because we are so united. So I’m really proud and pleased about it, especially since this has started ever since our sanggar exists. Unlike young people from other villages, we collectively participate in a lot of positive things. So yeah, it’s good to hear positive things about Habang recently because of our sanggar’* (Sela, 2021).

6.7. Theme 5: Material Kinship and Intergenerational Care of Place

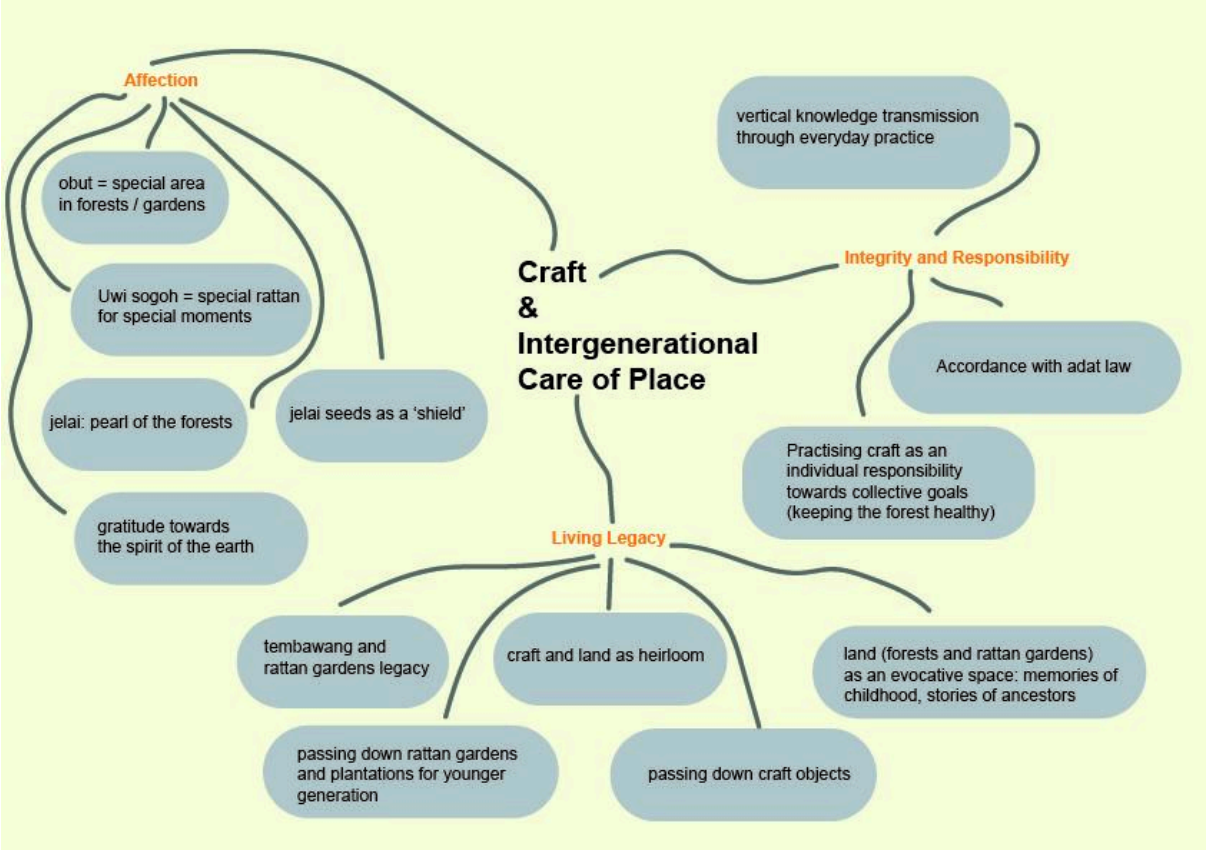


Figure 89. Thematic network 5: Intergenerational Care of Place. [diagram]. Source: Gamia Dewanggamanik.

This theme (Fig.89) highlights the integral role of craft communities in nurturing their landscape, reflecting a form of material kinship. Material kinship encompasses the intertwined narratives of materials and social relations, illustrating the interdependence between human and non-human entities. This theme articulates the communities' various ways of relating to the material worlds demonstrated by their everyday practices. The fieldwork–through conversations and the documentation process with the craft

communities–has revealed the profound connection between rattan weaving tradition and forestry practices.

Central to the narratives of rattan, and ecosystem of its craft practice, is *tembawang,* where the craft artisans obtain their raw materials beside their own rattan gardens. The word *tembawang* that is widely understood by the Bidayuh community in Jagoi, does not have an equivalent in Indonesian and English language. *Tembawang* can be, and often, briefly described as a 'communal forest', however, it does not quite justify, as the community has a more complex understanding when it comes to communal forest. The Bidayuh in Jagoi recognise a few different classifications for communal forests. These classifications determine the type of plants and trees that grow in it, as well as its function. The Bidayuh people in Jagoi classified types of land or forest into *tolun tu'uh* and *tolun molak. Tolun tu'uh*, literally 'meaning' old forest, is a primary forest, whereas *tolun molak*, literally meaning 'young' forest, is a secondary forest. The Bidayuh people in Jagoi have access to *hutan adat* and *tembawang.* Both hutan adat and *tembawang* are inherited from the ancestors and considered sacred sites. Complex customary *adat* ruled and controlled the use and inheritance of these forests to avoid overexploitation, however their usage and functions are different. *Hutan adat* is strictly restricted; rituals and ceremonies need to be held when one enters the area and takes something from it. On the other hand, *tembawang* is relatively accessible, in which family and kin manage collectively and are allowed to collect forest produce to be consumed in moderation. *Tembawang,* as a form of *tolun molak* or secondary forest, is the embodiment of recoveries of an ecosystem that has been disturbed. Robert Zhao Renhui, an artist exploring secondary forests through his works, describes, "secondary forests are a second chance for nature to find a way to reclaim its place after environmental and human disruptions" (Renhui, 2023).

Amidst the sprawling of rubber and oil plantations, *tembawang* thrives and is still maintained in the village as it provides important visions that flourish over generations. The Bidayuh tradition regards *tembawang* existence as valuable; a forest that once was 'disturbed', deforested for farming or creating settlements, now living their second life with an extraordinary resilience. It is an evocative space that connects the community with their ancestors while at the same time nurturing and providing for the current and the next generation. *Tembawang* is rich in histories as well as biodiversity; it depicts a rich intermingling of past, present and futures, as well as nature and culture.

> *'Tembawang is a forest where our predecessor settled long ago, which has been abandoned (to move elsewhere) but passed down and is still cared for from one generation to another. In tembawang it is mandatory to plant fruit trees and other*

> *useful plants; which can be eaten, used for crafts or which can be used as medicine. Since I was little, I would go there every fruit season, usually picking up langsat, mangosteen or durian fruit'* (Jebat, 2022)

Rattan plants also thrived and kept in the community's forest gardens, which are an important component of traditional Bidayuh way of living. Every Bidayuh family in Jagoi owned and managed inherited 'kebun', which translates to 'garden'. However, these personal gardens are usually not a small patch of land adjacent to their house; they are distributed remotely in the forested area. The difference between these rattan gardens and a *tembawang* lies in its purpose and its management; *tembawang* is served for collective purposes, whereas forest gardens are more personal and usually planted with cash crops. Like *tembawang*, these gardens are more than a physical landscape; they are akin to an heirloom, owned by families and passed down from one generation to the next.

In a *tembawang,* territories were marked traditionally by growing certain plants; sago palm trees at the edge of water (river) or wetter areas, and bamboo plants on barren land.There were usually areas that were highly treasured— islands of trees where much-valued belian (trees) stood, intertwined with overgrown rattan. These areas, known as *obut*, were marked by digging trenches around them to signify their importance and protect them.This theme shows Indigenous craft as a form of an intergenerational care of ecologies and people, where ecological integrity and responsibility are embedded in it. Akin to communities *tembawang* practice, rattan weaving also reflects the community's moral values and knowledge of ecological conservation, with an affective nature in the practice. Together, these represent an innate sense of belonging through a symbiotic relationship with land, nature and the wider ecology.

> *'When clearing land for cultivation, we, including our elders, tend to leave certain areas (in the forest) undisturbed, which we call obut. Those are usually the areas that we want to protect because special plants grow on them; there are big trees like belian or durian, and abundant rattan'* (Sujianto, 2023)

These forest-gardens are tied to the communities' kinship system that echoes for generations. They are material manifestations of people and their ancestors' labour, spaces that evoke memories and associated feelings that allow people to recall the past, and thus relate to their forefathers. Viola Schreer notes that "these gardens not only reflect the continuous interaction between humans and their environment, but they also symbolise an unbroken legacy" (Schreer, 2023, p.667).

6.8. Theme 6: Interdependencies and Rethinking Binaries

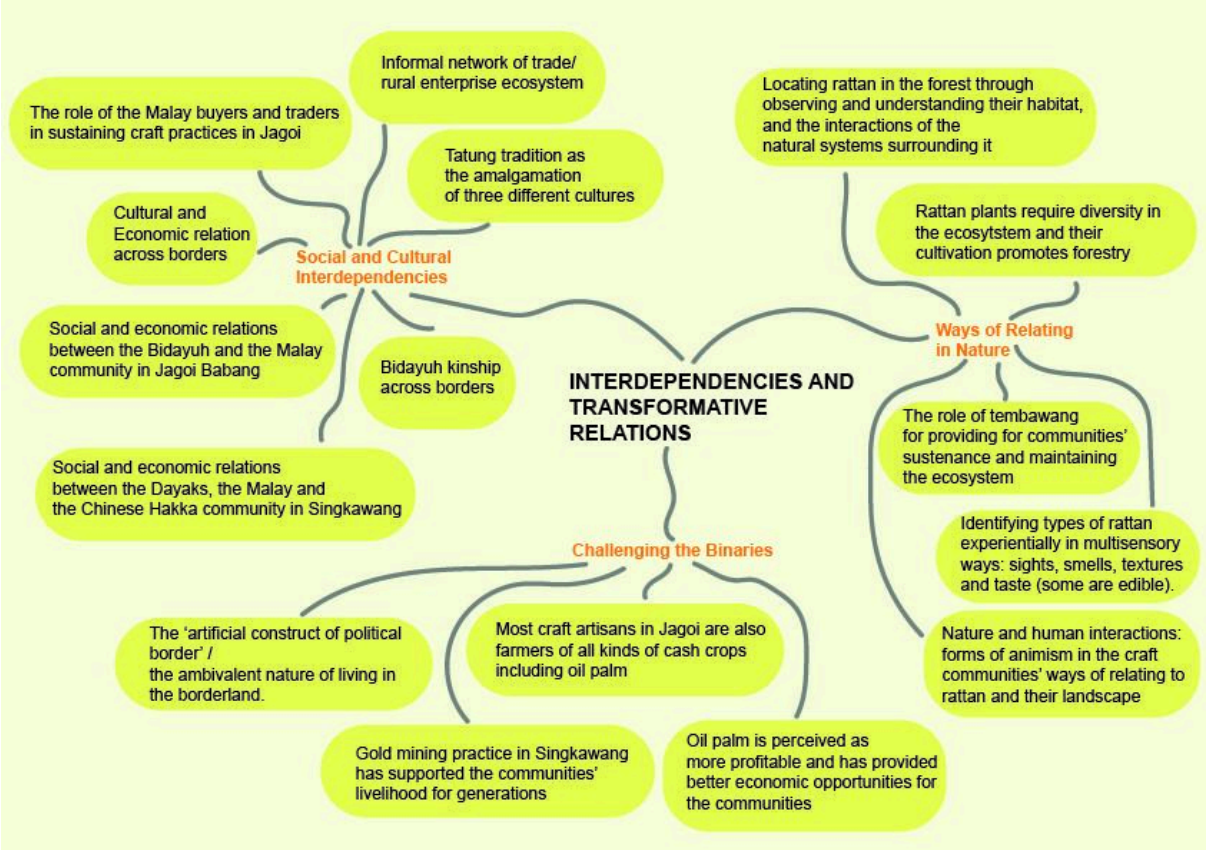


Figure 90. Thematic network 6:Interdependencies and transformative relations. [diagram]. Source: Gamia Dewanggamanik.

Debates and discussions regarding Indigenous peoples bring the subject of identity onto the surface. This often leads to the question who is Indigenous, who is not, and who owns the rights to tell their stories and who does not. Whilst being aware of its political implication, and agreeing strongly with the importance of true representation, this research has to be careful and mindful not to fall into a dualistic, binary mindset. This theme (Fig.90) rather invites us to think about the productive relations and interdependencies among diverse subjects.

It is undoubtedly that the extractive economies like palm oil and mining in these places in Borneo have caused serious social and environmental concerns, directly impacting the local communities. These concerns pose numerous risks and challenges towards the sustainability of the communities' craft practice; and they are not unaware of these issues.

However, the condition cannot be simply described as “rattan weaving tradition versus palm oil”, “gold mining versus tradition” and nor “traditional versus modern”. In reality, most craft artisans in Jagoi are also farmers and oil palm smallholders, as the new forms of life have conditioned the interdependence relation. With money from oil palm, the craft communities can access good enough education and healthcare. The community, and their practice, then has adapted amidst the situation.

A similar situation unfolded in Habang. While the young members of Sanggar Sarantangan express concern about the negative impacts of gold mining in their village, they also recognise its significant role in supporting the community’s livelihood, including their own families. Gold mining, a legacy introduced by the Chinese community, has been deeply embraced and integrated into the fabric of village life. Amidst the social and environmental challenges brought about by gold mining, a renewed connection to natural and cultural assets has emerged, symbolised by the community’s relationship with the jelai plant. Similarly, other influences introduced by the Chinese—such as the use of *tempayan* and the *tatung* ritual—have become cherished parts of everyday practice and cultural heritage, maintained with pride. These integrations reflect the community’s capacity to navigate and adapt to change, a theme that will be explored further in the next chapter.

The material scarcity in Jagoi, demonstrates not only the community’s capacity to adapt, it has also shed light on the role of the Javanese and Malay community in Sentabeng hamlet to sustain Bidayuh craft practice. The Sentabeng hamlet is known by the locals as *kampung trans*, the village that was ‘born’ out of the national transmigration program in the 1990s, now populated by people from Java and Sambas region who were relocated there for the program. Whilst the Sentabeng community do not have the rattan weaving tradition themselves, they have become an important part of the local craft ecosystem. Despite being considered “outside” the local culture, their role as local rattan supplier has provided the Jagoi artisans accessibility and availability of raw materials, hence ensuring the continuity of the craft practice.

The arbitrary national borders separating one kin into two nations, Indonesia and Malaysia, do not align with the people’s reality. The relations and interdependence between these two nations have resulted in new, various forms of life where the community negotiates with the condition, both resisting and adapting to the separation. One of the interdependencies is exemplified in the *bidai* practice. Sarawak, Malaysia, has been the community’s biggest market. In some cases, this has raised concerns regarding the Malaysian middlemen who

are rampant in the area, benefiting from the economic inequalities between the two countries. Of all the district's commodities, the customs officers at the borders are particularly strict when it comes to *bidai*. According to them, also admitted by the craft community and the local government ,those *bidais* sold to the Malaysian buyer would often be imported back to Indonesia, labelled 'Made in Malaysia'. However, whilst this situation can be perceived concerning, depending on whose perspectives, the community also sees this *tricky relationship* with the Malaysian buyers, has played an important role in the continuity of the practice.

The craft ecosystem in Jagoi Babang demonstrates a situation where binary concepts – tradition versus modern, palm versus rattan, indigenous people versus immigrants, Indonesian versus Malaysian and so on – are contested. These concepts merge, entangle and rely on each other. Approaching these in terms of its interdependence, it has shown that Indigenous craft, and Indigeneity, is understood as a dialogical process that is in constant need of questioning and reflection, where new sets of relations among communities and nature are formed, maintained and lived. Understanding these narratives is crucial; it is about Identifying situated-values, new and old forms of colonial practices, capitalist globalisation, and understanding how those, coexisting with adat, transform and reshape landscapes and livelihood. An articulation of the notion of Indigeneity in Borneo must be viewed and understood through the relational dynamics of the people and their landscape and the intertwine of adat. An understanding of Indigeneity that is sensitive and respectful towards the communities' historical past, their presence as well as their futures.

6.9. Summary

This chapter presented and interpreted the findings from the thematic analysis of qualitative data gathered in the fieldwork. Various materials were analysed such as interview transcripts, artefacts from the process (workshop toolkit and participants notes), photos and videos. During this phase, feminist and new materialism approaches have lent critical lenses in the analysis process. A total of six themes have been iteratively developed and synthesised. To conclude, insights are drawn together from the analysis phase, setting out the discussions in the next chapter. The next chapter reflects on the research approaches and outcomes to answer the questions being asked in the research and subsequently unpack the contributions to knowledge.

7.

DISCUSSION & REFLECTION



Figure 91. Wild *jelai* plants growing in Habang. [photograph]. Source: Jono Anjasmara.

7.1. Introduction

This practice-based study sought to answer the question: How can an exploration of everyday creative practice articulate Indigenous perspectives on sustainability in Borneo? This question was subsequently deconstructed in two sub-questions: 1) How to develop appropriate modes of engagement with indigenous communities for collaborative knowledge production? 2) How can design-led indigenous innovation respond to sustainability challenges in rural Borneo, and In what ways design practice can ethically support this?

This chapter draws together insights from this study to answer those questions. Subsequently, the contributions to knowledge emerging from these insights are then each unpacked and mapped back into the field.

7.2. Everyday Creativity within Pluriversal Design Practices

How can an exploration of everyday creative practice articulate Indigenous perspectives on sustainability in Borneo?

Through an exploration of everyday creativity, this research contributes to a way of addressing place-based sustainability challenges through articulating Indigenous perspectives**.** This exploration of everyday creativity is highly nuanced and interlaced between geographical, temporal, spatial and cultural boundaries (spirituality, wisdoms and plural knowledges). Making these localised narratives visible within contested sites of innovation, knowledge and challenging hierarchies (with regards to knowledge, development, ownership, top down innovation). This exploration of everyday creativity expands the notion of craft as an ecology of practice that carries and nourishes Indigenous perspectives on sustainability and innovation. This notion challenges the dominant narratives surrounding innovation and sustainability, and instead it builds on local narratives and celebrates the plurality of knowledges.

This research exemplifies pluriversal design processes and practice**.** The collaborative projects demonstrated in this study offer new alternative design approaches that acknowledge the respectful, relational and reciprocal dimensions of such work and in so doing recognise the plurality of contexts and knowledges, and their dynamics, that reside within Indigenous communities. This research contributes to a new approach to address the

complex, situated challenges of sustainability in Indigenous craft practice and explore new areas of innovation through relational, dialogical research and design practice. Design strategies were developed in response to the interplay of materials (new and traditional vernacular materials),

The fieldwork engaged the communities in Jagoi Babang and Singkawang to make sense of sustainability and innovation in relation to their craft practices. The projects encapsulate how the communities experienced and adapted to the changing landscapes surrounding them. The Bidayuh artisans in Jagoi responded to the concepts in several ways. Through organising a competition, the craft community in Kindau Hamlet showcased the abundance and diversity of raw materials through their weaving. Whereas the *bidai* artisans in Risau Hamlet used this as an opportunity to develop weaving patterns showing natural and cultural aspects of Jagoi, highlighting the community's aspiration on reviving their sense of identity attached to the place. Through their second project in collaboration with the Sepatokimin Initiative, they shared their experiential knowledge about the world of rattan in their daily life.

In another case study, Sanggar Sarantangan's works in Singkawang centre on creative capacity-strengthening in harmony with tradition and the nature inherited from their Dayak Kanayatn ancestors. The intergenerational gap (between the old and younger generation) has become a barrier towards preserving the communities' cultural assets. Education and economic opportunities for the young people were also limited. In light of those challenges, Sanggar Sarantangan in Singkawang then interpreted the brief by exploring new ways of appreciating Kanayatn craft and cultural traditions through peer to peer learning. Through the research process, there was an awareness and realisation upon the community's own resources and strength, particularly on the camaraderie of the young people in the village. The project demonstrates a novel approach to craft education through a form of horizontal knowledge transmission.

Both the Bidayuh and the Kanayatn group participating in the research, have expressed that the word 'innovation' itself, nor creativity, does not exist in their local languages. However, that does not mean that the activity is absent from their everyday life. As Akama and Yee highlight that cultures everywhere have always been designing in other names, they describe that enacting plurality in design means that it does not look like "design as usual". Embracing plurality in design is to decouple from the dominant design norms, moving away from individualism, solutionisms, procedural, progress-led, and capitalist productions (Akama and Yee, 2023, p. 7-9).

7.3. Practising a Slow and Reflexive Research

How to develop appropriate modes of engagement with indigenous communities for collaborative knowledge production?

The slow-research approach allowed more space to enact a dialogical design practice, carefully navigating the researcher's positioning within the community; roles and identities. This dialogical design practice has allowed exploration of multilayers of roles in situated challenges, which is critical to explore/ interrogate several positionings of self; as a researcher in the field representing two institutions that is the Glasgow School of Art (GSA) and the C&VM (as well as the British Council), as a Sundanese individual from Bandung and a wider part of Java Island, a designer, a donor and a trustee, a mentor, a mediator, a collaboration enabler and a friend. This fluidity of role allows flexibility to the research process to investigate and traverse between subjects and expertise; craft, material culture, community development, design curation, decolonisation, cultural and material archiving. Within this space, it is way more important to bring the collaboration to fruition and let the local narratives flourish more than individual capacity, or the researcher's personal design ambition.

The slow-research approach then lends itself a space for both *reflection in action* and *reflection on action;* the process of learning through and from experience towards gaining insights and knowledge. Slowing down creates a necessary space for a conscious engagement, emphasising how knowledge is constructed, circulated, and exchanged through a series of relationships. Here, each element in the fieldwork (place, communities, barriers, needs, resources) was carefully approached and attended to, in order to avoid unjustness through seemingly benign practices. Here, slowing down is about focusing differently, listening carefully, and acting ethically (Christen and Anderson, 2019). It opens the possibility of seeing the entangled relationships formed and forged throughout the process.

Conveying the communities' stories and the researcher's authentic experience and observation throughout the fieldwork, a journal and visual documentation of the journey is presented in the reflexive storytelling section, as an embedded portfolio. The portfolio section compiles notes, photographs and illustrations (digital and manual), allowing the researcher to illustrate the fieldwork in a different format. The section provides situated

narratives of where the research is rooted and reveals the diverse entanglements of the communities' everyday creativity.

In illustrating the craft communities within their complex ecological and socio-cultural landscape, the reflexive storytelling aims to emphasise the relationality of the research. This chapter was dedicated to the communities' participation in the story. It is the section of the thesis that involved the research participants to take part in the process, through collating visual materials, proofreading and sense checking. The portfolio was constructed as a way of attending relational practices, which has then evolved into a medium of shared experiences and knowledge between the researcher and the participants.

> (...) this is why creative practices are vital modalities to scratch under the modern veneer to viscerally connect us with affective encounters, like the smell of indigo in a vat, or a memory of childhood summers, to powerfully call us to dimensions of being and becoming-with, without relying on words. We do not need to know or understand all the time, rather, to respect or be curious.
>
> (Akama and Yee, 2023, p. 14)

Delving into pluriversal design It is one of curious engagements that requires moving beyond disciplinary norms. A deep and nuanced investigation of the context is integral to the research, as well as a heightened sensitivity to attend to any particularities in the field. In the field, information was not readily available to access. Most of the research participants' knowledge on their cultural practices was often patchy. The portfolio is then built as an attempt to sew together all the verbal and visual narratives; it is a patchwork of memories, stories, information and knowledges. The slow and reflexive research process has enabled articulation of authentic narratives and participation. The methods developed in the fieldwork facilitated an action-based engagement with the issues involved, embracing the complex entanglement of craft in changing landscapes.

7.4. Designing *with* and *through* Indigeneity: the role of design in the revitalisation of Indigenous knowledge.

How can design-led indigenous innovation respond to sustainability challenges in rural Borneo, and In what ways design practice can ethically support this?

This research contributes in enabling new approaches to design collaboration that revitalise and enhance Indigenous knowledge (re)production. The collaboration with the craft communities in Jagoi Babang and Singkawang has deepened an understanding about the multifaceted nature of Indigeneity: how they internally perceive Indigenous values as well as offering new ways of imagining – and representing – relationships to nature. The works demonstrate how the way design collaboration and innovation imagined is transformed; one that stresses the importance to work across different forms of knowledge-formation and allow them to interact without trying to create a homogeneous space.

This research positions an expanded notion of craft whereby ancestral wisdom and the intimate relations to landscapes are integral to Indigenous way of thinking and doing. As such, design is positioned as a mode of dialogical and relational practice *with* and *among* Indigenous communities. Working respectfully *with* and *among* Indigenous communities should not erase the embodied, practised, and ethical aspects of Indigenous onto-epistemologies. Working respectfully *with* Indigenous communities means an understanding of the situated and relational dimensions of their knowledges, and an awareness that these knowledges are not to be extracted and separated from the knower (Gatt, 2023).

The collaborative projects in this study exemplify this approach and the study concludes by offering new alternative design approaches that acknowledge the respectful, relational and reciprocal dimensions of such work and in so doing recognise the plurality of contexts and knowledges, and their dynamics, that reside within Indigenous communities towards pluriversal design processes and practice. This highlights the role of the (design) practice in this study, which is in enabling localised action and community-led innovation whose processes have led to a learning in designing *with* Indigenous communities.

The case in Jagoi Babang demonstrates the affective nature embodied in rattan weaving and their forestry practices, which yields critical importance of relational, ethical care in Indigenous craft practices. This example provides understanding of knowledge that is relational and situated through their everyday practice, rattan weaving; as an ecology of knowledge tied to its place and ‘responsibilities’ towards everyday social-natural environments. That design(er) cannot just simply use a concept from an Indigenous community, extract their knowledge, taking it apart from its ecology.

This collaboration then offered insights into new ways of working and engaging *with* Indigenous communities in formal institutions like museums and international organisations.

The communities' exhibits (Serumpun Exhibition) at the Borneo Cultures Museum have shown a difference to the museum's permanent collection. It is worthy of note that this Indigenous community-based 'living' exhibition of craft practice was the first of its kind hosted at the Borneo Cultures Museum. The Serumpun exhibition challenges the reproduction of 'others', as well as Western fantasy about 'otherness' where historical, cultural and heritage representations of 'other' cultures are mythologised and objectified (Young, 2004). As opposed to presenting Indigeneity and their cultural assets as something static, the works presented by the craft communities captured the current social and political dynamics surrounding their cultural assets through their own voice, foregrounding Indigeneity as a continuous articulation and a process of becoming. Those works contrasted with the museum's permanent collection on Dayak material cultures. Their works have challenged the idea that Indigenous communities are "'closed' places – ethnically pure, culturally traditional, undisturbed until yesterday by the ruptures of modernity (ibid).

7.5. Research Contribution

This PhD study situates design in three distinct ways: as research, it articulates Indigenous craft sustainability and innovation challenges; as a practice, it highlights the process of working together with Indigenous craft communities to improve their practice and livelihood; and as critical cultural space, it reflects on Indigeneity and the researcher's positionality to present authentic narratives. Situating this approach in this context, I explore whether design can reinvent/expand its role and its meaning in its process, as a dialogical practice that seeks and nurtures relation between diverse knowledges.

7.5.1. Contribution 1: Design led- Indigenous Innovation

The contributions to knowledge from this study deal with situated-approaches in design engagement *with* Indigenous communities looking at complex issues relating to sustainability. This situated-approach enabled exploration of new areas of innovation through relational, dialogical research and design practice.

Engaging with Indigenous discourse, it is important to have a more comprehensive understanding of the concept that reflects how it is understood today by the relevant communities and what their aspirations are. Indigeneity is not static and timeless. Its knowledge and wisdom may be fragmented and diffused into everyday practices, where its forms and meanings are continuously reproduced.

The works in Jagoi Babang and Singkawang have deepened an understanding about how the new generation of craft communities internally perceive Indigenous values as well as offering new ways of relating to nature. The works demonstrate how to transform the way design collaboration and innovation is envisioned; one that stresses the importance to work across different forms of knowledge-formation and allow them to interact without trying to create a homogeneous space or what John Law describes as a 'one-world world' (Law, 2015). Accordingly, mutuality between design and Indigenous knowledges is emphasised, where both practices co-transform in reciprocity. Ultimately this study aims to enable new approaches to design collaboration that revitalise and enhance Indigenous knowledge production. Here, design is positioned as a mode of dialogical and relational practice *with* and *through* Indigeneity. It is a way of designing *with* and *among* Indigenous communities that embrace the embodied, practised, and ethical aspects of Indigenous onto-epistemologies.

The collaborative projects have been able to capture and articulate the place-based nature and the implicit knowledge conveyed in craft practices. The projects exemplify an expanded notion of craft whereby Indigenous wisdom and the intimate relations to vernacular materials - growing, harvesting, preparing - are integral to Indigenous approaches. This extends to the relations between landscape and spirituality, for example, craft practitioners in Jagoi Babang explore the relations between rattan growing, conservation and preservation–rooted in their Dayak Bidayuh tradition of rattan weaving–that reflect the diverse cultural values of Indigenous communities through giving form to the affective and experiential aspects of craft practice. This study underlines that design-led Indigenous innovation is ontological, affective, embodied, relational and attached to place.

7.5.2. Contribution 2: Everyday Creativity

The research's contribution to knowledge is based on the researcher's understanding of Indigenous innovation narratives that is attached to everyday creativity. This contribution aims to develop an existing understanding of the role of everyday creativity in enriching research in the Indigenous context.

From this study of everyday creativity, the research has been able to gain a more comprehensive and meaningful appreciation of the complexity and precarity surrounding Indigenous craft practices. This exploration of everyday creativity has enabled the researcher to capture the shifts and transformation in Indigenous' craft practices in Jagoi Babang and Singkawang. The research suggests that the concept of everyday creativity can

be used to explore deeper and more relevant contexts of Indigenous craft practice, which reflects the sociohistorical background, contemporary challenges the community is facing and may open up dialogues and conversation for collaborative innovation. These dialogues will then open up opportunities to break the binary of expert and non-expert, informal and formal innovation. This concept also addresses actors and activities of innovation that may have been overlooked within the popularised neoliberal concept of innovation, where hierarchies of knowledge are blurred.

This study embraces the importance of making visible narratives that are usually obscured or left in the peripheries, to draw out new connections, to open up new ways of thinking and seeing. Everyday creativity offers ways of thinking and designing *with* and *through* Indigeneity, opening up new conversations on innovation. This research's aspiration is that the findings and approaches developed in this study will be harnessed by, give confidence to, and inspire other design practitioners to initiate localised action that connects to a wider ecosystem or wider global agenda.

Everyday creativity encompasses the dynamics of people, places, practices, wisdom and aspiration. The term 'everyday' suggests that rather than romanticising it, Indigenous craft and cultural practices are explored through the 'everyday' lens, along with the current social and ecological challenges the communities are facing. Everyday creativity recognises 'hyper-local innovation' that grows out of the entanglements of everyday necessities and uncertainties; mostly driven by socioeconomic motives and a shifting environment. This mode of innovation challenges the expert-driven narrative of innovation; instead, it relies on the communities' relationship with their social and physical environment. In this context, craft practice and grassroots innovation encompass the ingenuity of fluid, locally situated and adapted knowledge. It demonstrates a greater degree of resourcefulness and self-sufficiency rooted in the everyday material practices, and informs localised responses to their shifting environment. However, this research argues that everyday creativity is not just about a resourceful response to adversity. In the case of Indigenous communities in Jagoi Babang and Singkawang, it is about relating to other people and ancestors, as well as honouring and respecting the landscape.

The contribution aims to develop existing understandings of everyday creativity across boundaries, particularly in enriching research in the Indigenous context. Everyday creativity embodies the heterogenous innovation practices rooted in place and local wisdoms. Through an exploration of everyday creativity, the research has been able to gain a more

comprehensive and meaningful appreciation of the complexity and precarity surrounding Indigenous craft practices. This renders the communities' differing ways of knowing and being in relationships to places and people.

7.5.3. Contribution 3: Craft and Design-Led Activism

This research is predicated on a community-based design practice in the specific research context of Indonesia, utilising design to support Indigenous craft communities to engage with sustainability challenges. Designing in the context of (social) innovation with participatory practice at its core, is inherently relational; building trust between all the actors involved in this domain is not a side effect of the work, but a primary enabler (Amatullo et.al, 2022). Enacting this kind of practice within the research heightened such awareness in the field, as a researcher, of constant engagement with the dynamics of power among people and things.

The contributions to knowledge emerging from this PhD research is linked to the field of social and design innovation, which practice exists in the intersection of craft, sustainable development and design activism. Guy Julier argues that design activism works tend to explore new ways of designing that coincide with geopolitical, economic, and environmental crises (Julier, 2013, p.226), therefore it is perhaps more precise to view it as a broad movement that partially overlaps with a range of practices, including social design, community design, participatory design, and critical design (ibid). As mentioned earlier in the chapter two, the outcomes of this type of design are usually not tangible but emphasise adjustments to policies or new systems of support (Julier and Kimbell, 2019). That is also, perhaps, the nature of many designs for social innovation practices, as its purpose is not to make things, but to facilitate social change (Amatullo et al., 2022, p. 25).

Whilst innovation practices remains a highly-professionalised sector within the creative economy sector in Indonesia, a more informal approach to innovation is thriving mostly based on organic social interdependencies, confronting hegemonic structures (Gerard and Malasan, 2023, p.70-71). In the context of community-based design engagement, designers then need to be attuned to the plurality of locally-embedded creative processes. Even though this practice does not necessarily advocate or prescribe for certain design tools or methods, the situated nature of design could help respond to the context in a practical and iterative way. The uncertainties dealt with have been a regenerative process; ones where it could be transformative as well. Those uncertainties and the constant unknowing often faced by design for social innovation practitioners (Amatullo et al., 2022, p.28), turned out to be the aspects that could be productive; which heightens the sensitivity in engaging with the

community more respectfully and negotiating the role of design. It is an opportunity for continuous exploration to delve deeper into the contexts and not shy away from engaging with broader and more diverse subjects. As such, the works typically rely upon a broad spectrum of relationship, different kinds of resources, fluid timelines, open-ended methodologies (Amatullo et al., 2022, p.21).

Given the challenges, here designers should re-orientate their practice from the problem-solving approach towards re-centering their approaches and strategies around the communities strengths and everyday resources; cultural assets, material practices and people. The significance of this type of work lies in the shared sense of ownership, where design engagements were positioned to become a platform for collaborative learning that could nurture the communities' creative confidence. In this craft and design-led activism works, the role of design is to explore ways of shifting dynamics. In the context of this study, it is through the creative experimentations that led to participatory film-making, vernacular material exploration and collaborative material archiving. Addressing sustainability challenges through the communities' creative experimentations have brought to the forefront the people's way of relating to their landscape, community and their ancestors. These community-led innovations are rooted in the Indigenous perspectives and understanding of their ecosystem. It should be noted that the creative experimentations carried in the fieldwork were a shared experience. the researcher was not a mere passive observer commissioning the communities to conduct projects, and rather worked together instead where multiple roles were organically assigned in each project. The engagements foreground reciprocity and *gotong royong* spirit, an Indonesian phrase meaning 'working together and helping each other'.

The experimentations allowed the participating communities to define what counts as 'positive change', as well as engaging in broader sustainability concepts. The PAR aspect of the research has enabled the development of creative confidence, capacity, skills and relationships to shape collective action. These collective actions promote the active participation of people within the community, based on their strengths and resources. The contribution highlights the enabling engagement and collaboration in Indigenous knowledge reproduction that challenges the term "expert" and "non-expert" in innovation, opening up relationships between two different modes of knowledge; designerly and Indigenous ways of knowing.

7.6. Impacts, Limitations and Future Research

The validity and impact of the findings is demonstrated through the development of a number of both small terms and long term projects looking at Indigenous knowledge revitalisation. These projects come directly out of the study's PAR experiments and engagement framework, developed in the study.

Few projects and activities have been executed to support the development of the newly established cross-border 'community of practice' fostered through the C&VM programme in Borneo. These activities centred on leveraging the project assets including publications, impact film, craft artefacts, tools and documentation to trace, evaluate and evidence the impact from the wider C&VM programme. The overarching aim was to capture the practitioners' stories as a 'living legacy' through the creation of a co-authored publication in two languages (English and Indonesian) with the objective to capture and share the 'difference made' in meaningful and accessible ways *with* the craft communities and inspire collaboration and open dialogue as a platform to advance sustainable growth and innovation Borneo.

The creative projects led by the participants, Manai Jagoi and Sanggar Sarantangan, did not simply end after the termination of the programme. Following their first craft workshop, Sanggar Sarantangan was invited to expand their craft workshops for local high school students in their village to trial it as an extracurricular. Sanggar Sarantangan continued honing their film making, particularly documentary, exploring different themes and methods. After their first documentary films made for the C&VM project, they have produced another film exploring another cultural asset, *pantak,* which is significant to their Dayak Kanayatn roots. This theme was brought up and also explored during the workshop process, though the group decided to focus on the *jelai* plants. In 2023, the researcher and Ania, one of the Jagoi rattan weavers, worked together to facilitate and lead a workshop on the digitisation of Indigenous knowledge at the Borneo Cultures Museum. In collaboration with students and researchers from Humboldt University of Berlin, University of Applied Sciences Berlin, University of Technology Sarawak and University of Malaysia Sarawak, the workshop explored a novel approach of utilising technology (virtual reality and augmented reality) to preserve craft skills and knowledge for future generations. The outcome was a teaching tool for rattan weaving in rural Bidayuh communities and to make the knowledge of the Bidayuh rattan practice accessible to a wider audience. Meanwhile, Manai Jagoi and the Sepatomin Initiative continued their collaboration to scale up their archival work, reaching a wider

audience with partnership with the British Museum, through their Endangered Material Knowledge Programme (EMKP).

Whilst this fieldwork was highly situated, there are some elements from the research that can be underlined as aspects of replicability. The experience based contribution can provide insights on how authentic (Indigenous) narratives could be cultivated through nurturing equitable, dialogical design collaboration. The experience also provides insights on ways of engaging Indigenous communities for direct participation in formal institutions, where they were usually underrepresented or framed in a certain way. The Serumpun exhibition has enabled the communities with more agency and choice in how their works and cultural assets were accessed and interpreted, offering insights into new ways of working and engaging *with* Indigenous communities in formal institutions such as museums and international organisations. Another element of this study that could be replicated is the creative experimentation phase that revolved around the communities' cultural assets, which could be taken as a form of action prototyping before scaling up.

This research, however, is subject to several limitations. Situated in a specific rural and cultural landscape with a specific group of participants, the research has produced highly context-specific knowledge and the relationship with the communities was built on context-dependent and contingent interactions, where the researcher's own subjectivities were embedded and embodied. This may invoke criticism about the validity of the findings.

In seeking to construct a better understanding of how a design process can work *with* and *through* Indigeneity to articulate Indigenous perspectives on innovation and sustainability, the study did not intend on producing generalisable findings that could represent the experiences of all Indigenous people. Rather, this research looks at context-specific knowledge with specific participant cohorts. Design interventions were implemented to create meaningful impact for specific groups of craft practitioners, in being able to reflect upon, articulate, and envision their lived and felt experiences. The limited time frame made it difficult to fully embrace the scale and the complexity of the issues. The research can only go as far as articulating the narratives and while there were some immediate impacts on the participating communities resulting from the work, tangible long-term impacts could be promoted and better measured with longer-term engagements.

As such, there are several trajectories to expand and further explore this research. Firstly, scaling up the projects as a follow-on action post-research is essential, transitioning ideas prototyped during fieldwork into larger, real-world implementations. Addressing the

limitations regarding durability and the scale of impact requires ensuring the legacy and sustained relevance of the research outcomes. Beyond the study's timeframe, the researcher continues to foster the relationships and networks established with craft communities during the research process. This study could serve as a foundation for initiating sustainable development projects, thereby delivering more tangible and long-term benefits for the communities involved. Ideas and aspirations that emerged during fieldwork—such as community-based rattan forest conservation and youth engagement in craft education—can be further developed and pursued with appropriate funding and support. By doing so, the research transcends its academic boundaries and contributes to meaningful, enduring change.

The stories presented in this study (chapter five) do more than simply recounting experience, instead, the storytelling foregrounds reflexivity to make sense of how place-based knowledges, wisdom and actions are embedded, reproduced and transformed. This section essentially seeks to illuminate the sentient and visceral aspect of this research. Future research could, for instance, further explore visual epistemology as a research methodology that prioritises this type of cerebral and intellectual modes of interrogation.

Everyday creativity as a field of study is a growing discourse and network, seeking to critically unpack and communicate the role of everyday practices, while investigating the meanings, processes and possibilities behind them. Research on Indigenous practices potentially enriches this field. The Indigenous narratives emerged from this study broaden understanding of creative processes of diverse groups of people, valuing new ways of relating, thinking, doing and becoming. In respect to democratisation of knowledge and innovation, this study can open future research directions on adopting Indigenous 'creative' processes for creative research methods.

7.7. Reflection from the Field: Learning and Unlearning

Ruminating on the knowledges generated from this study and resonating with Schön's (1991) account of reflection in action, the researcher does not separate thinking from doing. Knowing and doing are intricately linked, therefore the knowledge lies in the action. It would be almost impossible to gather and fully comprehend the insights from the field without the process of learning and unlearning, where assumptions and expectations were challenged. To allow critical thinking *in* and *from,* it requires the researcher to fully engage with the

communities' everyday practice as well as to be physically away from the context. Through this PhD journey, there are several learnings, as well as unlearning, from the process.

7.7.1. *Lestari:* On Engaging Participants in Discussions on Sustainability

Gaining authentic (sustainability) narratives requires presenting the participants with appropriate and relevant prompts during fieldwork engagements. Initially, there were challenges in the field regarding bringing in 'sophisticated' and complex terminologies, such as sustainability, into discussions. The word sustainable and what is considered to be the translation *keberlanjutan*, is the formal term that is often used in numerous governments' and NGOs' programmes. However, the word *keberlanjutan* has become vague or too open. Out of professional norms and habit, the researcher initially used the term (keberlanjutan) in conversations and discussions with the participants. Many of them found it harder to engage and resonate, and whilst understanding what it meant, there seemed to be a built perception surrounding the word that limited the discussion. For example, it was often associated, among other things, with "the continuation of a government programme or development aid."

This happened in both fieldwork settings, Jagoi Babang and Singkawang, where both groups tend to associate *keberlanjutan* with formal instruments (policy, government, aid), thus not as relatable. Following the initial discussions, the word *keberlanjutan* was then replaced with *lestari.* In the Indonesian language, the word has a substantive definition that is relevant in this case. The meaning of *lestari* is *remaining in its original state; unchanging, enduring, everlasting.* While the definition sounds passive or static, the word *lestari* actually implies the dynamic of nurturing and thriving within the current and future context. Whilst sharing similar meaning, the use of *lestari* received more active responses; this was when both communities started to associate the notion of sustainability with efforts to conserve and preserve, on everyday level.

The fieldwork in Jagoi Babang and Singkawang both followed a similar structure (the three phases of fieldwork) and principle (asset-based approach), however, there was no prescribed framework being implemented in the two case studies. Changing landscapes emerged as a central theme explored collectively throughout the phase. In the field, this concept was introduced to participants as a means of amplifying the phenomena surrounding key place-based sustainability challenges. Subsequently, the analysis and reflection looked into *taskscape* (Ingold, 1993) as a conceptual framework to capture the dynamic nature of these changing landscapes, critically interrogating them to articulate

sustainability narratives in Borneo. In line with taskscape, the changing landscapes in Borneo are understood as both natural and cultural phenomena. Regardless, *tembawang* and *adat* forests in Borneo are regarded as both natural and cultural assets; their continued existence, along with the biodiversity they sustain, has been shaped, in part, by generations of human influence. Further, this research views Indigeneity beyond representational, but as a process of becoming—an ongoing and continuous articulation shaped by the interplay of cultural, ecological, and material practices. Accordingly, the research proposes that the dynamics of Indigeneity and the dynamics of landscapes should be examined—and thereby understood—together. It argues that landscapes serve as key sites in the making of, and are thus crucial for understanding, new articulations of Indigenous innovation. By exploring the changing landscapes in Borneo, this study has illuminated the configuration and transformation of material practices and how the legacies of colonisation, migration, and land conversion on the island have profoundly shaped the Indigenous everyday practices encountered in the field.

These physical landscapes, corroborating Anna Tsing et al. (2017, p.G1), is an overlaid arrangement of human and nonhuman living spaces, filled with more-than-human histories through which ecologies are made and unmade. The proliferation of plantation across Borneo is a stark reminder that the current environmental problems cannot be decoupled from histories of colonialism, capitalism, and injustice that have made some groups, human and non-human, more vulnerable than others to climate change and land dispossession occurring across the globe. The case studies presented in this study reveal that sustainability challenges experienced by the craft communities are intrinsically linked to broader socio-ecological problems. Yet, amidst these challenges, the study highlights enduring expressions of care and affection in the communities' craft practices: young people navigating the uncertainties of the gold rush while nurturing their peers and reconnecting with their ancestors, and rattan artisans tending farms and forests to cultivate rattan responsibly, crafting objects with pride. These narratives exemplify the communities' sense of responsibility, which sustains their cultural and communal assets, ensuring their continuity and resilience (*lestari)*.

7.7.2. On Indigenous Craft and Collectivity

One of the projects in Jagoi used competition as a mode of creative inquiry, where more than twenty artisans participated to showcase their skills and creativity. The notion of competition was against the assumption or expectation of traditional Indigenous craft

practices. Whilst collectivity is often associated with rural craft practices in the Global South, competition is often tied to Neoliberalist values, which are individual and competitive instead of collective and collaborative. Discussed on various occasions with the Manai Jagoi group, also touched upon in the fieldwork chapter; according to them, collectivity and cooperation within the community and between neighbours remain strong in most activities, apart from rattan weaving. Traditionally, the practice has been associated with pride and respectable social status.

This way of working has challenged the researcher's assumptions who, through her previous experience and numerous literatures, encountered various "collaboration styles" of craft artisans and posited collectivity as one of the most identifiable aspects of rural craft practices. Whilst seemingly individualistic, in regards to the Jagoi artisans' mode of working and their craft competition proposal, this actually offered insights on different, or expanded, ideas of what entails a collaboration or a collective effort. They might not socialise and sit together with neighbours to weave baskets, but as one of the artisans participating in the competition explained, she saw her (craft) work as "*tanggung jawab masing-masing tapi pada akhirnya untuk kepentingan bersama, tradisi dan hutan sama-sama sehat dan lestari*" (It is each person's responsibility to reach the common good, tradition and forests both sustain).

The artisans typically plant and harvest their own rattan, sometimes with the assistance of immediate family members. The rattan ecosystem is integrated into, and maintained through everyday farming and forestry practices. They also process the raw materials themselves, craft the final products, and either use, sell, or barter them directly to buyers or middlemen. When the creative process was shared, it usually remained within the family. However, the supply chain dynamics have recently shifted. As fewer people work on farms, the demand for utilitarian baskets has declined. To adapt, basket designs have been modified to align with contemporary fashion trends, and artisans have explored a broader variety of products. Traditional tree barkcloth shoulder straps are now often replaced with webbing straps or nylon macramé cords. Sewing skills have become a critical addition to the village's craft ecosystem, often provided by individuals outside the Bidayuh Jagoi community, such as Malay or Javanese transmigrants. As noted in the previous chapter, these communities also play an essential role as material gatherers and traders. This shift has become increasingly significant, as the younger generation of artisans is less inclined to venture deep into the forest to harvest rattan.

As their landscapes change, their craft practices and socio-material relations are transformed. Yet, their craft practice shows that the capacity to care for a place, and people, is not absent. Their material practice is also not apolitical. Yet, approaching it from the feminist standpoint, the communities' regenerative modes of making and provisioning at the cusp of nature are a political and material response to the environmental changes (Terreblanche, 2019, p.165). As explained in the previous chapter, the tensions between oil palm or gold mine and cultural craft practices, are not as binary, and in fact, are embraced as a part of the everyday practice of the communities in Jagoi and Sagatani. These changes (in landscapes), as the fieldwork has shown, have shaped the communities relations to their cultural assets and material practices. The Sanggar Sarantangan's creative practice shows that there are empowering narratives residing within the vernacular material (*jelai* plant).

Some forms of respect and appreciation towards certain vernacular materials were evident in the communities. *Sogoh* rattan in Jagoi Babang, regarded as the *creme de la crop*, was regarded by the locals as the king of rattan, and given another name *soga emas,* which means gold. In Singkawang, the young people of Sanggar Sarantangan regarded *jelai* seeds as the pearl of the forest. These sentiments of gratitude, reciprocity and responsibility addressed to the non-human worlds are displayed through everyday utilitarian activities (farm and forest practices) as well as special celebrations (rituals and gawai ceremonies). During gawai, these were visible, celebrated through the spirits of the earth; seeds, grains of rice, livestocks, animals, waters, and fibres.

7.7.3. On Participatory Research and Design Practice in the Field

Underpinning this research inquiry was a participatory approach centred on mutual learning and co-production, where each group determined and pursued priorities pertaining to their practices and knowledges in each distinct community-based context. A respectful research design was developed based on a 'deeper situational awareness that generates many divergent spaces where innovation can contribute positively to the well-being of the whole' (Sheehan, 2011). As such, the methodology, whilst informed by principles of PAR, remained emergent, subjective and polyvocal, as opposed to imposing western epistemological and methodological constructs (Smith et al 2020).

This research may share some characteristics of anthropological study, primarily because the process has borrowed methods that are well-known to ethnography researchers. For example, the use of long-term immersion, observation and participation in the lifeworld of

'the studied' as well as the utilisation of visual methods such as drawing, photos and films. Whilst the participant observation phase was crucial for context-building, this research distinguishes itself from ethnography in that the 'action' was inextricable from the study. Therefore, PAR suits the needs and goals of this research. This emphasis on action made the creative experimentations carried out by the participants integral to the research. So were the drawings, which also operate in a different mode. Hodson (2021) notes that, (ethnographic) drawing, beyond as a means of fieldwork documentation, serves as a form of witnessing which allows for the embodied experience of the researcher and emphatic response, thus distinguished through their reliance upon the original context and defined by their setting. The drawings here were not a part of the observation stage to describe moments and encounters, as often happens in ethnographic processes. Instead, they were executed later in the research stage (post-fieldwork) and intrinsic to the sense-making process in the reflection and analysis phase. During that phase, the images collected during fieldwork were revisited and then grouped into themes, scaffolding for narratives. The drawings presented in this thesis were created manually and digitally; traced and, or modified. Not being an illustrator herself, technical and artistic components were not the researcher;s goal or the focus of this work. Digital drawing was selected as a visual technique for its presentability as a whole composition.

Then, finally, the discussion shall turn to the design aspect of this study–what makes this study situated within the design discipline? As discussed earlier in the chapter, in this design-led community development type of practice, that arguably falls under the design for social innovation praxis, the role (of design) is to facilitate change. Evident from the fieldwork approach, there was clear orientation towards making and instigating changes as well as responding to real problems.

In emphasising pluriversality, the research highlights that designing *with* diverse knowledge systems necessitates a multiplicity of roles for designers. It has been explained that it is this study's intention to move away from the solutionism mindset and market-driven design–one that tries to solve complex problems or to make commercial products. Instead, the design practice in this research adhered to "stay(ing) with the trouble" (Harraway, 2016), a way for designers and researchers to take ethical response-abilities by staying in the present, working *with* the people, knowledges and things that are being affected by ecological disturbances. This research then focused on ways of designing within the living work context, not design for an objectified one. Therefore, the works and the design process presented in this thesis are highly situated, that they cannot take place outside the work context because of the interdependent relationships. Working in participatory contexts, the

communities should thrive; aesthetic of the designed output should be determined by the participant in how they wish to interpret the brief and translate their knowledge, experiences, and ideas. In this case, the craft community in Jagoi Babang showcased their skills and knowledge on utilising the variety of raw materials available locally. Sanggar Sarantangan in Singkawang used the opportunity to explore film-making to trace cultural narratives of *jelai* plants and prototype a craft learning model for young people in the village. The artefacts created from the communities' stories and knowledges not only reflect their own historical pasts and cultural identities, but it generates future and presence narratives that are meaningful and powerful for design research. Here, the artefacts were emphasised as a means to capture, articulate, and discover what is possible–and that was the design role to facilitate these things to happen.

the researcher sees the act of designing here as an explorative and sense-making process, navigating between assets and deficits (needs, challenges and barriers). What it did was to instigate and enable collaboration, changes, new relationships, transformative encounters, new possibilities and narratives. Eventually, the contributions of this study seek to recalibrate the tools, and roles of design to equip design researchers in working *with* Indigenous communities and its ever changing landscapes. Thus, design may recapture what it does best: adapting and responding to contexts, finding creative opportunities and enabling tangible actions.

7.7.4. On Mobilising Transcultural and Transborder Collaboration: A Reflexive Design Encounter

Facilitating community participation in the C&VM project has offered insights into meaningful ways of engaging with communities and international organisations. Behind the scene, an intensive in situ facilitation was essential to ensure that the communities received ongoing support throughout the execution of their projects. This phase proved crucial for reflecting on the process; despite the research design being carefully developed with inclusivity and ethical considerations at its core, it is important to acknowledge that discriminatory situations could still arise. Some logistical and administrative barriers disproportionately impacted certain communities with disadvantages; a situation that would not be experienced by the rest of the (C&VM) cohort who had more privilege–lived in the cities and had better access to resources of information, education and public infrastructures. Upon reflection, these logistical issues and barriers have raised significant ethical concerns that opened up a much

needed dialogue on the intersecting structural factors–gender, ethnicity, socio-economic sphere, religion, education–that had affected the *conditions* of research.

This experience illuminates a reflexive encounter, the importance of being sensitive towards the specifics of the context and conditions in which participants and the researcher shared together.

In a transcultural collaboration, intersecting structural factors should be considered besides nationality (Schele and Hidayah, 2014) as well as “the micro and macro structural issues of inequalities and the related (geo)politics of knowledge are crucial for all research encounters”. The multiple differences, positions and relations between cultures have inevitably shaped the horizons of the research’s perceptions, conceptualisations and reflexivity. The experience of working with the communities from Jagoi Babang and Singkawang in this transcultural project has presented unique challenges as follows:

a. Gathering Consents

In addition to obtaining individual consent from the participants, consent was also sought from the broader village communities. After directly inviting the participants to take part in the C&VM project and explaining the objectives, formal invitation letters were also handed in personally by the researcher to the respective village offices. Given the communities lack of knowledge of the institutions that the researcher represented for, both The British Council and The Glasgow School of Art that are, the researcher took the initiative to set up informal meetings to present the research project for the community leader and chiefs of each village. The presentation session provided an opportunity for the researcher to discuss and consult about the proposed activities including the technical and financial support that will be given for the participants. Though not directly involved, the role of, and permissions from, the community leaders and village officials had become fundamental in safeguarding the participants, giving assurance and a sense of legitimacy. Their support was essential in providing access for the research activities to take place in and around the village including documentation, visiting and interviews with the community elders and access for going in and out forest areas.

b. Managing Projects and Finance

It should be highlighted that this was their first time taking active participation in a project of such scale. Previously, Sanggar Sarantangan had been invited to participate in the British

Council's Digital Craft Toolkit workshop in Singkawang, which was tailored for rural craft communities. The training itself was organised and delivered by a national non-governmental organisation who received the grant from the British Council. However, the group had little awareness of the entities responsible for the program or the overarching objectives of the workshop. Their participation in the programme was largely passive; and certainly did not include organisation and finance management. Nonetheless, the way the participants managed their projects has offered valuable insights into the communities' inherent value in maintaining social cohesion. Greater importance was considered towards collective well being in the community, reflecting the community's broader cultural ethos. As discussed previously in the fieldwork chapter, many decisions around the project activities were made to avoid social conflict–both horizontal and vertical–within the community. This commitment to social harmony also influenced decisions regarding the equitable distribution of project funds.

The C&VM programme provided each group of practitioners with a limited fund to support a short-term project. The fund should cover their resources, time and materials spent working on the project. Both the Jagoi and Singkawang group showed hesitation when it came to the discussion about budget. They were apprehensive due to their lack of experience in managing their own projects and grants, therefore they preferred to have the village office keep and distribute the money. Edo and Veni from the Sanggar Sarantangan group wanted to use this opportunity to learn to develop a simple project proposal and budget costing, and consequently asked for assistance from the researcher. Using a communal laptop, Edo and Veni then learned to operate a spreadsheet software and were in charge of keeping track of the project's cash flow. In Jagoi Babang, the money was kept and distributed through the village cooperatives. Jebat in the Manai Jagoi group was working as a secretary at the village office and had some experience in record keeping; accordingly, he undertook the role of the group's treasurer.

The projects reflect how much they valued the social aspect in their practice. The participants from both groups intended to impact the broader community beyond the immediate group who were directly involved in the C&VM project. The weaving competition project organised by the Jagoi group has brought together artisans in the village encompassing all generations. Though competing, the collective spirit was palpable. The project's money went towards ordering uniformed, customised t-shirts for the Kindau artisans that they could wear together for many occasions. The remainder of the money was then spent to upgrade their community hall, such as building shelves and display tables to showcase their works.

Sanggar Sarantangan intended to use this project as a means of providing equal learning experiences for all. They ensured that all members of their group—about 20 individuals—could take part and benefit from their involvement in the research, as well as the C&VM project. They invited anyone's contributions, whether large or small, reflecting the group's commitment to collective participation and shared growth. Besides covering time and material costs, a large sum of their project fund went towards covering the cost of sharing their works with the wider community; engaging with local school students to share their knowledge and skills through hosting craft workshops and film screening.

c. Dealing with Administrative and Logistical Challenges

The C&VM's partner, The Borneo Laboratory, was based in Kuching, located in the Malaysian-Borneo territory. Kuching had become the C&VM's headquarter where the project's meetings, workshops and exhibitions were held, therefore traveling there was necessary for all of the practitioners.

No one in both the Jagoi and Singkawang group owned a passport, and most of them had not traveled far outside their respective region. The Jagoi people were more familiar with Kuching due to their close proximity and cultural connection, however, border crossing had always been done 'illegally' without a passport. During that time, the Jagoi border was closed due to the on-going construction of the National Border Post, as one of the implementations of Indonesia's mega projects. Before the mega project happened, Jagoi Babang was somewhat a sleepy backwater where its residents could move around across the border freely without a passport. After the (Jagoi) border closure, traveling to Kuching from Jagoi, which would normally take one hour by car or motorcycle, had become more complicated. Now they had to cross through an established National Border Post in Sambas District, which meant a longer (five hours) and more expensive journey to Kuching, and a passport was strictly required. As a consequence, a large chunk of their project fund went towards logistical costs, such as passport applications and additional expenses incurred. For instance, transportation and accommodation costs were needed as the nearest immigration office that issued passports was six hours away by car from Jagoi Babang.

There was a collective anxiety surrounding passport application that was felt by the communities. There was a whole 'fearmongering' surrounding passport application; that it has to be done through a third party agent for the application to be granted, and that the agent would charge an excruciating amount of money for the service, and that a passport is impossible to obtain for the people in their community. Their 'fear' surrounding the passport

was not unfounded. Many local people from their village crossed the border to work as migrant labour, often illegally, therefore stricter passport control from the immigration office particularly towards their community. Third party agents coordinating passport applications–and work–for the village people who want to cross the border became lucrative. Moreover, there were complexities around filling out the online application form, submitting formal documents and attending interviews. Edo and Veni passport applications were not approved the first time. The large number of residents from Habang village seeking to get passports from the immigration office in Singkawang town centre, made the interview session more painstakingly tortuous for Edo and Veni.

The immigration's attitude towards people from the Jagoi area was equally cautious though built on a different assumption. Jagoi, as one of the quiet borderlands, was known for illegal market loopholes where any kind of goods–and humans–were smuggled in and out. With the looming problem of smuggling, complications then occurred particularly when the participants had to bring craft materials and objects for the C&VM workshop. Given rattan being one of the most valuable raw materials smuggled into Malaysia, Ania and Jebat who were traveling to Kuching for the first workshop had to have their rattan works seized despite showing the formal letter from the British Council. Every journey thereafter, official letters were issued from the customs office as well as the district office, facilitated by the researcher. With Jagoi's reputation, there was a strong sense of cautiousness from both the local community and authorities with any activities involving border crossing. In the process, the researcher had to engage local authorities such as the district's custom officers that supervised the traffic of goods to and from abroad.

This hostility towards the participants' and their communities in this setting demonstrated a form of discrimination and marginalisation, that the researcher certainly never experienced before despite holding the same nationality, making the ease and access to obtaining passport and traveling around, a privilege.

d. Facilitating Exhibition

One month before the exhibition, the planning started to take place. Between the C&VM organisers and the participants, there were differing perceptions regarding the envisioned format of the final exhibition. In Indonesian, the term *pameran* encompasses a broad range of meanings, including an art showcase, a bazaar, or a craft fair. Consequently, many grassroots practitioners in the cohort, including the Jagoi and Singkawang participants, primarily associated the concept of an exhibition with a craft bazaar or a trade expo, with an open tent and tables to display local products to sell.

Both the Jagoi and Singkawang groups had prior experience taking part in exhibitions, albeit on a local scale. Before participating in the C&VM project, they took part in a few local events organised by the local governments, as some of them expressed, to “dressing up in traditional clothes and attending local craft fairs”. This usually happened when important figures such as the regent or the governor visited the region. In these events, they would sometimes have an opportunity to showcase and sell their craft products. As previously mentioned, their participation was rather passive, as they were not involved in the planning and organisation, and had no prior experience designing the presentation of their work. In contrast, the C&VM organisers conceptualised the exhibition as a means to highlight the participants’ works and their experimental processes as cutting-edge contributions to contemporary craft. The organisers aimed this exhibition to spark meaningful dialogue around the narratives embedded in the craft and to engage audiences in broader contemporary debates. Moreover, the organisers sought to actively involve all participants in the planning and design of the exhibition layout and displays, fostering a more collaborative and participatory approach to the event.

The researcher gave assistance on how to plan and showcase their works, which included breaking down the required exhibition properties and equipment to highlight their stories. The participants had not got the chance to see the actual venue space within the Borneo Cultures Museum. Although an exhibition floor plan was provided for all practitioners, the Jagoi and Singkawang participants had difficulty in interpreting them. Mediated by the researcher, the participants received help and support from other practitioners in the C&VM cohort, particularly from established designers who were experienced in exhibition design. Prior to the exhibition, the designers from the Sepatokimin Initiative had lent their technical expertise in making a three dimensional spatial layout using a modelling software, transforming the floor plan into better visual experience, to provide the Jagoi and Singkawang group a better idea of the space. The designers also offered presentation design options that the Jagoi and Singkawang group can adopt and improvise. This approach perhaps could inform strategies to overcome this barrier, which has to be admitted that this issue was an oversight. Whilst it was common across all practitioners within the cohort to help each other with the set up, the organisers could provide more resources and technical support. Providing the participants' exhibition floor plan was not sufficient and accessible, as it was only accessible for practitioners with a design and architecture background. Given their lack of experience in designing exhibition space, providing them with design templates to build on or improvise would have been more helpful.

Demonstrating one of the Design Justice Network principles (2018), where it sees the role of the designer as a facilitator rather than an expert, this collaboration process captures how design mediates and navigates across different realities. When working with social groups vulnerable to exploitation and discrimination, it was in the research's best interest to create a (research) experience that is emancipatory and responsible to participants. This underlines the necessity for heightened awareness and a deeply attuned sensitivity to the risks of discrimination that participants might face, including those occurring indirectly as a consequence of their involvement in the project. The facilitation process was deeply rooted in ensuring the safeguarding of participants, encompassing both legal protection and physical safety amidst various contextual challenges.

Creating a safe and supportive environment throughout the project involved facilitating dialogues with relevant stakeholders, providing tailored support and assistance, and addressing participants' needs with sensitivity, free from assumptions or judgments. By being present–and reflexive–in those challenging situations, the researcher–as a researcher and facilitator–situated herself on the same boat as the participants, fostering a shared sense of purpose and solidarity. Inclusivity extended beyond the mere participation of Indigenous communities in the program, it also entailed ensuring that all decisions were made through an inclusive lens. The facilitation process was guided by care and an acute awareness of the potential disadvantages and barriers that participants might encounter and experience along the way.

This experience highlights the critical role of facilitation in addressing and mitigating barriers that could perpetuate power imbalances. Beyond providing language translation and technical support, the research facilitation required navigation of meanings and knowledge exchange between and across contexts. Lessons learned from the C&VM project reveal that empowerment means building and strengthening creative confidence in enhancing agency of communities. It was important to uplift the communities' spirit through overcoming the barriers and issues in the process, whilst equally providing them with spaces for meaningful contributions.

8.
C O N C L U S I O N

This practice-based study then asks, *how can an exploration of everyday creative practice articulate Indigenous perspectives on sustainability in Borneo?*

Situated in a specific landscape of Borneo, this PAR study was conducted in response to the need to transform and diversify the design and social innovation practices surrounding the engagement of Indigenous craft communities in sustainability discourse. There is also a need for a richer, situated-approach to engage *with* Indigenous context and articulate the multifaceted nature of indigeneity. As argued previously, gaps in knowledge exist surrounding design innovation within the Indigenous context and the need for critical articulation of Indigeneity in order to gain authentic narratives. The thesis has delved into the various contexts underpinning the research, touching upon the notion of changing landscapes that refers to the rapid transformation of forest and agrarian spaces in rural Borneo into sites of extraction. The notion also refers to the shift in design disciplines and academia to move away from the western-hegemony of design. Departing from the various contexts that have been mapped in the first chapter, the discussion continued with the critics of the hegemony of western-centric design in thinking about plural and inclusive innovation in the Global South.

Through conducting fieldwork in Borneo, the researcher investigates how sustainable craft ecosystems can be fostered through collaborative, reciprocity-based research practices. Positioned as both a critical observer and long-term interlocutor, the study aims to bridge interdisciplinary perspectives on craft sustainability while centering Indigenous knowledge systems and practices. This experience has not only advanced the researcher's understanding of sustainable craft ecosystems but has also inspired how community-based research can inform broader frameworks for equitable knowledge production and innovation.

Integral to the thesis is an embedded portfolio that presents stories, narratives, and visual experiences from the fieldwork, enriching the understanding of the research context. Serving as a medium for shared experiences and knowledge between the researcher and the participating communities, the embedded portfolio is created to attend to relational practices. This chapter explores various techniques, including drawings and reflexive storytelling, as

alternative methods of communicating the research. Distinct from traditional ethnographic drawings, the drawing method used in this research functions primarily for sense-making. Rather than capturing a moment in real-time, the drawing process was retrospective and reflexive. Drawings, photos, and stories were compiled in a format that enabled the researcher to convey her experiences in the field.

Locating the research in the fields of design social innovation, craft studies, Indigenous research and decolonising design, this study sought to gain a deeper understanding on reflexive design practices, working in ethically sensitive contexts, and issues surrounding Indigeneity, sustainability and inclusive innovation. This study foregrounds Indigeneity as a continuous articulation and a process of becoming, and posits that understanding of Indigeneity is vital in design engagement *with* Indigenous communities, in order to gain authentic narratives and produce an equitable collaboration.

The contributions to knowledge from this study deal with situated-approaches in design engagement *with* Indigenous communities looking at complex issues relating to sustainability. This situated-approach enabled exploration of new areas of innovation through relational, dialogical research and design practice. This contribution links to design-led Indigenous innovation, enabling new approaches to design collaboration that revitalise and enhance Indigenous knowledge (re)production. The study locates the research contribution as a mode of foregrounding indigenous narratives as regenerative and relational approaches towards contesting dominant design innovation discourses and top-down sustainability agendas. Its significance lies in the deep understanding of indigeneity that is attentive to the significance of place and the particularities of complex socio-cultural contexts. The second contribution aims to develop an existing understanding of the role of everyday creativity in enriching research in the Indigenous context. Everyday creativity embodies the heterogenous innovation practices rooted in place and local wisdoms. Through an exploration of everyday creativity, the research has been able to gain a more comprehensive and meaningful appreciation of the complexity and precarity surrounding Indigenous craft practices. This renders the communities' differing ways of knowing and being in relationships to places and people. The third contribution is linked to the field of social design and design innovation particularly in relation to craft and design-led activism. The contribution highlights the enabling engagement and collaboration in Indigenous knowledge reproduction that challenges the term "expert" and "non-expert" in innovation, opening up relationships between two different modes of knowledge; designerly and Indigenous ways of knowing.

Understanding Indigeneity as a process of becoming and continuous articulation, this explorative study has responded to the need for a richer understanding of Indigeneity and how today's Indigenous craft communities understand the notion of innovation and sustainability. This study of Indigenous innovation in Borneo's changing landscapes has shown life-sustaining relations between craft, vernacular materials and ancestral wisdom. The proposition of this research is that Indigeneity and changing landscapes should be examined, thus understood, together. Through the exploration of everyday creativity in the changing landscape, this research argues that material realities of place are inextricably bound to various visions of what design-led Indigenous innovation might look like.

The contributions from this study provide both theoretical and practical insights that can inform design researchers and practitioners engaging *with* Indigenous craft communities. The vision and practises contained in this research are not about applying a set of prescriptive methods or strategies. Rather, they are about recognising and identifying the diverse knowledges, narratives, and (Indigenous) people's view on the wellbeing of their surroundings. The various collaborative projects conducted with craft communities in Jagoi Babang and Singkawang rendered the communities' differing ways of knowing and being in relationships to places and people. Through these projects, this study exemplifies a way of researching and designing that is embodied, relational, ontological, and entangled deeply with (natural and cultural) landscapes.

This research's contributions to the field of design innovation provide new perspectives on the intersections of Indigenous material cultures, sustainable development, and decolonising craft, particularly in Southeast Asian contexts. Through an exploration of everyday creativity and Indigenous material practices, this research was able to address critical issues in craft (such as material scarcity, skills regeneration, biodiversity, etc.) by returning to the land, allowing the research to consider craft beyond cultural commodities and raw materials beyond extractive economies. An exploration of everyday creativity and Indigenous material practices have led to questions surrounding ontological concepts of nature, matter and agency in order to radically rethink ways of designing with the living contexts. Articulating Indigenous concepts, vocabularies, and narratives might enable a critical understanding of different ways of relating to the earth. This research provides insights on novel ways of rethinking (craft material) supply chain and conservation of craft and ecology, in order to work towards repositioning dominant Western-centric discourses and advancing conversations on decolonising design, regenerative design and cultural asset revitalisation.

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