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Temuan Ontology through Derian Worlding

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Abstract

The opening of the China market to fresh whole frozen durian and the popularity surge of the Malaysian Musang King in 2019 has seen a rush to clearing forests to durian plantations. Forests are long seen by the state and public as wild, untamed land. With a lack of recognition towards indigenous rights, this growing concern is deemed problematic amidst the state's perceptions on viewing forests as resources instead of elements of conservation. As a result, Orang Asli communities in Gua Musang, Kelantan and other Malaysian states are facing encroachment into their lands within other existing exploitative economic mechanisms. Beyond the story of oppression and the oppressed, this dissertation investigates the Orang Temuan's practice of durian cultivation and management as part of their agroforestry tradition. It aims to provide a counter-narrative to the popular conversations of victimization and subalternized perspectives, as the community utilizes durian as a tool to build resilience, unity, and the reclamation of their communal rights. It bases its investigations by firstly, examining the complexity of durian agroforestry as a worldview using a Temuan community as an ethnographic case study. The village is nicknamed Kampung Orang Asli Gendoi (KOAG) and is located in Selangor, peninsular Malaysia. Secondly, this research aims to document the Temuan's oral history as part of an alternative memory opposing formal narratives on land management. Data samples are collected through participant observations, informal group interviews and structured interviews. Through this, the thesis then demonstrates how such complexity influences property relations, including land demarcation and resource ownership among the community, which opposes the state's prevailing narratives. Lastly, the thesis explores the community's responses to pressures of land use changes influenced by the burgeoning demand of durians in the domestic and international trade. In summary, the findings of this dissertation prove that the Orang Asli community have methodological

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approaches to agroforestry, defined by a dynamic relationship to their ecological niches using a unique framework of indigenous customs.

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I THE POLYPHONIC ASSEMBLAGE OF DERIAN AGROFORESTRY

Introduction

This thesis aims to examine the assemblages of indigenous agroforestry in the anthropogenic forest and the social relations that revolve around ethics of access to understand the roles of indigenous peoples and their relationship with the forest using durian as a worldview. Durian trees given its value, cultural significance and longevity provide a significant vantage point to understand social and cultural changes and interconnections over time (Peluso 1996). The common narrative held by most governments in Southeast Asia is that the 'untouched forests' are deemed as idle land, thus unequivocally transforming the land into unproductive resources (Gale 2018; Li 2007a). This view is privileged not only by local governments, but also by international bodies such as the World Bank that pump monies into 'underdeveloped' countries via 'developmental programmes'' to pursue production, creating a rush to open new lands to support the economic plantation endeavours. (Gale 2018; Li 2007a).

Equally evident is in Malaysia, where Orang Asli territories are made way for development instead of given recognition for their communal rights and preservation of their way of life (Crabtree 2016; Lye 2005a; Nah 2003; Nicholas 2004). Temuan durian trees are often contested as wild, ignoring their interventions in managing sustainable forest use and land ownership. The lack of understanding about indigenous people land management is problematic, as explained by Li (2007) in the "Will to Improve", as the nation's economy is defined by improving the landscape and productivity via large scale plantation. The very same "uplifting" programmes ultimately cause more harm than good to the communities as people are displaced from their motherland, putting them in positions of little autonomy and frequently in debts that they would be unable to pay-off. Dove (2011) also made similar arguments, but Scott (2020) takes this one step further by implicating these conflicts as a form of "structural dysfunctionalism". Scott (2020) argues, as long as the state plays the role of a doctor that diagnoses the issue incorrectly, the failures will perpetually transpire.

Schumacher (1973) in his book "*Small is Beautiful*", criticizes the economist lens of progress and development through the measurement of economic activities in the language of GDPs and economic growth. Progress is not achieved when it doesn't provide a condition of liveability beyond the notion of survivability for both humans and non-humans. Peace will not be achieved without shared prosperity. He envisioned that development can only be attained when development uplifts the majority from their suffering, without disregarding the rights of the minority to thrive. 'Unlimited growth', as he says, requires a paradigm shift as he questions "the availability of basic resources, and, alternatively or additionally, the capacity of the environment to cope with the degree of interference implied" (15).

In the context of Malaysia, Orang Asli's 'unproductive' lands are seen as an economic opportunity for more lucrative businesses. Conveniently, these 'untouched forests' hold precious resources such as gold, exotic lumber, and other minerals for state's income opportunities (Crabtree et al. 2016). Malaysia reports the highest deforestation rate in the world with large-scale plantations as the prominent factor for deforestation (Mongabay 2013). In an interview, a community-based environmental NGO cited that prospectus who profits from mono plantations also benefits from income from logging activities (Hafiz 2020). Lim (2022) further argues that mono plantations are masked as productive land usage and not cited as 'deforestation' in the state's environmental report. The reason is that trees are still being cut before planting can begin. Yet, mono plantations do not account for deforestation. Some critics have hit back that the plantations use agriculture or abandoned land and not virgin forests to develop agricultural activity (Malaysiakini 2012). Yet, the Rimba Project Disclosure (2022) have verified and exposed a total of 43,539 hectares of forests encompassing forests reserves, virgin forests, and indigenous customary land purportedly for sale for 2021. I quote, "The vast majority of these listings are advertised for conversion to agriculture with a 99 year lease" (Rimba Project Disclosure 2022, 1). The expose is a joint media statement by 29 NGO¹ primarily environmental organizations.

Development in sole purview of the economic lens is a problematic paradigm. Schumacher (1976) contend that classifying certain activities and assets as 'uneconomic' further prove that the economic perspective is only fragmentary to the composition of life and what it means to be progressive. The many aspects of human lives require the need for "social interactions, aesthetic, moral and politics" (24). Schumacher (1976) expands, the function of work is "to be at least threefold: to give a man a chance to utilise and develop his faculties; to enable him to overcome his ego centeredness by joining with other people in a common task; and to bring forth the goods and services needed for a *becoming existence*' (33).² Succinctly, work and leisure are complementary parts of the same living process and cannot be separated without destroying the joy of work and the bliss of leisure" (Schumacher 1976, 33). Here, his perspectives are aligned with the Temuan's worldview when *berkebun* (gardening) in the forest and preserving their *adat* through agroforestry. Toiling the land nourishes the self and feeds the body. Simultaneously, the fulfilment and character-building through the work of care bring meaning to their daily lives. The sense of

¹ Non-government Organizations.

² Emphasis mine.

belonging to the land toiled by generational work invokes solidarity and renewed purpose through performing memory. Temuan's simple yet sophisticated means of working with nature, is parallel to Schumacher's (1976) purview of "*small is beautiful*" by using appropriate technology and incorporation of traditional knowledge in agriculture, from a heightened understanding and appreciation of traditional ecological knowledge. While large-scale mono-crop plantations pose detrimental issues to the environment and the Orang Asli community, this dissertation can contribute to the body of knowledge which supports the conservation of primary forests in Malaysia by exploring greener farming techniques. This is imperative as the Orang Asli agroforestry systems have been little understood by mainstream society, especially as their approaches enable the preservation of significant parts of forests. This practice prevents forest fragmentation as opposed to industrial cultivators.

In this thesis, I raise these questions to support my arguments. First, how does the cultivation of Orang Asli's durian agroforestry benefit humans and non-human subjects in regard to the conservation of the forest? This question specifically seeks to learn the polyphonic assemblages and the interconnectedness of 'scales' in which different scales collide and perform mutualistic and divergent functions. Secondly, what is the role of durian in understanding the community's sense of belonging, resource ownership and cultural identity? The bundles of rights and ethics of access anthropomorphizes durian trees through spatial and temporal zones. These components create a sense of shared community understanding which build Orang Asli cultural identity through property inheritance. Thirdly, how do the Orang Asli respond to the changing market demand for different durian varieties and from the pressures of land use changes? The network of polyphonic assemblages through the network of human relations; NGOs, government agencies, plantations, farmers,

as well as the minute scale of 'worlding' of assemblages informs this question to answer the navigation and resilience of the Orang Asli community in managing challenges. Fourthly, how is durian agroforestry central in understanding property relations among Orang Asli communities, including land demarcation and resource ownership? Understanding the role of durian agroforestry allows us to understand property relations by examining how Orang Asli demarcates their land and divide their resource ownership individually and communally. This will also help the community to prove their land ownership towards their land using methods that are otherwise performed orally and lost in mainstream discourse. Fifth, how do the Temuan capitalize on durian agrotourism with regard to the preservation of communal land while serving individual economic interests within the community? This question seeks to learn some Temuan strategies in navigating self-interest and communal interest through co-operations with other/outside stakeholders such as NGOs and business partners in utilizing communal resources. Through the combination of these questions, this dissertation explores Temuan Ontology through the lens of Derian 'worlding', in which the combination of these 'scales' creates multiple 'worlding', forming the Temuan Polyphonic Assemblage of *Derian* Agroforestry.

1.1 Research Objectives

1. To investigate the Orang Asli's practice of durian cultivation and management as part of their agroforestry tradition.

2. To analyze the complexity of the Orang Asli durian agroforestry including the relationship among human and non-human entities.

1.2 Research Questions

- How does the cultivation of the Orang Asli's durian agroforest benefit humans and non-human subjects in regard to the conservation of the forest?
- 2. What is the role of durian in understanding the community's sense of belonging, resource ownership and cultural identity?
- 3. How do the Orang Asli respond to the changing market demand for different durian varieties and from the pressures of land use changes?
- 4. How is durian agroforestry central in understanding property relations among Orang Asli communities including land demarcation and resource ownership?
- 5. How do the Orang Asli capitalize on durian agrotourism with regards to the preservation of communal land while serving individual economic interests within the community?

1.3 Theoretical Framework

This study will be informed by two main theories, by using Anna Tsing's (2021) polyphonic assemblage and Peluso's (1996) ethics of access. Polyphonic assemblage is used to illuminate the relation between human and non-human relations as well as the multiple stakeholders that form the assemblage. The ethics of access primarily informs the property relations that revolve around the community; examining land use, agroforestry management, and social relations. For the Orang Asli, durian trees hold generations worth of intergenerational memories as they hold meaning to events that took place through different temporal and space. The anthropomorphizing of durians by the communities through oral traditions and naming of the trees positions durian centrally in the community's lives, enabling a discussion about the relations of human and non-human entities in the anthropogenic forests retrospectively and at present. At the same time, how does the anthropogenic forest form relations with the displaced non- human entities from the surrounding deforestation? Furthermore, while the community holds special relationships with the durian trees, the Temuan are also increasingly selling off their fruits as a primary economic opportunity in funding their aspirations and needs that surround their integration with modern life. The navigation between traditional and modern lifestyle is a point of reference to observe the changing needs and lifestyle of Orang Asli communities and to explain their renewed form of property relations within the community. This research was conducted through inductive approach and through that, Chapter 2 explores some concepts that the Temuan practices in their Agroforestry work.

In her book "*The Mushroom at the End of the World*", Anna Tsing (2021) introduces the concept of polyphonic assemblages as a strategy to explain how the world; humans and

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nonhumans weave their interconnections, separate but connected and interdependent. In the beginning of the book, Tsing (2021) illustrates the geographical concept of scale, in which she conducts multi-sited fieldwork in Oregon, Northern Finland and Japan, zooming into the microscopic scale of the Oregon forest, and then looking further into the 'worlding' of nonhuman ecosystems of the fungi, host trees, and bacteria in the soil, all collectively providing an even more minute scale. These scales cumulatively form "polyphonic assemblages" in which she examines multi geographical scale networks of political, social and economic relations.

Using music to explain this interconnection, each musical line signifies a role in which a certain human or non-human entity comprises in adding to a "polyphonic" rhythm. A compilation of "lines" or "entities" results in a polyphonic symphony in which each role plays a significant part in identifying the dynamics of musical expression. The musical lines form a network of stakeholders encompassing the vital roles of each human and non-human entity in describing a worldview. Tsing's (2021) ideas were built upon Deleuze & Guattari's (1987) rhizomatic patterns in which these interconnectedness have "no direction, no beginning, and no end", yet moving towards a predictable path. Assemblages organize these components and form groupings to understand the complex structural interdependence in which missing components may cause the system to collapse. For example, Tsing (2021) explains that the introduction of mono-cropping in commercial agriculture has promoted a singular coordinated process which includes planting, ripening, and harvesting. However, contrary to agroforestry management in the anthropocene forest, the farming process is coordinated through multiple rhythms. "These rhythms were their relations to human harvests; if we add other relations, for example, to pollinators or other plants, rhythms multiply. The polyphonic assemblage is the gathering of these rhythms as they result from world-making projects,

human and not human" (Tsing 2021, 24). Using the concept of polyphonic assemblage in analyzing durian farming in Malaysia, Choo (2020) shows the importance of adopting multi species presence in the smallholders' farming approach with the inclusion of non-human entities such as bats as pollinators as well as deconstructed plant materials in ensuring high quality durian yields.

Along similar lines, using the concept of polyphonic assemblages, this thesis aims to examine durian cultivation as part of the Orang Asli's agroforestry tradition that contributes to the sustainability of the anthropogenic forest. Peluso (1996) had defined anthropogenic forest by examining it in three aspects; Firstly, the creation and management of forest landscapes by forest-dwelling peoples. Secondly, nature reserves creation by external stakeholders such as government and outsiders may disrupt local forest management schemes and cause unexpected changes outside reserve boundaries. Thirdly, albeit minor, ethnic differences in the way they 'manipulate' landscapes can be appropriated by one another. However, the third aspect will not be examined for the scope of this research due to the problem of scale. The sustainability or 'health' of the anthropogenic forest here refers to the existing ecology formed by the relationship between human-induced activities or rituals, and the ecology of non-human entities which include plants, trees, animals, microbes, insects and superhumans that form dissenting or symbiotic relationships that are interdependent of each other. In the "capitalistic ruins", this research intends to see how the food forest, as one of the remaining forests, forms beneficial relationships with displaced non-human entities such as animals from the deforestation and the change in meaning that humans view their environment with regards to durian as a subject. Furthermore, polyphonic assemblage enables a holistic study of the Orang Asli's resilience and/or adaptive innovations in navigating through the economy of the durian trade while facing land

contestation and deforestation. As Tsing suggests, polyphonic assemblages are "sites for watching how political economy works" (Tsing 2021, 23). While Tsing (2021) uses matsutake mushroom entanglements as a metaphor to a worldview of political economy in the capitalistic ruins, this thesis intends to use durian entanglements as a metaphor to examine indigenous resilience in the anthropocene where food forests are fast depleting.

However, there are limitations to using Tsing's (2021) polyphonic assemblages to this thesis. Firstly, durian can be cultivated and scaled as an agricultural crop. Tsing's (2021) case study of the Matsutake mushrooms cannot be domesticated or scaled as they grow in the conditions of precarity. Nevertheless, both durians and Matsutake mushrooms shares similarities in which the anthropogenic durian forests serves as forest connectors for nonhumans. Humans benefit from these interactions by using the arguments of environmental conservation through the duriotourism activities to gazette their communal lands. Secondly, the trade of Matsutake mushrooms is defined by Tsing (2021) as 'salvage economy', in which "lead firms amass capital without controlling the conditions under which commodities are produced", usually through a global market (63). While the younger derians have little assurance of the standardization, quantity, and quality of the produce, it is found that older trees produce better tasting produce. However, the determinants of the fruiting are marked by the relationship between humans and *alam* (nature) and humans alone have no control over the fruiting. Indeed, lead firms could not control the conditions under which the commodities are produced. Through a social enterprise, Anak Bumi has begun exporting to Singapore, thereby entering the global supply chain. In the larger scale, Malaysia primarily exports Musang King and Black Thorn varieties abroad to China. However, this will not be explored due to the scope of this thesis.

According to Nancy Peluso (1996) in her study of the importance of fruit trees in

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understanding property rights and social relations over time, "Durian is an important component of both the social fabric and the physical scape. The tree's biological characteristics of longevity and productivity affect property relations and illustrate the importance of temporal and spatial zones in studying agrarian change. By scrutinizing changes in, and the contestation of, property relations through the tree's many productive generations, we gain a bird's-eye view, as it were, of broader social changes in the land and their meanings" (513). In this thesis, I draw upon Peluso's ethics of access which she developed in studying the significance of durian trees for the indigenous communities in Kalimantan.

The ethics of access is a resource management strategy that is a useful tool for studying the motivation behind individual and community behaviours as well as studying the indicators of change in resource management (Peluso 1996). It is "driven by more than economics or subsistence rights and serves social, political, and ritual purposes, as well as representing kinship, power relations, and ritual harmony" (Peluso 1996, 515). For example, inheritance of ethics has encouraged the inclusion of descent groups to navigate through kinship relations from "dominating or monopolizing land and other resources such as longliving trees" (Peluso 1996, 526). Fortmann (1985) exemplifies the complex relations of "bundle of rights", or elements to the resource access to a tree. The key bundle of rights are for those who 'inherit, to plant, to use, and to dispose of a tree". However, as Fortmann (1985) in Peluso (1996, 514) have shown, these rights are subjective to various factors:

[&]quot;...tree tenure may determine or be determined by land tenure or forms of access these two resources may be independent. The right to use different parts of the tree may be allocated to different claimants, and these multiple uses may always be mutually compatible. Land rights and tree rights may be held by different claimants, and change in one often, though not always, leads to change in the other. In addition, there are four broad classes of holders: the state, groups, households, and individuals that may be subdivided into different kinds of groups (for example, by spatial units residence, kinship, or

legal association). Whether or not a tree was planted or self-sown can make a difference in the claims of rights holders; whether intended for subsistence or commercial use can also make a difference".

Peluso (1996) had also illustrated how state and market interventions change property rights and landscape composition through precarious environmental and social changes. Property rights and landscape alone do not form binary relationships in which they are commonly associated (Peluso 1996). She examined the social relations focusing on "property rights and access to forest resources" through three themes: politics and discourse in altering landscape and means of accessing resources, temporal & spatial zones, and ethics of access (512).

Firstly, through examining processes of change from politics and discourse, Peluso investigated how certain resources "constitute wealth and meaning to those who hold control or have access over them" (1996, 512). This translates to how social meanings create various relations between land and trees through "multiple human generations occupying the forest" (ibid.). Secondly, fluctuations across temporal and spatial zones identify property relations in various resources using long-living trees by examining fluctuations across space and time between individuals and groups. Through temporal zoning, intergenerational descents have inherited different roles which have created different kinds of access to the fruit trees. Spatial categories "are set aside for crop production, reserve forests, economic forests, or other types of management" (Peluso 1996, 515). Thirdly, ethics of access is the changing forms of resource access, which potentially modulates the consequences of a broader, international trend towards "privatization, individualization, and commodification of resources" (Peluso 1996, 512).

Peluso (1996) had also cautioned that the "dynamic of property" requires us to focus on the *process*, instead of looking merely at social structures, institutions, bundles of rights and responsibilities that are deemed as outcomes of processes and negotiations. A multilayered analysis requires local histories and the layers of political-economic influences that might bring change to local practices. For example, customary laws steer the practice of everyday life, decision making and usage of local resource management of indigenous communities (Dove 2011; Li 2007; Peluso 1996). However, customary laws are affected by changes in governments, policies, market opportunities, individuals or groups in power changes (Peluso 1996). In conclusion, "access mapping can identify the power relations, nodes of authority, and hierarchies in which those bundles of power are embedded and realized or changed" (Peluso & Ribot 2020, 302).

In this thesis, I will draw upon the framework of ethics of access to examine durian as a subject in the context of property management and social relations among the Orang Asli in Kampung Orang Asli Gendoi. Inspired by Rappaport's (1968) work in tying human activity through lived experiences and rituals to find connection whether consciously or unconsciously in the maintenance of the larger environment, understanding ethics of access within the case study of the Orang Asli community may provide new ways of knowing in understanding the Orang Asli's navigation in making sense of their social relations. Through the preservation and memorializing of indigenous durian agroforestry, ethic of access provides a framework where this study could examine property relations through landscape changes, politics & discourse, and temporal and spatial zones. In addition, observations of processes such as systems of inheritance, systems of reciprocity, and the negotiation between the problem of individualization versus communal needs will also be taken into consideration.

1.4 Literature Review

1.4.1 Orang Asli in the Post-Colonial Era

The term 'Orang Asli' was a recent one to replace 'Sakai,' as it had negative connotations, implicating slavery (Nicholas 2004). The Orang Asli had not referred to themselves as such until it was given to them (Nicholas 2004). Orang Asli consists of 19 culturally and linguistically distinct subgroups, which are then divided into three categories: the Negrito, Senoi and the Aboriginal Malays. The Temuan people belong to the Aboriginal Malays along with other groups, namely Semelai, Orang Kuala, Orang Seletar, Jakun and Orang Kanaq. In physical appearance, the Temuan looks close to Malay, and the languages have remained an archaic variant of the Malay language (Endicott 2016). The Aboriginal Malays live about 40% close to forested areas, while the Orang Laut, Mah Meri and Orang Seletar live by the coast (Endicott 2016).

Based on the tabulation by JAKOA in the year 2018, 178,197 Orang Asli are living in the *Rancangan Penempatan Semula (RPS)*, as this figure does not include the Kampung Tambahan (JAKOA 2018). The figure given by Nicholas (2000) showed that there are about 215,000 Orang Asli, 0.7% of the population in Peninsular Malaysia. Hence this figure should rise significantly since then. The JAKOA does not recognize *Kampung Tambahan (Splinter villages)* as they are not part of the government resettlement programme. These villages are then side lined for development as the government urges the community to move to the resettled areas (Nicholas 2004; Zawawi 2000, 2021a, & 2021b). However, many RPS villages have yet to receive basic amenities even after moving in for many years (Zawawi 2000). In addition, villagers who resettled in the new RPS village have problems with land quality and ownership, causing further uncertainty in their lives. As they are unable to work, some

scholars even reported women resorting to prostitution and the outmarriage to Chinese businessmen to ensure job opportunities and increased quality of life (Wazir 2015; Zawawi 2000). Zawawi (2021a) succinctly summarizes, "The RPS centres represented the final nail in the coffin of postcolonial Orang Asli deterritorialization on the part of the developmentalist state, eliminating for good any potential for indigenous sustainable development among Orang Asli on their own land and on their own terms" (16). Such a situation questions if the Orang Asli are subalternized in the process of dispossession from their land (Nah 2003, 2006 & 2008; Zawawi 1996).

Zawawi (2021a) contends that the socioeconomic condition of the Orang Asli has not improved in the past decades, and some indicators have even shown it getting from bad to worse. He argues that the implementation of NEP had disfavoured Orang Asli as a 'secondary' Bumiputera, a status relegating Orang Asli behind Orang Asal in Sabah & Sarawak after the Malay dominant population. He continues, half of the Orang Asli population live below the poverty line, and one-third are classified as 'hardcore poor'. Looking at other indicators, he points these unmet needs "to a picture of deep-rooted and systemic marginalisation" (Zawawi 2021a, 12) as basic infrastructure in the villages were lacking, high infant mortality rates, low life expectancy, low access to water and electricity and depressing school attendance (Wong 2022).

1.4.2 Rubber vs Durian Plantation

Many scholars have reported the Orang Asli's resilience and their trade economy (Gomes 2004; Lye 2005a & 2013; Nicholas 2004; Toshihiro 2009). Scott (1998 & 2011) even argued that some indigenous peoples have intentionally remained in the hills to be autonomous and to flee state governance. In relation to this, Dove (2011), in his study in Kalimantan, argued

that smallholders divide their labour into a dual household economy; market-oriented and subsistence needs. These two kinds of labour are not interchangeable, and he attests it as a form of resilience against the parastatal estates.³ The smallholders form a low-*density* population and farm extensively instead of intensively. The parastatal estate asserts being the dominant knowledge production for several reasons. Firstly, it is to assert their position in society. As opposed to being perceived as the colonizer, the colonizer positions themselves as the discoverer so that they can legitimize or make sense of their existence in maintaining power in the territories. Dove (2011) stated that the indigenous peoples had purportedly removed themselves from seeking a 'treasure trove' in order not to put themselves in positions of danger. This is rooted in their culture and beliefs. For example, compared to uninvite Dutch interests' dangers onto their lands. The idea that the colonized are unable to make informed decisions and/or utilize the resources effectively is rooted in the interest of the colonizers, which the smallholders had in turn relied on to keep themselves from harm.

Secondly, Dove (2011) asserts that the conversion on land development is to assist smallholders into a centralized and uniform conversion of land management. However, these "centralized" efforts are merely a facade for parastatal estates to maintain and control the smallholders' market share. In 2004, the smallholders held 84% of the market share in Indonesia. In reality, the smallholders are in direct competition with the estates and have a higher advantage. Therefore, centralizing the smallholders through bank loans and housing units entraps shareholders into debt that they are unable to pay off, seeing that most of the projects have failed. However, the states benefit by moving tax money through

³ Dove (2011,5) explains that parastatal estates can belong to either government or semiprivate plantation corporations.

implementing big projects state-wide.

Thirdly, parastatal estates do not officially recognize that the smallholders' cultivation methods were more effective than the state by being the dominant knowledge producer. Smallholders allowed secondary growth, which prevents erosion and promotes salubrious ecology for the rubber trees, as opposed to clearing the land and investing in herbicides that promote diseases on the trees. Parastatal estates accused the smallholders of stealing and exploiting the trees to maintain their relevance in the state. In Malaysia, fruit gardens are traditionally tended for subsistence. However, reports show that Orang Asli started planting fruit trees circa 1930 for a cash economy (Wong 2018). Gomes (2004) detailed significant data on a Semai community, which parallels Dove's (2011) findings.

1.4.3 Durian as More than Commodity Crop

However, durian trees, unlike rubber trees, have a spiritual and meaningful connotation to the indigenous community (Doolittle 2001; Dove 2011; Peluso 1996; Peluso & Lund 2011; Peluso & Vandergeest 2001). The Orang Asli does not regard rubber trees the same as durians as rubber trees are merely cash trees (Gomes 2004). While rubber trees' life cycle encompasses about 30 years, fruit trees and in particular, durian trees, can live up to more than a hundred years, bearing nostalgia, genealogical belonging, and kinship traditions in the passage of time by witnessing the entering and passing of a family's up to seven generations (Peluso 1996). To prove that point, Dove (2011) highlighted the relationships of indigenous peoples in navigating between subsistence economy and global economy for two millennia and expanded the discourse of recent commodity crops to include rubber trees. While rubber tree plantations promote privatization and subsequently individualization of property, durian trees stand as a community landmark that gears towards communal property. Li (2014) had also cautioned how the mass introduction of commercial plantations such as coconut trees alienated communities from their own land and drove them further into poverty.

Fruit trees can be a substantive angle to look at as a point of reference in studying Temuan sociocultural dynamics, as they have been planting durian trees since time immemorial (Peluso 1996). Padoch & Peters (1993) had claimed that the existence of durian trees shows correlation of human settlements in the forest. Heikkilä's (2014) study on Semai toponyms to refer to 'heritage durian' (*sempaaq sakaaq*) as trees that delineate the land that were initiated by individuals or families. The expansive lifespan of a durian tree that spans across multitudes of intergenerational kinships positions durian trees as the best candidate to use as a territorial marker in a non-literate community (Heikkilä 2014; Peluso 1996). As such, durian trees are anthropomorphized by given names, meaning, and hold a sense of belonging to the community as they share a common ancestor that they have inherited the durian trees from (Doolittle 2001; Heikkilä 2014; Peluso 1996). While the ethic of access has been extensively discussed in Kalimantan, and Doolittle (2001) had investigated Sabah, however, no literature was found in the context of Orang Asli in peninsular Malaysia.

1.4.4 Durian and the International Market

China's new interest in durian and the increasing demand for Musang King as a brand variety has motivated palm oil plantations to convert their crops into durian to satisfy the 1.4 billion strong citizen market (Aebischer 2019; Khoo & Wong 2021). In 2016, the Musang King variety is priced up to US\$22/kg and is reportedly able to fetch nine times the return of palm oil plantations (Aebischer 2019). The motivation for conversion to durian plantation can be problematic when considering the scale of traditional intergenerational orchards that

operate on less than 10 acres as compared to the large-scale plantations that intend to operate by the thousands of acres (Khoo & Wong 2021). In a bid to maximize production, large-scale plantations are expected to use higher amounts of chemical fertilizers, herbicides, pesticides, as well as unsustainable amounts of water to support the needs of durian trees (Khoo & Wong 2021). This might potentially emit a threat to the longevity, sustainability, and health of the coexistence between human and non-human entities in the microclimate changes of the area (Linking Wild Foods 2030, 2021).

1.4.5 Formalizing Knowledge; Oral Narrative vs History and Local vs Global Moving on, as highlighted by Smith (2012), indigenous communities inscribe their knowledge through the retelling of oral history involving stories, cultural artefacts, and names that they carry through genealogy. "The idea of contested stories and multiple discourses about the past, by different communities, is closely linked to the politics of everyday contemporary indigenous life (Smith 2012, 34). In the words of a villager, *Pak Po'on* from Bagak Sahwa, "Selling your durian trees is like selling your own grandfather" (Peluso 1996, 538). However, these systems of knowledge are "reclassified as oral traditions rather than histories" (Smith 2012, 34). With the diminishing voice that the Orang Asli are experiencing, one can only question if the Orang Asli communities are becoming subalternized (Zawawi 1996) with the durian economy threatening not only their livelihood, but their identity through a social constructivist lens.

While Li (2014) & Doolittle (2001) had cautioned to refrain from romanticizing the role of indigenous peoples towards their environment and the role of indigenous people's stewardship of the forest, mass conversion of commodified land may pose a threat in the loss of aspiration, desire and hope for the communities' future sustenance, as they will ultimately be displaced from their land along with other non-human entities. However, as Matthews (2020) had recapitulated, "visions of catastrophe and apocalypse, extinction, the decline of modern narratives of development and improvement, and an abandonment of the vision of autonomous and bounded humans" might reconceptualize these ideas in framing indigenous knowledge as warnings from the past (69). This highlights the importance to reach out beyond human exceptionalism and deconstruct the notion of humans as the centre of the universe, acknowledging that the natural resources are exhaustible as we have seen with the advent of the anthropocene and the elevation of non-human entities as equals or more than humans (Braidotti 2013). Increasingly, post-humanist scholars call on the need for interdisciplinary studies and the need to include non-human entities in the dialectic discourse about transcendentalism of mortality and sustenance of life (Braidotti 2013; Haraway 2007; Tsing 2021). Scholars are also urging to look beyond notions of capitalist nationalism and the reimagining of socio-landscapes of addressing climate crisis induced by the anthropocene via planetary modernism (Friedman 2015). This reframes an old anthropological question of the 'problem of scale' in using rich ethnographic accounts, but are heavily localized and local-centric, finding itself situated precariously in the globalized world (Orr et al. 2015) to a more connected one through addressing "the gap between global and local" using critical collaborative ethnography (Crate 2011, 186).

1.5 Research Methodology

This research employs an abductive approach which utilizes primary data collection from ethnography as the principal methodology. Secondary literature reviews are also conducted specifically on the bat pollination section to support the traditional practices of agroforestry. Some tools employed include semi-structured interviews, focus group discussions (FGDs), Participatory Rural Appraisal (PRAs), open-ended interviews, and participant observations. The research design is longitudinal research, and its analysis informed by the fieldwork period of March 2021 to September 2022. In the beginning, several visitations were done to scout KOAG and to meet some key persons in the village. This was done with the help of a guide whose organization is working with some of the villagers. At the time, the batin (village head and spiritual leader) had recently passed. Ensuingly, a formal meeting was set up with the Chairman (Pengerusi) along with the village committee to explain the intention of the research, as well as to obtain permission to conduct the research. This was done after receiving the approval from the University's research ethics and JAKOA. Additionally, the UNDRIP's Free, Prior and Informed Consent (FPIC) guidelines have been observed to reinforce the university's research ethics when working with the indigenous community. FPIC supports the 'how' by explaining the processes and approaches contextualized for the indigenous communities, to ensure that there were no elements of coercion, to work with the community on how their data are being used and maintain inclusivity (UNDRIP 2016).

In the beginning, semi-structured interviews were conducted to get to know the villagers better and as opportunity to conduct snowball sampling. From this, 13 villagers participated, consisting of 6 male and 7 female informants, with each interview ranging from 40 to 90 minutes (see table 1) I conducted multiple in-depth interviews with key respondents who had more to share. In between these sessions, 4 FGDs were conducted (see table 2 below), followed by 5 PRA approaches. As expected from the FGDs, several members dominated the conversations. Hence, PRAs were utilized by asking participants to map their family trees and draw KOAG community maps to include elders, female members, and youth participation as well as answering research questions 2 and 3. The PRAs were useful to bridge

communication as most participants could not read and write. The process allows me to ask questions arising from these spaces' significance and how they are being utilized. Importantly, this will enable me to answer questions pertaining to inheritance and property relations within the community.

Method Employed	Number of Participants	Gender (Male / Female)		Age Groups (Youth, 15-40 / Senior, 60 and above)	
		Male	Female	Youth	Senior
Semi-structured Interview	13	6	7	10	3

Table 1. Semi-structured interview participant demography
(Author's Fieldwork 2022).

Focus Group Discussions	Participatory Rural Appraisals	Method Employed	Number of Participants	Gender (Male / Female)		Age Groups (Youth, 15-40 / Senior, 60 and above)	
(FGDs)	(PRA)			Male	Female	Youth	Senior
FGD 1	PRA 1	Community Maps	8	3	5	6	2
FGD 2	PRA 2	<i>Dusun</i> Mapping	3	1	2	2	1
	PRA 3	<i>Dusun</i> Mapping	6	1	5	4	2
FGD 3	PRA 4	Family Tree	10	3	7	9	1
FGD 4	PRA 5	Family Tree	7	3	4	6	1

Table 2. FGDs and PRAs participant demography (Author's Fieldwork 2022).

Participant observation, followed by some open-ended interviews were also conducted during fieldwork in KOAG to gain insights on the micropolitics within the community. With that being said, the COVID-19 pandemic, coupled with the Movement Control Order (MCO) enforced by the government, restricted the ability to initiate longperiod stays due to safety concerns for both the villagers and the researcher. Consequently, over 16 journeys of 4-hour return drives were made to the villages over the fieldwork period and phone call follow-ups. Each visit is set approximately from 7.30am or 10.00am to 10.30pm or 12.30am. In those trips, several high-ranking members of the village committee individuals, durian tree cultivators and caretakers were shadowed, as the primary informants of this research are KOAG villagers. Unfortunately, a crucial event related to the durian celebration named *julung buah* could not be observed due to the MCO lockdown. The scope of the study is limited to KOAG in Selangor but also informed by interviews with the surrounding villages that speak the Temuan Belandas dialect. KOAG consists predominantly of the Temuan group, which falls under the proto-Malay group category and has a population of 280 people (JAKOA 2018).⁴ Even so, other Orang Asli groups were also influential in shaping the discourse of anthropogenic forests and land management. Those interviewed were 3 Orang Asli community organizers from Pahang and Perak, 2 Jakun informants from Chini and Rompin area, 1 Temuan informant from Johor, 2 Semai informants in Perak villages, and the Temiars in Gua Musang, Kelantan. Elders from the nearby villages who initially stayed at the kampung lama (old village) were also consulted. Under the FRGS grant, a 7-day trip to Gua Musang, Kelantan was conducted with lead researcher Dr Rusaslina Idrus to learn about the Temiar's (an Orang Asli sub-group) conflict with durian plantations. Precaution was taken to prevent the danger of oversimplifying and homogenizing Orang Asli practices and beliefs.

At the same time, I also interviewed Orang Asli stakeholders, including NGO leaders, Temuan durian consumers, and durio tourists on the supply chain. I attended five Orang Asli and duriotourism events and three of these events were attended as part of the

⁴ Updated Date: 23rd August 2021 (JAKOA 2018).

Anak Bumi's team, except when observing the submission of Memorandum objecting to constructing the Nenggiri hydroelectric dam by the Temiar in Putrajaya. This includes a guided walk with the Temuan, 2 indigenous food-hosting events with a social enterprise, and a book launching event with a publication company focusing on Orang Asli issues as a volunteer. Finally, secondary sources such as existing ethnographic studies of the Temuan people and journal articles on the scientific literature about pollinators were consulted. Data collected from the field is validated by triangulating with several informants unless mentioned otherwise. All names have been changed to protect their privacy, except for Mor Ajani (2022), who had requested to be credited for his story. However, it is imperative to note that Mor Ajani is from a different village than I have interviewed, so it would not give away the name of the communities I have been working with.

KOAG is chosen as a case study because the village currently exemplifies several themes; a problem with gaining recognition of "wild" durians in the commercial market, navigating resilience within the realm of durian trade, raising the potential of durians into a gastronomical experience, the enterprising of indigenous knowledge in durian agroforestry and the existing contestations of land grabbing by durian plantations. While the theory of access has been done widely in Borneo and specifically in Kalimantan, there have yet to be contextualized research in Western Malaysia. Other researchers that studied property relations among indigenous communities, including Dove (2011) and Li (2007a, 2007b & 2014), had similarly conducted their research in parts of Indonesia and Borneo. Similarly, there has yet to be a study done on the polyphonic assemblage of Temuan's *derian* network, as most scholars focuses on the economic aspect of *derians* (Gomes 2004; Toshihiro 2009). For this reason, there is a missing link in the literature about the extent of how these concepts work in West Malaysia. As a case study, the research provides insights where the

communities balance out the need of individualization versus communal interests using durian as a mediator. The study may also help to formalize and pay heed to indigenous knowledge for their contribution and relevance to the modern economy as well as the Malaysian cultural heritage. Finally, the study may provide researchers a better understanding of Orang Asli's innovations against challenges around the durian trade.

1.6 Organization of the Thesis

The polyphonic assemblage of Temuan *Derian* worlding (figure 1.0) is charted from the fieldwork's findings. From this, four key elements have been identified, namely *adat*, non-human actants, property relations and duriotourism. As indicative of a rhizomatic framework, this dissertation consists of five chapters that will reflect the interconnectivity of these elements through non-linear assemblages. Chapter 1 introduces the background of this research, along with the literature review, theoretical frame, significance of the research, and methods. The chapter clarifies the purpose and central concern of this study. Its scope is to map out the boundaries of its discourse and coverage. A theoretical framework is introduced, which informs the methodology. A general literature review is also introduced to contextualize the discourse of the resulting chapters.

Chapter 2 introduces the intrinsic meaning of *derian bukit* (mountain durians in Temuan) to the community. From this chapter onwards, *derian* and durian are used interchangeably based on the context of arguments. As will be presented in the dissertation, the Temuan engage a different meaning for *derian* than durians cultivated in mono plantations. Subsequently, the principles of Temuan agroforestry are introduced. This is to explain why Temuan ontology is required for discussion before discussing Temuan

agroforestry, as the three main principles of its cultivation and harvest are encapsulated through the 'art of conversation' (Lyons 2020). Accordingly, the discourse follows through a journey of the Temuan genesis, some concepts of Temuan cosmology and ends with the death and burial ritual, connecting soil as the foundation of Temuan agroforestry. As per the completion, research questions one and two will be addressed by exploring the notions of *adat* from these concepts.

These discussions inform chapter 3 on the role of Temuan and Orang Asli interventions in the anthropogenic forest by using soil as the foundation to bridge the Temuan ontology towards their agroforestry practices. Using secondary literature and primary interviews, this section discusses the human and non-human aspects of interventions that subsequently affect each other. I then explain some of the results from the fieldwork to inform the different methods that the Temuan incorporated in the work of care towards their *derian* trees. Some aspects of operating expenditures and challenges will also be examined. Correspondingly, a brief intervention by the Sino-Temuan entrepreneurs charted new landscapes in the way Temuan *derian* business is being conducted through mixed marriages. This chapter ends with some afterwords on the future of *derian* examining the trajectory of Temuan in perceiving their *adat*, spirituality and different forms of livelihood. Its outcomes demonstrate research questions one, two, and some aspects of the third research question.

Chapter 4 expands some critical arguments on the different kinds of strategies prescribed by the villagers to demonstrate the navigation between community, customary laws, and state legislative mechanisms. A secondary literature review on Orang Asli communal land rights and the Permanent Forest Reserve is deployed to frame the background of said arguments. This chapter reinforces the argument that the deterioration of *adat* has become a new strain in the construction of polyphonic assemblage by influencing

the Temuan autonomy while empowering some Temuan actants on property relations. Modes of inheritances are also discussed on how *derian* trees become commoditized over younger generations through differing aspirations. At its completion, the second, third, fourth, and fifth research questions are addressed. The fifth chapter investigates the KOAG network agents and how the Temuan had used durian as a mediator to leverage on external forces to fill in the gap that the state could not provide. The Temuan's durian collaboration with Anak Bumi influences the gaze of information consumers, resulting durians becoming advocators of its own rights. Through this chapter, research question five is, at last, addressed, in addition to informing research question two. Finally, the last conclusion presents a summary of the preceding chapters, states the enquiry implications, recaps the realization of all two research objectives, the shortcomings of this study, recommendations for further study, the contributions of this study and an overall conclusion.

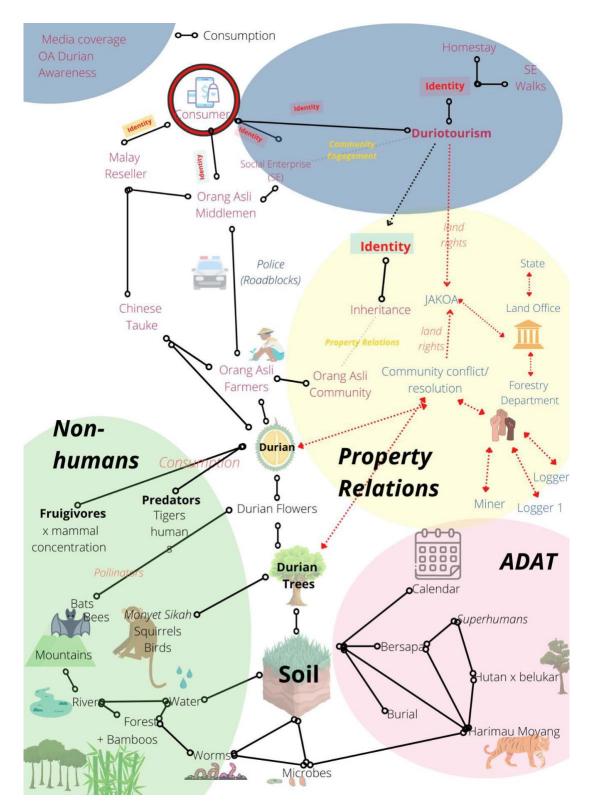


Figure 1. The Polyphonic Assemblage of Temuan Derian Agroforestry

(Author's Fieldwork 2022).

II TEMUAN ONTOLOGY: THE ART OF BERSAPA

Introduction

This chapter explores the complexities of human and nonhuman relationships through *derian* worlding. Through understanding Temuan ontology and their agroforestry practices, *derians* become more than commodities, transforming into objects of material culture that carry a sense of belonging, intergenerational memories, and identity. By diving into the practices, *adat*, and rituals of Temuan cosmologies, *derians* become a lens to understand the principles of Temuan agroforestry. Using Tsing's (2021) polyphonic assemblage, I aim to dispel the notion of Temuan as mere users of fruit forests and reveal the human and nonhuman actants' interventions in managing fruit forests. This chapter examines the nonhuman and other human interventions on a collective scale that make up the *derian* assemblage. The superhuman interventions are also considered in the Temuan ontology, reinforcing their respect towards nature. These elements that consist of humans, nonhuman and more-thanhuman entities create the polyphonic durian assemblage.

Derian bukit (mountain durians in Temuan) occupy a special meaning for the community. The *derians* connotate memory-making, intergenerational inheritance, spatial identification, and property identification. A meaningful component is that *dusun* can be a strong connection to their past, serving as a remembrance of their ancestor's legacy, labour, and inter-generational experiences.² Durian cultivator Mamak Rayan shares, *"We plant (the derians) so that in the future, our children will not steal or beg. If the trees are fruiting, we can 'taste' (the derian) together and enjoy a little (Author's Fieldnotes 2021).*

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Derian trees function as banks and may provide 'yearly bonuses' (Toshihiro 2008). Cultivators plant new trees annually to invest in their children's future (Gomes 2004; Toshihiro 2008; Wong 2018). Derian fruit sale contributes to children's education and emergency funds, and open new opportunities to access new types of job opportunities, including entrepreneurism. Derian agroforestry has the power to make communities economically self-sufficient, as opposed to plantation methods with its intensive labour, chemical, and fertilizer expenditures, forcing smallholder farmers to begin taking up loans that they could not pay off (Doolittle 2001; Dove 2011; Li 2007 & 2014; Peluso 1996 & 2010). These loans entrap smallholders into a cycle of poverty and robs them of their sovereignty as autonomous peoples.

As *derian* trees are the only fruit trees that could live and produce up to a hundred years in the rainforest, *derian bukit* is part of an heirloom or a legacy left by the Orang Asli ancestors for their generational sustenance. *Derian* trees stand at the exact location to witness the growth, decline and passing of accumulative generational memories, preserved on topography, and expressed through fruit production. The taste, aroma, and sight of distinct *derians* from specific trees added with a gathering of families at the *dusun*, evokes a sense of belonging to their land, their home, and their roots.

In this chapter, I examine the nonhuman and human interventions in creating the fruit forests. This chapter begins by examining the Temuan agroforestry principles that tie the multispecies entanglements through the art of communicating with the forests. In relation to this, I analyze the Temuan Genesis story that spurs the concept of soil as the foundation of Temuan agroforestry. Following this, I identify and dissect the conceptual framework of the Temuan cosmology to examine the Temuan agroforestry. Soil, nature forces, *adat, Raya Buah,* *Moyang Harimau,* and burial rituals are some of the conceptual tools used to understand the Temuan *derian* networks. Finally, I present the vital role of bat pollinators as an extension of human interventions in the anthropogenic fruit forest.

2.1 The Principles of Temuan Agroforestry

Temuan cultivators adopt the ancestor's knowledge of the forest through the art of conversation by systematically observing the environment through lived experiences and sets of social rules termed adat. Through rigorous observations, inherited knowledge and creative innovations by trial and error, such endeavour is the Temuan methodologies in seeking to mimic forests in their approach to managing patches of inherited dusun. The cultivators do not presume that they are experts or 'trained' in managing patches of *derian* orchards. Instead, the art of cultivation lies in the act of *communicating* with the forests, of listening and observing forests and its superhuman actants, not unlike the rural farmers in Colombia in conversation with nature (Lyons 2020). In interviewing Heraldo, a Colombian activist and scientist, describe the rural farmers as conversador con la naturaleza which means "someone in conversation or a conversationalist with nature" (Lyons 2020, 157). When entering the forest, one must bersapa (communicate) and to make their presence known by bridging connection to the territorial space. For example, asking permission to the superhumans by bringing water from the river to their face when crossing the river, and requesting their ancestors for protection when entering the forest spaces. The act of expressing their intention to enter the forests, 'memberi niat' before stepping into hutan (forest), acknowledges the presence of supernatural actants in the forests. By accepting such existences, Temuan concede that humans alone have no monopoly to alter landscapes. Temuan may manipulate the landscapes if they receive permission from the superhumans or *saka* (spirit familliars) to use the land through rituals, via *bomoh*, a spiritual medium who can communicate with the situated superhumans within identified landscapes.⁵ Even so, manipulation of the land must be done in a controlled, systemic manner through swiddening (Ellen 2012).

In addition to the recognition of more-than humans, Loyd (2020) had provided an argument that these observations of nature, or *lecturaleza* "is not simply a process of trial and error, but a process that emerges from the necessity to solve concrete problems and ask questions that are relevant to daily life on the farm and one's territory" (92). Parallel to the Temuan, the cultivators negotiate and resolve problems based on needs and questions of sustainability. The Temuan claim that they are merely doing what their forefathers had taught them and seek to explain that these methods were practical ways of managing their orchards. Arguably, these 'practical sensibilities' were based on affordability or lack of knowledge in effectively understanding how to use modern fertilizers. I prefer the argument that the Temuan experiences is based on a multispecies framework that removes humans from the modernist systems of contorting the environment to fit the human chosen species needs (Scott 2011). In academic discourse, the indigenous Temuan knowledge decenters humans from the humanist framework towards a posthumanist approach in their ontological perception of lived experiences, including their relationship with the non-human other.

In her book *Vibrant Matter*, Jane Bennett (2009) introduces the concept of vital materialities to give more agency to the "non-human forces as the efficacy of agency depends

⁵ Spirit familliars are superhuman entities.

on the collaboration, cooperation or interactive interference on many bodies and forces" (21). Vital materiality argues for a wider distributive agency between humans and non-human others in attributing the trajectory of its impact. Soil, derian, water, landscapes, humans, and other life-matters are entanglements in the production of Temuan durian agroforestry. For the composition of the forest consist of these materialities and the Temuan agroforestry is dependent on the forest. These actants flattens the perceived ontological importance historicized from the Great Chain of Being, to a network of actants with shared agencies. Assemblages are not directed by a unified lead, as "no one materiality or type of material has sufficient competence to determine consistently the trajectory or impact of the group" (Bennett 2009, 24). Polyphonic assemblages add to this discourse through the 'gathering' of multiple temporal spaces, as Tsing calls it rhythmic patterns resulting from 'world-making projects', human and not human (Tsing 2021, 24). As plantation attempts to coordinate durian harvest by chemical fertilizers, pest control, and supplements, the durian harvest from the ancestral derian saka is coordinated by the unpredictable health of the soil and its relation to human-superhuman relationships. When we add the political notion of clock-time into the equation, durian plantations transform living durian trees into product manufacturers, churning fruit products multiple times in a year instead of a seasonal harvest. Meanwhile, derian saka depend on the rhythmic temporality of nature, in which the fruit flower blooms according to season, pollinators, spirit familiar-human relationships and the gathering of other life pathways.⁶ These different conceptions of being pave multiple worldmaking assemblages, as it forces us to include the questions of political economy. Polyphonic

⁶ Spirit familiars are spirit guides. While Benjamin (2014) and Roseman (1993) have written about the Temiar's religion and Dentan (1968) on the Semai extensively, their complex definitions, such as the *ruwaay* and *hala'* should not be conflated with the Temuan. Although there are many similarities, the pattern from this limited research potentially suggests *genui* as a unique concept. Unfortunately, such explorations are beyond the limitations of this research.

assemblages merge these 'gathering of multiple temporal spaces' to observe the string of actants that collide, collaborate, or are indifferent to these relations.

In this section, I aim to provide due recognition to a form of knowledge that has been characterized and prescribed throughout the lived experiences of the Temuan peoples I interviewed. Unfortunately, the knowledge and experiences of many indigenous communities have been downplayed in colonial accounts and perpetuated by neo-colonialist actants in favour of contesting access to resources (Nicholas 2000; Tuhiwai 1999). Hence, regardless of the scientific contestation of Temuan indigenous knowledge on agroforestry, my purpose in the following section is to analyze Temuan and, to a certain extent, Orang Asli ontological understandings of how they situate meaning to agroforestry, by using *derians* as a worldview. The ontological framework will be using the three principles listed below:

- The belief in upholding the integrity of the soil and forest cover when nurturing fruit trees including *derians*.
- 2. The *adat* aspect of Temuan principles that guides their behaviour in relation to the forest.
- The more-than-human components defined spatially and ecologically in the context of their situated landscapes.

As will be explored in the concepts below, it is important to note that the stories, ideas, and interpretations vary from one community to another, even among the same ethnic group. On top of that, these interpretations may vary even from one individual to another. As I have explained, the main principles are guided by the knowledge derived from their environment, unique to their ecological niches, as in all Orang Asli communities. Therefore, the analysis below is circumscribed and limited to the individuals and communities that I have interviewed and is not meant to be an exhaustive interpretation of the Temuan cosmology.

2.2 Temuan Genesis

There was only soil.⁷ God started dispersing fruit trees from heaven onto the soil. The Orang Bongsu, the wise men, the original Orang Asli started nangkal (jampi), Creating the landscape of the earth. God then attempted to create man from wood but failed, and then he/they created humans from earth. Thus, the first humans, a female and male pair, is born. Their children interbred with each other, so on and so on until humankind is created.⁸

"That is what the old people used to say", as Nenek Bagus's eyes brimmed. "*Cerita orang dulu-dulu*". When I recounted this story to some of the younger villagers, they dismissed it as "*Cerita Dongeng*". Others regard it with a pinch of salt and some with appreciation and respect. Nevertheless, I believe the Temuan genesis story is worth telling. The word '*tanah*'

⁷ The original word for "soil" is "*tanah*", which could mean several things, including "land, soil, dirt." However, after listening to the story and understanding the context, I interpret it as "soil."

⁸ (Author's Fieldwork Interview 2022).

in Temuan and Malay have several implications: land, soil, or roots. In this context, my interpretation of *tanah* insinuates all the above. Creation begins in the soil and is rooted in the land that holds the soil. Soil binds fruit trees and humans through the mediation of *Orang Bongsu*, the superhumans appointed by God. The landscape form into long ridges, shifting the river and seas into being. Landscape tamped by soil provides the ground for fruit trees to live, and the fruits to return the nourishment into the soil. The fruit trees matured into the first foods humans could sustain and cultivate. Soil becomes the essence of creation, while fruit trees *become* the vehicle of the soil that feeds humanity. *Orang Bongsu*, the original Orang Asli, became weakened by the corruption of the mind and actions, and were eventually debilitated by greed, jealousy, gluttony, and anger, with every generation losing their power. The following section expands soil as a material intermediary of Temuan ontology through the lens of *derian* worlding.

2.3 Temuan Cosmology

The Temuan have a deep respect for *tanah hitam* (black soil) or *tanah hutan* (forest soil), the forest topsoil, which is the most fertile component of the soil. Temuan cultivators repeatedly mentioned that they disagree with the conventional methods of tilling the soil during any process of *derian* cultivation. In other words, to "*jangan terbalikkan tanah*" or to refrain from introducing any mechanical disturbances to the soil is one of their approaches to nurturing forest fruit trees (Author's Fieldnotes 2022). This common belief is said to prevent muddling the topsoil with the lower parts of the earth, including *tanah merah* (red soil) and other layers such as gravel and sand, irrevocably destroying the sanctity and integrity of the topsoil. In essence, *tanah hitam* contains lush microorganismic activity and locates the foundation of Temuan agroforestry ontology. *Tanah hitam* becomes the breeding ground of decay and

regeneration, the symbiosis and mutualistic cycle of life and death in the mirror of physical bodies and the supernatural realm. Mediated through the fruit season ritual, julung buah, the performative action of managing the fruit orchards is one of the Temuan's way of communicating with the forests, which extends their spirituality to their creator, tuhan. Through julung buah, Temuan bersapa or in the Malay words of "to communicate", berkomunikasi with the superhumans in abetting the microscopical entanglement of microorganism worlding; in bacteria, fungi, protists, and archaea. It is believed that the soil or tanah hutan possesses life, and the superhumans can orchestrate vitality to the soil (*membadankan*).⁵ The superhumans respond through nature when the community is in line with good behaviour and has not committed transgression to the adat. Similarly, transgression of the *adat* results in natural disasters, and may even affect the productivity of fruit trees. Good behaviour includes the prohibition of fighting among each other, especially within family groups and manifesting greed. Similar cosmological rules are observed in other Orang Asli groups, including the Temiars through *adat* menhaa, and the Semai through *kempunan* (Benjamin 2014; Gomes 2004; Toshihiro 2008).

In the cosmological order of balance through the mediation of malevolence, the superhumans reward or punish the community through multiple perimeters, including determining the fruit season's outcome along with natural disasters and the community's experiences when walking in the forest. Through the act of endowing vitality to the soil by the superhumans, microorganisms in the soil provide a home and medium that is sound and conducive to the development of the *derian* trees and its ecology, that thrives from the various actants through multiple temporal and spatial scale, bridging the cycle between humans, superhumans, and non-human entities.

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2.3.1 Soil

When high modernism (Scott 1998) actants clear out the land, they create a phenomenon of massive, widespread 'tilling' or disturbances to the ground. In the process, they have killed an entire network of interdependent living and non-living entities above and below the soil. When the tilled soil is exposed to direct sun and wind, the soil dries out, hardens, and becomes lifeless (Mollison 1988; Scott 2004). Hence, in a condition of barren land, industrialists are required to 'revitalize' the land by treating the soil before they could replant fruit trees by introducing artificial 'essentials' and restoring conditions on what used to thrive in a natural ecology. The question here is an ontological one. High-speed modernism (Scott 2004) chooses to destroy and subalternize other non- human species irrelevant to their effort of maximizing the cultivation of industrialists' chosen species. The Temuan way of indigenous agroforestry chooses to be part of the existing multiplex ecology that learns to live with folds of multiple species entanglement. This is due to the belief that the forest belongs to the nonhuman others.

In Western agriculture, mainly based on moderate climate, much of Western agriscience does not apply to the tropics because of the different climates. Kathirithamby-Wells (2005) cited early colonial officers like James Low, who wrote that "the sterile soil' in Malaya was fundamentally unsuited for mono cultivation of cash crops and was more amenable to planting a mix of tropical fruits and vegetables" (40). However, tilling in preparation for seeding is still widely practised in modern agriculture across the country. The Temuan disagree with this practice as the tilling process breaks down the soil's ground cover, usually in vegetation (weeds or grass) that holds the soil together, enabling erosion and loss of topsoil, especially during the wet season. More importantly, the ground cover functions as water dams or retention property and prevents the sun from burning the ground, desertifying landscapes as the sun's rays obliterate the lush microorganism activity that would be unable to thrive in such prolonged extreme temperatures.⁹

Scott (2004) critiques high-speed modernists in their complete manipulation of landscapes, the need to tame the wilderness, and then starting an ecology that is separate from the wilderness yet dependent on humans and their chosen species. The paradox is that industrial farming imposes a man-made condition to tame its environment, destroying all other non-human entities that do not benefit humans directly and then proceeding to recreate an environment that allows its chosen species to thrive by introducing artificial essentials. The science in the need of tilling is to aerate the cleared, manipulated, hardened, lifeless land. *Tanah hutan*, in its vibrant, life-laden, time- immemorial nature-engineered design, houses countless life forms in its dense, organic, chaotic, seemingly unstructured structure (Deleuze & Guattari 1980).¹⁰

In the *hutan* or forest with many layers of rainforest trees, the *derian* tree (*durio zibethinus*) can grow up to the canopy layers ranging up to 120ft above the ground (Allen 1967, 94). The high layers of the forest create a condition where the rainforest floor is filled with dead leaves and branches. These decaying materials absorb and retain water, gradually releasing moisture and stabilising the soil moisture on the ground (Nat Tuivavalagi 2016). Ironically, such an environment of *decay* espouses the conditions for *living* as it becomes a hotbed of microorganismic activities. This intersection of death and life eternalizes the cycle of giving and receiving through the sanctity of soil, perpetuating balance, equity, and harmony. Hence, massive land clearing is shunned by the Temuan, as it conditions an environment solely befitting *death*, and provokes asymmetrical balance in the Temuan

⁹ See contrast between Figure 2 and Figure 3.

¹⁰ See contrast between industrial farming methods (figure 4) and Temuan durian agroforestry (figure 5).

cosmological order. Therefore, the Temuan remove trees selectively instead of the clean clearing approaches brought upon by industrialization.

Temuan agroforestry management work with the existing ecology. Like many other Orang Asli groups, their ontology and practices had shaped the anthropogenic forests for millennia, existing as part of its multispecies entanglements (Dove 2011). These practices frame the belief in balancing human needs with other than humans in the entanglement of forest worldings and life-worldmaking. Such belief systems actualize human existence as a component under the complexities of forest worldings and, at times, at the mercy of these entanglements (Tsing 2021). This lens highlights the importance of every existence, no matter how microscopic, as indispensable: take for example, earthworms' silent but invaluable role in aerating soil without other watchful beings. Kohn (2013) as quoted in Fisher (2018) argues that all beings can "represent, produce, and interpret signs... and subsequently grow and adapt to these sensory inputs" (1). Scientifically, through the gliding locomotion of earthworms, the movements simultaneously aerate, break down organic matter, and provide essential nutrients to the soil to stimulate micro-bacterial activity. Therefore, the Temuan rely upon and locate the abundant presence of earthworms as an indicator of forest health.

As death becomes organic matter, vitality is transferred to soil particles through decay. When various species succumb, trees, plants, fungi, animals, and insects decompose over polyphonic rhythms in multitudinal temporal and spatial scale. All soil consists of organic matter, but not all soil at each place and time is the same. Regeneration begins with the convergence of seeds and life-matter in the soil. Vitality is then shared through new ties of transformations (or becomings), affecting other life forms across different cycles and stages. The polyphonic assemblages of the Temuan *derian* agroforestry begin and end in soil.



Figure 2. A durian plantation site in Johor, Malaysia (Business Today 2022).



Figure 3. A *dusun* site in a Temuan Village, Selangor (Author's Fieldwork 2021).



Figure 4. A Musang King durian plantation in Gua Musang, Kelantan (Image taken by Wendi Sia, GERIMIS and used with permission).



Figure 5. A fruit patch and food garden blending seamlessly with forest landscape in a Temiar settlement, Gua Musang (Author's Fieldwork 2022).

2.3.2 Nature Forces

Ayah Sze-ler, a Temuan derian entrepreneur further explained that worms living on different parts of the trees form mutualistic ties with the fruit trees. These worms are akin to 'nutrient mules' as the worm *memberi vitamin* (attribute nutrients) to different parts of the fruit trees. Unlike monocultural plantations that regard worms that infest fruit trees as pests and eliminate them with chemical pesticides, the Temuan believe that the worms are critical in ensuring that the trees are provided with sufficient nutrients and thus, worms are encouraged to thrive in moderate numbers. Furthermore, the Temuan stated that they do not dare to consume *derians* that are void of the *derian* fruit borer, *Conogethes Punctigeralis*, as *derians* without worms are unnatural in the forests. Such *derians* (without any presence of worms) sold commercially suggest artificial chemical interventions and are seen as an unhealthy option. *Derian* batches greeted with presence of worms, Temuan farmers said that the worms would be able to 'taste' and detect better quality *derians* richer in flavour, and whether it is savoury, or sweeter. In one interview, an informant said that the worms would "not waste its limited time on spoiled *derians*" (Author's Fieldwork 2022).¹¹ Such principles of 'trust in nature' are the basis of the Temuan cosmology, applied by respecting the existence and roles of other living beings, and its postulated relations to other multispecies entanglements.

2.3.3 The *Adat* and Hulu Temuan Spirituality

"Mun-mun, budak digantung, masak digugur." Let the unripe one remain hanging on the tree, and the ripe one fall off. "Later on, why don't you go to the dusun too? Say mun-mun, budak digantung, masak digugur.. They will hear it, and the fruit will fall off," said Rani. She continues, "we need to pujuk (coax) them... they will hear it." Both Rani and mamak Slan chuckles and insist me to "go try communicating with them. It is like they will hear you." Rani looks up and imitates the sound of the wind: "Uwuuu-uuw." The balai is filled with laughter.¹² "If you feel warm (in the forest) and if even the leaves are no longer rustling, seru (call) the alam. She smiles gently at me, "Sila cuba berkomunikasi- lah" as she suggests to me to communicate with nature.¹³ "It is not a magic spell or anything.. ha... (they are) just like humans too. Say it gently". When it rains, Temuan say out the word kipas (fan) to invite the wind to come their way. Similarly, when it is too cold, Temuan communicates with the *alam*, requesting the sun to shine in the area (Cengkaum nak berjemur, sesumpah nak berjemur). In the forest, the Temuan have many approaches to communicate with *alam* as they perceive that "this is our way" (Author's Fieldwork interview 2022). For example, when Temuan is about to enter the *forest*, one must step on the ground seven times to physically communicate

¹¹ Interviews from the durian project showed that other durian farmers had also noted that durians with worms were proof of non-chemical or pesticide interventions.

¹² A *balai* is a communal space.

¹³ Temuan interviewees refers to me as "Sila" as they have difficulties to pronounce my name.

their intention to enter the corporeal and non-corporeal spaces, the *hutan*. Disregarding this *adat* before making one's way back to the village might leave behind part of one's soul and lead to sickness. The Temuan, like other Orang Asli groups, are guided by their respective *adat*, a set of customary traditions, conventions, rules, or etiquette in navigating their daily lives. In viewing this lens, Temuan lives are entangled with the non-corporeal others as they manoeuvre their daily activities, including their agroforestry tradition of managing the *dusun*.

The Temuan conception of *hutan* and *belukar* associates superhuman beings' dwellings and their age differences between the two spatial categories. *Hutan* (virgin forest) is an old, revered territory that houses ancient superhuman entities who guard these spaces. Although it is equally respected, *belukar* (secondary forest) is not as revered as the hutan, as it houses a lesser presence of more-than humans. The state of *hutan* is complex as opposed to *belukar* with its multitudinal relationships of corporeal and non-corporeal beings. Hence, *derian* trees in the *kebun saka* and *dusun located* deep in the *hutan* are venerated and capable of communicating through fruit production and the trees' health.¹⁴ When the Temuan shows appreciation and do not transgress the adat, the trees respond with producing fruits. This differs from the *derian* planted in the *kebun* (farms) for commercial purposes.¹⁵ Rani (2022) mentioned that grafted and clonal durian varieties do not respond in the same respect as these trees respond to chemical fertilizers and other artificial interferences, producing fruits to the human's will. From this perspective, the dichotomy of *dusun* and *kebun* is represented in the trees' ability to communicate; an interactive state of

¹⁴ *Kebun saka* is older than *dusun a*nd is usually inherited by one's *moyang* (ancestors). However, how far back a *dusun* can 'elevate' its status to a *kebun saka* is unclear. Usually, informants mention 'time immemorial' though my notes suggest at least 4 generations back.

¹⁵ *Kebun* is a small-scale commercial farm devoid of meaning other than for economic purposes. It is usually referred to rubber trees or palm oil farms ranging from 1.5 acres up to 3 acres.

consciousness between durian trees, durian fruits, spirit familiars, and the Temuan. Additionally, the fruiting of *durian kahwin* (grafted variety) is characterized by artificial interventions, while *derian saka* is subjected to the fruit season and its relation to the superhumans. One cannot *berkomunikasi* with *durian kahwin*. Temuan believes that humans can exert ownership on the *derian* trees but have no control over the outcome, acknowledging *derian saka* with agency. In general, the Temuan believes in two kinds of superhumans. The first is the ancestor spirits (*nenek genui*) believed to be mobile in the forests. The second are deities or spirits that dwell in situated landscapes, trees, or objects, guarding the area.

The *adat* links one's transgressions to disasters, sickness and even trouble with sustenance. For example, an anonymous Temuan commented that his family's heirloom trees had not borne fruits for three consecutive years since last we spoke. He attributes the non-fruiting phenomena to his sibling, who has been arguing about inheritance. Such behaviour transgresses the *adat*, which prohibits the development of greed, jealousy, and conflicts, leading to strains in familial relationships. Temuan actions and behaviours towards humans and non-human others affect their current or future predicaments. Therefore, *adat* develops a heightened sense of self-awareness among Temuan in navigating their conduct. Using the previous example of conflict, when *derian* trees do not produce fruits, the land becomes the teacher through the will of spirit ancestors. As industrial capitalists claim ownership over the land, in the Temuan ontology, the land controls them. This agency is attributed to the vital materiality of non- human others in their existence in the forest, including superhumans. In embracing this coexistence, Temuan acknowledge and pay respect to superhuman others through continuous communication (*bersapa*). Many Temuan in the village had shared that the younger generation have lost their sense of *jati diri*

(identity) because they could no longer perform their spirituality or be able to communicate with nature.

Even though the Temuan I interviewed do not think that they have a religion, they are, indeed, monotheistic and believe in an almighty god.¹⁶ The ancestor spirits are a gateway to communicate with *tuhan* (god) and contrary to common perceptions, Temuan do not worship objects and landscapes. The focus group participants express contempt for the word *memuja*, as it connotes the negative perception that they are object-worshipping peoples. *Memuja* is also associated with black magic, a form of interaction that comes at a cost in a form of sacrifice, *"Lebih kepada memanggil"* or to use these ways of communication for monetary gains (Author's Fieldwork 2022). The act of *menyembah*, or in their words, to *"berkomunikasi*" or "bersapa," is to communicate with the ancestor spirits as mediums to reach *tuhan*.¹⁷ As they belong to the non-corporeal world, the spirit familiars are presences that the Temuan feel need to be respected. These superhumans are sovereign beings with their own rights; good, evil, corruptible, and capable of harm if being taunted.

2.3.4 Raya Buah

Raya Buah, or *Julung buah*, is a Fruit Festival, held at the end of the fruit season, usually in September or October. The ritual ceremony is a remembrance of the ancestor's legacy that binds remnants of the past and present. In a nearby village, a Temuan observer mentioned thanking the *semangat pokok* for their willingness to bear fruits "*Bagih terima kasih kepada semangat pokok kerana sudi berbuah*" (Mor Ajani 2022).¹⁸ The ceremony fosters gratefulness for the season's harvest, and Temuan requests the ancestors to bless them with more

¹⁶ Renowned Geoffrey Benjamin have written extensively about Temiar religion. See (Benjamin 2014).

¹⁷ Ibid.

¹⁸ Whatsapp conversation.

harvests the following season. An aspect of the ritual is to pay respect to the ancestors for *membadankan* the trees. In my interpretation, *membadankan* imbues vitality to the trees and soil, overlapping the non-corporeal bodies of more-than-humans and the corporeal bodies of trees and soil: for the corporeal trees become the body of the non-corporeal superhumans, and vitality is preserved through the tree-soil relationship. Soil is the conjuncture between decay-regeneration and death-life, completing the perpetuity of the superhumans-trees-soil relationship.

Mula-mula, kita ambil satu ulas dari setiap buah yang ada dalam kebun, Derian lah, langsatlah, rambutan, dan sebagainya, Dan kita jemput moyang untuk makan, Kita berterima kasihlah kepada moyang untuk pemberian, Kita dapat rasa buah tahun ni, Lepastu kita minta harap-harap tahun depan akan lebih banyak lagi Lepastu kita pulak akan makan sama-sama, macam tu. ¹⁹

First, we take each piece of various fruits available in the orchards, Derians, langsats, rambutans, and so on, And then, we invite our ancestor spirits to dine, We thank our ancestors for their blessings, So that we may have a taste of the fruits this year, And then we ask that next year's harvest will be plentiful, And then, we (the community) will eat together, just like that.

Raya Buah is not uniquely Temuan as many Orang Asli communities celebrate this event, although differing in their presentation of the ceremony (see Tekoi 2020). Nonetheless, it is generally accepted that their interpretation of the ceremony of thanking the ancestors remains the same. "It is like, we have a celebration too... Just like the Malay people have *Eid*, we too have a celebration day... (it is called) The celebration of the fruits." In a focus group, to help me make sense, the participants had equated the heirloom *derians* to the Malay's traditional food, *rendang*. Some Temuans added that eating *derian* flesh is a delicacy,

¹⁹ (Author's Fieldwork Interview 2022).

especially when it is *berlemak* (creamy, full-bodied flavour) as opposed to many other fruits in the forest. The different flavours and nuances of the derian make a conversation point for friends and families, creating mutual connections across age gaps, familiarity, and shared interests.

Raya Buah allows moments of reciprocity to occur. For example, if one has the desire (*kempunan*) to consume derians and that desire is made known, the news receiver fulfils the other person's desire by offering *derians*. In the concept of reciprocity and exchange, when one receives a gift, they are subjected to repay the favour. These periods of "debt" and "reciprocation" create a continuum of social ties (Mauss 1990). Even though most families own their derian *saka* trees, they look forward to visiting other families and trying derians grown by other families. However, this is only done if the receiver reciprocates by inviting the giver back to the receiver's *dusun* or share the *derians* from the *dusun*. Hence, *Raya Buah* is an event that creates commensality and strong social ties.

During this ceremony, a *balai* (shrine) is built using bamboo as structure. The platform is elevated from the ground and is furnished with betel nuts and leaves, cigarettes, fruits from each tree type, and sometimes tea or coffee. Some would also offer cooked meals on the *anchak* or *sangga* (platform). Incense will be lighted, and spirit familiars and spirit ancestors will be called upon (*seru*). "*Nenek moyang genui antara tu la. Ha, kami cucu disini, begitu. Cakap lah, kita cakap*", as Temuan communicates with the superhuman others, conveying their thanks and hope for the future. The relationship between the Temuan and the superhumans are that of grandchild (*cucu*) and grandmother (*genui*), described as an amicable and respectful relationship.²⁰ With that being said, many of the informants shared

²⁰ Genui or Gendoi are variations of grandmother in Temuan.

that they no longer build this structure. However, they still congregate at the *saka* trees to camp and eat the fruits together. A Temuan Christian spiritual leader had shared that it is against their new belief to ask for support from the superhuman entities other than Jesus (Author's Fieldwork 2022).

Sebelum saya Kristian pun saya tahu pokok ini mempunyai semangat-semangat dia. Pasal orang asli... dia percaya semangat-semangat kan, semangat-semangat. Setiap benda ada semangat ada semangat. Ha mengatakan begitu. Tapi, oh, orang asli percaya begitu, iya. Ini sensitive, oh, kalo saya di agama saya, oh, kalo saya mengata oh tidak ada, nanti diorang marah kan [laughs] tetapi apa menurut yang saya tahu sebelum saya [indepicherable] percaya semangat-semangat ni. Tapi menurut bible, ataupun arkib tarbiah bahawa semangat-semangat tu adalah kuasa ghaib iya yang tidak boleh menolong tapi boleh ya, boleh mendatangkan suatu yang tidak elok. Oh, dalam menurut itulah. Dalam menurut oh, Kristian la kan, tetapi kalau menurut... menurut kepercayaan orang ini memang satu semangat, kena harus hormat. Kalau tidak dihormati, mungkin pokok tu atau dusun tu , um, mati semuanya. Katakan pokok tu dah ada hasil, [indepicherable] kang adik pula yang menjaga, bergaduh pada tahun itu, bergaduh tahun itu, pokok itu kononnya, ia- yang kononya orang nampak benda berlaku dan pokok tu umpama merajuk.²¹

Before I was Christian, I knew the trees have their own spirits.²² Because Orang Asli.. they believe in spirits, right? Spirits... Everything has spirit. Ha that's what is says. But, oh, Orang Asli believe so, yes. This is sensitive, oh, if it's my religion, if I say that it doesn't exist, later they will be angry right [laughs] but according to what I know before [indecipherable] believe in these spirits. According to bible, or the archive, those spirits are supernatural, yea, that cannot help but can bring something that is not good. Oh, according to that. According to Christianity, yes. But if we follow the belief of the people, there is a spirit that we need to respect. When disrespected, maybe the trees or the orchards, um, all dies. Let's say that the tree bear fruits and you are the one taking care of it but you fought on that year, fought that year then the tree would, -- supposedly people see something happen and it's as if the tree is sulking."

However, when several Christian respondents were asked about *julung buah*, they replied that they still believe and practice their philosophy and outlook of the forest through *adat* regardless of their conversion. Nevertheless, there were mixed reactions to

²¹ (Author's Fieldwork Interview 2022).

²² Semangat here refers to spirits or vitalities.

the ritual aspects *julung buah*, such as burning incense sticks and erecting the *balai*, as some responded with lesser vigour and enthusiasm.



Figure 6. Screenshot of *balai* (Temuan TV Facebook Channel 2022).

2.3.5 Moyang Harimau

Mengikut cerita orang tua Temuan, Kalau musim derian akan muncul Moyang Harimau Belang yang saiz sebesar van, Melilau berkeliaran di dusun derian-derian, Sampai merenjiskan serbuk-serbuk, untuk supaya pokok derian berbunga lalu banyak buah, Ada separuh pokok adalah rumah makhluk halus, Macam hantu dan jin, harus dihindari oleh manusia, Contohnyak pokok yang berbentuk pelik dan menakutkan, Time malam Moyang Harimau keluar, Cuaca baik, tak hujan, suasana sejuk dan terang bulan. Semuak dalam dunia ni berkaitan, Jika tiada Moyang Harimau, Pokok derian tidak berbuah, Kesimpulannya semuak makhluk dalam dunia ni berhubung rapat, di antara satu sama yang lain.²³

According to the tales of the old, An ancestor in the form of the tiger as big as the van appears during the durian season, Wandering around the durian orchards, Sprinkling powder dust, So that the durian trees may flower and bear many fruits, There are some trees home to the unseen creatures, For example, trees in odd and horrifying shapes, The Moyang Harimau comes out at night, When the weather is good, there is no rain, cold, and a bright lit moon, Everything in this world is related, If there is no Moyang Harimau, The Durian trees will not fruit, In conclusion, every creature in this world, Is related to one another.

The *Moyang Harimau* adds another variable to the *derian* assemblage as its role as a superhuman actant becomes the impetus for *derian* flowers to bloom. Informants shared that the spirit familiars manifests through different forms, each having a unique identity. Therefore, the manifestations vary in each *dusun*, with some spirit familiars taking the form of a *beruk* (ape) or butterflies. Some claim that the true form of the *semangat hutan* is in the form of a white tiger. The white tiger is a symbol of a rare and unique existence in the *hutan* as even the common tiger predators are known not to show themselves to humans. The

²³ (Mor Ajani 2022).

white tiger, coming out in the night within the backdrop of other superhuman entities, sprinkles powder with regenerating powers/properties, symbolizing the apex predator's connection back to the earth, the land, and the soil. *Moyang* Harimau materializes from the non-corporeal to corporeal bodies with restorative powders affecting the durian trees to grow flowers and bear fruits. Without the existence of the non-corporeal *Moyang* Harimau, durian trees will not fruit and bear the corporeal *derians* for the ecology's prosperity. When humans and other actants ingest the fruits and defecate, the decaying process begins, and other life matters regenerate, forming a succession of a cycle in the *derian* assemblage.



Figure 7. Pokok Langsuir, an example of trees, object or plant that houses makhluk

halus (more-than human entities) (Provided by Mor Ajani 2022).

2.3.6 Death and Burial Rituals

According to Mamak Slan and kak Rani, an Orang Asli can receive indicators that another Orang Asli had passed away when in the forest (Author's Fieldwork Interview 2022). As Rani shared, when a Temuan hears a child crying or laughing out of a sudden in the middle of the forest, that could be an indicator that a child had passed away. She recalled her experience as a teenager, who suddenly heard a man coughing in the forest but no one to be seen. When she returns home to the village, it is brought to her attention that an elder male villager had passed away when she was in the forest. Previously when the roads did not penetrate the forest, Temuan had to walk for days at a time to reach their *dusun* or other significant spaces. The connection of the Temuan to the forest enables them to interact with these spirits and vice versa. On another occasion, Mamak Slan had seen the back of a person walking away in the middle of the deep forest while tending to his *dusun*. Knowing that it is the manifestation of a spirit ancestor, he quipped, "oh, if you're there, come and join me for a drink. It's not like we can see (you)". In doubt, I responded, "are you inviting the spirit to eat with you?". He laughed, "We can't see (them). That's what I meant earlier, if we have accidentally saw them, it means that they can't hide themselves when they see us. So it's funny that they have been caught off guard... We are used to their presence, and we're not scared". The strong connection to the unseen world guides the Temuan through *adat* that teaches them principles to respect nature. Therefore, by linking soil to understand their cosmology, is to understand the principles of how they situate their agroforestry management of the *dusun*.

A discussion with Colin Nicholas from the Center of Orang Asli Concern led to his sharing of the Temuan burial ritual in Bukit Tampoi, Selangor. According to Nicholas, after the deceased has been laid in the grave, a small quantity of the original topsoil is placed on the earth mound of the grave. That area is called the '*pusat*' which coincides with the position of the deceased person's navel. He suggests that the reason might be a symbolism for the deceased's return to the earth from where one was created, and of the deceased's place in the nature of things. This interpretation is in tandem with the genesis story as told by nenek Bagus in section 2.3. Secondly, Tuas or pucuk bertam (eugeissona tristis) frond are placed upon the deceased's coffin (Jo Kumar & Amir Zal 2014). After that, some earth will be respectfully scooped onto the frond. Nicholas observed that the tuas' leaf sheath is removed slowly and carefully from the mound. This process is repeated for seven times by using seven fronds. I think the seven fronds represents the seven layers of earth that the Temuan believe in their cosmology. Nicholas adds that it is disrespectful and culturally unthinkable for the soil to be thrown onto the deceased directly. Thirdly, as exemplify in the figure 8 & 9, family members form clumps of soil using their palms and place into the grave as *bekalan* (supplies) for the deceased's afterlife. Traditionally, the deceased body is wrapped in a cloth, and then covered with *mengkuang* mats instead of a coffin. To signify a human grave, two stones will be positioned at the direction of the head and toe. As opposed to mausoleums and structures that immortalize a person's existence, the Temuan burial exemplify the notion of a contrasting temporality; a short existence of a human life, the perpetual existence memorialized through *nenek genui* (ancestor spirits) and the return of the corporeal bodies into the soil.²⁴

As mentioned in section 2.1, the first Temuan principle in agroforestry is in "the belief in upholding the integrity of the soil". The same veneration can be seen in the burial ceremony, where a distinct separation of topsoil is placed on the *pusat*, the centre of the cosmos. This provides further evidence of the significance of soil as the foundation of

²⁴ Special thanks to Colin Nicholas (2022) for sharing and editing this paragraph.

Temuan cosmology which translates into their agroforestry practices.²⁵



Figure 8. Clumps of soil formed with the palm of a hand (Nicholas 2022).²⁶



Figure 9. Tuas or pucuk bertam (eugeissona tristis) frond placed upon the

deceased's coffin (Nicholas 2022).²⁷

²⁵ However, the informants in KOAG no longer practice this burial ceremony as they have converted into Christianity and use the Christian burial methods instead.

²⁶ This photo was used in the Sagong Tasi Court exhibit and shared by Dr Colin Nicholas, COAC. Special thanks to Dr Nicholas for giving permission for these photos to be used in this dissertation and for editing this section.

2.4 Bat Polinators in the Anthropogenic Fruit Forest

In this section, I will explore the vital effects of bats as durian pollinators, precisely the *durio zibethinus* variety, on their contingent relationship to the importance of anthropogenic fruit forests in charting the discourse of altering genetic landscape and biodiversity. In relation to my argument, this section discusses the primary non-human interventions in extension of the human interventions in the fruit forests. The fruit bat species *E. spelaea* and the larger bat species have been identified as the primary pollinators for durians (Baqi Aminudin et al. 2022). By using secondary scientific literature, this section provides empirical evidence of bats' roles in generating other species' entanglement and its continuance, ultimately informing the literature of 'semi-wild derians' of the Temuan and in larger Orang Asli communities. The research articles used multiple terms to refer to the fruit forest, such as 'fruit patches, forest orchards, and fruit gardens.' However, this dissertation will adopt the term 'fruit patches' or *dusun* from this moment onwards for consistency.²⁸ In addition, the findings show that anthropogenic fruit patches can contribute to durian plantations' sustainability when considering the long-term viability of plantation projects. This is important considering how durian plantations can be disruptive, such as displacing human and nonhuman entities.

Through the overarching FRGS durian project,²⁹ it is important to note that most cultivators do not know or are unsure of who the durian pollinators are, including Orang Asli. However, research has proven that durian requires night pollinators. Insects, including bees, while important, are not the primary pollinators as they are too small to carry the large, sticky durian pollen nor promote far distance pollinations which durian require to produce healthy,

²⁸ Other entities including the stingless bees asserted by Boonkird (1992) and corroborated by Sheherazade et al.'s (2019) will not be discussed for the purpose of the scope of this dissertation.
²⁹ Fundamental Basearch Creat Scheme (EPCS)

²⁹ Fundamental Research Grant Scheme (FRGS).

genetically resilient and pest resistant durian fruits (Bumrungsri et al. 2009; Nur Hamzah Zulfemi et al. 2021). Among many recent regional studies, M. F. Siti Fadzliana et al. (2021) identified *Eonycteris spelaea*, the cave nectar bat, as a primary pollinator for wild plants and many economically important crops. Durian flowers attract other bats such as the *Cynopterus brachyotis*, *C. Horsefieldii* and *Scotophilus kuhlii*, but the *Eonycteris spelaea* is deduced to be the primary pollinator for durians as it is a true nectarivorous bat that primarily feeds on nectar (Bumrungsri et al. 2009; Nur Hamzah Zulfemi et al. 2021). Among three nectarivorous bats in Malaysia, only *E. Spelaea* are found in agricultural areas and primary forests (Nur Hamzah Zulfemi et al. 2021).

Bumrungsri et al. (2009) was the first to report on the role of E. spelaea, including other bat species, as pollinating agents for 'wild durians'. The researchers affirmed that Durio zibethinus is self-incompatible or non-autogamous. This means that the durian flowers are unable to be fertilized by their own pollen. In an experiment, Lim & Luders (1998) facilitated autogamy pollinations, or self-pollination, resulting in poor fruit qualities such as distortion, lesser arils (meaning smaller pip), and up to 50% lighter flesh weight. Durio zibethinus requires an animal vector for pollen transfer as durian pollen is "sticky and is not released at dehiscence", which means that the pollen is heavy and requires "large-bodied and high mobility vertebrate pollinators that could carry larger loads of pollen and travel considerable distances to promote cross-pollination" (Bumrungsri et al. 2009, 9; Nur Hamzah Zulfemi et al. 2021, 87). On the other hand, insectivorous bats such as the Scotophilus kuhlii indirectly influence the pollination of durian trees, as they control insect populations that determine nectar availability. By reducing insect populations, the increased nectar availability attracts higher flower visitations by E. Spelaea bats, concurrently proliferating the pollination rates. Therefore, insectivorous bats also assist in pollination when preying on feeding insects through the contact of flowers.

In addition to the bat, flying foxes too may be durian pollinators. Sheherazade et al. (2019), in quoting (Aziz et al. 2017; Banack & Grant 2002; Brit, Hall & Smith 1997; Palmer, Price & Bach 2000), caution against downplaying the role of flying foxes (Acerodon and Pteropus) species as their tongue morphology suggests its faculty to exploit nectar. Furthermore, its large body size enables more pollens to be deposited to travel further distances, propagating greater success in pollination, including the frugi- nectarivorous bat, Rousettus leschenaulti, which studies have found in Wang Kelian State Park, and other parts of South East Asia (Maryanto & Maharadatumkamsi Achmadi 2002; Steward & Dudash 2016b). Moreover, they note that the larger bat species, such as the *Peteropus hypomelanus*, feed at higher altitudes than the smaller-sized E. Spelaea (6-20m vs <6m). For this reason, Sheherazade et al. (2019) argue for the conservation of both larger and smaller bat species as durian trees prevail at different heights during different stages of growth. Project Pteropus³⁰ claim that although both species of the flying foxes in Peninsular Malaysia are locally endangered due to habitat loss and hunting, the Pteropus bats are still classified as low conservation priorities on the IUCN Red List. The situation worsens due to the adverse perception of bats as carriers of zoonotic diseases without understanding their outstanding importance in generating flora and fauna and their role in the ecology. There is also a common but false perception of Pteropus bats as pests among durian growers.

Bringing back the discussion to the Temuan community, participants identified caves in their orchard maps as part of their landmarks when asked to draw their orchards. They

³⁰ I quote from their website, "is Malaysia's only project focused on the conservation ecology of flying foxes (*Pteropus spp.*) and other World fruit bats (*Pteropodidae*).

observed the presence of large-sized bats in the smaller caves and the insectivorous lesser bamboo bats *Tylonycteris pachypus* roosting in the dense bamboo areas. While sharing the idea of bats as primary pollinators, some critics have argued that bats are not relevant as they need to be near limestone karst areas. However, Start (1974) found that bats could travel up to 60km a night. Surprisingly, Temuan cannot identify bats as durian pollinator actants but credit bees as knowledge learned from hearsay. Larger bats are often blamed for destroying durian flowers. Ironically, planters cut off a large number of flowers to encourage highquality durians in each bunch. In nature, bats are already doing this without human intervention.

By understanding the bat's diet during the fruiting and non-fruiting seasons, we learn how forest preservation and abstention from clear-cut open farming are in the industrial cultivator's interest to achieve sustainability for durian plantations. Accordingly, Baqi, Aminuddin et al. (2021) criticize the durian industry for failing to recognize bats' role as major pollinators even though considerable research has detailed the evidence. Large continuous swathes of plantations have decimated the bat population that relies on flower nectar of other species during the durian's non-fruiting season. Experiments in Thailand confirmed that "semi-wild" durians had an effective pollination period from 19h30 to 01h00, proving that these nocturnal pollinators have a short window of time for pollination success (Bumrungsri et al. 2009). Therefore, a future of relying on hand pollination, such as in Thailand (Bumrungsri et al. 2009), may not seem competent or sustainable in Malaysia, as it relies on manual labour over thousands of hectares of durian plantations. Moreover, as bats travel far distances, this increases the chances for further cross-fertilization or allogamy. A larger genetic distance has the greatest pollination success as it nets a more comprehensive genetic diversity, which in turn possesses better favourable genes that create sweeter

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durians and fungal infection-resistant properties, leading to superior fruit harvests (Archarya et al. 2015; Honsho et al. 2009; Husin et al. 2018). Hence, industrial cultivators can be more sustainable by learning Temuan wisdom of durio cultivation by preserving significant parts of the forests and preventing forest fragmentation. Ultimately, this strategy enables the best success for premium-yielding durians through bats pollination.

Conclusion

Through the lens of *derian* worlding, this chapter analyses the principles of Temuan agroforestry by examining the Temuan cosmological concepts. The principles of Temuan agroforestry emerge from the art of conversation (bersapa) rooted in the ecological niche, by systematically observing the environment through the accumulation of lived experiences and set of guidelines termed *adat*. In this chapter, I identified the multiple actants and their world-making projects, which include humans, more-than- humans, and nonhuman others as actants with agency in the Temuan *derian* agroforestry polyphonic assemblage. Through inductive method, soil has been identified as the foundation of Temuan agroforestry, connecting the corporeal to non-corporeal bodies and the perpetual movement of these shared vitalities. By understanding the principles of *adat* and the Temuan cosmology, this chapter examines the strings of interventions that influence the production of durian harvest, through the Temuan observation of behaviours and good practices in their daily lives. Regeneration and decay, soil and dirt, hutan and belukar, ancestor spirits and adat, derian and durian kahwin, bomoh and Raya Buah, Moyang Harimau and humans: the accumulation of these dichotomies assembles the Temuan durian agroforestry through the lens of *derian* worlding.

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III DERIAN AGROFORESTRY

Introduction

Remarks about Orang Asli as primary users of the forest are common (Thomas 2022). This observation perpetuates that humans and nature exist as separate domains, ironically the kind of argument state and plantation capitalists frequently adopt (Dove 2011; Li 2007 & 2014; Lyons 2020; Nicholas 2004; Scott 1998). Contrary to that notion, patches of durian trees exist due to animal and human interventions, a collective formation of multiple world-makings (Tsing 2021). Therefore, aspects of human intervention in Orang Asli groups must equally be considered. Aside from whether forest durian trees are deliberately planted or not, the more important point to consider is in the work of care, maintenance and meanings ascribed to the trees by the Orang Asli communities.

Some of the earliest documentation of Orang Asli role in spreading fruit is as early as 1893 published by H.N. Ridley (1893). The role of Orang Asli in altering the genetic landscape of the forests while simultaneously affecting the genetic composition in the forest has been noted notably by Rambo (1979, 61-63). He brings attention to the different forms of ecology that the Orang Asli can affect: habitat modification, seed dispersal, direct selection (by hunting and plant gathering) and domestication. Therefore, mobile hunter-gatherers and horticulturalists societies indirectly and directly alter the creation of fruit patches in the forest by simply existing in these forests (Rambo 1978, 61). As the term suggests, horticulturalist communities intervene by directly planting seeds and other agricultural activities. By convening the Temuan philosophy and principles from chapter 2, I aim to discuss some of the Temuan agroforestry methods and their direct interventions in the anthropogenic forest. Secondly, the work of care in managing the *dusun* will be examined throughout this chapter. Lastly, I argue that Temuan habitat is not where the durian trees grew, but instead, Temuan trees grew where the communities are situated.

The discussion begins by understanding a broader scale of Orang Asli interventions in the anthropogenic forest. This is achieved by Lye's (2004a) observation of the Batek peoples to understand the interventions of mobile hunter-gatherer communities' creation of fruit patches which she terms 'fruitscapes'. Ensuingly, I will discuss some of the direct interventions of horticulturalist communities such as the Temuan, Temiar and Semai in creating fruit patches by using field notes, interviews, and other scholars' observations. Section 3.2 explores the Temuan intervention through agroforestry management. Following this, I discuss some of the operational expenditures and challenges of the community in managing the *dusun*. This has created new kinds of entrepreneurship from the old business model, which will be discussed in section 3.4. Lastly, I deliberate the future of *derian* trees concerning the newly negotiated Temuan identity.

3.1 Orang Asli Interventions in the Anthropogenic Fruit Forests

In Lye's (2004a) book titled "Changing Pathways: Forest Degradation and the Batek of Pahang, Malaysia," she detailed how the Batek peoples, as one of the last mobile huntergatherer communities in Peninsular Malaysia had indirectly created forest fruit patches. She coins the alteration of forest genetic landscape as fruitscapes. By caring for the trees, this notion challenges the concept of 'pristine forests', pitting the binaries of 'wild' versus 'cultivated' against each other (Lye 2004a; Rambo 1979). She points out these forests to be

"dynamic, transitional processes" rather than "immutable states" (Lye 2004a, 142). Batek communities are observed to lop off fruit-tree boughs to open small gaps in the canopy to augment more sunlight onto the forest floor (Lye 2004a). This intervention helps promote vegetation which seeks to influence the floral composition of these patches and act as a benign form of habitat modification (Lye 2004a, 140). More importantly, the Batek collected fruits, including durians, to bring back to their campsites for consumption. She noted how the density of seed dispersals after consuming the fruits are concentrated in the camps by the lean-tos, increasing germination rates around the campsites. Such condition develops fruitscapes in which patches of fruit trees emerge. Although these seeds were not planted directly, the disturbed soil surfaces of the campsites increase germination success rates as new saplings require some degree of sunlight to grow (Lye 2004a; Rambo 1979). By altering the space, Batek's intervention opposes the conditions in the forests where sunlight on the floor is sparse due to the density of the rainforest top canopy and emergent layers. The durian seed's proximity to other varieties and species also inadvertently influenced the genetic composition of new kinds of growth in the patches, providing food for insects, animals and microbes. Therefore, patterns of forest structures and composition can be a result of Batek resource concentration and enrichment strategies (Lye 2003, 417).



Figure 10. Image displaying a dark forest camp before cutting down a large tree (Nicholas 2022).³¹



Figure 11. Forest Gap Theory: Selectively cutting down a large tree to augment sunlight to the floor (Image 2022).³²

³¹ Special thanks to Dr Colin Nicholas of COAC for providing this photo and allowing me to use in this dissertation. ³² Ibid.

While H.N. Ridley (1893) observes that Orang Asli acts as seed spreaders, some horticulturalist communities such as the Jakun are known to intentionally reforest fruit trees. For example, Mamak Jabar from Rompin, Pahang, stated that the Jakun would plant a single crop wherever they camp so that their interventions could identify these spaces as part of their routine checkpoints (Author's Fieldwork 2022). These campsites will be planted with fruit trees, primarily durians, and its seeds are selectively chosen from preferred trees. Durian seeds, known for being 'sensitive', are tended for about a month or two to ensure their survivability, before moving back to the village. Durian seeds are planted especially after the harvest from swiddening.

> Kalau nak makan buah, biar jangan putus, Kalua nak makan tebu, jangan biar putus, Biar makan tak putus.³³

If one wants to eat fruits, do not let it be disrupted, If one wants to harvest sugarcane, let it not disrupt its continuation, Let eating not to have discontinuance.

As the land is divided by ridges, rivers, and other obstacles, it makes logical sense to ensure food availability in their environment. Hence the community is motivated to replant food harvested from the forest to ensure food security. When one plucks fruits from the trees, one must replant at least one seed of its kind back in the forest. When one cuts through sugarcane, one must replant the shoots back in the forest. This behaviour is also observed to be done by the Batek community to prevent from completely exhausting 'wild' foods. Batek replant tuber heads, monitoring the yam plants and return to harvest when the

³³ (Author's Fieldwork Interview 2022).

tubers have matured (Lye 2013, 130-131). Additionally, when the Jakun bring fruits and other plants back to the campsites, some crops are planted in the area, resulting in a selective genetic concentration of food sources at tended gardens. Mamak Jabar continues:

In the olden days, our ancestors, orang dulu-dulu did not have to bring food supplies when entering the forest.³⁴ All we brought along was a machete; with that alone, we could survive in the forest. This is because we know where to find tree roots for water, tapioca, and other resources in the forest. We could even use the tree bark as material for clothes. I have lived through the change when we used tree barks to wear these types of clothes (pointing to his light tan khaki pants).³⁵

Food production is part of a larger process of human and non-human production that does not only satisfy human needs (Darmanto 2022). Darmanto (2022) asserts, the capacity of humans to imagine, to plan and to reflect their actions is part of a process of becoming, which involves a web of relations in humans and non-humans alike. When the forest changes, the Orang Asli's diet and lifestyle changes (Howell et al. 2010). Simultaneously, the forest changes when Orang Asli lifestyle and other human interventions occur (Kamal & Lim 2019). There is a need to understand broader political changes in relation to the political ecology of the forest (Peluso 2005; Peluso & Lund 2011; Peluso & Vandergeest 2006 & 2011). Additionally, the forest environment is marked by perturbations and fluctuations in longterm climatic shifts and oscillations, seasonal variability, and minor everyday disturbances (Lye 2013).

Therefore, Tsing (2012) argues that forests are spaces of contaminated disturbance, in which "telling histories of the cultural and biological synergies through which diversity continues to emerge, even in ruins" (97). Contaminated diversity refers to the last few

³⁴ Orang dulu-dulu translate to "the old people" in referring to their ancestors.

³⁵ (Authors Fieldwork Interview 2021).

hundred years of disturbances, developing a cultural and biological way of life (Tsing 2012). Hunting, once a tradition to generate sociality, is no longer practiced in Kampung Orang Asli Gendoi. The change in human activity is taken up by migrant workers who set wild boar traps around the forest for extra source of income, creating game animal pressure. Areas surrounding the *dusun* and a significant part of the communal land has also been logged out, resulting in *dusun* as sites of further contaminated diversity. But as Tsing (2021) suggests, new possibilities emerge. *Dusun* transforms from a space of sociality, into other meanings: space of territorialization (Chapter 4) and spaces of counter-narrative strategies to seemingly ruin spaces (Chapter 5). Therefore, it is imperative for the Orang Asli to be able to "choose different livelihood options under both benign and stressful conditions" (Lye 2013, 423).

Moving on to other interventions, a demarcation in usufruct rights has always been present within communal land boundaries in all horticulturist groups. Traditionally, usufruct rights allow Temuan to hold rights to use a product, including trees, but they do not own the land. This means that the density of fruit orchard patches is constrained to certain areas due to the communal custom regarding usufruct rights. Furthermore, hunter-gatherer and horticulturist communities affect 'loose' propagations due to patterned movements between campsites and hunting-gathering sites. The only exception is during broad political disturbances, which could also determine where the Temuan had cultivated new patches of fruit trees that were not within their usual checkpoints or campsites. For example, the 1941 Japanese invasion of Malaya prompted Temuan to flee from their usual habitat and establish new settlements in the forest. The displacement could be the start of a new wave of durian patches. The other was during the *Perang Sangkil*, or slave raiding period.³⁶ In this period,

³⁶ In his book, a Semai Post-colonial writer Akiya (2007) explains that *sangkil* are a group of Malays who came from the

Orang Asli communities fled deeper into the forest for fear of being held captive. In both instances, families had also planted fruit trees, including durians, where they lived and catalysed changes to the environment as previously mentioned. While the trees stood to tell the grave history of the Temuan, these narratives were reinforced through the retelling of stories during the duriotourism that will be explored in chapter 5. Contaminated diversity teaches us to live and embrace the history with hope.

Concerning disturbances, the Temuan grow durian trees in patches over patches of a demarcated area. That means that instead of concentrating hundreds of fruit trees on a single continuous plot, these fruit trees were planted in small patches numbering about 3-6 trees or more across each family's usufruct land. Therefore, human interferences are subjected to these demarcated spaces. Yet, the numbers of trees in each patch differ over time due to death by various causes or new trees grown by others. When we add other non-human interferences to the regeneration and death of the fruit trees across communal land, the rhythm multiplies. Hence, these ecological changes were subjected to human and non-human interferences, affecting relations with one another.

3.2 Temuan Derian Agroforestry

Nat Tuitavalagi (2016) defines agroforestry as a set of systems that practices agriculture and forestry simultaneously or at different times. This chapter argues that the Temuan

Indonesian archipelago, specifically the Mandailing and Minangkabau ethnic group that came from Rao or Rawa, who ambushed and enslaved Orang Asli villages. He detailed the role of *pembesar* (Malay Government Officials) in enabling slave raiders and even purchasing Orang Asli peoples to be enslaved as a social symbol or prestige (Akiya 2007; Andaya & Andaya 1982; Zawawi 2021a). Zawawi (2021a) put forward that given their non-Muslim status, Orang Asli became candidates for enslavement, "at the bottom of the social hierarchy as *hamba abdi* (bought slaves) as Islam forbids enslaving Muslims" (12). This practice continued even during the British colonial administration until it was abolished in 1920. Also see (Dentan 2009; Nicholas 2004; Endicott 1983).

horticulturalists practice a set of Temuan indigenous agroforestry management in cultivating patches of forest fruit orchards as opposed to the popular state narrative of fruit trees and forest trees as wild and uncultivated. This latter narrative by the state is derived from a western modernist view that positions nature and culture as opposites (Descola 2014) when, what we call as "natural is actually the cultural determination of nature" (Bennett 2009, 114). In reclaiming Temuan narratives, this section seeks to disprove such assumptions by exploring some Temuan strategies in agroforestry practices and their contributions that affect the non-human assemblages.

Temuan traditional agroforestry management is in the human intervention that aids nature in assisting the flourishing of *derian* trees. With no attempt to downplay the human interventions, this philosophy destabilizes humans as the apex actant as it believes nonhuman actants to have powerful and meaningful agencies. Temuan core approach encompasses problem-solving interventions, not unlike the work of an organic farmer practising circular agriculture in accelerating ontogenetically natural environmental processes, which will be explored in the sub-sections below.

3.2.1 Seasonal-Nature Calendar

By mapping Temuan perception of time, we can understand how the Temuan organizes their labour, economic, and social activities by changes in nature and in observation of abundance and scarcity of resources in the forests. Understanding how Temuan perceive 'seasonal' changes highlights Temuan usage of time in relation to their labour and diet changes. Temuan's labour and diet changes simultaneously affect the ecosystem. Traditionally, the Temuan governed their time through activities such as hunting, spiritual events, and shifting cultivation, which is event-based and reliant on nature compared to the modernist clocktime. The traditional Temuan calendar system shows how some Orang Asli communities divide their time based on 'seasons' or changes in nature and adjust their participation to the surrounding ecology. Changes in time (through nature and based on events) to labour subsequently affect changes in the food concentration zones. Thus, the different seasons mark labour changes, diet changes, and maintenance of the ecosystem. For example, when frogs are expected to be bountiful after the rain in August, the Temuan in KOAG search for frogs as one of their primary diets. The surge of frog numbers also feeds other non-human actants who prey on them and sees the decline of those who are eaten by the frogs. The Temuan does not necessarily hunt frogs throughout the year, revealing a sustainable use of resources and maintenance of the ecosystem through the usage of a nature-temporal seasonal calendar. Table 4 displays a non-exhaustive example of the Temuan seasonal calendar.

Month	Event-based/nature/ season	Description	
January	Hari Moyang (Ancestor's day)	Annual Celebration among	
		Orang Asli community	
		to honour their ancestors	
February	Derian flowering season	-	
March	Buah kakak	Anticipating the early	
		derian season	
April			
June	Honey Season	-	
July	Monsoon season	-	
August	Frog Season	-	
September	Forest Fruit Season	Petai, derians, jering,	
		kerdas	
October		Raya Buah/ Julung Buah	
November	Drought	-	
December	Fishing	-	

Table 3. Temuan seasonal calendar in Kampung Orang Asli Gendoi, Selangor(Author's Fieldwork 2022).

This unique conceptualization of time is not uniquely Temuan, as evident in a Temiar community in Gua Musang, Kelantan. These practices change from each Orang Asli group to another as they are located at two distinct places in Peninsular Malaysia: The Temiar in the northern and the Temuan in the southern regions. Therefore, the labour changes of these communities are affected by the natural changes of the respective ecological niches, as opposed to the copy-paste mechanisms of industrialists who use clock time. The Temiar, like the Temuan, plan their time around the calendar that determines their hunting patterns, diet, usage of land and spiritual rituals. For the Temiar, the year is divided into six seasons, and the activities are arranged as below:

Month	Name of Season	Meaning / interpretation	Swiddening Activity	Spiritual significance
1-2	Musim Tenrel	Rainy season (<i>Tinang</i>). Frog catching season.	?	Nay Poh (month 2)
3	Musim Geruh / namberkah bungah	Drought. Flowering season.	Burn small patches of land for swiddening	Nay Poh
4-6	Raining season	Tatak Engku playing causing thunderstorms	Buka padi	Nay Poh
7-8	Musim Jerangkas	Fruiting season	Menunggal padi	i. Nay poh Panoh ii. Kenayak kebe'
9-11	Musim lehm sap	Floods	?	?
12	i. Musim kekcho kebeg ii. Musim dep danum	 Catching birds Catching white forest rodents. 	?	?

Table 4. Temiar seasonal Calendar in Gua Musang, Kelantan.³⁷

Each season, the Temiars abide by a set of rules, disciplines, and ways to approach

hunting and swiddening. In that sense, Temiar, like the Temuan, manage and use their

³⁷ All data constructed on Temiar calendar is conducted by lead researcher Dr Rusaslina Idrus, at Gua Musang, 1st-4th/04/2022. Special thanks to Dr Rusaslina for allowing me to use this data in the dissertation.

resource based on natural changes in their ecological niche. For example, Temiar search for frogs during musim Tenrel (January to February) in contrast to Temuan, who look for frogs in November. One possibility for this is because of the micro-climate conditions that affect frog activities in the northern and southern regions. In a personal conversation, Nicholas (2022) offers another possibility: the differences in monsoon season that occur in different periods of time at the north and south locations. Malaysia has two monsoon seasons - the southwest season, which runs from late May to September, and the northeast, from November to March (MET Malaysia 2022). These two monsoons that affect two opposing regions coincide with the hunting pattern of both communities, where each identified species has a season of game abundance. A Temiar elder lamented, "The outsiders think that we hunt at will... but that is not true.. we follow a 'schedule'. There is a time when we hunt this... and there is a time when we will hunt that.. We cannot do as we please."³⁸ This message is vital, as the Temiar commented that Orang Asli communities often conflict with conservationists. His message is apparent: conservation of forests does not mean the complete abandonment of forest resources, but rather, sustainable usage of forest resources. Comparably, Temiars are out to kekcho kebeg (to catch birds) and dep danum (to trap white forest rats) in December while the Temuan prefers to go fishing. The same rules apply to shifting cultivation. As observed in Table 4, the seasonal changes are marked by the different activities in a year based on weather changes, fruiting season, hunting activities, and spiritual activities.

Due to proximity to the city, the Temuan I interviewed did not mention nor specify any hunting or swidden activities as they could no longer practice this.³⁹ A point to note is that

³⁸Additionally, Temiar and Temuan do not simply exhaust the game and other resources such as bamboo by over harvesting or over collecting all-year long (Fieldwork 2022).

³⁹ Some of the reasons include loss of wildlife resource, too many competing external actants, and primarily the reliance on cash economy that shifts the community's attention to other modes of livelihood.

fruit season and fishing still prevail in their list of expected activities because most consider this as their leisure activity. At the same time, some Temuan view the fruit trade (primarily derians and petai) as an essential source of income. In contrast, this differs from the Temiar as their calendar is filled with more forest-based activities all year long. One of the high possibilities for this is the Temiar reliance on non-timber food products (NTFP) for livelihood and sustenance. This is because many of the Temiar villagers I interviewed have problems procuring job opportunities due to road conditions, remote village location, and transportation issues.⁴⁰ Concurrently, the Temiar community that lead researcher Dr Rusaslina Idrus interviewed showed to observe more spiritual activities as compared to the Temuan in KOAG. Incidentally, the Nay Poh prayers that occurs for 7 months is to ask blessings from the semangat buah for the abundance of fruits. Similar to Raya Buah, the Temiar has a similar observation of fruit harvest ritual by celebrating *kenayak kebeg*. For this reason, the observation displays a correlation between resource availability and spiritual activity and how the communities build their seasonal calendar based on changes in their activities and spiritual engagement.

Recent years have seen significant changes in Temuan economic activities pertaining to NTFPs due to climate change. The seasons no longer follow the months accurately, with droughts extending in period and occurring earlier than expected. High temperatures have caused *derian* flowers to die prematurely, affecting *derian* harvest. In 2022, most cultivators did not actively sell out their *derians* as they needed to be more lucrative for a liveable return. This situation affects their income and livelihood as their investments in tending the *derian* trees become economically unproductive. Similarly, the Temiars become food

⁴⁰ One informant had even confided that they were forced to sell cultivated bananas for RM1/kg due to road condition.

insecure as most of their diet comes from NTFPs, including game, pressure from external factors, and land exploitation. Similarly, the Temiars are affected in terms of their food security as the bulk of their diet comes from NTFPs including game.⁴¹ In one conversation, a Temiar couple claimed that the deforestation had angered the dwellings of *Tatak Engku*, a thunder god, which caused further calamity to the Temiar and non-humans, including precarious weather, polluted waters, and extreme heat.

Accordingly, each season is marked by different activities performed annually to maintain balance in the ecosystem, affecting movements of nonhumans and spirit familiars capable of vitalizing the soil.³³ In conclusion, the changes in human-induced activities based on the seasonal calendar contribute to the changes in the ecological composition of the forest. This can only be achieved by thinking about the contextualized spatial ecological temporality, strains that adds to the rhythm of the *derian* polyphonic assemblage.

3.2.2 Planting Methods

According to mamak Rayan, a Temuan cultivator, the Temuan method of planting trees uses a 'bare' seedling, in which the bud roots are pushed into the topsoil without compromising the surrounding integrity of the soil. Firstly, the cultivator identifies a suitable plot for planting the seedling. The plot area must not be too shady or too bright. A good indicator is when some sunlight pierces through the leaves to the ground, yet the forest floor is moist and filled with dead leaves to ensure a continuous nutrient cycle through mulching. Secondly, a healthy *derian* seedling is chosen within six months or when it is 4-5 feet in height. Thirdly, the seedling's trunk is cut with a single swift motion about 2cm above the

⁴¹ Based on conversation with the women groups and group interviews in the Temiar villages.

root. Fourthly, its branches, twigs and leaves are cut off, leaving the stub and the top part of the seedling. Fifth, with a single quick motion, a 45-degree incision is made at the trunk, using a *parang* (large, heavy knife) from the root side. Finally, the bare seedling is pushed into the soil with two hands using the weight of the cultivator (See Figure 12 as reference).



Figure 12. A Temuan cultivator demonstrating the insertion of seedling into the soil (Author's Fieldwork 2022).⁴²

Without the forest litter and topsoil, mamak Rayan demonstrated that this method of planting would be impossible, as the hardened soil will damage the seedling. He further claimed that this method ensures the tree's longevity, as new roots would be forced to form by intermingling with new patches of host soil. He hypothesized that the soil's microbiome helps the trees acclimate to the new patches, creating fresh buds, branches and leaves that

⁴² The image is blurred for the cultivator's confidentiality.

make a healthier, durable, and long-lasting *derian* tree in the future.



Figure 13. Temuan's Planting Method: A seedling inserted into

the topsoil layer (Author's Fieldwork 2021).43

On the contrary, certified durian plantation consultant Abdul Razak (2020) advocates the method of planting holes for durian seedlings (see Figure 14). He suggests using the whole seedling while being extra cautious not to damage its roots. This method of planting hints of the environment as barren land that requires treatment before being used for cultivation. Cultivators would need to make readjustments to the soil's pH as well as adding some organic matter to revitalize the soil. In figure 14 below, he demonstrates the need to separate the topsoil and subsoil (bottom layer) when digging out the planting holes. However, after inserting the seedling into the hole, he suggests mixing the soil with organic matter and chemical fertilizers (NPK:15:15:15) before filling the hole. In both kinds of interferences, the difference in methodology here can be attributed to the kinds of agencies

⁴³ The illustration is a reimagination of mamak Rayan's description.

that the cultivators had presented the trees to grow with. Mono plantations hold the longstanding modernist ideas of ignoring the involvement with multispecies entanglement by isolating the practice from other living beings. Temuan cultivators give agency to the ecology by supporting and accelerating its processes involving all other actants that live in the host soil. This includes a mixture of living and non-living entities; the good and bad bacteria, pebbles, bamboo, bodies of water, earthworms, and soil.

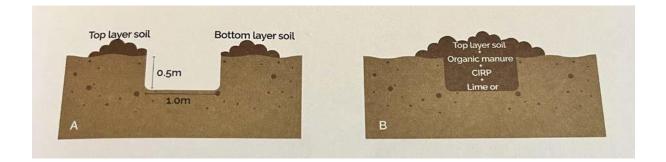


Figure 14. Image taken from *Managing Durian Orchards in Malaysia* (Abdul Aziz Zakaria 2020, 37)

3.2.3 Cold Compost

The intensification in the process of decay by allowing nature to grow densely packed weeds and then cutting, collecting, and piling them around the trees to accelerate the natural process of decomposition is one of the primary methods of managing patches of *derian* trees. On ordinary occasions, the Temuan enter their orchards only during the period of the *derian* flowering season, usually extending up to two months to care for their heirloom *derian* trees. While some scholars have suggested that the fruit trees are semi-cultivated (see Lye 2004a; Christensen 2002), I prefer the perspective that they do not foresee the need for human intervention by allowing the trees to recuperate and heal with the work of nature. As previously stated, the Temuan will focus on other kinds of labour including wage labour during this period. Another good reason to distance themselves from the heirloom orchards is to encourage maximal weed and vegetation growth by minimizing human disturbances. Temuan cultivators expect weed growth of at least four feet and above in a densely packed manner when the orchards are left unattended for about nine months. In contrast to this, scientific management of durian orchards encourages regular weeding as it allows visibility to detect diseases and from attracting predators (Razak 2020). Ayah Sze Ler (2021) notes that *derians* in the forest are resilient to diseases because the biodiversity in the forest might allay this (Author's Fieldnotes 2021). When it is time for the Temuan cultivators to conduct their rituals of staying in the forests to physically care for their heirloom derian trees (*Raya Buah seasons*), Temuan cultivators cut down and collect the weeds, piling them around the trees in rings of circles and leaving them to rot naturally. Nobuta Toshihiro (2009) noted similar patterns in his ethnographic fieldwork at another Temuan community.

Turning to western science, this strategy is known as 'cold compost', in which the process of decay is sped up by cutting down living plants or branches and then lumping them into heaps to encourage the presence of bacteria and subsequently, decay. Cold compost nourishes the soil, and the pockets of space between the leaves' layers trap moisture, preventing indirect heat from the sun. In about 2-3 months, the weeds become home to mycorrhiza, a symbiotic process formed by the relationship between living plant roots and filamentous fungi that acts as natural fertilizer to the trees (Dightong 2009). In time, the filamentous fungi develop hyphae by feeding on carbon released by the plants to grow long dendritic tentacles. This process extends the plant's living roots, permeating deeper into the ground and reaching spaces far from reach without the help of the hyphae. In return, the

fungi supply the *derian* trees with nutrients, moisture, and minerals, aiding the host tree in absorbing higher amounts of nutrients and water. Without the help of the filamentous fungi, the young *derian* living roots would not be able to moor themselves prosperously through the extensive fungi networks, creating a micro ecological home for other multispecies such as earthworms, bacteria, and critters. This process adds to the 'soil litter' and topsoil, which help *derian* trees and the surrounding vegetation thrive for centuries.

3.2.4 Wood Ashes

Another general method of fertilizing the soil is using wood ashes, primarily from piling and burning dead branches, dead vegetation, and pruned branches from surrounding fruit trees as organic fertilizers. When cultivators arrive at the campsites, usually chosen because it is near to their most favourite *derian* fruit trees or sacred sites, cultivators start a fire to chase away mosquitoes and other insects. When cooled, the wood ashes is then collected and spread evenly around the perimeter of the *derian* trees during the camping period leading up to Raya Buah. This is done to boost the nutrient content in the soil and to promote the production of *derian* flowers. This process is done continuously throughout the stay and the first fruits are collected in a pile to be turned into fertilizers. There are no specific metric amounts on how much ash to be placed around the trees. Instead, cultivators gauge by agakagak (rough estimate) depending on the size of the trees, advice given by generations before them and trial and error. As rainforest soil is highly acidic, the difference in soil acidity level and lower pH level of the ash improves the absorption rate of nutrients into the soil. Saunders (2018) claimed that most crops thrive at a slightly acidic incidental between the pH of 6.0 -6.8. Durian prefers deep, well-drained loamy soils not less than 1.5m deep, with soil pH about 5.0-6.5. Therefore, wood ash is the natural substitution for lime in maintaining proper soil pH (Saunders 2018). In addition, wood ash is much more soluble and reactive compared to grounded limestone which can take about 6 months up to a year for visible effect. This natural fertilizer is not only applicable to *derians* but is known to be used by many Orang Asli on their crops, specifically when cultivating slash-and-burn agriculture and vegetable gardens. Wood ash contains essential plant nutrients such as Calcium (Ca) ~25%, magnesium (Mg) ~1%, phosphorus (P) ~2%, a good source of potassium (K) ~5% and presents micronutrients such as copper and zinc as well as low amounts of phosphorous and magnesium, all of which are beneficial to fruit trees (Saunders 2018).

3.2.5 Watering System & Topography

Derian trees flourish in an environment with good water drainage system. Hence, derian trees are planted at the intersection between hillcrests and rivers to optimize the slope as a natural drainage system. The soil between the hillcrests and rivers contains higher concentrations of sandy material, which removes excessive water. At the same time, the surrounding soil by the river retains water for extended periods, helping to maintain the well-being of the heirloom trees throughout the year by providing sufficient moisture. Another strategy in water management is to plant bamboo trees in the vicinity of Temuan heirloom derian trees at higher altitudes to facilitate the gravitational pull in channelling water from the bamboo trees to the surrounding trees, including derians. This is especially important at locations that are further away from the rivers and nearer towards the hill crests. In other words, bamboo trees are utilized as natural water reservoirs during the hot tropical afternoon by steadily releasing moisture to the ground and absorbing groundwater at night. This preference for location and terroir devised the name given proudly by the Ulu Selangor Temuans, *derian bukit*.

3.2.6 Invasive Species

With respect to inclusiveness and thriving in diversity, the Temuans also believe in the exclusionary, where aspects of forest spaces hold values of indigeneity. For example, rubber trees are deemed 'foreign' or 'alien'. Seen as a cash crop and origin unnatural to the existing forests, Temuans avoid planting rubber trees in their orchards. When rubber trees exist in the forests, they are prone to termite attacks, eating away the 'meat' of the tree. Giving examples of different blood types, Temuans situate foreign trees as having a different blood profile to the realm of the existing ecology. Hence, nature releases termite critters to fend off invasive species from disrupting the inherent web of interconnectivity. According to Ayah Sze ler, rubber trees are not alone in this aspect. Other foreign trees, including grafted, clonal derian varieties (derian kahwin), often becomes target of the forest termites. Historically, Temuan ancestors cultivate derian trees from the indigenous seeds, usually by choosing fruit trees with certain favourable qualities such as flavour profile, size, colour, meat-to-skin ratio, and appealing smell. Seeds from the fruit trees that hold memorable belonging could also be one of the reasons to be chosen to propagate. However, the *derian* cultivation process always stems from indigenous seeds or, preferably, from young *derian* seedlings. Temuans speculate that *derian kahwin*, or grafted *derian* trees are artificial man-made creations which are not indigenous to the forests, hence they are susceptible to termite attacks due to their identity as an invasive species. A possible reason might be that forest durians have existed longer and have had time to evolve and build resistance to pests, whereas the clonal varieties are newer to the ecology and have yet to be exposed longer than the forest durian varieties to build immunity or resistance (Budde et al. 2016). "When an insect pest or pathogen attacks a tree, the effect of the infestation can range from highly damaging, and culminating in the host's death, to complete immunity of the host to any caused damage" (Budde et al. 2016, 19).

3.2.7 Opposing Chemical Mediation

An experienced *derian* cultivator would advise that *derian* trees grown from seed take up to 7-10 years to bear their first fruits and would achieve their ideal fruiting capacity in 10-15 years. Even then, it is uncertain that *derian* trees will continue to bear fruits yearly and in every season. Cultivators, not excluding Temuans interviewed in the FRGS durian supply chain project talk about the durians as their 'children', anthropomorphizing trees to be taken care of with utmost care and diligence (Khoo 2020) Many male Temuan cultivators anthropomorphize them by relating *derian bukit* to their 'wife' or a 'loved one', citing that the mistreatment of *derians* might make the tree *merajuk* (sulk) and stop bearing fruits. Above all, Temuans would not 'force' derian trees to produce fruits by introducing the usage of artificial chemical fertilizers. Even so, as some Temuan cultivators have begun to regard their trees as profit-generating mechanisms, experiments of introducing artificial fertilizers have begun. However, cultivators claimed that it had failed and proven unsuccessful. True to the precautionary tale, those who have attempted reported that the trees stopped bearing fruits and were indeed *merajuk* (sulking). Another valid explanation is that the Temuan were not trained to use the fertilizers according to their proper ratio and frequency, resulting in the *derian* trees facing a state of 'shock' (per interview with other industrial farmers and personal conversation with Ayah Sze Ler).

Temuans take pride in their *derian saka*, or ancestral durians, as the trees develop without artificial chemical interventions. It is said that the *derians* can be eaten in abundance without feeling *jelak*. *Jelak* is an expression and reaction when one experiences excessive consumption of a particular rich food or activity, feeling satiated with the said subject. Hence, believing that the *derian bukit* is healthy and nutritious, one can eat to their heart's yearning without being afraid of being negatively overwhelmed. Temuan's *derian bukit* is often being compared to the *Musang King* variety due to its popularity, and this frequently irks the community because *Musang King* contains high amounts of chemical intervention in its growing process. The Temuans credit *Musang King's* heavy-laden creaminess to the artificial chemicals present in the fruits. As Temuans grow up eating fruits from generational old *derian* trees with some ranging at least about 100 years old, most find it incomprehensible to observe conventional farmers who plant *derian-kahwin* (grafted trees) with artificial chemicals that reduces their lifespan to 20- 30 years.

Kita jaga (pokok derian) untuk sampai beratus-ratus tahun, sampai cucu-cicit kita boleh rasa hasil... Bukan macam diorang, nak asyik paksa buah..⁴⁴

We take care (of the trees) to reach the maturity of hundreds of years, so that our children and the generations after them can taste the toils of our hard work... Unlike them, who only wants to force produce the fruits..

3.2.8 Phases of Derian Harvest

When the *derian* trees ripen during the earliest part of the fruiting season, they term this occurrence *buah kakak* (the elder sister fruit) or *membusuk (rotting)*. The fruits are not harvested as it is not of the highest quality and the Temuan would not eat them. Flesh from

⁴⁴ (Author's Fieldwork 2021).

the first harvest is said to be unappetizing as they are mostly spoiled and are not ripe enough. Kak Misan speculated that it is called *membusuk* because they are collected and piled in an identified space to leave to rot, producing some stench but eventually burned and turned into fertilizers. The second ripening onwards is what they refer to as *memasak (ripening)*. Temuans look forward to the *buah pertengahan* (middle), the harvest collected mid-season. This is because the fruits had ripened or 'matured' to their best potential during this time. It is also said to be of the best quality as the trees removed the first spoils and produce the best fruits after eradicating the other lesser quality ones. Cultivators claim that fewer fruits are competing for the nutrition they are getting from the tree.⁴⁵

The period after this harvest is the *buah adik* (little sister/brother fruit) when there are the most *derian* available. However, *derian* harvested during this period are considered inferior in taste as the nutrition in the trees is shared among the highest number of *derians*, diluting the potency of taste and nutrition. Ayah Sze ler explains, for example, when you use a sachet of coffee in a smaller mug, it tastes better because it is concentrated, the same sachet of coffee used in a big mug (with more water) will taste bland, "*ah*, *macam mengopi lah*, *macam sepaket*, *koleh kecik*, *dia banyak*. Ada sedap, pekat ah. Kalau koleh besar, dia tu akan tawar".

In contrast, *Buah Kakak* which produced in April as opposed to August, is said to produce the best *derians* although not consistently. Kak Misan claim that the trees produce the least number of fruits and face lesser competition in obtaining nutrition. This also makes for the highest potency in terms of taste, nutrition, and aroma. Moving on, after the *buah adik*

⁴⁵ Dr Khoo notes that the Chinese farmers cull almost 50-75% of the fruits on the trees to ensure the leftover fruits to grow to be big, sweet, and of quality.

harvest, Temuans stop collecting *derians* at about 20-25% of fruit availability around August. The fruits are left for the non-humans to eat to ensure everyone's liveability. At the end of this season, communities hold the *Raya Buah* to thank the ancestors for their blessings in providing good vitality to the *derians*.

3.2.9 Naming of the *Derian* Trees

As mentioned in chapter 2, the dusun is planted in patches or clusters. Not all derian trees are given names, as some younger trees follow the mother tree's name or other placemaking reference. I notice that it is because the trees have not borne any fruits which enables a form of distinction or any historic or memorable event that occur around it. According to Mamak Gian, his dusun contains approximately 80-90 derian trees and is considered one of the biggest remaining *dusun* in the village. Previously, he had up to 150 *derian* trees, but most of the older trees were cut down by miners and loggers. Using the PRA exercise from Figure 15, table 5 below is constructed to understand the significance of derian trees to its landscape. As a result, 20 distinct names were identified in this dusun. From that, the results show that the names given were primarily characterized by four categories; i. its association to the surrounding landscape (e.g. durian grown on a stone or located beside a specific tree), ii. association to a mother tree cluster (See cluster 21), iii. the characteristic of its fruits (smell, flavour, visual) and iv. their relation to the human and non-human element (e.g. trees for animal consumption or stories surrounding human activities). This mapping process provides clear evidence in the work of care by the Temuan people towards their *derian* trees. Through spatial identification, this is an example of how the Temuan classify and categorize their knowledge of the environment concerning *derian* trees.

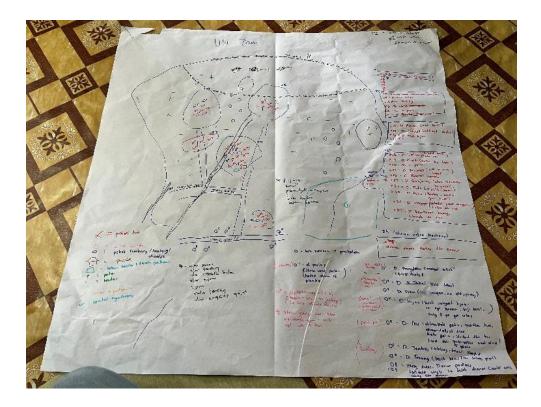


Figure 15. Mamak Gian's place-making *dusun* map (Author's Fieldwork 2022).

#Cluster	Tree Locations	Tree Name (Derian)	Description	#Cluster	Tree Locations	Tree Name (Derian)	Description
21	X1	D. Machang	-	24	X18	D. Latak	Grown on top of a smooth rock
	X2	Named as Above	-		X19	D. Tupai	<i>Derians</i> to be eaten by squirrels
	Х3	Named as Above	-		X20	D. Isi Putih	White-fleshed derians
	X4	Named as Above	-		X21	D. Terwak	Derians shaped like a light bulb
	X5	Named as Above	-		X22	D. Bontot Pecah	Open mouth derians
	X6	Named as Above	-		X23	D. Gerjaing	Derians with spiky thorns
22	X7	D. Buah Besar dan Panjang	Big and long shaped <i>derians</i>		X24	D. Putih	White flesh derians
	X8	D. Botak	Thornless derians]	X25	D. Pahit	Spicy, pungent odour
	Х9	D. Hutan	Wild durian, prized tree. In the olden days, the forest would only have 2-3 at a time.		X26	D. Manggis	Located beside a mangosteen tree
	X10	-	-		X27	D. Rambutan Kuning	-
	X11	D. Dengkel	Have little flesh	25	X28	D. Pokok Bachang	Located beside a bachang tree
	X12	D. Isi Kuning Putih	White flesh <i>derians</i> with hint of yellow		X29	Named as Above	-
	X13	D. Isi Putih	White-fleshed derians		X30	Named as Above	-
23	X14	D. Rambai	Small Fruits		X31	Named as Above	-
	X15	D. Landak	Attracts Porcupine				
	X16	D. Hijau	Fruit exteriors are distinctly green				
	X17	D. Hijau	"				

Table 5. List of *derian* tree names in Mamak Gian's dusun (Author's Fieldwork 2022).

3.3 Challenges & Operation Expenditures in the Farm

Kak Misan recalls the hardship of the 'backend' operations that is required to run a *derian* business operation. With that being said, she feels happy and excited as the process, albeit tiring, gives her a feeling of contentment. She recalls the cost that is required to transport the *derians* out to the stall. They budgeted RM50 to buy gas for 2 weeks' cooking, and RM15 for the purpose of charging phones and lights using gas, though some convert to solar power if they can afford it. Groceries are allocated RM300-400 per two weeks depending on the number of caretakers but could increase to RM500 as the cold temperatures at night causes people to eat more. In the early season of the fruit harvest, villagers would need to *gotong-royong*, in which the community would need to be spent on buying chainsaw and maintaining it; on oil and black oil. This expenditure would be hard to estimate as it depends on the condition of the broken bridges and how many logs are required for each unique case. For the larger orchards and bigger businesses, families would pay others to stay in the forest for them, to chase other frugivorous predators away that are lurking around.

This would mean a monthly salary from the budding of the flowers until almost 75% of the *derians* are harvested. A monthly salary could go up to RM1,000-1,500 or more depending on negotiations and require the hiring of up to 4 persons depending on the size of *the dusun*. Families would not try to underpay the workers as they are family members. During the *derian* harvest season, they would also need to set money aside for vehicle repairs as the bad road conditions in and out of the farms cause a lot of damage to their motorcycles. Owners must bear long-term maintenance due to the severe damage it can cause to the motorcycles and invest in off-road tyres for safety. One motorcycle could fit up to 2 huge

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raga (rattan baskets. See figure 16),⁴⁶ as they lug one behind and another in front. The process is hazardous for both the driver and the vehicle. On that account, families do not prefer to sell their *derians* directly to consumers as that would require additional manpower for logistics and customer service. The process will also take time away from the forest, which they deem is the best part of durian season. Additionally, kak Misan and kak Sela have confided that some customers are rude to them because of their status as Orang Asli. They say that they are being looked down upon and buyers attempt to negotiate for an unreasonable price because they think that the Orang Asli are uninformed. Although some still sell their *derians* by the roadside (see figure 17), most prefer to be farmers and deal with a middleman that could buy up all their *derians*. This is even when the wholesale price is lower because it is hassle-free.



Figure 16. A Temuan lugging a *raga* filled with *derians* on a motorcycle

(Author's Fieldwork 2022).47

⁴⁶ Usually, Temuan weave *raga* in 3 sizes for the fruit season yearly.

⁴⁷ Source from an informant.



Figure 17. A derian stall located beside the road (Author's Fieldwork 2022).48

3.4 The Sino-Temuan Entrepreneur

Many Orang Asli literature noted the importance of Orang Asli-Malay relationships to gain economic and political importance (Endicott et al. 2016; Gomes 2004; Lye 2004; Nicholas 2000; Toshihiro 2004) and the reliance of Chinese traders and Chinese middlemen as primary buyers of *derians* (Gomes 2004; Toshihiro 2004). Kampung Orang Asli Gendoi sees the emergence of Temuan entrepreneurs with Chinese and Temuan lineage bridging both worlds. Ayah Sze Ler is an outstanding entrepreneur who speaks fluent Mandarin, Cantonese, Temuan and Malay. His ability to seamlessly navigate these languages enables him to blend into any group, making him a powerful network actant in the *derian* assemblage. By speaking the native language of Chinese buyers, ayah Sze Ler can be part of the Chinese business community and so can use his Chinese heritage to reify the relationships. In Chinese businesses, good interpersonal relationships (*guanxi*) are built upon community

⁴⁸ Persons blurred for confidentiality.

members' cooperative behaviours to achieve harmony and balance (King 1991; Silin 1976). On top of that, being part of the ethnic group allows him to build better business trust as he has Chinese relatives 'in the circle' to vouch for his business credentials. While *guanxi* works as a philosophy in the bigger Chinese business organization setting, the network persists among smallholders (Yeung 2004). Ayah Sze Ler uses his identity to connect Temuan farmers with Chinese buyers through the identification of both cultural worlds. By eliminating a middleman and assuming both identities, he navigates between his kinship ties with Temuan cultivators and Chinese business networks, creating a wider market for the Temuan farmers to negotiate better deals.

3.5 Negotiating Identity and the Future of *Derian*

As we gathered and sat on the lean-to listening to Nenek Bagus and Mamak Slan telling the stories of the old, Asewah regularly chips into her thoughts, adding to the conversation of the old stories and sharing her reverence for the *hutan*. Moments after we wrapped up, we moved into the church where the women were waiting to practice their worship performance. I took the time to speak to the women to understand the precursor for the future of *derian* trade in relation to their *adat* and spirituality. In negotiating their identity, the Temuans hoped their children would attain higher education, but many dropped out halfway and sought wage labour instead. The reasons for this are myriad and layered, but some of the primary attributes given by parents are that children are more interested in screen-time and the fast bits of information rather than travelling to school and listening to a long-pace lecture in the age of *TikTok*. They are also easily swayed by materialistic culture to be comparable to mainstream society. This is because working in the forest is hard work, and most are not interested in staying in the *kebun saka* for months and experiencing downtime

with the internet. Most work at factories or do blue-collar work; some even play mobile PUBG games on their smartphones to earn money from tournaments.⁴⁹ Many children cannot relate at school because the teacher does not understand their culture and they feel misunderstood and a sense of unbelonging. This is notwithstanding the bullying they receive from other children for being different. Some children attended school up to Form 3 and still do not know how to count, resulting in the parents questioning the quality of education received at school. Kak Lara confided that when she asked her son to accompany her to the forest to help with the *derian* harvest, her son replied that he was busy at work in the *bandar hutan* (city forest). She sees a shift in the younger generation's view of what it means to be at *home* and a degradation of *jati diri*. As Nobuta Toshihiro (2009) notes, the children are *becoming Melayu*. Some respondents even express disappointment and regret that the children are ashamed to be Orang Asli and introduce themselves as Malay when meeting outsiders outside the village. This situation creates a generation of Temuan who are alienated from their land and distanced from their community.

On the other hand, many mentioned the uncontrollable harmful spirit possessions that had been occurring, in which previous methods, including their old ways of *berubat* (shamanistic healing) and seeing the Muslim *imam* could not resolve. The respondents find solace in Christianity to absolve their fears in exorcising harmful spirits and living in precarity. In his study, Wong (2017) questions his Semai informants on how they reconcile the incompatibility between turning to *Halak*, a shamanistic ritual, and being a Christian. His informant "pointed to [their] right to reflexively engage with Christianity on account of their place in the forest" (172). Few of the Temuan in the community have actively abandoned the ways of old, primarily those related to the pastor. However, most like Wong's (2017)

⁴⁹ PUBG is a popular online mobile app game played by many Orang Asli communities and the public.

study negotiate their identity by attending the *Raya Buah* harvest but not participating in the ritual aspect of it. Perhaps, this could be one of the reasons why they no longer have a *bomoh* to participate in the *Raya Buah*. When asked, they said they participated because they still believe it is a way to be thankful to their ancestors and that they should not forget their roots. As Gomes (2004) had noted, the conversion can be seen to counter the hegemonic strategy of conversion into Islam by assuming an identity opposed to being Malay.

By listening to their frustrations, I could not help but wonder what it means for the future of the derian saka. How do Temuan continue to renegotiate their newly embraced Christian identities and the ways of the old? Using durians as a material culture to enter the conversation, the Temuan continue to believe some aspects of the *adat*, such as the correlation between adat transgressions and its effect on the derian harvest. In addition, some concepts were maintained and carried over, such as bersapa (to communicate) to the almighty tuhan. However, the intermediaries are no longer the same, as nenek genui (ancestor spirits), spirit familiars, and prominent spiritual leaders such as batin and jenang are no longer engaged. Instead, Temuan Christians seek the pastor and the support of church groups for their material and spiritual comfort while harimau moyang is reduced to cerita dongeng. As the younger generation is continually alienated from their culture and remains disinterested in the work of care revolving hutan, perhaps, some of the traditions and principles might be lost. However, not all is bleak as the Temuan continue to negotiate their identity and spirituality. Like the principle of 'the art of conversation', the younger generation might perhaps still bersapa and see derian for its material, heritage, and cultural value.

This is evident among young adult Temuan who realize the economic potential of

derian agroforestry albeit with enormous challenges. Ayah Sze Ler condense it for me, as we

sat by the road selling *derians* in a makeshift pedestal:

Macam mana nak usaha tanah kami kalau diorang tu asyik datang.. ugut kami Orang Asli? Kami baru nak usaha sikit, orang luar datang kacau.. Kami buat projek sini.. Ha.. macam projek eko (rental campsite for tourists) tu kan? Habes tu dato' mana pulak datang..ha.

Orang luar slalu cakap.. kami Orang Asli malas. Tapi macam mana nak usaha kalau tempat kami asyik kena kacau? Sebab itu saya betul, terus terang.. Tanah dusun kami tu saya akan tahan.. Macam manapun saya akan pertahankan. Biarlah kena maki macam mana pun..

Bukan nak cakap apa.. diorang tu dah putus harapan. Macam mana tak putus? Bayangkan Sila hari-hari usaha, lepastu tiba-tiba ada orang luar datang ambik macam tu je. [Kak Sela and nods in agreement] Benda ni bukan baru.. Kami Orang Asli asyik kena macam tu. Kalau nak cakap kasar.. Kena kencing lah dengan orang luar!"⁵⁰

How do we work on our land if those people keep coming... Threatening us Orang Asli? We just wanted to start working again, [but] outsiders came to mess it up.. [When] we are doing the project here.. Ha.. Like that eco-project (rental campsite for tourists) right? And out of nowhere, that Dato' came..ha..

Outsiders always say... we, the Orang Asli, are lazy. But how can we put in (continuous) effort if our place is constantly being disturbed? That's why, frankly.. I will protect our village land.. No matter what, I will defend it. Doesn't matter if I am insulted in any way..

I don't want to say anything [it's not that I'm complaining].... [but] those people [Orang Asli] have given up hope. How do you not give up? Imagine if Sheila works hard every day, then suddenly someone from the outside comes to grab it, just like that [Kak Sela and Kak Misan nods in agreement]. This thing is not new.. We Orang Asli are always being treated like that. To speak in a crude manner.. We have been peed upon (played)!"

In his frustrations, it becomes clear that many community members are experiencing the drag of 'loss of hope' (*putus harapan*) in furthering their traditional livelihood. Ayah Sze Ler recognizes his ability to make his *derian* business successful simply because he had accumulated some capital from his various businesses. In contrast, this reality does not apply to most young Temuan, which motivated him to support other community members to further the *derian* business. He also acknowledged the importance of the social support system he received during his startup days. Regretfully, he adds that many no longer lend

⁵⁰ (Author's Fieldwork 2022).

support compared to his time because of community tension arising from land conflict, among others. The next chapter will explore the land conflict further to single out the most crucial determinant for continuing their *derian* business and agroforestry management sustainability. In continuation, Chapter 5 explores some Temuan strategies in working with NGOs to leverage support that they otherwise would not be able to receive from the government.

Conclusion

The work of care by the Temuan towards their trees shows dedication and sustainable usage of resources, which can only be done through experience and intimate knowledge of the land. Identifying trees through names, predicting nature changes using the seasonal calendar, and understanding the exact boundary of their *dusun* through the identification of *derian* trees suggests remarkable familiarity and discernment that could only come with training or lived experiences. The data and analysis provided evidence that the Temuan have a unique approach to *derian* cultivation and dispelled assumptions of their *Derian* trees as wild and uncultivated. Additionally, this chapter has also managed to address some of the questions of identity, in which the Temuan is forced to negotiate in relation to the future of *derian saka*.

IV DERIAN RIGHTS

Introduction

A multi layered analysis requires one to examine the local histories and the layers of political and economic influences that affect local practices (Peluso 2004). Peluso & Ribot (2020) examines the types of relations of access to those who seek to gain (or maintain access) land and those who control. These power dynamics are directed through "cooperation, competition, conflict and negotiation", revealing hierarchies, webs of powers "or what they call fluid multi layered social hierarchies" (Peluso & Ribot 2022, 301). By examining the common and individual experiences of history, the ethic of access exposes larger property processes while factoring the social, environment and politics over time (Peluso, 2004). In other words, the ethic of access assesses a society's politics, economy, and culture through the changes in landscape and property focusing on its process (Peluso 2004). Using durians to situate the discussion, ethics of access enables one to understand property processes over intergenerational change as the durian is a long-living tree.

While the Orang Asli have been trading for millennia, the increasing need to be a part of the cash economy is marked by multiple dimensions, not exclusive to the government resettlement projects, assimilation, loss of land and livelihood (Dove 2011; Kirk Endicott 2016; Nicholas 2004; Wazir & Razha 2015). Some have even critiqued the shift away from the old belief systems as the reason for social disunity, destabilising social ties built upon similar values and beliefs (Dentan 1996; Nicholas 2022; Toshihiro 2009; Wazir & Razha 2015). The increasing shift from a communal-base subsistence economy into a cash economy has seen the erosion of *adat* that governs their beliefs, lifestyle, and values (Gomes 2004; Nicholas 2004; Nicholas et al. 2010). However, in a Semai case study, Wong (2018) suggests that these values have not depreciated but instead innovated to reconcile the conflation of differing views on their terms. In this chapter, I examine Temuan strategies in negotiating their ambiguous rights to land usage and ownership, state law, and the communal *adat* principles. Using Peluso's (2004) concepts of ethic of access and political forests, I examine the increasingly complex ways of how the ambiguity of state and communal laws creates room for manoeuvring within and outside of the Temuan community (inter and intracommunity relations). Furthermore, state intervention projects have made some community members increasingly dependent on the government (Li 2014; Nicholas 2004). This dependency creates changes in values among community members and increases conflicts due to differing aspirations within the community.

The chapter begins with a short overview of land rights concerning customary land, native and private titling, and forest reserves that often intertwine with indigenous spaces. The following section explores Temuan's ancestral orchards, *dusun*, as a political forest by examining forms of territorialization within community boundaries. The subsequent section examines the changing aspirations within the community and the deterioration of *adat* as a social fabric, which sees the community rely on state mechanisms that further impoverish the community. Section 4.3 discusses the multiple layers and conflicting ownership between communal law and the reliance on legislative law in seeking land rights. Consequently, the erosion of *adat* sees the reduction of Temuan autonomy as they begin to rely on state legislation that was once placed to disempower them. Finally, the chapter ends by discussing

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the different modes of inheritance through intergenerational, spatial, and temporal categories, followed by a chapter conclusion.

4.1 An Overview of Native Land Rights: State Mechanism And Forest Reserve

While neighbouring Indonesia uses Domeinverklaring to claim all land as property or 'domains' of the state, Malaysia had inherited the Torrens system from its previous colonial administrator using the discoverer's law (Cheah 2005; Peluso 2005, 9; Wook 2016). While the Dutch had allowed the native inhabitants to implement their customary laws unless they conflicted with the Dutch's principles of equity and justice, the British had introduced their laws into the Strait Settlements and the Federated Malay States (Wook 2016). However, Wook (2016) noted that the rights to uphold customary land tenure continued despite implementing the English Deeds System that had replaced the former titling systems. The Malaysian government absorbed these laws through the National Land Code 1965, which uses the language of "idle land" to claim ownership of all the areas within Peninsular Malaysia that have not been given titles nor used for economic purposes. However, land rights prerogatives are held under the state government's power with little ability for contestation (Anbalagan 2021). With little to no protection from the Land Acquisition Act, these land titling can rescind at any time under the state's authority, reducing the Orang Asli to merely habitants or tenants of their land (Cheah 2014; Endicott & Dentan 2008; Idrus 2011; Nicholas 2004; Sayuti et al. 2021). Cheah (2005) pinpoints the National Land Code 1965 as the reason for the "total denial of the existence of Orang Asli land rights under the formal legal system" (12).

In the landmark case of *Sagong Tasi V. State of Selangor*, Rusaslina Idrus (2011) noted the court's decision to compensate Orang Asli for their land based on propriety rights and not merely on their fruit trees and building structures. This recognition is vital as it establishes Orang Asli as not merely tenants but owners of their lands, ascending from the arguments of 'wards' of the patriarchal state to the assertion of rights marked by full citizenship (Rusaslina Idrus 2011). While this historical judgement and the Adong Kuwau case have significantly given voice to the Orang Asli communities, the court's decision is not echoed by all the other state governments (Cheah 2005; Subramaniam 2013). As remarked by Kelantan's Deputy Menteri Besar Mohd Amar Nik Abdullah, "there was no land 'owned' by Orang Asli in the state beyond what was 'given' to them by the state government" (Along et al. 2022; Malaysiakini 2019). Furthermore, Cheah (2005) argues that although the Sagong Tasi case had granted formal legal recognition of Orang Asli land via Selangor's High Court, the conferred Orang Asli Native titles are similar to any other private registered land titles. Cheah's (2005) analysis highlighted the Selangor High Court failure to recognize the differences between Orang Asli native title as opposed to the private registered title, which should be treated as sui generis defined through indigenous communal land laws. Hamimah Hamzah (2013) specify customary land as "a defined area which an indigenous people identify as its territories areas, or ecosystem. The territory is considered customary by virtue of its prior occupation, utilization, and settlement by indigenous community in accordance with their customary laws and practices since time immemorial" (1). At the same time, Peluso (2005) cautioned the usage of "customary land" to contest for land rights, as the legal framework grapples with the preceding colonial legislations opposing the counterarguments for recognizing the autonomous local governance structure of indigenous peoples.

With regards to individual land titles, Hamimah Hamzah (2013) and Niza et al. (2011) added that the new Orang Asli land policy implemented on the 4th of December 2010 aims to recast individual households into homogenous plantation smallholders. Without having the rights to file claims in court, those awarded the private land grants were under the basis of a 99-year lease (Hamimah Hamzah 2013). Contradicting Orang Asli communal land rights which is passed from one generation to another, Nicholas in Hamimah Hamzah (2013) pointed out that Orang Asli land now "has an expiry date" of 99 years (77). Nonetheless, the precarious state of Orang Asli land had resulted in high acceptance of private land titling among the community (Siti Aishah & Azima Abdul 2021). As a result, scholars observed that the loss of customary lands has destructive socio-cultural effects on Orang Asli culture and Identities (Crabtree & Crabtree 2016; Griffith 2014; Hamimah 2013; Kamal & Lim 2019; Lye 2014; Nicholas 2000; Nicholas et al. 2010; Seow 2013).

In reality, many Orang Asli land overlaps with the Permanent Reserve Forest gazetted under the National Forestry Act 1974 (Subramaniam 2013). However, only the state of Sabah and Selangor requires a majority vote from the state assembly to degazette forest status (TheStar 2022). According to Lim (2022b) in the press conference at Malaysian Nature Society (MNS) held on the 5th of July 2022, only two states in Malaysia have pledged to preserve forests: Selangor committing 30% of forests area and Negeri Sembilan 23% respectively. Despite that, he added that agricultural crops were found in forest reserve areas, showing a "misalignment of policy and reality of forest areas". However, there were no data to suggest how many percentages of these agricultural crops were planted by the indigenous peoples or by plantation companies.

Malaysia in the year 1992, had pledged at the Earth Summit in Rio De Janeiro to maintain at least 50% of forest cover from its total land cover (Dato' Sri Douglas Uggah Embas 1992). Since then, Lim (2022) observed that politicians eventually use the term "tree cover area", which includes any categorization of trees such as mono plantations, agricultural trees, and fruit tree orchards in that total (Ministry of Energy and Natural Resources 2022). The generalized meaning of 'tree cover area' downplays the integrity of primary forests home to complex ecological biodiversity, age-old trees and the intense layers of forest litter soil that are required to support the needs of these enduring networks. Such generalization ignores the complexities of forest zoning, which the indigenous peoples have taken part in for centuries in managing their resources sustainably (Li 2014; Lye 2004; Nicholas 2004). The simplification of these forest network that incorporates lone-standing trees in city spaces perpetuates the lens of 'objectivism' by the state, which denies the subjectivity of Orang Asli, their lived experiences and the wealth of knowledge they have applied to their forest homes. Lone-standing trees are not the same as trees that make up forest ecologies, which form the continuation of forest networks and bridge liveability for humans and nonhumans. This objectivity ignores the complex ecological interdependence of humans and nonhumans, as evident in the gazetting of Orang Asli customary land as Permanent Reserve Forest instead of granting native titles. To gazette Orang Asli land as conservation forests effectively removes Orang Asli from using forest resources as the law perceives the community as extractors rather than sustainable users.

Some critics have even argued that conservation requires further rethinking in the work of care (Chua 2021; Parreñas 2018). Parreñas (2018) gave the example of the orang utan conservation programmes, in which having a higher population of orang utan does not necessarily mean that the conservation is successful if the orang utan survivors and the humans affected by the conservation forest zones are required to face a harsh environment to live. The act of care requires a condition of liveability and interdependency while not being subjected to hostage for humans and nonhumans (Parreñas 2018). As Parreñas (2018, 28) aptly encapsulates this hostile environment:

Arrested autonomy is arrested decolonization in the face of ongoing colonialism when colonialism is supposed to be over. It is the frustration of having the means intended to foster interdependence instead work toward continued dependence.

In other words, conservation might be a façade to justify speciesism while transgressing the indigenous peoples' rights to livelihood and their role in the sustainable use of the forest (Chua 2021; Egay & Hew 2018; Parreñas 2018; Wong 2018). While the commitment to retain tree cover area is being upheld, the reduction of the meaning of forest and the impermanent status of forests is perpetuated by the motive of resource exploitation in the name of state taxation and corporate extraction.

4.2 The Political Forest of *Dusun*: Forms of Territorialization

In this section, I examine the multiple forms of territorialization on Temuan ancestral *dusun*. Political forests are defined as "territorial entities defined as political-administrative units regardless of the kind of vegetative cover they supported" Peluso (2005, 9). Seeking loopholes in the negotiation between customary law and state legislation, Temuan confronts outsiders' interests with little negotiation power. The same plot of land is termed differently by various interested parties, transforming the *dusun* containing primarily durian trees into political forests.⁵¹ For the Temuan, the plot of land contains their ancestral trees as means of livelihood. For the miners and loggers, the plot of land containing tin and timber. At the same time, the state sees itself as the legitimate landowner with the rights to lease and deny Orang Asli ownership of the land. In one instance, mamak Lian's late father had leased his durian orchards thrice over 25 years. A miner had wanted access to mine tin, for which he had agreed to pay a paltry compensation of RM150 per month. However, after several

⁵¹ In the Temuan context, *Dusun* is also synonym with *tanah adat* as it is managed by the community. *Kebun* are individual farms and are grown with cash-crops for livelihood. Source from informants.

months, the owner stopped paying altogether as the project did not materialize. After several years, logging company B had come to clear part of the orchard trees. His father intervened and managed to secure RM3,000, but ultimately was not compensated in full. Finally, after many years, the mining site had garnered interest from another logging company to which Mamak Lian father conceded another compensation package. When the third contractor began their work, the first and second contractors suddenly appeared at their door seeking explanations for the contract violations.

The ambiguous status of the Orang Asli land ownership and the lack of recognition of these proprieties have created conditions for outsiders to exploit the community. At the same time, the same ambiguity had been used by some Orang Asli as a strategy to negotiate dealings by leasing out their land, although not in a favourable position. Regardless of a black-and-white agreement, such contracts cannot be enforced through the state's legal means, putting the Temuan at a loss. Forced to confront the power imbalance, the Temuan could choose not to sell the *dusun* off, but many prefer a non-confrontational option and attempt to bargain their way out of the deal.⁵² For some of the contractors, they could close an eye and ignore the presence of the Orang Asli, mainly if they had obtained leasing through the state's legal means. However, such violence would create problems during the project as they might face repercussions from the community. For the contractors, paying off a paltry sum to the community is better to reduce potential conflict than dealing with any issues during the project.

Contoh atuk saya.. Betul, kami bukan selalu ada duit. Buah durian bukan sentiasa ada. Semusim sekali, dan kami kena cari makan di luar. Jadi bila kita cari makan kat luar, kita cari duit sikit, kita bela. Jaga. maka itu... apabila kita nak menanda ini kawasan kita. Mereka bantah. Apabila kita ajukan kepada JAKOA, kami nak ukur tanah Orang Asli, dia kata "Orang Asli tak payah ukur. Orang Asli buka saja, suka mana, buka saja". Dia ada kata begitu. Orang dulu ada bersetuju, tapi, kita tidak mendapat hak yang kukuh. Yang sepatutnya. Cik (Sheila) boleh cakap cik punya, Eric boleh kata Eric

⁵² Dentan (1978) had explored the notion of non-violence in Semai and Orang Asli peoples.

punya. Eric tak boleh bertelagah dengan saya, Eric pergi ke pejabat tanah.. Tengok kosong. Eh, tapi bila datang sini, ada saya punya durian. Sedangkan saya tiada plot dan tiada sempadan. Apabila saya nak plotkan dan ada sempadan, pihak JAKOA cakap "tak payah", tebang saja, tanam saja."⁵³

For example, my grandfather.. Correct, we do not always have money. Durian is not always available. [It fruits] Once a season, and we need to find food outside. Hence, when we want to find food outside, we look for some money, we defend. Take care. Therefore, when we want to mark that this is our area, they protested. When we bring this matter to JAKOA that we want to measure the Orang Asli land, he said "Orang Asli don't need to measure [the land]. Orang Asli can just open [the land], wherever you like, just open". He said so. In old times, people used to agree, but we didn't get solid rights. It should be Miss [Sheila] can say it [belongs to] Miss, Eric gets to say [it is] Eric's. Eric can't argue with me. When Eric goes to the land office... Look, it's blank. Eh, but when [he] comes here, there's my durian [trees]. I don't have no plot or boundaries. When I want to plot [to mark] and have boundaries, JAKOA said "no need. Just cut down, just plant."

As most of the community is unaware of the legal status of their lands, some lamented JAKOA's vague stance in championing Orang Asli interest.⁵⁴ In the statement above, mamak Lian contends with JAKOA's vague attempts to demarcate and recognize their land through legislative means. When mamak Lian approaches a JAKOA officer to request to demarcate their land, the officer remarked that the Orang Asli may continue to open land for farming wherever they please.⁵⁵ However, should a non-Orang Asli liaise with the Land Office, they would find that the plot of land Temuan had farmed and planted with fruit trees is available for sale, creating a conflict of ownership between Temuan and the non-Orang Asli (*de jure* vs *de facto* property rights). This uncertainty denotes JAKOA's failure to explain the community's rights and state legislations that applies to the community. In a later conversation, mamak Lian continued that these pieces of land that had been worked by the

⁵³ See Mamak Lian's interview (Fieldnotes 2022).

⁵⁴ Jabatan Orang Asli or the Department of Orang Asli Development.

⁵⁵ In a personal conversation with Colin Nicholas, measuring land via state processes would require a hefty sum reaching millions if it includes the larger boundaries of customary land. At the point of writing, many villages are on the 'waiting list' even though the land has been granted recognition by state apparatus as measuring land is expensive to do. Some NGOs and communities have begun the counter-mapping process on their own as a framework, but the government does not necessarily recognize this.

which now fetch a premium price. Many buyers acquire such land for their usage, especially as vacation homes or retirement homes.⁵⁶

Due to Orang Asli customary land laws being unrecognized as autonomous by the state, such a situation is problematic as it gives significant advantage to any non-Orang Asli access to Orang Asli land. For the Temuan, clearing forest orchards de-territorializes their rights as autonomous peoples. For the state, the power to make legislative decisions gives them the ability to territorialize Temuan land. At the same time, the act of resource extraction from the miners and loggers re-territorializes Temuan land. The eradication of long-living durian trees and the non-legislative recognition of the *dusun* eliminates durian trees as boundary markers of Temuan land, together with the Orang Asli's history of existence and their right to use their land.

4.3 Individual Land Privatization vs Communal Land

Multiple scholars have documented how different groups of Orang Asli aided the communist insurgence in 1948-1960 (Nicholas 2004). At the same time, Orang Asli played a significant role in stopping communist movements by using village networks (Edo & Kamal 2016). Some Orang Asli village network had even come together to preserve Orang Asli interest by working with both parties to remain safe in their villages (Edo et al. 2009; Gomes 2004; Toshihiro 2009). Seeing the importance of Orang Asli involvement during the insurgence, jungle forts were built to stop the Orang Asli from aiding the communists by the British colonial. To contextualize this part of history, the government regroupment scheme (*Rancangan Penempatan Semula, RPS*) was an extension of the jungle forts that were built to curb Orang Asli movements (Edo et al. 2009; Nicholas 2004). As critics had observed, the RPS is the

⁵⁶ The area of case study is a popular tourist site.

beginning of a more direct intervention in the Orang Asli's lives (Nicholas 2004). Scholars have noted the multiple perimeters the government oversees in positioning itself as a paternalistic figure (Idrus 2010 & 2011; Nah 2003; Nicholas 2004 & 2010; Subramaniam 2013). These include the selection of the headman, the control of their smallholding economy through FELDA and RISDA, assimilation (not integration) of Orang Asli to mainstream groups, and Islamic proselytization (Nicholas 2004; Toshihiro 2009).

As such, many of these roles have been discussed comprehensively by other scholars. However, in this section, I would like to explore how state intervention programmes such as the individual privatizing of land through plantation projects has changed the community's perspective in viewing property relations. Recognizing Doolittle's (2001) warning that a collective land title such as the Native Reserve title no longer addresses today's differing needs and aspirations of the villagers, using *derian* trees as a worldview, I examine Kuut's and the community's strategy in negotiating the ambiguous nature of land usage and ownership due to past and present state interventions to exert individual and communal interests by using the interstices of *adat* and state mechanisms.

When the Temuan I interviewed had signed up for the Rubber Industry Smallholders Development Authority (RISDA) and Federal Land Consolidation and Rehabilitation Authority (FELCRA) projects, some of the ancestral and individual durian orchards were cut down to make way for the new projects. From the government's perspective, these lands were given to the community to develop 98 acres of rubber and palm oil plantations.⁵⁷ However, villagers reported that only 22 families related to the *batin* had received the individual private-titled land over the 60 families.⁵⁸ In fact, the condition to receive these private titled

⁵⁷ (Fieldwork 2022). Informants shared during a semi-structured group discussion.

⁵⁸ Batin is the spiritual headman of the village. Info triangulated from several families.

land is to relocate to the RPS resettlement housing. This has created conflict within the village as dissatisfaction arises among villagers, suggesting the state's way of territorialization (Peluso & Lund 2011a) and the deterioration of communal leadership and *adat* (Nicholas 2022). The disparity creates further tension with the principles of *adat*, which frowns on the heavy accumulation of wealth and challenges the system of reciprocity and exchange. As Lye (2005, 252) contextualizes:

It is better to give than to ask, and social life is a dance between making things available to others and retaining control of the products of one's labour. One of the worst things to be is a parasite who consistently lives off other people's efforts without reciprocating contributions.⁵⁹

Adat, the social fabric that defines and serves as a glue for social cohesion among Orang Asli, becomes contested as they enter state development projects. In addition, the *Lembaga Adat* which was once a testament to the Temuan leadership and governance no longer convenes in the village.⁶⁰ Among the villagers I interviewed, they feel that nobody wants to take over the role of those in the *Lembaga Adat* as they fear retaliation from fellow villagers and being accused of '*makan duit*' (corrupted) and '*kuat politik*' (playing politics). As a result, the intracommunity relationships become guarded, and *adat*, which was once expected as a guideline in the community, no longer serves as a cohesive factor.

Furthermore, the agricultural project usurped part of the communal land in which some of the trees belonged to individual community members. The land was privatized and divided equally among participating members, challenging the existing status quo and traditional lens in viewing property.⁶¹ For context, communal land belongs to the future

⁵⁹ While this is quoted from the context of Batek who are primarily mobile hunter gatherers, this sentiment of the system of reciprocity implicated in the *adat* is relatively shared among Orang Asli communities.

⁶⁰ Several informants have confirmed this.

⁶¹ 'Serah milik, bukan beli". Traditionally, one can purchase access to the trees but not necessarily the land.

generation, therefore, one does not own the land but merely 'borrow it' from the future generation (personal conversation with Colin Nicholas 2022). This situation has created further antagonism and deepening distrust within the community. On top of the harvest of rubber and palm oil crop trees, participants receive a monthly stipend of RM500 through the cooperative, heightening economic disparity within the community. As Li (2014) cautions, those who are landless are further impoverished due to the reliance on wage labour, while those who own land can continue to proliferate their capital, causing distinct wealth gaps. The rising inequality has seen pressures within the village to gain access to cash for livelihood by selling off their *dusun* to members within and outside of the community.

When an Orang Asli sells their land to an outsider, this transaction is not legal in the eyes of the state. The Temuan seller has no rights to sell the land as the land belongs to the state. Thus, the transaction would have no value should the buyer attempt to make a claim. However, when a Temuan sells their land to another Temuan, this creates a form of a "gentleman's agreement."⁶² Furthermore, Nicholas (2022) claims that by "using a simple letter of agreement signed by both parties and witnessed by key people in the village (eg. *Batin*)," this would suffice in enforcing the agreement as it is based on a [revised]⁶³ customary practice. However, I noticed that villagers of KOAG prefer to include JAKOA's endorsement in acknowledging their orchards (through a declaration letter): although not necessarily accepted or supported by other state mechanisms such as the Forestry Department.⁶⁴ Consequently, state intervention projects compel the community to negotiate their traditional principles of accessing properties through the state's authority.

⁶² According to Nicholas, ladies do not normally partake in the agreement.

⁶³ Parenthesis mine (Whatsapp conversation 2022).

⁶⁴ Three informants had shared their 'land ownership titles' to me and shared their interactions with state officials.

In one case study, Kuut is highlighted by the informants as the largest landowner in the community, owning a disproportionate amount of the communal orchards. Kuut had been accused by some villagers of stealing the lands through monetary transactions and not through the *adat* way of inheritance or needs-based land usage. By negotiating customary practices to purchase other plots of dusun, this transaction becomes legal in the eyes of customary law as the gentlemen's agreement presides. Previously, one could only claim the trees, not the surrounding land and the land belongs to the future generation. One Temuan informant shared that the nature of the transaction when he had purchased a plot of the dusun from his uncle was that it was "serah milik (pokok) bukan beli" or "handover (of trees), not (for) purchase". Conversely, Kuut is perceived to contradict the *adat* by mass purchasing orchards from other community members, even though he had bought the land through the revised *adat*. This is because he is thought to be unable to manage all the orchards simultaneously. In the eyes of these community members, his claim towards the newly purchased land ownership is not recognized. This situation intensifies when Kuut is said to claim another influential Temuan's derian tree 'dengan cara keras' (by deploying a hard approach).

Previously, Sarba claimed that he had an agreement with Kuut's mother, and his family members witnessed it.⁶⁵ Even though Kuut's mother had planted the trees, Sarba had taken care of them over the years from seedling. In the process of work of care, along with both parties' agreement, the tree ownership was given to Sarba in accordance to the *adat*. An elder in the community confirmed this and shared that Kuut had purchased that orchard from one of their relatives and proceeded to take over the land ownership. In this instance, it is observed that the traditional land ownership legitimized by the work of care

⁶⁵ Sarba's statement was acknowledged by other members in the conversation.

done by Sarba, is not recognized through the new means of legitimacy. At the same time, laying claims on Sarba derian trees effectively claim the land surrounding the trees. Using the interstices of *adat* and the state's individual privatization concepts, Kuut have given new meaning to traditional forms of property inheritance via *adat*, complicating the space between communal practice and newly negotiated laws.

Another of Kuut's strategy to secure land rights is by securing high-level positions in the village committee. The position gives him direct access to communicate with JAKOA and other formal bodies to secure legal rights for the communal land. He also uses external networks to tell the narrative of inequality, echoing these stories through JAKOA, media coverage, NGOs, and even joining an electorate political party. However, many critics question his intention as his attempts to secure legal rights did not include the names and maps of other orchards and their landowners. In contrast, Kuut confided in me that he had made many attempts to rally the support of the villagers but received little support due to distrust within the community. On the other hand, while most express concern about the fate of their ancestral lands, many feel reluctant to participate in land rights activities or lay claim to their ancestral lands. One group thinks another village group has already monopolized the land and feels the fight is no longer communal. Another group feels that land rights are often politicized and is unwilling to participate in an issue they do not fully understand.⁶⁶ Kuut expressed similar sentiments when attempting to unite the community to see the importance of getting land recognition. Instead of letting go of the ancestral dusun to outsiders, Kuut perceives that it is wiser to take over the ownership so that it remains in the community for safeguarding. This is especially applicable when many

⁶⁶ This group laments that it is already hard as it is to go by. Although admittedly it is an important issue, they feel that they do not have the capacity to do it while trying to make a living.

villagers are bound to sell off their property or do not have time to look after the plot. He adds that retrieving land leased to outsiders is more complex, especially when it is in use. In essence, the issue of land ownership in the community is complex, filled with nuances, and challenging, as the community faces the need to deliberate and reconceptualize principles that once governed their everyday lives.

4.4 The Erosion of *Adat* and Reliance on State Legislative Mechanisms

Gomes (2004) in his study on the Semai community, detailed how the communities had two primary modes of labour: looking-for-food work *(kerja'ke'cha)* and looking-for-money work *(kerja'ke'duit)*. By the end of his research, he noted how the community had eventually sought to 'make money'. He contends this shift is due to the changing aspirations of the community towards a desire for external material culture. In a bid to 'make money' and claim individual property rights, section 4.3 details the strategies to claim land ownership through the newly negotiated meanings of traditional communal property rights (*via adat*) and new forms of individual land privatization. In this section, I demonstrate how the state's gazettement such as the forest reserve that once disempowered Orang Asli, is used by the community to prevent the monopoly of individual stakeholders and regain access to communal rights.

The accumulative interference from state projects and challenges faced by Orang Asli communities have led to a decline in observing *adat* within the Temuan community. The precariousness of land title claims caused severe disruption in the Temuans livelihood to start or rebuild their lives. With pressing economical needs and the reliance on cash economy, this forces more community members to negotiate communal interests with individual interests for the continuance of their livelihood. The decline of *adat* resulted in

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some of the Temuan community members renegotiating state legislative laws that were once placed to disempower them.

Jenit, another Temuan who owns a big percentage of land had cut down and cleared swathes of large trees in her orchards to make way for mono durian plantations. She stated that "We the Orang Asli would like to be modern just like everyone else. Why can other people be successful with durians and not us?"⁶⁷ Comparatively, as explained in chapter 2, derian trees were planted for subsistence usage and as more than a commoditized crop. Correspondingly, open clear-cutting of the orchards is not part of the Temuan cosmology as they revere the sanctity of the soil and its ecology, as discussed extensively in chapters 2 and 3. Her new aspiration has transformed the meaning attributed to durians into a cash crop. However, she intervened by saying that previously, her ancestors had used an axe to chop down the trees and could only manage about half an acre in a month. With the invention of a chainsaw and modern technology, why wouldn't the Temuan clear more land to increase the productivity of their *dusun*? When Jenit proclaims the aspiration to increase productivity, she implies to increase the percentage of the number of trees to land size and the number of fruits to hours of labour. This shift sees the effective change of commoditizing of time, coinciding with the state's reference to development, modernity, and productivity (Doolittle 2001; Gale 2018; Levine 1997; Scott 1998).⁶⁸

Many Temuan in the village disagree with Jenit's perspective as they mentioned that trees were only cut selectively. Moreover, Temuan used to seek permission from the guardian spirit of the land which inhibits mass land clearing, but this has since been abandoned by many as they have lost the knowledge to communicate with the familiar

⁶⁷ "Kami Orang Asli pun nak maju macam orang lain jugak. Kenapa kalau Orang Lain boleh maju dengan durian, kenapa kita tak boleh?"

⁶⁸ Jenit uses the language of 'jadi moden' and 'produktif.'

spirits. In addition, many have converted to Christianity which forbids the communication with the spirit familiars. One Temuan commented that, "We do not need to follow the ways of the outsiders."⁶⁹ He then explained:

Orang tua-tua dah bagitau, macam mana nak buat.. Macam mana nak tanam, macam mana nak jaga. Kita sayang pokok tu... Kita tak paksa dia buah.. buah-buah non-stop. Pokok pun nak hidup jugak. Dia nak rehat macam kita.⁷⁰

The old people have told us, how to do it.. How to plant, how to care. We love those trees.. We do not force them to fruit.. To fruit non-stop. The trees want to live too. They want to rest like us.⁷¹

A strategy used to stop Jenit by the splinter community is by reporting Jenit to the forest rangers. This marks an opposing view within the community as they contend with changing aspirations that affect their values and access to the *dusun*. While the plot of *dusun* belongs to Jenit, the community projects their dissatisfaction as the loss of the old trees is a loss to the community. When previously Temuan had sought the *batin* for council on communal land misconducts, Temuan today seeks external forces to mediate, including the usage of state mechanisms.⁷² As with many Orang Asli land, most of the communal land status in the village had been gazetted as permanent forest reserve including Jenit's patches of *dusun*. According to the informants, the forestry department allows Temuan communities to manage their orchards informally. One family had even reminisced that in the old days, the community would invite forest rangers to their durian orchards during durian season and feast together to maintain good relationship with the state. However, clear-cutting patches of the orchards in the permanent forest reserve is still strictly forbidden. Even so, arrests and

⁶⁹ "*Kita tak payah guna cara orang luar*" said in disagreement.

⁷⁰ (Author's Fieldwork 2021).

⁷¹ He uses the word "*dia*" which is in reference to a person. Hence, I translated *dia* to "they" without a gender pronoun instead of "it" which refers to an object.

⁷² It is noted that after the *batin* had passed away, his children are not interested to take over the role. *Batin* is an hereditary role in this Temuan community.

heavy fines towards Orang Asli who violates these rules are not uncommon. Yet, the

opposing Temuans reported Jenit to the forestry officer to stop her from further destruction

of the *dusun*.

According to the National Forestry Act 1984 of the Federal Constitution under Article 81 Section 1):

Unless authorized under this Act, no person shall, in a permanent reserved forest in items 4.3.1 fell, cut, ring, mark, lop or tap any tree; or injure by fire, or otherwise, or remove any tree or timber;

4.3.2 cause any damage in felling any tree or cutting or dragging any timber e) clear or break up any land for cultivation or any other purpose.

The federal law bars anyone from damaging or cultivating trees in the Permanent Reserve Forest. This has irrevocably removed Orang Asli rights to cultivate their *dusun*. Furthermore, Article 81 imposes high penalties on those who violate the law. According to Article 81 in Section 2:

Any person who contravenes subsection (1) shall be guilty of an offence and shall on conviction be liable-

b) if the offence is under paragraph (b) or (c), to a fine not exceeding **fifty thousand ringgit or to imprisonment for a term not exceeding **five years or to both such fine and imprisonment; and (c) if the offence is under paragraph (d), (e), (f) or (g), to a fine not exceeding ten thousand ringgit or to imprisonment for a term not exceeding three years or to both such fine and imprisonment".

In addition, Article 81 in Section 3 shows that:

Any person convicted of an offence under this section may, in addition to any penalty imposed on the conviction, be ordered to pay to the State Authority-

a) ten times the value of any tree or timber; and

b) the costs of repairing any damage, in respect whereof the offence was committed,

and any sum ordered to be so paid shall be recoverable as if it were a fine so imposed."

At the same time, Article 15 demonstrates that Orang Asli communities are not

exempted from the restriction to collect forest produce in the permanent reserve forest or

State Land unless permitted with a license. As described in Article 15:

1) No person shall take any forest produce from a permanent reserved forest or a State land except-

a) under the authority of a license, minor license or use permit; or

b) in accordance with any other written law". However, forestry officers may be forgiving when

taking out durian products for personal consumption.

Aware of the legislative laws and perhaps, the actual implementation, the new forms of ownership and differences in aspirations inspired the Temuan community members to enforce communal rights through state mechanisms for check and balance by manoeuvring the legislative law and some leniency in the actual enforcement. This sees a decline of the Temuan as an autonomous community through the erosion of *adat* due to differing aspirations.

State law enforcers eventually detained Jenit but had released her as she claimed her rights as an Orang Asli to manage her land and with the help of powerful networks (Peluso 2005). Indeed, the use of different kinds of identity claims to access resource exemplifies the "intersection of identity and hierarchies of control and maintenance" (Peluso & Lund 2011a; Peluso & Ribot 2020, 301). While Jenit has caused conflict within the community, her actions were spurred by differing notions of development from other community members on the approaches to commoditize *derians*. For this reason, one Temuan confided that he prefers the land to continue to be gazetted as a forest reserve instead of changing to the Orang Asli Native title. This is attributed to the lack of trust within the community where the *adat* institution has become unstable and difficult to enforce due to the impact of the state's *territorialization*. Subsequently, the conflict deepens the government's aspiration of displacing the Orang Asli's identity and assimilation into the dominant ethnic majority, marking an increasing reliance on state governance and the territorialization of Orang Asli land (Subramaniam 2016).

4.4 Modes of Inheritance

The PRA produced four Google maps of KOAG's approximate dusun locations and sacred

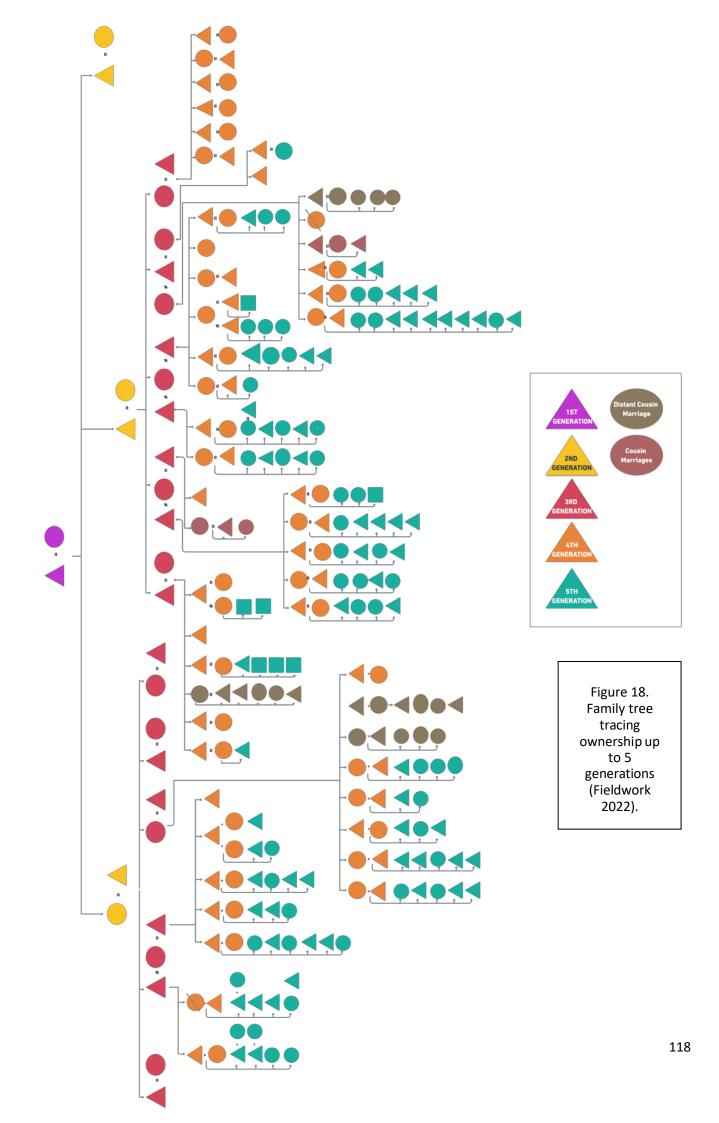
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sites, 2 PRAs of place-making orchard maps, and a family tree tracing up to five generations. However, this does not mean that the first generation initially cultivated the land, but it was the furthest the third generation could remember through oral history. The Google maps are not attached in this dissertation, and the villagers' names in the family tree are hidden to respect the community's privacy. In addition to the family tree's legends (Figure 18), triangles are symbols for males, circles for women and squares for infants. Unfortunately, informants were unable to ascertain the gender of the infants. The purple symbols symbolize the first generation known to inherit their *dusun*, yellow denotes the second generation, red denotes the third generation, orange denotes the fourth generation, and green denotes the fifth generation. Table 6 presents the statistics of the village population using the family tree data. However, the number does not account for the statistics of outmigration that might be occurring within the community. The following discussion is informed by the family tree construction activity with the participants, followed by further open-ended questions to explore Temuan notions of inheritance.

Generation	Colour	Male	Female	Infant (Gender Undetermined)	Total
1st	Purple	1	1	-	2
2nd	Yellow	2	2	-	4
3rd	Red	13	13	-	24
4th	Orange	48	47	-	95
5th	Green	63	65	7	135
TOTAL		127	126	7	260

Table 6. Breakdown of the Family Tree in KOAG (Author's Fieldwork 2022).73

⁷³ Table 7 and figure 18 family tree constructed with the same source.



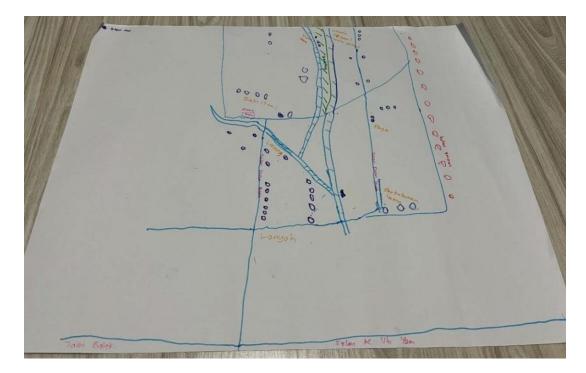


Figure 19. Place-making dusun map 2 (Author's Fieldwork 2022).

Inheritance of durian trees is bilateral within the community. When a couple gets married, the rights to each other's *dusun* are differentiated, but couples generally help to manage each other's *dusun*. The term used when visiting a spouse's *dusun* is called *menumpang (to squat),* which is not surprising when spouses are expected to not interfere with inheritance matters among in-law families.⁷⁴ These assertions convey a clear demarcation on Temuan property rights through inheritance. The eldest within this family belongs to the third generation (red symbols), with said elder being the sole person left to guard the remaining *kebun saka.* It is he who will determine the heir to his land but who meanwhile is careful about navigating matter about inheritance. The rights to access *derians* are accorded to the nuclear family and its descendants or those who helped manage them. However, rights to the trees,

⁷⁴ I notice that someone use disclaimers when speaking about their spouse's *dusun, "kita menumpang saja…"* or the reiteration of "*Nyap hak*" when one speaks about another's dusun, translates as "no rights".

profit-making, and the land surrounding the trees solely belong to those entrusted with the orchard, usually by children of the deceased owner. In that case, the fourth and fifth generation cannot lay claim to the trees unless named explicitly by the deceased or the last of the third generation had relinquish his/her right. This infers the differences between access to fruits and fruit trees concerning the different bundles of rights (Peluso 1996). In the case studies, access to the *derian* fruits are prioritized to; a) Those who lead the household (usually held by the eldest male of the family), b) The dependency on fruit crops as a source of income, and c) Those who are willing to care for and manage the orchards. Hence, Temuan also acknowledges rights via investment of labour. Therefore, durian trees that span multiple generations allow for a temporal and spatial understanding of land use, or property changes (Peluso 1995; Peluso & Ribot 2020).

Ethics to access to ownership of the trees change through intergenerational inheritance. Among the Temuan I interviewed, most of the *dusun* will presumably be inherited by the firstborn when applying traditional customs. This is applicable from the first to the third generation (purple, yellow and red symbols) with the eldest third generation aged late 60s to early 70s.⁷⁵ The firstborn is then expected to delegate the rights to the other siblings. However, conversation with villagers show that the inheritance from the fourth-generation group (age 20s to early 40s) varies from one family to another, with rights prioritized by consulting nucleus family members over the *adat*. While the third generation had no qualms about the traditional ways, the fourth generation prefers more direct access to the rights to prevent arguments over property distribution. One informant shared that it is better to be clear from the beginning and give equal opportunity to the siblings than fight for inheritance.

⁷⁵ The elders use age approximation as they were unable to read or write. The age given on the Identification Card is based on approximation as most took some time to register in the early days.

Equally important is that previously, families utilize the land for subsistence needs. Today, the desires and aspirations are more complex with the growing importance of cash economy. Previously, when food is scarce, a sense of communality supports the families to get by together. Today, it is a matter of survivability and to ask is to *buat malu* (to create embarassment).

To gain more direct access, one of the strategies by the fourth generation is to divide equally between all siblings to prevent arguments and misunderstandings (Author's Fieldwork 2022). Yet, as seen in figure 15 and figure 19, the landscape of the orchards means that a genuinely equal divide would be impossible.⁷⁶ For example, the older trees are worth more than the younger trees as they are referenced as the 'mother'. Informants claimed that older trees aged more than a hundred years could produce about ten thousand fruits in a season.⁷⁷ In addition, some inheritance is divided by factors of land demarcation and by the number of trees. Distance and location could also be reasons for discontent; how far it is from the main roads, the steepness of the trail and road conditions. As shown in Table 7, the population of the fourth generation is three times more than the third generation (95: 24). One possibility of engaging this newer strategy of equal distribution is to prevent one line of the family from monopolizing access to *derians* and to give equal opportunities to other family members to uplift themselves economically. While the fourth generation stray from the *adat* conventions in terms of demanding an equal distribution, all children are expected to accept the decision made by the bequest and to reconcile the *adat* and younger generation's aspirations.⁷⁸

Indeed, questions of sustainability arise as the land is limited in supply and (land) availability (Schumacher 1973). In his book "Seeing like a State", Scott (1988) critiques the

⁷⁶ Refer to figure 15 at page 87.

⁷⁷ According to the informant, *Derian Gerjaing*, for example could produce up to 20 *raga* (baskets) a day, filled up by 60-80 smaller *derians* or 50-60 bigger *derians*.

⁷⁸ "Terima dengan seadanya".

notion of scientific forests in which the individual privatization and state legislative mechanisms impoverishes community that practice communal law. He describes scientific forests as the "radical reorganization and simplification of flora to suit man's goals" (2). Although he cautions not to romanticize common law as it is "usually riven with inequalities based on gender, status, and lineage" (35), the agile, localized and adaptability of these practices are strongly commendable opposing the scientific forests with its "simplification, legibility, and manipulation" in forest management (11). Historically, before the Temuan settled in permanent spaces, communal law invoked the redistribution of usufruct rights when land is unused depending on the number of families in the community (personal conversation with Nicholas 2022). However, the state interventions in plantation (scientific forests) had changed how the community view and utilize property (land). While there are new forms of distribution through inheritance, this effort is impinged when land is now accessible by purchase, limiting the underserved families from access. More importantly, further redistribution from a marginal land size leaves little for the younger generation to earn a viable and profitable income due to the uneconomic land size (Noor 2012). With that being said, families who are economically profiting from the *derian* trade are observed to use a non-compartmentalization strategy, in which inherited land is not divided but tenured from one sibling to another for a limited time. This strategy is to gain a sizeable production for economic viability. Nevertheless, the strategy is only practiced by families who have not lost their lands. However, this is complicated by the state's mechanism, erosion of *adat*, individual aspirations and differing notions of development within the community.

Conclusion

As a standalone *derian* tree, the tree elicits emotional responses from the Temuan, such as feelings of nostalgia and belonging. In clusters of derian trees, the meaning attributed to these patches changes in the eyes of the state, the buyers, and the Temuan communities. The view from each stakeholder differs, challenging the notion of the state, buyers, and Temuan as homogenous entities with similar aspirations. The different aspirations augment and proliferate the network, intersecting and creating divergent directions forming the durian polyphonic assemblage.

In this chapter, I have demonstrated new kinds of strategies invoked by villagers to advance their interests, by navigating between different interests within the community, customary laws, and state legislative mechanisms. This chapter contributes to the nuances of understanding micro-macro political and economic changes that affect local practices (Peluso 2004). Examining the power of access relations require analysing the experiences of the community and individual personal experiences to better understand the political, economic, cultural, and social changes. Indeed, the durian as a subject matter conveys an intergenerational discourse due to its status as a long-standing property that could be inherited and that becomes a strategy for territorialization.

Consequently, *dusun* transforms into a political forest with different ways of territorialization, de-territorialization and re-territorialization, configured by state legislations and the lack of recognition of native customary laws. The permanent impermanence of both Orang Asli land titles and reserve forests perpetuates economic and social challenges to individual and communal interests within the Temuan community. Furthermore, state interventions including plantation, private land titling and resettlement projects, exacerbate the erosion of *adat* that once guided the community. However, these economic aspirations

evolve to maintain some aspects of both individual and communal interests. Subsequently, this navigation blurs the individual and communal rights to property in the attempt to converge disparate aspirations.

V DERIAN COLLABORATIVE

Introduction

In this chapter, I argue how durians possess agentive forces along the supply chain and digital network, which influence Temuan *derian* identities. As will be explored further, the network of sellers assists in determining the perception and branding of how Temuan *derian* will be marketed. When durians are brought out of the forests, they are primarily sold by three stakeholders: the Chinese towkay, Temuan middlemen and Temuan family members. Depending on the supply chain, durians are perceived differently by end consumers despite being the same product. The recent emergence of Anak Bumi (pseudonym), a local social enterprise specializing in selling Temuan *derians*, adds a new lens, reimagining and reconciling Temuan *derians* by giving it a fresher perspective. Temuan *Derian Bukit* are rebranded through social media platforms, extending a renewed sense of ownership to the Temuan people. This development is significant as it provides evidence of how nonhuman and human relations including durians along with its network, can be a distributive agentive force in forming perception and resistance in innovating and composing the identity of Temuan as indigenous peoples, durian cultivators and indigenous landowners (Bennett 2010).

The genus, *durio*, contains 34 known species. From this total, *durio zibethinus* belongs to the Malvaceae family and is one of the nine species that produces edible fruits (Ging et al. 2018, 2). The 'branded' varieties such as the famous Musang King, Black Thorn, and many more are cloned cultivars with distinct properties, such as the shape, smell, taste, weight, and colour of their flesh and thorns. Even so, the same Musang King cultivated in different patches of land might yield different results due to the soil properties, temperature, and moisture

levels. There are over a hundred registered durian variants in Malaysia as of 2020 (Razak 2020). Anyone, including the cultivators, may register their variants at the agriculture department (whereby their durian will be allocated a number preceded by D, short for *durio*) and name them accordingly. Another popular variant grown is the D24. All durians grown from seed are known as the *durian kampung*, including durians harvested from the Orang Asli communities which is perceived as wild and unpredictable in terms of fruiting outcome. As such, this observation leads to the question of why the Temuan's *derian bukit* are commonly lumped as *kampung durians*, erasing Temuan's unique heritage and culture.

For Temuan communities, the soil is the health and heartbeat of Temuan cosmology. This is manifested in the cultivation systems, respect for the supernatural forces, rituals, observing *adat*, and the belief of ancestor spirit capacities to imbue the soil with vitality. How Temuan *derian* are imagined and marketed differently by the network of sellers determines the different pre-conceived assumptions for consumers. These different perceptions hold distinct and varied value for the sellers and consumers. *Derians* sold by Malay middlemen are labelled as *durian kampung*, reminiscent of durians harvested from one's village backyard. Esoteric durian lovers who buy Temuan heirloom *derians* identify the durian by the tree's name, signifying and promising a specific flavour profile. The Chinese middleman who sells *derians* to their clients markets them as organic durians - grown on lush hills free from the contamination of the city. Anak Bumi, a sister organization of LOCAL,⁷⁹ markets Temuan *derians* as durians grown by Orang Asli. This signals economic potential in varying degrees for Anak Bumi as a social enterprise and the Temuan communities. It also marks the

⁷⁹ A pseudonym for a local social enterprise that offers duriotourism services.

reclamation of Temuan *derian* and other ways of recognising Temuan land rights. In viewing *derian* as more than a passive object, I explore how *derian* becomes a material mediator for the Temuan to negotiate their identity through their external relations. Chua's (2022) work on durian diplomacies discusses durians as having "real, imagined, potential" who "take centre-stage as mobile ambassadors that traverse different imaginaries and regimes of value" (3). Secondly, I examine how the human and nonhuman assemblage influences these relations.

This chapter begins with an overview of Kampung Orang Asli Gendoi's network agents, discussing the different prominent actants in altering the village's economy, micropolitics and livelihood. In section 5.2, I discuss the expansion of LOCAL's ecotourism initiative to duriotourism and its motivation behind identifying *derian* as an actant. Consequently, I explore how LOCAL's interventions in engaging with the community play an essential role in the success of the new partnership style, which allows more room for Temuan ownership. Section 5.4 examines how the reimagined and renamed *derians* pave their way as active actants in influencing the gaze of information consumers, thus becoming an advocator of its right. The chapter ends with LOCAL & Anak Bumi's roadmaps and challenges.

5.1 An Overview of Kampung Orang Asli Gendoi's Network Agents

Upon arriving at my destination located on Waze, I noted that there was no signboard or signpost indicating that this is an Orang Asli village. I later learned that the Chinese village is named Kampung Gendoi, and the Temuan village is named Kampung Orang Asli Gendoi (KOAG), the latter is not recognized by Waze nor noticeable in situ. Despite having relocated here for decades, villagers had to adopt the Chinese village address and make a note of the 'inner village' or the 'village at the back.'⁸⁰ As I walked up the short but steep hill, soon, the recognizable Rancangan Penempatan Semula (RPS) housing provided by the government sprouted along the narrow road, each leading to more T junctions and more RPS houses organically packed along the road. DIY wooden houses and make-shift verandas can be seen from time to time. This is common as housing provided by the government is usually built in a standardized format, regardless of the number of family members per residential unit and which cannot accommodate the increasing number of family members. Suddenly, an awkward metal structure framing a Malay kampung-style house protrudes among the sea of brick houses. City folks in their 20s and 30s are seen building the unit. They seem to be holding captive ayah Sze Ler's attention as they are training him to take over. Some seemed unfriendly when they knew I wanted to meet ayah Sze Ler and interview him. It seems that ayah Sze Ler is a busy man and highly sought after. Apparently, it is hard to come across an Orang Asli that is highly cooperative in the projects that the NGOs want to initiate, but this is hardly surprising as these projects are not community-initiated.

The organization builds houses for the Orang Asli. Corporates and good-will parties hire the organization to fulfil their corporate social responsibility (CSR) requirements, and they are also funded by grants as additional source of income. Their modus operandi is to build a house over a short span of a week and to provide extra income for Orang Asli builders. The website claims to empower Orang Asli communities by providing housing and job opportunities. For each house, participating corporations pay about 4-6 times⁸¹ of the original cost of the houses, and the organization pays each Orang Asli builder about RM50-70/day of work.⁸² The

⁸⁰ However, this has changed since the village has drawn more attention from NGOs and other parties.

⁸¹ This amounts to a hefty 5 figures in Ringgit.

⁸² Source received from Orang Asli builders and NGOs working in that area.

organization also charges a hefty sum for volunteer mobilization if the corporate shall require it. At the same time, volunteers are also charged for their stay and must go through a builder course that also requires additional surcharges. With that being said, the beneficiaries are happy to receive the houses as they do not need to pay for anything. The Temuan navigates these relationships not as a passive recipient but as an active player of the humanitarian response participant, better to get a fully built house than no house at all. They are aware that their participation in the projects sustains the organization, so they play truant and feign disinterest from time to time to prove a point and make demands. The organization considers the relationship a win-win situation, providing some Orang Asli houses to live in while dubbing it as sustainability to fund their operating expenditures.

As the NGO expands its businesses, more projects are undertaken and require the cooperation of more villagers to be successful. Nevertheless, only a few villagers from several families are seen running around to do the actual work. Despite the success of the NGO, showcased by the sprawl of new houses built by them, this organization is not the only one in the village. Non-government Individuals (NGIs), NGOs, religious groups, and even political entities have attempted to engage with the villagers, usually bearing livelihood opportunities, education, tokens, and even political recognition. These different groups compete to receive villagers' attention to conduct their programmes, especially to receive commendable buy-ins. Furthermore, the strategic location of Kampung Orang Asli Gendoi, being only an hour's drive from the city, makes engagement easier for city dweller program officers to conduct fieldwork. One strategic partnership consultant in an international NGO confided in me:

Doing Orang Asli (work) is sexy. Everybody wants to jump in. Orang Asli gets a lot of coverage these days, but people don't know where to start and middle-sized organization gets (the) most fund(s). Not many organizations who work with OA are big. How many? You know lah... That's why it's easy to get funds from everywhere these days... and corporates are generous. Very generous.

You see lah that (name drops), she give, give only. She trust(s) the NGOs better than gomen. But not like (name drops another organization) is that good also.⁸³

The Temuan, being seen as a marginalized community, navigate these relationships and regard the outsiders as powerful forces with the potential to fulfil what the state cannot. Characteristic of 'shopping around', villagers pick and value some external relationships over others as the villagers customize their perceptions to fit the outsiders' view of their wellbeing. By receiving opportunities given by outsiders, the Temuan provide an avenue for the continuance of NGOs, NGIs, and spiritual leaders to advance their key performance indicators (KPI) in serving the marginalized community.⁸⁴ In other words, houses, kindergarten, schools, homestays, vegetable gardens and livelihood opportunities do not merely serve as "material mediators of a fundamentally humanitarian relationship between sympathetic benefactors and their beneficiaries" (Chua 2022, 4). The Temuan navigate this gaze by carefully curating and building powerful network forces, primarily with organizations that had built their sustainability on the assumption of "Orang Asli plight". Through push and pull, the Temuan secures the best material benefits on what the organizations could put on their table: a house in this instance.⁸⁵ Temuan networks become ambassadors of the plight of Orang Asli. The subsequent section discusses LOCAL and Anak Bumi's interventions in this model of relationship building in the context of duriotourism and how Temuan derians become a powerful material mediator that could potentially bring attention to the Orang Asli's unique heritage.

5.2 LOCAL: From Ecotourism to Duriotourism

Against the backdrop of the thriving scene of humanitarian projects, LOCAL is a subsidiary of the mentioned NGO whose focus was to incubate and expand the ecotourism aspects of the

⁸³ (Personal conversation with Marie 2022)

⁸⁴ In the case of spiritual leaders, to fulfill their obligation of proselytizing.

⁸⁵ The Temuan also take this opportunity to learn from outsiders. For example, after learning how to build houses from the organization, the lead Temuan coordinator built a beautiful bungalow upon a hill overseeing the whole village. This exceeds what the everyday blue collar worker is able to afford.

village. Both Puah's (2004) dissertation and Wong's (2017) PhD thesis discussed the role of ecotourism as an intervention of nature tourism that often brings about problems of lifestyle changes and destruction of nature in the community. LOCAL aims to work on a communitybased ecotourism in providing unique and intrepid experiences: promoting indigenous hiking trails and promising the serenity of 'undisturbed nature'. Additionally, as an alternative to the crowded nature spaces offered to the public in nearby areas, the narrative and edge of Orang Asli partnerships could potentially steer towards recognizing indigenous land stewardship. Herrara (2016) views the combination of conservation and development in community-based ecotourism to simultaneously empower indigenous communities and honour traditional lifestyles. In line with this, LOCAL aspires to partner with the community to generate sustainable businesses that are in line with their values, lifestyle, and belief systems and to ensure remuneration of fair wages.

In the beginning, LOCAL offered hiking packages which included activities such as nature walks, identification of forest foods and non-timber forest products (NTFPs), trips to the clear waterfall, and experiencing 'Orang Asli' culture & foods.⁸⁶ Understanding the power of storytelling, LOCAL engages with the community to share their stories through landmarks located by the trail; from a communist foxhole recycled over a traditional mining site, traditional games made with fallen rubber seeds, NTFPs to keep Temuan sheltered, and the "forest supermarket" show and tell. Some of the herbs, forest fruits and trees for housing not limited to *daun kesang, buah rambai* and *kayu menjanggung* were ordinary looking plants to city-dwellers, but its uses are significant for the community. These educational experiences help tourists to understand the Temuan history and promote a better appreciation of the forest by learning about the biodiversity, uses of the plants and the network of living beings that

⁸⁶ This is problematic because the term insinuates a generalization of Orang Asli culture and homogeneity.

depends on the forest.⁸⁷

Among all, *derian* trees were identified as an engaging narrator in telling stories of the Temuan, their history, and their relationship to the land. As tourists are guided through the trail and introduced to the trees, *derian* becomes the subject of conversation. By projecting the Temuan conception of specific *derian* trees, visitors are drawn to the Temuan understanding of their environment. Durians offer an intrepid experience to those who have not tasted them and elicit nostalgia and comfort to those who grow up eating durians. Through "representing, persuading, enacting, evidencing, drawing in, defining", durians can become persuasive ambassadors in holding diplomatic roles (Chua 2022, 4). They undertake an active role and not as passive objects, bestowed with the power to create social ties. Bennett (2010) argues that the "efficacy of agency depends on the collaboration, cooperation or interactive interference on many bodies and forces" (21).

One such process is in the naming of the *derian* trees. LOCAL's founder, Eric, surmised that naming the *derian* trees is a cultural exercise. However, the name given to the trees is not always based on Temuan's traditional culture. Names are derived by the string of events and relationships surrounding the tree's spatial and temporal markers such as topographical landmarks, and zoning due to property rights. For example, a tree is named '*durian tokong*' (temple durians) because temple worshippers are known to buy fruits from that tree that is close to the temple (Author's Focus Group Interviews and Fieldnotes 2022). This signifies the temple worshippers' recognition of Temuan ownership of the fruit trees and the existing community's relationship to the temple. In another case, although mamak Rayan had wanted to name a tree to carry a much more *Asli* name, villagers still refer to his tree as *musang dog* in

⁸⁷ Chirping birds, siamang (black-furred gibbons), and kelulut stingless bees were some of the sightings in the hike.

jest. One speculation about how the name came about is that *Musang* refers to the current prized Musang King durian variety and 'dog', as a colloquial term for an apex figure inspired by rappers. When the guides present this story, it might inadvertently suggest that the Temuan are aware of the language of popular culture and are active consumers of mass media. This opposes the common perspective of Orang Asli as ignorant, backward, and undeveloped (Lye 2004; Nicholas 2000).

In another instance, mamak Rayan claimed that a crab had suddenly leapt out of the crevices of the fruit when he cut it open. The incident baffles others as crabs are not found in that area but somehow ended up inside a durian. Mamak Rayan gets ridiculed by the villagers, but due to his insistence, the tree has been referred to as *'durian ketam'* since then. Despite that, the ludicrous event had made that tree (*durian ketam*) known as a memorable landmark when one is guiding themselves in that area. The combination of memory-making, nostalgia, and storytelling with relation to humans (the guides, villagers, and the tourists) and nonhuman actants (durians, durian trees, temple, Musang King and popular references) creates thing-power, a kind of vital materiality that forms an assemblage of relation and meaning-making centered on the durian (Bennett 2010).

As ambassadors (Chua 2022), durian trees cement Temuan position to the land through visual imageries, topography, storytelling narratives, and imaginaries. Durian fruit elicits gustatory sensory of memorable flavours. However, what is potent about durians is the symbol that it presents to the tourists. Ecotourism helps to preserve durian trees as it sustains the continuity of activities being offered during the walks and a first-hand access to Temuan's *derian* fruits. However, *derian* fruits can only be preserved when the ecology continues to exist to serve the prized trees. Unfortunately, the ecology is under threat by loggers, most recently by Musang King plantations in the village where part of the hiking routes intersects; evoking a dichotomy of the powerless versus the powerful, greed over subsistence. As a dignified mode of income for Temuan and subsequently creating awareness of the Temuan lived experiences through the experiential durio hikes, duriotourism has developed into a strategy for the community to have continued sovereignty over the non-timber forest products that they continue to rely on. *Derian* and its trees transform into powerful agents that interfere with other agentive forces, including humans and nonhuman actants via sentiments.

5.3 LOCAL's Interventions

As most NGO stakeholders enmesh themselves as ambassadors in the work of care for Orang Asli, LOCAL attempts to offer local community empowerment. Firstly, LOCAL's primary goal is to generate income as a profit-sharing social enterprise. In that sense LOCAL does not consider the Temuan as a humanitarian project but rather, as equal partners in a business partnership with social goals. While the Temuans appreciate the aid from various organizations, they genuinely aspire to make a liveable income on their own terms, following their lifestyle and values. Duriotourism presents this opportunity to do so without compromising too much on these aspirations while regaining adequate autonomy.⁸⁸ Secondly, LOCAL refers to its community counterpart as 'Orang Asli partners' to steer away from the idea of a top down, authoritative relationship (Author's Fieldnotes 2022). The aim is to flatten the power dynamics by contradicting the humanitarian logic of benefactor to beneficiary or employer versus employee relationships. In an interview on their website, Eric stated that "our ultimate goal is so much more than just about livelihood. We want to instil

⁸⁸ When outsiders come to manipulate and utilize their land without permission, this strips their autonomy towards land ownership. Utilizing the land in ways that Asli people could relate to is a form of regaining their autonomy.

a sense of self-worth and confidence by giving the Orang Asli people ownership and autonomy about their future" (Author's Fieldnotes 2021). Finally, by relying on the community for the technical know-how, groundwork, and implementations, LOCAL oversees the organization's non-Orang Asli participation in administrative duties, promotional & marketing work, and as a middleman between the community and their clients. Even so, the decision-making process is neither top-down nor bottom-up, but horizontally between the Temuan and non-Orang Asli partners.

LOCAL hopes to provide a readily available and accessible platform where people can meet and learn from each other. The aim is to connect city dwellers with indigenous peoples for cultural exchange, as there are many ill-conceived notions about the Orang Asli communities. Most city dwellers have not even met anyone from the community before. Currently, various generic tour packages are offered by various organizations and communities themselves. However, Eric observes that they are usually poorly organized, not known enough, and usually not easily accessible. He cites the lack of social media presence and information, low-quality promotional material, scarcity of English language mediums and English-speaking guides, and the shortfall of tailor-made experiences to the low domestic and international market capture. This is critical from a business and expansion standpoint, as Eric perceives that the online platforms are where potential clients primarily obtain information, especially to enter the lucrative international market and to gain access to English-speaking city dwellers.

Among the community members, Nenek Bagus mentioned that they had learned, met, and befriended many people from the city whom they would otherwise not have had the opportunity to encounter. Durians and the tours become an increasingly powerful agent for the community to meet individuals and organizations. Eventually, this leads to other new opportunities, including the occasional food aid support, medicines, and financial aid. Villagers who befriended and expanded their network gradually become influential community members with 'many friends' to support them. More importantly, the community sees the tours as an opportunity for their voices to be heard. The ongoing tours could potentially build a collective awareness of Temuan presence over their ancestral land amidst the blossoming touristic ventures offered in the area. For mamak Rayan, the precarious status of his land creates feelings of anxiousness and helplessness, especially with the recent Musang King plantation encroachment. Orang Asli land ownership in Peninsular Malaysia remains ambiguous due to its impermanent status in this country (Lim 2020b; Subramaniam 2013). Even when gazetted as Orang Asli ancestral land, the state may at any time revoke this status without going through the state assembly. With no access to formal education, duriotourism provides hope to mamak Rayan and his family to regain some level of autonomy to feel assured about their future. Hence, by sharing the beauty of what the land could offer tourists, interactions from the tours become a strategy to develop a robust support system for conservation.

5.4 Platforming Durio-Identity on Social Media

The success of the durian hikes eventually led to the creation of Anak Bumi, which specializes in selling *derians* online, platforming on social media sites in Facebook and Instagram. On their website, Anak Bumi promises three fundamental principles: First, to source *derians* in their most natural state from century-old trees; second, to offer specially handpicked durians by Orang Asli growers; and lastly, to provide only the best-selected quality fruits. Initially, LOCAL had marketed *derian bukit* as the commonly known *durian kampung or durian kampung Orang Asli* on their social media platforms.⁸⁹ However, that meant that LOCAL would

⁸⁹ Source taken from Anak Bumi and LOCAL's social media platforms.

need to compete with all the other venues that sell *durian kampung* at a much lower rate and offer more varieties, including the 'branded' durians. The issue persists, especially at season's peak when prices plunge. Khoo & Wong (2022) noted in their interviews that the prices of durians fluctuate over the season. Khoo (2022b) observes that the prices are "high at the beginning, then lower as the season peaks, then high again when supply comes down towards the end of the season. The other price difference is on weekdays and weekends, depending on the vicinity" (Durian Research Group WhatsApp Chat 2022). As a brand, the changing prices in a short period should not be reflected in their rates to maintain the brand's reputation that promises premium value. However, this would mean that they would fall short of their price competitiveness. At the same time, LOCAL does not want to position itself in a similar situation as other local vendors who had to sell *kampung durians* at a cost price due to excessive supply over demand during peak periods.⁹⁰ In such a situation, they would rather not sell at all than cause a 'brand damage' to their hard-earned reputation.

In response, LOCAL adopted the term *indigenous durians and* organic *kampung durian* to increase the value of Temuan derians. By including the term 'indigenous', LOCAL positions itself as a provider of ethically sourced durians from the indigenous communities. Images of happy smiling Temuan coordinators holding *derians* are placed in the poster to exemplify this notion. On the other hand, organic *kampung durian* aims to attract consumers that might not be particularly inclined to social justice but is looking for a healthier alternative, primarily targeting Singaporean clientele. However, both terms pose problems for product branding because many consumers could not make sense of the price differences between Temuan-grown *kampung durians* and regular *kampung durians* sold by the roadside. Furthermore,

⁹⁰ The Movement Control Order (MCO) implemented to curb the COVID-19 pandemic had pushed the prices of durians as low as RM1-3/kg in the village. Cultivators could not even dispose them in fear of being fined or give them out for free with the movement restrictions. During regular peak periods, prices could go down as low as RM4/kg depending on villages.

some consumers had remarked that the *organic kampung durians* sounded like a marketing gimmick. Most durian kampung today are chemical-free as they are said to be left to grow on their own behind someone's *kampung* plot. Cultivators prefer to apply fertilizers to varieties that could fetch higher returns. This resulted in the creation of Anak Bumi in an attempt to reimagine Orang Asli durians based on existing Temuan terms via social media platforms.⁹¹

Today's competitive market requires consistency in catering to customers' needs, as durian consumption habits and expectations change. Additionally, most consumers develop preferences over taste profiles, inclination and dislike towards one over another. However, ayah Sze Ler insists that the joy of having kampung durians is in the element of surprise. He mentioned that *derigns* are meant to be enjoyed by everyday people because there is a charm in anticipating and predicting flavours through social banter instead of being handed expensive durians with a guaranteed flavour profile. When using the same amount of money to purchase branded durians and Temuan *derians* separately, one can obtain a larger purchasable amount of Temuan *derian*. This allows consumers to enjoy and share different types of *derian* in one sitting instead of merely consuming a few identical pieces of the Musang King variety. "Everybody will be satisfied, and everybody will be equally happy" (Author's Fieldnotes 2022), as ayah Sze Ler beams. While this strategy works for ayah Sze Ler as an independent middleman whose business model focuses on wholesale, as explained earlier, this strategy might not be the best for Anak Bumi whose objective is to fetch premium prices for Orang Asli durians. Moreover, a ten to fifteen kilogramme box of durians might not fit every occasion as some consumers consume leisurely on their own and not in

⁹¹ I have yet to encounter Temuan advertising derians on a social media business page. Interviewees mentioned that they usually have their own buyers or they would set up stalls along the roadside to attract passerby.

bigger social or family settings.92

Correspondingly, Anak Bumi innovates by providing definitions of characteristics to specific durian varieties, for example, *Durian Matahari* describes bittersweet tasting durians with deep yellow flesh. Eric clarified via a personal WhatsApp chat that *Durian Matahari* is known by the Temuans as the IOI *Hutan* while *Durian atuk-atuk* as the *D24 Hutan*. Anak Bumi rebranded these varieties to position the *derians* from a better marketing standpoint, elevating the value of these *derians* through social media platforms. The organization also adopts original names given by Temuan to promote these differences in *derian bukit*. Essentially, LOCAL attempts to break through the mainstream market by making Temuan durians legible via social media platforms beyond topographical boundaries and simplified categorizations. The table below is constructed using summarized data from Anak Bumi's Instagram profile. Names given by Temuan are inspired by existing *derian* trees.

⁹² The middleman sells in larger amounts because he trades in tonnes after gathering *derians* from many villagers.

Name	Origin	Description	
Durian	Named by	Sweet, milky tasting. Milder in taste but texture is often thicker and	
Susu ⁸²	Temuans	richer than others.	
Durian	Named by	Centuries old tree that grows out of a boulder. The only tree in the	
Batu	Temuans	whole of the Temuan's orchard. Famous for its creamy, slightly	
		bitter aftertaste and unique fragrance.	
Durian	Named by	Strong smelling durian that is a reminder of petai (bitter nut).	
<u>Petai</u>	Temuans	Flavour profile akin to XO variants with a slight liquor-ish sensation	
		and a relatively bitter aftertaste.	
Durian	Named by	Also known as the "Communist's Durian". Story told was that more	
Bukit	Temuans	of the trees came about during the communist insurgency that	
		happened in Malaysia. It is said that communists would eat the	
		durians from the forest that were maintained by the Orang Asli as	
		they walked through it and threw the seeds on the ground when	
		they were done, which resultantly cultivated more new durian	
		trees.	
Durian	Named by	*Rare variety	
Daun	Temuans	Custard-like texture and flavour notes of <u>cempedak</u> and banana.	
		Small like the size of leaves. Size is usually that of a person's palm	
		which contains 1-2 pulps per fruit. Flexible thorns and soft to the	
		touch.	
Durian	Named by	*Rare variety	
Sompo	Temuans	Jungle durians. The original durians from the forest.	
Durian	Named by	*Rare variety	
Matahari	Anak Bumi	Deep yellow flesh with bittersweet tasting.	
Durian	Named by	*Rare variety*	
<u>Atuk-atuk</u>	Anak Bumi	Bitter tasting, reminiscent of durian kampung.	

Table 7. Temuan *derian* categories/brand name on Anak Bumi's platform (Author's Fieldwork 2022).

Last season, Anak Bumi sold 240 boxes of *Durian Matahari*, making it their best seller. *Durian Daun* is the most requested of the season. Each variety are sold in 400g pulps, priced at RM39 for *Durian Bukit*, RM59 for *Durian Daun*, RM54 for *Durian Matahari*, RM45 for *Durian Atuk-atuk*. *Durian Bukit* are also sold in party packs of 10kg at RM199 in 2021 and 15kg at RM229 in the following year. This is a big jump considering that the community sells their durians for RM4-16/kg (Author's Fieldwork Interviews 2022) whole fruits, depending on each seller's prerogative, quantity, and grade. For comparison, the *Musang King* variety is priced at RM60-90/kg this year and RM30-35/kg during the bumper crop (Bernama 2022; TheStar 2022a). When Temuan *derian* varieties are unpacked and showcased on social media, the *derian* gain individual identities through distinction and difference through name-branding. One might add that this association with human actants transforms them into subjects that become more than just durians for eating but has implicit connotations of association, status, and value. *Derian Bukit* rises from the everyday durians to become superior and coveted varieties, bridging roadside peddlers to prime international markets.

5.5 LOCAL & Anak Bumi: Roadmaps and Challenges.

A standard procedure for social enterprises is to hire someone from the marginalized group it is helping. The enterprise determines the direction, final decisions, and other higher- level management processes, and the relationship between the social enterprise and the community beneficiaries is akin to employer-employee relations. While this is the most convenient form of management, it does not necessitate the most empowering outcome, as employees have little say in the final decision-making process. There are also questions arising on ethical grounds as to who stands to gain more from the bargain. While the United Nations Declaration on the Rights of Indigenous Peoples (UNDRIP) proposes Free, Prior, Informed Consent (FPIC) as a tool to work with indigenous peoples, FPIC remains only an ethical guideline in most instances. Therefore, LOCAL & Anak Bumi's approaches to partnering with community participants are a refreshing attempt at the typical model.

5.5.1 Management Challenges

However, these attempts come with a set of challenges. Firstly, when one claims to work with an indigenous community, how many individuals or a percentage of individuals from the community does it necessitate? Following this logic, can a social enterprise claim to uplift a community when working with individuals of a community rather than the community as a whole? How does an organization navigate the different aspirations in and outside partnership groups while implementing FPIC in its engagement framework? These questions challenge the assumptions of indigenous groups as homogenous and having the same ideals, especially regarding consent. For the organizations, partnering instead of hiring requires a significant additional amount of time, dedication, and operational cost as opposed to the standard framework. In other words, the organization must engage in intensive and continuous community organizing work to ensure long-term cooperation from all partners. From a business standpoint, this might suggest an inefficient use of resources. From a social organization perspective, this situation raises issues of sustainability and ethical considerations. Such conflict requires a constant need to deliberate between their priorities as a business and its social goals.

Secondly, flattening management hierarchies destabilizes power relations which require further sensitive navigation. Using the employer-employee relationship, one commonly uses the larger backing of a bureaucratic organization for the decision that has been made. However, for young field officers, partnering with the Temuan requires essential knowledge of micropolitics in the village and the ability to discern nuances that are often not articulated upfront. An example is not being able to accommodate requests from older Temuan partners by the law of age but still being able to acknowledge the idea amicably. In addition, removing honorary titles by calling all partners by their names can be perceived as rude, especially for someone in their mid-twenties, when referring to someone else's grandfather by using his first name.⁹³ In the traditional Temuan social setting, this may upset community members as the honorary titles of seniority that come with age are not being respected. This is important to acknowledge with the long history of colonization and being othered as indigenous peoples (Tuhiwai 2013).

Thirdly, LOCAL faces frustration in navigating disciplinary issues with their Temuan collaborators. While other organizations may churn out penalties or disciplinary notices to their members, this partnership requires innovative approaches to keep the community in line with certain organizational work practices. One of the ways is to recruit and involve as many members as possible in the tours to create distributive responsibility among network actants. This includes actants from humans and nonhuman assemblages such as durians, landmark sites, members of the community (cooks, washers, guides, coordinators, drivers,

⁹³ Most of the volunteers and new recruits are in their mid to late 20s.

etc), housing and facilities. Thus, when one does not show up on time or at all, another person loses their opportunity to earn an income. Clearly, through different times, the polyphonic assemblage bonds the community together, creating ties to help resolve uncertainties.

Finally, how does the organization convey complicated ideas to members who cannot read? Most of the partners are illiterate due to a lack of access to formal education. Similarly, how do community members convey complex ideas and concepts to outsiders with distinct ontological backgrounds who do not speak the same primary language? Ideas are often simplified, which may or may not come across in their intended form, which are amplified through the tours. At the same time, LOCAL is having difficulties training guides to remember and mention key points along the checkpoints of the tour. The guides then rely on selective memory, consequently creating inconsistent experiences even among members of the same hiking batch. This situation creates inconsistent delivery in the hikes, an issue yet to be solved as they scale up the tours. Many of the communications also need to be done face-to-face as the older generation are not tech savvy and to prevent miscommunication. This can be a problem as coordinating work requires flexibility. Furthermore, upskilling trainings that are being offered by third parties such as one that is recently being held by UN Youth are conducted in English, which poses a language barrier for community partners to participate. Hence, knowledge transfer process to and from the community is hindered. The situation is extended to other essential interactions with outsiders, not limited to grant application processes.4

5.5.2 Ethical Challenges

On the other hand, one might also consider the extent of this partnership as the Temuan are not being paid for their time in the meetings and planning process. Puah (2004), in her case

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study, critiqued that officers dispatched to the ground are being paid a monthly wage as opposed to the community. Similarly, both enterprises in this case study run on grants guaranteeing a monthly income for the management with or without sales and tours. Although the project is conducted to benefit the village collectively, many non-governmental entities and social enterprises fall short of considering the welfare of community leaders that had to bear the opportunity costs of participating in the programs. Nonetheless, LOCAL and Anak Bumi bear the logistic costs, quality checks, purchase of packaging, order fulfilments and other operational costs to alleviate some burden from the community.⁹⁴ In addition, both operations run through a profit-sharing mechanism which is a basis for good practice. For every RM1 in sales, RM0.42 are direct earnings to their growers. LOCAL takes a 40% cut on their administrative, marketing and coordinating roles and is transparent about this policy.

5.5.3 Problem with Supply

One of the key challenges in managing the tours and the sale of *derians* is sourcing wildmanaged products. Wild foods sourced from the tours, such as the splitgill mushroom (*schizophyllum commune*), are hard to come by and replicate. While the cultivated and wild versions have differences in taste and texture, the focal point here is the experience of harvesting in the wild and the chance to taste wild cultivated foods. Through various senses, these experiences connect an outsider's point of view to the indigenous experience in a shared setting. For Anak Bumi, the organization could not source enough *derians* to meet the increasing demand. Although a good problem in the business purview, both instances prove challenging in maintaining sustainability or enabling the scaling up of their operations.

⁹⁴ Claims taken from their websites.

The partnership dynamic is also fluid as Anak Bumi purchases the durian from an Orang Asli intermediary. The organization claimed that they could have undercut the agent by going straight to the Temuan growers and paying as low as RM4-6/kg in bulk. However, they see this partnership with the entrepreneur as a form of empowerment for the community. At the same time, through observations, LOCAL does not possess the intimate knowledge and experience to choose good quality durians. Hence, LOCAL cannot penetrate the premium market, as that role would require additional work and managing accounts with multiple growers. In addition, Anak Bumi is competing with other buyers for the best durian supply from this Temuan entrepreneur who possesses excellent *derian*-picking and networking skills. Nonetheless, the entrepreneur sees his partnership with Anak Bumi as an avenue to spread a different kind of message from the usual trade with other buyers.

Conclusion

Through an assemblage of actants, duriotourism connects *derian*, its trees, the land, and its resources to the Temuan people. As these imageries feed into the social media platforms, these representations proliferate, creating multiple interpretations and meanings for *derians* and their assemblage of relations. Through these physical-virtual interferences, *derians* are reimagined, empowered as an actant to bring attention to the Temuan's unacknowledged heritage and to dismiss the common perception of Temuan people as disempowered, cultureless peoples. As one of the outstanding material mediators, *derian* becomes more than a thing-object that has the power to create social ties, negotiate, and collaborate between Temuan and the outsider networks. While the business model of LOCAL and other organizations is still far from ideal in terms of community ownership, LOCAL offers Temuan strategies that other buyers could not; tapping into the English-speaking and international markets and expanding the advocacy work by reaching alternative audiences concerning communal land rights. This is imperative because the Temuan still possess high levels of autonomy despite not being paid a monthly wage; the Temuan can still sell their *derians* without Anak Bumi, but Anak Bumi cannot run without Temuan cooperation. Finally, when the state sees untouched land as unproductive, the legibility of duriotourism might be the key to other ways of recognizing Temuan land ownership.

CONCLUSION

This dissertation examines the symbiosis and colliding of worlding between humans and nonhumans through the lens of Temuan derian agroforestry. Through the inductive method, I have identified six concepts that encapsulate the three main principles of Temuan agroforestry in chapter 2. These principles and concepts convey the importance of soil and the art of conversation (bersapa in Temuan agroforestry. The recurring mention of bersapa and adat in the fieldwork indicates the importance of communicating with alam and the superhuman actants, which becomes the framework of Temuan cosmology. Adat is a set of guidelines to mediate a balanced system in the corporeal and non- corporeal world. In chapter 3, the exploration of Temuan direct interventions in the forest dispels the notion of derian saka as wild and uncultivated. Through the intimate knowledge of the landscape, situated territories, seasonal changes, cultivation methods and the work of care, the identification of *derian* trees suggests remarkable familiarity and discernment that could only come with training or lived experiences of the Temuan peoples. This enforces the Temuan identity through negotiation of *derians* as a form of material culture, spiritual reinforcement, and the act of becoming through the work of care. Chapter 4 sees the transformation of the meaning of *derian* as a form of territorialization. I discussed the discrepancy between the *de jure* vs *de facto* property rights in Kampung Orang Asli Gendoi (KOAG) and highlighted the ambiguity of the legal status that allows room for negotiating

different strategies of property relations. Focusing on conflicts related to durian trees and dusun in KOAG allows readers to notice the different stakeholders and community members driven by different motivations and values. This chapter can make a case for rethinking property relations by considering the OA's relationship/care relations to durian/forests. Lastly, *derians* become a material mediator to negotiate with other powerful network actants. These external network actants reduce the reliance of Temuan on JAKOA as a paternal caretaker for the community. Through the community's partnership with Anak Bumi, *derian* fruits reimagined through name-branding on social media platforms become empowered as an actant to disseminate information about Temuan culture.

There are certainly more nuances to be explored about the *Raya Buah* and its relation to Temuan spirituality. However, I missed the opportunity to attend the ritual due to the Movement Control Order (MCO). My primary focus was also placed on the villagers and the NGO relationship, which limited my time to further explore the supply chain aspect of *derian* business. I suggest further studies should emphasize both aforementioned aspects to gain a larger picture on the Temuan *derian* agroforestry. Admittedly, I wish I could spend more time in the field to get to know some community members who are at the bottom rung of the economic chain. However, the Movement Control Order caused significant disruption to Temuan livelihood, which made fieldwork challenging as I want to be respectful of their working hours. This made it difficult to do longer stays. Additionally, I could not stay over in their village to observe how they navigated their business during the COVID-19 pandemic, which might have yielded rich data. However, I am satisfied that I have done the best to my ability in capturing the information needed to construct a viable picture for the purpose of this dissertation. Overall, this dissertation has succeeded to achieve both research objectives. Firstly, to investigate the Orang Asli's practice of durian cultivation and management as part of their agroforestry tradition and secondly, to analyze the complexity of the Orang Asli durian agroforestry including the relationship among human and non-human entities.

APPENDIX

Question Guides

A. Background & Cultural Significance

1. Do you have any durian trees that you or your family members manage? How many? How big is the area planted? Do you have any plans to expand the orchard? What are some of the varieties of durians planted? How old are the trees? How many generations does it span across?

1. _____ atau keluarga ada menjaga pokok durian tak? Berapa pohon kamu ada? Berapa besar kawasan yang kamu tanam durian? Ada pelan utk membesarkan kebun durian tak? ____ ada tanam jenis durian apa? Agak-agak, pokok durian ada dalam berapa tahun dah? Hmm.. mungkin dah berapa generasi dah pokok-pokok ni ada dalam keluarga kamu?

2. In a forest that is filled with similar looking durian trees, how do you identify and differentiate the trees (eg. location, appearance, landmark proximity)? Are there any trees deemed more significant from one tree to another? If so, why?

2. Di hutan, dimana kebanyakan pokok seolah-olah berupa sama, bagaimana _____ cam (mengenal pasti) dan membezakan pokok durian (Adakah.. Lokasi, rupa bentuk, berdekatan dengan mercu tanda seperti berdekatan dengan batu)? Bagi kamu, ada tak pokok durian yang lebih penting dari yang lain? Jika begitu, mengapa?

3. How do you name those trees? Can you share two examples of how those trees were named? Are there any significance in those stories to you or the community?

3. Bagaimanakah ____ menamakan pokok-pokok durian kamu? Bolehkah kamu berkongsi dua contoh bagaimana pokok tersebut dinamakan? Adakah cerita-cerita tersebut mempunyai kepentingan kepada kamu ataupun komuniti ____?

4. How do you and your community feel about those durian trees? Are they important in your community? Does the durian play any symbolic role in your culture? Does the durian play any role in the rituals or any form of social gatherings in your community?

4. Apakah pandangan kamu ataupun komuniti terhadap pokok-pokok durian tersebut? Adakah pokok durian tersebut penting kepada kamu ataupun komuniti? Adakah durian mempunyai pegangan simbolik dalam budaya kamu? Bagaimana pula dengan ritual (keagamaan) ataupun majlis perayaan, mahupun perjumpaan sosial di komuniti kamu?

B. <u>Agroforestry</u>

5. How do you plant the trees? Where do you source your seedlings/rootstock from? How do you manage/care for your durian trees **according to the seasons/months?** Are there different ways of planting according to the terrain, durian variety, and environment? If so, how and why? Are there different roles accorded to the tending of the durian trees?

5. Bolehkah kamu berkongsi cara-cara menanam pokok durian? Di manakah kamu mendapatkan benih tersebut? Bagaimanakah kamu menjaga pokok durian bergantung kepada musim? Adakah ia berbeza? Bagaimana pula dengan cara penanam di kawasan yang berbeza seperti di bukit dan tanah rata, jenis, dan persekitaran? Adakah faktor-faktor ini menyebabkan kamu menanam secara berbeza? Adakah terdapat peranan yang berbeza bagi setiap orang yang menjaga pokok durian tersebut di sebuah komuniti?

6. What kind of fertilizers do you use on your trees and why? How do you maintain the health of the trees? What do you do when they fall sick?

6. Apakah jenis baja yang kamu gunakan pada pokok ____? Bagaimanakah kamu pastikan kesihatan pokok durian __ terjaga? Apakah langkah-langkah yang kamu akan buat apabila pokok durian jatuh sakit?

7. In your opinion, do you think there are differences between OA durians to kampung durians? What about generic plantation durians such as Musang King?

7. Pada pendapat ____, adakah terdapat perbezaan antara durian Orang Asli dengan durian kampung? Bagaimana pula dengan Musang King?

C. <u>Property Division</u>

8. Have you inherited any Durian trees from your family or community (If not, what about your family members)? From who? How and why was the decision made when you inherited the trees? Who tends to the trees? Who takes care of the flowering buds? Similarly, who gets to have access to the fruits? Who gets to harvest the fruits?

8. Ada tak _____ mewarisi pokok durian dari keluarga ataupun dari kampung (Jlka tidak, bagaimana pula dengan ahli keluarga kamu?) Dari siapa? Bagaimana dan mengapakah keputusan itu dibuat apabila mereka membuat keputusan untuk memberi kamu pokok durian tersebut? Siapa yang menjaga pokok-pokok? Siapakah yang menjaga pokok apabila musim bunga? Siapakah yang dapat merasa hasil buah durian tersebut? Siapakah yang mendapat kutip buah durian?

9. How do you intend to pass on the durian trees to your children/relatives in the future? Who gets which, how much, and what is your rationale for that decision? What are your hopes for them?

9. Bagaimanakah ____ ingin mewarisi pokok durian kepada anak ataupun keluarga pada masa hadapan? Siapakah yang akan mendapat pokok tertentu, dan apakah sebab di sebalik keputusan tersebut? Apakah harapan kamu untuk perkara tersebut?

10. Do you or your community use durian trees to mark individual or community land (sempadan)? How? **Can you draw a map for me and help me to understand*?*

10. Adakah kamu ataupun penduduk kampung menggunakan pokok durian untuk membuat sempadan tanah? Bagaimana? Bolehkah kamu melukiskan sebuat peta untuk berkongsi dengan saya?

11. How does your family divide the ownership of the land to the next generation? Who gets access to the land? Is there any rule of thumb on the division?

11. Bagaimanakh cara keluarga kamu membahagikan tanah untuk anak-anak? Siapakah yang mendapatkan hak tanah? Adakah terdapat adat ataupun undang-undang dalam pembahagian hak tanah di kalangan penduduk kampung

D. <u>Stakeholders</u>

12. Who are the people that you have worked with (large plantations, mid-size, small farms)? Who are they? What kind of relationship do you have with them? Who are the other industry players that you would like to work with?

12. Pihak siapakah kamu ada peluang untuk bekerja? Siapakah mereka? Macam manakah hubungan kamu dengan pihak-pihak tersebut? Siapakah kamu ingin bekerja dengan masa hadapan?

13. Are there any conflicts (illegal expansion, etc) relating to land in your community? What are the ways your community approaches this issue?

13. Adakah terdapat konflik berkenaan isu tanah di kampung? Bagaimakah cara penduduk kampung menangani masalah ini?

E. <u>Resilience & Support</u>

14. How do you see OA durians play a role in the agriculture economy? Do you think there is anything to be improved in the quality of the OA durians? How? What about production wise? Do you think the OA durians are comparable to the Musang King in terms of quality? What about market demands?

14. Pada pendapat kamu, bagaimanakah warga orang asli dapat memainkan peranan dalam pertanian? Adakah terdapat apa-apa perkara yang perlu ditambah baik dalam kualiti durian Orang Asli? Bagaimana pula dengan pengeluaran durian Orang Asli? Adakah durian Orang Asli setanding dengan Musang King? Bagaimana pula dengan permintaan orang ramai?

15. What kind of support do you think that the OA communities need from relevant parties in supporting the OA durian businesses? eg. gov agencies, NGOs and OA community.

15. Pada pendapat kamu, apakah jenis sokongan yang diperlukan oleh komuniti Orang Asli dari pihak-pihak tertentu dalam membangunkan perniagaan durian Orang Asli? Contohnya pihak kerajaan, NGO dan komuniti orang Asli.

F. <u>Agrotourism, Entrepreneurship & Business</u>

16. Besides economic boosting, how do you foresee agrotourism in supporting your community?

16. Selain peningkatan ekonomi, bagaimanakah kamu menjangka aktiviti pelancongan ini dapat membantu komuniti?

17. How does your community support each other in driving agrotourism in your area? What are some of the roles taken by the villagers? What are some of the community's responses towards these roles? How does it affect the social relations within the community?

17. Bagaimanakah komuniti kamu menyokong satu sama lain dalam memacu/mendorong aktiviti pelancongan di kawasan anda? Apakah antara peranan yang dimainkan oleh penduduk? Apakah antara respon/riaksi penduduk kampung terhadap peranan-peranan tersebut? Bagaimanakah ia menjejaskan hubungan penduduk kampung/

18. What are some of the challenges that the OA durian entrepreneurs face? What are their coping mechanisms while facing the said challenges? In your opinion, what are the Jentrepreneur's aspirations in terms of managing their OA durian businesses?

18. Apakah antara cabaran-cabaran yang dihadapi oleh usahawan Orang Asli yang menceburi durian? Bagaimanakah mereka mengatasi cabaran tersebut? Pada pendapat anda, apakah aspirasi usahawan dalam perniagaan durian ini?

Thank you.

Glossary / Abbreviations

Num	Name	Meaning
1	Anak Bumi	A pseudonym for a local enterprise working in the village.
2	Balai	A communal space to gather and conduct non- spiritual related activities. Instead, a <i>rumah adat</i> is a communal space erected for spiritual purpose.
3	Bekalan	Supplies. In pg. 55 context, it is referring to the afterlife provisions.
4	Belukar	A lesser version of <i>hutan</i> . Usually occupied with secondary growth/forest.
5	Berkomunikasi	To communicate in Malay.
6	Bersapa	To communicate in Temuan.
7	Buah Adik	The period in which there are most <i>derian</i> availability in a harvest season. Also known as 'little sister/brother'.
8	Buah Kakak	When <i>derian</i> trees start to ripen. The first produce for the season. See <i>membusuk</i> .
9	Buah Pertengahan	Harvest collected mid-season. Fruits had ripened or "matured" to their best potential during this time.
10	Derian	Temuan engages a different meaning for <i>derian</i> than durians cultivated in mono plantations. <i>Derian</i> trees hold generations worth of intergenerational memories as they hold meaning to events that took place through different temporal and space. <i>Derian</i> trees also hold spiritual
11	Derian bukit	connotation. Mountain <i>derians</i> . The preference for mountainous location and terroir to grow
		derian bukit parked the name given proudly by the Ulu Selangor Temuans, derian bukit.
12	Derian saka	Another term given to <i>derian</i> that is grown is <i>kebun saka</i> . Both <i>kebun saka</i> and <i>derian saka</i> also translates to the ancestral orchard.
13	Dusun	A fruit tree orchard but also connotates communal land. <i>Dusun</i> can provide a strong connection to their past, serving as a remembrance of their ancestor's legacy, labour, and inter-generational experiences.
14	Eid	A yearly celebration for Muslims
15	FELCRA	Federal Land Consolidation and Rehabilitation

		Authority.
16	FGDs	Focus group discussions.
17	FPIC	Free, prior, informed, consent.
		A guideline released by UNDRIP when working with
		the indigenous community.
18	Fruitscapes	Mobile-hunter gatherer communities' creation of
		fruit patches coined by Dr Lye Tuck-Po.
19	Gendoi / genui	Grandma in Temuan
20	Guanxi	Chinese concept of 'good interpersonal
		relationships'.
21	Hutan	Forest.
22	JAKOA	Jabatan Kemajuan Orang Asli.
23	Julung buah	Fruit Festival. A thanksgiving event. May or may not
		involve rituals.
24	Kebun	A commercial farm devoid of meaning other than
		for economic purposes. Usually referred to rubber
		trees or palm oil mono plantations.
25	Kebun saka	Kebun saka is older than dusun and is usually
		inherited by one's <i>moyang</i> (ancestors). However,
		how far back a <i>dusun</i> can 'elevate' its status to
		a <i>kebun saka</i> is unclear. Usually, informants
		mention time immemorial though my notes sugges
		at least 4 generations back.
26	Kampung lama	Old Village.
20	KOAG	Kampung Orang Asli Gendoi.
28	Memasak	Ripening of the <i>derian</i> trees.
	Membusuk	
29	Wembusuk	When <i>derian</i> trees start to ripen. Not of highest
20		quality. See <i>buah kakak.</i>
30	Mengkuang	A type of leaf commonly used to make mats and
24		baskets.
31	Mamak	An honourary mention for a male who is older than
		the speaker. Also mean "uncle".
32	Membadankan	Imbuing vitality to the subject (my interpretation).
33	Memuja	To worship in Malay. In the Temuan context, it
		connotes the negative perception that they are
		object-worshipping peoples.
34	Menyembah	Informants define as 'to communicate'. A literal
		Malay translation would be to 'prostrate'.
35	MCO	Movement Control Order due to COVID-19
		pandemic.
36	Moyang Harimau	A manifestation of the spirit familiar resembling a
		huge tiger.
37	NGO	Non-governmental Organization.
38	NTFPs	Non-timber forest products.
39	Pengerusi	Chairman.
40	PRA	Participatory Rural Appraisal.

	Sangkil	
42	Pusat	A direct translation in Malay would be 'centre'.
		Another meaning would be the navel.
43	RISDA	Rubber Industry Smallholders Development
		Authority.
44	Semangat	Spirit.
45	Spirit Familiar	Spirit Guide.
46	Rumah adat	A communal space erected for spiritual purpose.
47	Tatak Engku	Temiar's thunder god said to live on the highest
		mountains.
48	Tuas / pucuk bertam	Eugeissona tristis frond.
49	Tuhan	God.

References

Abazue, Chukwuka M, Ah Choy Er, A S A Ferdous Alam, and Halima Begum. 2015. "Oil Palm Smallholders and Its Sustainability Practices in Malaysia." *Mediterranean Journal of Social Sciences* 6 (6): 482–88. <u>https://doi.org/10.5901/mjss.2015.v6n6s4p482</u>.

Agrawal, Arun, and Clark C Gibson. 1999. "Enchantment and Disenchantment: The Role of Community in Natural Resource Conservation." *World Development* 27 (4): 629–49. https://doi.org/10.1016/S0305-750X(98)00161-2.

Akiya, Mahat. Perang Sangkil. Seri Kembangan, Selangor: PTS Fortuna, 2007.

Anbalagan, V. "Putrajaya Cannot Sue Kelantan Govt over Encroachments into Orang Asli Land." Free Malaysia Today, June 3, 2021. <u>https://www.freemalaysiatoday.com/category/nation/2021/06/03/putrajaya-cannot-</u><u>sue-kelantan-govt-over-encroachments-into-orang-asli-settlements/</u>.

Anuar Alias, and Md Nasir Daud. 2008. "Compensation for Orang Asli Native Land in Malaysia: The Perceptions and Challenges in Its Quantification." *Journal of Design and the Built Environment* 4 (1): 63–84. http://mjs.um.edu.my/index.php/jdbe/article/download/4965/2806/11543

Attebery, Stina. 2020. "Refuse Ecologies: Indigenous Posthumanism in Polluted Futures." PhD diss. University of California Riverside. <u>https://escholarship.org/uc/item/7xg176cs</u>.

Aiken, S. Robert, and Colin H. Leigh. 2015. "Dams and Indigenous Peoples in Malaysia: Development, Displacement and Resettlement." *Geografiska Annaler, Series B: Human Geography* 97 (1): 69–93. <u>https://doi.org/10.1111/geob.12066</u>

Aiken, S. Robert, and Colin H. Leigh. 2011. "Seeking Redress in the Courts: Indigenous Land Rights and Judicial Decisions in Malaysia." *Modern Asian Studies* 45 (4): 825–875. <u>https://www.jstor.org/stable/25835703#metadata_info_tab_contents</u>.

Allen, Betty Molesworth. 1967. *Malayan Fruits; an introduction to the cultivated species*. Singapore: D. Moore Press.

Amir Zal, W. A., Mustaffa Omar, and Hood Salleh. 2016. "The Terminologies Associated with Development and Marginalisation for Orang Asli in Malaysia." *Development in Practice* 26 (7): 933–48. <u>https://doi.org/10.1080/09614524.2016.1211093</u>.

Aziz, Sheema Abdul, Kim R McConkey, Krizler Tanalgo, Tuanjit Sritongchuay, Mary-Ruth Low, Joon Yee Yong, Tammy L Mildenstein, Christine Ely Nuevo-Diego, Voon-Ching Lim, and Paul A Racey. 2021. "The Critical Importance of Old World Fruit Bats for Healthy Ecosystems and Economies." *Frontiers in Ecology and Evolution* 9. <u>https://doi.org/10.3389/fevo.2021.641411</u>.

Benjamin, Geoffrey. 2014. *Temiar Religion, 1964-2012: Enchantment, Disenchantment and Re-Enchantment in Malaysia's Uplands*. Singapore: NUS Press. Braidotti, Rosi. 2013. The Posthuman. Cambridge, United Kingdom: Polity Press.

Business Today. 2022. "Durian Projects Now Closer To Singapore, Worlds Third LargestDurianConsumer,"March31,2022.https://www.businesstoday.com.my/2022/03/13/durian-projects-now-closer-to-
worlds-third-largest-durian-consumer/.singapore-
singapore-
singapore-

Baqi, Aminuddin, Voon-Ching Lim, Hafiz Yazid, Faisal Ali Anwarali Khan, Chong Ju Lian, Bryan Raveen Nelson, Jaya Seelan Sathiya Seelan, Suganthi Appalasamy, Seri Intan Mokhtar, and Jayaraj Vijaya Kumaran. 2022. "A Review of Durian Plant-Bat Pollinator Interactions." *Journal of Plant Interactions* 17 (1): 105–26. <u>https://doi.org/10.1080/17429145.2021.2015466</u>.

Bennett, Jane. 2010. *Vibrant Matter: A Political Ecology of Things*. Durham: Duke University Press.

Bernama. "Bumper Crop of Durian Being Sold at Affordable Prices in Penang." Astroawani.com, 2022. <u>https://www.astroawani.com/berita-malaysia/bumper-crop-durian-being-sold-affordable-prices-penang-367974</u>.

Bumrungsri, Sara, Ekapong Sripaoraya, Thanongsak Chongsiri, Kitichate Sridith, and Paul A. Racey. 2009. "The Pollination Ecology of Durian (Durio Zibethinus, Bombacaceae) in Southern Thailand." *Journal of Tropical Ecology* 25 (1): 85–92. https://doi.org/10.1017/S0266467408005531.

Carstens, Sharon, Robert Dentan, Kirk Endicott, Alberto Gomes, and A. B. Hooker. 1998. "Malaysia and the 'Original People': A Case Study of the Impact of Development on Indigenous Peoples." *The Journal of Asian Studies* 57 (1). <u>https://doi.org/10.2307/2659093</u>.

Cheah, W L. 2004. "Sagong Tasi and Orang Asli Land Rights in Malaysia: Victory, Milestone or False Start", 2004 (2) Law, Social Justice & Global Development Journal (LGD). <www.go.warwick.ac.uk/elj/lgd/2004 2/cheah>

Christensen, Hanne. 2002. *Ethnobotany of the Iban & the Kelabit*. Aarhus: Nepcon; University of Aarhus; Forest Department Sarawak, Malaysia.

Chua, Liana. 2012. "Thinking with Spirits, Dams and Orangutans: A Conversation on More- Than-Human Anthropology in Borneo." Brownbag Seminar Series, Council on the Southeast Asia Studies, Yale University, Feb 24, 2021. Video of lecture, 1:27:02. https://www.youtube.com/watch?v=XZo3YM0JKKI&t=2798s

Cooke, Fadzilah Majid. 2013. "Constructing Rights: Indigenous Peoples at the Public Hearings of the National Inquiry into Customary Rights to Land in Sabah, Malaysia." Sojourn: Journal of Social Issues in Southeast Asia 28 (3): 512–37.

Crate, Susan A. 2011. "Climate and culture: anthropology in the era of contemporary climate change." *Annual review of Anthropology* 40, no. 1: 175-194.

Dato' Sri Douglas Uggah Embas. 2012. "A Statement for the United Nations Conference on Sustainable Development." Rio de Janeiro, June 22, 2012. <u>https://sustainabledevelopment.un.org/content/documents/17166malaysia.pdf</u> Department of Statistics Malaysia. 2017. "Annual Rubber Statistics 2016." Department of Statistics Malaysia Official Portal. Accessed February 2, 2021 https://www.dosm.gov.my/v1/index.php?r=column/cthemeByCat&cat=70&bul_id=VEx MbnVXclNPaDI5Y25WaCtUOG1PZz09&menu_id=Z0VTZGU1UHBUT1VJMFlpaXRR0xpd_z09.

Descola, Philippe. *Beyond nature and culture*. Chicago, IL: University of Chicago Press, 2014.

Dolah Tekoi. 2020. Buku Adat Dan Pantang Larang Orang Asli Semenanjung Malaysia: Suku Urang Huluk (Jakun) Johor. Gerakbudaya; Jaringan Kampung Orang Asli Semenanjung Malaysia; KOMAS.

Durai, Abirami. 2022. "The Black Thorn Durian Is Gaining Momentum over Musang King." *The Star*, July 30, 2022. <u>https://www.thestar.com.my/lifestyle/living/2022/07/30/how-the-black-thorn-durian-is-gaining-momentum-over-musang-king</u>.

Doolittle, Amity A. 2010. "The Politics of Indigeneity: Indigenous Strategies for Inclusion in Climate Change Negotiations." *Conservation and Society* 8 (4): 286–91. <u>http://www.jstor.org/stable/26393018</u>.

Doolittle, Amity A. 2007. "Native Land Tenure, Conservation, and Development in a Pseudo- Democracy: Sabah, Malaysia." *The Journal of Peasant Studies* 34 (3–4): 474–97. <u>https://doi.org/10.1080/03066150701802793</u>.

Doolittle, Amity A. 2004. "Powerful Persuasions: The Language of Property and Politics in Sabah, Malaysia (North Borneo), 1881–1996." *Modern Asian Studies* 38 (4): 821–50. https://doi.org/DOI: 10.1017/S0026749X04001222.

Doolittle, Amity A. 2001. "From Village Land to 'Native Reserve': Changes in Property Rights in Sabah, Malaysia, 1950-1996." *Human Ecology* 29 (1): 69–98. <u>http://www.jstor.org/stable/4603385</u>.

Dove, Michael R. 2011. *The Banana Tree at the Gate: A History of Marginal Peoples and Global Markets in Borneo*. Connecticut: Yale University Press.

Durai, Abirami. 2019. "How to Choose a Durian, According to Durian Experts." *Star Online*, July 24, 2019. <u>https://www.thestar.com.my/lifestyle/living/2019/07/24/durian-competition-musang-king</u>.

Durian Delivery Singapore. n.d. "Pahang Old Tree MSW- 800g." Accessed May 14, 2022. <u>https://duriandelivery.com.sg/product/hand-picked-royal-old-tree-msw-durian/</u>.

Durianed! n.d.2022. "9 Differences Between Durians From Young Trees And Old Trees." Accessed July 9, 2022. <u>https://www.durianed.com/young-tree-old-tree</u>.

Edo, Juli, Anthony Williams-Hunt, and Robert Knox Dentan. 2009. "'Surrender', peacekeeping and internal colonialism. A Malaysian instance." *Bijdragen tot de taal-, land-en volkenkunde/lournal of the Humanities and Social Sciences of Southeast Asia* 165, no. 2-3 215-240.

Egay, Kelvin, and Cheng Sim Hew. 2018. *Beyond Romance*. Petaling Jaya: Strategic Information and Research Development Centre.

Ellen, Roy. 2012. "Studies of swidden agriculture in Southeast Asia since 1960: An overview and commentary on recent research and syntheses." *Asia Pacific World* 3, no. 1 (2012): 18-39

Endicott, K. 1983. The effect of slave raiding on the aborigines of the Malay Peninsula. In *Slavery, bondage and dependency in Southeast Asia,* ed. A. Reid, 216–245. Brisbane, Australia: University of Queensland Press.

Endicott, Kirk, and Robert Dentan. 2008. "Into the Mainstream or into the Backwater? Malaysian Assimilation of Orang Asli." In *Civilizing the Margins: Southeast Asian Government Policies for the Development of Minorities*, edited by Christopher R. Duncan. Singapore: NUS Press.

Endicott, Kirk M. 2016. Malaysia's Original People: Past, Present and Future of the Orang Asli. Singapore: NUS Press.

Endicott, Kirk, Tuck-Po Lye, Nurul Fatanah Zahari, and Alice Rudge. 2016. "Batek Playing Batek for Tourists at Peninsular Malaysia's National Park." *Hunter Gatherer Research* 2 (1): 97–121. <u>https://doi.org/10.3828/hgr.2016.5</u>.

Fadzliana, M F Siti, H F Muhammad Aminuddin Baqi, P H Fong, B Parasuraman, W M N W M Nasir, and V K Jayaraj. 2021. "Population Size Determination Using Photographic Estimation for The Conservation of Cave Nectar Bat (Eonycteris Spelaea) at Gunung Reng, Kelantan, Malaysia." *IOP Conference Series: Earth and Environmental Science* 842: 1–7. <u>https://doi.org/10.1088/1755-1315/842/1/012047</u>.

Fisher, Anthony. 2018. "Eduardo Kohn: How Forests Think. Book Review by Anthony Fisher." Space and Culture. https://www.spaceandculture.com/2018/03/25/eduardo-kohn-how-forests-think-book-review-by-anthony-fisher/.

Fortman, Louise. "The tree tenure factor in agroforestry with particular reference to Africa." *Agroforestry systems* 2, no. 4 (1985): 229-251.

Gale, Fred P. 2018. *The Political Economy of Sustainability*. Cheltenham: Edward Elgar Publishing.

Gan, Joo-Ee. 2022. "Ecotourism and Malaysia's Orang Asli: The Social Construction of Indigeneity in Community Boundary-Drawing." *Journal of Ecotourism* 21 (1): 54–70. <u>https://doi.org/10.1080/14724049.2021.1918131</u>

Gomes, Alberto G. 2004. *Looking for Money: Capitalism and Modernity in an Orang Asli Village*. Kuala Lumpur: Centre for Orang Asli Concerns.

Hamzah, Hamimah. 2013. "The Orang Asli Customary Land: Issues and Challenges." *Journal of Administrative Science* 10 (1): 1–15. <u>https://jas.uitm.edu.my/images/2013_JUNE/4.pdf</u>.

Haraway, Donna Jeanne. 2009 When Species Meet. Cambridge: International Society for Science and Religion, .

Heikkilä, Karen. 2014. "'The forest is our inheritance': An introduction to S emai O rang A sli place-naming and belonging in the B ukit T apah F orest R eserve." *Singapore Journal of Tropical Geography* 35, no. 3: 362-381.

Ibrahim, Zawawi. 1996. "The making of a subaltern discourse in the Malaysian nationstate: new subjectivities and the poetics of Orang Asli dispossession and identity." *Japanese Journal of Southeast Asian Studies* 34, no. 3: 568-600.

Ibrahim, Zawawi. 1997 "Orang Asli citizenry and nationhood: mediating the voices of the Bumiputera "Other" in Malaysia." *Asian Studies Review* 21, no. 1: 107-114.

Ibrahim, Zawawi. 2000. "Regional development in rural Malaysia and the 'tribal question'." *Modern Asian Studies* 34, no. 1: 99-137.

Ibrahim, Wan Zawawi. 2021. "The New Economic Policy and Contesting Bumiputera Identity." *Ideas Malaysia*. Policy Paper No 75. <u>https://www.ideas.org.my/publications-</u> <u>item/the-new-economic-policy-and-contesting-bumiputera-identity-among-orang-asli-</u> <u>and-the-indigenous-peoples-of-sabah-and-sarawak/</u>

Ibrahim, Zawawi. 2021b. "Postcolonial Indigenous Storytellers and the Making of a Counter-Discourse to the 'Civilising Process' in Malaysia." *Discourses, Agency and Identity in Malaysia*, 429–80. <u>https://doi.org/10.1007/978-981-33-4568-3_19</u>.

Idrus, Rusaslina. 2010. "From Wards to Citizens: Indigenous Rights and Citizenship in Malaysia." *Political and Legal Anthropology Review* 33 (1): 89–108. <u>http://www.jstor.org/stable/24497603</u>.

Idrus, Rusaslina. 2011. "The Discourse of Protection and the Orang Asli in Malaysia." *Kajian Malaysia* 29 (1): 53–74. http://web.usm.my/km/29(Supp1)2011/KM Vol. 29 Supp. 1 - Art. 4 - (Rusaslina Idrus).pdf

JAKOA. "Senarai Kampung Orang Asli Di Seluruh Malaysia Beserta Kepadatan Penduduk - Mampu." Senarai Kampung Orang Asli di Seluruh Malaysia Beserta Kepadatan Penduduk -Set Data - MAMPU, November 2018. <u>https://www.data.gov.my/data/ms_MY/dataset/senarai-kampung-orang-asli-di-</u> <u>malaysia-beserta-kepadatan-penduduk</u>.

Jo Komar, and W. A Amir Zal. 2014. *Adat Orang Asli Suku Temuan*. Kuala Lumpur: Dewan Bahasa Pustaka.

Juli Edo, and Kamal Solhaimi Fadzil. 2016. "Folk Beliefs vs World Religions: A Malaysian Orang Asli Experience." In *Malaysia's Original People: Past, Present and Future of the Orang Asli*, edited by Kirk Endicott, 251–67. Singapore: NUS Press.

Kamal, Solhaimi F., and Voon Cheng Lim. 2019. "Forest Reserve as an Inclusive or Exclusive Space? Engaging Orang Asli as Stakeholder in Protected Area Management." *Journal of Tropical Forest Science* 31 (3): 278–85. <u>https://doi.org/10.26525/jtfs2019.31.3.278</u>

Kamal Solhaimi Fadzil, Wan Suzita Wan Ibrahim, Siti Nor Awang, Rosilawati Zainol, and Juli Edo. 2016. "Masyarakat Pribumi, Infrastruktur Sosial Dan Pembangunan Terancang Di Malaysia: Kajian Penglibatan Masyarakat Orang Asli Di RPS Air Banun, Belum- Temengor, Perak." *Malaysian Journal of Society and Space* 12 (10): 88–100.

Kathirithamby-Wells, Jeyamalar, 2005. *Nature and nation: Forests and development in Peninsular Malaysia*. Singapore Univ. Press.

Karim, Wazir Jahan, and Mohd Razha Rashid. 2015. "Differential Responses to Development and Modernity among the Kintak Bong and the Ma'Betise'." *Malaysia's Original People: Past, Present and Future of the Orang Asli* (2015): 31

Keat, Ng Ju, Tapan Kumar Nath, and Shibu Jose. 2018. "Indigenous Agroforestry Practices by Orang Asli in Peninsular Malaysia: Management, Sustainability and Contribution to Household Economy." *Indian Journal of Traditional Knowledge* 17 (3): 542–49. http://nopr.niscair.res.in/handle/123456789/44578.

Khoo, Gaik Cheng & Wong, Pui Yan. 2021. *The Political Economy of Durian: A Scoping Study.* (Unpublished Manuscript).

Khoo, Gaik Cheng, 2020, "Of Friends, Family and Foes: Relationship with and by the Malaysian Durian." Food Futures in the Anthropocene, Food Studies Conference 2022, University of Tasmania online, November, 9-10 2020.

King, Ambrose Yeo-chi. 1991. "Kuan-Hsi and Network Building: A Sociological Interpretation." *Daedalus* 120 (2): 63–84. <u>http://www.jstor.org/stable/20025374</u>.

Mad Anuar, Azliza. 2013. "A Comparison of Ethnobiological Knowledge between the Mah Meri and Temuan Tribes in Selangor." Master's thesis. Universiti Malaya. <u>http://studentsrepo.um.edu.my/6107/</u>.

Mongabay. 2013. "Malaysia Has the World's Highest Deforestation Rate, Reveals Google Forest Map." Malaysia has the world's highest deforestation rate, reveals Google forest map, November 15, 2013. <u>https://news.mongabay.com/2013/11/malaysia-has-the-worlds-highest-deforestation-rate-reveals-google-forest-map/</u>

Noor, Hashim. 2012. "Generation of high income through compatible combinations of forest trees and agricultural crops under agroforestry ecosystem". IPICEX Conference Paper. November 5-7 2012.

MENA Report. 2022. Strengthening the Food Production of the Orang Asli Community in Gua Musang Barat, Kelantan through Sustainable Farming Practices & Agro-Forestry #KebunMandiriOA. Project number: MAL/SGP/OP6/Y6/STAR/BD/2021/03. Albawaba: London. <u>https://www.proquest.com/wire-feeds/strengthening-food-production-orang-asli/docview/2641692289/se-2?accountid=135175</u>.

Miller, Robert Pritchard, and P K R Nair. 2006. "Indigenous Agroforestry Systems in Amazonia: From Prehistory to Today." *Agroforestry Systems* 66 (2): 151–64. <u>https://doi.org/10.1007/s10457-005-6074-1</u>.

Moore, Jonathan Harry, Saifon Sittimongkol, Ahimsa Campos-Arceiz, Tok Sumpah, and Markus P Eichhorn. 2016. "Fruit Gardens Enhance Mammal Diversity and Biomass in a Southeast Asian Rainforest." Article. *Elsevier* 194: 132–38. https://doi.org/http://dx.doi.org/10.1016/j.biocon.2015.12.015.

Li, Tania. 2007a. *The Will to Improve: Governmentality, Development, and the Practice of Politics*. London: Duke University Press.

Li, Tania. 2007b. "Practices of Assemblage and Community Forest Management." *Economy and Society* 36 (2): 263–93. <u>https://doi.org/10.1080/03085140701254308</u>.

Li, Tania. 2014. Land's End: Capitalist Relations on an Indigenous Frontier. London: Duke University Press.

Lim, Teckwyn, and Ahimsa Campos-Arceiz. 2022a. "A Review of Human-Elephant Ecological Relations in the Malay Peninsula: Adaptations for Coexistence." *Diversity*. <u>https://doi.org/10.3390/d14010036</u>.

Lim, Teck Wyn. 2022b. "Status of Forest Reserve in Selangor and Future Challenges." Tapir Talks, Malaysian Nature Society, July 5, 2022. Video of lecture, 1:32:58. <u>https://www.facebook.com/MalaysianNatureSociety.Official/videos/35269929368464</u> <u>4/?extid=NS-UNK-UNK-UNK-GK0T-GK1C-GK2C&ref=sharing</u>

Lye, Tuck-Po. 2002. "The Significance of Forest to the Emergence of Batek Knowledge in Pahang, Malaysia." *Southeast Asian Studies* 40 (1): 3–22. <u>https://kyoto-seas.org/pdf/40/1/400101.pdf</u>.

Lye, Tuck-Po. 2005a. *Changing Pathways: Forest Degradation and the Batek of Pahang, Malaysia*. Petaling Jaya: Strategic Information and Research Development Centre.

Lye, Tuck-Po. 2005b. "The Meanings of Trees: Forest and Identity for the Batek of Pahang, Malaysia." *Asia Pacific Journal of Anthropology* 6 (3): 249–61. <u>https://doi.org/10.1080/14442210500342417</u>.

Lye, Tuck-Po. 2011. "A History of Orang Asli Studies: Landmarks and Generations." *Kajan Malaysia* 29 (1): 23–52. <u>https://www.researchgate.net/publication/233397693 A HISTORY OF ORANG ASLI</u> <u>STUDIES LANDMARKS AND GENERATIONS</u>.

Lye, Tuck-Po. 2013. "Making Friends in the Rainforest: 'Negrito' Adaptation to Risk and Uncertainty." *Human Biology* 85: 417–43. <u>https://www.jstor.org/stable/10.13110/humanbiology.85.1-3.0417</u>.

Lyons, Kristina M. 2020. *Vital decomposition: Soil Practitioners and Life Politics*. Duke University Press.

Malaysiakini. 2012. "Lindungi Tanah Orang Asli, Gesa Majlis Peguam," January 30, 2012. <u>https://www.malaysiakini.com/news/187841</u>.

Malaysiakini."2012. Villagers Object, but Kedah Allows Clearing of Virgin Forest." Malaysiakini, July 18, 2012. <u>https://www.malaysiakini.com/news/203974</u>

Malaysiakini. 2019. "Minister: Kelantan Gov't Wrong on Orang Asli Land Ownership," January 20, 2019. <u>https://www.malaysiakini.com/news/460954</u>.

METMalaysia. 2022. "Laman Web Rasmi Jabatan Meteorologi Malaysia." METMalaysia - Utama. Accessed August 20, 2022. <u>https://www.met.gov.my/en/pendidikan/fenomena-cuaca/</u>

Mauss Marcel. 1990. The Gift; Forms and Functions of Exchange in Archaic Societies.

London: Routledge

Mathews, Andrew S. 2020. "Anthropology and the Anthropocene: criticisms, experiments, and collaborations." *Annual Review of Anthropology* 49: 67-82.

Ministry of Energy and Natural Resources. n.d. "Forestry." Accessed March 17, 2022. https://www.ketsa.gov.my/en-my/KetsaCore/Forestry/Pages/default.aspx.

Ministry of Rural Development. 2018. "Kampung Orang Asli April 2018." Data Terbuka. Accessed July 9, 2022. <u>https://www.data.gov.my/data/ms_MY/dataset/kampung-</u><u>orang-asli-april-2018/resource/d09a6ebf-e203-4b89-9f72-21b2c8647b9e</u>.</u>

Muhammad Aminuddin Baqi, H F, N H Mohamad Iqbal, A R Nur Nabilah, A R Nur Ain Aiman, A Suganthi, P H Fong, and V K Jayaraj. 2020. "The Diversity of Small Mammals in a Mixed Fruit Orchard at Bukit Bekong Limestone Massif, Merapoh, Pahang, Malaysia." *IOP Conference Series: Earth and Environmental Science* 596 (1): 1–7. <u>https://doi.org/10.1088/1755-1315/596/1/012073</u>.

Mustafa Along, Nora Kantin, and Axcii Along. 2022. "Loggers with Cash in Hand Divide Kelantan Orang Asli Community." Earth Journalism Network. Accessed August 5, 2022. <u>https://earthjournalism.net/stories/loggers-with-cash-in-hand-divide-kelantan-orang-community</u>.

Nah, Alice M. 2003. "Negotiating Indigenous Identity in Postcolonial Malaysia: Beyond Being 'Not Quite/Not Malay." *Social Identities* 9 (4): 511–34. <u>https://doi.org/10.1080/1350463032000174650</u>.

Nah, Alice M. 2006. "(Re)Mapping Indigenous 'Race'/Place in Postcolonial Peninsular Malaysia." *Geografiska Annaler: Series B, Human Geography* 88 (3): 285–97. https://doi.org/https://doi.org/10.1111/j.1468-0459.2006.00222.x.

Nah, Alice M. 2008. "Recognizing Indigenous Identity in Postcolonial Malaysian Law: Rights and Realities for the Orang Asli (Aborigines) of Peninsular Malaysia." *Bijdragen Tot de Taal-, Land- En Volkenkunde* 164 (2): 212–37. <u>https://doi.org/10.1163/22134379-</u>90003657.

Nicholas, Colin.2004. The Orang Asli and the Contest for Resources: Indigenous Politics, Development, and Identity in Peninsular Malaysia. Copenhagen, Denmark: International Work Group for Indigenous Affairs.

Nicholas, Colin, Jenita Engi, Yen Ping Teh. 2010. Centre for Orang Asli Concerns, and Jaringan Orang Asal SeMalaysia. *The Orang Asli and the UNDRIP : From Rhetoric to Recognition The Orang Asli and the UNDRIP: From Rhetoric to Recognition*. Subang Jaya: Centre for Orang Asli Concerns.

Nicholas, Colin.2022. *Looking Back and Looking Forward: Orang Asli Self-Governance and Democracy*. Edited by Christian Erni. Chiangmai, Thailand: Asia Indigenous Peoples Pact.

Nordin, Rohaida, and Matthew Albert Witbrodt. 2012. "Self-Determination of Indigenous Peoples: The Case of the Orang Asli." *Asia Pacific Law Review* 20 (2): 189–210. https://doi.org/10.1080/10192557.2012.11788260. NTFP-EP (2030, 8th March) Linking Wild Foods, Biodiversity and Forest based Livelihoods: Towards an Outlook of Inclusive Foods Systems in Asia to 2030 [Webinar].https://ntfp.org/2021/02/linking-wild-foods-biodiversity-and-forest-bas edlivelihoods.

Nur Hamzah Zulfemi Muhammad, Suey Yee Low, Siti Nor Shaffinaf Mohamad Shukri, Aida Hidayah Abu Samah, Hasrul Zaman Hassan Basri, Muhammad Haffidzie Mohd Shuhaimi, Harizah Nadiah Hamzah et al. 2021. "Flower Visiting Bats and Durian Trees: Species Richness and Population Size." Journal of Sustainability Science and Management 16 (5): 80–90. https://jssm.umt.edu.my/wp- content/uploads/sites/51/2021/07/6-JSSMV16N5.pdf.

Orr, Yancey, J. Stephen Lansing, and Michael R. Dove. "Environmental anthropology: systemic perspectives." Annual Review of Anthropology 44 (2015): 153-168.

Parreñas, Juno Salazar. 2018. *Decolonizing Extinction: The Work of Care in Orangutan Rehabilitation*. Durham: Duke University Press.

Peluso, Nancy Lee. 1996. "Fruit Trees and Family Trees in an Anthropogenic Forest: Ethics of Access, Property Zones, and Environmental Change in Indonesia." *Comparative Studies in Society and History* 38, no. 3: 510–48. <u>http://www.jstor.org/stable/179231</u>.

Peluso, Nancy Lee, and Peter Vandergeest. 2001. "Genealogies of the Political Forest and Customary Rights in Indonesia, Malaysia, and Thailand." *The Journal of Asian Studies* 60 (3): 761–812. <u>https://doi.org/10.2307/2700109</u>.

Peluso, Nancy Lee. 2007. "Violence, Decentralization, and Resource Access in Indonesia." Peace Review 19 (1): 23–32. <u>https://doi.org/10.1080/10402650601181840</u>.

Peluso, Nancy Lee. 2008. "A Political Ecology of Violence and Territory in West Kalimantan." *Asia Pacific Viewpoint* 49 (1): 48–67. <u>https://doi.org/https://doi.org/10.1111/j.1467-8373.2008.00360.x</u>.

Peluso, Nancy Lee, and Peter Vandergeest. 2011. "Political Ecologies of War and Forests: Counterinsurgencies and the Making of National Natures." *Annals of the Association of American Geographers* 101 (3): 587–608. <u>https://doi.org/10.1080/00045608.2011.560064</u>.

Peluso, Nancy Lee, and Christian Lund. 2011. "New Frontiers of Land Control: Introduction." *The Journal of Peasant Studies* 38 (4): 667–81. <u>https://doi.org/10.1080/03066150.2011.607692</u>.

Peluso, Nancy Lee, and Jesse Ribot. 2020. "Postscript: A Theory of Access Revisited." Society & Natural Resources 33 (2): 300–306. https://doi.org/10.1080/08941920.2019.1709929.

Rambo, A Terry. 1978. "Bows, Blowpipes and Blunderbusses : Ecological Implications of Weapons Change among the Malaysian Negritos." *The Malaysian Nature Journal* 32: 209–16.

Rambo, A Terry. 1979. "Primitive Man's Impact on Genetic Resources of the Malaysian Tropical Rain Forest." *Malaysian Applied Biology* 8 (1): 59–65.

Rambo, A Terry. 2009. "Are the Farmers Always Right? Rethinking Assumptions Guiding Agricultural and Environmental Research in Southeast Asia." Asia - Pacific Issues, no. 88

(May): 1–12. <u>https://www.proquest.com/scholarly-journals/are-farmers-always-right-rethinking-assumptions/docview/1715917496/se-2?accountid=135175</u>.

Rappaport, Roy. 2000 A. Pigs for the ancestors: Ritual in the ecology of a New Guinea people. Waveland Press.

Ridley, H. N. 1894. "On the Dispersal of Seeds by Mammals." *Journal of the Straits Branch of the Royal Asiatic Society* 25: 11–32.

Rimba Project Disclosure. 2022. JOINT MEDIA STATEMENT STOP FORESTS FOR SALE! VAST TRACTS OF ALLEGED FORESTS BEING SOLD ONLINE, February 3, 2022. <u>https://www.greenpeace.org/static/planet4-malaysia-stateless/2022/02/6ef158da-</u> 030222-rimba-disclosure-project-forests-for-sale-press-statement-and-data-final-dated-03.02.2022.pdf

Roozbeh, Kardooni, Binti Kari Fatimah, Rohani Siti, and Hajar Yusup Siti. 2014. "Traditional knowledge of Orang Asli on forests in Peninsular Malaysia." Indian Journal of Traditional Knowledge 13, no. 2: 283-291.

Saunders, Olivia. 2018. "Guide to Using Wood Ash as an Agricultural Soil Amendment." *Extension*. University of New Hampshire. Resource guide. <u>https://extension.unh.edu/sites/default/files/migrated_unmanaged_files/Resource004</u> <u>042 Rep5718.pdf</u>.

Scott, James C. 1998. Seeing like the State: How Certain Schemes to Improve the Human Condition Have Failed. Yale University Press, 1998.

Scott, James C. The Art of Not Being Governed: An Anarchist History of Upland Southeast Asia. New Haven, CT: Yale University Press, 2011.

Sheherazade, Holly K. Ober, and Susan M. Tsang. 2019. "Contributions of Bats to the Local Economy through Durian Pollination in Sulawesi, Indonesia." *Biotropica* 51 (6): 913–22. <u>https://doi.org/10.1111/btp.12712</u>.

Siew, Ging Yang, Wei Lun Ng, Sheau Wei Tan, Noorjahan Banu Alitheen, Soon Guan Tan, and Swee Keong Yeap. "Genetic Variation and DNA Fingerprinting of Durian Types in Malaysia Using Simple Sequence Repeat (SSR) Markers." *PeerJ* 6 (2018). https://doi.org/10.7717/peerj.4266.

Silin, Robert H. 1976. Leadership and Values: The Organization of Large-Scale Taiwanese Enterprises. Cambridge: Harvard University Press.

Siti Aishah Suhana Mohd Niza, and Azima Abdul Manaf. 2021. "Tahap Penerimaan Masyarakat Orang Asli Terhadap Pemilikan Tanah Berstatus Geran." *E-BANGI: Jurnal Sains Sosial Dan Kemanusiaan* 8 (1): 152–70. <u>http://journalarticle.ukm.my/16568/</u>.

Subramaniam, Yogeswaran. 2013. "Affirmative Action and the Legal Recognition of Customary Land Rights in Peninsular Malaysia: The Orang Asli Experience." Australian Indigenous Law Review 17 (1): 103–22. <u>https://www.jstor.org/stable/10.2307/26423260</u>.

Subramaniam, Yogeswaran. 2016. "Orang Asli, Land Rights and the Court Process: A 'Native Title'Lawyer's Perspective." *Malaysia's Original People: Past, Present and Future of the Orang Asli* (2016): 423-445.

Tekoi, Dolah. 2020. *Buku Adat dan Pantang Larang Orang Asli semenanjung Malaysia: Suku Urang Huluk (jakun) johor*. Petaling Jaya, Selangor: Gerakbudaya Enterprise.

Temuan TV. 2021. "Anchak / Sangga." March 18, 2022. Facebook video, 0.15. https://www.facebook.com/watch/?v=602535374330644&ref=sharing

The Star. 2022. "How the States Differ on Protection of Forest Reserves," March 17, 2022. <u>https://www.thestar.com.my/news/nation/2022/03/17/how-the-states-differ-on-protection-of-forest-reserves</u>.

The Star. 2022a "Durian Prices Expected to Double This Year." The Star, May 14, 2022. <u>https://www.thestar.com.my/news/nation/2022/05/14/durian-prices-expected-to-increase-by-100-this-year</u>.

Thomas, Jason. "Hypocritical to Prevent Orang Asli from Selling Forest Produce, Says Activist." Free Malaysia Today, August 9, 2022. <u>https://www.freemalaysiatoday.com/category/nation/2022/08/09/hypocritical-to-</u><u>prevent-orang-asli-from-selling-forest-produce-says-activist/</u>.</u>

Toshihiro, Nobuta. 2009. *Living on the Periphery: Development and Islamization Among the Orang Asli in Malaysia*. Petaling Jaya: Strategic Information and Research Development Centre.

Tsing, Anna. 2012. "Contaminated Diversity in 'Slow Disturbance': Potential Collaborators for a Liveable Earth." In: "Why Do We Value Diversity? Biocultural Diversity in a Global Context," edited by Gary Martin, Diana Mincyte, and Ursula Munster. *RCC Perspectives*, no. 9: 95–97. <u>https://www.environmentandsociety.org/perspectives/2012/9/why-do-we-value-diversity-biocultural-diversity-global-context</u>

Tsing, Anna Lowenhaupt. 2021. The Mushroom at the End of the World: On the Possibility of Life in Capitalist Ruins. Princeton, NJ: Princeton University Press.

Smith, Linda Tuhiwai. Decolonizing Methodologies: Research and Indigenous Peoples . 2nd Editioned. Moorpark, California: Cram101 Inc., 2013.

Vandergeest, Peter, and Nancy Lee Peluso. 2006. "Empires of Forestry: Professional Forestry and State Power in Southeast Asia, Part 1." *Environment and History* 12 (1): 31–64. http://www.jstor.org/stable/20723562.

Vliet, Nathalie van, Ole Mertz, Andreas Heinimann, Tobias Langanke, Unai Pascual, Birgit Schmook, Cristina Adams, et al. 2012. "Trends, Drivers and Impacts of Changes in Swidden Cultivation in Tropical Forest-Agriculture Frontiers: A Global Assessment." *Global Environmental Change* 22 (2): 418–29. <u>https://doi.org/https://doi.org/10.1016/j.gloenvcha.2011.10.009</u>.

Wong, Sl. "Almost All of Malaysia's Orang Asli Are Locked into Poverty and Struggling."TheStar,August18,2020.https://www.thestar.com.my/lifestyle/living/2020/08/18/malaysia039s-orang-asli-locked-into-poverty.

Woodburn, James. 1980. "Soviet and Western Anthropology." In *Soviet and Western Anthropology*, edited by Ernest Gellner, 95–118. Columbia University Press. <u>https://doi.org/doi:10.7312/gell92894-009</u>.

Wong, Zhi Hoong. 2018. "Semai Ontologies, Eco-Touristic Expressions, and Actor-Networks in the Bukit Kinta Rainforest." PhD diss. Monash University Malaysia. <u>https://bridges.monash.edu/articles/thesis/Semai Ontologies Eco-</u> touristic Expressions and Actor-networks in the Bukit Kinta Rainforest/6475679.

Wook, Izawati. 2016. "The Orang Asli in Peninsular Malaysia and the Recognition of Their Land Rights under the Aboriginal Peoples Act 1954." *Malaysian Journal of Syariah and Law* 4 (1). <u>https://doi.org/10.33102/mjsl.vol4no1.15</u>.

Wayo, Kanuengnit, Chama Phankaew, Alyssa B. Stewart, and Sara Bumrungsri. 2018. "Bees Are Supplementary Pollinators of Self-Compatible Chiropterophilous Durian." *Journal of Tropical Ecology* 34 (1): 41–52. <u>https://doi.org/10.1017/S0266467418000019</u>.

Yeung, Henry Wai-chung. 2004. *Chinese Capitalism in a Global Era: Towards Hybrid Capitalism*. London: Routledge.

END