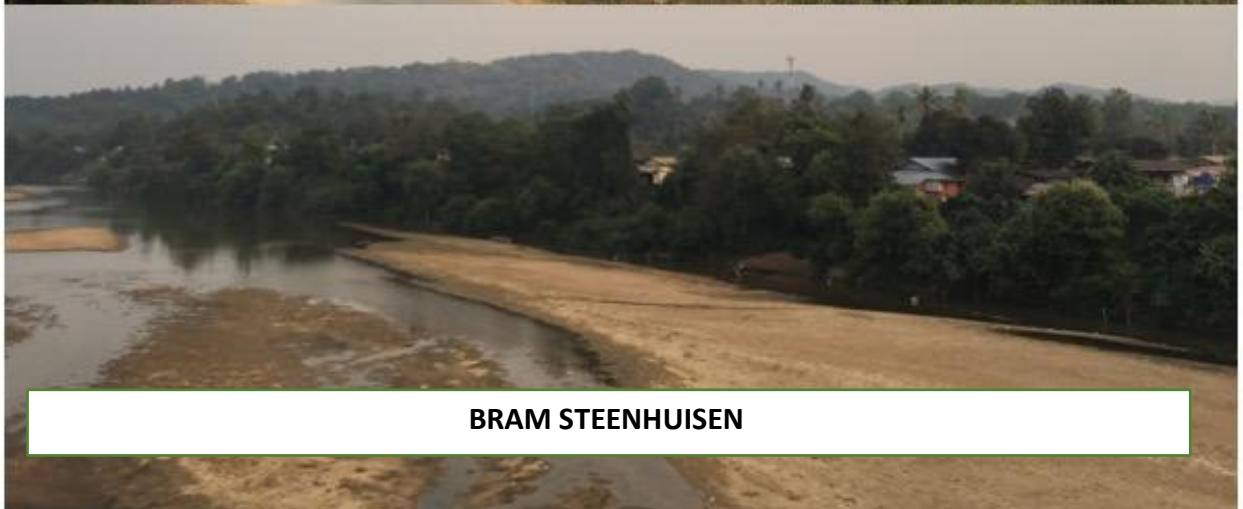
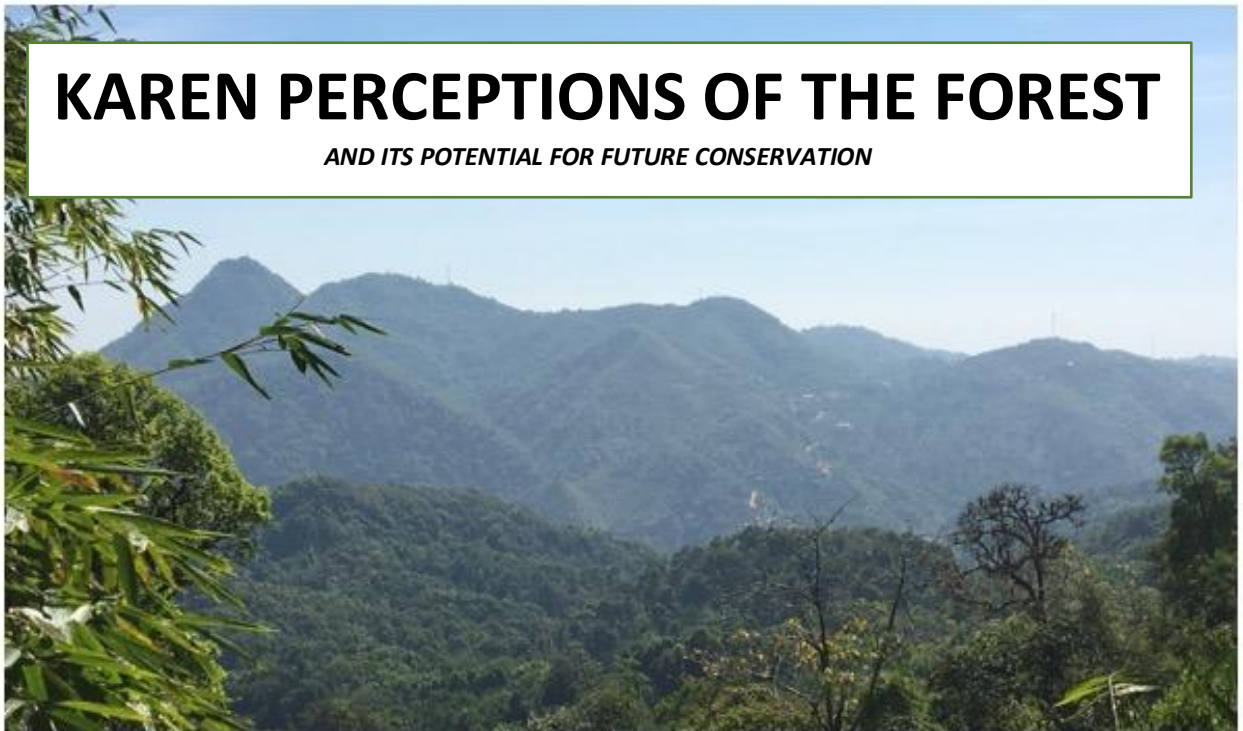


KAREN PERCEPTIONS OF THE FOREST

AND ITS POTENTIAL FOR FUTURE CONSERVATION



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All photos taken by Bram Steenhuisen unless noted otherwise.

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Summary

Why is it, that while nearly every major nature conservation actor professes to work with local communities and claims to incorporate indigenous ecological knowledge in conservation efforts, that conservation conflicts keep occurring, in Myanmar and beyond?

This thesis aims to illuminate an under researched factor influencing conservation conflicts: the worldviews that underpin Indigenous Peoples and Local Communities' (IPLC) perceptions of the forest. Informed by six weeks of ethnographic research in Karen State, Myanmar, I approach the perceptions of forest held by members of the Karen ethnic group through an anthropological lens. This sheds light on the worldviews that underpin their perceptions of the forest, in particular as informed by beliefs about human - nonhuman relationships, and the importance of the forest for the formation and regeneration of identity.

By means of unstructured and semi-structured interviews and the observation of interactions with the forest involving a total of 47 Karen individuals, the raw data for this thesis were gathered over a period of six weeks in seven different locations in Kayah State. The findings were interpreted within a theoretical framework based on Philippe Descola's theory of Four Modes of Identification and Tim Ingold's theory of relational identity as linked to 'dwelling'.

The research findings show that the Karen people interviewed perceive the forest as an interrelated web consisting of humans and nonhumans, continuously woven by relationships and experiences that occur in the forest. This highlights that Karen people hold a very different perception of the forest than that held by international conservation actors and natural scientists. This shows that working with local communities and incorporating indigenous knowledge is by itself not sufficient to prevent the misunderstandings and suspicions that inform conservation conflicts. International conservation actors need to understand and respect in their own right the local ontologies that inform IPLC perceptions of forest in order to be able to fully grasp indigenous knowledge and be able to treat it as a pillar of knowledge of equal importance to scientific knowledge.

These findings have consequences for nature conservation in Kayin State. Recognising that IPLC are the experts of their own ontologies means putting them in the driver's seat of nature conservation efforts. It also means opening up the doors of natural scientific centres of knowledge and the hallways of power of international conservation actors to IPLC members, so IPLC get the chance to obtain scientific knowledge. An equal partnership between IPLC and international actors that comprehends and respects the ontologies that underpin both spheres of knowledge in their own right can prevent the politicising and misunderstandings that give rise to conservation conflict.

Acknowledgments

It is my hope that the content of this thesis reflects the amazing amount of knowledge shared by the local experts during the interviews and visits to the forest. I remain indebted to the incredible amount of trust, time and energy they kindly shared with me. The thesis research also could not have happened without the help of the University of Pakokku from Pakokku, Myanmar, for which I am grateful. It was a pleasure to be joined by one of their MSc students of the Chin ethnic minority during the first leg of the research in order for him to observe and learn from our field research proceedings. Thanks also goes to my interpreter for his patience and for helping me become aware of my own cultural imprints and ontological dispositions during the research process. The input of my supervisor Bas Verschuuren throughout the process has been very helpful and contributed to a deepened theoretical understanding of the findings. The inspiration Matthijs Schouten provided has been most valuable in helping me shape the contours of the research topic and infuse it with a healthy dose of contagious passion. A final thanks goes to Castaway Resort in Thailand for providing me with space to write this thesis during the coronavirus lockdown period. Any mistakes in this thesis are my own.

Preface

One of the many things in Myanmar that has never failed to impress me during the 8 years I lived there (2011-8) is its incredible natural beauty. When working and travelling in Kayin

State, its forested mountains are breath-taking, and most interesting were the stories, dilemmas and challenges regarding the forest that emerged in conversation with Karen friends. Decades of civil conflict and the height of conservation- and cultural issues at stake has meant that a lot of information, reports, and news about forest in Kayin State cannot be separated from the larger contexts and interests at play. From this came the idea to ask ordinary Karen people living in or close to the forest directly about their perceptions of the forest. Being a student without a link to any conservation NGO, Forestry Department, or other stakeholder, and the promise that their identities would be kept confidential, I hope enabled the 47 local experts interviewed to talk openly. The analysis of these interviews with the help of Philippe Descola's theory on the Four Modes of Identification and Tim Ingold's concept of relational identity and dwelling provides insights into Karen perceptions of the forest and the underpinning ontology, which is hoped will help prevent conservation conflicts in future.

1. Introduction

- 1.1 Problem Statement
- 1.2 Research Objectives
- 1.3 Research Questions
- 1.4 Background: Karen & Kayin State
- 1.5 Structure of the thesis

1.1 PROBLEM STATEMENT

Most of Myanmar's remaining biodiverse forests are located in the hilly states in its periphery, the homelands of the majority of the country's ethnic minorities, including Kayin State in the eastern part of the country. Since Myanmar's long period of social, political and economic isolation ended a decade ago, nature conservation efforts by the national government and international nature conservation organisations have been stepped up.

These efforts have seen mixed results at best, often facing considerable push-back from Indigenous Peoples and Local Communities (IPLC)¹ living in the proposed conservation areas. Two recent, high profile instances concern the suspension of the multimillion dollar Ridge to Reef conservation project in Tanintharyi Region, including Karen populated areas, spearheaded by UNDP (UNDP, 2018). Simultaneously an effort fell apart to create a world heritage site in forests of the northernmost tip of Kachin State, which saw the World Conservation Society expelled by the local community in 2018 (Fishbein, 2020).

Both these reversals came after large protests by IPLC in the area. The details of these particular cases are complex and lay beyond the scope of this thesis, what they have in common however, is the argument by IPLC that they are not being heard and that their understanding of the forest and ability to take care of it is not being considered in earnest by the conservation actors. A local Kachin leader noted that "the (foreign) representatives only insist on asking us if we would support the plan" (Naw, 2017), while Karen conservation organisations argue that the international conservation actors involved fail to consider "existing conservation initiatives that are being led by indigenous communities [and] that stand as an alternative vision for conservation [whereby] Karen communities manage their own resources through local wisdom, knowledge and institutions" (Conservation Alliance Tanawthari, 2018).

This is representative of a broader friction between conservationists and people living in and near local forests which occurs elsewhere in the world as well (Redpath et.al., 2013, 100). The causes of these kinds of conservation conflicts have deep roots. Notwithstanding the larger political and economic factors at play, the conflict ultimately comes down to different understandings different actors have about the meaning and importance of the forest for humans and nonhumans alike. In the field of anthropology, the importance to recognise different world views (ontologies) is receiving increased attention, and this can help shed light on the complexity of nature conservation in IPLC areas.

¹ Indigenous Peoples and Local Communities (IPLC) is a denominator for "ethnic groups who are descended from and identify with the original inhabitants of a given region, [and] are affected by global environmental change because they often rely directly on their immediate environments and local natural resources for meeting basic livelihood needs" (Angelsen et al.; Pecl et al., in Reyes-García, 2019,3).

Approaches to conservation by the main international conservation organisations are too often still influenced by old ways of perceiving nature conservation as a matter of 'nature for itself', which favoured a people-out, fortress type of conservation, and a 'nature despite people' perception, which viewed (local) humans primarily as a threat to species and habitats (Mace, 2014, 1558-1559). The amount of people that have been displaced for conservation since the first national park, Yosemite Valley in 1864, is estimated to be anywhere 'between five million and tens of millions' (Dowie, 2009), with some estimates ranging as high as 170 million (Mallarach, 2019, 28).

In this thesis I will outline an analysis of perceptions of the forest held by the Karen indigenous group who live in one of Myanmar's most biodiverse areas. Relying on input from 35 interviews conducted over a six week period during the first two months of 2020 with 47 Karen people living in or near the forest in Kayin State, I will attempt to provide an understanding of the world view that underpins Karen perceptions of forest, and the role the forest plays in the formation of identity. Supported by analysis of publications on the larger conservation debate in these areas, this thesis will subsequently analyse what the implications of understanding Karen perceptions of the forest are for conservation knowledge and practice in Kayin State.

Perceptions of forest by Karen people was chosen as the thesis topic because Kayin State is home to some of Myanmar's most important remaining high-biodiversity forests. The research sites were selected for their proximity to the forest, as well as for practical reasons: I have spent considerable time in Kayin State since 2014, which helped build a social network and trust with the community. This enabled me to have a meaningful conversation about this sometimes sensitive topic. Furthermore, the research sites chosen were within accessible and legally permissible areas, which was a condition set by my university for granting permission for this research to take place.

1.2 RESEARCH OBJECTIVES

The aim of this thesis is to obtain an understanding of Karen people's awareness, understandings and insights into the forest they live in, and to explore what the forest means to them personally and to their community. Very little ethnographic research has been done

on this. Even though writings about the Karen and Kayin State are plentiful, most are related to the British colonial period (1824 - 1948), or the subsequent half-a-century of armed conflict between ethnic armed organisations (EAOs) and the Myanmar army. A still frequently referred to ethnographic account dates back to 1922 (Marshall, 1922), while most writings on the forest in Kayin State come from NGOs/CBOs. There is as far as I could find no recent ethnographic research on perceptions of forest by Karen in the Thandaung Gyi, Leik Tho and Kawkareik areas of Kayin State.

The scientific contribution of this thesis lies in providing further insight in how ontological pluralism and the concept of 'dwelling' are indeed the realities on the ground, also for Karen people living in Kayin State. On a practical level, the thesis' findings hopefully enable a better understanding of (and respect for) Karen perceptions of the forest. This can help inform better conservation efforts in Kayin State and other areas with a sizable Karen population. More widely, it is hoped that it can contribute to a more effective model of nature conservation in other areas in Myanmar, which respects IPLC's ontologies in and by itself, providing a deeper appreciation for the importance the forest plays not just for IPLC's livelihoods, but their sense of identity as well.

1.3 RESEARCH QUESTIONS

- Major question: Provide an understanding of how Karen people perceive their relationship with the forest.
 - What role does the forest play in Karen ontology?
 - In what ways is the forest important for Karen's sense of identity?

These questions I will operationalise in the results section (Chapter 4) with reference almost exclusively to the primary data we gathered during our interviews in Kayin State. These data will be analysed from the perspective of Philippe Descola's (2013) theory on the Four Modes of Identification and Tim Ingold (2000) his concept of 'dwelling' and the linked relational approach to identity.

- Minor question: What are the implications of the Karen's perception of the forest for nature conservation efforts in Kayin State, especially in the context of ontological pluralism and a relational/dwelling approach to identity?

This question I will operationalise in the discussion section (Chapter 5) with reference to secondary data and literature on nature conservation management. This is befitting the explorative character of my examination of this research question, and enables the primary data to stand out by itself in the results section.

1.4 BACKGROUND: KAREN & KAYIN STATE

The Karen descended from the Tibetan plateau around the 10th Century C.E. and settled in the strip of mountains straddling what is now the Thai-Myanmar border, where they are said to have encountered a forest so lush that they called it Gaw Kar, 'Green Land' (Saw Shwe Gyan, 2014).² Until the start of the English colonial period, the various Karen tribes have "for centuries...been under some form of suzerainty of Burma's kingdoms, but have, as other hill areas in the region, been largely left to govern themselves according to ancient customs" (UNDP, 2014, 19).

Karen people are the third largest ethnic group in Myanmar (after the Bamar and the Shan) with an estimated 7% of the population. The 2014 national census listed the total population in Kayin State as 1,574,079 people, though the total number of Karen from Myanmar has been estimated to be anywhere between three million to ten million (Thawngmung and Cho, 2013, 252). 22% of the population in Kayin State live in urban areas, while 78% live in rural areas (Department of Population, 2015). Kayin State is diverse, with the 'Karen' group covering "approximately 20 subgroups of the Karen language family that come from diverse religious, cultural and regional backgrounds" (Thawngmung and Cho, 2013, 252). The local experts interviewed as part of our ethnographic research self-identified as belonging to the Bwe Karen (Thandaung Gyi), Keh Bah Karen (Leik Tho), and Po Karen (Kawkareik) subgroups.

² Karen living across the border in Thailand and in lowland Myanmar still refer to their tribe members in the mountains of Kayin State, Mon State, and Tanintharyi region as Karen from Gaw Lar (Saw Shwe Gyan, 2014, 19).

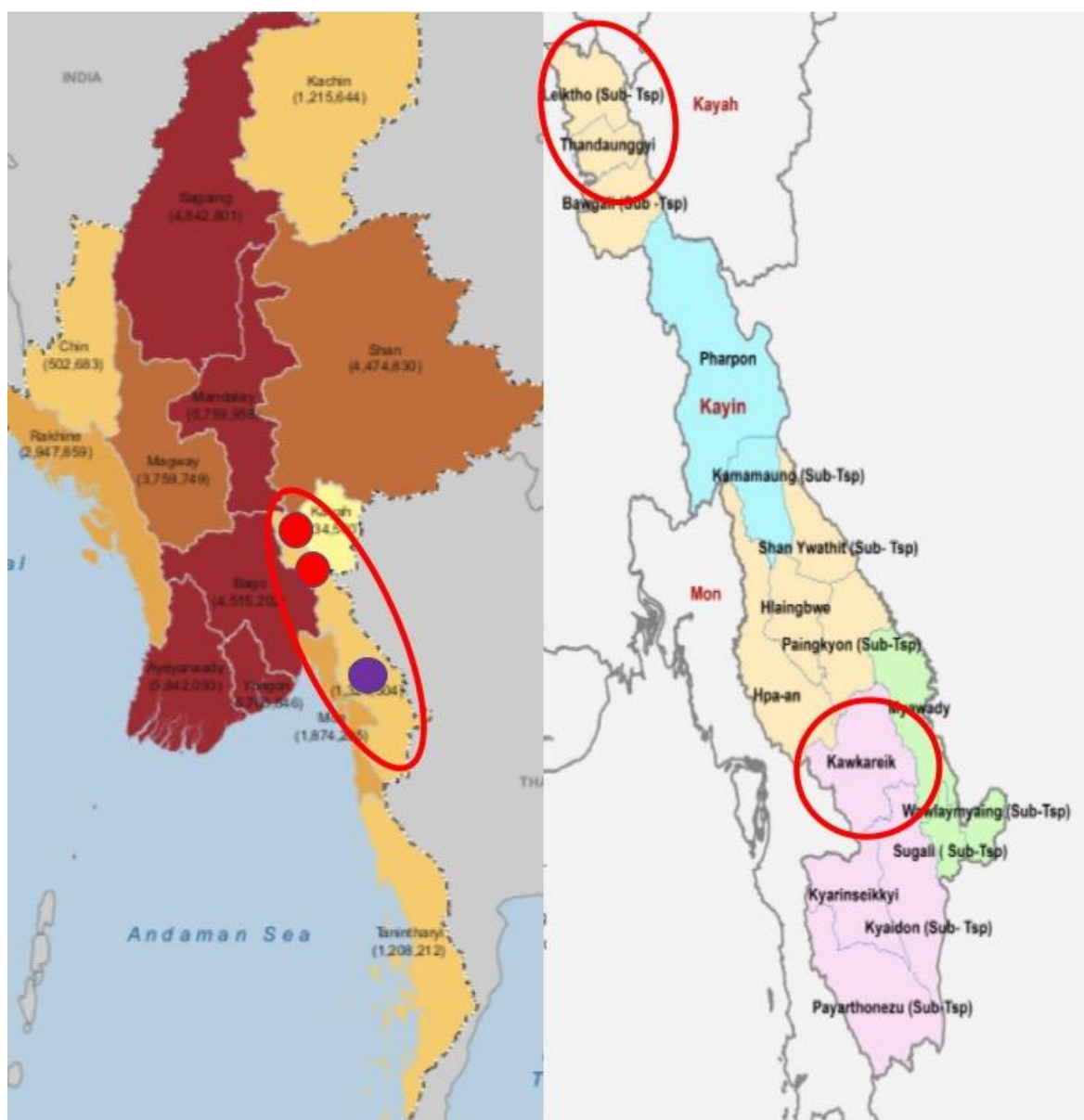


Figure 1.1: Research locations Thandaung Gyi township (including Leik Tho) in red and Kawkaik Township in purple, Kayin State, Myanmar. Map: Department of Population, 2017.

As of 2012, Myanmar Forestry Department data note Thandaung Gyi Township (including Thandaung Gyi and Leik Tho) as consisting of 314.186 acres of forest (out of which 55.104 acres was classified as reserve forest, 259.081 acres as protected public forest and 0 acres as natural forest), and Kawkaik township as consisting of 186.258 acres of forest (out of which 31.647 acres was classified as reserve forest, 154.611 acres as protected public forest and an unknown amount of natural forest) (FAO, 2015).

The field research for this thesis took place in seven different villages in 2 townships: Thandaung Gyi Township (818.8 KM², Department of Population, 2017) and Kawkareik Township (1.784 KM², UNDP, 2014, 32). I use Karen to refer to the people, and Kayin State to refer to the geographical area by its official name - with no claim or political connotation.

1.5 STRUCTURE OF THE THESIS

In order to include the most important primary data collected from the field, and note it verbatim, this thesis is a lengthy piece of work. Following the introduction, I will explain (Chapter 2) the three main theoretical concepts employed in order to deepen my analytical understanding of the raw data. The first theoretical concept called upon is that of ontological pluralism, as Karen ontologies surfaced in the interviews as an important factor in understanding their perceptions of the forest. I will discuss Philippe Descola's theory on the four different modes of identifying human - nonhuman relations, which in turn inform different types of ontological beliefs about the nature-culture dynamic.³ The animist, naturalist, and analogical modes of identification will prove most helpful as a bridge to understand how Karen perceptions of the forest are informed by their underlying beliefs.

The second concept discussed in this thesis concerns the insight of another post-dualistic scholar, Tim Ingold. In the identity section his concept of 'dwelling', alongside the relational approach to identity connected to it, unpack the local experts' forest-based stories and their observed interactions during our visits to the forest, and connect that to the larger issue of the generation of identity.

Following the subsequent outline of the research methodology (Chapter 3), the findings of the field research will be presented (Chapter 4) in two parts: Karen perceptions of the forest as related to their beliefs and their identity. The beliefs section discusses the role of spirits (nats), the moon, plants and animals, Christianity, and Buddhism - all of which are found to inform a unique ontology. The identity section explains the importance of the forest for Karen people's identity. This last part relies mostly on observations as well as four forest based

³ I use as the definition for culture the Caillon et al. expanded definition of Bates and Plog's term, defining culture as "the system of shared beliefs, values, customs, behaviours, and artefacts that the members of society use to cope with their world and with one another, and that are transmitted from generation to generation, and within the same generation through learning" (Caillon et al, 2017, 27)

stories people told us⁴. This shows that the dynamics of the forest form the proverbial spring from which Karen identity continuously emerges and re-emerges.

The thesis then closes with a discussion (Chapter 5) illuminating what these findings on Karen perceptions of the forest mean for conservation in Kayin State. This discussion starts by picking up on the importance of ontological pluralism, arguing that ontological self-determination, as conceived by Viveiros de Castro and David Ludwig, is the best way forward to recognise IPLC's ontologies in their own right, and as such is the key to realising more effective nature conservation in IPLC areas. This means that IPLC need to take the lead in concerted team efforts on conservation. The second part notes the potential contribution inherent in involving religion, including animism, more closely in such conservation efforts. The discussion concludes with a critical reflection on the road ahead for the Karen forest, noting that the interconnected nature of local challenges with meta-developments such as climate change and international wildlife trafficking means that international conservation actors will need to be stand-by to assist IPLC in addressing these in any way possible.

This leads me to conclude (Chapter 6) that understanding Karen perceptions of the forest and its implications for nature conservation can contribute to a diverse, healthy forest that sustains humans and nonhumans alike in Kayin State.

In this thesis I refer occasionally to 'we', meant to convey the team spirit by which the field research has been carried out together with my interpreter and, during the first half of the research period, the MSc student from Pakokku University.

2. Theoretical Framework

2.1 Ontological pluralism: different modes of identification

2.2 Dwelling: a relational approach to identity

2.1 ONTOLOGICAL PLURALISM

⁴ In keeping with the disposition of ontological self-determination, this thesis shall attempt not to use language loaded with value judgments on different ontologies, such as 'myths', 'legends', and 'fables' for those accounts that fall well outside a naturalist understanding of what human-nonhuman relations can possibly be like. They shall be referred to as stories, happenings, occurrences, accounts, incidents, etc.

The wealth of vibrant knowledge shared by Karen experts in our interviews goes much further than descriptions of cultural beliefs and practices, and points to distinct perceptions of the forest at a more fundamental level. Therefore the theory of cultural relativism, while recognising diverse beliefs and practices between cultures, is not sufficient to capture these perceptions as it still relies on one 'external, unified nature' which different people and cultures try to understand in their own way (Viveiros de Castro, 1998, 478). Cultural relativism thus understands there to be "alternative points of view of the same world" (Ingold, 2000, 469). On the other hand, the theory of ontological pluralism goes much further in recognising this diversity between people and cultures. Ontological pluralism proposes that different cultures don't have different points of view of the same world, the world *itself* is understood differently. There are according to this thinking, many different 'natures', different realities, that people observe. Ontological pluralism accepts "the radical plurality of worlds" (Caillon et al., 2017, 2). Differences between peoples thus "are not simply matters of belief. They are also a matter of realities. What the world is, is also at stake.... Different realities are enacted in different practices" (Law, 2015, 127-130).

An ontology provides an understanding of how the nature of reality works and is organised. Ontology has been defined as "the conceptualization of the nature and relation of being" (Caillon et al, 2017, 2).⁵ As a consequence, ontology "affect[s] our belief systems, decision making, assumptions, and modes of problem solving" (Honore France in Hart, 2010, 1). People are informed by their world views "to make sense of the social landscape and to find their ways to whatever goals they seek. [World views] are developed throughout a person's lifetime through socialization and social interaction. They are encompassing and pervasive in adherence and influence" (Hart, 2010, 2). The kinds of questions an ontology is concerned with include the extent to which aspects of reality are organised according to general laws; what elements make up the 'real world'; the differences, if any, between the natural and the social world; and whether aspects of the world can be understood by an objective truth and/or come into being by the actions and interpretation of people themselves (Newing,

⁵ I use 'ontology' and 'ontologies' interchangeably, for while a certain ethnic and/or cultural group has its own 'umbrella' ontology as it were, it will have slightly different shades amongst different sub-groups, down to the individual level, based on one's own history, upbringing, location, experience, and beliefs (especially religion). This is sometimes overlooked by the two towering figures in ontological pluralism, Descola and Viveiros de Castro, both of whom conducted the research that forms the basis for their particular contributions in homogenous, isolated communities in the Amazon rainforest back in the 1970s. The reality in Kayin State is vastly different and much more diverse and interconnected reflecting its rich pluralistic history and geographical location

2011, 9). In terms of forest conservation in Kayin State, taking the importance of local ontologies seriously is especially important, for 'failure to recognise indigenous world views...as being of equal value as scientific knowledge is a gap that continues to exacerbate...conservation inequalities (Atran et al.; Bartlett et al.; Peterson et al. in Verschuuren, 2017 thesis).

The range of issues covered by an ontology appears endless. From the perspective of this thesis, what is most relevant is the core question: how do humans perceive their relationship with nonhumans (animals, spirits, and other nonhuman beings). This question is epitomised by the discussion around the "nature-human" or "nature-culture" dichotomy, which sees nature as separate from humans. This dichotomy has its roots both in the thinking of Rene Descartes (1596 - 1650), which postulated we should separate mind from matter, and in the subsequent enlightenment of the late 17th and 18th centuries, which proclaimed to replace tradition with reason and heralded in the era of modernism. Modernism sought to "separate facts from values; science from ideology, [and] adhered to a linear concept of time that distinguished the past from the future" (Latour, 2011, 6). This nature-culture dichotomy then signifies how "[w]estern assumptions about the character of the world tend to distinguish between nature, the natural, or the physical on the one hand, and culture, people, and their beliefs on the other" (Law, 2015, 126). This division between nature and culture is noticeably absent in the ontologies of indigenous peoples from places as diverse as Australia, Paraguay, Colombia, Canada, and Finland (Law, 2015, 134), and, as we shall see in the *beliefs* section, is mostly absent in Karen ontology also.

The number of differences between ontologies seem infinite as well. Yet, the tendency by western scholars of ontology to want to categorise and universalise ontologies of other societies is stubborn, especially when it comes to understanding 'indigenous world views'.⁶ This is concerning, not just because western scholars themselves are often deeply rooted in their own ontologies that are steeped in Cartesian dualisms, but also because focussing on the categorisation of similarities risks blinding us to the unique, complex, and flexible

⁶ Leanne Simpson (2000) tried to find 'seven principles' to be found in all indigenous world views (Hart, 2000, 3). Besides it being questionable how a generalisation of indigenous world views can recognise their uniqueness, generalities such as "human beings are least important in the world" (principle 7) also sound orientalist, and do not seem to be part of the ontology of Karen.

elements of the ontology of each respective society. I am not arguing that there is no overlap between different indigenous world views, but the designation of a separate category of 'indigenous world views' is of limited use for a diverse, interconnected and interdependent ethnic group like the Karen, long influenced by next door Thailand, religious missionaries, British colonial power, and nearby ethnic groups to name just a few.

However, in order for an outsider to even scratch the surface of the ontology of the Karen, one needs to be aware of characteristics of diverse world views in as many other societies as possible, so that one increases one's points of reference and thus becomes more attuned to perceive what it could be that one is observing. In that respect I am relying on French anthropologist Philippe Descola's theory on the four different types of generative principles that give rise to different world views (Descola, 2013, 87), while keeping in mind that the variety within each of those categories sometimes seems to get lost in his descriptions.⁷ Descola's so called 'Four Modes of Identification' consist of Animism, Naturalism, Totemism, and Analogism. Each of these entail very different understandings of what a nonhuman is, and as a consequence the kind of relationships that can be had with them. The knowledge shared by the Karen local experts in our interviews contained imprints of all different modes of identification, except Totemism.

In 'Beyond Nature and Culture' (2013), Descola outlines the foundation of his concept, by hypothesising the mental process that occurs when we humans encounter nonhuman beings - be they animals, spirits, or other kinds of nonhuman beings, though Descola himself focusses mostly on animals. In a nutshell, Descola argues the following. The two common properties humans possess to make sense of the world around us are our body and our mind. Jointly, these engage in a process Descola calls 'an identification'.⁸ When we encounter another being, we notice their appearance and behaviour, and recognise differences and similarities between them and ourselves. On the basis of that, one can attribute or deny to the other being a body or a mind that is either the same as ours or different. Each of the 4 modes of

⁷ Responding to criticism that his model is too rigid Descola countered that "I have made clear a number of times that any human, according to circumstances, can make inferences along the lines of a naturalist, an animist, an analogical or a totemic regime" (Descola, 2016, 325)

⁸ For reasons of clarity I am crystalizing Descola's theory a bit. Our 'body' he calls our 'physicality', which also refers more widely to a being's "external form, substance, the physiological, perceptive and sensorimotor processes" (Descola, 2013, 65). Our 'mind' he calls our 'interiority', which apart from the mind also covers "the soul, or consciousness: intentionality, subjectivity, reflexivity, feelings, and the ability to express oneself and to dream" (Descola, 2013, 65).

identification endow these properties differently to the beings they encounter, in turn, each of these 4 modes give rise to different ontologies with distinct features when it comes to the relationships between humans and nonhumans, and by implication, culture and nature.

1 - ANIMISM⁹

Animism sees nonhumans and humans as possessing an identical kind of mind, but having bodies that are very different. As a result, nonhumans and humans can communicate with each other, can establish human-like relationships, and can share the same values. When observing an animal, the animist mode of identification sees a being acting with intention, it perceives of it as a being with personal feelings and opinions. A nonhuman being from this perception shares 'humanity' with humans on a moral (but not a physical) level.¹⁰ Because our own features and expressions are best known to us, humans who identify nonhumans from an animist understanding, often describe animals, spirits and other nonhumans in human-like terms.

An ultimate expression of this sameness in mind between humans and nonhumans is the phenomenon of metamorphosis, common in animism. Metamorphosis allows one to

modif[y] the viewpoint imposed upon him by his original physicality, endeavours to coincide with the perspective in which he imagines that the other party sees itself. Through this shift in the angle of his approach, in which each party seeks to “enter the skin” of the other... [T]he human no longer sees the animal as he usually does but, instead, sees it as that animal sees itself... A human can be embodied in an animal or a plant; an animal can adopt the form of another animal; a plant or an animal can shed its outward clothing and reveal its objectivized soul in the body of a human being (Descola, 2013, 73).

⁹ The animism theorized by Descola "is quite different from its earlier social evolutionist and sometimes even racist incarnations, and it has provided an important foil for critiquing Western mechanistic representations of nature" (Kohn, 2013, 93).

¹⁰ Taking this sameness of spirit to yet another level, Amerindian ontologies in the Amazon region believe that all living beings used to be human beings in the past, out of which some have devolved into animals since. This informed the theory of another towering figure in the field of ontological pluralism, Eduardo Viveiros de Castro. The conceptual contribution to the field of ontological pluralism by this Brazilian post-dualist academic concerns *perspectivism*. According to this thinking, "the world is inhabited by different sorts of subjects or persons, human or nonhuman, which apprehend reality from distinct points of view" (Viveiros de Castro, 1998, 469).

The animist mode of identification is particularly common in Amazonia, the arctic/polar regions and Southeast Asia (idem).

2 - NATURALISM

In what is the complete opposite of animism, naturalism, humans and animals have the same kind of bodies, but have different minds. While a human and an animal have almost identical DNA, share similar physical features, and are subject to similar biological processes, nonhumans are seen as lacking the ability to express themselves in a way to that is associated, by humans, as having a mind. Such 'mind' features include being able to use language and symbols, as well as a capacity for "reflexive consciousness, intentionality, an affective life, and respect for ethical principles" (Descola, 2013, 20). From this perspective, nonhuman beings lack culture, they merely are animated things. This naturalist mode of identification is common to the west, prevails in the natural sciences, and informs ontology that adheres to a nature - culture dichotomy.

3 - TOTEMISM

In totemism, a set of humans share with the particular animal they are linked with (their 'totem'), a limited set of features, of both the body and the mind, that are characteristic of that totem 'class'. A human and an animal thus can share features of the same body and the same mind. This complex mode of identification occurs primarily amongst the aboriginal population in Australia, and did not emerge during our field research in Kayin State.

4 - ANALOGISM

Analogism is yet another very different and complex system. According to this understanding, when a human encounters in this world a nonhuman being (or anything else for that matter) it sees continuation neither between the bodies nor between the minds of itself and that of nonhumans. They are seen as completely different from each other, yet all part of what the human perceives to be a seemingly disorderly world comprised of an endless number of different elements. The way the human mind then identifies with this encountered disorderly reality is by "divid[ing] up the whole collection of existing beings into a multiplicity of essences, forms, and substances separated by small distinctions and sometimes arranged on a graduated scale so that it becomes possible to recompose the system of initial contrasts

into a dense network of analogies that link together the intrinsic properties of the entities that are distinguished in it" (Descola, 2013, 102-4).

Thus the task of the human mind is to find the order in the disorder, by linking between beings (including between humans and nonhumans) features that correspond between them. These correspondences are based on analogies (similarities) they share between one another. Analogism is thus focussed on finding links of analogy between humans and nonhumans. In a sense those humans and nonhumans who share certain analogies could be seen as sharing a certain destiny in life. It is the analogical reasoning that establishes a link between a human and a nonhuman. The analogical mode of identification was dominant in Europe until the Renaissance, and is currently found mostly in Asia, as well as some parts of Mexico and West Africa (Descola, 2013, 111-113). Examples of analogism are

the correlations between microcosms and macrocosms that are established by Chinese geomancy and divination, in the idea, common in Africa, that social disorders are capable of provoking climatic catastrophes, and also in the medical theory of signatures that bases the etiology and therapy of illnesses upon the apparent resemblances between, on the one hand, substances or natural objects and, on the other, symptoms and parts of the human body (Descola, 2013, 102)

The analogical and animist, and to a much lesser extent naturalist, modes of identification all inform the kinds of relations that Karen communities form with nonhuman communities (animals and spirits) in the forest. Thus, a collective of humans, animals, and spirits, such as the nats, does not emerge by coincidence, but results from the differences and commonalities humans notice in the nonhumans they encounter, in terms of their physical and mental features. These differences between ontologies raise the question whether or not the different sets of knowledge these ontologies underpin can be used alongside each other in nature conservation efforts in Kayin State. This will be addressed in the discussion section.

Taking an ontological pluralism perspective, this thesis is thus not preoccupied with whether the knowledge on the forest that was shared by the Karen local experts is 'scientifically true' to a (naturalist) scientist. What matters is that it is considered true to the local expert within

his or her own ontology. Even when in (NTVM)'s explanation on the origins of the egret and the crow (annex 1), this features 13 human-animal-plant metamorphoses.

2.2 DWELLING: A RELATIONAL APPROACH TO IDENTITY

Like Phillip Descola, Tim Ingold is a post-dualist anthropologist reconceiving the human(culture)-nature relationship. Ingold as it were takes Descola's theory on modes of identification one step further, arguing that people are engaged in a constant conversation with the nature around them, thereby actively constructing their own environment. In 'The Perception of the Environment: Essays on livelihood, dwelling and skill' (2000), Ingold unpacks how nature is not something that exists in and by itself, but is brought into existence by humans (culture). This also works the other way around, nature influences humans (culture), an understanding that runs completely counter to the environmental determinism many conservation actors and natural scientists hold dear. Relating this symbiotic relationship between humans and nature in turn to the formation and regeneration of human identity, Ingold proposes that we should conceive of cultural identity in a relational way, not merely as genetic.¹¹

These relations between humans, nonhumans and inanimate entities are formed and played out - in the past as well as the present - on the land one inhabits, making the 'dwelling' on that land a defining factor in the formation of identity. The concept of 'dwelling' places the accent of understanding identity on an individual's position in a web of relationships within one's habitat, as supposed to an individual positioned in a family tree across time and bloodline. The relational approach thus stresses the importance of pro-generation over procreation, of relationships over genetics, of nature-nurture over lineage, of experience over knowledge, and of land over language (Ingold, 2000, 140-142).

The concept of 'dwelling' has a relational aspect to it. A being is seen as one who is

¹¹ This is radically different from the conventional western, naturalist, understanding of identity. That understanding conceives of identity as being determined genealogically, based only on a person's physical bloodline and ancestry, not on a current relationship to the land (Ingold, 2000, 132-4). For example, the UN noted back in 1997 that "indigenous or aboriginal peoples...are so-called because they were living on their lands before settlers came from elsewhere" (quoted in Ingold, 2000, 132). The ILO further noted that indigenous peoples "are the descendants... of those who inhabited a country or a geographical region at the time when people of different cultures or ethnic origins arrived" (idem). Ingold further notes that ancestry is just one of five terms that are broadly understood to be important to indigenous peoples, the others being generation, substance, memory and land (Ingold, 2000, 132).

wholly immersed, from the start, in the relational context of dwelling in a world. For such a being, the world is already laden with significance: meaning inheres in the relations between the dweller and the constituents of the dwelt-in world. And to the extent that people dwell in the same world, are caught up together in the same currents of activity, they can share in the same meanings (Ingold, 2000, 409).

3. Research Methodologies

3.1 Character of the thesis

3.2 Data collection design

3.3 Data analysis design

3.4 Research ethics

3.1 CHARACTER OF THE THESIS

The findings in this thesis are the result of ethnographic research in Kayin State that should be considered as exploratory in nature, fitting the Grounded Theory starting point from which the research initially departed. However, I am keenly aware of my own western background, and that of my supervisor, as well as nearly all academics on whose work we draw to interpret the findings. The power dynamics that underlie issues of ontology, knowledge and indeed, nature conservation, are obvious at every stage.¹²

3.2 DATA COLLECTION DESIGN

The research design process initially relied on the method of Grounded Theory, the discovery of new emerging patterns from within the data itself (Glaser in Walsh, Holton et al., 2015). In accordance, Karen perceptions of the forest were approached with a blank sheet of paper, with connections to be recognised as they emerged. This choice originated from a belief that, subconsciously, one only sees what one's eyes want to see if one starts field research with a preconceived theory or narrow subject focus in mind. Grounded Theory I hoped would limit

¹² We were lucky to be able to collaborate with Pakokku University and host one of their graduate students to observe our means of qualitative data gathering. It is hoped that the fieldwork benefited the growth of local academia, and led to an increased understanding in Myanmar of Karen perceptions of the forest.

such tendencies as much as possible. However, it became clear during the data gathering process that instead of developing an original theory, as Grounded Theory requires, the emerging knowledge in fact linked closely to existing theory on ontology and identity, which subsequently formed the theoretical framework of this thesis. This adjustment worked well however, and the overall inductive nature of the research strategy remained intact, whereby "there is no specific hypothesis. Instead, data collection is guided by a set of broad questions or issues, and the data are used to generate a theory (or hypothesis) once sufficient evidence has been collected to reveal what is going on" (Newing, 2011, 5).

The research for this thesis remained qualitative in nature as well, in order to best capture the full richness and diversity of people's perceptions of the forest. This qualitative method also worked best given the pioneering nature of the research, which demanded above all an open mind and open ears to enable the internal experts to share their knowledge in their own time in their preferred way. Individual semi-structured interviews, individual unstructured interviews, and the observation of interactions were relied on, with a total of 47 people being interviewed in 35 interviews. The average duration of each interview lasted between 60 and 90 minutes, slightly shorter than the 90 minutes envisioned beforehand, as energy levels visibly dropped after about one hour. The format of the interviews worked well, encouraging people to open up and talk freely about their perception of the forest. The raw data that emerged this way was absorbed and analysed for content during the field research process itself and afterwards. This allowed me to develop an as detailed understanding as possible, and provide in-depth descriptions of the findings.

A. Individual semi-structured interviews.

These provided the main source of data informing this thesis. They enabled me to obtain a sufficient amount of data within a limited time, through a means that still allows the interviewee to steer the conversation and provide knowledge and insight in an informal, relaxed manner.

B. Individual unstructured interviews with key members of the community.

A number of people from the communities with whom I had established prior trust during my stay in Kayin State were relied on to informally meet with before and during the process to

ensure as correct as possible contextualisation of the content obtained from the semi-structured interviews.

C. Observation of Karen people's interactions in and with the forest.

This enabled the interviewees to enact and show what they tried to describe. The interviews that were conducted within little breaks during these visits to the forests were particularly rich in descriptions, often prompted by observations made during the walk in the forest itself.

The interviews took place in Kayin State between January 15 and March 1st 2020, this time was chosen as the period to collect raw data in the field for a practical reason, the availability of a trusted, knowledgeable and impartial interpreter. While this research followed a case-study design, non-probability sampling resulted in a sampling unit of 47 individuals, twice as many as anticipated, as it took longer to reach a level of saturation and for the main perceptions to surface from amongst the many. The study population consisted of people who self-identified as belonging to the Karen ethnic group (apart from the case of one local religious leader who identified as belonging to the neighbouring Kayan ethnic group but who was included based on him being the foremost religious leader in that Karen community) in seven villages in 2 administrative divisions in Kayin State: Thandaung Gyi (including Leik Tho) in the far north of Kayin State, and Kawkareik, in the centre.

The population break-down was as follows. People were selected based on the type of engagement and/or activity and/or work that related them to the forest, in an attempt to obtain a diverse set of opinions. In reality, practically all people conducted a number of activities in the forest (for example, a hunter will also collect leaves and roots, someone who tends to their forest plot also fishes, a traditional healer also collects honey, and so forth) in which case their main activity was noted. This resulted in a set of local experts consisting of traditional healers, firewood collectors, hunters, honey hunters, herb gatherers, monks and pastors living in/near the forest, carpenters, farmers (plot holders), and small scale loggers.

About half of the people interviewed were known to me or my interpreter, in most cases superficially, in a social capacity, as we both spent considerable time in Thandaung Gyi (where the interpreter previously worked as a nurse) and Kawkareik (where the interpreter grew up)

respectively. In order to ensure a variety of perspectives, we relied on triangulation to find people we did not know yet. This happened by means of introductions to people we had expressed an interest in finding on the basis of their main activity in the forest. In particular we employed between-subject triangulation by which different interview subjects were asked about the same issue: their perceptions of the forest (Newing, 2011, 138). Excluded on purpose from the group of local experts for reasons of impartiality, legality, and/or practicality were ethnic armed group members, politicians, government personnel, army personnel, people under 18 years old, people living outside forested areas, people self-identifying as members of an ethnic group other than Karen. The average age of those interviewed was 55 years old, 66 % identified as male. 34% identified as female. While the research population was meant to be as broad a representation as possible, it can never be totally representative of the community, neither can our findings. Thus while I have no specific reason to doubt people's input and while I like to think that I was as objective as possible during the data gathering process, it rings true that

the data that [ethnographers] gather cannot be fully dissociated from the situations in which they find themselves immersed – often by chance, from the role they are led to play – sometimes unknowingly – in local politics, and from their dependency upon various persons who become their main providers of information. And what ethnographers make of this information, in turn, bears testimony to their education, to their character, to their personal history: all elements that contribute to channelling their attention and defining their preferences (Descola, 2005, 68-9).

3.3 DATA ANALYSIS DESIGN

All but two interviews (at the request of the local experts) were recorded as an MP3 audio file with prior informed consent from the internal experts, allowing me during the interview to maintain eye contact and pay attention to the translation, as I speak decent but by no means fluent, Burmese. MP3s were transcribed straight after the conclusion of the interview period, after which the transcriptions were annotated by means of colour coding. The two interviews that were not recorded were recalled afterwards with the help of the translator;

the recollection being recorded as an MP3. A trilingual Po Karen - Burmese - English translator was present for all interviews.

Eight different topics of interest emerged in between the answers, which were then colour-coded for. These eight categories were for reasons of clarity in turn grouped into two overall groups: beliefs and identity. In order to stay as true to the input as possible, the knowledge of the experts is mostly noted in quotation form. In addition to this I noted down personal observations made during the interviews and during field trips in the forest to enrich the findings further.

In terms of measurement validity, the results are expected to embody relatively strong validity for the immediate context of the researched communities, even though the interviews noted differences between local experts. Due to the large intra-ethnic differences, the geographic dispersion of the Karen group within Myanmar, and differences (as well as commonalities) with other different ethnic groups, the results will carry only limited external validity for Karen people, and very little external validity for other ethnic groups in Myanmar, beyond a general recognition of the relevance of spirits and the relational aspect of group(identity). Such an attempt would risk overlooking the 'variability of [the] actual manifestations...[of] a type of belief, of behaviour, or of institution' (Descola, 2005, 67).

Finally, it was important to note that the local experts determined the direction of the interview. It was my task to get the interview started and keep it within the wide boundaries of people's perception of the forest. As a point of departure the interview started out by asking people to describe what activity brings them to the forest, and if needed to get the conversation going asking them to explain to us the details of their activity in the forest. It then came from them what aspect of the forest they elaborated on, for one that may be the medicinal effect of certain herbs and animal parts, for another recalling a historical event, or one's hunting techniques. This means that not all subtopics were discussed in each interview. The reason for this is that I am acutely aware of a tendency by western researchers to politicise or orientalise an interview in this kind of context by means of determining its subject matter. For example, I did not explicitly bring up the role of spirits in the forest, it was

brought up by practically all local experts themselves in conversation, indicating its importance.

3.4 RESEARCH ETHICS

The Hippocratic oath that informs students of medicine, should be the most important rule for research in the social sciences as well: First, Do No Harm. The field research took place in a sensitive context, and precautions were taken accordingly. People's real names are known to the author but are not noted in the thesis. Instead, a three or four letter code in brackets is used to distinguish between interviewees. The audio files will be deleted after the presentation of the thesis for reasons of confidentiality, and as promised to the local experts. Given the sensitivities surrounding forest conservation, I purposefully did not link with a conservation NGO or government department for this research, as it was felt that my subsequent association could have affected people's willingness to speak openly. Pakokku University kindly helped with the research approval process, and enabled us to conduct our research without restrictions and interference. In line with Wageningen University requirements and visa conditions, no areas off-limits to foreigners in Myanmar were visited.

Finally, the research results come with three important disclaimers which have to be kept in mind throughout reading the findings. This research took place in seven villages in two different townships, comprising the Po, Bwe and Keh Bah subgroups. All these locations are either administered by the Myanmar government or dually administered between the Myanmar government and the KNU, the main ethnic armed group. Due to reasons of permission and safety, no locations in ethnic armed group administered areas were included, which may affect the feedback. In any case, it is likely that in a politically sensitive context such as Kayin State, local experts self-censor or omit politically tainted input. In many places, forests are the "natural resource with the largest tensions" (Bruun, 1995, 15). Bryant has provided a particularly detailed political account of how historically Kayin State's rich forests have been closely connected to the long running conflict between the Myanmar military and Karen ethnic armed groups (Bryant, 1996). In the interviews we neither avoided, nor pushed meta-politics, it was up to the local experts themselves to raise this if they wanted to. On the one hand this could be seen as a limitation to getting the full picture, on the other hand it could be seen that the largely absent explicitly political narrative, which often dominates

research and publications on the Karen and Kayin State, gave space to other perceptions to receive attention in their own right.

Secondly, any research team comes with limitations, and so did ours. I am a (Frisian, agnostic) male, as was my (Po Karen, Buddhist) translator. The MSc student from Pakokku University who joined us for the first half of our field research was also a (Chin, Christian) male. In Kayin State as elsewhere in Myanmar these factors are important, and are often inquired about early on in conversation. It cannot be excluded that the ethnic and religious identity of the interviewer(s) had an impact on the content of the answers. In order to try and minimise the impact, interviewees were always interviewed in their own home, or while walking together in the forest, in order to provide a confidential, natural setting. In all cases the local experts were over 18 years old, and had friends and family nearby to observe proceedings, as was culturally expected. It was made clear that people's names would not be used, and that we were just as happy with the conversation being recorded or not. It was noted that local experts frequently and easily disagreed with a question or suggestion, indicating that the 'yes-effect', whereby people tend to say they agree with the interviewer, was not a big factor.

4: Results

4.1 Beliefs

- 4.1.1 Nats: Guardians of the forest
- 4.1.2 Moon: Rhythm & timing
- 4.1.3 Animals & plants
- 4.1.4 Balancing the elements
- 4.1.5 Formal religion: Christianity & Buddhism

4.2 Identity

- 4.2.1 Sense of resilience
- 4.2.2 Dwelling: relational identity and land
- 4.2.3 Four stories: giving form to values

4.1 Beliefs

- 4.1.1 Nats: Guardians of the forest
- 4.1.2 Moon: Rhythm & timing
- 4.1.3 Animals & plants
- 4.1.4 Balancing the elements
- 4.1.5 Formal religion: Christianity & Buddhism

4.1.1 NATS: GUARDIANS OF THE FOREST

Addressing the first research objective, the role of the forest in Karen ontology, the most prominent perception shared by people in the interviews concerned that of the forest as the setting for an intricate indigenous belief system centred around local spirits ('nats'). Nats can be perceived as what has elsewhere been described as "invisible nonhumans" (Albert, in Viveiros de Castro, 2007 159).¹³

Nats were near unanimously perceived by those interviewed as the guardians of the forest, and surfaced as the main factor determining people's behaviour and activities in, and in relation to, the forest. While not unique to the forest, the relationship with the nat appears strongest inside the forest. For any significant activity in the forest, especially hunting an animal or cutting down a tree, permission needs to be asked from the specific nat who inhabits that particular area. By means of frequent offerings of food and drinks, respect has to be paid to the nats in order to appease them so that one remains safe and well. The forest area is perceived as belonging to the nats who preside over humans, animals, trees, plants, and inanimate entities inside it.

NAT LIFE

Nats, as nonhumans, were often described in human terms, which Descola noted is common within the animist mode of identification. (SHDL), a Buddhist monk, noted that "[nats] are alive because they have eyes, a nose, ears and a mouth, and a body". Traditional healer

¹³ On two occasions people appeared to talk about spirits other than nats. These larger spirits concerned the spirit of princess Naw Bu Baw who lingers around Naw Bu Baw mountain and that of King Mi whose horse can be found as a rock and umbrella as a tree. Both were referred to by their names, not as a 'nat', but were perceived as spirits.

(SWES) said that "nats are just like humans, they have their own ways. They have kids and they travel a bit". Nats can represent one another and live in a hierarchical social system amongst themselves, with farmer (NJD) noting that "like humans, only the head of the nat family needs to go to their monthly meeting [which is held at full moon]. So only the big nat is going to the nat meeting. The small nats who live in small trees do not go to that meeting". "Ordinary nats are under the power of their master, who is the big nat, this big nat is the boss of the other nats" (SWES).

Hunter (SFDV) explains the differences between individual nats by saying that "they have a different name, and like humans, they have different abilities and characters. For example, you (interviewer) can read and write, and me, I can climb and hunt - we can do different things". (SWES) noted the difference between nats and humans by saying that "nats can see what you as a human cannot see. You can only see trees and animals, physical things. But the nats can see everything".

Nats are not seen as all powerful however, "humans in a normal condition are the most powerful, except for when you have bad luck, the animals and nats can see that you have weak luck, that's why they attack you" (SWES). The nats are said to also punish dishonourable behaviour such as using rude language while planting rice and having sex before marriage, as well as those who disrespect the nats or do not offer it enough or the right kind of food. In general, the distinction is made between "good and bad nats" (SHDL) with the bad nats particularly feared and demanding. (SWES), a popular local bone doctor who sets broken bones by hand, noted with reference to cases of people falling down from trees

in the forest, if you fall down a tree, the nat has cursed you and 'eaten' your soul. If you have a broken bone in the forest and can see maggots outside or near the wound, then you know you have been taken by the nat. You have to apologise to the bad nat for climbing the tree, and offer food to them which will help the healing process.

Wood collector (NIH) knows of three places in the forest that are home to such bad nats that "you are not allowed to farm around there, just let it be wild, stay away from there and let

the trees grow there". Hunter (SHK) noted that some forest nats are very stingy. "We do not catch anything in that [area of the forest]". Farmer (NBO) noted that "sometimes the nat is very stubborn" so no matter how you ask and how much you offer, the "nat refuses you permission to cut a tree. If you continue doing it anyway, they will punish you. You cannot cut the trees in that case". She seemed to suggest that this stubbornness was the result of being spoiled, for "a long time ago, people would keep feeding the stubborn nats, so the nats got used to getting [a lot of] food" (NBO). Rarely did people mention friendly nats in the forest. The beloved village nat of farmer (NJD) would be asked to protect the community from the effects of thunder. "When there is a thunderstorm we ask the nat to take care of everything, our houses, our village, our belongings. We call that nat Tay Ka Cha (Owner of the Tree) and he lives in the large tree in the compound of the monastery. We know this nat is male because this nat has always been addressed as 'Mr.'" (NJD). She explained the good character of this nat by saying that "other big trees have a big nat also, but this one is different. You could say this is an educated nat" (NJD).



Figure 4.1: Offerings to the Buddha and the nats outside a monastery. A bowl with 3-5 bunches of bananas was said to be for the different kinds of nats, bowls with 2 bunches of bananas are for the Buddha.

The kind of metamorphosis between humans and nonhumans that Descola noted is a common feature in animism in Amazonia in particular, also emerged during the interviews with the Karen local experts. In all three locations, respondents spoke of nats who themselves temporarily took on the physical form of an animal, or caused humans to do so. In both

townships, people shared a story where "one hunter was looking for an animal. Another hunter was also looking for an animal. Then a very powerful spirit turned these people into animals, and then they shot each other dead because they thought they were shooting an animal" (NBO). Hunter (UKP) recalled the story of the nat of the water source, who "appeared as a beautiful woman. Once she left, the water source dried up". Honey hunter (YYY) shared a long story about a cow herder who got to know a female spirit. When he fell in love with her, they both disappeared.

Tigers were mentioned to be at times manifestations of nats. 41 year old (NIH) indicated that while she encountered a real tiger as a girl, these days they have disappeared, saying "you cannot succeed in catching the tiger nowadays. If you see it, it is a spirit that reveals itself in the image of a tiger". Hunters (SFB) and (SPJ) similarly noted that "sometimes we still see a big tiger, but that is not actually a real tiger, it always is a nat. You can never catch it." Adds (NBO) "at times we see a tiger who then quickly disappears - that is the sign of evil. It is not a real tiger". In two cases reference was made of an animal to human metamorphosis, with farmer (SRK) sharing the story of "Five tigers who sometimes transform into a human when they drink the water from a nearby river, and who want to eat human flesh very much".¹⁴

NAT HABITAT

The forest thus provides an important setting within which the Karen's nat-centred belief system evolves. While nats are believed to be living everywhere, with (SWES) saying that there are five different nats living on our left and right shoulder respectively (when these disagree, one experiences moments of doubt and insecurity), the forest appears to be home to the most important, powerful, feared and respected nats. As (NJD) noted "in the forest, every tree and every mountain has their own nat. The bigger the tree, the bigger, the more powerful, the nat". According to (SK+NS) "Karen people have a strong belief that every tree has a nat. If you go to the forest you make a path, but over the years these paths become covered with branches again. You should not even break those branches because the nats will not like it (SK+NS)." According to (UKP) "you can go [into the forest] anytime, anywhere. But you have to be careful about the places with powerful nats. A lot of places have these nats.

¹⁴ See also (NTVM) her story on the origin of the egret and the crow which features 13 metamorphoses (annex 1).

All places have nats. But it's a matter of lenient or powerful nats". However, he also noted the apparent retreat of the powerful nats into more far-flung areas of the forest, saying that "in remote places there still are powerful nats where I have to ask the nat for permission to hunt in that area, but here we do not have that kind of area anymore" (UKP). Others noted that "in the forest there also are nats in the ground...in streams, mountain slopes, and paddy-plots", with muddy places being a particularly favourite place where nats like to live (UPT, BO, UR).

The size of the area inhabited by each nat appears to be small, ranging from one valley or mountain to a single tree, rock or part of a river. "There are different nats in the forest who control small parts, our stream has a nat, the stream in the next village also has a stream-nat, yet another village has another stream-nat" (SFDV). Underlining how nats are tied to a specific location, and cannot be communicated with from a distance, (NJD) notes with reference to the monthly nat meeting all the big nats attend during full moon, that in case you want to travel on full moon day you have to offer to the nat before that day, so the nat knows in advance.

The particular location of a nat becomes known to the community because "something happened in the forest that indicates that a spirit lives there, these particular locations people then share with others" (SER). These kinds of occurrences often appear to be accidents, such as a situation where "your motorcycle would stop moving, a car skids off the road, a person falls out of a tree while harvesting honey or fruits, or a person dies in battle" (UR, MS, BO). (NHS) recently was reminded of the habitat of a neglected nat who lives close to a sacred mountain.

We are not sure exactly who this nat is as we are just getting to know this nat again. Our grandparents had told us about it but we did not believe it anymore so for a long time we did not pay attention to it. Until the car accident happened a while ago, then we realised it was true. All we know about this nat thus far is that it does not like to eat meat, and so we are not allowed to bring meat with us when we visit this [sacred mountain] (NHS).



Figure 4.2: Location where a nat made its presence known to humans by means of an accident. In the background the King Mi sacred natural site.

Some of these nats appear to have lived in the same location since time immemorial, while others may have recently arrived to their place or even have been moved there on purpose by people. "This nat here in the village tree has been there for a long time... but you can move nats from one tree to another. For example if one tree is being removed or has died, then you say to the nat "ok, Mr. so and so, this is your new place, you stay here, we will offer you food here" (NJD). While some were of the opinion that one can cut even big trees once one has asked for permission from its powerful nat, (SCF) preferred to play it safe: "I never cut a tree which has a nat. Some people ask for permission to cut it but I do not cut it."

NAT COMMUNICATION

In the interviews, the local experts noted that keeping the nats appeased is the duty of anyone entering the forest, and informs people's actions in the forest. "There are lots of do's and don'ts in the forest", noted (SWES), "all mountains and trees have nats...You cannot just do what you like, if you do so, the nats will take your soul." As a result, "you should refrain from doing anything. If you cut the tree, it has a nat. If you do *taungya* (traditional shifting cultivation), that area has a nat" (SWES). One has to behave appropriately when in the forest, "you cannot just enter areas with powerful nats and behave badly and pee there. If you do that you and your family get a punishment" (UKP). (YYY) similarly noted that "one cannot

swear and say bad words while you are harvesting the honey", while (NWMD) and (NTFR) stated that "you cannot use bad words when in the forest". (STJ) noted that during his grandparents time

you cannot make loud sounds or use bad words during the threshing of the paddy because if you do that you will get less paddy. This is our custom. If you shout or talk loudly the spirit of the paddy becomes frightened and so you get less.

Communication with these nats is not very straightforward however. In practically all cases communication appeared to be revolving around appeasing the nat in order to prevent it from causing harm and destruction to the individual (and his or her family) and ensure the nat will provide beneficial developments in one's life. "Because you respect the nat and give it some food it will give you good health and good business" (NJD). For any action in the forest, usually cutting a tree, catching an animal, or preparing a piece of land for cultivation, permission has to be asked from the nats. "Before you go into the forest you have to ask for permission from the owner of the mountain, that is a nat, of course" (SFDV). Farmer (SWES) noted that if you do want to take something from the forest you have to ask permission first, if you do not, you will be punished. In the case of his experience with *taungya*, (SWES) further noted that

before you go and cut a piece of forest to make a plantation, you have to go there every day of the week during the week leading up to when you're going to cut it... You have to ask permission from the nat, saying 'this is the order of the king, please go away'. You just think this and the nat will hear it.

(NJD) noted that "before I started sowing rice I asked the nat for a good harvest". When following fisherman (SFDV) on a visit into the forest he explained that as this was just a small incursion into the forest, it was enough to whisper the request to the nat in one's mind, but that for larger actions such as cutting a tree, hunting an animal, or burning a piece of land an offering is necessary. Similarly, when following (SJC+2) on a routine inspection visit to a community forest, they noted that

if we do something in the forest we have to ask permission from the nat, and we make an offering to the nats before we harvest honey. But today we are just walking around, so no need to ask permission (SJC+2).

With regards to getting the nat's consent for a successful hunt, hunter (SHK) noted that

there is forest here in this area with very powerful nats, they own this valley or that rock. That area is the deep forest where a lot of animals are. If hunters want to get these animals for food, they have to ask permission from the nat with a candle and betel nut, or a cup of alcohol, and say please provide me with an animal. We then go out and shoot.

Hunter (SLB) noted that "before going hunting to a powerful spiritual area you have to offer betel nut and betel leaf to the nat and ask them for permission" if one wants to get an animal from the nat. Says hunter (SFDV) "if you want to shoot a deer you have to ask permission to shoot that deer, you just have to make a wish in your mind and the nat will hear it. The nat will hear everything, and the nat does not forget anything".

In most of these cases where people explained their ways of communication with nats in the forest, it appeared to concern one-way communication. One would ask the nat a question, but would obtain the nat's response only after a misfortune would occur during that action, in which case the nat's reply was negative. If the action went completed smooth, the nat had given a positive reply to their request for permission to carry out their action in the forest. The misfortune that revealed the nat's negative reply could for example be a place where a nat prevents your motorcycle from moving, or where you get a physical injury (SER). Explains (SWES)

you cannot know beforehand whether you have permission or not. If you cut the tree, you say to the nat 'we are going to cut this tree, please move elsewhere', because you are otherwise destroying the home of the nat...You do not know if it is a yes or no answer from the nat. You only know when you get into an accident.

Hunter (SHK) in a similar vein notes that when requesting for one animal to be given to them during the impending hunting or fishing trip, "sometimes we get permission from the nat, and sometimes we do not", which they only find out "when we go out into the forest and hunt, if we find an animal, the nat gave permission. If we do not find an animal the nat did not give permission. This is true in the forest as well as in the rivers" (SKH). (NWMD) and (NTFR) shared the story of a nat who guarded a very deep section of the river underneath a waterfall, which was popular with people trying to catch fish by partially closing off the river at that point.

The nat was very aggressive there. The nat often would not allow people to fish there, which is why you would often find that your trap would be no longer there if you would come back in the morning. [That meant that] the guardian lets you know he does not like it, the nat would not let the people fish. If you encounter a situation like that you have to be very cautious, because if you continue fishing anyway you will be sick the next day.

In just three cases, people mentioned having a two-way communication, with the nats. Traditional healer (SER) claimed to be able to communicate with nats directly, driving them out of a patient's body, while another traditional healer (NTVM) told of her experience being kidnapped by a nat (who had taken on the body of an old man) as a middle aged woman - after which she obtained her special powers. Another interviewee noted that she was able to obtain clarity from the nat about its permission or objection to a request. If one wanted to find out whether the nat gave permission to cut down a tree

one should stick a knife head down into the soil at the base of a tree - if by the next morning the knife had fallen down the nat had not given permission, if the knife was still standing then the nat gave permission and the tree was could be cut (SK+NS).

OFFERINGS

Apart from asking permission, small and large offerings are made. In all cases the small offerings consisted of foods and/or (alcoholic) drinks, with too little or the wrong kind of foods

being seen as a cause for the nat to become unhappy and cause havoc. (NJD) said that the type of offering for a nat

depends on what you ask. If you want to plant the paddy field you can offer cookies, candles, or flowers. If you have not offered to the nat for a long time the nat will give you a sign, like a twitching eye, you have to be careful then, and you have to offer fish, sandalwood or water...We offer in the evening, and we do not offer alcohol

Diets differ however. "There is a nat in the ground also. If you fall to the ground you have to offer chicken and alcohol to that nat" (SWES). (NWMD) and (NTFR) noted that

once a year we have to make an offer to the nats, the guardians of that forest who are still there. We call on them to come and eat, and we ask them to support us. We offer two bottles of alcohol and chicken, though sometimes a nat is vegetarian

During the thesis research we were fortunate to observe the 198th edition of a large yearly Karen *mee pone pweq* (fire festival). People from the entire area came to this location carrying with them branches of trees (with prayers and wishes attached to them) which were put together in a large, round, collection. Around 4:00 am, when the traditional dancing competitions, food stalls and market that accompanied the festival had closed, this collection of tree branches was set on fire under the full moon. As the fire burned and villagers hit the iron frog drums, the nats and ghosts were driven away, while elders interpreted the direction of the smoke to predict the coming season's harvest, explained festival announcer (UTST).¹⁵

¹⁵ There was at this festival a small separate area reserved for offering vegetarian foods to ghosts, the souls of people "who had not yet transformed into their new (physical) life" (UTST).



Figure 4.3: *Mee pone pweq* near Kawkareik - appeasing the nats, ghosts, and predicting the harvest.

During the interviews, just three other mentions were made by people about the existence in the forest of ghosts, humans who died in particular circumstances and whose souls still lingered around. (BO) noted that some areas in the forest feature places with a difficult history due to human deaths as a result of conflict and accidents of people falling from trees while harvesting fruits, nuts or honey.

You can go there, but you have to be careful if you want to go to the area around those who died. Sometimes they do not want you to go to these areas or they do not want you to go and cut trees or bamboo there. If you hear the sound of cutting bamboo in those areas then you know 'oh, they do not want us to go there'. So then you do not go there (BO).

(NHS) noted that "the day after full moon nobody goes into the forest because the ghosts will be there then", while (NIH) finds it sometimes frightening to be in the forest "because it can be haunted. I have had experiences with ghosts in the forest".

DISCIPLINE

The forest nats appear to instigate a sense of discipline amongst people in the forest, especially hunters. Three experienced hunters (STM+2) noted that they have

our rules and our disciplines. In the rainy season the fish are pregnant, so we do not hunt them then. If we know an animal is pregnant or has a young baby we will not shoot it. Sometimes we shoot one by mistake, if that happens we apologise to the nat. That applies to all animals...In case of wild chicken: if we see a wild chicken sitting on its eggs we do not shoot it. Even if we would try and shoot it, the gun will not go off anyway, or the chicken will not be hit by the bullet [because the nat intervenes].

These three hunters further noted the importance to only shoot the amount and kind of animal you had requested permission from the nat for, and not any animal you see.

If you see more than one animal during the same trip, you cannot shoot it. It will be a waste and it will not be good for you and your family. The forest [nats] will punish your family, one of your family members will die (STM+2).

The nats are said to only give permission to hunt for food. Shared (STM+2) "our wish to the nat is: we only want to shoot one animal for us to have enough food. We do not want to shoot it for business, to sell it". Hunter (SPJ) similarly noted that

you offer betel leaf and betel nut to the nat, and then you say 'we do not have enough food, please give us one or two animals'. The reason for this is that before we set out to hunt, we make a promise to the nat that we wish to only shoot that one animal. If we break our promise the nat will punish us - it will prevent us from being able to actually shoot and hit an animal, even if we see one.

4.1.2 MOON: RHYTHM & TIMING

The already intricate perception of the forest as a stage for the maintenance and balancing of relations between humans and nonhumans becomes more complex still when adding to this the feedback people provided regarding the influence of the moon on the rhythm of the forest. Kayin State follows a lunar calendar, but the influence of the moon goes much further, influencing the day to day actions of humans and nonhumans in the forest. This was found to

be the case in both Buddhist and Christian communities, the latter often also celebrating the festive days of the Gregorian calendar.

Hunter (SFDV), a Buddhist, mentioned that

during full moon and new moon we cannot hunt...it's a big sin to hunt during full moon or no moon, because those are the days that the animals meditate. Animals also meditate, they are meditating to have a good life after their rebirth... It's a big hell [if you shoot an animal that is meditating], and will bring you bad luck.

The hunting times of hunters (STM+2), Christians from a different township, are also determined by the moon, though the timing differs from that of the hunters in the first township.

What time we go out and hunt depends on the moon. During day 1-8 of the waxing moon, the first quarter, the animals will go to a particular area where their food is at the same time each day, for example 3:00pm. Then during the one day before full moon, the full moon day, and the one day after full moon, they will go to the area at another exact time [which is different from the first 8 days], for example 8:00pm. Because the animals do not have a watch, they look at the moon [to know what time it is]. The same thing is the case with the fish. The first 8 days of the new moon the fish come out from their hiding place at the same time. The fish also look at the moon (STM+2).

Honey hunter (STJ) noted with regards to his profession that "honey is only harvested during new moon nights, because on new moon nights there is a lot of honey in the hive. Besides that, if you do it during a full moon, the light is not convenient, because the bees will see the people" (STJ). The moon also determined the hunting period for retired (Christian) hunter (SHK) in Thandaung Gyi, but in yet another pattern and without the sanctioning effect. He recalled that

within one month there were 4 times where you did not have to search for the animals, because they would just come out of the forest by themselves. These were 7 days before the full moon, full moon, 7 days after the full moon, and new moon. At those 4 times, you would just sit down at the places where they would come to look for food, wait, and shoot them when they would appear (SHK).

The lives of nats too, are influenced by the moon. (NJD) noted that the big village nat in the large tree "cannot be offered food during new moon, quarter moon, half moon, full moon for these are the days when the [big] nats have a meeting". Certain plants too, were said to be influenced by the moon, with people in all locations noting the influence of the moon on bamboo, which is prevalent in Kayin State forests. When building a house from bamboo

one only uses bamboo that has been cut during a waning moon (between full moon and new moon), because if you use bamboo that has been cut during a waxing moon, it will be eaten by bugs if you build your house from it (NHS).

Catholic medicine man (SER) noted that the (purely plant based) medicine-mix he uses for nat-related conditions consists of "leaves that were harvested during *thazaung dain*", the 8th month in the lunar calendar that usually occurs around November. On the other hand, medicine man (SAJK) noted that the leaves and roots in his medicine mix should

only be harvested on November 10, as in the bible it says that November 10 is the best day for this. It says that November 10 is a very pure, clean day. Whatever you do on that day is going to be successful (SAJK).

With the bible making no actual reference of November 10, this date could instead be linked to *thazaung dain*.

4.1.3 ANIMALS & PLANTS: OMENS & PROTECTION

ANIMALS

Interestingly, when people spoke about warning signs and omens they receive in advance of looming danger and misfortune, they never mentioned the nats, but instead noted that these

omens were delivered by certain animals. This animal - human communication is characteristic of the animist mode of identification (Descola), made possible by humans and nonhumans sharing the same mind. The Karen local experts interviewed interpreted unusual appearances and particular sounds of certain animals as carrying a message.

Animals were also found to be communicating directly to humans by means of giving signs, another animist feature (Descola, 2013, 74). Deer, monkeys, and birds were the animals most frequently mentioned by respondents as communicating to people or presenting omens to them. Seeing a deer walk through the village was seen as a bad sign by different people in two different villages. Noted (NWMD) and (NTFR)

when a deer comes to the village, the village nat is not happy with that. Because the village is not pure and clean, people in the village get sick. So when the deer comes to the village people become sick and unhappy and the nat also becomes unhappy.

Hunters (SFB) and (SPJ) also consider "seeing a deer run through our village as a sign that something bad will happen to the villagers", while (SOVM) in Kawkareik noted that "if a deer comes to the village, that's a bad omen. Something bad will happen to the village". (NHS) notes that the deer is not causing the calamity, but merely playing its part in a wider reality. "Deer notice it when a soul departs the body, so they would come to the village and bark. But now that deer are becoming rarer, the dogs have taken over that role, and will bark when a person deceased" (NHS). (SJOL) notes that

if the deer goes into the village or the town, it is not the deer who causes the people to get sick and die. The deer is just warning them, the deer is showing them what will happen. The village has its own faults and its own sins, which are the reason why it happens.

While monkeys were in general viewed negatively by those interviewed, as "destroyers of our forest gardens" (UKP) and "undisciplined' creatures" who would even "light your house on fire if you would give them a lighter" (SLB), there were at least two exceptions noted where

a species of monkeys was perceived in a positive light. The first concerned the Thandaung Gyi area where a monkey species called *yoki yopeq* in Bwe Karen language, which hunter (SKH) hesitantly identified on a list with photos as being a gibbon. The second concerned the *yoki yupa* in Po Karen language, in the Kawkareik area, a small monkey "that lives in the deep, big, forest and which has a tail that swirls around the tree branch from which it hangs upside down to drink, it never touches the ground" (STM+2). With regards to the *yoki yopeq*, (SKH) noted that

I do not have the right to shoot the *yoki yopeq*, which has in any case become very rare and lives far away in the deep forest. The reason I do not shoot that monkey is because it does not take care of its baby. If the baby falls down from a branch, the parent just leaves it there and does not pick it up (SKH).

(SER) noted that "when you have the *yoki yopeq* monkey, your region is peaceful". While (STM+2) do hunt "the monkey without a tail", they noted that the harvest will be good and the region will be peaceful when there are *yoki yupa* monkeys nearby. This respect was not noted across the board however, with some apparently unable to resist the temptation. While requesting only one or two animals from the nat, (SPJ) noted that "we catch everything that we see, we just catch it". Asked about the *yoki yopeq*, he noted that "they do not exist around here anymore, but in the old days we used to catch that one also" (SPJ).

Birds were also seen as communicating omens to people. (NWMD) and (NTFR) noted that when the owl and the *ngweq ngweq* bird make a sound, that means that people would get sick. (STJA) and (SOVM) in Kawkareik both noted that "if you hear the *dudu* bird, which lives deep in the forest, that means someone will die". Hunter (MHK) noted that he does not shoot the hornbill, as "in Karen belief this bird is taking care of the land. If you have this bird the land will be peaceful and prosperous and you get a lot of food. If you hear that bird's song we are very happy and pleased" (MHK). (STM+2) were of the opinion that the *touq poe* bird, which has a very short tail and is a mix of grey and yellow, can both benefit and harm humans. "It eats the insects from the garden and does not destroy it. But it can also give you a curse. If you kill it, your family will suffer the same fate as that bird's family: your family will be broken" (STM+2). (SFDV) noted that

there are 2 types of birds we do not shoot. One is the one with the split tail, you cannot kill it because it will give you a curse. Another bird is called *non-kwek*, which jumps on the ground like a squirrel. You cannot shoot it either because if you do that you will not be able to catch other birds anymore.

Relationships between animals were often described in human-like terms, characteristic of an animist mode of identification. (SJOL) shared his insight on

one bird called the *wadaung* bird. This bird is the boss of the animals in his circle of friends. The squirrel is a follower of this bird. The woodpecker and the blackbird with the split tail, they all are the followers of this *wadaung* bird... When it makes a sound, the other birds all come over to his place to look for food together... If there is not a *wadaung* bird, there will not be a complete set of animals. Then other birds will not be happy because they have to look for their own food (SJOL).

(GL+1) noted that animals learn from experience, and that they learned to recognise the sound of a gun and the smell of a trap. If they master that to the extent that they can avoid the hunter "we then say that the animal has passed the exam" (GL+1).

On just a few occasions, people spoke about humans who directly communicated to animals. Hunter (SFDV) noted that animals were moving to a no-hunting area in the forest assigned by a local hermit, saying "the animals understand. The hermit let them know that it is a safe area". Also, hunter and farmer (SGDR) served notice to small animals who lived in his plot before he would set fire to it as part of the agricultural cycle, saying that

before I went to prepare the *taungya*, after we cut the trees, we would go to the plot two days in advance of burning down the remaining trees and scrubs. We'd say to the animals, 'please take yourself and your children and move away, we will be back in two days and burn it'.

Finally, another common characteristic of the animist mode of identification concerns the perception that there can be a transfer of an interior power of an animal body into a human body, a case of a continuity of interiorities across two different bodies (physicalities) (Descola, 2013, 70-76). A rather unique way of this transfer of power was noted in the interviews, namely that the power of the animal was seen as being intertwined with the power of the nat.

It emerged in different contexts that the way in which an animal or plant part has been obtained determines the level of its power. When interviewing retired hunter (SHK) at his home, two deer antlers could be seen hanging on his wall. One an eye-catching centrepiece, a large complete set of antlers. The other merely a small part of an antler. (SHK) explained how in 1978 he had shot a large deer, whose magnificent antlers we were now looking at. These large antlers, he noted, were only decoration and had no power whatsoever, whereas the small antler piece was very powerful and had protected his house from fire for many years. That small piece he had found on the ground of the forest one day. (SHK) explained that when you manage to shoot an animal, that is because that animal has already been given up by the forest nat, who has stripped the animal of all its protective powers. For only without the protective power of the forest nat, (SHK) clarified, would it be possible for an animal to be shot by a human. However, antlers that naturally fall off as part of a biological renewal process still contain all its protective powers, (SHK) explained, for the nat has not removed its power from that animal, expressing a small sigh of disappointed that he had only found a piece of one antler, for if you find a complete set of antlers on the forest floor that is the most powerful.

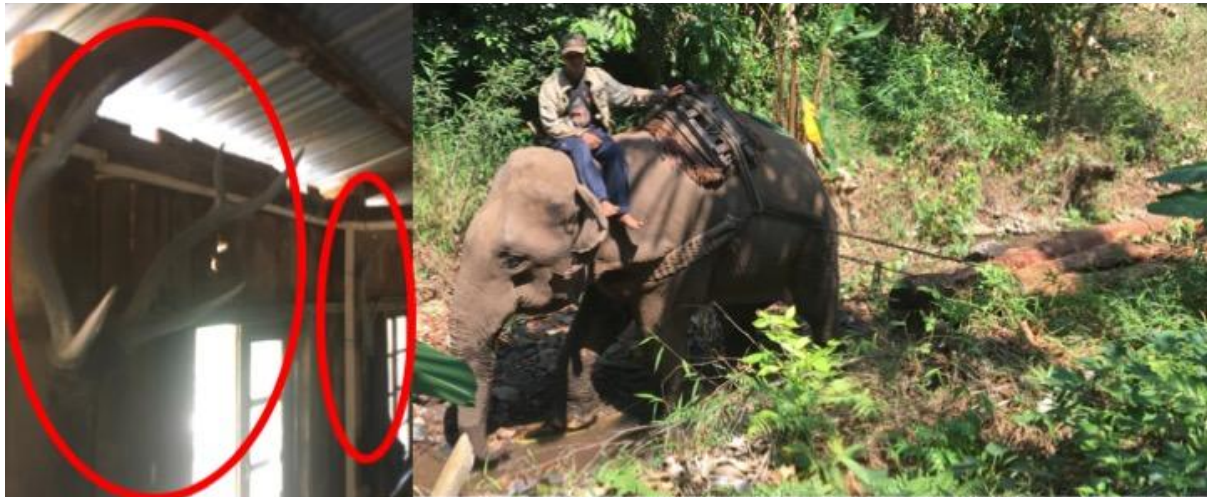


Figure 4.4: From left to right: a merely beautiful large set of antlers next to a powerful small antler; a mahout logging trees with the elephant who lost its tusks in a fit of rage, which meant the tusks retained their power.

Similar perceptions could be found in other Karen communities as well. When spending a day with a group of Mahouts and their elephants as they were logging trees, it had been only four days since one elephant had gone crazy, in the process killing his mahout as well as breaking off his own tusks. The mahouts found one tusk and were still looking for the other one, thought to be hidden underneath the river mud. They mentioned that they would keep both tusks for themselves, not considering for a moment to sell them, as these tusks were very powerful. The reason for this, they explained, was that these tusks did not come from an elephant that had been shot, but had naturally broken off. Similarly, hunters (STM+2) stated that the teeth from wild boar only had power if that wild boar had not been shot, saying that

only the tusks of animals who died by themselves after falling down from cliffs or after getting themselves trapped are powerful. Tusks from animals which are shot are not powerful. The reason is that their nat, who is their owner, has abandoned the animal which is why [the animal loses its protective power and so] you can shoot them (STM+2).

TREES & PLANTS

A similar kind of reasoning to that explaining the power of the antlers and the tusks could be found when people talked about the harvesting of powerful woods - that they are more powerful if naturally fallen off instead of being cut down by humans. (NHS) noted with reference to the piece of wood from the rare *tiq min* ('king of wood') tree, that hangs above

her door in order to filter out bad spirits and prevent bad spirits from going from her body into the body of a baby, that

I prefer to just collect a dry branch from the ground instead of cutting a new piece from the tree. I never cut down the tree, I just use a small piece which I then share with others...[in fact,] a much larger area around that type of tree will have to be left untouched and it is not possible to make a rice paddy around it... I am not sure why it's better not to cut a new piece from the tree, my mother believed this and I copy my mother's behaviour (NHS).

Traditional healer (RO) gave us a little piece of wood at the end of our interview, which he said would protect us during our remaining travels. The wood he assured us, was not from a tree that had been cut down. (NJD) also explained with respect to the sandalwood that she was sprinkling around the house to appease the house nat, that "sandalwood that died by itself is more powerful, it became old all by itself, and also, the smell of old sandalwood is stronger, which the nats prefer".

What appeared to be the same *tiq min* tree was reported in another village to be used in the construction of people's houses to provide protection and offset any negative effect emanating from other woods.

If you have bad wood in your house, the king of wood protects you. We use that wood in the four corners of our house when we built it. But if you already have wood with a bad spirit you can bring the king of wood into your house afterwards also (NIH).

Besides sandalwood and the *tiq min* tree, the *gamon* vine (*acacia concinna*) produces a nut (*gamon-thi*) (soap nut) which was noted to have power and the ability to ward off bad nats, with (NJD) noting that both can be used for medicine against illnesses that have been caused by a nat. Both can also be used as a way to "protect your forest garden: you have to ask the nat with *gamon-thi* and sandalwood 'please ask the wild boar not to come here', then the nat will not let the wild boar come to your garden" (SJOL). The use of *gamon-thi* is believed to

"clean and protect you from ghosts and evil and bad spirits,. It restores your power in situations where that was lessened by being in the space where dirty blood, lower body things took place" (NJD). Traditional bone-doctor (SWES) explained that before his patients are discharged from his home-hospital, they have to wash his hands with *gamon-thi* water as a way of restoring his powers. This he explained was necessary as he had touched "the patient's blood, their dirty body, and their lower body parts, which all can be influenced by bad nats". If the patients would not wash his hands with *gamon-thi*, bad things could befall him and his power could decrease.

(NJD) described the *gamon-tha mingalar* name giving ceremony, held for a baby 7 days after birth, "when the mother has healed enough". "People who visit [on their way out] wash their hands with *gamon-thi* water consisting of dried *gamon-thi* nuts, cumin, and water, which restores your power [after being in that room]" (NJD). (NHS) also noted that "when two people have sex before marriage in the village, that couple has to prepare a *gamon-ti* broth by boiling it and putting chicken blood inside it. With that, they have to apologise to their parents and also wash their parents hair with that broth". Besides sandalwood, *tiq min*, and *gamon-thi* the local experts well regarded a number of other trees, but as the power of these is not perceived as inherent to the tree but rather linked to their role in Buddhism they will be discussed in the formal religions section (4.1.5).

When walking through the forest with local experts, they clearly perceived of an ecosystem between plants in terms of relationships, in human-like terms.

The *jello mee* flower and the bee are sweethearts. They are sweethearts because when on fire, the smoke of the *jello mee* flower deactivates the bee's [intention to sting], allowing the honey hunter to get the honey. We consider them sweethearts, because that is also what happens between two people [who love each other], one takes out the aggressiveness of the other person (NHS).

(NHS) notes that similarly, "the old big tree with no leaves we call the *ka-tiq-pin* is the sweetheart of the betel nut tree, because the latter likes to grow on that tree". Farmer (NBO)

also explains the workings of the forest in similar terminology that goes beyond a mere biological symbiosis.

In the forest, some plants and animals have a relationship with each other. The fern is a friend of the *palat* (cardamom), because it keeps the soil moist for the *palat*. This is true for the banana tree and the *palat* as well, as the banana tree maintains water and which itself is cold, while the *palat* is hot (in the sense that when you grow *palat* the soil becomes dry)... We also have a tree with red, bright flowers which is the betel leaf vine's husband...they are a good match.

(NBO) noted that "There is also a purple flowering plant which we consider to be the father and mother of the paddy. This plant makes it easier to get rice out of the husk. The rice will behave better with this [purple] plant close to it... during the harvest you have to put this flower onto a bamboo stick". Hermit (SJOL) notes that

the trees are like human beings. If the big tree (rich person) absorbs the water the small tree (poor person) can also survive. The tree is like a water pump that sucks up the water [from deep in the ground] and then releases it.



Figure 4.5: From left to right: husband of the betel leaf, sweetheart of the honeybee, parents of the rice paddy.

4.1.4 BALANCING THE ELEMENTS

The Karen perceptions of human relations with nats, animals and plants described thus far all bear a clear hallmark of the animist mode of identification. An analogical mode of identification with nonhumans also influences Karen perceptions of forest, which surfaced in people's beliefs about the medicinal properties attributed to animal and non-animal products from the forest. The gathering, preparation, and usage of forest based traditional medicine was found to be widespread. In (SFDV)'s perception "every tree contains a medicine", and hermit (SJOL) noted that "one day, even the grass will be good for medicine". At first sight, this appears to be a matter of finding the plant or animal with the desired ingredient, (NHS) during her 4-hour forest walk collected no less than 20 different forest products, five of which for medicinal purposes, including the leaf of the *o-po* tree used for the treatment of cancer, and seeds of a tree which are to be eaten as a deworming treatment.

However, the reasoning underlying the selection and application of forest medicine hints at analogism, given its concern to harmonise an out-of-balance situation.¹⁶ As Descola noted, a very common way in analogism to try and create order within the endless amount of singular elements that constitute this world is by making a division between hot and cold (Descola, 2013, 109). This kind of categorisation in opposites can be understood as an attempt to "impar[t] order and meaning to a world full of singularities [by] distribut[ing] these into great inclusive structures that stretch between two poles", which in turn can contain a number of elements and classify them into simplified categories of perceptible qualities (Descola, 2013, 109).

Traditional healer (SWES) explained that the goal is for the body to remain in balance between hot and cold, and between the four elements. Using pali words to describe these, he noted them as *patawi* (ground/soil), *tay-zaw* (fire), *wai-yaw* (water), and *abaw* (air). (SWES) went on to explain that one's body is made from these four elements, and one gets sick when these four are getting out of balance, with the translator adding that everyone in his village knows this. Accordingly, (SWES) applies the roots of *sann-win sein* and *meiq talin* "which are all hot", alongside a bit of blessed oil, in order to reconnect bones with each other. He further notes

¹⁶ With the analogical mode of identification especially common in China (Descola, 2015, 102-9), perhaps this could be traced back to Karen originally descending from the Tibetan plateau.

the physical effect that "if you are injured, your blood clots. The heat of the medicine is dissolving these clots in your blood" (SWES).

This analogical understanding of reality as being composed of an endless amount of elements can also be seen in people's belief that in the forest, wholesome elements infuse water and air, giving them a healing power. Hunter (SFDV) recalled his brush with death a few years ago when, after falling from a tall tree, he was taken in critical condition to the hospital in the Kayin State capital Hpa'an. When his prognosis looked grim, he had asked for villagers to bring to him a bucket of water from the river (a four hour journey).

I would have been happy to die after drinking water from the stream from my village. Our water is different from the water in the city. The taste of the water here is heavy, because it is full of minerals. In the city the water tastes light. The river water here has power, an ability to heal. Its water comes from the rocks, from sources that have minerals and gold, from the mist, and from trees with leaves that contain medicine (SFDV).

Seemingly in a similar vein, traditional Karen healer (SER) noted the utmost importance of the location where ingredients are harvested when explaining the contents of his medicine box. (SER) uses four different powders as part of his treatment of patients whose *nat* has been separated from their human body. The medicines are called *taung tay* (summit of the mountain), *taung leq* (middle of the mountain), *taw neh taung* (base of the mountain), and *taung a yaw* (a mix of the former three). The name of each medicine refers to the place where the leaves and herbs it contains are growing and harvested, with (SER) noting that the importance lies in them coming from a mountain forest, stating that it would be equally fine if they'd be imported from a mountain forest outside of Kayin State. Possibly establishing an analogy with the qualities of an elephant, (SER) further noted the importance of the *way* the leaves were picked from the trees "in the same way an elephant takes a leaf of the tree with his trunk", making an s-shaped, rolling shape with his hands while he describes this.

Finally, the importance of a *set* of elements being in balance and being complete was stressed by (SAJK), when he described the single medicinal powder he laid out on a large tray. His

medicine mix consists of charcoal, cloves, leaves and gallbladders from animals including cow, pig, large mouse, snake, wild boar, bear, mountain goat, and tiger (SAJK). "You need a complete set of bladders to make this, otherwise you cannot make it. It has to be complete. All ingredients need to be there. This is most important" (SAJK).

4.1.5 FORMAL RELIGION: CHRISTIANITY & BUDDHISM

Besides the animist mode of identification that informs Karen understandings of their relationships with nonhumans, and the analogical mode of identification that informs their insights on forest based medicines, the Karen perception of the forest is also influenced by their adherence to formal religion. While talking about nats, animals, and plants in relation to the forest, interviewees frequently made reference to Buddhism and Christianity.¹⁷ Particularly in case of the latter, the influence of a naturalist mode of identification within Karen perceptions of the forest was noticeable.

CHRISTIANITY

Hunter (SB) noted that "in the bible it says that everything is created by God, including trees and animals. But we are not animals, we are above the animals...God gave all the knowledge to us. Animals have to obey our order." Hunter (UKP) professed his faith in creationism by sharing his belief that "like everything, honey is created by God. Nobody in the world can make the honey, if they imitate it, it will be sweeter or less sweet, but nobody can make it exactly the same. We believe honey is made of the pollen of 1.000 flowers."

People's faith influenced their behavioural code of conduct in the forest. Hunters (STM+2) noted that while "the church does not have swift regulations on hunting, but the teaching tells us that if we see the chicken it's okay if we shoot it for our own food, but we should not shoot it just to kill it". Says (SLB): "my Christian community says I cannot go shooting in the mating season... My Christian belief also tells me I cannot hunt during the *wa dwin* (lent) period, during which we are not supposed to eat meat also".

¹⁷ This concerned Christianity in the Thandaung Gyi areas (Anglican / Baptist), and Leik Tho areas (Catholic); and Buddhism in the case of Kawkaik areas. All local experts spoken to either said they were following one of these formal religions, or the prominent display of Buddhist / Christian iconography suggested as much.

People who identified as Christian usually spoke of the forest more in terms of animist beliefs, especially nats, and sometimes Buddhist concepts as well. Hunter (UKP) noted in the same breath the nat's power to block his gun when he tries to shoot a pregnant mouse and that "as a Christian there are things we should or should not do" (UKP). Hunter (SLB) noted that

when an animal is pregnant I cannot shoot it. My (Christian) faith and the government ban me from shooting the animal in the mating season, but doing so would also give bad karma. If we shoot a pregnant animal we end two lives instead of one, that is bad karma (SLB).

Especially in the Catholic villages, holy water was found to play a big role in keeping relations between humans and nats in check. (NIH) and (HK) noted that instead of using the *tiq pin* protective wood in their house, "we can also use blessed water, water that Father (the local priest) has blessed for us". (NBO) also mentioned that instead of making offerings to the nat, "sometimes we just splash [the tree we want to cut] with blessed water, that way also the nat will go away. The pastor blessed the water for us". Traditional healer (SAJK) noted that "holy water is the most important ingredient in the treatment. When you make this medicine, you do not mix it with the blessed water, you drink the blessed water when you take the medicine" (SAJK). Hunter (SFB) wore a piece of ivory on his neck, which he himself cut into a crucifix, giving him dual protection in the forest from bad nats. In Leik Tho, Catholicism appeared to have lessened people's belief in and/or fear of nats living deep in the forest. (UHN) concluded that

these days, people cut trees and hunt animals more than they did before...before there was a deep forest which was very wild, it was an area with a lot of deep mud and swamps. There are trees with thick, big leaves there. The animals live there, but we never actually saw those animals, as these animals were [in reality] nats and evil ghosts. People were afraid of them, and did not dare go to that area, because if you go there they will manipulate you...[However], these days the people do go there, since about 1970. Maybe the bad ghosts and bad spirits left, or people are not afraid anymore. But people these days go there... Until about

1970 they believed it, but later they did not believe it anymore. As far as I know that is because of the development of our religious belief (UHN).

Asked to explain what development he was referring to, he stated that "maybe the reason is what our church taught us" (UHN). The current Father further stated, contradictory to the knowledge we received in the interviews, "I think that people are now not afraid of the nats anymore because they have matured in their belief... Yes, they are afraid of God, but no longer of the nats (SHH).

BUDDHISM

The link between the forest and Buddhism is most visible in terms of the well-known practice of followers paying respect to Banyan trees (*figus benghalensis*) under which the most recent (Gautama) Buddha attained enlightenment. In interviews, the Banyan tree's sacred position was noticeable with (UKP) listing the types of trees in the forest as being "*pa nyaung* (Banyan) trees, big trees, and small trees". (SRK) notes the importance of Banyan trees mostly in relation to nats, saying "banyan trees usually have a spirit, old people tell young people not to cut it- the nat will influence your behaviour, it will enter you." Senior monk (SHDL), clarifies that "when people pray in front of these trees, they pray to the nat that lives in that tree as well as the Buddha who is also alive in trees. They pay homage to the Buddha and the nat, but not to the tree by itself".

(SHDL) explained the presence of the Buddha in those trees by saying that there are four 'zedi' Buddhists have to pay respect to: *Dadu zedi* (relics of the Buddha), *Dhamma zedi* (teachings of the Buddha); *O-deta zedi* (the image of the Buddha), *Periboka zedi* (furniture related to the Buddha, which includes the monastery, the *chaung-saung* (the seat that lives), and other *atone-saun* (equipment and utensils) that belong to the Buddha). Trees are seen as part of the equipment of the Buddha, which is why you have to pay respect to them (SHDL). He further detailed that of all species of trees, "the most important trees to pay respect to are the utensils, the ones mentioned in the teachings... You can pay homage to those trees anyway you like, but the main point is to imagine the Buddha while you are doing it, realising 'this is the Buddha's utensil'". (SK+NS) vaguely recalled seven of the special trees before

referring us to elderly monk (SHDL) who listed 19 different trees under which 28 different Buddhas attained enlightenment (annex 2).¹⁸

(SK+NS) noted that besides the Banyan tree, the *gankaw* tree (*mesua ferrea*) also carries particular importance being the tree under which the future Buddha will obtain enlightenment. In conversation with one monk and three nuns we were told that

we do not use the *pa nyaung* (*banyan*) tree, we do not even break its branches. If we cut a branch because it interferes with a house or prevents a new stupa being built - we have to ask permission from the Buddha and the sangha to cut a piece from it. People use the *gangaw* tree but they also respect it. They put Buddha statues next to it... *padauk ta* and *anan-phyu* woods can only be used in monasteries, not houses, for if you keep these woods you have to keep your precepts... Monks can use those two woods in the monastery because they have a nice smell. That's why it is suitable for them. Lay persons kill animals so those woods are not suitable for them.

Explains (SHDL) "from a Buddhist view, the tree does not have life. But from a scientific point of view the tree has life. Some people say the tree has life, but it only means the tree has physical breakdown, it has no mental consciousness". This Buddhist influence on perception of the forest is thus very different from an animism mode of identification in a 'Descola' sense, which has been found to believe that "trees too may possess souls of their own or may constitute plant doubles of certain humans" (Descola, 2015, 21).

Besides trees, (SHDL) also noted the importance of the forest as the best place to practice a high level of meditation, saying that contrary to a distracting home environment or the discomforting heat of a desert-like place, "the forest is important for people looking for 'taya'. All the sexual attachment and all kinds of attachment you leave behind when you enter the forest" (SHDL).

¹⁸ It has been noted that "the names of these 28 Buddhas are religiously preserved by Buddhists, together with their age, their stature, the names of the trees under which they obtained Enlightenment, their country, and the names of their father and mother." (Gallop, 2015, 1).

Buddhism also was named by people as an influence on how they perceived and treated animals in the forest as well as in general. Hunter (UKP) shared that he “will not encourage [my] children and grandchildren to become a hunter these days. Because it is a bad thing, bad karma. Every living thing is afraid to be killed”. Hunter (SGDR) similarly stated that “I feel embarrassed to go hunting because it is not good to hunt and kill animals according to Buddhist teachings”. Hermit (SJOL) objected to eating meat and killing animals as

these animals could be future Buddhas. Just like the last Buddha was different animals in his 550 past lives. The Buddha also taught: do not kill other's lives, no matter how big or small. If you kill them you will feel/suffer the same he is feeling/suffering now.

In Kawkareik, a current community forest initiative was started by a “local monk who had gone to another region and saw a bare mountain with no trees. He did not want this area to be like that - so he and the other monks told our village “this mountain range already has trees, we do not want it to become bare” (SJC+2). While villagers make up the committee which guards the community forest, “one monk from each of the villages connected to the community forest function as chairpersons” (SJC+2).

In conclusion, a complex spirit belief system together with Buddhism and Christianity heavily influences Karen perceptions of the forest. Humans perceive of nonhumans mostly through an animist mode of identification, with notable naturalist exceptions that appear to be rooted in Buddhism and especially Christianity. It is in Karen's perception of the medicinal qualities of the forest that an analogical mode of identification comes to the surface. The forest is perceived as being alive with nats, animals and humans who interact and communicate with one another to different degrees. The moon determines the rhythm and when accidents, illness or death strike, nats and the harmonisation of elements are called upon to restore balance.

4.2 Identity

4.2.1 Sense of resilience

4.2.2 Dwelling: relational identity and land

4.2.3 Four stories: giving form to values

4.2.1 SENSE OF RESILIENCE

In addressing the second research question, the ways in which the forest is important for Karen identity, the knowledge shared by the local experts indicates the importance of the forest to support, firstly a sense of self that centres around resilience, and secondly a cultural identity that relies on the land for its formation and (re)generation. The former impression was formed by the particular way people spoke about their reliance on the forest for their livelihood. The latter impression rests mostly on observations of people as we accompanied them on their ventures into the forest and the stories related to them, as seen through the lens of a relational understanding of identity, in particular Tim Ingold's concept of 'dwelling'.

RESILIENCE: SELF RELIANCE

Firstly, when people talked about their reliance on the forest for food and other forest related products, the importance of these types of foods and products for a wider sense of well-being and identity became clear. Practically everyone mentioned that they take from the forest firewood as well as a whole array of different fruits, nuts, leaves, and roots to provide nourishment. As (SHK) put it "the forest is the most important thing for your stomach". What stood out however, was the value attached to the quality of the food and the mode of producing it. (SPJ) noted that food from the forest is not just food, but good, satisfying food, describing her feeling on the days that she did not manage to get produce from the forest by saying "I then feel sad because I have to buy food from the motorcycle vendor who comes by. That food is not fresh, it is not natural. When I get an animal from the forest it is fresh, organic and can be eaten by the whole family sometimes even for three days" (SPJ). (NIH), (SFB) and (SPJ) noted that for them it was important to be able to pick one's own food and not be dependent on others, which would result from having to buy food.

Apart from foods people collect from the wild, a big factor in this sense of self-reliance is people's private plots. Apart from the religious leaders, everyone appears to personally own plots of land in the forest. These were noted to be important to supply the family with food. (NWMD) noted that people used to be self-reliant thanks to their plots, "in the past you cared for your own plot in order to supply your own household". More recently though, income is generated through selling (part of) the produce. Says (SRK)

when I see the tree and I see it has a fruit I feel good because it means my life is secure. I can get money from it in the future. Such materials we get from the forest we sell, and the money we use to buy products from [the nearby city] Taungoo. So we are not dependent on either.

These private plots people own inside the forest also function as a form of income security for the family, a type of intergenerational insurance as it were. Many people were growing at least one large tree on their plot, increasing in value as time went by. Passing some private plots containing very large trees, (SJC+2) noted that

each house plants a large tree like that on their plot... I have an old tree on mine also. While I may not myself benefit from keeping this tree alive [and not cutting it down], my next generation will. When I was young we read a story in a schoolbook of an old man who was planting a tree. People asked him 'why are you planting a tree because you will die soon?' So the man said 'I may not be able to pick fruits from this tree, but my grandchildren will'. I remember that story (SJC+2).

Similarly, during a forest walk with (NWMD) alongside the river, we passed a huge hardwood tree she estimated to be over 100 years old. "The owner saves it until his kids are older, that's when he will cut it down so that they can build their house from it" (NWMD). A logger who was clearing some 300 trees from three private plots with the help of two elephants and their mahouts told us that the owner needed a lot of money in one-go, because he "wanted money to buy a motorcycle and mobile phones for his children" (SWU).

RESILIENCE: MENTAL HEALTH

The forest also appears to play an important role for people's mental health. The local experts interviewed frequently noted the forest as a place for leisure and relaxation. The cool temperatures in the forest were repeatedly brought up as an important factor, as well as hearing the sound of birds and the view of the trees. (NWMD) explained being much rather in the forest than in her own home by saying "I can breathe fresh air there and see the trees. It is cool and green in the forest" (NWMD). (UHN) noted that "in the forest I get a peaceful mind", while (NBO) mentioning that "the forest gives shade. It balances the hot and cold. If you have a forest it is good for your health", adding that "it is nice to hear the birdsong and see the green environment". In a similar vein, (NJD) shared her desire to "live inside the forest if that would be possible, [for] if you have a mountain forest like we have here, then you will have cool air". (SK+NS) noted that "the trees in the forest balance the weather and give us shade". (SRK) says he goes "into the forest almost every day. We have a coffee garden there. I go to relax there, the birdsong are beautiful and I like to see the green environment". Both (SAJK) and (R) noted that they "like to hear the birds' song and feel the cool wind blow".

Hunters (STM+2)' description of hunting showed the importance of getting close to his friends as well as the animals in the forest, saying

we are satisfied when we can go and hunt. It feels like I am becoming alive when I hunt. During the times of the moon when I cannot go to the forest, the excitement builds up as I get closer to the day that I can hunt again...It is about perseverance. The more often we do not find an animal, the more excited we get to persevere... Your mind and your focus are on that animal the whole time... If we go hunting in a group of six people and one person gets injured, we all feel the same pain (STM+2).

RESILIENCE: SECURITY

On a few occasions, people referred to the forest as a place that provides security. Elderly (SOVM) recalled his experience in the Second World War, noting that "[each time] when the Japanese came, we would just disappear into the forest and stay there for a month or two". (NTJA) noted the inventiveness of Karen people during that same era, when the forest

provided them with everything they needed to survive, recalling "we made clothes from rotten pineapple plants and soap from the ashes of papaya trees". Referring to the six decades of civil war in Kayin State that followed Burma's independence from Britain, (NTFR) recalled that they relied on birds to warn them of impending conflict, saying "if you heard the woodpecker you would be afraid, because that meant that the Burmese would be coming". Another local expert put the security provided by the forest in the context of the perceived geographical advantages of Kayin State's neighbours, explaining that "Kayin State is not like the Thai and Burmese who have areas where they can grow rice in order to feed soldiers. We do not have large areas where we can grow rice, and we do not have castles and palaces [to give us protection]".

RESILIENCE: PRIDE

People also took a sense of pride in the quality of their forest, comparing it favourably to the geographical conditions in lowland areas in Myanmar. (NBO) noted that

the pride of our community is that even though we breathe the same air as people in [Myanmar's commercial capital] Yangon, our air is the cleanest. We have the cleanest air. The reasons for that are that we are less densely populated, so people do not live close to each other and therefore we do not smell each other's body odour. Also, here the wind continuously blows through the trees, and that filters and cleans the air.

(SJC+2) noted that "we take care of the forest for the sake of a good future, at the same time we also do not want this region to become like the Bagan region where everything is hot and dry." On the forest plots that dot the mountain slopes around Kawkaeik, many people grow and tend to large durian trees which, contrary to plantations elsewhere in Southeast Asia, grow in their natural state, towering up to 45 meters into the sky. Apart from generating income by harvesting the delicacy that is the durian fruit, the particular durian trees around Kawkaeik are believed to be descendants of durian trees that a witty Karen boy managed to take from Burma two centuries ago by outsmarting the mighty Burmese king, with a little help from animals. So the story goes...

The Origin of the Durian Tree

Some 200 years ago, seven durian trees arrived here, two of which grew big, and one of which has died since then. All durian trees in this area come from those two old trees. How it happened was thanks to a Karen boy. A long time ago a boy and a monk walked to the king's palace in Inwwa (the Burmese capital 1364 - 1841). Back in those days, durian fruits were only to be eaten by the royal family, and the king offered a durian to the monk. The monk ate the fruit, after which he gave seven seeds to boy, saying: 'hide them somewhere'. The king then asked the seeds back because the royal family did not want the seeds to spread to other areas, because it was only meant for the royals. The boy answered: 'even the seeds of a durian are tasty, so I swallowed them all', even though in fact, the boy had hidden the seeds in the bottom of his bamboo basket. When the boy and the monk came back to our village, they sowed the durian seeds into the soil. When the trees had grown up into mature trees, the king got word that there were durian trees growing in our village. Then his servants arrived in order to destroy all the trees, but some of the durian trees' flowers had ants on it which bit the servants. The servants rushed back to Innwa, and it was those flowers that turned into the seeds which spread around this area and started growing. That's where our durian trees come from (SK+NS).

These descriptions by the Karen local experts of their relationship with the forest and the time they spend inside it point to a deeper experience: that of *dwelling*.

4.2.2 DWELLING: RELATIONAL IDENTITY AND LAND

The research findings presented in the beliefs chapter showed that the forest shapes people's beliefs and provides the setting for an intricate web of human - nonhuman relationships. The local experts also shared that the forest is crucial for their mental and physical health. This being the case, the forest could be understood as being an integral part of the Karen's identity. In order to understand this at a deeper level I will in this section analyse the local experts' knowledge, as well as their actions in the forest we observed, from the perspective of Tim Ingold's theory on relational identity and the related concept of 'dwelling'. Four of the many eclectic, rich, colourful stories people shared with us about the forest will serve to illustrate this analysis. These are stories that may be dismissed as legends, myths, and fairy tales to an untrained ear from outside the Karen community, but which if taken seriously, in

line with ontological pluralism, are found to harbour a wealth of knowledge on the importance of the forest for the Karen from an identity perspective.

While Descola's theory on the four different ways humans interpret relations with nonhumans helped reveal the all-encompassing human - nonhuman relations in Karen perceptions of the forest, Ingold's theory of relational identity and dwelling underlines the importance of the human bond with the landscape within which these relationships take place.

RELATIONAL IDENTITY

Ethnic group identity is commonly understood as evolving around genetics, whereby an individual is positioned in a family tree across time and related to bloodline. But, writing about IPLC, Ingold (2000) argues that we should conceive of ethnic identity in a relational way instead of merely as a genealogical one. From this perspective, an individual is situated in a web of relations between humans, nonhumans and inanimate entities, that are formed, maintained and played out in the past *as well as the present* on the land one inhabits.

The relational approach to cultural identity places the accent of understanding identity on an individual's position within this web of relations. All these humans, nonhumans and inanimate entities exist in an individual's natural environment and influence that individual's identity. This influence is continuously ongoing when the person is physically present in that environment, for "cultural knowledge and bodily substance are seen to undergo continuous generation in the context of an ongoing engagement with the land and the beings that dwell therein" (Ingold, 2000, 133). The relational approach thus stresses the importance of *relationships* with other beings over genes and biological inheritance, of participation in forest activities over observation, and of continuous pro-generation of an individual over procreation (Ingold, 2000, 108, 141-3). This pro-generative dimension inherent in the act of 'dwelling' was noted with reference to aboriginal ontology as follows by Law (2015) when talking about the non-dualism of nature and culture in aboriginal ontology.

In a European way of thinking the world carries on by itself. People do not perform it. It is outside us and we are contained inside it. But this is not the case for

Aboriginal people. The idea of a reified reality out there, detached from the work and the rituals that constantly re-enact it, makes no sense. Land does not belong to people. Perhaps it would be better to say that people belong to the land. Or, perhaps even better still, we might say that processes of continuous creation redo land, people, life, and the spiritual world altogether, and in specific locations (Law, 2015, 126-7).

This non-dualistic understanding of nature and culture also characterised Karen beliefs on human - nonhuman relationships that play out in the forest. As noted, interviewees conceived of relationships between different nonhumans in very human terms, recalling here how educated nats attend meetings, that animals meditate, and that fish determine what time it is by looking at the moon. Thus when Karen people 'dwell' in the forest, they do so within this understanding of reality where activities, relationships and feelings by humans and nonhumans are almost indistinct. This means that when people walk, work, pray, find comfort and/or shelter in the forest, they are part of an endless amount of interactions that occur simultaneously around them - between plants, between animals, between nats, between humans, and between any possible combination of all of them.



Figure 4.6: Dwelling. Gathering food or regenerating identity?

When a Karen family is walking through the forest pointing things out to each other, their words gather meaning from context. They are illuminating part of the world to each other (Ingold, 2000, 146). So the "source of cultural knowledge lies not in the heads of predecessors

but in the world that they point out to you...one learns by discovery while following in the path of an ancestor" (Ingold, 2000, 145-7).¹⁹ The knowledge shared by the Karen local experts also indicated that intergenerational knowledge sharing takes place in the context of active engagement in the forest. People often do not only tell the next generation about cultural knowledge, they *show* them by performing rituals and taking them into the forest. (SJC+2) noted that "what I show my kids when I take them into the forest is my plot. I would show them which routes to take to get there. I will tell them that when I no longer exist that it is their turn to maintain this plot". His friend added to this that

I show my children my plot and I want to show them the original trees that belong to this area. This is important for my kids in order for them to be able to retell the stories, like the history of the durian. When people from other villages come and ask us, or if we go to other villages, then we are able to tell this story.

(NJD), now in her 80s, noted that she knew as a girl that the old tree in the village was home to the village nat because she saw "my grandmother back then doing the rituals".

This underlines the importance of physical time spent in the forest, one cannot just observe the forest from afar. Ingold notes how even particular, often culturally specific, behavioural and bodily features of human individuals also develop during an individual's dwelling on the land. This 'ontogenetic development' takes place as skills *grow* with the body while the human engages in action on the land, becoming "fully part and parcel of the human organism, of its neurology, musculature, even anatomy, and so [skills] are as much biological as cultural" (Ingold, 2000, 360).

An important cultural reason for people to visit the forest concerns paying tribute to sacred natural sites. The following four forest-based stories were shared with us during the interviews with the local Karen experts. All four serve to remind people of important values

¹⁹ From a relational perspective, Ingold suggests that spirits, such as nats, could be considered as a sort of ancestor, noting that "[t]he spirit inhabitants of the land contribute to human well-being equally, and on the same footing as do human forbears... As such they are ancestors of a sort, albeit ones that are alive and active in the present... [They] have been there all along, living in parallel existence to ordinary humans with whom they may enter into close and, for the latter, lifelong relationships. [They are] sources of wisdom... of a heightened perceptual awareness" (Ingold, 2000, 141).

contained within the stories. One explains to people the sometimes aggressive behaviour of bears in the forest. The other three are related to sacred natural sites which people visit on day trips with family, often walking many hours through the forest, recalling and/or re-enacting the stories.

4.2.3 STORIES: GIVING FORM TO VALUES

Rich in detail and heavy with moralistic meanings, the following four forest-based stories are as much about culture as they are about nature. In many indigenous cultures, these stories give form to human feeling (Ingold, 2000, 23). When one allows oneself to transcend the nature-culture dichotomy, together with its fixation on abstract reasoning (Ingold, 2000, 16), we open ourselves up to understanding how they serve to remind people of cultural values. The story of the witty boy who took durian seeds from the Burmese king so that all people could enjoy the taste of the durian fruit and not just the royal family, serves as a good example of this kind of meaningful story telling. The abridged versions of another four such stories will reveal two prized Karen cultural values: trust/loyalty and righteous discipline.

1. King Mi Mountain (Thandaung Gyi town)
2. The Boy and the Bear (Par Char village)
3. The Spirit of the Waterfall (Par Char village)
4. Naw Bu Baw (Thandaung Gyi town)

1. King Mi mountain (Thandaung Gyi)

Once upon a time there lived a king called King Mi. He lived down in the valley. He had a wife, brother, children, and parents in law. One day he did his duties by visiting a lot of villages under his power, and demarcating the areas to clarify which belonged to which village. Jealous people came to the king and said 'your wife and children all got married to other people'. 'Let it be, I have not finished my job yet' the king replied. The second time these people came they said 'your parents are already dead', but the king said 'I have my duties to do here' and he didn't go back. The third time they said 'your children and your wife are already dead'. That is when he decided to come back. King Mi took his horse and departed, but the horse didn't go quick enough, so he killed it and walked instead. When he arrived home, he found his parents and children and all his family still alive. He realised people told him a lie. He kept thinking about that and died as a result. He became a rock and his horse also became a rock, and his umbrella became a tree. These rocks and trees you can still see (NHS).



Figure 4.7: Family enjoying a visit to the mountain top that features King Mi's horse (the rock with the painted white eye) and King Mi's royal umbrella (transformed into the tree that arches over right behind it).

2. The Boy and the Bear (Par Char)

Once upon a time, there was a bear and a human who loved each other very much. They were friends. They never slept on the ground, they always slept in the tree. Because the human can't climb the tree himself, the bear would take him on his back into the tree, where the human would sleep. The bear would also take care of the food, he would go and fetch the honey from the beehives in the trees. Thanks to the bear's fur he would not get stung. The bear would give the honey to the human to eat. They were close friends.

One day when they were sleeping in the tree, a bad nat was speaking to the human, saying 'don't you hear that loud sound that the snoring bear makes? He is so scary. You should push him down from the tree and let him die'. 'Oh no!' the human said, 'we are good friends, I would not do that' and he fell asleep. The nat then said the same to the bear 'push the human from the tree!' but the bear refused. The nat told the human and the bear three times each to push the other out of the tree. The nat was testing whether both were loyal as friends.

Finally, one day at dawn, the human pushed the bear from the tree. But as he fell, the bear woke up and grasped the tree branches, saving himself. He said to the human 'the forest nat told me three times to throw you out of the tree, and I did not do it to you. But you did it to me. Now I know how loyal you are. You can go'. Because the human could not climb down by himself, the bear even brought the human back down on his back, before sending the human away. From then onwards, the bear would eat human beings, but only male humans. He does not eat the whole man, he only eats the ears and the nose so that the man would become very ugly. The bear would never eat a woman, because women have breasts like the bear (NTFR).

3. The Spirit of the Waterfall (Par Char)

A long time ago, there was a girl who fell in love with a boy. The boy was very poor and the parents of the girl did not permit it. So they eloped and went into the forest. But they could not find enough food, so they decided to commit suicide together by jumping off a cliff. Before they jumped, the girl said 'you will be eaten by a tiger on your way back if you do not jump after me'.

The boy agreed to follow her. But when the girl jumped first, the boy was shocked seeing her dead body. He did not jump after her because he figured that she would never realise it if he didn't jump. He walked back to the village, and on his way he was eaten by a tiger. The girl meanwhile, did not reincarnate into another animal or human. She stayed at the waterfall and is still there, still waiting for the boy to also jump (NTJA).

4. Naw Bu Baw (Thandaung Gyi)

Saw Taw Khaw Khor was a prince whose father ruled the deep forest areas and rocky mountains. He got to know the daughter of the ocean king, she was called Naw Bu Baw. She was physically elegant, beautiful, and had a kind heart. They fell in love and after the wedding near the ocean, they both travelled back to the deep forest area. Naw Bu Baw's parents gave her two presents: a dried hollowed out gourd filled with paddy (raw rice) inside it, and a magic golden comb.

Throughout the journey, Naw Bu Baw cooked by taking one single grain of rice from the gourd, which she peeled and broke into two. She cooked one half and kept the other for later. To cook she didn't use a cooking pot, only an egg shell. That half grain of cooked rice was more than enough for everyone to share. Upon arrival in the palace she continued to cook this way.

The prince was a good fighter, but he won all battles thanks to Naw Bu Baw's magic comb. The prince fought while standing on top of the comb, which made him invisible for the enemy to see in battle. However, due to the magic comb, there was also a sad story.

One day, the prince heard the enemy come. He gathered the soldiers and went to fight, bringing the magic comb. The prince won. After making sure everything was under control, the prince put the comb back on his head, and declared their victory. Unfortunately, one enemy was still alive and saw the prince when he put the comb on his head. The enemy shot the prince, who died.

The people got suspicious about the death of the prince in relation to the golden magic comb. They accused Naw Bu Baw of being a witch. The people told the king about this, and though he did not believe this unreliable accusation, he did not want riots, protest and unrest. In the end the only option was to put her on trial, which was on Bwe He Kho mountain, now called Naw Bu Baw mountain. She was given the death sentence, and brought to the Day Phar Ho Kho mountain range, where the bad nats lived.

There she died. But her spirit still lingers around Naw Bu Baw mountain, and the place where she took a bath while awaiting trial still sees water coming out from a rock. The place where she faced trial with her hands shackled is still there, and you can put your own hands inside it (NRO).



Figure 4.8: Visitors at the place where Naw Bu Baw took a bath and where her spirit still dwells, the student who accompanied us puts his hands on the rock in a locked position, re-enacting Naw Bu Baw her position as she faced the court with her hands shackled.

VALUE 1: TRUST / LOYALTY

The importance of the principle of trust has been noted in the activities of many communities who rely on hunting and gathering (Ingold, 2000, 69). Trust is a "combination between autonomy and dependency. To trust someone is to act with that person in mind, in the hope and expectation that she will do likewise" (Ingold 2000, 69-70). It is "in relations of trust that autonomy is retained *despite* dependency" (Ingold, 2000, 72). *The Boy and the Bear* tells of a kind of loss of innocence, where animal and human used to trust each other, but where the bad nat tempted the human to break that trust, the result being that the bear in turn does not trust the (male) human until this day. The duty bound king in *King Mi and the Mountain* trusted his people, yet they fooled him in return, which hurt him so much it ended his life, and thereby his benevolent reign. In *The Spirit of the Waterfall*, the beautiful girl trusted her boyfriend to follow her until death, but he broke that trust, leading to him being eaten by a tiger, and her still dwelling around the waterfall.

VALUE 2: RIGHTEOUS DISCIPLINE

In *King Mi and the Mountain* we are told of a king who fulfils all his duties, even when tempted by calls from his hometown that urged him with (fake) news to come back. In *The Spirit of the Waterfall*, the girl is still waiting for her boyfriend to jump, not moving onto another life or

another sweetheart. Discipline in the context of frugality surfaced in *Naw Bu Baw*, who only used half of a seed of rice and an egg shell to cook.

Thus when (NHS) and her family go for a picnic next to the rock that used to be King Mi's horse and the tree that used to be King Mi's umbrella, she is performing an identity confirming act. Similarly, when people attend the yearly *mee pone pweq* that forges an especially strong connection with the nats, when people take part in the yearly durian festival that honours the two old trees the Karen boy brought back from Innwa, when people visit the little temple that has been erected on the spot where the tiger ate the boy who did not jump after his beautiful girlfriend, when people re-enact Naw Bu Baw's shackled arms during her court appearance that sentenced her to death - during all those dwellings in the forest, people's identity is regenerated. Thus when (SWES) notes that primarily due to a change in (drier and hotter) weather the amount of durian trees in the forest is declining significantly, and that he now harvests only 10 fruits per tree compared to 300 in the past, that is not just a serious matter in terms of livelihood and nature conservation, but one of cultural identity as well.

The relational approach to identity and the importance of dwelling for the formation and regeneration of personal and cultural identity shows that Karen perceptions of the forest are underpinned by an ontology that is informed both by people's beliefs on human - nonhuman relationships as well as people's physical experiences and enactments of these relationships in the forest.

5. Discussion

5.1 Conservation knowledge implications: Ontological Self-Determination

5.2 An underestimated conservation actor: Religion

5.3 Conservation practice implications: Management; challenges; cultural flexibility

5.1 Ontological Self-Determination

Within the discipline of anthropology as well as in the field of nature conservation, the need to go beyond the nature-culture dichotomy is, at least on paper, being recognised. In anthropology, "few are still arguing a strict separation between the two...there is no question

at all of a strict 'nature-culture' binary in [much of the] literature – nor, to my knowledge, has anyone prominently argued for one for some time" (Fitzgerald, 2013, 5). The perspective in the field of nature conservation too, has over the past decade

moved to a more nuanced one that recognizes the two-way, dynamic relationships between people and nature. This "people and nature" thinking emphasizes the importance of cultural structures and institutions for developing sustainable and resilient interactions between human societies and the natural environment (Mace, 2014, 1559).

As part of this turn within nature conservation towards recognising culture as a part of nature, '[t]raditional knowledge has become a topic of considerable interest within the research and development environment. The contribution of traditional knowledge to conservation and management is increasingly being recognised, and implementation endeavours are underway in several countries' (Upreti et al., 2012, 225). A growing number of agencies and initiatives focus on the importance of IPLC as conservation actors, including Indigenous Protected Areas in Australia, Tribal Parks in North America, and most prominently the overarching Community and Conserved Areas (ICCAs) consortium (Tran et al., 2020, 2).²⁰

However, the remaining big issue is *how* this intention to bridge the nature-culture dichotomy and recognise traditional knowledge plays out in reality. Sooner or later,

conservation-related actors come to understand that all externally conceptualised or generated conservation interventions carry with them a set of ontological propositions and epistemic practices that are *ex situ* to most socio-ecological systems that exist in ecologically diverse places [and] that this mismatch creates conditions whereby conservation fails (West, 2016, 440).

Until then, the reluctance to understand and recognise ontologies that are informed by animist, analogical and totemic modes of identification hampers nature conservation. Blaser

²⁰ Two ICCA managed conservation sites in Karen populated areas in Myanmar concern the Kamoethway River Valley area in Tanintharyi Region and the Salween Peace Park in the eastern part of Kayah State (CAT, 2018).

(2009) portrays a breakdown in conservation collaboration as a result of misunderstanding each other's ontologies with regards to sustainable hunting in Paraguay. While conservationists worked from the assumption that hunting had a causal effect on the amount of fish in the river, in the ontology of the Yshiro people "the fish come with the birds of rain (Osasero). As long as there is rain, there is fish" (Blaser, 2009, 13). The different understandings of conservation held by biologists and national park direction compared to that of the Yshiro people resulted in both approaching the same issue from their respective ontologies (Blaser, 2009, 16). This resulted in actors taking incompatible actions, which each understood to be in line with the agreement from their own ontological perspective (Blaser, 2009, 14). The risk of such failure in Kayin State appears large. As noted with reference to Descola's theory, Karen perceptions of the forest are complex - a result from the constantly ongoing relationships between humans and nonhumans, rooted in a unique ontology that combines animist, naturalist, and analogical modes of identification.

The ontology-rooted misunderstanding that terminated the sustainable hunting programme in Paraguay points to the importance of an epistemological issue: what parts of the indigenous wealth of perceptions of nature is seen as 'knowledge' by international conservation actors? Questions of concern here include "[w]hat level of evidence or proof is needed before we really 'know' something? Are some forms of knowledge more valid than others? What is the relationship between knowledge and belief?" (Eagle et al., 2011, 8). In many cases of attempted integration between indigenous knowledge and western scientific knowledge, what happens is that "western scientists tend to be interested in knowledge that fits in their own frameworks and does not require a shift in ontological perspective" (Ludwig, 2016, 19). Caillon et al. similarly identified "a lack of appreciation for how different constructs of nature in different ontologies permeate our values and actions" (Caillon et al. 2017, 5). In wildlife management too, when institutional arrangements are developed to "advance recognition of indigenous rights, the dominant management discourses authorize and support institutions that they recognize, institutions that conform to Eurocentric assumptions" (Howitt, 2006, 329). In other words, there is a tendency to cherry-pick indigenous knowledge to fit one's purpose, and select only those parts of IPLC wisdom that is considered 'knowledge' by measurement to one's own ontological framework, which in the

case of western conservation actors and natural scientists is usually underpinned by a naturalist mode of identification.

This implies that the epistemic focus should not be on trying to integrate IPLC knowledge with scientific knowledge, but instead on the harmonisation between two pillars of knowledge, each respected in and by itself. This points to a multinaturalism which recognises that "different worldviews consist of different ontologies that constitute different co-constituted and enacted...realities" (Barad; Latour; Mol, in Verschuuren and Brown, 2019, 171), instead of a multiculturalism, which understands there to be "one 'reality', one 'world', and one single version of 'nature' but perceived differently by people with different worldviews" (Verschuuren and Brown, 2019, 301).

Finding the overlap that exists between different ontologies that are fully recognised in their own right lies at the heart of Ludwig's concept of 'ontological self-determination'. Ontological self-determination urges us to respect in and by itself IPLC knowledge that is rooted in vastly different ontologies. As a result, ontological self-determination "takes the goals of indigenous communities and their domains of enquiry seriously" (Ludwig, 2016, 19). In order to do that, we need to "at least in parts adopt the ontological perspective of an indigenous community" (Ludwig, 2016, 19). Thus, when traditional healer (NTVM) took a moment at the start of her lengthy recollection of the origins and character of the egret and the crow (annex 1) to stress to us that what she was about to say had really happened, and was not just a myth, we accept that as such: a factual account when seen within Karen indigenous ontology.

As our research shows, what may look like a tiger to a biologist, to a Karen can appear either as a tiger or a spirit temporarily manifesting as a tiger. What looks like a forest stream to an ecologist, to a Karen can be a liquid medicine that gives strength and protection. What is a rock to a geologist, to a Karen may look like the solidified horse of a past king which holds valuable lessons on identity to the next generation. Ontological self-determination requires us to embed local knowledge within the ontology of the local expert who shares that knowledge. Adopting an ontological self-determination approach enables us to lift a tip of the veil of Karen perceptions of the forest, uncensored by ontological filters.

In order for this harmonisation between different pillars of knowledge to occur, we will "need to craft...ways of proceeding that acknowledge and respect difference as something that cannot be included" (Law, 2015, 128). The questions to ask are

how might we craft encounters across ontological difference well? And second, how might we do this in ways that minimize violence and maximize the possibility of encounters that are as peaceful, just, and open as possible (Law, 2015, 134).

This switch from an integration into one knowledge - towards the harmonisation between local knowledges and scientific knowledge does not mean that there is no overlap or room for the latter and its related measurement- and monitoring practices to be recognised (Caillon et al., 2017, 2). Both local and scientific knowledge share common concepts that are core to conservation such as connectedness and relatedness (idem).

The full recognition of ontologies means recognising and appreciating IPLC knowledge by understanding the underlying ontologies. This should happen right from the conceptual stage of understanding a conservation area or issue, and its related challenges; at the stage of research, reconnaissance missions, focus groups, and brainstorm sessions. This means exploring a conservation issue separately from two different angles: science and local ontology. It means interpreting the issue from different perspectives, constructing potential scenarios from each different understanding of reality. During this process one becomes aware of perceptions, priorities and red-lines held by people who perceive of human - nonhuman relations from very different modes of identification.

For example, while a scientist may grade areas of the forest in Kayin state by counting IUCN red-listed animal and plant species, from a Karen perspective we should consider the level of happiness of the spirits, the amount of animal species that cause peace, the abundance of trees with cultural and religious significance. Hart's (2010) work on designing indigenous research methods is a notable effort in this regard, it perhaps being no coincidence that Hart is a scholar of Australian aboriginal descent, likely well-versed in different modes of identification and rooted in multiple ontologies, scientific as well as indigenous.

Consider as a real-life example diagnosing the factors behind the consumption of the pangolin, the endangered animal native to Kayin State. A comprehensive publication on the pangolin recently concluded that there is a "lack of good comparative research on exactly what people *think about* and do with pangolins, and how and why this is changing, both with and without the interventions of conservationists" (Walsh et al., 2020, 209, emphasis added). Approaching the supposed healing properties of the pangolin from a purely western/naturalist understanding of medicine may cause one to conclude that its scales must be in demand for traditional medicine because of some perceived ingredient it contains. A recent study was carried out aimed at proving that pangolin scales contain no tramadol and consist of nothing more than keratin (Jacobs et al., 2019, 1). The headline of the related academic publication proclaims 'Myth Debunked', and calls for the findings to be "incorporated into demand reduction campaigns in areas where this misinformation is perpetuated" (Jacobs et al., 2019, 1). However, when aware of different ontologies, one sees that an analogic mode of identification understands the healing properties of the pangolin to come from the pangolin's *behaviour* (living in a burrow, rolling up when threatened), as the analogy follows "the observed features and behaviours of pangolins and the limited range of human concerns to which they can be compared and applied" (Walsh et al., 2020, 209). Thus approaching a concern from different ontological views creates very different understandings of the issues, and in turn the best ways to address them. (NIH) both soaks the scales of the pangolin in water to bathe her child and puts pangolin scales in the neck of her baby in order to protect them from childhood diseases. She is not likely to stop using pangolin scales as a result of a campaign that tells her these scales only contain keratin. She would likely be indifferent to that message, as from her analogic mode of identification, the powers derive from the establishing an analogy with the animal's protective behaviour instead.

5.2 RELIGION

The research findings underline that the nature-culture dichotomy does not exist in Karen perceptions of the forest, with the forest being as much about animals and plants as it is about spirits, divinity, the moon, health, culture and identity. This means that the fate of the forest is not just determined by those with knowledge of biology and ecology, but also by those with knowledge of culture and religion. The contribution of religion would be both as a divine motivation to act to protect nature, as well as a form of moral law enforcement to prevent

harmful actions. This is particularly relevant in Kayin State, a state with a strong belief in both animism as well as the major world religions (Buddhism and Christianity in our respective research sites).²¹ Additionally, in an area with such limited law enforcement capacity as Kayin State, moral (conservation) law enforcement by God, karma, and the nats becomes the more important. As noted, (NHS)'s hunter friend still sold the baby bear in Mandalay, even though he was fully aware of the prohibition to do this by the Ethnic Armed Organisation (EAO) in his area. As (UKP) explained "the KNU and the government authorities warn us not to hunt tigers, turtles, and monkeys, but people still hunt [them], because if people do not hunt they will not have anything to eat". But while the EAO and Myanmar Government may not be able to always witness what goes on in the forest, God and the nats see everything, and neither can one escape the karmic imprint from an unwholesome action. As Pope Francis put it in his encyclical on the environment *Laodato si'*

Laws may be well framed yet remain a dead letter. Can we hope, then, that in such cases, legislation and regulations dealing with the environment will really prove effective? We know, for example, that countries which have clear legislation about the protection of forests continue to keep silent as they watch laws repeatedly being broken (Pope Francis, 2015, 107).

During the interviews, the potential for conservation of including spiritual and religious leaders revealed itself. Consider the instance where the presence of nats and the position of the moon stopped the majority of hunters we spoke to from entering the forest for considerable amounts of time. What if traditional healers and nat mediums would be included in an effort to convince those hunters who do not comply? Or consider the situation where on the one hand the monks said that trees should be respected, the 19 linked to Buddhism especially, while on the other hand the Buddhist villagers said they were going to cut down a giant tree in their forest plot in order to donate it to the monastery. What could happen if the monk asks the community to instead donate the tree by keeping it alive? Similarly one could reflect on the old growth tree that was cut down near another village in order for its proceeds

²¹ Both the small Hindu community in Thandaung Gyi and Hindu and Muslim communities in Kawkareik are mostly occupied with retail, trade and cow herding, and residing in the centre part of the towns. Our research focussed on the outskirts of the towns and its adjacent small hill villages, whose residents live closest to the forest.

to be used to build a new Catholic church? What if the church put a moral price on keeping it alive? The widespread use of holy water in the Catholic communities as the most powerful ingredient amongst an array of traditional medicine is another promise of including religion more actively in nature conservation in Kayin State. Could holy water and other forms of divine protection supersede the use of tiger bones and bear gallbladders?

The impression that this potential is underutilised in Kayin State stems from our observations that while Pope Francis' image adorned the shrines in many houses, the local clergy appeared to be in the dark about the Pope's *Laodato si'* encyclical when asked about it.²²



Figure 5.1: Pope Francis and Mother Mary adorn the shrine of a hunter's home.

The importance of including animist beliefs on equal par as the major world religions, especially in forest and nature conservation efforts, is obvious.²³ Many local experts in our interviews referred to nats as the guardians of the forest, or in (GK+1)'s words "the nat owns the forest". Furthermore, the most powerful nats were said to live in the largest trees, in swampy areas, and deep in the forest - all places that are biodiversity hotspots as well. What would happen to community support for an effort to protect such an area if the focus was

²² One clergy member mentioned he had heard about this encyclical in a communication from the Vatican, noting it not being available in the local language as one obstacle to utilising it. The Catholic community in Yangon in 2019 organised a tree-planting event in the name of *Laodato si'*, with Yangon Archbishop Cardinal Charles Bo being known for his vocal advocacy on environment issues (Gomes, 2019, 1).

²³ It is worth noting that many community members when talking about their beliefs were continuously mixing and matching between their own nat beliefs and the more recent belief systems from South Asia (Buddhism) and the Middle-East/West (Christianity).

not on it becoming a landscape for the locally feared tiger, but instead a spirit scape to keep nats content and at-bay, preventing them from causing accidents and mayhem in the community? Leaders of formal religions thus need to respect and accept as equal local spirit based belief systems, their believers, and their intermedia.²⁴ The 'sacred forest sanctuaries' in Thailand are interesting in that regard, as they recognise the spirit belief system in its own right alongside Buddhism. These sanctuaries are inaugurated by means of animist-Buddhist rituals (figure 5.2.), and adhere to "a conception of 'nature' opposed to the scientific system of classification used by the Royal Forestry Department to categorize protected forest areas and national parks" (Pesses, 2016, 10).



Figure 5.2: Tree ordination by a Karen community in Thailand, featuring rituals that "exemplif[y] the overlapping of different cosmologies through the ritual articulation of Buddhism and territorialized animism", during which local spirits are invoked by Karen specialists and the Buddha is called upon by Buddhist monks in order to protect the forest and individual trees made sacred by means of establishing spiritual significance and creating a link between the tree and the Buddha (Pesses, 2016, 9). Photo credit: Abigaël Pesses 2000.

On a critical note, it is not a given that religious authority is per definition more respected than secular authority. As a Buddhist nun noted: "we have a pond here on monastery grounds where people are not allowed to catch fish. But at night people secretly come and catch the fish, when the nuns are asleep", a sentiment shared by her Catholic counterpart in Leik Tho who noted that "we used to have wild animals like birds and squirrels on the church grounds, quite a lot. But not anymore, because people shoot them... even on the church grounds. We do not permit it, but people have no discipline. The majority of our Catholic people here will come to our grounds and cut the bamboo and shoot animals. They will not listen" (SHH).

5.3 MANAGEMENT, CHALLENGES, PRACTICE

²⁴ Depending on the community these intermedia could be spirit masters, hermits, and/or traditional healers.

As noted, an ontological self-determination approach respects IPLC knowledge fully, and on its own. This carries implications for conservation practice.

MANAGEMENT

Two questions arise with regards to nature conservation management. Who is included in the decision making process, and who is in charge? Too often, international conservation actors are primarily rooted in naturalism, rarely in analogism and animism, and rarer still in totemism. Partly as a result of this, conservation is largely silent on the voices of nonhumans.²⁵ This boils down to "the assumptions that are embedded in dominant management discourses and practices... notions of 'management', which ontologically privilege non-indigenous ways of being-in place" (Howitt et al., 2006, 323). The biocultural approach to management attempts to address this by grounding "management in local knowledges, practices, and ontologies", and calling for "equitable conservation strategies" that not only move beyond the nature-culture dichotomy, but also "give nature a voice" and "actively engag[e] with the diversity of knowledges, practices, and ontologies" (Caillon et al., 2017, 1). While the importance to include religious belief as a conservation actor has been duly noted, this touches on a broader issue: *how* voices of animals, plants, and spirits - the ancestors and the future generations - can be included. When, as the local experts interviewed asserted, some areas of forest are seen to have "very powerful nats, they own this valley or that rock" (SHK), the potential of "spiritual governance" arises, the "governance of sacred natural sites that are enspirited by indigenous peoples and consequently inhabited by a *numina* in the context of an animistic worldview" (Studley & Horsley in Brown and Verschuuren, 2019, 73).²⁶ Given the perception by Karen of nats as the guardians of the forest, any management structure that does not include the nats would be the equivalent to discussing political issues of national importance without the head of government present at the table.

While the biocultural approach is a promising foundation on which to build truly inclusive conservation efforts, it is important that when operationalised on the ground, IPLC members

²⁵ Conservation focusses instead on ecological and biological needs of nonhumans, and excluding spirits all together. Kohn's (2013) *How Forest's Think* stands out as a notable exception.

²⁶ *Numina* means 'divine presence' in Latin.

-the experts on local knowledge, practice and ontologies- are in the driver's seat. This way, IPLC have the power to approach management issues such as the designation of conservation areas, the design and implementation of regulation, and public relations from their own ontological foundation.²⁷

One obvious consequence of this occurs in one of the main debates in nature conservation these days - whether people should be allowed to live in conservation areas or be kept out. Karen perceptions of forest mean that Karen people should at the very minimum have access to conservation areas in the forest. Not just from a pragmatic perspective, as (SJC+2) noted with regards to the community forest "in the past we did not control this forest so people would cut trees everywhere. Now we are in charge [and patrol] so people cannot just cut them. This used to be a 'wild forest', which nobody owned. That's why people just came and cut". (SJC+2) further noted that without humans there is a risk that forest will be destroyed by fire, as "every year we have natural fires. That's why when the time comes we have to make fire protection roads throughout the forest" (SJC+2). From an ontological perspective (SER) noted the importance of having access to the forest, stressing that chaos would result if people are kept out of parts of the forest that contain powerful nats, since people could no longer make offerings to them in order to keep them appeased, and prevent them from coming to the village to take revenge and cause havoc (SER).

You cannot disturb the nats but you can [also] not abandon the nats. You cannot just enter the forest and do whatever you want, but you can also not abandon the place and just leave the place where the nats live. You have to maintain the place and take care of it. I mean, you take care of the place and you say to the nat: you stay there and you do not scare others. If you (nat) behave correctly we will let you stay here (SER).

²⁷ The political context is the elephant in the room in nature conservation in Kayin state. From a Karen perspective, western conservation NGOs are just the latest in a long list of outsiders with an interest in Kayin State's forests, rich as they were in nonbelievers (to the missionaries), teak (to the British colonial power), territory (to the Japanese occupier), strategic importance (to the Myanmar army), natural resources (to irresponsible business), and now, biodiversity (to conservation organisations). Whether rightly or wrongly, this impression informs IPLCs suspicion of nature conservation actors from outside their communities. Only a IPLC led effort can overcome this.

This underlines the importance of customary institutions and customary law when these recognise nonhuman actors as juristic persons. Very slowly, nonhumans such as animals, enspirited rivers and mountains are granted juristic personhood in positivist legal systems (thereby no longer being treated as things or property), for example in New Zealand, Ecuador and India (Studley and Horsley, 2019, 79-80). The legal recognition of entire rivers, mountains, and other natural sites is particularly interesting as it encompasses the entire ecosystem and all the different relationships that occur within such an area. While this is encouraging, this development still conforms to a form of cherry picking by the positivist legal system. In order for nonhumans to be recognised more widely and for IPLC to be allowed to manage this legal element of nature conservation, a more comprehensive way would be to legally recognise IPLC customary law that legally recognises nonhumans in and by itself. Ontological pluralism should be accompanied by legal pluralism.

DESIGNATION

This realisation points to the importance of fully understanding the role of the forest in local ontology as well as the role of the forest for people's cultural identity, and designating forest conservation areas on the basis of that. Departing from this point, one realises that interviewing just 47 people in 2 townships in Kayin State produces a vast array of potential sites, laying out the potential coordinates from which one could draw the contours of a conservation area based on Karen spiritual and cultural significance. The Karen context points out many such sites, from individual trees and valleys with particularly powerful nats, to the 19 trees of significance in Buddhism, and the geographical formations that serve as testimony and reminders of stories of the past. To this, one could add sites and features of cultural significance like the durian trees that are related to the seeds the witty boy took from the king, the large trees in which bees build the hives to produce honey that's made by God, the places where previous generations hid from the Japanese.

One example of a concern in this regard arose during our field research. (CK+1) mentioned to us during a walk through the nearby community forest, according to him supported by five international NGOs, that the trees they planted contained no cultural or spiritual meaning to them. The community forest consisted of teak trees, given to them by the government without, as far as he was aware, an obvious reason other than that it was meant to help

counter climate change (CK+1). (CK+1) noted that teak trees are not even native to that particular area of Kayin State (which is known for the *inn* tree instead). Thus when designating community forests, attention should be paid to its ontological and spiritual value to ensure local participation and meaning. What if instead of a community forest that is planted with teak trees, there is a community forest planted with the 19 trees that are meaningful to Buddhism, alongside saplings of the old durian tree brought to Kayin State by the Karen boy?

REGULATION

Apart from mapping and connecting existing spiritual and cultural sites, conservation from the perspective of local ontologies should take the ontological calendar, as noted based on the moon and the schedules and engagements of the nats and animals in the forest, as a starting point from which to design times and dates for any incursion into the forest - from research, to camera trapping to hunting restrictions. Furthermore, restricted hunting areas should be designed around protecting and increasing species with cultural significance. A conservation area like that would see the numbers of *yoki yopeq* monkeys, woodpeckers, and *wadaung* birds in the forest increase.

CHALLENGES

CHANGE

The 40 local experts interviewed often touched on the speed of change they observed in cultural practices, local forest use, and weather patterns. As the research findings indicated, while practically everyone noted the power of the nats, this no longer stops people from entering the deep forest to cut down trees and hunt animals. (NRO) similarly observed that people over the past decade have started cutting trees in the forest around Naw Bu Baw mountain which are believed to be under the auspices of Naw Bu Baw (NRO). People's hunting practices and forest usage were also said to be rapidly changing, with fewer people following the traditional *taungya* shifting cultivation practice, in favour of growing cash crops. Noted (NRO) "before the entire village did like 20-30 acres of *taungya* all together at the same time, but not anymore. Lately we plant more for commercial purposes - coffee and tea." Noted (SHK)

now we grow a lot of *palat* (cardamom). These days the *palat* is in demand by China so we plant a lot of it and cut forest for it. Growing *palat* is harmful to the forest as underneath *palat* it is very hot, no animal wants to be there, not even the grass can grow there. In the old days we just did *taungya* so we did a plot just for a few years, then the plants would come back, so the forest would die and come back, die and come back. These days with *palat*, no trees come out of the ground anymore and there are no trees and fruits for the birds to live in [and eat] (SHK).

Another widely mentioned reason why people no longer "did *taungya*" concerned the mouse plague that has ravaged *taungya* fields over the past three years, the existence of new opportunities, the desire of young people to pursue a different career, and the physical hardship of daily work. (SRK) noted

when the good road came to our village and transportation improved we started buying rice from (the nearest big city) Taungoo so we did not do *taungya* anymore and instead we planted long term crops...It is very tiring to do *taungya*. You have to burn, collect, burn again, plant, guard your plot, etc. And then your harvest still does not give you enough to eat for a year. A plantation is not a lot of work, you just cut the grass and then you wait until it's ready (SRK).

Interestingly, while (NIH) noted her closeness and happiness to the forest strongly, when it came to contemplating the future for her children, she explained that

I do not want to teach my children anything about the forest. The first priority is [formal] education. These days, if you grow something the harvest is not good due to changing climate... As we are poor, only [formal] education is good for the children.

WILDLIFE TRAFFICKING, UNREGULATED HUNTING AND BUSHMEAT

Regarding indigenous hunting practices, while most of the hunters interviewed noted that they only hunt for own consumption, stick to the nat-imposed rule to only shoot one animal,

and only shoot the species one had requested permission for (GK+1), others no longer follow that discipline. (UKP) noted for himself that "I shoot all animals, I also eat all animals. We have a habit here; all households here have a gun. When we hear a wild chicken, within three days it will no longer be there [because we'd have hunted it]". (SFDV) also notes that "there are many monkey species. You can eat all of them... We hunt everything. Also birds, any type". Even (GK+1) who stated adherence to the rules, noted an exception "we hate monkeys, if they want to eat they will not just eat a piece of the paddy, they will grab a bunch of rice, only eat a few grains, and destroy it. So your whole paddy is gone" (GK+1).

Everyone noted that the amount and diversity of animals has been going down. (SLB) observed changes in hunting by saying "there were a lot of animals when I was young. But now because there are a lot of people, and also a lot of hunters, the animals are getting less and we cannot find them anymore". (UHN) similarly noted that "now we do not really have animals anymore. You cannot see the tigers anymore. Sometimes you see a bear, one or two bears may be left".

There was wide acknowledgement that there are also people who hunt for local and cross-boundary trade, seemingly without limitations. (SKH) and (UKP) noted that bears are very smart and that people did not usually hunt them before, but that that has changed.

We have no discipline. The Chinese buy everything, that is why we hunt [bears]. They even buy their skin and their nails and their gallbladder, so when we see a bear we shoot it for that reason. We also can eat the meat, and we can also sell the baby bear which can be pretty valuable... If the Chinese were not interested in the bear parts, the price would not be so high, we would still shoot the bear if we see it, but not go out to hunt for it especially...[Besides bear] the Chinese want turtles, geckos and other animals, so the villagers caught all the turtles. If there is a gecko high up the tree we chop down the tree so that we can get to the gecko. That is also why there is no tiger anymore because we [hunted them] and sold the skin and the bone (UKP).

(NJD) noted that when a relative of her recently shot a mother bear "we ate the mother bear's flesh despite it not having a good taste... and we sold the baby bear in Mandalay, though we only got 10.000 Ks (7 US\$) for it". (NHS) said that the armadillo no longer exists in their area, but recalled the days that they would hunt them in order to sell them in Mandalay.



Figure 5.3: Clockwise from the top: traditional medicine on sale at a festival (of both non-animal and animal origin), bushmeat consumption (bear meat on the menu of a local Karen restaurant), wildlife trade (dolphins on sale at a local market in Karen State , which the microphone announced came from Kawthaung in neighbouring Tanintharyi region, claiming dolphin oil eases muscle and back pain).

PRACTICE

Addressing these challenges to forest conservation in Kayin State in their role as lead conservation actors, IPLC should resist the tendency by conservation actors of all stripes to be "framing conservation objectives in terms of 'reverting' to a prior, pristine nature, as is often implied in conservation and restoration strategies, [which] impedes us from imagining transformative futures" (West 2016). Especially when seen in the relational approach to identity, change is a vivid reality, and change should be embraced as a chance to strengthen IPLC ontologies, for "ontologies too, change over time" (Hart, 2010, 2). Change is not a threat to culture. Ingold, echoing Bjørn Bjerkli, warns of a tendency to "traditionalize the traditional" in nature conservation (Ingold, 2000, 148), noting

[j]ust because people are doing things differently now, compared with the way they did them at some time in the past, does not mean that there has been a rupture of tradition or a failure of memory. What would really break the continuity, however, would be if people were forcibly constrained to replicate a pattern fixed by genealogical descent (Ingold, 2000, 148).

In addressing the urgency of now, IPLC's should, just like any other actor, be aware of the conservation benefits and conservation challenges of their ontologies and knowledge. Just like with scientific knowledge, "[n]ot all traditional knowledge is ecologically wise. Neither are all traditional practices and belief systems ecologically adaptive. Some become maladaptive over time due to changing conditions, lose meaning out of context, or become stagnant and irrelevant over time" (Berkes, Colding & Folke, 2000; Charnley, Fischer & Jones, in Uprety et al., 2012, 226). Any world view "can hold discrepancies and inconsistencies between beliefs and values within the world view. Hence, world views often contain incongruencies" (Hart, 2010, 2).

From that perspective, some conservation problems as well as conservation solutions lie in Karen ontology. The former can be solved with the latter thanks to the flexibility and diversity in Karen ontologies and cultural practices. For example, while (NIH) believes that tiger bone is needed to strengthen a baby's bones, (SFDV) adheres to mist water as the cure for the same condition "if you have a baby with soft bones, you take water from the mist and rub it on the baby's bones. The bones will become stronger. The mist comes from the steam of the water and the trees, which contain medicine in their leaves" (SFDV). As noted, the traditional bone doctor effortlessly incorporates modern (anaesthetic) medicine in his traditional treatments if he finds that helpful, and holy water -introduced by Catholic missionaries- has replaced animal parts as the most powerful tool in the traditional healer's toolkit. And where the medicine mix of one traditional healer contains tiger and bear products, the medicines of another are all of non-animal origin. The challenge for an IPLC conservation effort rooted in local ontology thus is to harness those practices that are beneficial for conservation.

The importance of cultural flexibility can also be observed in the highly contentious issue of *taungya*, shifting cultivation, a forest practice with great cultural significance. If it is the case

that people may want to change the use of their private plot in the forest, it may be more fruitful to encourage them to find alternatives that are providing new conservation benefits instead of cash crop plantations. (SRK), (NWMD) and (NTFR) noted how villagers tend to grow large trees on their plots in the forest as a form of long term family insurance. Carpenter (SCF) noted he had changed the use from *taungya* to growing trees a few years ago because he got so busy expanding his business as a carpenter. The heated conservation and cultural debate on the issue of *taungya* should align itself with these changes by IPLC on the ground, if the reality today is that people are moving away from shifting cultivation, that calls for an exploration into alternative usages that would be beneficial for both owner and environment.

The overall point is that IPLC led conservation that is rooted in local ontologies can work with natural scientists and international conservation organisations from a position of equality. This has the highest chance of including the voices of the humans and nonhumans who dwell in IPLC areas, and the lowest risk that the needed conservation action is contradictory to local understandings, sparking miscommunication and conflict as a result.

6. Conclusion

This thesis set out to provide an understanding of Karen people's perceptions of the forest, the role of the forest in Karen cultural identity, and its implications for conservation efforts in Kayin State. The 47 local experts who shared their knowledge for this thesis, revealed a perception of the forest as a web of interactions between humans, nats, animals, plants and inanimate entities, influenced by the rhythm of the moon, the balancing of the elements, and the edicts of divinity. Rooted in an ontology wherein humans identify with nonhumans along a largely animist understanding, nature and culture are perceived as interdependent and interrelated: humans influence nature, and nature influences humans.

While more research in other Karen areas in and outside of Kayin State is needed to get a full picture, what has emerged is that Karen people's lived experience in the forest and their encounters with humans and nonhumans from both the past and present, for a large part forms and regenerates Karen cultural identity. The forest is alive with delicate relationships,

inter-species dynamics, and cultural memory, all of which continuously form identity. Re-enacting and balancing these dynamics is every Karen's role to play. Geographically, the forest is experienced as a maze of different sites with particular ecological, cultural, historical, and/or spiritual significance, connected by privately held plots and wild areas, woven together by a series of trails.

The non-dualism that characterises the ontology that underpins Karen perceptions of the forest is vastly different than that informing most natural scientists and international conservation actors, whose dualistic minds still perceive humans as being in control of the natural world. Karen understandings of plant and animal lives and the similarity between human and nonhuman minds contrasts sharply with the singular, scientific understanding of ecology and biology that dominates nature conservation. This shakes some of the main pillars of the latter at its core, for while Karen perceptions propose that wilderness can be touched, but not dominated, by human civilisation, natural scientists prefer separation and control. This poses challenges and opportunities for nature conservation knowledge and management, both to international and governmental nature conservation actors, as well as IPLC conservation led initiatives.

The bewildering differences in the ways humans perceive their relationship with nonhumans, and thereby life in the forest, begs the question how different sets of knowledge, rooted in different ontologies, can or cannot be used together in terms of research, policy making, and forest conservation in Kayah State. The answer to this lies in whether different conservation actors are willing and able to understand and respect each other's ontologies on and by itself. Ontological self-determination demands recognising two different, equal pillars of knowledge: IPLC and scientific. From this starting point, nature conservation efforts can move beyond merely cherry-picking from each other's fields of knowledge towards an equal conversation between local communities, policy makers and conservationists.

For international nature conservation actors, this means accepting that for far too long, nature conservation has narrowly focussed on biology, ecology, management and governance, and too little on culture and anthropology. Nature conservation's focus on natural science and governance acted like blinkers that prevented it from deeply

understanding the often different cultural beliefs and practices in the areas where nature conservation actually takes place. Nature is culture and vice versa in many IPLC areas, and nature conservation actors have to understand this more comprehensively.

The proverbial importance to "walk a mile in each other's shoes" to achieve mutual understanding, becomes for nature conservation actors the importance to dwell in the IPLC landscape until one grasps the ontologies that underpin IPLC's beliefs, values, and understandings. In reverse, it also means giving IPLC the chance to dwell in the forests of the conservationists and natural scientists: universities, academic publications, and conservation conferences, access to which is still severely limited by barriers of costs, language and prejudice.

While this may appear as a tall order, the risks of not deeply understanding IPLC knowledge are worth it, for "ignoring local ontologies by giving primacy to western framing of issues can exacerbate political, economic, religious, and educational inequalities, and ultimately frustrate conservation outcomes" (Walley, Atran et al., Bartlett et al. and Verschuuren, in Caillon et al., 2017, 3). With understanding comes respect and humility. If nature conservation actors accept the need to embed their efforts in IPLC areas within locally held ontologies, then they have to recognise that local people's superior knowledge of relations with and between nats, animals, plants and inanimate entities makes them the experts on this issue, and entitles them to lead.

For IPLC, leading means recognising that neither ontology, beliefs, identity, nor the forest is static. This poses a challenge to the more conservative elements within IPLC: to change along with the enormous challenges the Karen forests face due to social-economic change, cross border wildlife trafficking and climate change. Our ethnographic findings showed that while many hunters play by the nat, religion and/or legal imposed rules and hunt only to feed their own family, there are also those who hunt without restriction and in order to feed a strong local and (inter)national demand for rare animal products. People also increasingly hunt and log in parts of the deep forest that used to provide an animal sanctuary because people didn't dare access them in the past. Furthermore, many people no longer farm in traditional ways, with the cultivation of cash crops like cardamom adding new pressures to the forest.

IPLC led conservation efforts should take care not to repeat the mistake of conservation organisations by cherry-picking from scientific knowledge. Ecological systems are as interdependent and interconnected as nat social structures. The challenge for natural scientists and nature conservation agencies to be politically impartial also rings true for IPLC leadership. Non-political decision making on the basis of what is best for the people and the forest leads to the best nature conservation and cultural resilience results. This is a major challenge for any actor in Kayin State given its troubled history and historic link between forestry and politics.

However, the only ones who benefit if different nature conservation actors remain in conflict with one another are those who prefer to see Kayin State's forests change into agricultural plantations, logging concessions, large dams, and mining operations. Being more attuned to each other's knowledge by respecting and understanding each other's ontologies provides a path to tackle the misunderstandings and conflict between IPLC and nature conservation actors at the very root.

The Karen's national animal is a frog with a poisonous stinger on its back. (NTJA) explained the reason behind this as follows: "Like the Karen, the frog is calm, quiet, patient, and not easily provoked. However, it will lash out with a ferocious poisonous sting when pushed too far, and when its peacefulness is misunderstood as weakness". If Karen ontology is not fully respected, if the importance of the forest for Karen identity is taken for granted, and if the Karen people are left out of nature conservation efforts in their backyard, the sting will be felt.

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Annex I: The Origins of the Egret and the Crow

There was a couple who had a daughter who was very beautiful with long hair, and she has a special power. Another family also had a daughter, but she was a bad girl who was jealous at the beautiful girl. The bad girl wanted to marry the beautiful girl's father.

One day when the beautiful girl's parents went looking for fish in the stream, the bad girl followed them. They caught big fish and turtles and shrimps in the river. They planned to share the catch equally, but the bad girl demanded the big portions. The beautiful girl's father got annoyed - why do you only want the big fish and the big things? The father sought to get the attention of his wife by poking her, but accidentally his wife fell into the river. His wife became a big turtle.

When her father came home in the evening, the beautiful girl asked 'where is mother?' Nobody answered, the girl just ordered her, Do your work. Did you cook rice? Did you collect the chicken?

The next day the beautiful girl asked again where her mother is. The bad girl said - I tell you where your mum is, go to the big stream and call your mother and she will come. The beautiful girl went to the stream and called her mother. The turtle came out of the water, climbed on the land and became the mother human again. "I became a turtle" said the mother, "you should not come here often, just come here three times (in total). Otherwise people will come here, they will see me and eat me." Then she went back into the water as a turtle.

Meanwhile, the bad girl had married the beautiful girl's father. One day, the bad girl followed the beautiful girl to the stream. The bad girl thus found out that the turtle could become a human on land again. She was afraid that one day the mother would come to the house and marry her husband again. In an attempt to prevent that, one day the bad girl took a piece of charcoal and put it under her sleeping mat. She told her husband "listen, all my bones are broken, all pain will disappear if only I could eat some turtle meat". Finally the husband agreed to go and catch the turtle with his spear.

Meanwhile, the beautiful girl had gotten the attention of 30 sweethearts, boys who came from each of the surrounding regions, such as Kayah. They were important boys like princes, and they held spears in their hands. Reluctantly, the beautiful girl and the boys trailed her father and the bad girl to the river, but on the way she hid herself within a tree with many, many thorns. Arriving at the stream, the girl had a lot of blood coming out of her and many thorns got stuck in her body. The youngest of the princes loved her so much that he took out all of her thorns and put them inside a leaf. At the stream, the beautiful girl called upon her mother. When her mother surfaced, she was shocked by seeing so many people and dived right back under water.

The ugly girl lost patience with the situation and hit the spear out of the hand of her husband. The spear fell into the stream and onto the turtle's back. The turtle was dead and they divided up the meat. The turtle said to her beautiful daughter - let them eat the rest of the body, but you please get the head. Just get the head. The beautiful girl took the head and went home. The spirit of the mother said: if you are cooking the head in a bamboo pot, and if I shout "it is too hot", take the pot from the fire. If I shout "it's too cold", put the pot nearer to the fire.

At the same time the bad girl [who from now on in the story is referred to as the stepmother], was pounding rice underneath the house. She put a little hole in the (bamboo) water pot, so the pot slowly became empty. Then the stepmother asked the beautiful girl to go back to the river and refill it. But no matter how many times the beautiful girl collected the water, the pot never got full. While the beautiful girl was away, the stepmother cooked the turtlehead on a very high heat. It became overcooked, but the stepmother ate the part of the turtle that was not overcooked. Then the beautiful girl returned when the turtle was already black.

The mother had told her, if you eat the turtle, eat the meat only but give all the bones back. So the beautiful girl collected the bones. Part of it she dyed with lime so it became white. The other half she dyed with cumin so it became yellow. She cut open a bamboo stick in the length and put the white bones into one bamboo half. The yellow coloured bones she put into the other bamboo half. She buried the white one at the upper part of the stream, and the other one at the lower part of the stream. Later on, the bones turned into a beautiful white flowery

tree in one spot at the top of the stream, and the other bones became a tree with golden flowers downstream.

One day the beautiful girl went to take a bath in the stream underneath one of the trees. She knew that both these trees were her mother. She looked at a flower from the tree and felt like it belonged to her. It was a flower that normally is hard to pick, but after making a wish that she could have the flower, the beautiful girl managed to pick it easily. She went to those trees everyday. One day the stepmother followed her. The stepmother started to think that maybe those trees are the girl's mother.

The stepmother asked the 30 princes to come with their horses and elephants in order to take out the trees. But no matter how hard the horses and elephant pulled, the trees did not come out. The horses and elephants pulled so hard that even their poop came out, but not the trees. At that same time, flies came to the beautiful girl. They said to the beautiful girl, “your stepmother and the princes are trying to take out the trees”. The girl followed the flies and arrived at the place where it happened. When she pulled the trees, these easily came out. The stepmother said “this is not because of you, it is because we have been pulling for a long time, that is why it is so easy for you”. “Okay,” said the beautiful girl, “try again then”, and she put the trees back. But no elephant or horse was able to take the trees out after that.

The beautiful girl then took out both trees and put them on top of the youngest prince's elephant. Together they went to his palace and got married. She got a son with the prince. The stepmother got jealous. She took a big fish and put it under a blanket and put it outside the palace, saying to the beautiful girl: this is your father's dead body, which caused the beautiful girl to weep until she fainted. Meanwhile, the stepmother had made a big pot of hot water besides the wrapped fish. She took that pot and emptied the hot water over the beautiful girl, which killed her. The beautiful girl became a white egret, and she flew away. [This is why in Thandaung Gyi, when on rare occasions we see a white egret bird that means it is going to be peaceful].

At the same time the young prince was hunting in the forest. The bird [the manifestation of the beautiful girl, the prince's wife] landed on his shoulder and sang a beautiful song. The

prince thought it was a special song and brought the bird to the palace to be put in a cage. When nobody was around, the beautiful girl transformed from a bird into a human and breastfed her boy child. When people were around again she transformed back into a bird. One day the stepmother, who was now living in the palace as a helper, saw this happening so she knew the bird was in fact the beautiful girl. The stepmother killed the bird and grilled it on a fire.

When the prince came back he smelled something. "What did you cook? Where is the bird?" he asked. "You are eating it right now", the stepmother said. "Why did you kill it?" the prince asked. "Because the bird was attacking your small prince with her beak because their bodies got very close to each other", the stepmother lied.

The prince became really angry, took the bird meat off the grill and threw it far away over the palace gates. That piece of meat became a big tree in the forest, which produced very sour fruit. When the time came, an old couple passed by. The man asked: "do you want to eat the sour fruit?" His wife said yes and they took a fruit home. They didn't eat it however, but put it on top of the rice pot. When the elderly couple wasn't home, the fruit turned into the beautiful girl again. She cleaned their house very neatly. The elderly couple were confused as every day when they came back home, their house was clean while none of the neighbours said they'd cleaned it. They decided to go to the fortune teller.

"Who did the cleaning?" they asked. The fortune teller knew and said: "You can catch the lady who cleans your rooms as follows: the old woman stays on top of the house and the old man stays underneath the house. Together you can catch her that way and when you do, you together have to call out 'daughter!'" They did so and caught the girl. The beautiful girl learned how to weave, but was not allowed to leave the house.

One day, she saw her son walk by, and she wanted to hug and kiss him. She weaved a long ball of thread and dropped it underneath the house. She asked her son to please collect it. Other boys volunteered, but she said, "no, only him". She asked her son: "How is your father, is he feeling well?" Later on she gave a handwoven muffler to the boy as a present to give to his father. The boy gave it to his father, the prince, who asked: "Where did you get this from?"

The boy explained what happened and said: “That lady, she has very soft and tender lips and tongue, and she kissed me”. The prince became suspicious. “This must be your mother, the next time she asks you to pick up the ball of thread, check on her chest; there is a mole on your mother’s breast, so if you see that then she is your mother.”

The elderly couple tried to prevent the boy from coming into the house by putting cow poop all around and under the house. But the boy came in anyway. The boy picked up the ball of thread and went into the house. He said to the beautiful girl: “I can't give the ball of thread to you because I can not stand up straight due to a painful foot. Please bend over, a little more so I can give it.” He saw the mole on her breast and thus knew she was his mother. The boy told his father.






The prince was trying to be in contact with the beautiful girl, but the old couple did not let him in. He impersonated a blacksmith to find out where she lived, and then when he found out he entered the house without permission to pick her up. He put her on his horse and then came back to the palace. The stepmother saw them arrive from the palace but was afraid to see them. She sledded down from a long palace pole in order to escape, but she could not hold onto it. She fell down, died, and turned into a gourd tree.

The beautiful girl and her prince lived together, and one day they were going to eat from the gourd tree. Their son went out to get leaves from the gourd tree, but the gourd tree pinched back. The father then cut down the gourd tree and the mother cooked it. The beautiful girl said to her son: “Watch this!” The gourd curry was boiling and the boy heard a sound saying: “Your father used to be my sweetheart” coming from in between the sound of the boiling curry. The boy said: “Listen, mother, to what the curry is saying.”. The mother took the curry and threw it away, causing all the curry to spill onto the floor. That is when the stepmother turned into a crow. This is how crows came into existence. (NTVM)


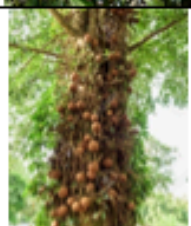



Annex II: Significant Trees in Buddhism

28 Buddhas / 19 species of trees

Based on - Nyaung Lay Pin Myo Toqya Sayadaw (1966) *The Taste of Dharma*
Yangon: Hantawaddy Press (in Burmese)

19 different species of trees						
Buddha	Tree name (Burmese)	Tree name (English)	Tree name (Latin)	Image (cc)	Medicinal use	Grows in MM
Ta Nin Ka Ra	Nyaung Kchat	King of Banyan tree	Ficus obtusifolia		Yes	Yes
May Din Ga Ra	Nyaung Kchat	" "	" "	" "	" "	" "
Ta Ra Nin Ga Ra	Nyaung Kchat	" "	" "	" "	" "	" "
Di Pen Gara Buddha	Nyaung Kchat	" "	" "	" "	" "	" "
Ka Nyar Na Buddha	Htinn Shar	Pine	Pinus khasya		Yes	Yes
Min Ga La Buddha	Kank Kaw	Ceylon ironwood, Indian rose chestnut, cobra saffron	Mesua ferrea		Yes	Yes
Tu Ma Na Buddha	Kank Kaw	" "	" "	" "	" "	" "
Yay Wa Ta Buddha	Kank Kaw	" "	" "	" "	" "	" "
Taw Bi Daw Da Buddha	Kaank Kaw	" "	" "	" "	" "	" "
A Naw Ma Da Ti Buddha	Htauk jant	Indian laurel, crocodile bark	Terminalia tomentosa		Yes	Yes
Pa Du Maw Sa Buddha	Kaung Shar	midnight horror, Indian trumpet, tree of Damocles	Oroxylum Indicum		Yes	Yes
Na Ya Daw Sa Buddha	Kaung Shar	" "	" "	" "	" "	" "

Pa Du Mote Ta Buddha	Htinn Shue	Pine tree	Pinaceae		Yes	Yes
Tu May Da Buddha	Ta Ma	Neem tree	Azadirachta indica		Yes	Yes
Tu Za Ta Buddha	Kya Kat War	Giant thorny bamboo, Indian thorny bamboo, spiny bamboo	Bambusa Bambos		Yes	Yes
Pa Ya Da Ti Buddha	Ga Tat or She Sharr	Unknown	Crateva magna (Lour.)		Yes	Yes
A Ta Da Tee Buddha	Sa Karr	Champak	Michelia champaca (Magnolia champaca)		Yes	Yes
Da Ma Da Ti Buddha	Than Tat or Myat Nar Myar	Unknown	Albizia lucidior		No	Yes
Teit Da Hta Buddha	Ma Har Hay Gar	Buttercup tree, yellow cotton tree	Cochlospermum regium		Yes	Yes
Ti Ta Buddha	Pe Dauk	Burma Padauk	Pterocarpus macrocarpus		Yes	Yes
Pauk Ta Buddha	She Sharr	(species of) gooseberry like tree	Phyllanthus simplex; Palbizzioides		Yes	Yes

Ti Ke Buddha	Ta Yet Phyu	Mango Tree	Mangifera indica		Yes	Yes
Wei Da Bu Sa Buddha	Inn Gin	Sal tree	Shorea robusta		Yes	Yes
Buddhas from current earth cycle:						
Ka Ku Than Buddha	Kok Ko	Lebbeck tree, flea tree, frywood, woman's tongue tree	Albizia Lebbeck		Yes	Yes
Kaw Na Gon Buddha	Jei Tha Pan	King of fig	Ficus glomerata		Yes	Yes
Ka Ta Pa Buddha	Pa Nyaung	Banyan tree	Ficus Bengha-lensis		Yes	Yes
Gaw Da Ma	Pa Nyaung	" "	" "	" "	" "	" "
A Ri Ma Htay Ya (future Buddha)	Kank Kaw	Ceylon ironwood, Indian rose chestnut, cobra saffron	Mesua ferrea		Yes	Yes