



KAWSAK SACHA the living jungle

*Reflections on indigenous knowledge and religious beliefs
for natural resource management in the Amazon*

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ABSTRACT

This product thesis is based on a three months long anthropological fieldwork at the Kichwa community *Treinta de Augusto* (Treinta) near the Napo River in the Upper Ecuadorian Amazon. The Kichwa describe a universe inhabited by diverse types of agents – human as well as non-human, where many are equipped with a similar ‘soul’. Thus, certain non-human beings are regarded as having characteristics which conventional Western rationality associates exclusively with human beings. Drawing on Eduardo Viveiros De Castro’s Amerindian perspectivism and Phillipe Descola’s notion of animism, I analyse the lifeworld of the people at Treinta, and demonstrate how the traditional Kichwa’s cosmology can indirectly contribute to environmental conservation by influencing the way people perceive and use natural resources, a concept which I propose to refer to as *feedback conservation*. I argue that indigenous non-western cultures can offer alternative models for thinking nature, and that the cultural and ecological change the western world is impinging on Amerindian societies should be cause for concern. I have examined the interplay between their religious beliefs and their natural resource management and argue that their orientation to the forest and river is shaped by their religious beliefs and customs. I focus on possible implications of colonialism and Christianity for natural resource use, as Catholicism in Treinta demonstrates a process of acculturation in which their traditional Kichwa culture has changed and continues to change as a response to Christian teachings in the region. Through Christian teachings the concept of ‘nature’ was introduced and the Kichwa have been taught to view their role in relation to nature as masters of the earth and all its beings. This has caused the people at Treinta de Augusto to partly dissociate from traditional beliefs, such as having removed spiritual dimensions from their foods. This is problematic because resource use in traditional indigenous societies often is seen to be regulated by taboos, some of which have proven to offer effective and efficient local resource management. This thesis thus provides insight on natural resource use and strategies with the focus on taboos as a subset of informal local institutions. Along with my written presentation, I have filmed and edited four short films, which will, together with collected artefacts, amount into an exhibition at the Greenhouses in the Botanical Garden, Aarhus. The aim is shed light on my findings for a broader audience, and to exhibit unfamiliar and different ways of using nature, and hopefully provide the audience with questions about how they themselves are living with nature. These short films, the collected artefacts and the upcoming exhibition together constitute the product of this thesis.

Keywords: Kichwa, Ecuadorian Amazon, animism, Christianity, food taboos, informal institutions, conservation, natural resource management.

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INTRODUCTION

The term *Anthropocene* has been proposed to describe a new planetary epoch encompassing the Earth's present, recent past and indefinite future, claiming that humans are now the dominant geological force in shaping the Earth (Moore 2015: 32). This epoch comes as a result of the world's long history of dominating, controlling and abusing natural resources, and our growing focus on sustainable development does not seem to catch up with our growing consumption. It is thus with this thesis that I wish to enter one of the pressing debates in anthropology, namely how people think and how societies work with nature. My desire for this comes from a concern for the future of our planet and all its beings.

Based on a three months long fieldwork at the Kichwa community *Treinta de Augusto* (Treinta) in the Upper Ecuadorian Amazon, this product thesis focuses on how the Kichwa use and relate to nature. The product is an upcoming exhibition which will include four short ethnographic films, which I have filmed and edited. The films are built around the people at Treinta, whose presence and agency in the world reveals something about their relation to nature. These films, together with collected artefacts, will amount into an exhibition at the Greenhouses in the Botanical Garden in Aarhus named *Kawsak Sacha - the living jungle*. The exhibition will offer glimpse into lives which otherwise remain distant to most Westerners, as it will contribute with different and unfamiliar ways to live with and use nature. The exhibition's aim is to communicate some of the key insights of my written analysis, and hopefully it will make the audience reflect on how they themselves are living with nature.

The written presentation demonstrates how the Kichwa's traditional cosmology can indirectly contribute to environmental conservation by influencing the way people perceive and use natural resources. My analysis also focuses on possible implications of colonialism and Christianity for natural resource use, as I argue that there is a connection between religion, nature and conservation. The traditional Kichwa cosmology describes a universe where natural beings, including feature of the landscape, share a common soul substance that circulates throughout the world. Animals, mountains, plants etc. are thus seen as social partners rather than mere objects for exploitation. The concept of taboo is therefore central to my work, as the spiritual dimension contributed to e.g. foods provide the Kichwa with a set of 'rules' on how to live in and use nature.

The first chapter is an introduction to the field, a description of my roles and access, and a presentation of my methodological approaches. Chapter 2 will account for ethnographies describing traditional Amerindian cosmologies with a focus on Viveiros de Castro's (1998) theory of

Amerindian perspectivism, and Philippe Descola's (2013 [2005]) notion on animism. Both argue that the Western nature-culture dichotomy must be subject for critique, as it hinders ecological understanding. It is unfair to expect that these theories can fully encompass the lifeworld of people at Treinta, or any other, since these lifeworlds are highly individual and subjective. Instead it is my aim to apply these theories as tools to understand how my informants conceptualize and relate to their environment. In chapter 3 I consider the impact of colonialisms and Christianity for the Treinta community, and I discuss how Catholicism has initiated a process of acculturation in which their traditional Kichwa culture has changed and continues to change as a response to Christian teachings in the region. Chapter 4 provides insight on natural resource use and strategies among the Kichwa, with the focus on taboos as a subset of informal local institutions, as resource use in traditional indigenous societies is often seen to be regulated by taboos (Colding & Folke 2001: 596). I here argue that one should not underestimate the impact that non-use taboos potentially may have for conservation of habitats and species.

It seems that much of the debate about the 'noble savage' revolves around how the concept 'conservation' is defined, and it is argued that if indigenous peoples (traditionally) are conservationists, it is in an undeliberate way (epiphenomenal conservation) rather than in a deliberate way (true conservation) (Hames 2007). However, in chapter 5 I propose the need for a third distinction of conservation: *feedback conservation*. Feedback conservation includes religious beliefs, such as taboos, which are based on environmental feedback over time and space and promotes the proper use of nature. In the last chapter I reflect on how the exhibition can help shed light on my findings for a broader audience.

CHAPTER I

INTRODUCTION TO THE FIELD

The fieldwork was conducted at the Napo River region in the Upper Ecuadorian Amazon. It was mainly conducted at the Kichwa community *Treinta de Agosto* (Treinta), where approximately 80 people live. The houses are located over a larger area, where each household live with their home gardens surrounding their houses. There are no roads leading to the community and it is therefore only accessible by the river. I was living together with the Shiguango family, a household consisting of 14 people, with the *curandero* (healer) José Shiguango (78 years old) as the head of the household. He lives here with his wife Rosa Shiguango (67 years old), their children, grandchildren and great grandchildren. A family tree can be found in the appendix (appendix 1), as well as a map of the study

area (appendix 2 and 3). Their native language is Kichwa, however most of them also speak Spanish, which is also how I communicated with them. The Shiguango household owns 48 hectares of land, most of which is secondary forest (young forest on land that has been cultivated before). They subsist mainly on agricultural activities, fishing and gathering in the forest and occasionally hunting. In line with the general Amazonian pattern (Århem 1996: 186) women are gardeners and gathers, and men are hunters and fishermen. It is their agricultural activities which represent their most important source of household calories. At the nearby Mestizo community, Mondaña (appendix 3), is a church-run primary school, where the children from Treinta go to school. Mestizo refers to a person of combined European and indigenous decent. Near the end of my fieldwork I stayed nearly three weeks in Mondaña, while still spending the weekends at Treinta. I was living with the family who was in charge of the school canoe. On school days, they would take the canoe up and down the river and pick up the school children from their communities and dropping them off again in the afternoon. Befriending this family was of great help for me, as it meant that I could use the school canoe for traveling around and meet other communities. During my stay at Mondaña I taught English at the local school. I did this because I saw it as an opportunity to give something back to the communities, as a small thank you for all their help.

The Amazon is one of the most important biodiversity hotspots in the world but today its ecosystems are threatened with extinction (Moran 1993: 2). Understanding the complexity and importance of an ecosystem is therefore important for my research, thus allow me to briefly describe the features of an ecosystem: An ecosystem is a collection of plants, animals and microbial (biotic) life interacting with the non-living (abiotic) part of the local environment. The living organisms and the non-living environment all interact in a system (Sachs 2015: 448). A core element of an ecosystem is its biological diversity – *biodiversity*. The diversity of species and their interactions determine fundamental characteristic of an ecosystem, therefore introducing new species into a system, or overharvesting of one part of a system can have devastating impact on the system (ibid.).

OUTSIDER, RESEARCHER, TEACHER, DAUGHTER

In order to conduct an anthropological fieldwork based on participant observation, I first of all had to gain access to the people I wished to study, and I had to have an accepted role within their community (O'Reilly 2005: 55). As my research involved elements of both participating and observing, I used participation to become accepted at Treinta, thereby also gaining a role which enabled me to observe without raising suspicions or creating uncomfortableness. Being accepted as a member of the

community also meant that my presence affected peoples' behaviour less. My primary contact was a friend of my parents, an American geographer named Douglas McMeekin who has been working in the area for nearly 30 years, and who has a place near the Napo River where I could stay. Unfortunately, Douglas was diagnosed with cancer only few weeks before my arrival and was of obvious reasons not able to help me with my work, I was however still welcome to stay at his place. My first week there was difficult and frustrating. Douglas's house was situated by itself and not part of any community. My only contact there were some caretakers from the city, working at his place. They did not seem particularly eager to help me get in contact with nearby communities, nor did they know many people in the area. One day I heard some people talk about a shaman at a Kichwa community on the other side of the river, and this caught my attention. I persuaded one of the caretakers to take me to the community, and that was the first time I saw the Shiguango household. It was this beautiful little place with wooden houses, surrounded by forest. After this, I started visiting the Shiguango family frequently. Every day I would show up and ask if I could help with something. At first, they clearly thought that I was strange, but they also seemed to enjoy having me around. In the beginning I would only stay there a few hours and they would then indicate that it was time for me to go home. But after the first week they asked if I wanted to stay for lunch, this then became a regular thing. A warm relation started to developed between me and the people at Treinta, and one day one of the Shiguango women asked me if I wanted to move into her house. She said that it was unsafe for a girl to live without family, and it would put her mind at ease if I stayed with her. Slowly my role as an outsider started to feel less prominent. There were even days where I seemed to forget that that was what I was. A turning point for my relationship with the Shiguango family was when my mother, father and brother came to visit me at the community. It meant a great deal to them that



The Shiguango household.

my Danish family came all this way to visit them, and it felt as if my role as a member of the household started overshadowing my role as a researcher. Especially Rosa was very touched by this experience, and after this she referred to me as her daughter. When I became a teacher at the local school, I also got the role as *professora Sia*. This meant a great deal for my role in the area. Before teaching, other communities in the area had heard of me or seen me, but they were not sure of who I was, or why I was there. Now I was the person teaching their children to speak English. These different roles I had during my stay allowed me to develop different perspectives on people's lifeworlds, as certain perspectives are linked to certain positions or roles (Otto 1997: 98). For instance, my role as a teacher provided access to certain knowledge about the school system and the other teachers' perspective on teaching, which may otherwise have been hidden from me. Thus, by acting out different roles, I was in a better position to discover different cultural motivations (ibid.: 99).

METHODOLOGICAL APPROACH

I used participant observation and interview with key informants to help me develop a holistic understanding of their beliefs and practices. By moving into Treinta, I subjected myself to their life circumstances. I consider it crucial to adopt an open-minded approach, to take my informants and their stories seriously, and to let "the strange become familiar" (O'Reilly 2005: 109). In terms of interviewing techniques, I found one particularly useful for this setting, namely Jon Anderson's *Talking Whilst Walking* (2004). Talking whilst walking is a method where conversations are held whilst walking through a place that has the potential to generate a collage of collaborative knowledge. Anderson states that this method "seeks to harness the relationship between humans and place to uncover meanings and understandings of the life world" (2004: 255). It is a method which allowed me to explore my informants' knowledge and understanding of life, and in this case the walking would often take place in the forest or their home gardens, helping me explore their relationships to these places.

I spent time collecting and identifying the plants, such as their crops, medicinal plants and forest products. I made digital herbarium "collections", where I took photos of the plants, wrote down when and where I found them and their names in Kichwa and/or Spanish. I spend time mapping the area, using both paper and digital mapping (Passchier & Exner 2010: 33). The paper mapping I mainly used to help me get an overview of the community. For digital mapping I used the *Garmin GPSmap 62s*, which contains GPS and digital compass. I used it to plot in locations, track walks, measure area size of fields and households. Later on, I transferred the data into Google Earth Pro to produce the

maps. The maps provided me with knowledge on their agricultural activities and movements in the forest.

Making film in the field became a very useful tool for me. Ton Otto notes (2013: 196) that film can turn out to be an asset for the researcher, as the film might be useful or interesting for the collaborators. During the fieldwork I would arrange small screenings, as I wanted to get people involved by using Jean Rouch's principle of feedback (2003). I did this as a way of engaging them in discussions about empirical data and analysis as suggested by George Marcus and his concept of "complicity" (1998: 107). Also, by doing this I could make sure that they approved of my recordings. Another way that film became an important asset for me was that it helped me establish my role as a researcher. Explaining my role as an anthropologist was not always easy, but with a camera in my hand was my role not only as a participant, but also as observer, clearer.

In 1965 the film maker Jean Rouch was accused by Ousmane Sembène, the so-called father of African cinema, for looking at them "as though we were insects" (Amad 2013: 49), hereby criticising Rouch for filming with a camera gaze that is not too different from the gaze of zoology. This I was particularly aware of, and throughout my films the spectator will find that I have made use of the *returned gaze*, the direct look at the camera by the subjects being filmed. My films also contain clips where the subjects are addressing the camera. I am thereby letting the spectator know that the camera is being acknowledged by the subjects filmed, as well as it is a reflexive moment, pointing to the complex relations involved in the production of the film. The direct look at the camera demands the spectator to take the subjective position of those filmed into account. As Paula Amad states (2013:



One of the children are filming with the camera. The clip she is filming (with a bit of help) can be watched in the film Yuca & Chicha.

52) the returned gaze can make visible the filmmaker's intent to return, or at least to interrogate, the gaze. I also strived to involve people in my filmmaking by letting them film with the camera, thereby also making them more comfortable with it. This is a technique which Jennifer Deger (2007) used and found very helpful when she produced a film together with Bangana, a member of the Yolngu clan in Australia.

CHAPTER II

A RESOURCE REGULATING COSMOLOGY

The Kichwa at Treinta describe a universe inhabited by diverse types of agents – human as well as non-human (e.g. gods, animals, the dead, plants, mountains, the sun and artefacts), where many are equipped with a similar ‘soul’. Thus, certain non-human beings are regarded as having characteristics which conventional Western rationality associates exclusively with human beings (Viveiros de Castro 2014: 21). In different ways, their traditional Kichwa cosmology plays a key role in regulating their resource use, as the spiritual dimension attributed to the natural landscape affects how they interact with their environment through the course of their day-to-day activities. Appropriate interactions can bring various benefits such as successful harvest, just as violating the norms for interacting with the spiritual world can bring negative outcomes such as illness and death. For instance, I came across ‘rules’ about fishing which might serve as sanctions against over-exploitation of the fish. I was told that fishing before dawn was not allowed, since the fish were stronger during night time than during daylight. During the night, one could risk that when pulling the fish out of the water, the fish could breathe in one’s soul and drag it with it down in the water. If, however, somebody dared to go fishing anyway the person then had to be sure to have his or her mouth closed at all times, thereby making it harder for the fish to take their soul. One would otherwise prefer to fish during night, as the cooler night temperatures bring fish to the surface. The night time also brings out many insects for the fish to feed on. This taboo against night fishing thus possibly promotes overfishing. I was also told stories about a giant octopus who lives in the river, so big that a forest grows on top of its head. If one went sailing on the river during night time, one could risk that the octopus would use its long arms to flip over the canoe.

At the centre of Amerindian cosmologies is a particular notion of human-nature relatedness (Viveiros de Castro 2014: 21). The anthropologist Kaj Århem (1996) came across this during his fieldwork among the Makuna in the Northwest Amazon. He notes that the Makuna stress the continuity between nature and society and ultimately the essential unity of all life. Non-humans are treated as equals - as ‘persons’ - and rather than the Makuna proclaiming the supremacy of humankind over other life forms, and thereby legitimising human exploitation of nature, their cosmology emphasises human’s responsibility towards the environment and the interdependence of nature (Århem 1996: 201). Not only in the Amazon region, but also in other parts of the world have similar observations of indigenous peoples’ cosmologies been made. For instance, Roy Rappaport argues for the relatedness and inseparability of humans and nature in his book *Pigs for the Ancestors* (1968)

based on his fieldwork done among the Tsembaga Maring in New Guinea. He here suggests that traditional, decentralised social systems tend to develop means of regulating local ecosystems which are better geared to sustainability than modern economies. Looking at these examples, I argue that indigenous non-western cultures can offer alternative models for thinking nature.

According to Philippe Descola, the concept of ‘nature’ is in the Western understanding an ontological category cut off from human culture (1996: 83), and it is a recurring criticism in the anthropology of nature that the conventional Western nature-culture dichotomy hinders ecological understanding (Tim Ingold (2000), Philippe Descola (1996, 2005) and Eduardo Viveiros de Castro (1998, 2004, 2012)). The nature-culture dichotomy is often claimed to be built on the 17th century influential philosopher René Descartes, who argued for a dualistic worldview known as *Cartesian dualism*. His ontology holds that there are only two radically distinct things, also known as ‘subject’ (mind) and ‘object’ (matter) in the universe (Cunning 2014: 277). It was with this dualistic worldview that he attempted to demonstrate the existence of God. He argued that just as the body and mind of a human are distinct from one another, God is distinct from humans (ibid.: 279). He states that humans are made up of mind and matter (our bodies), whereas the rest of ‘nature’ (including animals) is only matter, thereby viewing humans as superior to all other aspects of nature. An idea which resonates with the Bible: “God went on to create the man in his image” (Genesis 1:27) and “have in subjection the fish of the sea and the flying creatures of the heavens and every living creature that is moving on the earth.” (Genesis 1:28). The Cartesian dualism thus seems to partly have grown out of Christianity.

The anthropological discipline has in the recent decades taken a turn and started to reflect critically on this ontology/Cartesian dualism, a turn referred to as the *ontological turn*. Marshall Sahlins wrote in his foreword to Descola’s *Beyond Nature and Culture* that just when many thought that anthropology was losing its focus “Descola stakes out the Neo-Copernican claim that other people’s worlds do not revolve around ours. Instead, good anthropology revolves around theirs” (2013: xiii). Anthropology should now think within the bounded terrain of the Other, a solution which brings Ingold, Viveiros de Castro and Descola to find common ground in the sense that the divide between nature and culture is the deeply flawed remnant of an outmoded Western cosmology (Bessire & Bond 2014: 440). Viveiros de Castro has become known as one of the principal figures of the ontological turn, as he uses Amerindian ontologies to reflect critically on the Western dualism. While the dichotomy he makes between the West and Amerindian societies is perhaps too rigid, his work has something important to contribute with: he developed the notion of *Amerindian perspectivism* to

understand the cosmological views of the indigenous peoples of the Amazon (Viveiros de Castro 2012: 47). He argues that Amerindian ontologies include that ‘persons’ can take human and non-human form (ibid. 1998: 470) which contradicts Descartes’ distinction of subject and object. This idea that the category of ‘person’ is not limited to human beings is something I found as a central concept to the Kichwa cosmology.

AMERINDIAN PERSPECTIVISM

One evening in October, I was sitting in the kitchen of the Shiguango household. It was completely dark, and we were all sitting around the fireplace in the kitchen. There were as usually many insects flying around in the air, but the smoke from the fireplace helped keep them away. One of the almost daily cloudbursts had just disappeared, and you could hear the forest coming back to life. Among the many noises was a new sound that I did not recognise. It was a strange cry which sounded almost like a child was screaming. I asked Rosa what it was, and she told me that it was a night owl. She then told me the story about a young girl who once lived in a nearby community:

When the moon lights the shadowed places in the forest, one can hear the strange call from the night owl, it is a lonesome cry that carries over kilometres. The story goes that once upon a time there was a young girl, who had an older brother. Due to some horrid events at the community one night [...], her brother had disappeared into the forest, and never returned. The young girl felt so guilty for what had happened to her brother that she went into the forest and begged the spirits for their guidance. The spirits turned her into a night owl, thereby giving her the ability to see at night and to look for her brother from the sky. So now, every night when the moon lights the shadowed places in the forest, you can hear her calling out for her brother (fieldnotes 2/10-2017).

The story of the night owl confirms Viveiros de Castro’s notion of perspectivism, which implies that within humans and non-humans is a common spiritual essence, or put in another way, we are all spirits who then adopt a human or non-human form, and some of us can even shift between bodies (Viveiros de Castro 1998: 482). Amerindian perspectivism can therefore not be understood using classical nature-culture dichotomy. However, the night owl story both confirms but also poses questions to Viveiros de Castro’s theory. Allow me to present his argument and a story of an enchanted dolphin, before returning to the night owl. An important factor in his theory of perspectivism is that the perspective is embodied. Our perspective of the world (as well as that of

non-humans) is a point of view produced and located in the body, rather than produced by mind or spirit (ibid.: 478). The souls in all bodies see the same things but see them differently because their bodies are different to one another. Thus “non-humans see things as ‘people’. But the things that they see are different: what to us is blood, is maize beer to the jaguar” (Viveiros de Castro 1998: 478). The jaguar does not believe that blood is beer; the blood is beer for the jaguar. Viveiros de Castro’s argument is that the Amerindians assume a metaphysical continuity (spirit or soul) and a physical discontinuity (body) between all beings. The soul or spirit integrates, while the body differentiates. As seen in the story of the night owl, a soul can transform bodily appearance. During March Carvalho’s fieldwork (1989-91) in the Middle Amazon region, he came across the story of the *boto encantado* (enchanted dolphin), a pink river dolphin who at night transforms himself into a handsome young man – “tall, white, strong, a great dancer and drinker” (Carvalho 1999: 47) – and impregnates unmarried women from the community. Before dawn, he jumps back into the river and returns to being a dolphin (ibid.). In this story, as well as in the story of the night owl, their bodies transform, while their souls stay the same. In the case of the dolphin, it is only temporary – at dawn the man morphs back to being a dolphin. In the case of the night owl, it is permanent. Both stories also concern non-humans having souls, nevertheless, I believe that these examples of bodily transformations provide fertile ground for testing the limits of Viveiros de Castro’s perspectivism. When the dolphin morphs into a human, is he then *only* human, or is he still in some degree a dolphin? If we take Viveiros de Castro’s claim; that it is through the body, and not the mind, that our perspective is created, then it would mean that in the period that the dolphin is human, he is only human. However, when the girl morphed into a night owl she kept her human soul. In other words, she maintains a human consciousness in a non-human body. Viveiros de Castro also argues that any being that occupies a referential point of view, sees itself as a member of the human species: “humans see humans as human, animals as animals [...]. By the same token, animals [...] perceive themselves as humans and see humans as animals” (Viveiros de Castro 1998: 470). However, in Rosa’s story the girl (night owl) sees her brother (human being) as human, and not as animal. In the case of the river dolphin, it would then – according to Viveiros de Castro’s argument - first be when the dolphin is ‘human’ that he understands the women of the community as humans, too, and then wants to sleep with them. However, if this is the case, what is the dolphin’s incentive to turn into a human being in the first place, if he, as a dolphin, does not see the women of the community as ‘humans’?

To sum up, Viveiros de Castro’s theory sheds light on how the classical nature-culture dichotomy does not fit with Amerindian societies’ way of thinking nature, as human can transform

into animals, and animals can transform into humans. However, his argument of the perspective being a point of view produced and located in the body raises certain issues when beings transform bodily.

ANIMISM

Descola (1994) gathered material over several years of fieldwork among the Achuar of the Upper Ecuadorian Amazon and documented their rich knowledge of the environment. He explains how their technical knowledge of the Amazon's ecosystems is interwoven with cosmological ideas that endow nature with the characteristics of society (ibid.: 327), and from his fieldwork he formed his definition of *animism* (also referred to as “new” animism, see; Irving Hallowell (1960). “Old” animism was established by Tylor (1871)) which enables communication, interaction and transformation across the boundaries of different beings. Descola's definition of animism is inspired by Viveiros de Castro's idea of Amerindian perspectivism and is in many ways similar, however it differs in the important notion that animism does not argue for an embodied perspective. In his book *Beyond Nature and Culture* (2013 [2005]) Descola, too, concerns himself with the epistemological basis of anthropology and argues that “anthropology must shed its essential dualism and become fully monistic” (ibid.: xvii). The relations that humans establish between one another and with non-humans cannot be based upon a cosmology and an ontology that are closely bound to one particular context as the Western ontology allegedly is (ibid.: xviii). Descola uses animism to show the relativity of ‘humanness’ in the Amerindian cosmologies and argues that the indigenous peoples of the Amazon see the world as a place where natural beings, including feature of the landscape, share a common soul substance that circulates throughout the world. Animic systems provide natural beings with human dispositions, thereby granting them the status of persons with ‘human’ emotions (Descola 1992: 114). Animic systems therefore treat plants and animals as persons.

During my fieldwork I often met stories of non-human beings, which did not, according to the people at Treinta, have a soul. And it was not always clear who did, as it was not entirely species specific. For instance, all jaguars have souls and none of the chickens do. Only some of the fish have and so do most of the wild boars. The manioc (*Manihot esculenta*), a root vegetable is considered highly spiritual, while the plantain (*Musa paradisiaca*) is not, even though they both are a very important part of their daily food intake. An explanation for this may be that chickens and plantains were introduced during colonialization and were therefore not part of their pre-colonial food system. Viveiros de Castro writes that perspectivism does not usually involve all animal species and that the emphasis seems to be on those species which perform a key symbolic and practical role (Viveiros de

Castro 1998: 471). Irving Hallowell also touches upon this and describes a scenario where he is talking to an old Ojibwe man; Hallowell asks, “Are all the stones we see around us here alive?”, the old man reflects for a long while and then replies “No, but some are” (Hallowell 1960: 24). Viveiros de Castro writes, and Descola agrees, that “whatever possesses a soul is a subject, and whatever has a soul is capable of having a point of view” (Viveiros de Castro 1998: 476 in: Descola 2013: 139). Does this mean that some non-human beings are mere objects, and that these beings are not capable of having their own perspective, nor capable of having a human - non-human relation? In Descola’s description of animism, he does not directly argue that all plants and animals have souls, however neither does he argue that they do not. Nevertheless, one should assume that in order for a system to be truly animic, all human and non-humans should have souls, otherwise the interaction across different species in the way that animism advocates for, cannot always take place. On the other hand, maybe souls do not always need to be attributed to each individual being. At Treinta I came across stories of the spiritual guardians of the forest, namely *Sacha Runa* and *Sacha Urami*. *Sacha Runa* means ‘jungle human’ and he is the male guardian spirit. *Sacha Urami* means ‘jungle woman’, she is the female guardian spirit. The role of *Sacha Runa* and *Sacha Urami* is to protect the forest from anyone who means the forest harm. They are believed to make you get lost in the forest, by leading you deeper and deeper into the forest until you no longer know how to return. *Sacha Runa* will lead the females further into the forest by seducing them, *Sacha Urami* will lead the men the same way. However, if you are walking in the forest without the intention of harming it – e.g. cutting down a tree or killing an animal - these spirits will do you no harm. These guardians, clearly endowed with intentionality similar to human beings, function as masters of the animals and plants they protect, thereby creating an intersubjective field for human-nonhuman relations even where the particular animal or plant itself is not spiritualized. The notion of animal spirit ‘masters’ is also mentioned by Viveiros de Castro, where he describes them as “the mother of the game animals” (Viveiros de Castro 1998: 471), and Århem writes that every animal ‘house’ or ‘community’ has its owner, who guards and protects its inhabitants; “the father of the fish are the anacondas and sting rays dwelling in the depths of rivers and lagoons” (Århem 1996: 190).

In terms of understanding why some non-humans are believed to have individual souls, while others have not, or why some non-humans are endowed with souls who holds a human perspective, I suggest looking at the colonialization and Christianisation of the Amazon for answers, as they have without doubt, and increasingly are, influencing Amerindian societies way of perceiving the world. Most Christian missionaries disapproved of indigenous spiritual entities and food taboos

and attempted to remove spiritual dimension from animals and plants. Nevertheless, this seems to only partly answer the questions. When reading ethnographies about Amerindian societies, there are shared common ideas, such as animism, however there is equally ethnographic evidence for significant differences (e.g. as in Gé and Bororo myths, see: Lévi-Strauss 1964) which it seems that Viveiros de Castro does not take into account (and his assumptions of the West appear equally generalising). In Terence Turner's critique of Viveiros de Castro, which departs in his fieldwork among the Amazonian Kayapó tribe, he argues that there is ample evidence for non-humans possessing souls in their own right (Turner 2009: 19), and that a closer attention to Amerindian conceptions is essential to avoid the distortions inherent in attempts to treat all Amerindian cultures as a single, homogeneous philosophical system (ibid.: 37).

Understanding what role non-human entities play and have played for the people at Treinta is important when wanting to understand what consequences it has for their perception of the world, and consequently their natural resource use, when these roles are diminished or removed.

THE SHAMAN'S ROLE

In order to better understand the cosmological universe of the people I worked with, allow me to outline the particular and important role played by the shaman – a figure who from a conservational point of view can be understood as a resource management specialist. Shamans have historically been seen as persons who have direct access to the otherwise normally unseen worlds of spirits, and they are regarded as 'trans-specific' beings, which are able to change perspectives as they move between different realms (Viveiros de Castro 2012: 48). They are believed to have the ability to transcend, transform and communicate between the spiritual realms and their communities (Descola 2013: 137), and the path to become a shaman is often said to be tremendously challenging, which also reflects the significance of the position (Thalji & Yakushko 2018: 134). This path often entails that the aspiring shaman goes through the *dieta*, which is a probation period where the person must live in the depths of the forest in isolation, only occasionally visited by the assigned elder from whom the apprentice receives the spiritual teachings (ibid.: 136). Dieta can be translated to 'diet', and during the dieta, the person must stick to strict food and water restrictions, while undergoing a series of initiations, which includes the use of medicinal plants. In my film *Curandero*, we hear José tell about his experience of becoming a *curandero*, while watching recordings of José healing a little girl from a neighbouring community. People at Treinta would refer to José as a shaman and more often refer to him as *Yachak*, which is the Kichwa word for shaman. However, José, whom I perceive as a very

humble man, did not believe that he was entitled to be called a shaman, as he found his powers for communicating with the spiritual realms limited. The following is his story about becoming a curandero:

I was taught by my father-in-law Alonso, who was a very powerful shaman. I never really wanted to be a shaman myself, I have always been scared of communicating with the spirits. They can be very powerful. But one day, when we were sitting in Alonso's hut, a very sick man came by. Alonso asked me if I wanted to help cure the man, but I had to tell him that I did not know how to. To this Alonso responded, "I am old and one day I will die, and then there won't be anyone who can help your family". With these words, he made me feel [the need]. I knew that I had to do it, even though I was scared. I accepted, and Alonso took my hand into his, and together we performed the *limpieza* (cleansing) on the sick man. After this, I had to go through the *dieta*, thereby making me more susceptible to the spiritual realms. My *dieta* lasted for two months, and shortly after I came back, a little girl had gotten sick. Her body was hurting and swollen. I looked at her, and I immediately knew what I had to do to cure her. I went into the forest to look for the right plants to use for the *limpieza*. When I came back, I boiled the leaves from the plants in a pot over the fire, while letting the steam from the pot roll in over the little girl's body. I then covered her with the leaves, from head to toe, and asked her to drink the water from the pot. The day after the *limpieza*, the girl was cured, and Alonso told me that I now had the skills of a shaman (fieldnotes 16/10-2017).

When José performed the *limpieza*, it would generally be by collecting a small bouquet of plants (as seen in the film), usually two to five different species depending on the disease, for the cleansing. First, he would blow smoke from his homemade cigar all over the sick person and the smoke would cling on to the *mal* in the body. With the bouquet he would then draw *mal* out of the body. *Mal* translates to 'bad' or 'evil', and when a person has *mal* in their body, he or she becomes sick. According to José, many different types of *mal* exist, but they can generally be divided into two main categories *mal vinto* (bad/evil wind) and *mal aire* (bad/evil air). *Mal viento* is the spirits of the ancestors, and symptoms of it can be a husband who hits his wife, a baby who cries at night, or an animal who is very aggressive. *Mal aire* is the more dangerous type. It comes from spirits in the forest. They are hiding in everything in the forests, such as in the leaves of the trees, in the grass or branches, and when a person or animal passes by, they can jump onto the body and enter it. Symptoms of *mal aire* are vomit, high fever and diarrhea. The *limpieza* of this is very hard to do, and when José starts

the cleansing, the body of the patient will start to shake, and his eyes will turn white. This means that the spirit is fighting to stay in the body. When doing this cleansing, the plants will sometimes turn completely black. When the mal has left the body, the person will be laying still. In the film *Curandero*, José is cleansing the girl for mal viento. She has been crying every night, and José tells me that it is because she is seeing the devil at night, which according to him is a clear symptom of mal viento.

In the Amazonian literature, shamans are generally described as ambivalent figures, capable of both healing and inflicting injury and death, but when it comes to José's ability to inflict injury on others, he tells me that he would never use it, as it is *brujeria* (witchcraft), and whoever does this will be punished by God. Shamans do not only communicate with the spiritual realm for healings or *brujeria*, many everyday activities such as hunting, fishing and gardening are also accompanied by shamanic acts, such as the calling of wild game or performing food blessings. For instance, as mentioned is the manioc considered highly spiritual and proper gardening is thus very important. Through communication with the spirits of the manioc, José has learned how they should plant and harvest the manioc in order for it to produce well, and he tells me that in ancient times the manioc "would cry to the women who were harvesting it, saying that they felt like lice who was not allowed to grow" (fieldnotes 22/10 2017). The rules for proper gardening the manioc are many and I experienced that they strictly followed them all. Most importantly is the one we see in the film *Yuca & Chicha*, where the cuttings from the harvested manioc must be hit with leaves from taro (*Colocasia esculenta*) and papaya (*Carica papaya*) before planted. When harvesting the manioc, the root vegetable is pulled up from the ground, and the rest of the plant is cut into small cuttings, which will continue to grow when planted back into the ground. After the cuttings have been hit with leaves, they must be covered by banana leaves and left for one night before planted back. They must not be planted back on Tuesdays or Thursdays, and neither on Sundays, as Sundays should be a day of rest. When planting the cuttings, they are not allowed to sweep or bathe that day, as the manioc will then not produce well. They are not allowed to use an axe the same day, as the manioc will then be very dry, and if they eat raw meat, worms will eat the manioc. After planting the manioc, they must wash their hands with manioc leaves, otherwise the peel will be hard to get off. Århem also describes how the Makuna shaman helps ensure the reproduction of animals and plants. The Makuna believe that all foods are inherently dangerous to human beings and through the shaman's blessing of the food these harmful substances are removed from it. Through shamanic practises they also set of some areas as 'sanctuaries', where hunting or fishing is not allowed (Århem 1996: 200). Their ideology guiding

their interaction with the environment thus imposes strong sanctions against over-exploitation of forest and river resources, and disease is often viewed as the result of mismanagement of these resources (Ibid: 195). To the Kichwa, as well as to the Makuna, the health of their family therefore depends on their wise management of food and respecting the pact with nature is the only way of ensuring their well-being and the continuing fertility of the land. Their shamanistic practises of e.g setting of areas as ‘sanctuaries’ thus amount to an efficient system of resource management, a resource regulating cosmology. Recourse use in Amerindian societies is often seen guided by a shaman and regulated by taboos (Colding & Folke 2001: 596), which is why I in chapter four will look into taboos as a subset of informal local institutions, but first, let me account for colonialism and Christianity on the study site.

CHAPTER III

COLONIALISM & CHRISTIANITY

The conversion of colonial subjects to Christianity has been central to most European countries’ colonial endeavours, and most prominent of them all was the Spanish conquest of the New World, where a primary goal was to convert the peoples of the New World to Catholicism (Merrill 1993: 129). The Spanish Crown had naively envisioned that this transformation would only require a decade or so, however, after the collapse of the Spanish empire in the nineteenth century, many areas remained “incomplete” (Farriss 1984: 91). Now, over five hundred years after the Spanish conquest, indigenous peoples of the Amazon still to a remarkable extent hold on to their traditional cosmologies (Pollock 1993: 165). This is not to say that change has not occurred, but rather that a co-existence of traditional Amerindian cosmologies and Christianity is taking place. Europeans began to colonize the region which meant enslavement of many indigenous peoples, who then realised that the white men would always require more slaves and the protection offered from missionaries thus became critically important to their survival (Sweet & Nash 1981: 279).

The Napo River region was an intense site of Jesuits activity, especially from the mid 1600 to mid 1700, and they, along with the colonial traders and territorial conflict between Spain and Portugal, had a major impact on the region’s transformation (Reeve 1993: 106). The agenda of the Jesuits was to convert the indigenous peoples to Christianity, and though many of the missionaries were murdered during the process, the Jesuits managed to make Christianity part of the Kichwa cosmology (ibid.: 118). Hoping that their settlements would become permanent and self-sufficient, the Jesuits introduced domestic animals such as cattle, pigs, chickens and guinea pigs. New crops

were also introduced, among those were bananas, rice and sugarcane. The animals did poorly in the Amazonian environment and none of these new agricultural activities proved sufficient to sustain the settlements (ibid.: 124). Today most indigenous peoples of the Amazon have a long history of interacting with non-indigenous societies, thereby integrating components of non-indigenous cultural systems into their own (Luzar & Fragoso 2013: 299). At Treinta, traditional belief systems and Christianity now co-exist as central cultural elements shaping the ways in which they interpret and interact with the world. They refer to themselves as Catholics, nevertheless their traditional cosmology clearly still plays an important role in their daily lives. Catholic missionaries have been active in the Amazon since the earliest days of colonization, and in the last half-century many indigenous peoples have also converted to either Evangelical or Sabbatarian Christianity (ibid.: 300). These are now the three dominant types of Christianity in the Amazon region and they each have influenced the indigenous belief systems differently. The Evangelical and Sabbatarian church have been, and still is, less accepting of indigenous beliefs and practices than the Catholic church. They explicitly rejected the “old culture” and those who have converted to either Evangelical or Sabbatarian Christianity have shown to be less likely to use indigenous prayers, less likely to visit a shaman and less likely to accept the shaman’s legitimacy, than those who have converted to Catholicism (ibid.). Catholicism does not to the same extent prevent people from performing traditional rites (Bonilla 2009: 162), nevertheless, people at Treinta have been Catholic for many generations and Catholicism clearly has a strong impact on their way of being in the world. For instance, it was of my impression that they were more likely to use Christian prayers than traditional Kichwa prayers. For one, every Sunday night they would turn on the radio and recite prayers read out loud by a catholic priest. Secondly, I was often told how it was either God or Virgin Mary who answered their prayers. For instance, Rosario, a daughter of José and Rosa, told me how she one night a few years back had a vision in which Virgin Mary spoke to her:

I had been very ill for a long time. I had done everything I could, but nothing was helping. Every night I would pray to Virgin Mary for help, but she did not seem to be listening. At the end, I decided to go to the hospital, where I was told that I need to have surgery done. However, they warned me that the procedure was dangerous and told me to go home and think about it. I had never felt comfortable in hospitals and my parents would never enter one. I went home that day and prayed and prayed for a sign of what to do. Then suddenly, Virgin Mary appeared in front of me. She was bright as a star. She was floating in the air, and underneath her was a small globe. She looked at me and said, “Rosario, you must go through the operation and do not

worry, I will protect you, like I protect all on this earth.” She then showed her protection by lowering down on the globe and tucked it safely under her skirt. “Look, I am keeping you all safe, do not worry”. Suddenly, she was gone, and I felt confused. For a short moment, I did not know where I was or how long I had been gone. I looked around and saw that I was sitting in my chair in the kitchen. The next day I went back to the hospital and agreed to the operation, and true enough, everything went well. It even went better than the doctors had expected (fieldnotes 2/11-17).

Rosario has lived many years in the town Tena, but had recently moved back to Treinta, as she had lost her job. She told me that living in Tena had made a big impact on her life and she perceives herself as different from the others at Treinta. In the film *Yuca & Chicha*, she is commenting her mother Rosa hitting the manioc cuttings with leaves and says; “it is their custom to do so”, thereby making a clear distinction between her and them. The fact that she had gone to the hospital when she was sick also differentiates her from her parents, who say that they do not believe in hospitals. It was in general my impression that she was more Christianised than the rest of her family, however, she did not view shamanistic acts as inappropriate, as she told me many people in Tena do.

In case of illness at Treinta, they would often treat it with a combination of José’s healing, Kichwa and Christian prayers. There generally seemed to be a significant overlap in terms of the usage of Kichwa and church prayers as they both can be used to secure good health, successful harvest or fishing, safe travels and protection from malevolent forces. My overall experience was that they seemed to have a very inclusive approach when integrating Christian teachings into their traditional cosmology. For instance, the structure of the Kichwa’s universe appears to have adopted a number of features from Christianity. As formulated by José, the Kichwa universe can be divided into three worlds which interact with each other: *Caipacha*, *Jahuapacha* and *Ucupacha*. *Caipacha* means “this space” or “this world” and is the world in which they live. “The Caipacha is life, here all things are happening, both the good and the bad. But the bad goes to Ucupacha and the good goes to Jahuapacha” (fieldnotes 03/10-17). The Jahuapacha is heaven. When a person dies, their soul will go to Jahuapacha if they have been a good person. Here they will live among the spirits of the stars *quillor*, the spirit of the moon *quilla* and God. When I spoke to Rosa about what it means to be a ‘good person’, the first thing she mentioned was marriage. It was important to get married and to not have children outside marriage, otherwise one would not go to heaven. Infidelity is a great sin and it will be punished by God. *Ucupacha* is the world where the soul goes, if the person has been bad. Ucupacha is in the same sphere as Caipacha, however instead of living in the communities, the souls

live deep in the forest or at the bottom of the waters and will only once in a while appear at the households. These souls are referred to as *mal*.

In Christianity, the meaning of death is that the meaning of human life is elsewhere. It is not on earth or in human life as part of nature but separate from this realm and in a place only accessible to humans (Plumwood 1993: 100). Jahuapacha is, just as Heaven is in Christian teachings, beyond and above the world of nature, separate from earth. This idea of a heaven supports the separation of humans from non-humans, and thus to a degree rejects the animistic system which states that humans are but one species among many, embedded in an interconnected community of humans and non-humans. From an environmentalist's point of view, this can be seen as problematic. According to Vilaça (1997), the missionaries in the Amazon read in passages from the Bible to the indigenous peoples and taught them about wrongdoings and punishments, which is how they learned about heaven and hell (ibid.: 101). On the basis of this, they developed their own particular version of these places, as the one José described.

Whereas Evangelical or Sabbatarian Christianity reject shamanism, there is little if any contradiction in being a Catholic and consulting a shaman (Luzar & Fragoso 2013: 308). On the contrary, José told me that he believed that he had been blessed with his supernatural powers by God, and that it is God's wish that he uses those powers to help others. For this reason, he is also not allowed to ask for any payment for his healings, however he is allowed to accept gifts if offered. In all, Catholicism in Treinta demonstrates a process of acculturation in which their traditional Kichwa culture has changed and continues to change as a response to teachings in the region. I believe that the school is a particularly strong player in this development; it is owned by the Catholic church and once a month a Spanish priest comes to visit the children at the school and preaches for them in the school's church. At the end of the ceremony, the priest will give all the children



School children standing outside the school's church after a church service.

who promise to be good, a little gift, e.g. a little plastic Virgin Mary figure, which they could hang around their neck. In the next chapter, I will focus on what implications this ongoing process of integrating components of non-indigenous cultural systems into their own may have for natural resource use.

CHAPTER IV

CONVERSION AND CONSERVATION

A French friend of mine, Leonardo, was working at a local school in a Kichwa community near Tena. The community was having problems with an anaconda that would come into their community at night and eat their chickens. They tried to keep the anaconda out by setting up a fence, but the anaconda took the chickens anyway. They could not afford to lose any more chickens; however, they could not kill the anaconda either, as they believed that killing it would cause great illness and death to the one who did it. One afternoon, the community's shaman had come up to Leonardo and asked if he would kill it for them. 'Why me?' Leonardo asked, to which the shaman explained that since Leonardo was tall, white, and not from here, the shaman would not expect Leonardo to believe that the anaconda was dangerous to kill and should therefore not be afraid of doing so. Leonardo, who by then had lived in the community for nearly six months, had to admit that he did not dare to kill it either.

As seen in this story, fear of the anaconda's spiritual powers prevents people from killing it, and there is thus a connection between religion, nature and conservation, and numerous studies have shown that spiritual beliefs have contributed to preserving important biodiversity all around the world (Frascaroli 2013: 587). Religious beliefs can contribute to environmental conservation in two fundamental ways: indirectly, by influencing the way people perceive and use natural resources, and directly, by enforcing actual protection of areas which are of symbolic or spiritual value (ibid.). Resource use in traditional indigenous societies is often seen to be regulated by taboos, some of which have proven to offer efficient and effective local resource management (Colding & Folke 2001: 596). I therefore wish to provide insight on natural resource use and strategies with the focus on taboos as a subset of informal local institutions. As shown below, when comparing Treinta to literature on other Amerindian societies, it is clear that many resource management taboos have lost their influence on their present-day community. Understanding why some taboos have lost their influence, while others still continue to influence practice is key for defining the role of taboos in contemporary natural resource management and nature conservation. As suggested, taboos can be understood as *informal institutions*, which - using the definition by Helmke and Levitsky (2004: 725) - are "the many "rules

of the game” that structure political life, [which] are *informal* – created, communicated and enforced outside of officially sanctioned channels”. Ostrom (1992: 19) refers to institutions simply as working-rules meaning “the set of rules actually used by a set of individuals to organize repetitive activities”. Formal institutions, on the other hand, are rules such as written rules, laws, and constitutions and are highly associated with the structural complexity of industrialized nations and their division of labour (Colding & Folke 2001: 586). Taboos are therefore good examples of informal institutions, where traditional local norms rather than official rules regulate human behaviour. One should however be careful when referring to all taboos as informal institutions, as some may be formally enforced in certain rituals or religious settings (ibid: 588). Taboos exist in many societies, and they are usually based on beliefs that bad things will happen to those who fail to comply with them as seen in the example above, where killing the anaconda is a taboo. Freud (1913) once argued that the earliest level of animism is taboo, which simply is the avoidance of the feared spirits. James Frazer also related taboos to animist and magical belief systems and argued that some objects, humans and non-humans were tabooed because they were believed to possess a source of power, which could potentially be dangerous to anything that comes in contact with it (Frazer 1992: 32). Not all taboos are instituted for religious reasons, nevertheless due to the social, religious and environmental aspects of indigenous communities usually being intertwined, it is often the case (Osei-Tutu 2017: 114). In terms of taboos related to natural resource use, they can generally be divided into two main categories: Taboos that prohibit killing or eating of animals and plants, and taboos that restrict entry into some parts of the forest or river (ibid.: 119). Below I go through the different types of taboos and relate them to my findings at Treinta.

PERMANENT FOOD TABOOS

In anthropology, taboos which ban the killing of a certain species, both in time and space, are commonly referred to as permanent food taboos, as they apply to all members in the community and often concern foods (Rea 1981: 80). When walking in the forest, I was often told to be careful, as there was a many meters long anaconda roaming around. José and Rosa had seen it a few months back. They had been sitting at the river shore, waiting for their son to come and pick them up in his canoe, when suddenly they saw a tall stick, sticking straight up in the air on the other side of the river. The river is over 100 meters wide, and it was therefore difficult for them to see what it was, but when the stick suddenly started to move, they realised that it was the anaconda. It turned its head and that is when they saw two horns sticking out of its head, thus ascribing demonic qualities to the anaconda.

The anaconda is an example of a permanent food taboo. At Treinta, the anaconda is also considered a highly evolved spirit and is believed to be the most dangerous spirit in the forest. Killing it will result in great illness and death. The children would also often refer to the anaconda as *el cuco*, meaning ‘the devil’. Permanent food taboos of animals are far more common than that of plants in most traditional societies (Ferro-Luzzi 1980: 112), and in Amerindian societies these taboos primarily focus on larger mammals, particularly the deer, tapir, capybara, and white-lipped and collared peccary (Moran 1993: 18). The anthropologist Eric Ross (1978: 2) is concerned with why larger game animals, though significant protein packages, have much higher frequency of prohibition than smaller animals, such as the agouti (a small rodent), and argues that this is due to the fact that larger animals are not geared for reproduction as their rate of biomass accumulation is low (ibid.: 3). A small rodent, on the other hand, has a brief gestation period and a high production rate. Thus, although on the surface the deer represents a more attractive protein package than the agouti, it is in fact more vulnerable to over-predation due to its diminished potential for replacement (ibid.: 5). A taboo against killing larger mammals thus promotes a sustained yield rather than encouraging maximal resource use, which would eventually lead to protein depletion. Ross (1978) found that the Achuar have taboos against killing larger mammals, Smole (1976) and Taylor (1972) found similar taboos amongst the Yanoama, and Bamberger (1971) argues the same for the Kayapó and the Kuikurú. The Coshoiro-wei-teri of Brazil, and the Huaorani of Ecuador also exercise taboos against hunting larger animals (Colding and Folke 2001: 593). The list of Amerindian societies observing taboos against killing larger animals is long, nevertheless, at Treinta I did not come across any taboos against hunting mammals, rather I experienced the opposite; a deer was in the middle of crossing the river, when a group of men from the community saw it. They quickly jumped into a canoe and went out to get it. They paddled up on the side of the deer, wrapped a rope around its neck and killed it with a knife. This was the only deer I saw during my fieldwork. In fact, I rarely saw any animals in the forest. Instead their main protein intake comes from fish, nuts and chickens (chickens were introduced by the Jesuit missionaries, and are thus not part of precolonial Amerindian food systems). In Viliça’s (2018) introduction to Claude Lévi-Strauss lectures, she explores the transformation arising from the Amerindian peoples’ conversion to Christianity. With focus on the Wari people of the Brazilian Amazon, she describes how missionaries wished to establish an idea of nature separated from human, which included the objectification of animals (Viliça 2018: 13). Missionaries would translate the Bible into native languages and read passages out of the Bible. Below are two Genesis Figures as they were translated into Wari language (ibid.):

He [God] said, satisfied: “be fecund, reproduce a lot and multiply [. . .]. Disperse across all the other lands. Be leaders. Be the leaders of fish, birds and all the animals [. . .] (Genesis 1:28)

[. . .] Eat all the animals, all the birds, all the strange animals that crawl over the earth too” (Genesis 1:30, also see Genesis 9:2–3)

Through the Christian teachings the concept of nature is created, and this, Vilaça argues, opens up a ‘gap’, which “allows the idea of a single truth to become established, that which coincides with the word of God” (Vilaça 2018: 13). Missionaries taught the Kichwa to believe in a single benevolent God and to accept the fact of creation, thereby sharing the perspective of the Creator, God. Missionaries taught them to view their role in relation to nature as masters of the Earth and all its beings. The adoption of Christianity, as well as other aspects, such as exposure to foreign culture, have caused people at Treinta to dissociate from some of their traditional beliefs, such as having removed spiritual dimensions of their foods, as we see in the example of the deer. Taboos which rely on spiritual dimensions to achieve compliance, have thus lost their influence.

A study similar to mine was made by Paul Osei-Tutu (2017) in three Ghanaian communities, where he looked at forest and wildlife taboos, farmland taboos, and water taboos. According to the study, many of the resource management taboos in the three communities are no longer being observed. Osei-Tutu argues that this is neither due to gender, age, class or educational background, but rather he suggests that the introduction of a Christian worldview had a pronounced influence on this (ibid.: 118). In the Napo River region game population is now very low, which to some extent may be explained as a consequence of the increased population density, but possibly also as a consequence of the Kichwas’ new worldview.

TEMPORAL & HABITAT TABOOS

In chapter two, I explained how fishing at Treinta is believed to be dangerous during night time, this is an example of a *temporal* taboo. Temporal taboo is when a taboo restricts entry into parts of the forest or river in a certain time period. Here the taboo may be imposed sporadically, daily, on a weekly to seasonal basis or longer (Colding & Folke 2017: 587). In terms of temporal taboos on terrestrial resources, harvesting on Tuesdays and Thursdays is not allowed at Treinta, and I was told that if this was not complied with, the crop would next time produce less. However, in terms of conservational purpose, this taboo does not seem to have any effect. Temporal taboos are otherwise generally seen

imposed on animals in weekly to monthly basis and are referred to as “closed season” (ibid.), which often coincide with spawning and mating season of a certain animal species. At Treinta there were no longer temporal taboos imposed on animals. Closely related to temporal taboos are *habitat* taboos, which regulate both access to and use of resources from certain habitats (place/living space where an organism lives (Odum 1969)), both in space and time. These areas are often protected by taboos and are considered sacred to the members of the community. In some areas harvest and hunting activities are completely prohibited, while in others some harvesting or hunting can be permitted, for instance during ceremonies (Colding and Folke 2001: 589). The spiritual guardians of the forest, Sacha Runa and Sacha Urami, can be understood as a type of habitat taboo in the sense that, due to fear of the guardians, they would rarely go far into the forest, but rather stay in the forest nearby the houses. This provides a number of ecological benefits including maintenance of biodiversity, provision of habitat for threatened species (fauna as well as flora), regulation of local water resources and pollination of flora in the areas seldom entered (ibid.: 590). Sacred habitats or ‘spirit sanctuaries’, are very common among Amerindian societies. For instance, the Tukano (Brazilian Amazon) reserve the forested river banks for fish and animals. Fishing is restricted to a very small part of the river margin, and deforestation of the river edge is prohibited (Chernella 1987). This results in a management system which allows fish and terrestrial animals to have a refuge area. Habitat taboos and permanent food taboos can be classified as non-use taboos of resources (Colding & Folke 2001: 595), and one should not underestimate the impact non-use taboos potentially have on the preservation of habitats and species. For instance, it is estimated that approximately 350.000 sacred groves exist in India, and that their combined area constitutes an area similar to that of all formally protected areas in India (ibid.).

SPECIFIC FOOD TABOOS

Another type of taboos which serve as a strategic response to avoid game depletion is *specific food taboos* (Rea 1981: 70). Specific food taboos prohibit certain groups in the society from consuming certain species. The utilization of a particular species can be banned for a specific period of time, it can be banned from humans of particular age, sex or social status (ibid.: 71). At Treinta, only pregnant women and their husband are allowed to eat turtle, as the meat of turtle is considered very nutritious and powerful for the fetus. If a couple wishes to influence the sex of the fetus, they can do so by eating either the genitals of a male or female turtle, according to which sex they wish the baby to have. When Rosario was pregnant with her fifth child, she really wanted a girl, as her four previous children were all boys. José had therefore gone into the forest and had - through a shamanistic ritual

- called on a female turtle. Two days after he had come back with the turtle, and Rosario and her husband cooked and ate its genitals. And true enough, she gave birth to a baby girl. And her child after that was also a girl. Today she has the tortoiseshell hanging on the wall in her house, reminding her of the happiness she felt after giving birth to her girls. Hames (1991) states that specific food taboos are extremely common among traditional groups in the Amazon region. They commonly apply to pregnant women, children, menstruating females and parents of new-borns and are frequently related to cultural perceptions and customs (ibid.: 180). He argues that these specific food taboos may work in similar ways to a “quota system” in Western hunting systems, since they have the effect of depressing the rate at which certain species are taken (ibid.: 181). Unfortunately, despite of this taboo, the number of turtles has also decreased markedly in the area. Perhaps due to higher population density or to tortoiseshell having a high market value. This shows that even though traditional food taboos are being obeyed, they might not be enough to secure against overexploitation, as population density grows and external markets appear. At Treinta there seemed to be no taboos regulating how much of a resource is allowed to be extracted (although the fishing restriction are closely related to the regulation of quantities), and neither have I found this in the literature among Amerindian societies. However, in terms of not having any way too keep the meat fresh in the heat (e.g. a refrigerator) and no easily accessible marketplace, people at Treinta only took what they needed for the given day.

INSTITUTIONAL MEMORY

From the above-mentioned examples, we see that some taboos, if exercised, may offer local protection of terrestrial and aquatic ecosystems, thus promoting local conservation. Societies create their taboos through extensive knowledge about their local environment and just as in many Western societies, Amerindian societies often have resource management specialists, generally in form of wise people and shamans (Folke et al. 1998: 421). Knowledge is handed down through generations and is often seen as being moral, spiritually and ethically based (Gadgil et al. 1993: 15), thereby based on other rationales than most Western nature management and conservation systems. Evidently not all taboos have conservation benefits. For instance, taboos imposed on nonthreatened and abundant species may encourage the use of other, less abundant ones, and taboos can thus sometimes work against conservation.

This chapter should not be understood as an argument stating that the Christian faith is non-conservational, but rather that successful environmental management and conservation has a much

higher success rate when it has adapted to environmental feedback over time and space. For instance, in a Catholic context, the conservation of some forests in France and Italy are said to have directly benefited from the presence of religious settlements (Frascaroli 2013: 588). Christianity may in some ways also bring benefits for indigenous people and their forest, e.g. through connections to international networks who can provide them with potentially powerful advocates, as they negotiate for issues such as land rights (Luzar & Fragoso 2013: 309). Instead, my argument is that indigenous belief systems and decision-making are an important factor for the survival of the Amazon's ecosystems, and the indigenous peoples have an institutional memory for how to respond to ecosystem dynamics and change. Indigenous people of the Amazon still occupy more than 25% of the forest, including some of the biome's most intact ecosystems. Many of their areas are of high importance of biodiversity, endemism and environmental services, including carbon sequestration and watershed protection (ibid.: 309).

AGROFORESTRY

At Treinta, the forest is not only spiritual enriching, but they are also aware of the tangible value of the forest: for farmland, source of game, construction materials such as timber and leaves, medicinal plants, etc., and they have over time developed agricultural techniques for the proper use of the forest. They mainly rely on agroforestry techniques which have been practiced in the Amazon for millennia and is from a conservationist's point of view the preferred agricultural method to use on tropical lands (Hecht 1982: 5). Agroforestry is broadly defined as a sustainable land-use system that combines annual (short term) crops with trees and sometimes animals on the same land (Pedersen & Balslev 1990: 9). It is a multi-layered system that to some extent resembles a natural forest ecosystem and provides many of the same services as the forest. This method means that the field will continue to provide a wide range of foods while making people less vulnerable to pests that destroy specific crops. At Treinta, the preferred agroforestry method is *shifting cultivation*, which involves that a small piece of forest is cleared and cultivated temporarily, then left in fallow for a number of years until the forest has recovered and the soil once again has become fertile (Van Vliet et al. 2013: 1455). At low population densities, where there is land enough to ensure a long fallow period, this approach is considered sustainable (Pedersen & Balslev 1990: 9). In the film *Cacao & Platano*, we see how the women are clearing a new piece of land and taking plantain cuttings from the old field, in order to plant it in the new. The old field was then left fallow. In the appendix, there is a map over their present fields (appendix 4). When clearing a piece of forest for a new field, they would leave some useful

trees standing. These could be wild trees and palms with fibres or edible fruits, as well as timber trees for later use for construction and canoes. It could also be planted crop trees from a previous field, such as pacay (*Inga edulis*), abiu (*Pouteria caimito*) or peach palm (*Bactris gasipaes*) (in the film *Niños en la Selva*, we see the children picking abiu from the tree). The cut down material would be left to either decompose or be burned (*slash and burn*). This practice means that plant mineral nutrients mobilize and become available to crops (Whitmore 1998: 156). Annual crops such as manioc, plantain, corn and rice are then cultivated in the first few years along with smaller plants such as wild basil (*Ocimum campechianum*) and taro, and animals would feed in the bottom. Perennial tree crops are also planted and after some years the trees will cover most of the field as nutrient limitations will limit the annual crops to just a few cycles. The continuous vegetation cover offers environmental services such as (micro-) climatic stability and soil conservation, and over some years the field will turn into a secondary forest as more and more forest species will “invade” the plot (Pedersen & Balslev 1990: 10). During the fallow period they continue to harvest products from the trees they planted and from the recovering forest.

About half a kilometer from Treinta, the government has started to build a road. When I left, they were nearly done with clearing the pathway. This will have a major impact on the community, as it will likely mean increased population and more market-oriented agricultural activities. When I was there, they would rarely go to the market to sell products as it was far up the river, and the only way to get there was in their small, non-motorized canoe. Easier access to a market is an underlying driver for land use change (Van Vliet et al. 2013: 1464) and in desire to intensify their crop production, they may start including cash cropping, cattle raising, shortened fallow and chemical inputs in their traditional farming systems.

CHAPTER V

NOBLE SAVAGES OR PRIMITIVE POLLUTERS

According to Ellingson (2001), the term ‘noble savage’ originates from the French explorer Lescarbot, who in 1609 used it in his writings about the New World. It served as a critique of the then modern European society and was used to point out the many problems the European society was facing by comparing them to a way of life where these problems were absent (Ellingson 2001: 90). The idea that indigenous peoples live in harmony with the environment was adopted by Odum (1971) and found its theoretical support in cultural ecology (Hames 2007: 179). Several comparative studies

showed an association between biodiversity and the distribution of indigenous peoples, where high biodiversity was linked with the presence of indigenous peoples (ibid.). Nevertheless, in the mid 1980's doubt whether indigenous peoples were in fact 'noble savages' started growing. In 1982 the anthropologist Eugene Hunn distinguished epiphenomenal conservation (side effect conservation) from true conservation and argued that epiphenomenal conservation is a consequence of human population's inability to cause resource degradation and is often due to low population density, simple technology and lack of external markets (Hunn 1982: 35). In 1985 Terry Rambo's ethnography *Primitive Polluters* came out, and one year later the geographer Jared Diamond (1986) presented well-documented examples of either environmental indifference or destruction by indigenous peoples. In 1991, Kent Redford's publication of *The Ecological Noble Savage* declared that the idea of deliberate conservation by indigenous peoples was a myth. An article by Krech (2005) concludes that little to no evidence can be found for conservation among Native Americans prior to European contact, while there is plenty of evidence of the exact opposite during the contact period. In the same issue, a book review by Stoffle reads; "for tens of thousands of years, the people of the New World sustainably used and managed these very old human ecosystems... Conservation ethics based on traditional ecological knowledge went hand in hand with the ecosystem being culturally central to the people" (Stoffle 2005: 139). It seems that much of this debate about the 'noble savage' revolves around how the concept 'conservation' is defined along with 'sustainability' and 'management'. First, it is important to understand the difference between conservation and preservation. To put it simply, conservation seeks the proper (sustainable) use of nature, while preservation seeks protection of nature from use (www.nps.gov). The term 'management' is defined by Balée and Erikson (2006: 10) as when individuals take deliberate steps to modify the environment with the intention of enhancing the availability of certain resources. To distinguish 'sustainability' from 'conservation' is somewhat difficult, as conservation can be defined as sustainable use of natural resources. However, what differentiates conservation from sustainability is that in conservation, the three pillars of sustainability (social, economic and environmental (Purvis et al. 2018: 3)), do not all necessarily need to be present. In this sense, sustainability is 'more' than conservation. According to Raymond Hames, many tribal populations use natural resources in a sustainable manner, however this is due to epiphenomenal conservation, rather than true (deliberate) conservation (Hames 2007: 180). Hames concludes that deliberate conservation by indigenous peoples is uncommon (Ibid.: 186). Nature's limitations, such as diseases have earlier created limits for population density, but with today's medicine diseases do not to nearly the same extend control population density. We have also developed very efficient

resource extracting methods, which again means that we have overcome nature's limitations. Due to this there are now many parts of the world where there is a need for deliberate conservation in order to aim for sustainability. But to argue that indigenous peoples are conservationists mainly in the epiphenomenal sense I believe is wrong. Instead, I suggest the need for a third distinction of conservation. We have epiphenomenal, which is completely undeliberate, and true conservation which is deliberately wanting to sustainably use natural resources, but where in these categories fits religious beliefs, such as taboos, which promotes sustainable use? If we look at the previous example of the taboo against hunting deer, it is (although likely undeliberate) a type of natural resource management. It is not "true" conservation in the sense that the taboo is created based on the knowledge that a deer's rate of biomass accumulation is lower than that of a small rodent, but rather based on negative environmental feedback over time and space, understood as (for instance) angry spirits. Thus, what is needed is a concept to describe a type of conservation which includes religious beliefs, such as taboos, which are based on environmental feedback over time and space and is thus in some sense deliberate conservation. I purpose to refer to this as *feedback conservation*. Amerindian societies have developed these different 'rules', which promote the survival, maintenance and reproduction of the forest's ecosystems, and thus consequently also of their own population. They must use and maintain their resources in order to guarantee their own survival, and if they are not well-adapted to the forest environment and learn from their ecological errors, the risks are high. And while they themselves might explain these 'rules' or taboos as protection against feared spirits or dangerous power, it can from a conservational point of view be seen as sustainable resource management. Where indigenous peoples' interaction with the natural landscape has often been described with a romanticizing view, one which I find easy to follow, it might be of a utilitarian version, rather than a romantic one. "True" (deliberate) conservation, I argue, is also to be found at Treinta, when looking at their agricultural strategies. The way they apply shifting cultivation is an example of deliberate resource management. When I asked José why they would leave the plots fallow for years instead of producing more, he answered that this would ruin the fertility of the soil. He also said that if this was done over a larger area, the forest would have difficulties growing back, and the area would turn into desert. This clearly shows that it is a deliberate decision based on experience of how the ecosystem responds to human actions.

Religion has historically played a central role in influencing how people live their lives. It functions as a source and legitimator of moral values, which construct responsibilities of how people order their lives and their relationships with each other, the natural world, and the spiritual realm

(Mclead and Palmer 2015: 239). It may inspire compassion towards non-humans and ecosystems, and therefore has the potential to influence human behaviour to support conservation outcomes. Building effective partnerships between conservation and religious organization can therefore be crucial for creating efficient development, and researchers have suggested that the failings of natural resource management projects are in part due to conservationists' focus on technical solutions rather than solutions driven by vision and value (ibid.). Conservation science is important as it helps identify quantitative conservation goals and attribute economic value to nature, but where it fails is with providing guidance on how to value nature in a non-monetary way.

CHAPTER VI AN EXHIBITION

Through the above analysis, I have presented aspects of life in the Treinta community, which show how their cosmology is closely connected to their use of nature. Their way of thinking about nature lies far from a Danish context, but nevertheless I believe these insights on Amazonian life can contribute to the debate about how we think nature. I therefore wish to shed light on my findings for a broader audience, as we, as the citation below reads, need to know about nature, if we want to preserve it, and stories like the ones presented in this thesis can help visitors reflect over how humans consumes and affect nature in different societies, as well as what guides their view on nature.

Welcome to our treasure trove of plants from the whole wide world. In the Greenhouses botany and nature are in the centre. Told for both children and adults. Get closer to nature with personal narratives, fast facts and hard science, and learn how humankind is consuming and affecting the natural world like never before. The Greenhouses focus on nature and on natural facts. Because we need to know about nature if we want to preserve it. And because nature is a prerequisite for human life. Enjoy the beauty of nature and explore the stories about man and nature

This is written on a board outside the entrance to the Greenhouses in the Botanical Garden in Aarhus, which is where the exhibition *Kawsak Sacha – the living jungle* will be on display. The Greenhouses consists of four different climate zones, the topical house being the largest one. The exhibition will support the Greenhouses' aim to explore how humankind is using nature, here in the context of the

Amazon. The Greenhouses are thus a particularly fitting place for this exhibition, and it is my aim with the exhibition to not only show the audience how others use and consume nature, but also to offer new perspectives on how we can act in nature. As Nathalia Britchet and Frida Hastrup suggest, we as anthropologists should exhibit the unfamiliar and different, as it can offer new ways of looking at the world and raise questions about how we ourselves are living in it (Fibiger & Dahre 2015: 22). And as Fibiger and Dahre so wisely have stated “it is not only the world that should change the museums, but also the museums which can and should change the world” (Fibiger & Dahre 2015: 22).

The exhibition will be based on my fieldwork, recordings and collected artefacts from Treinta and other nearby communities. I have been in dialogue with Bent Lorentzen, the museum director of the Science Museums and the Greenhouses, who finds the exhibition in line with their vision for the Greenhouses. The exhibition is planned to open in February 2019 and will be placed in the main Greenhouse (appendix 5). It will be built as a ‘hut’ with four ‘rooms’ as shown on figure 1 below, which is inspired by José’s curandero hut (figure 2). Each of the four films will be shown in their own room, where each has a theme, namely: *Yuca & Chicha*, *Curandero*, *Cacao & Platano* and *Niños in la Selva*. The hut itself will consist of four drywalls and a roof thatched in the same way as the roofs at Treinta, where they use the palm-like panama hat palm (*Carludovica palmata*). The panama hat palm grows in the Greenhouses and I been given permission to harvest leaves for the roof. More detailed drawings of the exhibition can be found in the appendix (appendix 6-9).

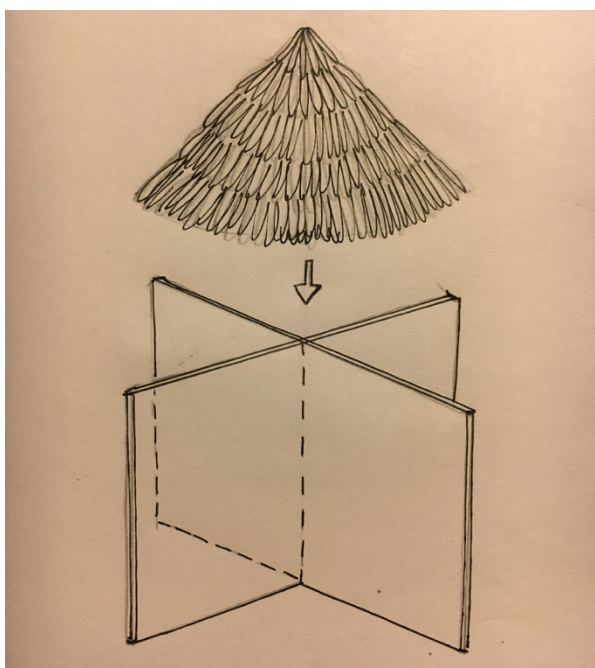


Figure 1, on the left: Sketch of the exhibition.

Figure 2: José’s curandero hut for carrying out his healing practises.

Kawsak Sacha translates to ‘the living jungle’ and is a term José uses to describe the forest, which is why I have chosen it for the title of the exhibition. The exhibition will be imitating José’s hut, as I wish to give the audience the experience of - to some extent - being a shaman themselves, as beings, who can change their perspectives by moving between the different rooms. From the perspective of a woman making *chicha*, to the perspective of a child playing in the river, or from the perspective of José using plants from the forests in his healing practises, to a woman clearing a piece of forest in order to use it for her crops. Each perspective demonstrates a way of using and relating to nature, making it possible for the audience to get closer to a world that otherwise might seem far away from their daily lives. To support the sense of everyday life in the films, I have chosen to edit them in a traditional observational cinema approach, a distinctive form of ethnographic filmmaking closely tied to the work of David and Judith MacDougall (Grimshaw 2006: 34). An approach which differs much from the heavily editorialized film and rather points towards an open-ended practice anchored in an exploration of experiential perspectives (ibid.: 35). My aim has been to carefully attend to the details and context of my subjects’ everyday lives, and I sought to follow, not direct, the action. The four films will be playing in a loop, supporting the idea that life happening simultaneously in all four perspectives, and the films are edited in a way, that the spectator does not necessarily need to watch them from the beginning, in order to understand the stories but can move from perspective to perspective as he or she wishes.

The films themselves do not always explain what we see. For instance, when the women are chewing and spitting out the manioc root, it is not mentioned in the film that they do this to add the enzymes from their saliva to the manioc in order to convert the starch in the manioc to sugar, thus enabling the fermentation process which turns the manioc into their traditional beverage, *Chicha*. This is done as an attempt to provide the audience with curiosity and reflection. However, to not leave the audience in confusion, each room will have a sign explaining the films as seen in is a sketch of the curandero room (figure 3). The four signs can be found in the appendix (appendix 11-14). In terms of subtitling, I have chosen to only subtitle when the subjects are



Figure 3: Sketch of curandero room.

addressing me or the camera and otherwise leave it with no subtitles. This is done as an attempt to give the viewer an authentic sense of participation in the experiences examined by the films.

Our lives are bound up with objects. People make objects for a particular purpose (although their use often extend their purpose) and even the simplest objects reflect the social and physical context in which they were created (Tishman 2008: 44). I have chosen to exhibit artefacts in the exhibition, as they provide the audience with a tempting invitation. They are expressive in another way than film or written words, as there is an immediacy in an encounter with an object that is right in front of us. They spark curiosity and invite thinking. Ed.D. Shari Tishman argues that looking carefully at an object and trying to discern its features provides a form of cognition with an intrinsically rewarding feedback loop: “the more you look, the more you see; and the more you see, the more interesting the object becomes” (Tishman 2008: 45). Moreover, examining objects is something most people can do, and regardless of their background or age, the objects can generate ideas and reflection. In the appendix are photos and description of the artefacts.

The Greenhouses are a place for both adults and children, the entrance is free, and the audience is broad. The knowledge is thus presented in a way easily understandable for the broad audience. Due to the many families visiting with children, I have chosen to make one of the films about children, as a way to show them how children lives in other parts of the world. At the entrance to the exhibition, there will be a short description about the exhibition as a whole. The description can be found in the appendix (appendix 10).

CONCLUSION

Amerindian societies may have something to tell us about how to live sustainably, as they offer alternative models for thinking nature, and the well-being of our planet and all its beings may very well depend on our capacity to think in integral rather than sectoral terms, as a dualistic worldview, where culture is separate from nature, may prevent a genuine ecological approach to human-nature relatedness.

Publications by scholars such as Viveiros de Castro, Descola and Århem demonstrate how the classical nature-culture dichotomy does not fit with Amerindian belief systems, as they argue that indigenous people of the Amazon see the world as a place where all beings share a common soul substance that circulates throughout the world. I have found similar beliefs among the people at Treinta, where the notion of ‘person’ is not only limited to human beings, as certain non-humans may be regarded as ‘persons’. I have analysed the interplay between their religious beliefs and natural

resource use, and I argue that their orientation to the forest and river is shaped by their religious beliefs and customs. I have explored how the gradual acceptance of Christianity by the members of Treinta is influencing how they perceive the world, and consequently how they understand and use nature, as they integrate components of Christianity into their traditional cosmology. Through Christian teachings, the concept of 'nature' was created, and missionaries taught the Kichwa to view their role in relation to nature as masters of the earth and all its beings. This has caused the people at Treinta to partly dissociate from traditional beliefs, such as having removed spiritual dimensions from their foods. Taboos which rely on this in order to achieve compliance have thus lost their influence.

Indigenous peoples of the Amazon have a long history of interacting with the forest's complex ecosystems and resource use in traditional indigenous societies is often seen to be regulated by taboos. I have therefore chosen to provide insight on natural resource use and strategies with the focus on taboos as a subset of informal local institutions. The Kichwa have created their taboos through extensive knowledge about their local environment and have an institutional memory for how to respond to ecosystem dynamics and change. For instance, their ideology of Sacha Runa and Sacha Urami, the guardians of the forest, is a habitat taboo which creates a safe space for animals and plants. The guardians guide the Kichwa's interaction with the forest and imposes strong sanctions against over-exploitation of forest resources. This shows that taboos can be extremely efficient for natural resource management, since most are ecologically informed, emotionally charged and morally binding. Taboos should therefore not be underestimated when wanting to create efficient natural resource management. I thus argue that the cultural and ecological change the on-going conversion process is impinging on indigenous societies in the Amazon should be cause for concern.

It is often argued that if indigenous peoples (traditionally) are conservationists, it is in an undeliberate way (epiphenomenal conservation) rather than in a deliberate way (true conservation). However, I propose the need for a third distinction of conservation: *feedback conservation*. I have demonstrated how Amerindian cosmologies provide people with 'rules', which contribute to environmental conservation, and feedback conservation thus includes religious beliefs, such as taboos, which are based on environmental feedback over time and space and promotes the proper use of nature.

Together with my written presentation, I have filmed and edited four films and collected artefacts, which will amount into the exhibition *Kawsak Sacha – the living jungle*. The exhibition will imitate José's shaman hut and will be divided into four rooms, where each room demonstrates a way of using and relating to nature, making it possible for the audience to get closer to a world that

otherwise might seem far away from their daily lives. The four rooms demonstrate four perspectives and the audience can, as ‘shamans’, travel between them. I have in the written part of my theses used examples from the films to enhance the understanding of their lifeworld, and I hope that the exhibition will do the same to the audience at the Greenhouses, and that this product thesis will be a reminder that our actions have consequences for nature. This, I find, is a perspective of no small importance in today’s world.

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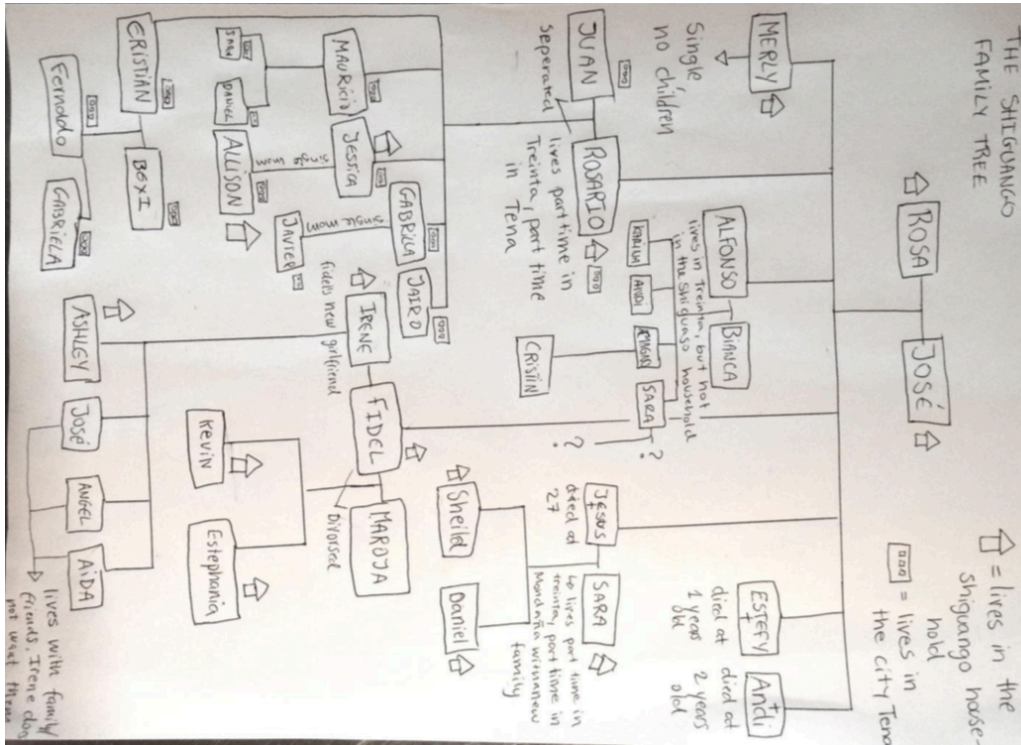
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APPENDIX THE FIELD

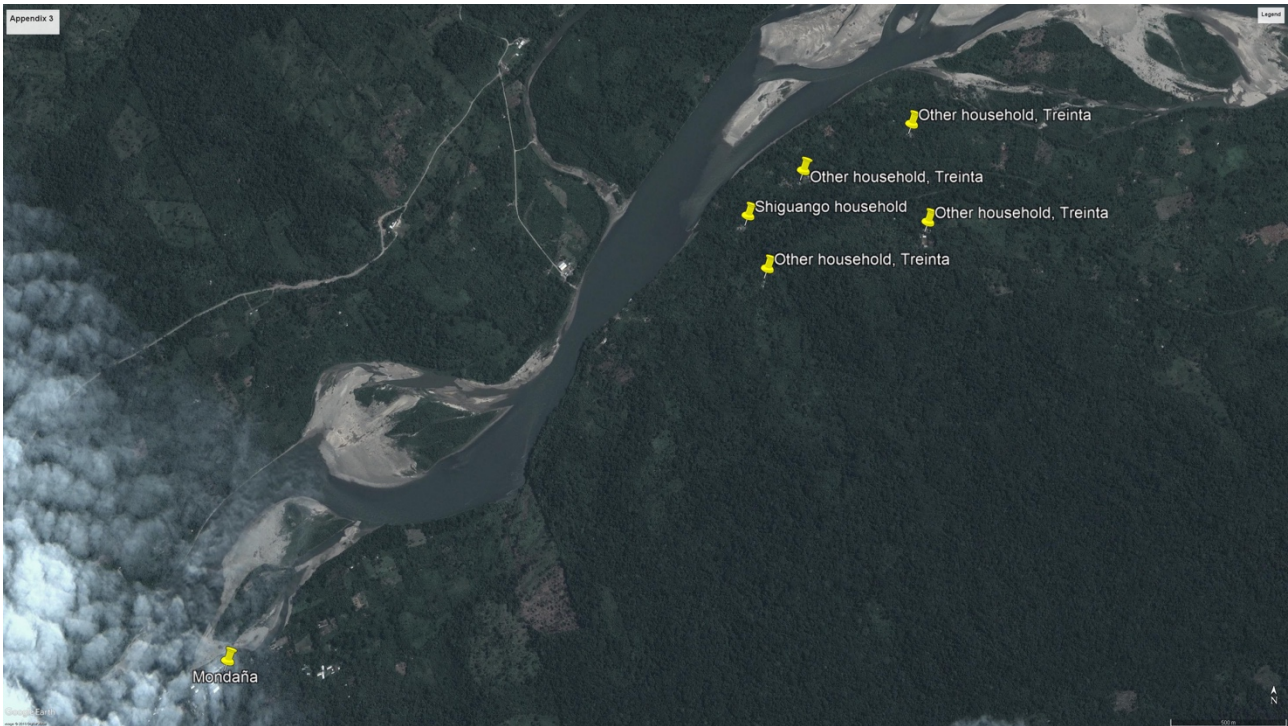
Appendix 1: The Shiguango family tree.



Appendix 2: Map over Ecuador with the study area.



Appendix 3: Overall Study Area - Treinta and Mondaña

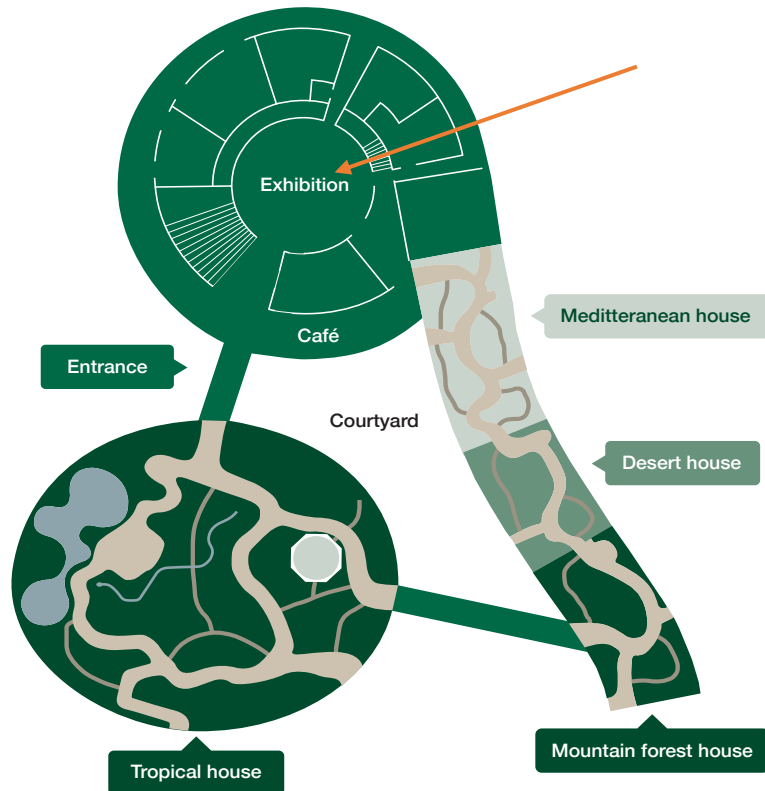


Appendix 4: Map over the Shiguango household and their fields.

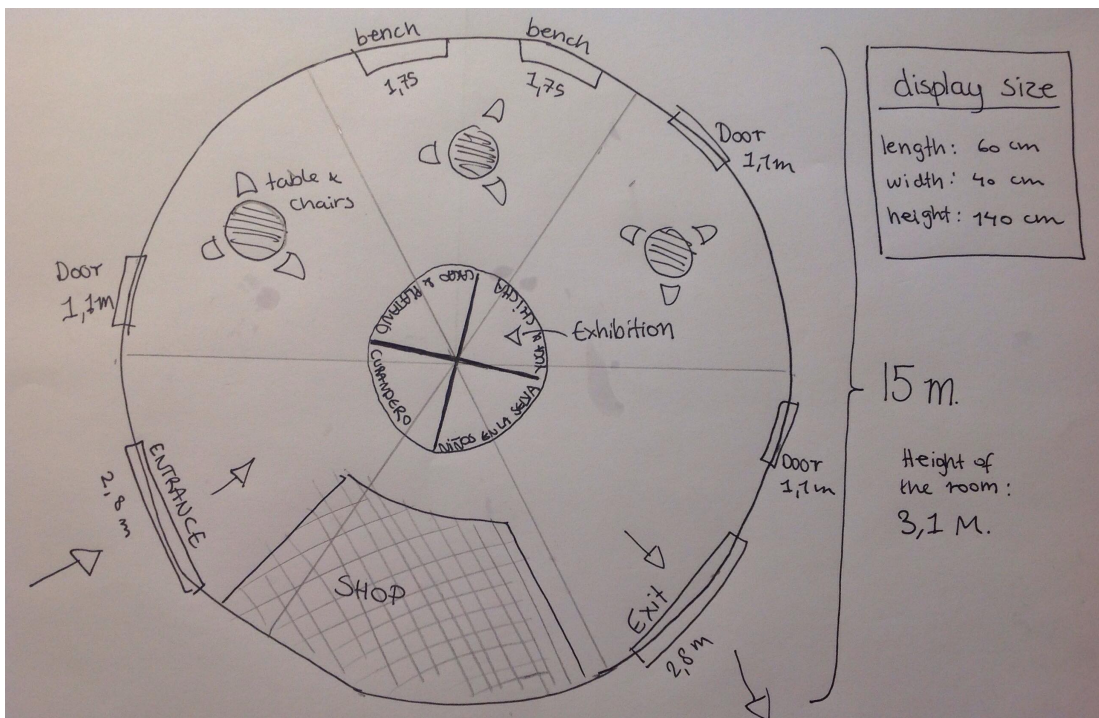


THE EXHIBITION

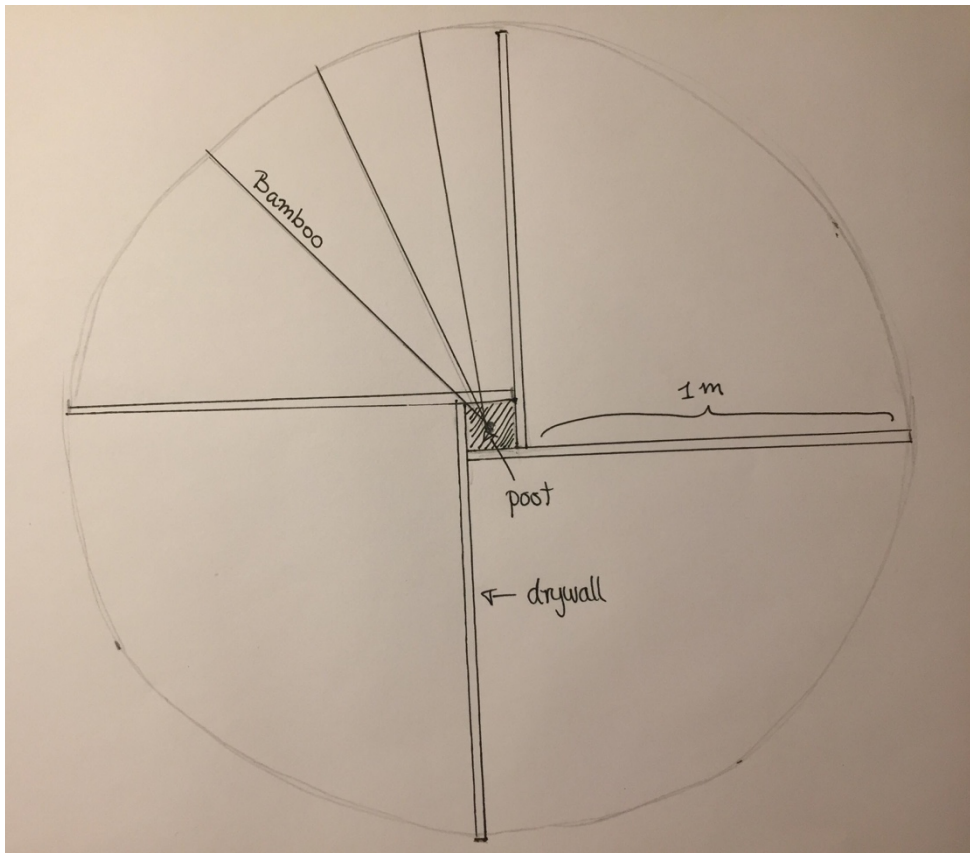
Appendix 5: Map over the Greenhouses and of where exhibition will be.



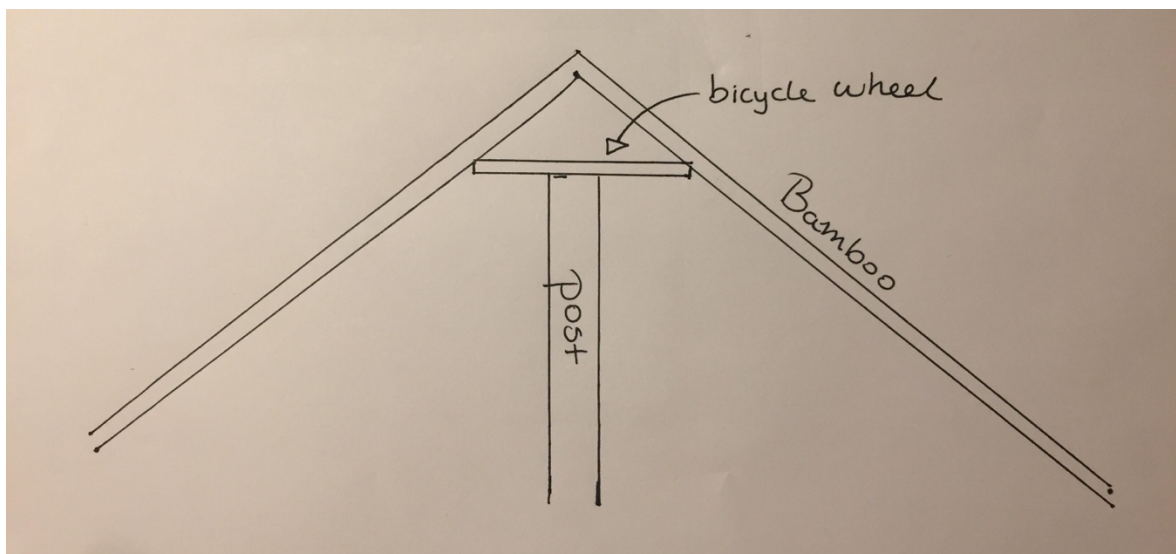
Appendix 6: Map over the exhibition room, with the exhibition in the middle.



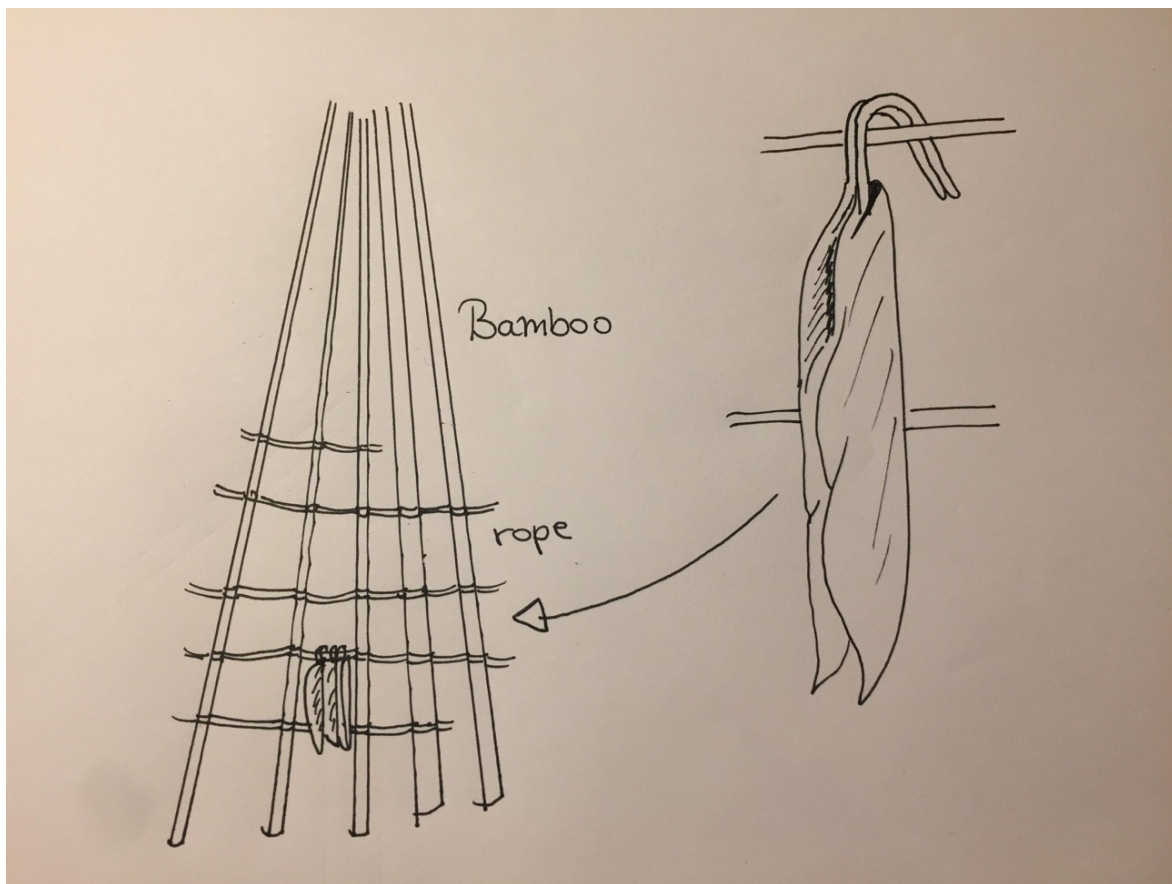
Appendix 7: Drawing of the exhibition as seen from the top. A post will be placed in the middle, from which the roof will be built on, as shown on the next drawing.



Appendix 8: Drawing of the exhibition as seen from the side. On top of the post will be placed a bicycle wheel, where bamboo sticks will be tied to all the way around, creating the basis of the roof.



Appendix 9: The bamboo sticks will be tied together with ropes, which will be used to thatch the leaves around, as shown in the drawing.



Appendix 10: Kawsak Sacha - the living jungle. Sign at the entrance to the exhibition

The exhibition *Kawsak Sacha – the living jungle* is based on fieldwork done in the Kichwa community *Treinta de Augusto* (30th of August) on the banks of the Napo River in the Upper Ecuadorian Amazon. Their way of thinking about nature lies far from a Danish context and show a world where nature and culture are closely connected. In the shaman's hut you find four rooms where you can experience different ways the Kichwa use their environment to provide food and other products, as well as for rituals and shamanistic healings. After you have seen the exhibition, you can explore the tropical house and find some of the plants you saw in the films. You can also use the Greenhouses plant-app USEEUM, where you can find facts and stories about the plants.

Appendix 11: The *curandero* room's artefacts and sign.



Curandero translates to ‘healer’, or more commonly; ‘shaman’. In the film José tells us about his experience of becoming a curandero. He explains how he had to go through the *dieta*, which is where a person must live in the depths of the forest in isolation and stick to a strict food and water diet, only occasionally visited by an elder to receive spiritual teachings. We also see José healing a little girl. The community believes that she has been possessed by an evil spirit, and José is pulling the spirit out of her body with the use of smoke from his cigar, and medicinal plants that he has collected in the forest.

Artefact: These ceramic figures present shamans drinking the hallucinogenic ayahuasca vine, thereby making them able to travel between perspectives and spiritual realms. The shaman on the left is entering the perspective of a bird. The shaman of the right has entered the perspective of a wild boar.

Appendix 12: The *Yuca* & *Chicha* room's artefacts and sign.



Yuca is the Spanish word for manioc, a root vegetable growing in the Amazon. You can find the manioc growing in the tropical house. Gardening the manioc is accompanied by many rituals. The manioc cuttings must be hit with differently leaves and then left under a banana leaf for one night, before planting back, otherwise the manioc will not produce well. They are not allowed to plant on Tuesdays and Thursdays, and the days that they do plant, they are now allowed to sweep, bathe or touch raw meat.

Chicha is a traditional fermented beverage made from (among others) manioc, which is believed to nourish the body and soul, and is consumed for both breakfast, lunch and dinner. It is made by cooking and the chewing the manioc and spitting it back out, thereby adding the enzymes from their saliva to convert the starch in the manioc to sugar, thus enabling the fermentation process which turns the manioc Chicha.

Artefact: Here we see two types of bowls. A chicha bowl made from the fruit of a calabash tree. It is made by Rosario, daughter to the curandero José. The three other bowls are called Mucahua pottery bowls. Kichwa women of the Ecuadorian Amazon are famed for their skill in making pottery, an art through which they project their thoughts. The clay is from the local forest and their paint brushes are made from the women's hair.

Appendix 13: The *Cacao & Platano* room's Artefacts and sign.



Cacao is Spanish for cocoa. In the film we see the curandero José's wife Rosa walking around in their cocoa field harvesting the fruits. The pulp around the cocoa beans (seeds) tastes very sweet. Rose is removing the pulp by eating in, and later she will take the clean beans and leave them in the sun to dry. Once or twice a month a motorized canoe will come down the river and buy goods from the communities along the river. Here Rosa will sometimes sell cocoa beans and plantains. A cacao tree can be found in the tropical house.

Platano is the Spanish word for plantain or cooking banana. It can also be found in the tropical house. In the film we see the women clearing a new field to plant plantains. They cut off cuttings from the old trees and plant them in the new field. The old field is then left fallow, and will eventually turn back into forest, before again being used as a field.

Artefact: To the people at Treinta de Augusto, the machete is by far the most used tool, and they each have their own. As seen in the film, they use it for many things such as clearing paths, digging holes, chopping vegetables and constricting houses.

Appendix 14: The *Niños en la Selva* room's artefact and sign.



Niños en la Selva translates to ‘children in the jungle’. In the film we see a normal day in a child’s life. After school, they often go swimming in the river. The children have learnt how to swim in the strong current and are using it as part of their play. The little girl knows that she is yet too small for the river and plays in the family’s canoe. After this, we see them crawling high up in the trees to find abiu fruits to eat. The abiu tree can be found in the tropical house. However, just as in Denmark, the fun has to stop at some point, and the children must help with washing the dishes. The water running from the hose comes from a small creek nearby and is clean enough to drink.

Artefact: This is a toy truck made out of tin from old cans. In the truck are miniature food boxes. Toys like this can be bought at local markets all around Ecuador.