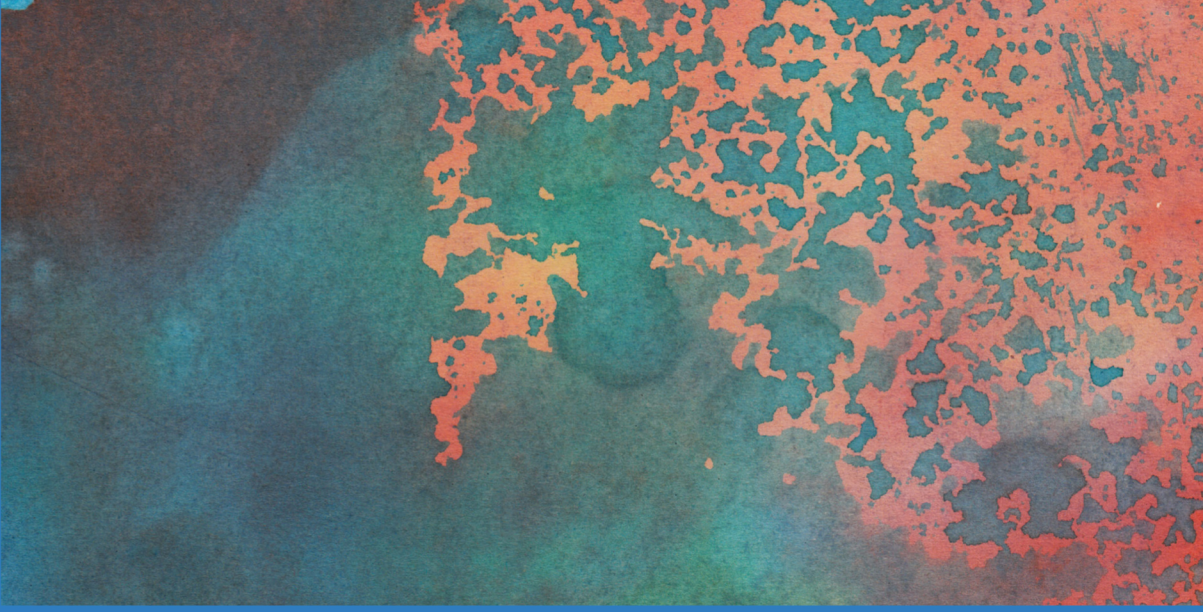

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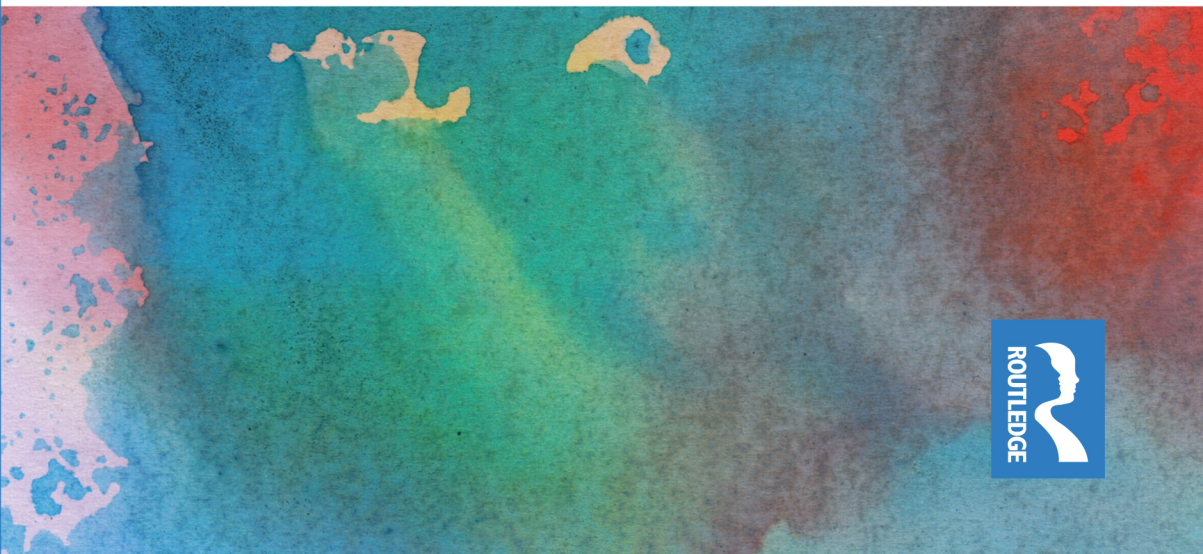
TIME AND ITS OBJECT

A PERSPECTIVE FROM AMERINDIAN AND MELANESIAN SOCIETIES ON THE TEMPORALITY OF IMAGES

Edited by
Paolo Fortis and Susanne Küchler



ROUTLEDGE

Time and Its Object

This volume examines the way objects and images relate to and shape notions of temporality and history. Bringing together ethnographic studies from the Lowlands of Central and South America and Melanesia, it explores the temporality inhering in images and artefacts from a comparative perspective. The chapters focus on how peoples in both regions 'live in' and 'navigate' time each through their distinctive systems of images and the processes and actions by which these come to be manifest in objects. With original theoretical and ethnographic contributions, the book is valuable reading for scholars interested in visual and material culture and in anthropological approaches to time.

Paolo Fortis is Associate Professor in Social Anthropology at Durham University. His work focuses on the relations between art, ontology, time and history in Central and South America.

Susanne Küchler is Professor of Anthropology and Material Culture at UCL. Her work focuses on the relation between image systems and the geometry of social polity in island Melanesia and Eastern Polynesia.

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This volume was initially conceived after the panel *Artefacts and visual systems in Oceania and America* convened at the 'Art, Materiality and Representation' conference held by the Royal Anthropological Institute in 2018 in London. Not all presentations have been included in this volume and new ones have been added to narrow the geographical focus. We are thankful to all those who participated in the panel and contributed to the discussion. Bringing together the fine works that constitute the different chapters has been a highly interesting and rewarding experience and we thank all contributors for their engagement with the themes of the book. We also want to thank Margherita Margiotti and Peter Gow for their comments and insights along the process.

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Introduction

Paolo Fortis and Susanne Küchler

This book is about objects, images and time. It is about how objects and images relate to and shape notions of temporality and history. While notions of time and history have been studied ethnographically and comparatively, their nexus with nonverbal forms of communication – particularly with objects and images – has been overlooked. Recent important studies have shed light on the continuities between graphic and artefactual systems and forms of memory. Such studies have, so far, privileged a comparative and synchronic perspective (Severi, 2015) or that of individual societies (Küchler, 2002, 2009; Erikson, 2007; Heckenberger, 2007). What we aim to do in this book is to look at the interrelations between image and artefactual systems and conceptual and operational systems demanding of notions of time and history. We will explore the temporality inhering in images and artefacts from a comparative perspective, bringing together ethnographic studies from the Lowlands of Central and South America and Melanesia.

Our approach is to focus on how peoples in both regions 'live in' and 'navigate' time (Munn, 1992; Gell, 1992), each through their distinctive systems of images, and the processes and actions by which these come to be manifest in objects. By advocating the possibility of a comparison of a qualitative understanding of an abstract concept such as time, we first need to confront classic assumptions of what it is that we are comparing. In her critical review essay on the anthropology of time, Nancy Munn exposed a lasting and consistent bias in anthropology towards a notion of 'social' time, consisting of varied categorical divisions whose particularities and varying intensities give 'active qualities' to these categories (Munn, 1992:95). Anthropology has thus emphasised the qualitative description of temporal rhythm as constitutive of social 'facts.' While drawing on the early 20th-century writing of Henri Hubert's classical reading of Henri Bergson's concept of qualitative time as 'inner durée,' anthropology has turned the idea of qualitative time on its head by arguing for an inner experience of time that is fundamentally social in nature. Gell's (1992) contribution to anthropology's consequential preoccupation with time-bound and inter-subjectively shared practices, such as rituals of celebration and commemoration, agricultural and seasonal migration, does not divert from this

approach to time but helps shed light on why an understanding of connections between events even beyond the biographical life span of a person is shared in a manner that allows prediction and comparison as well as strategic planning. He does this by deploying Husserl's notion of time-consciousness, which – restricted as it is to the tracing of snapshots experience of the abstract durée of time – is dependent upon images of events whose recognisable composition allow for a modal mapping of events in relation to one another. Only via such images of time-bound events can time be navigated strategically in the same manner as we navigate space, he argues (cf. Gell, 1985; see also Kjaerulff, 2020; Munn, 2020).

Of interest for the essays in this volume are precisely such images, both intuited and deduced from objects that assign a spatial measure to temporal flows, as we seek to understand how they come to be shared and inform the everyday in ways that subtly unifies and distinguishes people from one another across generations. By the same token, we ask whether by looking at the processes and actions that give shape to images of time – and at the transformations visible in serialised objects within which images come to be arrested – we can shed light on specific notions of historicity and temporality, which, on a more abstract level, show recognisable patterns within, if not across, these diverse and different regions. The issue is the temporality of the image itself and the way this turns its stoppage in the object into a qualitative and modalised model enabling people to navigate time as securely as they navigate space. There are no comparative studies that deal with this problem. Our choice to compare Amazonia and Melanesia emerges from the realisation of important systematic differences and similarities demonstrated by the ethnographic literature from both regions with respect to the concept of the image. This volume is, thus, as much about the question of how images work in subtly different ways and the difference this makes to society and culture, as it is about the strategies deployed in the plotting of life projects and the fermenting and extending of biographical relations at the back of such modular time maps.

On image and artefact systems

As Gell (1998) suggested, discussing the dynamics of style in Marquesan and Maori societies, the cumulative work of generations of indigenous artists could be seen as an expression of their 'collective mind' (oeuvre). What Gell pointed at in the last two chapters of *Art and Agency* was the possibility to look at the material expressions, or traces, of such 'collective minds' to shed light on the powerful dynamism, patterns of transformation and cultural expressivity underpinning them. We take stock of this insight and propose to take it a step further by looking both within and between the material expressions of collective minds, the creative and transformative tensions, the differences and regularities they express. We do this in light of our recognition that images, artefacts and – more generally – the visual and

material forms that social life acquires contain an invaluable source of information and insight into the life of their makers still widely untapped.

It is worth noting that the notion of system that we use here has many aspects in common with the notion of style. If we have not chosen to use the latter term it is because of its roots in art historical and archaeological approaches, which have tended to consider style mostly as a means to compile chronologies and typologies of artefacts and artworks from a perspective external to that of their makers. While we are not dismissing the contribution of such approaches for the present study, ours is distinctively ethnographic. In this sense, we consider style as an internally coherent system of images and objects that contains the preconditions of its own existence as self-evidently manifest to the people who act within its boundaries and are able to transform it. Thus, artefact and visual systems as studied in this volume are systems for the reckoning of time that allow people to grapple with biographical, intergenerational time and the shifting circumstances of history.

To clarify what we mean by systems of images and objects, we first discuss how relations occur at different levels: between groups (of things and persons), between discrete images and objects, or between parts of images and objects (internally). What is it that makes a corpus of images and artefacts a system? What kinds of relations are needed to hold discrete elements to form a system? What kinds of relations exist between systems and what do we learn from studying them? What do we learn, in turn, from relations internally held by objects? And how such internally held relations shed light on temporal processes that shape the life of individuals and groups? In foregrounding these different scales of analysis, we take inspiration from several authors who began exploring the dynamics, tensions and generative powers of systems of artefacts and images and pointed in different directions, some of which we intend to follow here.

Firstly, Lévi-Strauss in *The Way of the Masks* (1982) directed his attention to the systematic differences in the way the Salish and the Kwakiutl (Kwakwa̱ka̱'wakw) made two types of masks – called *xwexwé* and *dzonokwa* – and how such differences in the visual appearance of the masks bore witness of the history and changing relations of these two peoples. Relations *between* two different visual systems are, in this case, enlightening of the historical relations between two different people. The implications of this insight are twofold. On one hand, stylistic transformations in visual systems offer the kind of insights that complement or are difficult – if not impossible – to obtain through verbal and written forms. On the other, 'transformation' is a key concept here, as far as it offers a dynamic view of relations as they unravel through time and space (see Damon this volume). So, Lévi-Strauss asks: insofar as a mask is observed by the ethnographer at a determinate point in time, what can it tell us about its past and future? Following his application of the notion of transformation – which he famously elaborated in his 'canonical formula' to study transformations in myths (1963) – to the

study of visual systems, we heed his cue to look at particular objects as 'moments' within chains of transformations and aim to explore their quintessential meaningfulness to shed light on the qualitative experience of time they generate. Or, to put it otherwise, we aim to explore the 'temporality of abduction'[1] – the intrinsically temporal experience of subjects who both live in and generate time through their visual and artefactual worlds.

Secondly, in Lévi-Strauss' view, each mask is to be looked at not only for what it represents but also for what it chooses not to – for what it negates. It is exactly this point that opens the way to consider artworks as elements in a system of 'possible or legitimate motivic transformations,' as Gell subsequently put it (1998:215). Image and artefact systems are not mere collections of images and objects made through time and space by groups of people, rather, as systems they instantiate the conditions of their own existence, their capacity to transform and interact with the shifting circumstances of history. It is on such conditions of existence and on the relational fields underpinning them that we focus our attention in this book. We consider image and artefact systems as instantiating multiple and manifold relations between the visual and material forms (Küchler, 2013; see also Küchler and Carroll, 2021). Focusing on such multiple and multiplying relations, we consider the inherent generativity of such systems. Inspired by Gell's discussion of the 'least difference principle' (1998; see also Were this volume) regarding Marquesan art style, we consider each as containing the possibilities of its transformations, to both rearrange its elements in new combinations, to acquire new elements from other systems, or to explore the boundaries of its meaningfulness (Gow, 1997; Fortis, 2016). How exactly such transformations occur is a question worth asking.

Here, the scale of analysis changes, moving from relations *between* systems to relations *within* a system, focusing on the relations between the discrete elements forming a system, or a style. How do the elements of what we call a system hold together? What do they have in common and how do they differ from those belonging to other systems? These are theoretical questions that the contributors of this volume address ethnographically. Dynamism and generativity are indeed vital elements of each visual and artefact system. What we are particularly interested in here is what these key elements tell us about people's notions of temporality, how dynamism and generativity *within* specific systems, or art styles, are exploited to make sense of and plot individual and collective actions in time. We could say that mastering visual and material techniques is, to a certain extent, mastering time and history.

Thirdly, narrowing the scale of analysis even further, relations can be discerned *within* the discrete elements of a system, an image and an object. This was noted by Forge in his discussion of Abelam painting style in the Sepik region of Papua New Guinea, where he argued that the 'meaning is not that a painting or carving is a picture or representation *of* anything in the natural or spirit world, rather it is *about* the relationship between things'

(1973:189). Foregrounding the meaningfulness of the relations between the parts of a painting, Forge both shifted the focus of discussion from representation to relation and zoomed in on the internal creative tensions inherent in images and objects. Lévi-Strauss (1973[1955]) called attention to the intrinsic dynamism of the decorative patterns of face paintings of Kadiweu (Caduveo) women in Central Brazil. Focusing on Kadiweu women's actions of drawing the patterns, he noticed that the symmetry displayed by the finished designs was the outcome of a dynamic process where individual elements were related through dislocation. Dynamism is, thus, the outcome of the generative asymmetry between the basic elements of patterns. Dynamism and asymmetry are the causes rather than the effects of designs, Lévi-Strauss' remarks show (see Deleuze 1994[1968]:19–20). His insight introduced the quintessential instability and transformative quality of designs that has since been observed and explored by ethnographers working with indigenous peoples in the Lowlands of South America (Gow, 1989; Guss, 1989; Lagrou, 2007; Severi, 2015). What both Fortis, Küchler, and Lagrou show in this volume is how the repetition of the same visual motifs and forms engenders difference. Difference is internal to the composition of images and objects; it is integral to their time-sensitive nature and its appreciation allows them to play an important role in shaping biographical relations.

The theme of 'internally held relational structures' (Küchler, 2014) has been central to the anthropology of Melanesia, following the paradigm shift operated by Marilyn Strathern and her comparative reflections on the nature of relations in Melanesia (1988). What is particularly relevant here is how such 'internally held relational structures' are seen to differently operate to reckon, record and plan the passage of time in the visual and material systems studied ethnographically by the contributors of this volume.

Before discussing the similarities and differences between the Melanesian and the Amerindian cases analysed in this volume, it is worth noting that a focus on internally held relations challenges the habit to look for one-to-one resemblances as a precondition of a certain kind of representation. This is an experience all too familiar to Euro-American ethnographers eagerly starting to question their informants on the 'meaning' of the images or objects encountered during fieldwork. Thinking of going straight to the point, we often start by missing it – perhaps a necessary mistake that can only be remedied by means of asking further and more relevant questions, slowly, step by step, getting closer to what our informants mean and do. Used as we are to consider meaning in objects and images as limited to the three dimensions of formal analysis and tied to a linear cumulative history, we miss a fourth dimension that implies that 'meaning is invariably historically and situationally generated' (Damon in this volume). Inter-subjectively shared and intuitive understanding of time bound operational processes and systems thus emerge from an ongoing process of 'adjustment and elaboration' (Damon, 2012:190) of artefacts that, like the boats Fred Damon studied,

allow for a dynamic view of complex multifaceted processes inaccessible to contemplation in of themselves. We consider artefactual and visual processes key to the creation of intersubjective spacetime in the Amerindian and Melanesian contexts studied in this volume. What renders such systems particularly up to the task is their capacity to contain manifold relations and foster their changes in time and space linking individuals and groups in predictive yet sometimes spectacularly transformative ways.

What we have learnt in the past few decades from the rich ethnographic studies of image and artefact systems in Amerindian and Melanesian societies is that Western concepts of 'representation,' 'resemblance' and 'lifelikeness' are of little use to understand how indigenous peoples conceive their visual and material engagement with the world. Their focus is often instead on the multiplicity and the differences that the making of artefact and images generate or maintain. For example, Amerindian visual systems show a dislike for realistic representations. What they often opt for are visual styles that either foreground the ambivalence and tension between the constitutive elements of the image (e.g., figure vs. ground (Guss, 1989) and instability of figuration (Severi, 2015)) or are irreducible to be defined as either figurative or decorative, as Boas noted earlier (1955[1927]). The important point is that figurative representations are seldom iconic; they tend to be ever different from their referents (Fortis, 2012). What they are instead capable of is generating a multiplicity of representations, of mental images, visions of spirits, mythical beings and other non-human entities. In the words of Davi Kopenawa, Yanomami shaman: 'The *xapiri* are the images of the *yarori* ancestors who turned into animals in the beginning of time. This is their real name. You call them "spirits," but they are other' (2013:54).

If images and objects are capable to generate and hold multiple and shifting relations to their referential objects/subjects, how do they hold multiple temporalities? How do we, then, unpack the qualitative understandings of time that images and artefacts instantiate? If images and artefacts mediate between humans and non-humans, including the dead, do they also mediate between the present and the past, the visible and the invisible? Do they hold the future in themselves, or help to think about it, if not generate it?

Comparisons

Important differences and similarities emerge when comparing the visual and material lives of the people inhabiting the Lowlands of Central and South America and Melanesia. In this book, we call attention to similarities emerging from comparing relations between elements at a higher order of abstraction and from the appreciation of systematic differences between these two regions (cf. Gregor and Tuzin, 2001:7). These similarities can be clustered around a number of recurring themes that we have broadly defined as 'multiplicity,' 'repetition,' 'transformation' and the centrality of the 'body.'

Multiplicity

In Amerindian and Melanesian visual systems, images and artefacts manifest the capacity to self-generate multiple versions of its own originating conditions. Critical to the kind of multiplicity inhering as propensity within such images and artefacts is the capture of the defining quality of the originating condition in terms of 'the courses and quality of the action they inscribe' (Damon, 2012:177). Fred Damon (2012, 2016) describes, for Melanesia, this capture of a qualitative apprehension of an originating condition as defining the individuating quality of an artefact with the example of the outrigger canoe prevalent across wider Oceania. The boat's complex structure, composed as it is of multiple precisely measured and proportioned parts, follows a standardised form that is perpetually nuanced into unique products, judged and appreciated in terms of their likeness as the best instantiation of its own kind. The concept of multiplicity these boats demonstrate collapses the one and the many in a distinctive fractal manner, allowing for relations implicit to the construction of the boat to be expressed in a transitive, iterative and recursive manner. Redundancy and self-similarity, and an associated language of fractals and of a cosmology suggestive of a theory of chaos, was developed by Roy Wagner (1986, 1991) for Melanesia, with variations of the idea taken by others (Strathern, 1991; Mosko and Damon, 2005). The precise measure within which this idea of multiplicity comes to reside is, however, not one simply guided by intuition, but demanding of actions – which, like the originating conditions, manifest and are derived from focused experience, observation and adjustment (Damon, 2012:191). Both-Hauser Schäublin and Coupaye (this volume) differently speak to this notion of multiplicity. The former uses the concepts of 'cultural keynote' and 'accord' to refer respectively to the image repository and the material and ritual forms it affords in the contemporary lives of people living in different areas of the Sepik River. The latter exposes the complex social processes inherent in the cultivation of long yams in the same regions of Papua New Guinea, whereby it is the quality of the processes of cultivation that allows access to ancestral values and to the imagining of people's future oriented exchange practices.

Referring to the beginning of time, the point of origin – where the preconditions of present day life were laid down – is a feature of Amerindian cosmologies, which, as Lévi-Strauss (1995) demonstrated, have at their core an original difference, a space reserved for alterity. Such original difference has informed how Amerindian peoples dealt with the shifting and often fraught circumstances of their history, such as the encounter with white peoples. The time of origin is, thus, the time when identity and difference emerged as separate but complementary conditions which will have ongoing influence on the present life of human beings. The tension between the one and the many has deep roots in time and coexists with the multiplication of differences. While in Melanesia it is the fractal multiplication of self-similar

images at different scales that sets actions in motion in time-conscious ways, for Amerindian societies it is the case of the multiplication of qualitative differences starting from an original duality which injects the system with a 'dynamic disequilibrium' (*ibid*:63) that is a manifestation of time. The multiplication of differences is a precondition of Amerindian visual systems. As Lagrou shows with regards to Huni Kuin design patterns, dynamism is expressed through exploiting figure-ground ambivalence and the interplay between symmetry and asymmetry leading to visual transformations. Dualism and complementary opposites are thus transformed into 'complex figures of spatiotemporal mediation,' Lagrou notes, whereby Huni Kuin visual dynamism is intimately linked to social dynamism in that 'their kinship system is dynamic, it produces continuity including differences and transformations across generations in ways that are both thinkable and predictable […]' (this volume). Processes of transformation are thus the preconditions of social life which is navigated historically and biographically with the help of images of time generated within the range of possibilities that each Amerindian visual system affords. Images, in their different actualisations – ranging from graphic patterns, objects, figurative designs, visions, and pictography – carry this transformational character as a built-in potentiality to adapt, interpret and act within history with its extraneous shifting circumstances. This is evident in the case of Marubo people as Cesarino argues in this volume, where a combination of pictography and alphabetic writing provides a shamanic critique of the alphabetic writing introduced by missionaries. The Marubo, like other Amerindians, already possessed alphabetic writing in ancient times, but lost it to white people while they kept another graphic form, designs. The resultant shamanic combination of writing and designs is, thus, more a recombination of a previous multiplicity than a form of acculturation.

Repetition

To better qualify what we mean by multiplicity, a key characteristic of Melanesian and Amerindian visual systems, we introduce a further theme – repetition – where these systems display an equal tendency for continuity and transformation. Escaping the isomorphism between images and what they stand for in Euro-American aesthetic epistemologies, several Amerindian visual systems are informed by what we may call a 'slippage' between symbol and referent. As identified by Viveiros de Castro (2002) in respect to the cosmology of the Yawalapíti, notions of 'ideal prototype' and 'actual phenomenon' are key to make sense of differences between beings. Differences are here understood as distributed along a 'gradual continuum' ranging from prototype to imperfect actualisations. More broadly similarities are understood as small differences and what begins the same unravels as different, a pan-Amerindian theme discussed by Lévi-Strauss (1995). This has important consequences for visual and material systems. The fabricated

is ever different from the prototype as the image is from its object. Processes of making are informed by similar gaps between models and replicas. What appear as self-similar images contain difference within and between themselves. Difference is the trigger that puts agency in motion (Fortis and Küchler, this volume). It is, therefore, by learning to see difference – when we are used to see likeness (cf. Forge, 1970) – that we can glimpse at the temporality of images and artefacts. Similarity and difference complement each other in the constitution and understanding of artefacts and images. Differences can be infinitesimally small but remain nonetheless differences, increasing and decreasing along a chromatic scale that renders relations of similarity meaningful (see Gonçalvez, 2010). The implications of such 'chromatic differences' are key in understanding how Amerindian and Melanesian visual systems help navigating time and history (see Fortis, 2019).

Repetition of archetypical forms is thus not a form of representation, rather, similarly to what Deleuze noted, repetition 'differs in kind from representation, the repeated cannot be represented: rather it must always be signified, masked by what signifies it, itself masking what it signifies' (1994[1968]:18). The play of repetition, alongside multiplication, seems to capture the life of images in Amerindian and Melanesian ontologies. Images repeat what cannot be represented and in its original form is incommensurable with human experience. Images by means of slippage and repetition mediate between the incommensurable spacetime of the living and that of the dead, and in doing so help shaping human biographies. This is evident, for example, in the case of the Achuar, where *arutam* hallucinatory visions – in which an invisible form appears in the guise of familiar image of a deceased kinsperson – help create a heightened sense of self manifested in the increased capacity of individuals to act in ways that are socially valued (Taylor, 1996:208).

Severi (2015) has similarly called attention to the quality of what he defines as 'chimeric objects' – both in the Americas and in Melanesia – of evoking rather than representing images and ancestral names. These objects articulate heterogeneous aspects exploiting the ambiguity between their visible and invisible elements to support mnemonical processes. In this work, we move beyond memory to address issues of ontogeny and ontology. Images and artefacts, as differently argued in the chapters that follow, are part and parcel of the lived experiences through which biographical relations are constituted, an issue exemplified by the widespread emphasis on the fabrication and decoration of bodies in Amerindian societies (Seeger, 1975; Gow, 1999; Miller, 2009; Fortis, 2010) and in Melanesia (Strathern and Strathern, 1971; Strathern 1979, Hauser Schäublin this volume). By the same token, images and artefacts are relational indexes – or 'qualisigns of time' (Coupaye this volume) – that allow a shared experience of living in a time that is forged by multiple agencies, differently involving humans, non-humans and the dead.

It is in the process of repetition that we glimpse a distinct form of temporality. An experience of time that is internal to the life of forms, be they visions, designs – on the body of women, men and children, or woven on clothing and hammocks – objects carved in wood or woven in plant fibres. Repetition, semiotic slippage between prototypes and images – more generally the non-iconic nature of images and objects – point usually towards the gap between human biographies, bounded by birth and death, and the continuity of the social body. This gap is addressed through structural homologies between images and prototypes rather than one-to-one resemblances. As demonstrated by Fortis and Küchler (this volume), both *nudsu* and *malanggan* carvings, respectively in Panama and New Ireland, differently enfold human and non-human time – including that of animals, trees and the dead. Articulating what are incommensurable temporalities from a human perspective, these objects exploit their differential capacity to hold a multiplicity of time-views together for the sake of the safe reproduction of social life. As we will see below, such multiplicity of time-views is indeed not a static phenomenon. Its dynamism – what renders its changes meaningful – are exactly the transformations in relations of structural homology between abstract/prototypical and concrete/actual images.

Transformation

Amerindian and Melanesian visual systems generate a multiplicity of heterogeneous images in the mind by means of structurally homologous repetitions that render them time-sensitive. On one hand, artefact and image systems are 'time reckoning' systems (Fortis, 2019) and systems for the 'navigation of time' (Küchler, 2005). On the other, these are dynamic systems that contain the preconditions of their own transformations. That is, the new forms that their constitutive elements take are logically deductible from the forms that preceded them – or, better said – from the immanent order that characterises each system. By the same token, as Cova's chapter demonstrates, local systems transform in dialogue with neighbouring systems considering historically specific social forms of production and relations. Systems of transformation are evidenced by several cases in both the Lowlands of Central and South America and Melanesia. As both Lagrou and Damon show in their chapters, designs and artefacts are meaningful forms that respond to both tensions immanent to social life and to the adaptation of principles of social orders to new environments. Another example is the case of cordage and latticework in the Pacific that have given way to transformational forms such as respectively *malanggan* in New Ireland and quilts in the Cook Islands – by which 'opposing temporal maps of ancestral continuity and historical time' have taken up new forms due to changing historical circumstances (*ibid*:181).

A further example is that of the relation between graphic forms and writing across a number of Amerindian peoples. As it has been noted in

several cases, the oppositional character of 'figurative' and 'geometric' designs has informed the way some Amerindian groups initially related to alphabetical writing and subsequently developed new forms to integrate the foreign graphic system into their own (Déléage, 2017). As Gow (1990) argues with regards to Piro (Yine) people, alphabetic writing was associated to geometric designs seen at the onset of the hallucinatory experience of shamans, whereby knowledge as the outcome of reading was equated to knowledge as the outcome of an encounter with the spirit mother of ayahuasca. Similar to the designs on the skin of the anaconda opening to the world of images in Huni Kuin myths, designs covering the visual field in Piro hallucinatory visions are the preconditions for encountering powerful beings. The written page is a 'paper skin,' in Kopenawa's words (2013), which functions to mediate access to the spatiotemporally distal world of images. In a similar vein, Marubo shamans – whose critique of alphabetic writing figures in Cesarino's chapter – exploit the transformational qualities of the 'drawn thought' to inform their teachings to young people acquainted with white people's 'oblivious-inducing technology.'

The body

The human body is a central element in processes of transformations, production and perception of images and artefacts, as well as in the constitution of social groups and their reproduction over time (Seeger et al., 2019[1979]). The body is the locus of display of relational, age set and gender identities and is attended to by actions that are attuned to the qualities of imputed originating conditions. Above all, the body is a fabricated artefact composed of parts relationally conceived, requiring constant nuancing and elaboration involving acute observation, experience and adjustment, much like the outrigger boats described earlier (Strathern and Strathern, 1971; Strathern, 1979). Furthermore, the body – both in its living material and its afterlife immaterial form – is central in the interactions between individual persons and groups for the realisation of biographical and collective projects. What is striking is that such interactions around the social body are often mediated, if not enabled, by the articulations of images and artefacts in complex systems that require the skilful actions of groups of people (see Were in this volume).

The body as an artefact – decorated, displayed, fabricated, transformed – is, thus, the focal point of attention in conceiving life as an ongoing collective project that has both its root in the past (ancestral, clanic, mythological) and is projected in the future (kinship). Pivotal to the attention directed to the body is the skin. As membrane of the body, the skin is attended to with actions that serve to close and open the body from outside influences at important life-cycle events during which the internally held capacities are prone to dissipation. The attention to the skin of the body by elaborating it with patterns that conceal as much as they reveal relations

held immanent within persons, human and non-human beings alike, is of paramount importance. The pattern resulting from actions of closing while connecting is as visible on human bodies – as captured by Els Lagrou for Amazonia – as it is in the surface of gardens as described by Brigitta Hauser-Schäublin for Melanesia. The skilled nuancing of pattern in both these case studies are a kind of object of chrono-geography (Gell, 1992:190–196), allowing the register of observable relations between events that can be attributed to causal chains of effects in the affirmation of social time and situated history. The case studies also show that these patterns on the surface of bodies of human and non-human entities are translatable and transposable across media, resonating with one another across domains accessible to observation (Heckenberger, 2007:306).

Structure of the book

The chapters in this book are arranged into three parts, each exploring a distinctly dimensional perspective on the relation between time and object, drawing on and interpolating thematic continuities in Amerindian and Melanesian cosmology sketched out above. There is the question of how an object permits the contemplation of an originating condition via its own temporality, and via the actions and processes it makes manifest as qualities. This perspective on the quality of the object as a register of its own temporality rather than its position in time demands an analytical move away from classification and towards sequences; sequences inhering in the production of objects, underpinning their biography and informing the nuancing of objects over time so that each is its best resemblance. Then, there is the question of how an object permits the navigation of biographical time, enabling an understanding of how time is experienced and observed shaping the relations that make up a life lived, offering a foothold for retrospective and prospective contemplation of the probable and potential inhering in life projects. And finally, there is the question of what happens when the very processes and actions that capture time in an object fall by the wayside as new materials and new technologies command attention and objects become testimony to the severing between what the historian Reinhard Kosseleck (2004) has called the horizon of expectation and the space of experience.

The quest to find an alternative to what the early 20th century art historian Aby Warburg had called a 'panoramic view of history' – comprised of chronologies, influences and the occasional genius – with what Warburg called an approach 'sensitive to the image's own capabilities to extend itself in time' (Bing, 1999:585), has dominated the anthropological approach to objects since its beginnings. Warburg's encounter with Navajo ritual performance, his personal acquaintance with anthropology – especially Franz Boas – and his familiarity with the 19th century writings of Edward B. Tylor are well known in art history, although it famously ignored the implications of the anthropological perspective for its own methodology (Tylor, 1871;

Boas, 1915, 1927[1955]; Didi-Huberman, 2002:63). Anthropology itself, although sensitive to the relations and processes objects make, manifest in its ethnographic analyses, especially since the formative work of Anthony Forge in Melanesia and Lévi-Strauss in the Americas, has paid little attention to the theoretical implications of its own methodology. The chapters in this volume are contributing to the reappraisal, theoretically and methodologically speaking, of the relation between time and its object against the background of ethnographies whose complex object narratives, suffused with a predilection for generative and transformative images, refuse to be comprehended from within a classificatory paradigm. Instead, these object narratives draw our attention to processes and actions an object makes manifest in its elaboration, its sequencing, its transformation and its translation.

The hunch that there is more to this attention that an object demands than just the laundering the socialness of the forces that we project onto them has been around for a while (Küchler, 2008). The Melanesianist Roy Wagner said of the object in Oceania that it 'figures sympathetically its field of reference' and 'becomes that which it expresses,' reminding us of Claude Lévi-Strauss's insight that objects qualitatively enable the modelling of complex processes much like models in science (Wagner, 1986:6). The object here is its best version of itself, recalling what can only be known from observation rather than referencing what can be known independently (Ginzburg, 2001). It matters, because it permits the contemplation of an abstract idea that is accessible to understanding via sharp observation and experience and it enchants, in the words of Alfred Gell (1992), because of the skill demanded in adjusting the object to the image or the 'field of reference' it contains and manifests. The reference to Levi-Strauss's concept of bricolage is important here, although it is significant to note that the case studies will draw out not the habituating practices postulated by Pierre Bourdieu's (1977) Outline of a Theory of Practice, but the tempering of the propagating nature of the image which object narratives allow access to. What this tempering is about, how it works and what it is making possible is one of the big questions anthropology can answer. The chapters in this volume will go some way towards this as they are making use of rich ethnographies surrounding the making and using of objects the complexity of which has defied easy categorisation to this day.

The structure to which the essays speak has been created drawing on Alfred Gell's (1992) work on the anthropology of time, underscoring and taking forward the twist introduced by Gell into the anthropological approach to time – in that the focus is not on time per se, but on the way the object makes manifest the quality of processes and actions of temporal cognition. Drawing on Husserl's theory of temporal cognition as a continuous feedback or modification of internal representations of time or internal time consciousness based on a protentional-retentional model, Gell presents us with a theory of the centrality of the relation between an

indexical object and its non-indexical image token. Gell (1992:229–232) shows that Husserl's model has been taken up in the cyclical model of perception, itself descendent from the cybernetic model developed by Miller, Galanter and Pibram (1960) in the theory of behaviour, which was developed by the psychologist responsible for founding the study of cognition, Ulrich Neisser (1976). Neisser's model of the perceptual cycle shows the past and the future with no absolute ontological basis, but as aspects of the cognitive functioning of the organism that is obliged to contend with a world by forming internal representations of it, which are continuously modified and updated.

Drawing on his earlier work (Gell, 1985) on the problem of navigation in space, Gell ingeniously recognises the reasons for the persistent oversight of the necessity for images and their concretisation in objects, which has plagued the legacy of Husserl's work in social theory. In this short paper on spatial navigation, Gell argued that when we use a map (which is a set of non-indexical spatial beliefs), we allow it to generate a series of mental images which correspond not to the map, but to certain perceptual views of the world to identify our position on the map-space (Gell, 1985; 1992:235). The task of navigating, in short, requires non-indexical images that take the form of an internalised map no matter how exhaustive the indexical image of our environment may be that we have stored up, while at the same time the physical map must be turned into images to be useful for navigation. The same consideration applies, so Gell argues (1992:235), to navigating the real layout of events in time of which 'we, as sentient individuals, have to form representations, which take the form of maps' (ibid: 235). To act in a 'timely manner,' we must construct representations of the otherwise inaccessible temporal sequence of events – a so called B series time map, an internal representation or cognitive map of B series time, which does not correspond to perceptual time in A series temporal territory (ibid: 236). Like spatial maps, objects map time by bringing non-indexical temporal belief inscriptions into conference with indexical images, themselves generated from non-indexical cognitive maps, by matching them against incoming information from perceptual exploration and physical manipulation of the environment (Gell, 1992:236). And again, like spatial navigation, the navigation of time requires the counterfactuality of the coexistence of possible worlds whose path can be charted and made accessible to contemplation. Gell's insight that it is modal logic (*ibid*:244) that permits the conversion of non-indexical and indexical images and a charting of paths from one possible world to the next is perhaps the most complex yet most crucial aspect of his treatise, enabling anthropology to execute comparative analysis of seemingly distinct phenomena and practices.

Gell's ruminations on time leave us to see objects, subject to processes and actions attended to as qualities, and their relation to the internal and intuited, non-indexical image in a new light. Rather than just enabling the sequencing and classification of temporal events external to themselves, we

can now see them holding the very temporal cognition immanent within, manifesting and offering it to contemplation and understanding. This means of course that the qualities of non-indexical images and their inhering sequence are accessible to attention and elaboration as much as perceptual images. The case studies which have shaped the chapters in this volume consider how this manifestation of temporality articulates itself and why it matters to people charting the course across possible worlds. To make the case studies more accessible to probing the methodological imperative behind the theoretical move to interpolate object and image with temporal cognition, we have divided them into three grand narratives: diachronic time or time beyond the life span of persons, biographical time and the charting of life projects by navigating possible worlds, and witnessed time when worlds intersect and navigating them involves calibrating what works and with what effect.

Part I – Attending to time: process, action and sequence

Frederick Damon's chapter explores continuities between cosmologies of time and qualities of process manifest in objects across Asia and the Pacific, arguing for correspondence of scale between the intuited processes of an originating condition and perceptually accessible temporal environment. His paper focuses on the outrigger sailing boat that is a common feature across the Austronesian diaspora between coastal China and New Zealand, attended to wherever it is made as an analogy to operational systems underpinning societies, modelling the workings of credit clearing and credit bearing systems, seasonal ecologies and distributive resource systems, land leasehold systems and genealogical systems. Rather than commanding skills and modalities of attention that are specific to the boat as a type of object, Damon shows the continuities that exist between seemingly different processes and their harnessing in distinct types objects. Gardening and carving, growing and sailing are brought into conference with ontologies that inform the close observation and experience in the synchronising of processes demanded for each to work according to expectation. Timeliness here is of the essence and the boat as a physical and ideal object instantiates the qualities of sequences that underpin life.

Ludovic Coupaye's chapter develops this notion of processes-made-object further with the example of the intriguing object of long yams grown as iconic artefacts among the Abulës-Speakers of Sepik River region in Papua New Guinea. Instead of being only visual 'representations' of ancestral values, narratives or even beings, yams are manifesting people's imagination of temporal processes and their propensity for infinite replication of itself. To expose the temporality inhering in the yam as object and image alike, he extends his analysis from their formal and visual appearance towards what they manifest, considering different dimensions and scales of actions by which yams appear in the Abulës-speaking environment (at least in

Nyamikum village). The analysis exposes action manifest in the yam object, the vernacular logic they draw on and articulate and the sequences the actions orchestrate as they shape the yam.

Pedro Cesarino's chapter on shamanic writing and drawn thought among the Marubo of Western Amazonia explores the mnemonic technology of formulaic composition that aligns shamanic imagery with the verbal arts of Amazonia. His analysis focuses on composition, the sequencing and conjoining of mutually constitutive parts, as a key methodological anchor to expose the temporality made manifest in visual and verbal arts alike. It is the nuancing of composition, much like in the Melanesian examples of the boat and the yam, that is attended to as paving the paths to navigating possible worlds.

Part 2 – Navigating possible worlds: surfaces, patterns and shapes

Brigitta Hauser-Schäublin's chapter shows how, in the Sepik River societies of Papua New Guinea in Melanesia, primeval beings – or rather, their particular skins and their properties and innate qualities – are dominant non-indexical images which she sees as comprising 'a cultural keynote,' a repository of images that, like music, is fashioned as sequence from certain modalities of action. The inherent temporality of these images, she argues, informed how people transformed the landscape, their bodies and social bodies when settling in the environs of the Sepik River during the grand Austronesian migration into the Pacific centuries ago. In life cycle rituals, senior, knowledgeable men select and activate pieces of this repository and organise it into sequences that recall, reiterate or re-enact primeval events. The organisation or the configuration of these imagistic fragments differs from manifestation to manifestation, but link seemingly distinct objects and media via their implicit and shared accord.

Els Lagrou's chapter discusses the patterns painted on bodies and woven from fibre among the Huni Kuin (Cashinahua) from the Northwestern Amazonian rainforest. Pattern in body painting and weaving is a female art and is understood by men and women alike to manifest the charting of connections across different topological levels of space-time to access the multiple relations and iterations of this topology that composes individual beings. The art of patterning captures a relational, temporal topography, showing how proper distances should be kept while showing, at the same time, how these distances collapse during the transformational processes of other-becoming that characterise all personal biographies of human beings in this Amerindian relational ontology.

Paolo Fortis's and Susanne Küchler's chapter takes a comparative look at figurative objects that manage relations between the worlds of the visible and invisible among the Guna in Panama and the peoples inhabiting the shores of one of the northernmost islands in the Bismarck Archipelago of island Melanesia. They explore the different articulation of seriality and

sequence made manifest in these figurative objects and the complex ways in which the temporality to which they grant access permits the charting of relations within and across the visible and invisible worlds.

Part 3 – Moving between intersecting worlds: witnessing and questioning

Victor Cova's chapter compares indigenous Shuar architecture with that of hispano-descendant Macabeo settlers in the Morona-Santiago Province of Ecuador and their mutual transformation of each other. He argues that the temporality inherent in the logic of social space allows alliances across the intersecting worlds, yet these are called into question where wage-labour becomes the new determining social relation. The architectural transformations brought about by the confrontation between different building materials and construction technologies – each involving specific temporal modalities of sequence of process and action – he describes to occur when worlds intersect, are shown to shape relations with outsiders.

Graeme Were's chapter explores the selective take up of new digital technologies to present the repository of images in 3D in the absence of the performance of life cycle rituals, within which the images would have been actualised in objects. He argues that the transformation of images from 2D into 3D via digital means have made this technology uniquely capable of maintaining their strategic role in navigating intersecting worlds. The quality of process and action resulting in object forms has remained the same even though it seemingly changed everything.

Note

1 We are grateful to Bob Simpson for suggesting this expression.

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Part I

Attending to time

Process, action and sequence

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1 Asia-Pacific legacies in Eastern Kula Ring outrigger canoes

Frederick H. Damon

Introduction

This paper explores the possibility that well-known features of an outrigger canoe form reveal the laminating processes that are that craft's structure and a mimetic for the region's life processes, its formative history. The images used to make this argument were taken while doing ethnobotanical research centred on Muyuw, or Woodlark Island, in the northeast corner of Milne Bay Province, Papua New Guinea. The pictures depict structures understood throughout the region, the eastern half of the Kula Ring. These extraordinary crafts, which Muyuw people call *anageg,* were first brought to ethnographic scrutiny in Nany Munn's classic *The Fame of Gawa* (Munn, 1986; see also Munn, 1977, 1983). I detail the craft's qualities, ecological relations, relevant divisions of labour etc., in several more recent publications (Damon, 1998, 2008, 2017). Here, I use a selection of that material to emphasise the temporalities arguably present in these forms, temporalities explicit in the parts that go into their production and in their uses though time.

Two sail images provide my ethnographic points of departure. One from 1998 catches a specific characteristic of the tree type used to make the boat's mast. Knowledge of that tree – local knowledge – conveniently attaches us to the ground from which the trees spring. The other dates from a 2002 voyage. It provides a more comprehensive view of the mast/sail ensemble whose functioning aesthetics embrace the culture's encompassing cosmologies – the heavens.

This contribution's theoretical point of departure is two-fold. In the first case, it derives from Lévi-Strauss's 1944 essay 'Split Representation in the Art of Asia and America.' Although many of us read it as Chapter XIII in the 1963 English translation of *Structural Anthropology*, it first appeared amidst the events of WWII, on the eve of diffusionist and evolutionary speculation and the dawn of the structuralist epoch. Then, it was daring speculation about obvious similarities in artistic forms spanning South and North America on one hand and spatial and temporal runs between Shang Dynasty China and New Zealand Maori on the other. Now, I believe these

relationships should be a matter of deliberate analysis.[1] In the second case I explore ideas Küchler (2014) tests under the rubric of 'Additive Technology,' a productive technology which, she believes, while relatively new in the West, is part of a long tradition in Oceania. Küchler's focus is how patches of cloth realise topological calculations in quilts and the like in Central Polynesia. My concern is how various kinds of patches realise a boat form of extraordinary design which, while broadly common to much of the Indo-Pacific Austronesian world, is in fact a unique articulation. I shall try to suggest that it is precisely in how the 'environment … inheres in things' (Küchler, 2014:395) that the images depict a historical process that locates meaningful structures in a particular social regimen. However, I believe the social system is not just the Kula Ring; it is, rather, the spatial and temporal limits charted out in Lévi-Strauss's essay.

Lévi-Strauss's article was an early passage from history to meaning, perhaps the beginning of blushing psychoanalysts. Nevertheless, given what happened to the structuralist movement, it is important to note that built into his argument was a strong defence of historical interpretation.[2] Similarity does not always follow from historical contiguity, but it might, and that congruence must be explained: explicit contiguity is not an explanation for deep functional significance. In any case, today we know much more about circulations throughout the world than when a narrowly contextualised search for meaning took over from early 20th century temporalities, diffusionist, evolutionist or Freudian/Jungian as the case may be. So, we know we must decipher meaning, and that meaning is invariably historically and situationally generated. But are these just external factors or might there be an element of time, of historical process, in the meaning? This is the question I pose in this paper. Before I fill out the temporal/theoretical context for this investigation, let us look closely at the images that set our stage (see Figures 1.1 and 1.2).

These two images present the 'back' and 'inside' of two different *anageg* sails. Figure 1.1 is taken just in front of the mast, on the leading side of the craft, while Figure 1.2 is taken from the trailing half of the boat. Figure 1.1 shows the top of the mast's gentle arc captured in one moment in time; multiple images would show it swaying with the forces of the wind and water on the boat. This undulation is critical to the mast, and therefore the boat's operation; the tree selected for the mast is chosen for such an ability. In contrast, the lines evident in Figure 1.2 represent more secure positions, and concern how the mast is fixed at the bottom in a ball and socket joint. That joint facilitates the mast's movement. By the lines shown in the image, its position is calculated and set given the direction of travel, angle and speed of the wind. The four lines to the right of the mast, called *balau*, control how much the mast veers to the leading end of the boat and how it bends towards the outrigger side of the boat. Near the top of the mast is a piece called *kuk.* Carved to look like a rooster, it always points opposite the outrigger side of the boat. Not counting its cognitive

Figure 1.1 Mast swaying at its top. Photo: Frederick Damon, 1998.

significance, it serves as a pulley for raising or lowering the sail. The harder the wind blows, the lower the mast on the sail. A mortise joint fixes the *kuk*'s position to the mast. Two lines help hold the *kuk* in place. One line pulls it down by a single narrow rope coming off the rooster's neck; a second much thicker tie fastens near to where the rooster's neck juts out and up from a simulacrum of its body and, by a kind of figure 8 loop, to a short rod-like piece of wood that goes through the mast perhaps a third of a meter above the mortise joint. This somewhat strange rope is called *balau powan*, 'testicle of the balau.'[3] Figure 1.2 shows the sail quite low on the mast and angled away from it. Both variations followed from the near gale-force wind blowing when this picture was taken in 2002. Sail height is not evident in Figure 1.1, but when that picture was taken, the sail was quite high and vertical, its long sides parallel to the mast. At that moment, however, a squall was approaching and within a few moments the sail was lowered and positioned so it was practically perpendicular to the mast, its front edge almost touching the outrigger platform towards the craft's leading end.

Figure 1.2 Telltales, *bis* flowing with the stars' powers. Photo: Frederick Damon, 2002.

Figures 1.2 makes evident what is all but invisible on Figure 1.1, the telltales, *bis*, attached to a side of the sail. Usually made from pandanus leaves, these streamers can be found on many parts of the boat. They create a shimmering effect, enhance what is considered the boat's beauty, remind people of stars (and important men) because the twinkling, especially when they rise or set, are said to be a star's telltales (*bis*) and signs of their – both big men and stars' – power. Most importantly, the boat's steersman carefully follows the telltales so that he can pick up eddies off the main wind currents. These eddies might instantaneously reverse the pressure on the sail thereby adding to rather than opposing the forces of the water on the outrigger float; if that reversal occurs, the boat swamps. These boats travel on the edge of chaos.

So, our facts – contrasting images, sails and masts, lines for attaching sail and mast to each other and to the boat structure, roosters and stars – elaborated concepts that function and are well-known to the people of the region.

Let us now turn to our theoretical questions. Preferring not to 'deny obvious relationships' (Lévi-Strauss, 1963:248), I wish to synthesise the historical question Lévi-Strauss posed for us with the processual model

Küchler creates with her 'additive technology'. Küchler takes the example of 3D printing to draw ties between topology, the calculation and manipulation of geometrical forms, and a production process effected by the layering of existing material rather than chiselling of irrelevant forms into a newly desired instrument. Constructing the outrigger craft I am concerned with here entails lots of chiselling, but it also draws on processes close to the ideal type which Küchler specifies. I believe, moreover, that this manner of production dominates the region, the peopled lands adjacent to the Pacific Ocean,[4] Lévi-Strauss organised in his 1944 outline.

Lévi-Strauss's imagination filled a gap in historical knowledge. But his effort connected those points in space and time so that the issue was not just their historical continuity. Rather, he pointed to their meaningful relations through time, ideas which become elaborated by a D'Arcy Thompson (1992) view of transformation over the decades of his subsequent work.[5] Godelier's critique of Lévi-Strauss's use of Thompson's ideas about 'transformation' (Godelier, 2018:377, n. 26) requires that I return to this point. Yet, by means of other aspects of Lévi-Strauss's work, anthropologists have begun to build new appreciations of Chinese plans for action (e.g., Feuchtwang, 2002) and others, deeply influenced by the last 60 years of anthropology (e.g., Dean and Zheng, 2010; Dorofeeva-Litchmann, 1995, 2003; Ma, 2016; Paton, 2013), make China commensurable with pragmatic knowledge systems throughout the Indo-Pacific. Although Dorofeeva-Litchmann concentrates on ancient texts, she reveals structures evident in contemporary Chinese ethnography. And although Dean and Zheng are primarily concerned with understanding temple systems, the context for their significance concerns control and modification of landscapes over centuries. Ma's discussion of Nansha in the mouth of the Pearl River shows how 'Iron bulls' intentionally dropped into the silt-laden stream over several hundred years turn rivers into fish farms, then rice farms, then villages centuries after the actors initiated the process. Meaningful action is realised through time. That time may be the sequence of strokes that form a written character or the layers of silt that season by season transform a plot of space, whether land or sea, into a zone productive for human intentionality. This is life by accretion. Paton's attempt to give an environmental and geological reading to Chinese *fengshui* ('wind'/'water') by realising the flows from the Kunlun Mountains in the Tibetan Plateau to the shorelines of eastern China (Paton, 2013:xii) is precisely to the point. This theoretical reading of meaningful historical relations should throw into relief work others have done with a diffusionist esprit in tracing Indian and Chinese influences into Southeast Asia, the Pacific and beyond.[6] Added to that old work, moreover, is 50 years of archaeological research, linguistic work and reams of social or cultural anthropology. If, on one hand, Bellwood and his colleagues (e.g., Bellwood and Dizon, 2013) trace the East Asian Austronesians out of Taiwan into Southeast Asia, Kirch (e.g., Kirch, 1994, 1997, 2015; Kirch and Green,

2001), on the other hand, spearheads a transformation of our understanding of Polynesia. The peopling of Polynesia might first look like the destruction of tropical landscapes (especially the Mangaia case, Kirch, 1997), yet it more closely resembles landscape modification and transformation that typified China through the millennia, as seen in the work of Dean and Zheng and Ma, among many others. The meticulous fields found across Melanesia and into Polynesia entail the anthropogenic production of resource/nutrient pools that were, in fact, part of the Asian/Australian mode of production (Damon, 2016).

Whatever the fundamental similarities across this region, they must be construed through underlying differences. A principal one concerns the contrast between continental and island structures; islands cannot support the biological mass that continents regularly produce. This major difference likely goes along with a geological impoverishment that is a feature of Australia, and probably New Guinea and the surrounding islands as well. Consequently, intelligent human action in these new environments must entail a diminution of the scale of social action. From an original synthesis, new sets of meaningful relations must be assembled. Accretional action, the laminated, sculpted of fields of China, must realise a different result when the context of social action shifts to the islands – social systems will eventually have fewer resources to use. The iteration of cultural practices in East and South Asia which led to massive human scales had to be inverted when they came to terms with the different, relatively depauperate lands to the south. The appearance now of a second small hominid (*Homo floresiensis* first and now *H. luzonensis)* in this region hypothetically suggests that a reduction of scale seen in the last several thousand years of human action had historical precursors.[7]

The scene

My thesis begins from the ethnographic fact that the *anageg* craft constituted a paramount form for the eastern side of the Kula Ring. As is the case everywhere in the Austronesian world (Manguin, 1986), these boats modelled other aspects of social life – islands, villages, gardens, houses and social relations are boat-like in Muyuw and many other places in this region. Muyuw people held that the Creator Geliu sailed to Muyuw from elsewhere and brought the form of the boat along with all principles of social order. This is a common Austronesian Outside/Inside conception (see Fox, 2008). The *anageg* form was built in and plied the eastern half of the circuit, the largest of three styles in that sector. In the greater region, however, it was one of three large craft; the other two were the *masawa* or *tadob* in the Kula Ring's western half and the catamaran *lakatoi* just outside the system. Ideally and often, the western Kula Ring outrigger is derived from a tree, a species of Calophyllum, slightly different in its morphology and ecology than the Calophyllum species used to define the *anageg.* Those differences

are reflected in the relatively straight dug-out structure of the *tadob* versus the arched keel with attached strakes of the *anageg.* Since the boles used to make these craft are the initial conditions that define their proportions, the boats interiorise local environments. The catamaran-like *lakatoi* was built and sailed along the southeast coast of the mainland, but its Maylu sailors occasionally navigated into the Kula Ring in pursuit of conus shells which they used for their own ritual purposes. Through my years on the island older people were familiar with the boat form. I have never seen one but the trade which brought them into the region was stopped, with government backing in the mid- to late 1960s, by a man I knew – a Muyuw person trained to be a medical orderly. Elders, as recently as 2017, told me they resented that halt because Maylu people brought into the Kula Ring different products from the southeastern side of New Guinea. Arguably, Asia's large scaled ranked hierarchies became smaller, appending social systems in Melanesia.

The point to take from the three boat forms of the larger Kula region is that lived reality juxtaposed different models for life. The initial conditions for at least two of those three derive from very specific local ecologies.[8] How

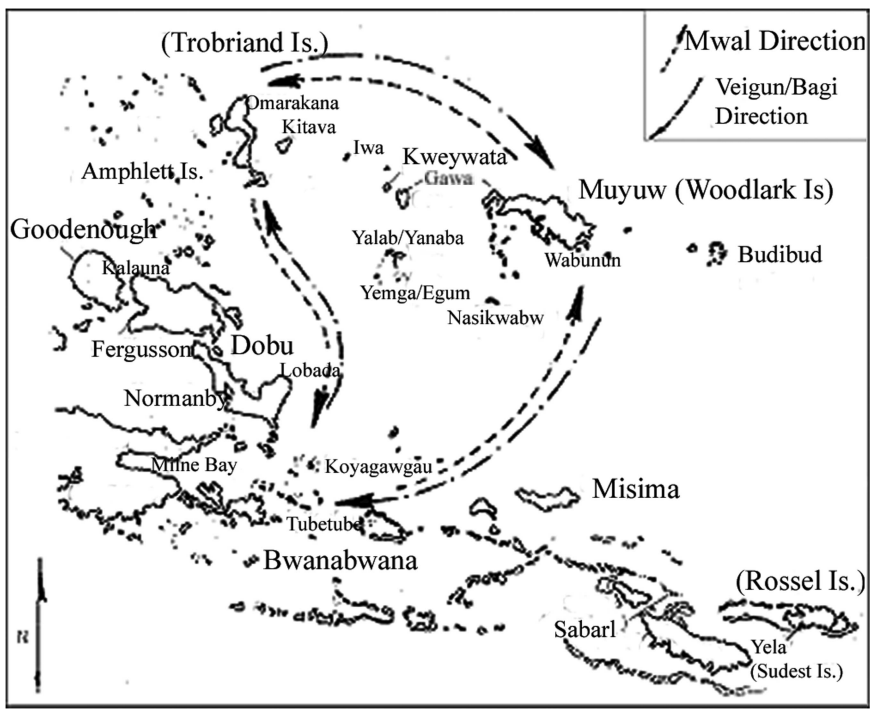

Figure 1.3 Map of the Kula Ring.

the boat's formalised order is realised in an outrigger requires serious inquiry. But it is laid out before every participant in this region by means of village, and especially in garden designs, which people are taught from the time they can walk. These well-known material forms envision a spatial and temporal diacritic. To illustrate, I first set the scene then begin the descriptive analysis (see Kula Ring Map).

Since at least the mid-19th century, the Kula Ring has looked something like that shown in this map of eastern Papua New Guinea. Armshells, what Muyuw call *mwal*, move counterclockwise around the circle, from left to right; 'necklaces,' which Muyuw generically call *veigun,* circulate clockwise, from right to left. If somebody holds one or more of each valuable in their hands, they know the *mwal* – which goes to the right – should be held in the left hand while the *veigun* – which goes to the left – should be held in the right hand. This apparent reversal is consistent with left/right imagery in China, according to Granet's masterful discussion of Chinese left and right imagery (1973).

Everyone who has worked in the Kula Ring since the 1970s learned that people understand the exchange of shells as an encompassing system of relationships. Myths articulate its places. A peculiar geographical model defines the totality. In this model, what we usually call Rossel Island in the far southeast corner of the region is the highest island in the system; the Trobriands in the northwest are the lowest. This inverts the well-known social status differentials. Everyone knows about the unique hierarchy in the Trobriands and the isolating, difficult language in Rossel. Muyuw and Goodenough are about the same elevation in this reckoning. A myth I heard in 2017 has the Kula started by a character from Goodenough who, because of an insult, goes to Rossel Island and starts their custom of making the necklaces for the Kula; by way of Yemga, the myth passes to the Trobriands where the making of arm shells begins. In this account, Muyuw is not originally in the Kula; it is added after because of its sago resources. People on Goodenough do not Kula but seem to resent its activities and for them 'Muyuw' holds a place of somewhat mystical status (Michael Young, personal communication).

Muyuw people, at least, do not maintain coherent accounts – mythical or not – of their history. Unlike in the Trobriands, they have very shallow genealogies. Stone ruins scattered about the island are not subject to speculation or even much organised knowledge. And now it is understood that before the European order there was just chaos. There were no *kula* exchanges, gardens nor villages; some people who maintain that account know it cannot be correct.[9]

The social system I have just described came into being. It had to be made, and its making should be envisioned in relation to recent understandings of the Indo-Pacific since the beginning of the Holocene and sea-level stabilisation some 4–7,000 years ago. By 9–12,000 BP, rice agriculture is being developed across the Asias with land management regimes

organised by the flows of wind and water. Probably before then, Australian and New Guinea people are organising tree and root crop systems largely by manipulating fire.

In current wisdom, about 6,000 years ago, some combination of people, languages and things move from what is now Fujian Province in China to Taiwan. Somehow, these people become the Austronesians who, beginning about 4,500 years ago, move beyond Taiwan to the Philippines and eventually across the whole Indo-Pacific. We know more about the history of this region than Lévi-Strauss could have when he published his analysis in 1944. So, if this new knowledge is in fact behind similarities he identified then, patterns determined as Shang Dynasty probably were part of the cultural repertoire as much as 2,000 years before the Shang dynasty, and they were very likely part of the southern Chinese legacy, not just confined to the north. As is evident from Hung's work (e.g., Hung, 2019), people who genetically resemble those from Australia and New Guinea were once along China's southwestern shoreline. This region has been interactive for millennia.

The Austronesian languages of the Kula Ring area have a distinctiveness that generates their own label – Papuan Tip.[10] If the first speculation is that Austronesians arrived there from the New Britain movement that extended to Remote Oceania, there remains a possibility, nevertheless, that some came from the underside of New Guinea. And although most archaeological data suggest Austronesians were not there until circa 500 CE, Tochilin et al. (2012) suggests their presence some 2,500 BP amid networks that crossed the Solomon Sea.[11]

Whatever the case here – and whatever the communication links that generated this (rapid) spread of people – in a pattern of alternating expansion and contraction that is often witnessed throughout the Indo-Pacific, the Kula region becomes increasingly well-ordered, which means relatively confined, for its own purposes. An approximate date for its current set-up is 1,400 CE.[12]

Unlike patterns evident on the western side of the Eurasia supercontinent where resources are obtained from elsewhere, the regime that became fixed here – from India and China to Australia – entailed producing one's own means of existence, from nutrient pools to basic resources. This generalisation first works concerning foods, but as I became cognizant of the complexity of the *anageg* form, I also became increasingly aware of how eastern Kula Ring landscapes were organised to produce the materials its design required. In 2002, I watched a new outrigger platform be assembled for the *anageg* that brought me to Muyuw. I presumed the trees providing the base of the platform were drawn from what was contingently available. Only later (2009) did I learn that the whole southeastern sector of Muyuw follows an ideal fallowing regime which, among other things, systematically produces the species necessary for that platform; and that this structured relationship between boat design and landscape generalises the whole

eastern side of the Kula Ring (see Damon, 2017 for more details). This brings us back to the contrast between laminating and chiselling. Although some boat parts are chiselled or planed into their final forms, many of them come from fallowing processes that are, effectively laminated anthropogenic zones. The *anageg* mast, to return to this essay's point of departure, is just one *landscape* feature of many on these boats. By landscape, I mean a systematically ordered social fact.

The analysis

Anageg are built to slightly different designs on Kweywat' and Gaw' Islands; Yalab people occasionally build them but they assimilate theirs to one of other two types. The builders, however, are not the primary sailors, so the craft are shunted along to other villages on other islands, eventually ending up in communities whose principal function is sailing and tending the craft. Although Kweywat' and Gaw' people might have to obtain some materials from other islands – notably from a tree called kaboum, which flourishes along the sandy beach fronts of western and northern Muyuw – the boats are complete when released to the people who take over. Those people, however, know or presume two things. First, that the original builders do not know sailing dynamics sufficiently well to trim the boats as they should be. Second, neither Kweywat' nor Gaw' has the best trees for the mast and outrigger float. Muyuw people told me what tree they thought the builders used for the mast, one which they knew to be, among other things, too heavy for the part's purposes; when I asked men from Gaw' which tree they used, they named a different one, slightly lighter but still deficient in optimal qualities. That tree's qualities are ideal for the boat's keel, but inappropriate for the mast.

Every boat, therefore, represents a division of labour expressed between building and carving, sailing, and horticultural expertise.

To an astonishing degree, the bio-ecology of the region conforms to *anageg* design requirements. Although the *kind* – in the sense of a species-like designation – of tree best suited for a mast also grows on other islands in the southern side of the Kula Ring, as known throughout its eastern half, the source of the best varieties of the mast-trees are concentrated in south central Muyuw's hilly region generically referred to as Sulog'. Sulog', long known for ceremonial and utilitarian stone tools for much of what is now southeastern Papua New Guinea, is in fact a massive resource zone, especially for sailing materials. The degree to which its ecology is anthropogenic is unknown, but there is variation – perhaps better put contrast – among the species deployed for masts. The two species come from those regions least touched by human intentions; perhaps related to this, the trees are not chiselled into their required dimensions: they are just planned. Although conceived to be centred in the Sulog' area, it is understood that in increasingly fewer numbers, they spread from there. The

closer one comes to Sulog' the more frequently they are found; in 2002, when we were directed to a certain ridge to find a mast, one of the species was probably numerically the dominant tree for a long stretch of a mountainside. Spread throughout the area were seedlings, saplings, trees of sufficient diameter for a mast, and canopy top mature trees. Although some people once lived in the Sulog' area as sago producers, stone workers and long ago, perhaps, pot-makers, the region is understood to never have been seriously gardened. So, by reputation it is not considered a *sigob* – a place burned over for gardening purposes. Low areas in the Sulog' region harbour sago orchards, and sago orchards are probably more of a fabricated environment than popularly understood, either by us or Muyuw people. They are likened to but not as formally defined as the complex structure that defines a Muyuw garden. Other trees are encouraged to grow amidst orchards to protect them from the wind-squalls that proverbially slam this area. The two trees defined as best for masts are two – among many others – that serve this function.

The two mast-trees are selected for their 'straight' grains. This contrasts with 'interlocked' grains, the qualities desired in the boat's keel and strakes (and other parts). People say the straight grains facilitate bending of the mast that enables wind to spill out of the sail as it must for proper functioning. The relevant bending here is not the complex settings of the sail created as the mast is set for the boat's course, wind direction and speed, though complex arcs/positioning come from all of those. It is, rather, swaying.

Some of my informants broke into laughter illustrating this motion because they think the movement recalls the action of a penis during sexual intercourse. The base of the mast remains immobile inside a cup-like form while the top sways back and forth; the cup-like form – from another species in the same 'group' of trees – is likened to a vagina. My closest instructors who didn't laugh at this imagery also didn't dismiss the equations between body parts, motions and canoe parts because for them male/female relations express obvious and fundamental complementarities, not hidden recesses of the mind. This point bypasses the blushing psychoanalysts and brings us to what we have learned by structuralism's interpretive methods: conscience and consciousness can be much different than was imagined for much of the late 19th and 20th centuries.

The names for these two trees present a situation unlike any other tree names I know. People said there is one kind, *ayniyan*, but then that *ayniyan* is marked by a related name, *aynikoy*. *Aynikoy* is heavier than *ayniyan*. Few people I met provided preferences of one over the other. So, you would try this one and it didn't work, you would try that one. What they are manipulating is how the mast bends, vibrates, and this is carefully considered. And what determines the nature of the swaying are the two-fold factors of density (i.e. light versus heavier) and diameter of the mast. The lighter *ayniyan* is chosen if a larger diameter mast would work better than a narrower

diameter mast. This difference shows that boats illustrate choices made among various possibilities. They exemplify knowledge, practiced skilled labour. I was given no rules on which of the two species should be used. Instead, the right choice comes from understanding the performance of this piece in relation to the other forms in the boat. Not only do these craft become the means for creating sequences of relations among the participants in the system, their very constitution organises complex sequences of functioning parts. Therefore, Küchler's discussion of lamination and calculation is pertinent: the complexity of these boats displays the necessity of intelligent action. When boats sail by a village or are pulled up on its beaches, they are watched and studied.

The names open another vista on these trees. The difference between these two names is the morpheme difference between – *yan* and *koy*. I never asked what *yan* by itself might mean but *koy* is unequivocal: it translates to hill or mountain. And the ecological difference between the two trees is that *ayniyan* is found in lower, wetter regions of the Sulog' vicinity, whereas *aynikoy* is found on higher ground. So, while both trees are associated with the higher elevation of the Sulog' region, *aynikoy* adds a dimension to that marking. And this raises an important possibility. Everything with special power has a quality, a power, called *aniyan*.[13] Some trees and vines have this power/quality as do other entities such as boats, especially significant people and, most importantly, stars. 'Power' – *aniyan* – is released whenever an important person – usually but not invariably a male – dies. Its evidence is a squall, wind and rain. The same thing happens when stars set, when they are no longer visible on the western horizon at dusk; good gardeners should time their activities to the discontinuities created by stars and their power. When the last significant star rises in half of the annual cycle of stars/constellations, roughly in August, the harder southeast wind blows as evidence of the demise of a group of stars. And in fact, all winds are conceived to follow from the deaths, i.e. settings, of stars, people or other entities.[14] These winds are the visible signs of power and they are behind, of course, any boat's ability to sail here or there.

The relationship between stars and boats is profound. The most visible instance of this relationship comes from the telltales that edge sails. These are first and foremost designed to pick up eddies in the ever-changing wind. These craft always sail with a precarious balance and a sudden shift in the direction of wind could change that balance leading to the instantaneous capsizing of the boat. As noted earlier, these telltales are likened to twinkling of stars, most visible at dawn or dusk. When a boat is sailing, the streamers evidence its powers; sailing is taken as evidence of star power.

The boat, of course, is in fact on the water while the star, and its emissions, are up above. Although there are a number of dimensions at play here, some of only momentary significance, what is just as important as the thoughts about star power is the orientation that comes from a star's 'place' (*keb*/*kaban*). These places are a star's rising and setting points on the

Figure 1.4 A close-up of the *kuk*/rooster form pounded into a replacement mast in July, 2002. Compare with Figures 1.1 and 1.2. Also evident are the two alternating lines that hold it in its tensed place. The mast in Figure 1.2 snapped with a sudden eddy, hence the replacement shown here. Photo: Frederick Damon, 2002.

horizon. They create what are called *kut*, a simple word apparently employed with respect to very different entities – head lice (on humans and all animals), floats on nets and a fish. The fish usage didn't make any sense until I learned that it is associated with the upper levels of the water column. All these things are of the above and this means that these boats derive from powers of the above; although they sail on the ocean's surface, they are conceived to harness what comes out of the heavens.[15]

I now work down the mast to the context that hinges its functioning using Figures 1.4, Figures 1.5 and 1.6 to anchor the discussion. This direction is not an artefact of my presentation. Masts are supported by a complex spring system located in the exact centre of the keel, the boat's mast-mount. Critical pieces in the spring sometimes crack, and when they do, I have been told those sailing can hear or feel a kind of snap zipping down the mast. This is the vector of the wind's power being transferred into the boat. The ensemble – the spring mast mount – gears the craft to a certain state; a crack in the spring disrupts that synthesis.

Aside from the very top of the mast, which can take a variety of different shapes, its focal point is the part called *kuk*. It is supposed to look like a rooster. Skipping over important positional information, when I asked why the other three birds known for keeping time could not be models for the

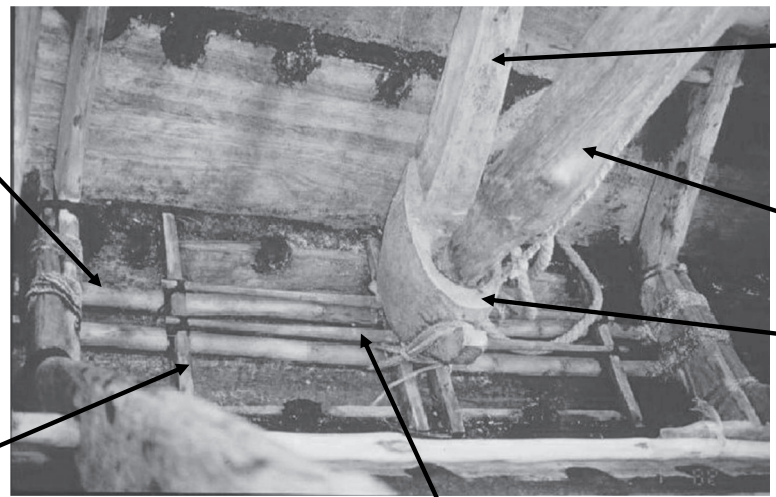

Figure 1.5 Mast-mount structure – the *anageg* 'navel.' Photo: Frederick Damon, 1998.

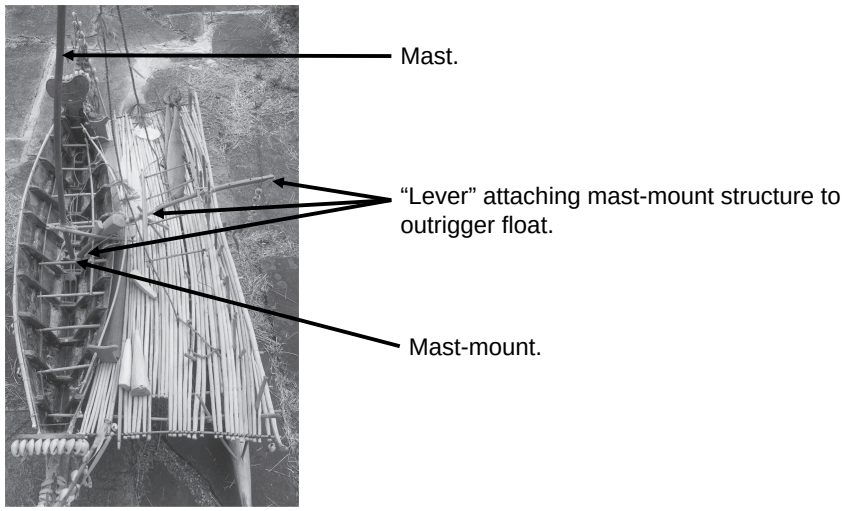

Figure 1.6 A model of the lever connecting the mast-mount to the outrigger float. Photo: Frederick Damon, 2020 of a model built in 2012.

kuk design I was told it was because they didn't have visible genitals atop their heads. The part isn't a chicken, it is a rooster, a male chicken. The powers and efficacies of these boats are consistent with strutting roosters that are part of everyday life in *every* domestic setting.

A mortise and tenon joint connects the *kuk* to the mast and has to be pounded into place. Two supporting strands help steady it. The thinnest of the two pulls the *kuk* down. A more substantial one, the 'testicle' of the *balau,* pulls it up. *Balau* are the lines (forestays in Western terminology) that connect the top of the mast to the front and back of the outrigger platform; the term is also a name of the knot type used in this structure. They go around the specially cut wooden peg that goes through the mast above the *kuk* around which is also the 'testicle' rope. While the *kuk* always points away from the outrigger float and platform, the *balau* lines pull in the other direction, down to the outrigger platform. They are the principle forces used to move the mast towards or away from its leading direction, and bend it a lot or a little towards that platform. Very important lines, the knot-form from which they are named, allows them to be simultaneously strong and easy to alter. Although people speak of them as if they are one, there are in fact two – two strands heading fore, two heading aft. And although the whole mast structure is almost overdetermined in masculine imagery, the two *balau* sets are understood as mother and child/daughter, one larger than the other.

Men from Gaw' told me the *kuk* was a rooster because it keeps time. This partly relates to the time Kula valuables generate, Kula valuables being the most important *things* these boats move. Equally important is the

favoured time for serious sailing: at night, so that stars can be used in navigation and because all chickens fly to surrounding trees or limb-like structures in houses where they snooze until morning. Roosters periodically sound off, and when one starts all follow. People were undecided as to how frequently they sound off – 3–6 is the number I recorded – but in the morning, people often talk about what they were doing at the 2nd, 3rd or nth crowing of the cocks. The *kuk* above is a mnemonic for the passage of time.

I now must switch to the aforementioned hinge, which brings me to the keel with which the structure of this whole form becomes defined. Figure 1.5, Mast-Mount Structure, focuses on the 'navel' of a real boat, the Nasikwabw craft from which the sail in Figure 1.1 was taken. Centering the image is the 'cup' (*kunusop*) into which the mast is set. The word *kunusop* referred to a woven basket women used to weave where they would store coconut shell containers full of fresh water (*sop*). Figure 1.6 is from a model boat built for me in 2012; it enables an understanding of how a lever-like form extends from the 'cup,' goes up along the side of the boat, then reaches out over the outrigger platform and the outrigger itself. That 'lever' is called *duwadul*, a term which also refers to an optimal wind direction – one of three – for sailing: it is exactly perpendicular to the keel, coming from the outrigger side.

To get to the keel, I have to briefly discuss two other complex forms. As a totality, these forms illustrate the finesse of complex structures for although the trees selected to be turned into masts are carefully trimmed for their appropriate functioning, they are not really carved – they are not turned into something other than a pole standing as a vector for the wind's powers. All the parts noted now, although also coming from distinct ecological biomes, some clearly anthropogenic, are carved into new shapes, some with extreme delicacy.

I begin with the cup (*kunusop*) that holds the mast, the part humorously likened to a vagina into which the mast fits. The mast's end is tapered and rounded so that together with the cup, it forms a ball and socket joint. The man who named the rope called 'testicle of the *balau*' – who also told me the mast was not a penis – reported that leaves should be set inside this cup, and that if a boat was really sailing well, you would see water splashing out of the cup. But more interesting is the whole structure of which this ball-and-socket joint is just one part. In principle, the cup is the endpoint of a roughly 3-meter long piece which angles over the side of the boat towards the outrigger float to hold it in place. Although it may be constructed from two pieces, in theory, it is cut from a single branch from another Calophyllum tree that regularly grows next to the ocean so that its larger branches angle/arc out to the sun. Those curving branches are turned into the part. While the cup inside the keel anchors the mast, the part extending over the outrigger platform holds the outrigger float out from the hull. Since these boats always sail with the float facing the waves, the first full force of those waves hit the float, sucking it down. This motion

transfers along the shaft connecting to the cup holding the mast. The part, in short, mediates the two most violent forces the boat experiences, the wind from above and the waves/water from below. As the mast is a straight-growing tree with very straight grains, the tree from which this part is carved bends the most and has the most interlocked grains – they are what gives the part its strength.

I do not have time or space here to go into the ecology and properties of the tree used for the floats but they are part of the extraordinary sequential meshing of design and patterned behaviour that makes up these craft. Although the preferred tree type for the part grows on Gaw' and Kweywat', it is not always used and is not considered as good as those that regularly grow across a band of north central Muyuw, their growth also a product of existing soils and that region's fallow regime – of mid-term rather than short- (eastern Muyuw) or long-term (western Muyuw).

The cup that holds the mast rests on an intricate spring structure that is understood to be the boat's most important part (see Figure 1.5). Eight different pieces go into the structure: two from one tree, six from another – the latter from what is considered the heaviest and most interlocked tree available. All these pieces are carefully shaped. One of the two cut from a single tree has an imperceptibly larger diameter because of the way the weight and force of the mast falls on it. Four of the other six are laid across the keel. They vary in their height; the two in the middle measurably higher than the two at the ends. The final two of the six sit atop and perpendicular to the four that cross the keel. They are carefully tapered so that the thicker parts rest across the two higher cross-keel pieces while the narrow ends are tied to the lower ones. Although the middle two are tied first, the direction of tying has to be from the back to the front – the conceived motion of the boat – and from left to right. When tied in place, these pieces form a spring that exerts a tremendous force up. It reverses the force of the wind on the mast. These forces wear out the two tapered pieces and when these crack, a sound can be heard and there is a sudden lilt to the boat's performance. This is why people say this structure is the most important part of the boat. It is also the one most carefully finished. The two tapered pieces are usually trimmed with pumice worked like very fine sandpaper. This whole structure is considered the navel of the boat, an understanding that makes it equivalent to what is the most inside part of a garden and its most important structure, one brought to the island by the Outsider, the Creator figure Geliu.

Located in the exact centre of the keel, this extraordinary form is the epitome of a contained contrary. There may now be people who do not know about or understand it. In the past, however, that must have been rare because the tree used to make six of the eight parts is the ritual firewood for Boagis, an important sailing village at Muyuw's southwest corner. And everyone who has been there knows that two of the three enormous trees overhanging the village are representatives of this

shoreline-loving plant; these boats' rudders derive from the other towering tree species there.

Contrasting with the mast's straight-grained and straight trees stemming from a landscape the least modified by human orders is the tree used for the keel. Its ecological context is perhaps the most defined by human action. Its wood is extremely interlocked, cross-grained, and the peculiarities of its ecology make the tree arc. This is the tree that Munn first brought to our attention (1977, 1986). It is not only personified, it is widely conceived to be a female. Its ecotonal context, the intersection between cut and uncut forest, is purposely created for it. For whatever reason, seedlings and saplings will only mature into large trees on the base of this edge phenomenon. Keels should only be cut from a tree's heartwood and given that the boat's rock, the arc of the keel, is understood to be fundamental and that arc must come from the tree's growth. Gaw' men told me they selected those that arced more for the keels and those that arced less for the strakes.

The creation of the keel is the initial condition in reference to which every other part takes its place. Length, verticality of the arc, subtle inflections towards the outrigger float at each end, angles of the sides, bird designs that finish each end, and of course the holes for tying the strakes all organise the flows of water on the boat as it is propelled by the wind. Although it involves a few more considerations, these dynamics are brought to the fore by the way of what I call the rudder – *kavavis* – functions. It is cut from another tree with its own unique ecology and properties. These properties include its weight – it is conceived to be the midpoint between the very light Calophyllum and a very heavy wood used to make the spring under the mast (and several other stout parts) – and its ability to be finely cut so that it doesn't crack in use or under the sun as it lays on the outrigger platform when the boat is not sailing. The blade that goes into the water becomes finely and thinly carved. It approximates the curvature of an airplane wing so that water moving by it generates a steering lift. This shape means that it has to be strong. However, it is somewhat brittle so it cannot withstand all the forces of the waves. Therefore, it must be raised as each wave hits so it does not snap (Figure 1.7). It is only raised or lowered flush up against the trailing end of the outrigger float. By being inserted deeper into the water, it counters the wind on the sail. The wind pushes the front of the boat to the outrigger side, to the left. The water rushing by the airplane-like curvature of the 'rudder' moves the front end of the boat to the right. The two motions, mediating the wind and the water, combine to keep the craft on its course. This mediation accents these crafts' synthesis of the forces with which – and propositions about which – the social order that makes life in this place possible.

Figure 1.7 Rudder Lifted Out of the Water for a Passing Wave. Photo: Frederick Damon, 2002.

Conclusion

Twenty years after the appearance of 'Split Representation in the Art of Asia and America,' Lévi-Strauss's began another work with this sentence: 'The aim of this book is to show how empirical categories – … which can only be accurately defined by ethnographic observation and, in each instance, by adopting the standpoint of a particular culture can be used as conceptual tools with which to elaborate abstract ideas and combine them in the form of propositions' (Lévi-Strauss, 1969:1). With several minor revolutions in our ability to understand those empirical categories since 1964, I have sought to defend the historical inquiries Lévi-Strauss built into his paper in part by adding to it a hypothesis about Oceanic modes of thinking and action. Küchler dubs these 'Additive Technology.' What I mean by Küchler's work is a layering mode of action which, by well-fashioned reasoning, turns materials at hand, discovered in the course of eking out lifeways, into bundled values – values that are at once functional,

aesthetic and moral. They direct modes of action that have to fit the new circumstances to which they pertain.

The synthesis I have tried to show facilitates reflections on these processes, for these representations do not split so much as they combine the differences with respect to which these socialities composed themselves. We see this too in the layering of the very forms. To create what is deemed necessary one item from one place, a Sulog mast or Central Muyuw outrigger float replaces the original Kweywat' or Gaw' place holder. The replacements are, sequences of action which are part of the original design. That design is a division of labour across a portion of a regional system that we know came into being. A new structure is tied into the larger composite. Structure is to be emphasised here because this is not just *bricolage*. The existing or created facts at issue here are largely made through time and become patterned together, from existing patterns, not only so that they function as deemed necessary, but illuminate by their combinations necessarily time-loaded forms of life. The boat becomes a simultaneity of – a composition of – different durational processes: trees from early fallows here, mid-fallows there, no-fallows somewhere else (Sulog'), all eventually combined by skills differentiating builders from sailors, sailors from horticulturalists. *Anageg* are Austronesian sailing craft – but as transformations of other possibilities, they are a unique, very specific, and diacritical design. They put together wind and water, the Chinese synthesis, but the ensemble locates and is located by new forms that became a different well-known and formally elaborated model. I believe basic principles of order that we commonly understand as Chinese found their places in the systems of orders and practices that we came to know as the Kula Ring. The *anageg* boat form instructs us to understand that what is at issue here is not the diffusion of pre-Shang Dynasty ideas into the Pacific. Rather, it shows a regime of action that was made to make sense across these precise islands.

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Notes

1 According to Godelier (2018, xvii-xviii, n. 10), Lévi-Strauss's conjectures have been confirmed by Dunis (2016).

2 "If history, when it is called upon unremittingly (and it must be called upon first), cannot yield an answer, then let us appeal to psychology, or the structural analysis of forms; let us ask ourselves if internal connections, whether of a psychological or logical nature, will allow us to understand parallel recurrences whose frequency and cohesion cannot possibly be the result of chance" (p. 248; italics in original).

3 Close-up images of these forms may be found in the pictorial accompaniment to Damon (2017): https://pages.shanti.virginia.edu/Trees_Knots__Outriggers/chapter-4/.
4 Graeme Were (2019) adds to what Küchler's additive chiseling, subtractive, processes. Given the prominence of additive processing in China it would be useful to contrast it with the place of jade in Chinese culture.
5 I thank Paolo Fortis for pushing this point. He also suggested I add to Lévi-Strauss's "split representation" essay The Way of the Masks, a much more focused, temporally and spatially, exploration of the transformation of forms across time and space. I consulted the 1988 translation. And on a slightly different level he suggested the historical argument of my thesis be compared with the one proffered long ago by Richardson and Kroeber (1940). Lévi-Strauss cited that essay with favor in his "Social Structure" chapter (1963: 283) but he was careful to distinguish between the numerical, statistical nature of the Richardson and Kroeber effort and his own push towards "qualitative" analysis, drawing from "mathematical logic, set theory, group theory, and topology" (ibid.).
6 Included is the old but useful Barnard (1972) collection (note Bellwood's, 1976 review of its second appearance [Barnard 1974]). Wheately (1983) might be added to this body of work. For him, Melanesian ethnography may just be a heuristic for analyzing other places.
7 Flannery, 1994 remains my source for this synthesis, which I use on slightly different materials elsewhere (Damon 2016). His 1994 miniaturisation theme finds a new enunciation in his recent (2019) tome on Europe.
8 Damon (2017 Chapter 4) provides a fuller discussion of the ecological conditions noted here.
9 The archaeology of this region is undergoing a second coming. Irwin et al. (2018) is a recent synthesis. However, it ignores the building of megalithic structures across the northern side of the Kula Ring which date from ca.700–1400CE. See, for example, Bickler (2006) and Bickler and Ivuyo (2002). The speculations in Damon (1979) and (1983d) are likely to prove productive with new research.
10 My knowledge of the current linguistic synthesis in this area stems from the continuous work of Ross et al. (2007) and through personal communication with Andrew Pawley and Malcom Ross.
11 Linguists (Pawley and Ross, personal communication), find no linguistic support for that possibility.
12 This date follows from Ambrose et al. (2012), the time when incised conus shells become part of the archaeological record throughout this region.
13 One informant stressed the sound differences between ayniyan and aniyan saying they were unrelated words. Others grasped the obvious affinities and said they were semantically related.
14 Including some trees and some living creatures, e.g., banded sea snakes (Laticauda colubrine). See Damon (2017:332–337).
15 The highest peak in the Sulog regions is called Tabukuiy. Some speculate that this could translate to something like "sacred mountain." In 2017, I sought to explore this possibility with my closest friends but I learned nothing of interest. That might mean that the critical information about that place is held by others.

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2 The living shape of time

Time and technics in the case of Abulës-speakers yams

Ludovic Coupaye

Introduction: can time be of the essence?

To many contemporary anthropologists' eye, the stubborn immobility and presence of a particular object, especially when looking at artefacts in museums, implicitly poses an almost nagging challenge to our experience of time. Indeed, things and images appear as – at times, even require – a pause in what Henri Bergson (2004[1896]) analysed as the constant flux of our own thoughts. As a result, at first glance, they often look as if only concrete, tangible and bounded entities, mostly immobile – unless we move them or consider them to be auto-mobile.[1]

It is not surprising, then, that the same Bergsonian tradition has challenged this essentialist vision of artefacts and demonstrated many ways in which things encapsulate temporality. One of the most interesting attempts is arguably the one made by the art historian George Kubler (1962), in his discussion of artefacts as instantiations of a prototype whose origin might be forgotten, but which apparently can be felt in the changing echoes of similar forms propagated in time and space (Kubler, 1962:39–53, 62, 71–77).[2] It is, in particular, his idea of each form as a new instance, 'holding together the present and the past' (*ibid.*:72), which is relevant to my paper.

This very idea of conjunction of temporalities contained within an artefact is what invites me to conduct an analytical experiment on my own material. To do so in an ethnographic manner, I will draw from two Bergsonian inspired approaches to artefacts, particularly those initiated in France by the anthropologist and prehistorian André Leroi-Gourhan (1993[1964]) and the philosopher Gilbert Simondon (2017[1958]). Both researchers saw ethnographic and archaeological (for the former) and contemporary (for the latter) objects as the results of an encounter between virtual temporal tendencies and particular milieus (presenting a set of historical, social, environmental conditions), actualised – one could almost write 'precipitated' – in unique and specific forms – artefacts. In turns, both understood the mode of existence of artefacts – that is, their appearance, their functioning and how humans engage with them – as generating their own milieu, which

includes cognitive, social and material conditions, as well as memory and temporality.

It is this idea of the mode of existence which I hope to put to work to reveal the particular temporalities encapsulated in such things. To do so, I will use my investigation of Abulës-speakers' ('Abelam') long yams cultivation, display and exchange. When brought together, previous analyses of Abulës-speakers' visual system and the particular temporalities yams encapsulate and generate around them invite me to suggest a couple of hypotheses, which might contribute to current debates on materiality, visuality and temporality. I suggest that yams, as a particular category of 'artefacts' made to be witnessed, give us an insight into vernacular (*emic*) notions of temporalities which (1) transcend the distinction between the sequencing of time and the unfolding of this sequence in particular *forms* in both its concrete and conceptual sense and (2) hints at how this unfolding happens in intertwining substances, entities and places. Ideas of sequences,[3] as I will discuss, are both experienced through garden activities, their rhythm and their relations from which yams emerge, and the succession – or rather, iterations – of the tuber itself in annual forms.

It is, in particular, the vegetative dimension of the plant itself and its behaviour that I found one of the analytical hinges that leads this paper: temporality is experienced then as an unfolding sequence of events which, in the yam, takes the shapes of *paatë*, the vines, a term also used to qualify both a lineage and a 'way of being/doing' – that is, a *style* – rhythmed by the succession of *tulë*, the knots of the yam vine, a term that also refers to a temporal period.

Before I go further, I recognise that there could be a debate about whether long yams can – or should – be considered as 'artefacts' or not (Ingold & Hallam, 2014:17) and I am aware that they are like no other. As living beings, they can reproduce and propagate without human interference which makes them profoundly different to a carving, a painting or a ceremonial house. Abulës-speakers are aware themselves of this difference, particularly as they are also food items (see Coupaye, 2018). What allows me to make this analytical move partly comes from the ethnography itself – in particular, the practice of decorating and displaying them, along with the generic terms used of carvings, *wapinyan* (literally 'the children of the long yams'), which indicates an indigenous analogical association between the two categories of things worth exploring. But it is also because yams emerge from processes, organised in sequence, intentionally made complex and heterogenous, that not only fit the Maussian definition of technical acts, but also of ritual and aesthetical ones (Mauss, 2007[1947]:67–68). As I have argued elsewhere (Coupaye, 2013:16–19; 2018:5), I mobilise such a category as a sort of 'chess fork' move to place my analytical position in a way that tackles a limited and modernist understanding of both artefacts as 'artificial' things, and of 'technical processes' as outside of the social domains.[4]

In this paper, I am using my own ethnographic material from Nyamikum – an Abulës-speaking village close to Maprik, in the East Sepik Province, part of the Samu-Kundi dialect – to describe the mode of existence of yams, and then I try and extract from there some elements to think through the relation between visuality, temporality and sociality. I am particularly focussing on the facts that yam cultivation is *vernacularly* about the control of time-creation process, and that yam ceremonies are about *presencing* – or *present-ing* both past and future relations. Visually speaking, decorated yams echo with many other Abulës productions, especially ancestral painted or carved images and body decorations, and indeed use the same ornaments that humans don for ceremonial purposes. This creates a tight visual network of cross-references that do not need to mobilise elements from the oral tradition or ancestral narratives (Forge, 1973; Hauser-Schäublin, this volume; Coupaye, 2017).

But I make the hypothesis that, instead of only being visual 'representations' of ancestral values, narratives or even beings, yams could actually be at the very source of people's imagination of social and historical temporal processes. It is because their presence brings together past events and future potentialities, at a particularly pivotal moment of 'contact,' a pause, a condensation into something that can be seen – witnessed – thought about and evaluated, before resuming its trajectory.

To describe and understand their specific temporality, I am forced to extend my analysis from their formal and visual appearance towards what they *manifest*. Conducting this experiment requires considering different dimensions and scales of the ways in which yams appear in the Abulës-speaking environment (at least in Nyamikum village), among which I select only two.[5] One deals with actions – the vernacular logic they operate and their sequence – the other deals with the intertwining of substances, entities and places that makes them emerge as specific forms.

I will then try to reflect more generally on the ways in which artefacts can contain both order and generativity, permanence and change, and appear as results of past successes as well as potentials in generating the future.

Yams short ethnography

Abulës-speaking people of the Maprik area have been famous in the literature for cultivating specific cultivars of yams (Mead, 1970[1938–1940]; Kaberry, 1941; Forge, 1965; Tuzin, 1972; Hauser-Schäublin, 1987). Two main species of yams are cultivated in Nyamikum: *Dioscorea esculenta*, the Small Yam, called *ka* in Abulës, and *D. alata*, the Greater Yam, called *waapi*. Both species are present through a wide range of cultivars, with specific morphological and behavioural characteristics, locally identified (Lea, 1964:112; Curry, 1992:47; Coupaye, 2013:2–38).

Short yams (*ka*) are cultivated by both men and women, in regular gardens, alongside other species such as taro, bananas, and a variety of greens,

while *waapi* are grown in secluded areas, and their access is restricted to the male owner and its allies. Every year, a new garden is opened and planted with 'new' *ka*, and the garden opened the year before is planted with 'old' *ka* (Figure 2.1). As years pass, garden plots are used as a nursery for secondary species until the bush reconquers the space. In parallel, people tend to sago groves and cultivate cash crop – cocoa, coffee, and nowadays, vanilla. Nyamikum gardeners cultivate up to four gardens in parallel.

Once harvested, long yams (*waapi*) are richly decorated in ways that echo with ancestral images and displayed during annual ceremonies, called *Waapi Saaki* ('The Lining-Up of Long Yams') in Nyamikum village (Coupaye, 2013), which feature the main cultivar, called *Maabutap*. During these ceremonies, tubers are then evaluated by groups of other cultivators, women, including visitors from other hamlets and villages.

After the ceremony, a given *waapi* can be kept by the cultivator or given away as valuable, alongside shell rings and cash money, as compensations for disputes, funerals and marriages.[6] In both cases, the tuber can be either partially eaten (as a ceremonial food), or a section of it can be cut out and replanted.

Because of their multivalence – as plant, food, ancestral images and valuables – yams occupy a central position in Abulës-speakers' imagination (less so in recent years due to changing interests towards modernisation, cash earning practices and hopes for 'development'). But it is also their mode of existence and the activities associated with it which gives its tempo to Abulës-speaker's social life. Such temporality creates a sort of 'yam ecology,' which interweaves vital processes and technical (including ritual) ones (Coupaye and Pitrou, 2018) – the latter to be understood not only as a 'productive

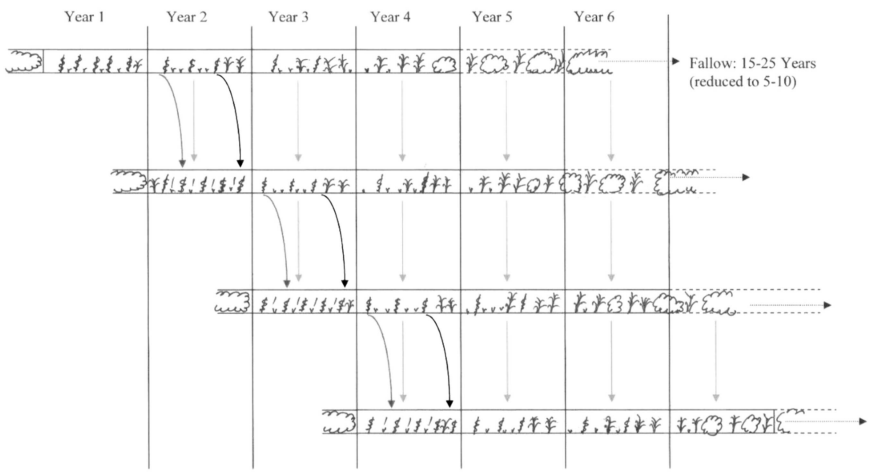

Figure 2.1 Garden succession. Grey arrows: movements of the 'new' short yams. Black arrows: movements of the 'old' short yams. Light grey arrows: transplanting of 'secondary' species.

transformation of raw materials for needy human subjects, but also as the technical materialisation of vital tendencies within the world, both regenerative of mortality and productive of timeless life,' as Abramson puts it (2018:57).

Modes of relations between sociality and ecological rhythms are an old topic in anthropology (e.g., Mauss and Beuchat, 1904–1905; Malinowski, 1927; Evans-Pritchard, 1939). I wish to take it from the angle of the ways in which yams, *as displayed artefacts*, provide – both to the Abulës-speakers and the anthropologist – an insight into the ways on which artefacts, despite their apparent *presence*, render visible both the past and the future. Taken as artefacts, yams display a form of materiality, which whilst specific to this ethnographic context, also reveals something about the ways things relate to time which Abulës-speakers actually have taken up.

Their status as cultivated living beings that replicate and propagate through cutting is something which also reveals a typically Melanesian understanding of materiality associated with the reproduction of human beings, lineages and migration, justifying André-George Haudricourt's definition of Melanesia as a 'Yam Civilisation' (1964; see also Strathern, 2017). As artefacts decorated and displayed, it seems that they also present us with an interesting case to think through the process they emerge from and the ones they afford.

Yams as time machines

Yams are the results of a year-long cultivation process, rhythmed by specific steps, triggered by stages in the development of the plant itself. Each of these stages, identified by the plant's appearance and behaviour, corresponds to a set of operations aimed at ensuring the growth of the tuber. These steps are organised in a temporal sequence which unfolds during the interval between two yam ceremonies, themselves forming the transitions between two cycles. The whole process[7] recruits the participation of both humans (cultivators, kin, allies, women, competitors) and non-humans (land, rain, sun, ancestral beings, the dead, and other entities located in the landscape) and requires the gathering of a variety of substances and materials – some tangible, other not. All of these are recruited or transformed by specific technico-ritual activities, performed either on the plant, the body of the gardeners, the land or even the whole community. Each operation (be it ritual or agricultural) is moulded by an indigenous logic of action ('efficacious' and 'traditional' as Marcel Mauss defined them; 1973[1935]), corresponding to a particular cultural ethos where technical actions are aimed less at controlling things (and people) than creating the best possible environment for an optimal growth and manifestations of their potentialities (Haudricourt, 1969[1962]).

The nature of yams as living beings and the material processes they require have several consequences on temporality. First, on the ways in which

their cultivation creates specific rhythms on the village life and the whole area. Second, on the type of temporality they manifest.

The spatiotemporal creation of Abelam Yams

The reference to Nancy Munn's – one of the first anthropologists to examine an artefact in a way that transcended its immobility – famous article (1977) is voluntary. Yam cultivation is a time-making process, bounded by the *Waapi Saaki,* in Nyamikum set at the beginning of June. In between, village life is rhythmed by gardening activities and each period can be identified by the formal steps, depending on the stage at which the plants are: the period when they sprout; the growing of the vines (*paatë*); when vines start to become brown; when they dry; when the time to dig underneath the mound to check the growth of the tuber comes; the time of the ceremony (see Coupaye, 2013:110–118).

In Nyamikum, the planting of long yams can start around September–October and are harvested eight to nine months later – that is, the end of April, beginning of May of the following Western calendar year. The planting of short yams happens in two different gardens in sequence. The first one in August–September in the garden opened the year before and yields in March–April tubers that are called 'old yams' and provide the food for the ceremonial season. The second one, in November–December in a newly opened garden, yielding 'new' yams in June–July (Figure 2.1).

However, in this complex process, there is a time reckoning device. The warden of the sacred stone dedicated to Maabutap, stored in a secret place, is said to oversee the track of time by lowering a chain hanging above the stone every new moon. When the tip of the chain touches the stone, the warden signal to cultivators that the time of harvesting long yams has come (Coupaye, 2013:199).

All these operations mark different moments in the village, identified by the type of food available, corresponding to a specific type of social activities. The division is in two periods: *kwi tulë* – often translated in English as the 'time of hunger,' or in Tok Pisin 'taim angri' – and *këraeka tulë* – the season of 'taking food' (Coupaye, 2013:31, roughly between November and May in Nyamikum, see also Losche 1982:184; and Huber-Greub, 1988:11–120). These two periods mark the availability of the yams and changes in diet. But the term *tulë* is of importance. It is the same term used to describe the section of a yam vine (*paatë*) between two sets of leaf or of a bamboo between two knots (Coupaye, 2013:31). The term is also used to describe the *Maabutap dukutulë* or *dukubapmu* ('period' or 'moon of Maabutap fever'), corresponding to a period of friendly competition and theatrical orations and wordplay based on sexual innuendo and ridiculous situations using *ajaa kudi*, which starts once the major work in the long yam garden work is completed (Coupaye, 2013:196–167).

But, already noted by Scaglion and Condon (1979, see also Scaglion, 1999 as well as Harrison, 1982, for the Manambu), this rhythmicity also marks

different moments of the social life of the village. The harvest of the main long yam cultivar, *Maabutap*, around April marks the threshold position of the end of the 'night' and the start of the ceremonial period, closing the Yakët period (Coupaye, 2013). This period, covering the entire growth of long yams, includes the proscription of sexual activity and aggressive behaviour when, in previous times, the war was conducted and initiations and opening of ceremonial houses were set.

In this overall sequence, the main pace is given by the long yams and their own rhythm. Ceremonies are prepared and carried out, ritual restrictions start and stop, and gardens are opened, planted, tended and harvested in a cycle marked by the growth and maturing processes of the cultivated species.

This intertwining of vital and technical processes (Pitrou et al., 2016; Coupaye, 2018) gives the entire village a form of pulse of food items going in and out (of gardens, of storage house) to be planted, exchanged and eaten. But this tempo mobilises more than one village. Long yams ceremonies mark the transition of a cycle to the next one. At the scale of the Samu-Kudi area, the first yam ceremonies are carried out in the western part, starting in Apangai – a village central in the oral tradition (see Losche, 1995; McGuigan, 1992) – around mid-April. Then, villages located in the east have their own in succession, following the course of the sun as well as the trajectory of migrations in oral history narratives of Abulës-speakers after they left the banks of the Sepik rivers, possibly one or two millennia ago (see Coupaye, 2013:231–234), ending towards Waigakum around October-November. This allows all cultivators of any given village to attend other ceremonies but also implies that because the planting and harvesting are geared with the moment the long yam ceremonies happen, food production start in Apangai over six months prior to the east (see Hauser-Schäublin, 1989:204; Coupaye, 2013:231–237). At the scale of the Maprik area, yam cultivation forms a meshwork which runs through the village life, the surrounding areas, mobilising discreet negotiations between gardeners of several localities and outlines an extended cosmo-political grid (Coupaye, 2012, 2013:231–237) encompassing the entire Abulës-Speaking region (at least of the Samu-Kundi area: McGuigan, 1992:69; Kaberry, 1941:234) (Figure 2.2).[8]

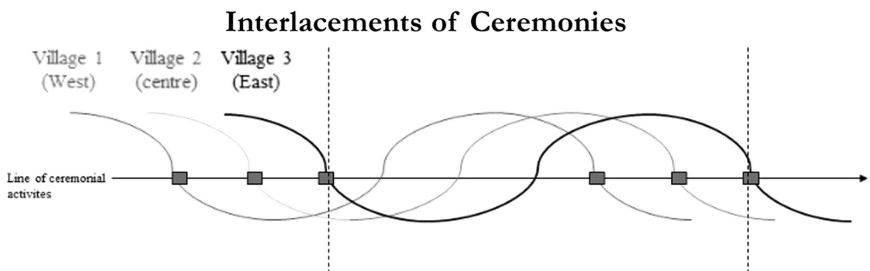

Figure 2.2 Interlacement of ceremonies: succession of ceremonies/cultivation cycles.

Yams, as living beings, are what give its tempo to social life. The vital processes of growth and maturation are in gear with specific socio-technical operations. It creates a whole proper ecology of time (Evans-Pritchard, 1939), in the etymological sense – *hoikos*, the 'household' – which mobilises socio-political relations, ritual moments and food production. Vital processes that make plants grow are imbricated within a whole technical process (Pitrou et al., 2016) of cultivation, and in previous time, preparation and performance of ceremonies are aimed at controlling the circulation of vital substances and the reproduction of people and things. In the words of Nancy Munn (1992: 116), time is

> a symbolic process continually being produced in everyday practices. People are 'in' a sociocultural time of multiple dimensions (sequencing, timing, past-present-future relations, etc.) that they are forming in their 'projects.' (Munn, 1992:116)

In this dance, yams are giving the tempo of everyday practices. Indeed, depending on the task to be conducted in the garden, Abulës-speakers elicit specific temporalities of sequences, timing and past or future relations. In her suggestions, Munn invites us to pay attention to the scale of observation, description, and analysis. For the actors, themselves,

> 'particular temporal dimensions may be foci of attention or only tacitly known' and our own investigations unveil which dimensions are 'lived or apprehended concretely via the various meaningful connectivity among persons, objects, and space continually being made in and through the everyday world' (Munn, 1992:116).

In this case, I suggest that, as living beings/artefacts, yams also provide Abulës-speakers with an actual prototype to think through the ontogenesis of people and things, as I will discuss in the next section. It is, as Matt Hodges (2008:405) remarked, the moment when a non-human has a proper agency in human affairs. While I have no space to develop these ideas, yams are indeed *instantiations* of 'qualitative multiplicities,' whereby as Hodges (2008:411) reminds us after Gilles Deleuze (1991[1966]): past and present actually coexist. This brings me to the second element of yam's temporality.[9]

Yams as timeless beings: the immortal individual

Historically speaking, yam cultivation can be traced back to about 10,000 BP (Haberle et al., 2012) in the Kuk site (Golson, 1990), probably reaching Sahul from the South East Asia along with other edible plants (Barrau, 1965). Interestingly, this historical depth does not solely testify the ancestry of plant cultivation in the Pacific area. It also touches upon the ways yams themselves are locally conceived.

Yam cultivation is based on the vegetative reproductive capacities of the plant. Like a wide range of species, mostly producing tubers (sweet potatoes, potatoes, cassava or taro) but also other types (such as cordyline, banana or, in the European basin, grapevines), gardeners have not tried to control their sexual reproduction, but instead have harnessed their capacity to propagate by cutting a portion – or 'setts' – of an original plant which, once replanted, will develop into a new one. In the case of yams, a part of or the whole sprouting tuber (including its skin), is gently placed in a prepared hole and covered with soil. As the plant grows, the original sett will be depleted, and new tubers will start growing underground.

This mode of propagation is based on a vital process which is simultaneously a vernacular model to understand sociality itself, including relations with kin, with others, with ancestors, and, of course, with time itself (Haudricourt, 1987[1964]; Battaglia, 1991; Mosko, 2010; Strathern, 2017). This model of reproduction makes all specimen of the same cultivar the clone of one another. As Isaac C. Burkill – one of the first botanists having investigated this plant – puts it, each time a cultivator plants a yam,

> (…) he keeps alive the one individual plant, and he has done this through all the centuries for each form (clone) that he possesses. When we look at one of them, we are looking back, wonderfully, though we do not know how much of the past. Plants would fruit at times throwing divergent forms; and each clone now persisting is the individual that first attracted the attention of the cultivator who annexed it (1951:444).

In other words, whilst some small genetic modifications can occur in the process of cloning/propagation when facing a particular tuber, one might be in the *presence of* a very ancient being, whose essence is dispersed and propagated into many places.

Such a property might not have escaped Abulës-speaker cultivators. Indeed, a particularly spectacular tuber displayed during a ceremony can receive an individual name – sometimes taken after its cultivator – which will be used for each iteration in the following years. Public discourses during village meetings resorting to the metaphoric *Aaja-Kudi* mode of oration (Huber-Greub, 1988:254–266; Coupaye, 2013:153–155), then, could refer to forthcoming yam ceremonies as the 'return of the ancestors' as yams come back in a new shape – placing the past ahead as Hauser-Schäublin (this volume) indicates. Yams are, thus, the replica of one another, but also (spatially) dispersed images of an original ancestral (temporal) substance – in other words, a prototype.[10]

But this capacity of being replicated also forms the crucial background against which the gardener's capacity can appear. Indeed, as noted by Haudricourt (1987[1964]: 288), the selection of yams as the object of evaluation is grounded on the fact that any difference between exhibited tubers is only the index of the cultivator's ability to master the complex socio-

technical process of gardening and cannot be imputed to the plant itself. All gardeners start on the same blank canvas, upon which their individual capacity can be read (see Coupaye, 2013:288). It is the materialised, paused and framed result of a personal performance of a highly complex sequence, a particular interpretation of a general rule, a way of making culture which is displayed on the ceremonial ground during the 'lining up of long yams.'

Ceremonies as pause and framing

Yams are visual images that, until at least 2014, captivated their audience and mobilised most of the people, otherwise engaged in their everyday life.[11] The 'Lining Up of Long Yams' – the *Waapi Saaki* – created a 'frame' (Lewis, 1980:30–32) which isolated the yams from an undifferentiated background of their everyday mode of existence. The ceremony was another 'punctuation' (Turner, 1982:246), like other emically identified steps in the cultivation process, creating a particular moment of 'different/citation' (Hodges, 2008:410–411 after Deleuze 1995[1968]). It formed a 'stop' in the flow of events, a 'cut in the network' (or more accurately the 'meshwork,' Knappett, 2011), as Marilyn Strathern's discussion of Bruno Latour's proposal (1988) puts it; a pause in the spatiotemporal flux of their constant becoming.

This framed pause was intentionally made to bring attention to them and alert the audience of their presence. Decorated yams were revealing what was no longer there and what was otherwise too transient to see while concealing details about their 'coming-into-being' (Coupaye, 2013:276–278). It allowed imagination and narratives to unfold around decorated yams and, I suggest, created a particular 'presencing,' in which both past and future were brought together in the shape of tubers, through evaluations and prospects.

The very framing is arguably where yams also fit many definitions of the term 'image': they were indeed presenting something that was 'in the likeness of,' a 'reflection' or 'the materialisation of a mental representation' (Oxford English Dictionary, 2018, n 2a, 2b, 5a, 6b, 7a, 7b). This framing emerged particularly from the series of decorations – a specific set for each type of cultivar (Coupaye, 2013:209–216) – which, in the past, created analogies with other types of visual productions – in particular, paintings, carvings, and body ornaments worn by initiates (see also Hauser-Schäublin, 1995).[12]

Decorated yams appeared as another instance of the Abulës visual system, whose vitality and coherence were, in previous times, ensured by the intricacy and richness of its motifs and the internal logic which sustained its iconography across media. Anthony Forge's careful analysis of 'Abelam' motifs (1973) led him to infer that their imagery was about relations, a foundational idea rephrased by Diane Losche (1995) in a way that explored the fundamental agentic dimension of Abulës-speakers' iconography. This

visual effect also worked on complex semiotic processes of evoking ancestrality and making it *present* (Coupaye, 2017).

By presenting the results of the past actions, each gardener actually displayed the result of his own (effective) performance of a transmitted and learnt way of growing *waapi*, which corresponds to the Maussian (1973[1935]:74–75) definition of a 'technique.' This was evidenced by the content of yams evaluations by the audience during the ceremonies since all were growing the same plant in its many instances. These evaluations only partially dealt with the formal aspects of the yam – its size, its smoothness, the regularity of its whole shape (see Coupaye, 2013:221–223; 277–290). The core of the discussions was about the actual *history* of the tuber (from whom did the cultivator acquire the original sett, his clan, his partners and allies …) and speculated about how he managed to obtain such a specimen, considering that all who use the same cultivar are starting on the same footing. As Michael O'Hanlon (1992) brilliantly demonstrated about Wahgi's performances, evaluations were about assessing (past) social relations that have led to the emergence of a particular (present) form. As displayed tubers were destined to be exchanged, partially eaten or used as a source of cuttings to be replanted, the past here was elicited as a background for future actions. It was indeed a biography (Kopytoff, 1986) of the tuber – from the original sett to the plant, then to an extension of his cultivator, to an ancestral image – before it becomes food, a valuable, or give out a sett to be replanted. The particular spatiotemporality of yams allowed for projections of what could virtually happen in the future: to whom would the yam be given? What types of networks of cooperation and competition did it mobilise? Which relationships would it be a compensation for?

The display of the yams during the ceremony constitutes a pause not only to manifest what has been but also to give the audience a glimpse of the future, a promise of renewal, return and generation of future relations. This evokes Alfred Gell's concept of 'time maps' (Gell, 1992:229–241),[13] as *waapi* fundamentally holds both the past and future. Indeed, it is through the inherent transience of both the *Waapi Saaki* – when *waapi* are publicly revealed – and of the actual tubers themselves – which will be cut, consumed and replanted to bring forth new one(s) – that decorated yams hold together both past actions (the origin of the tuber and the performance of the technico-ritual process of cultivating them) and promises of future relations.

The evaluation process was also crucial to reassert the customary appropriateness of the ceremony. Judging the yams was also judging the performance of 'tradition' which, in Tok Pisin, is described as *kastom* or *we bilong mipela* – 'our way,' making the whole ceremony another Maussian technico-ritual act. However, this specific phrasing also highlights something crucial in our discussion about time. This 'way' is actually a way of doing things – also phrased as *stail bilong mipela*, 'our style' in Tok Pisin, and in Abulës, *paatë.*

The specifically Abulës relation to time is encapsulated (literally) in the temporality of yams. Their replication is simultaneously that of an ancestral substance/figure as well as the materialisation of a particular individual way of doing things – a *paatë*, that is, the vine, the lineage and the style (Coupaye, 2013:286–290). It is about the ability of humans to engage in the appropriate and effective re-production and dispersal of specific forms or images which are related to a past prototype (the proper way of doing things, the original clan, the original tuber, the ancestors,) and contain within themselves the capacity to generate other forms and other relations.

Conclusion: *paatë* and *tulë* as the shapes of time

Paatë allows the suggestion that Abulës-speakers are themselves aware of the fluid nature of time, as well as of its materialisation into specific instances – presences. The very fact that *paatë* is the term used not only for yam vines but also for lineages, sequences and style is evidence enough of the sophistication of Abulës concepts of sociality and temporality. Merging both the sequencing of time – through the *tulë*, the section of the yam vines which appears gradually as they grow – and its unfolding in particular forms – vines, whole plants, people, and practices – *paatë* and *tulë* can easily be interpreted as the ways in which Abulës time takes shape.

As I ironically wrote elsewhere, not all artefacts are lucky enough to be yams (Coupaye, 2012:364), and the demonstration I made draws heavily on their dimension of living beings that grow, propagate, shape, and engage as valuables, images, food or plant. However, it is safe to assume that beyond their specific properties, the fact that Abulës-speakers have selected it as a form of the epitome of an image, a sort of cognitive prototype – and that the ceremony has endured despite the abandon of other customary ritual procedures which generated a rich visual production – might be what invites me to extend some of these conclusions to other artefacts and forms.

Following Kubler, Leroi-Gourhan and Simondon, we can infer that some of the properties stemming from my analysis of Nyamikum yams can easily be applied to a wider range of artefacts. This is so, first because, from an emic perspective, the boundaries between living beings and artefacts can be very transient and porous, particularly when they play a role in rituals and ceremonies. But it is, I suggest, the very idea of milieus generated as 'fields' around artefacts that allows them to think that their mode of existence is intimately related to such temporalities.

Such 'field' can, at time, be too metaphorical to have any ethnographic value, and can remain a philosophical musing around our own post-modern concerns about processes and flux (Ingold, 2013). But it can acquire proper methodological value and ethnographic ground if one is to describe the material, cognitive and social functioning (more than the function) of a given artefact. I include in this functioning the physical and visual organisation of the thing, its appearance and the ways in which – as both Henri

Focillon and Alfred Gell (1998) demonstrated against the 'tyranny' of meaning – forms displayed by visual systems can have an *actual* agency. Be it the mathematical organisation of a motif, the relations between the different parts of a machine, the shape of a mask or an adze, artefacts indeed present us both with past processes of making, of imagination and with forms of affordances that intertwine potential for physical engagements and thoughts, be they appropriate or inventive.

What this analytical experiment allows me to suggest is that artefacts generate around them fields of both actualised and potential relations (forms and affordances) which emerge out of their ontogenesis and contain within them the potential for future forms. Such forms can never be predicted even if they follow similar logic of organisation or functioning ('style,' 'technical lineages'). But they form a 'frame' and present us with particular instances of relations. It is in these respects that artefact appearance and functioning contain both the memory of past processes and imaginations and the potential for future engagements and that they manage to give time its proper *living* shape.

Acknowledgments: This paper owes its data to the trust and friendship of many people of Nyamikum. Many of these ideas have been developed for the course of History & Anthropology of Arts at the Ecole du Louvre, through engagements with students and auditors. I am also grateful for comments on various drafts from Paolo Fortis, Brigitta Hauser-Schäublin, Susanne Küchler and Rosalie Allain. All mistakes and imprecisions are mine only.

Notes

1 Arguably, this "apparent immobility" is even a property that has been mobilised in several contexts to capture or to manifest relations (e.g., Strathern, 1988).
2 Kubler's discussion was heavily informed by the earlier work of his mentor, Henri Focillon, whose work on the life of forms owed much to Bergson's understanding of perception, imagination and matter (Focillon, 1989[1934]; Bergson, 1934).
3 I am not dealing here with Kubler's remarkable discussion of formal sequences (1962: 30 *ff.*) which would require a proper historical analysis of Abulës-speaking images. I, however, take from him the fundamental open-endedness of the category, by opposition to the closed grouping idea contained within the category of "series" (*Ibid.*:30).
4 *Mutatis mutandis*, such analytical move is not far from Gilles Deleuze and Félix Guattari's recruitment of the metaphor of "machine" to describe complex, heterogeneous entities and phenomena aimed at a particular project (Deleuze and Guattari, 1987[1980]:2–25).
5 The centrality of yams in Abulës imagination is such that every time I am asked to deal with a particular analytical question from my ethnography, I keep finding elements literally sprouting out of them. It is such that they keep yielding interesting perspectives on notions such as of images, containers, living beings, food, valuables, ancestors, magic, or personhood (see Coupaye, 2013:249–289; 301–309).

6 In previous times, *Maabutap* were central items in competitive exchange between partners of ceremonial moieties (Forge, 1965), which have been abandoned, because of the tensions that could arise from the competitions.
7 I have described elsewhere the whole sequence in details (Coupaye, 2013; see also Lea, 1964), thus I will only make reference here to particular elements to illustrate this paper.
8 In the past, yam cultivation and display were intimately geared to the initiation ceremonies cycle – now in disuse due to the influence of Christianisation.
9 This later point needs to be elaborated in more examination of Deleuze's reading of Bergson on *la durée* and particularly in *Matter and Memory*.
10 People's names are themselves 'returning' every three generations (see Coupaye, 2013:295, n 37 as well as Harrison 1990 and Küchler 1992 on *malaggan* carvings).
11 Such as gardening, earning some money through cash crop (the vanilla boom experienced during my first visit in 2001–2003 had receded, but some people were still cultivating it alongside coffee), working at a recently set oil factory, and ongoing hopes for development through land registration and the building of roads. The ceremony, held in 2014 in Balukwil, one of the northern hamlets of the village, in the upper part of the foothills, gathered perhaps less people than the ones I had seen during my first visit, 11 years before. But this could have come from to contextual factors. The first one was that the period of the ceremony coincided with an offshoot of the 2014 Melanesian Arts Festival in Wewak, the capital of the East Sepik Province, which mobilised a lot of resources and time from people, leading to an astoundingly rich series of performances. As a result, less people got ready and willing to travel to the Nyamikum ceremony. The second factor is more directly related to the sequence of ceremonies in the entire region I have described above. Depending on the year and rumours (which circulate widely through informal networks of cultivators, for instance at the weekly Catholic Church service in Maprik town) about a particularly spectacular harvest in one of the villages, some ceremonies are more attended than others. And perhaps that year, Nyamikum harvest was less spectacular.
12 And during cultural events such as the Wewak Melanesia Art Festival, held in July 2014.
13 I am grateful for our discussions with Paolo Fortis for helping me bringing this suggestion out.

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3 The lost writing and the drawn thought

Shamanic reflections on knowledge and temporality among the Marubo (Western Amazonia)

Pedro de Niemeyer Cesarino

Introduction

'Alphabetic writing is, in itself and for itself, the most intelligent,' states Hegel in a famous passage of his *Encyclopedia* (1830), not by chance used as an epigraph of Jacques Derrida's *Of Grammatology* (1967). Indicating one of the most solid backgrounds of Western philosophical ethnocentrism, the claim presumes that the absence of alphabetic writing entails a hindrance to the development of speculative knowledge and, therefore, of critical and systematic reflections about temporality. Amerindian peoples of the South American Lowlands are the perfect candidates to fill this negative role reserved by Western conceptions of writing. According to Derrida, even Claude Lévi-Strauss in his *Tristes Tropiques* (1955:350ss), reduced the Nambikwara's potential notion of writing – related to a word associated with lines or traces originally used in material culture, *iekariukedjutu* – to a mere aesthetic expression. The appearance of a 'true' writing would then be a consequence of the unexpected incident of his arrival (with pencils and notebooks) in the Nambikwara villages in the 1930s. In his critical claim, Derrida not only identifies the ethno- and logocentric bias of Lévi-Strauss reflections upon the encounter with the Nambikwara but also sustains that writing has always been present in language as a manifestation of violence. As we can read in Gayatri Spivak's translation: 'If writing is to be related to violence, writing appears well before writing in the narrow sense; already in the difference [*différance*] of the arche-writing that opens speech itself' (1977 [1967]:128).

It is symptomatic that neither Derrida nor Lévi-Strauss consider detailed ethnographic data and potential Amerindian theories about writing. To offer alternatives to the restrictive range of Western presuppositions of other peoples' conceptions, this chapter offers an ethnographic study about its relations with temporality and speculative criticism among the Marubo, a Panoan-speaking people from the Amazonas state, Brazil. The Marubo case is especially relevant to the development of such a contrast because of their handling of alphabetic writing introduced by missionaries since the 1950s and, more recently, their invention of a shamanic pictographic system that

will be considered here as a form of selective writing (Déléage, 2017). Starting with an analysis of a set of pictographic drawings produced by Paulino Joaquim Memãpa, a Marubo shaman and elder, the chapter explores his speculative reflections about distinct conceptions of knowledge: the white people's and those related to shamanism and narrative thought. My central argument is that Paulino's criticism is at the same time temporal and spatial – while actualising for the present days the classical Amerindian narrative theme of the *sentence fatidique* explored by Lévi-Strauss in his *Histoire de Lynx* (1991), the shaman overlaps cartographic positions (downriver – upriver) and periods of time (past – present) to understand the transformations caused by the introduction of alphabetic writing by missionaries in the middle of the 20th Century, as well as by my presence as a foreign anthropologist. This reflection is moreover encoded in an iconographic *corpus* composed by a sophisticated combination of pictographic and alphabetic writing, itself a demonstration of the long duration of Amerindian systems of memory and its potential graphic manifestations. Especially in the Marubo case, this duration is expressed through a visual translation of the mnemonic structures of both shamanic and narrative verbal arts, employed in the understanding and manipulation of events through images of spatial and temporal displacements. The first part of this chapter presents an introductory review of the conceptual and ethnographic discussions of Amerindian pictographies. The second part is dedicated to a description of six examples selected from a larger collection of Paulino Memãpa's drawings. The last part develops final considerations about the scope of shamanic speculative reflections on knowledge, difference and temporal transformations.

Amazonian shamanic iconographies

The alleged absence of figurative and writing systems in Lowland South America, when compared with classical traditions of Maya and Nahuatl civilisations (Kroeber, 1963), must be revised by the growing production of pictographic iconographies by contemporary indigenous communities. Still not very well known beyond their local contexts, such productions (motivated by ethnographic research, by school projects, by artistic practice and other reasons) demand comparative research that explores their several common characteristics and conceptual challenges. The recent comparative efforts launched by Carlo Severi (2007) and Pierre Déléage (2007) revealed some general traits of these iconographies, closely associated with pictographic composition and techniques of memory, which are strictly dependent on inter-semiotic configurations. Offering alternatives to the superficial understanding of Amerindian iconographies as mere illustrations or products of free imagination, Severi (*op. cit.:*151ss) considered them as pictographic compositions adopting the following criteria: convention (presence of a conventionalised style adopted by an author or collectivity);

closeness (restriction to default scenes); selection (use of simple graphic conventions to suggest complex images); redundancy (supplement information to verbal discourse); sequence (lineal, spiral); persistence in time (evolution of a repertoire within specific temporal conditions); dispersion (regional and temporal, beyond linguistic and ethnic borders); and, finally, specific evolution (independent of alphabetic writing systems).

The definition of such criteria was established by Severi via the study of consolidated pictographic repertoires such as those of the Kuna (Guna), the Ojibwa and the 'Ledger art' tradition of the Plains Indians of North America. The argument, also shared by Déléage, was critical of the ethnocentric understanding of pictographic systems as initial steps towards the development of alphabetic writing systems. In a recent book, the author (Déléage, 2017) considers Amazonian iconographies as a type of selective writing, therefore opening an interesting field of research for the massive and heterogeneous iconographic productions of such regions, strictly related to a more general understanding of the intersemiotic connections of Amerindian aesthetic and ritual regimes (Menezes Bastos, 2007; Severi, 2014; Cesarino, 2011b, 2013b; Vidal, 2020). Indeed, several repertoires can be defined by the criteria established by Severi, even if they are derived from groups of different languages, regions and cultures such as Marubo (Montagner, 1996; Cesarino, 2011a, 2011b, 2013b), Huni Kuin (Mahku, 2019), Matsiguenga (Baer, 1994), Shipibo-Conibo (Bertrand-Ricoveri, 2005), Yanomami (Andujar, 1979), Desana (Kenhiri and Umusin, 1980), Yagua (Chaumeil, 1983) and Maxakali (Tugny, 2009), among many others.

In previous studies dedicated to the recent consolidation of a Marubo iconography produced by shamans (derived from fieldwork conducted by me, between 2004 and 2009, and previously by Delvair Montagner in the 1970s, among the upper Ituí River communities), I have demonstrated that its pictographic compositions should be understood as a translation of mnemonic configurations originated from the transmission of the complex verbal arts based on a virtual system of formulaic structures (Cesarino, 2011a, 2011b, 2013b). This formulaic system, employed in long shamanic songs and mythic narratives, is configured by key narrative moments named by the Marubo shamans themselves as the *emergence* (*awen wenía* or, alternatively, *awen shovia*), the *path* (*awen vai*) and the *establishment* (*awen tsaoa*) of the infinite range of events and agents narrated and ritually manipulated. In the following example correspondent to the opening formulaic sequence of the long narrative song 'Rising of the shamans' (*Kenchintxo Wenía*) performed in 2004 by the shaman Armando Cherõpapa, we can see exactly these three moments condensed in poetic images:

1. *Vari oni nãko*
   Vari oni nãko
   Sun ayahuasca nectar
   Nectar of the sun-vine

2. *Nãko osõatõsho*
   Nãko osõ-a-tõsho
   nectar inside-VBLZ-CNS
   Through the nectar
3. *Yoe shovivãi*
   Yoe shovi-vãi
   good raise.form-INC
   They are formed
4. *Yove mai matoke*
   Yove mai mato-ke
   spirit land hill-LOC
   And in the spirit-land
5. *Shokoi voiya*
   Shoko-i voi-ya
   together-progressive goPL-PRF
   They will live[1](…)

The Marubo shaman-singers, therefore, use these formulaic sequences linked in a rigorous parallelistic structure to produce verbal scenes that refer to mythical events, agents and cosmographic schemes, always following a temporal sequence which is unfolded in space. Marubo ritual and narrative conceptions are, therefore, grounded in the mapping of the emergence, displacement and establishment of spirit-agents, following a fixed formulaic mental sequence which sometimes correspond to the exact location of such agents (Gell, 1985) in the complex cosmological topography composed of several cosmic layers or 'worlds' (*shavá*) (Cesarino, 2019). More precisely, it is the shift of formulaic sets from narrative songs (*saiti*) to reportative or spirit songs (*iniki*) and curing songs (*shõki*) which characterises this correspondence of mental schemes with real cosmological positions, depending on whether the objective of the verbal composition is directed towards narration (*saiti* songs) or ritual agency (*iniki* and *shõki* songs). Whatever the objective of verbal composition, it will always be based in the actualisation of processes of transformation in the 'times of emergence' (*weníatiã*) that are potentially replicated in the 'present times' (*rama*). As we shall see, this actualisation is explicitly mobilised in Paulino's criticism of alphabetic writing and pictographic compositions.

The formulaic 'verbivisual' scheme – if I may borrow the concept created by the Brazilian poets Haroldo and Augusto de Campos – is the trigger for the composition of long panoramic and parallelistic sequences of songs and narratives. Different shaman-drawers (Antonio Brasil Tekãpapa, Armando Mariano Cherõpapa and Paulino Memãpa, the only literate in the group) produce, at different times, graphic repertoires based on the same visual signs and cosmographic schemes, without previous encounters with each other or decisions about the establishment of such semiotic conventions. A graphic system was then composed from units such as *circle, line, humanoid,*

longhouse and *tree trunk,* clearly employed as visual tokens for names of places and of people, following a general pictographic convention used by several Amerindian traditions from South America similar to those of Central America. Moreover, the parallelistic configuration, conceived as a central aspect of shamanistic and narrative discourse both in its mnemonic and performative aspects (Cesarino, 2006; Severi, 2007), is clearly transposed to the pictographic sequences, as for instance in the juxtaposition of anthroponymic conventions in Paulino's productions to be detailed in the next section.

It is important to highlight a central difference between, on one hand, graphic or geometric patterns and, on the other, figurative iconographies. Amazonian graphic patterns (at least when they are not combined with figurative items) cannot be understood as a system of semiotic units, as if they were a grammatical disposition of signs analogous to a text (see Taylor, 2003; Déléage, 2007; Gow, 1999; Barcelos Neto, 2008; Cesarino, 2012). By contrast, an iconographic tradition such as that produced by Marubo shamans employs visual signs as a transposition of sequences of verbal formulae, thus following a pattern common to other pictographic systems such as that studied by Nancy Munn (1986) among the Walbiri or the Nahuatl pictographic books of Central America. This conceptual difference between geometric patterns and figurative iconographies in the Lowlands should not obscure the argument of this chapter. Amerindians of the South American Lowlands, as we shall see, establish analogies with white people's alphabetic writing through the same word applied to graphic and/or geometric patterns, a word that could be translated as 'trait' or 'line,' and not through figurative iconographies. The Marubo word *wichá* and the Nambikwara word *iekariukedjutu* documented by Lévi-Strauss both refer to the lines of geometric patterns and to alphabetic writing.[2] Therefore, the visual tradition mobilised by Amerindians themselves to conceptualise alphabetic writing (i.e., geometric patterns) does not entail a graphic translation of verbal sequences as in the case of pictographies, the other visual repertoire (more recent and less central in the Lowlands) which, from a Western semiologic point of view, would be the best candidate of a writing system.

I do not intend to enter here into the controversial debates about definitions of writing. Severi and Déléage, for instance, tend to disagree about this subject – while the former (2007:91), employing a stricter definition, denies the understanding of pictographies as a kind of writing, the latter (2017:135) affirms it, using, for instance, the Marubo drawings to define what he understands as 'selective writing,' which 'does not inscribe the continual flow of words (…) but only selected words of a discourse, following precise rules' (2017:137 – my translation). I prefer here to explore the speculative consequences of the encounter between pictography and alphabetic writing, specifically in the drawings realised by Paulino, which entails a critical and temporal reflection about writing systems and knowledge production. This

last remark is important, since, as Marilyn Strathern says, 'it is not the way anthropologists control the analogies, then, that seems at issue, but the way the actors do' (Strathern, 2004:76). In what follows, I explore the consequences of Strathern's remark for the understanding of Paulino's drawings and its general speculative reflections on temporality and difference derived from the queries about writing.

Paulino Memãpa's drawings[3]

I now turn to Paulino's pictographic and cosmographic compositions, followed by the transcription and translation of the alphabetic annotations made throughout his drawings. These annotations are supplementary to a possible and provisional translation of the pictograms employed by Paulino, whose meaning is less evident in his set than in others produced by Marubo shaman-drawers such as Armando Mariano (Cesarino, 2013b:457). The general content of Paulino's drawings is a cosmographic overview and a presentation of key figures of the time of origin narrated in the *saiti* narrative songs, sometimes integrated in a more complex pictographic formula. When Paulino orders humanoid figures in lines, sometimes disposed just in front of their longhouses, he is actually displaying a sequence of names of persons and places, not always fully identified by the images. Persons and places' names correspond to narrative sequences taken for granted by Paulino and identified by me in the next pages (Figures 3.1 and 3.2).

The first drawing (Figure 3.1) depicts the demiurge spirits makers of the Mist Land, the first cosmological space to appear. Because they live suspended in the wind, this spirit-people neither has – nor need – legs to walk. The spirits are shown with their spears and feathered hats, as well as with their food, the psychoactive plants, and the mist-tapir, a synecdoche for the other animals of this cosmological realm.

Translation of Figure 3.1 (alphabetic writing):

> *Atõ yanika paero Koĩ Shõpa, Koĩ Kapi, Koĩ Rome, Koĩ Oni*
> Their feed drugs are the Mist Lily, the Mist Mata-Pasto, the Mist Tobacco and the Mist Ayahuasca[4]
> *Koa Voã, Koin Nesa, Vari Nesa, Tao Ipo*
> Koa Voã, Koin Nesa, Vari Nesa, Tao Ipo,
> *Ino Nesa, Kana Nesa, Koĩ Mai weshõ shoviya yora ivaivaishnavo*
> Ino Nesa, Kana Nesa, these are the persons which made the Mist Land, they said a long ago
> *Naro Koin Awávere*
> This is indeed Mist Tapir

In the second drawing (Figure 3.2), we see four of the demiurge spirits makers of the world, whose deeds are related to The Making of Mist Earth (*Koin Mai Vana*)[5]: Kana Voã, Koin Voã, Pikashea and Otxoko.

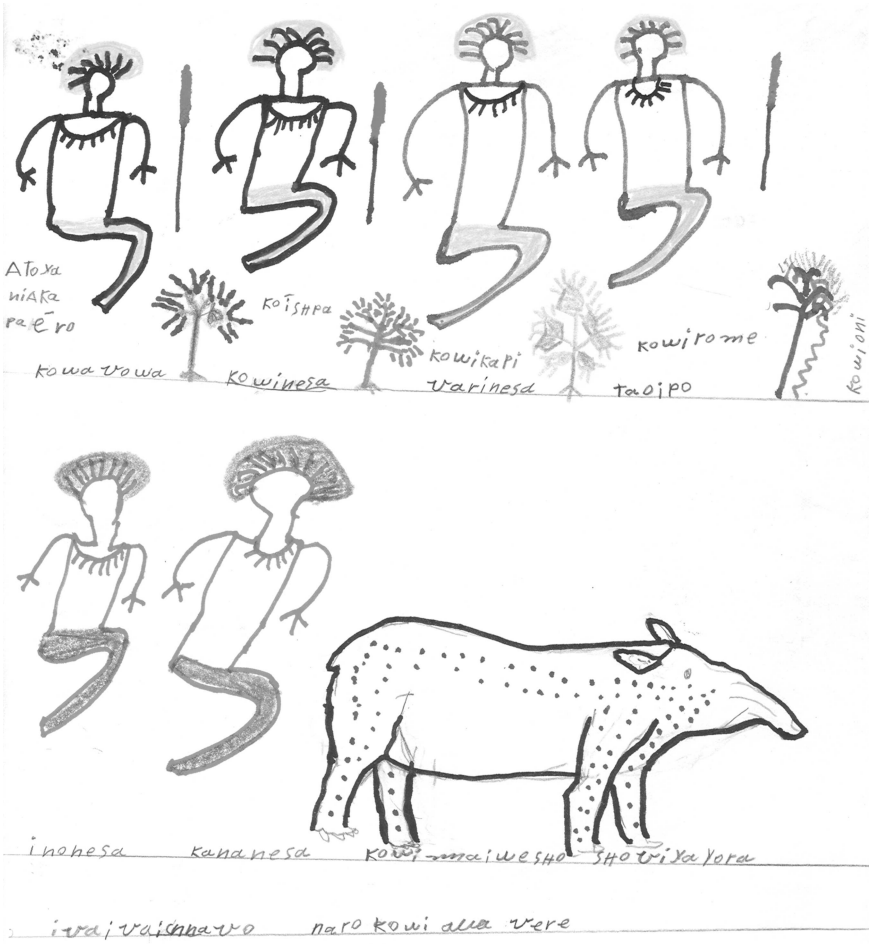

Figure 3.1 People of the Mist Land (Koin Mai Nawavo). Drawing: Paulino Joaquim Memãpa 2005.

Translation of Figure 3.2 (alphabetic writing):

Naí koin we txiwámashõ rakãtivo. We a ronorivi, pakekarãtĩpa
A long time ago they hanged the sky in the wind. It is really hung there and cannot fall
Naí eneanamã niákei kashõ oinna oriro koinse tsaoaki naí
Having established themselves at the border of the sky, from there they look seated at their mist
Naí eneanama yoã a vanavere, mai shovimaya, waka shovimaya, naí shovimaya

They really speak from the border of the sky, the earth makers, the river makers, the sky makers
Kana Voã, Koin Voã, Pikashea, Otxoko, Koa Voã atisho
The so-called Kana Voã, Koin Voã, Pikashea, Otxoko, Kana Voã
Ativo awen kakayavose anerivi
These are their chiefs' names
Naivo vanaro txipo kaniyavo yoãshoti vanata
This word should really be taught to the young people
Txovo mã txovo naivo vanaro yoãnasmarivi
The youngsters, the youngsters ignore these words
txovo ichná aki en yoãrivi
The youngsters say it wrong, this is why I say these words

In the pictographic composition of Figure 3.4, Paulino articulates four simple graphic units (humanoid, circle, line, longhouse) to visually translate a narrative statement about the origin (at the bottom, inside the circle), the travel and the establishment (at the two longhouses of the top) of the

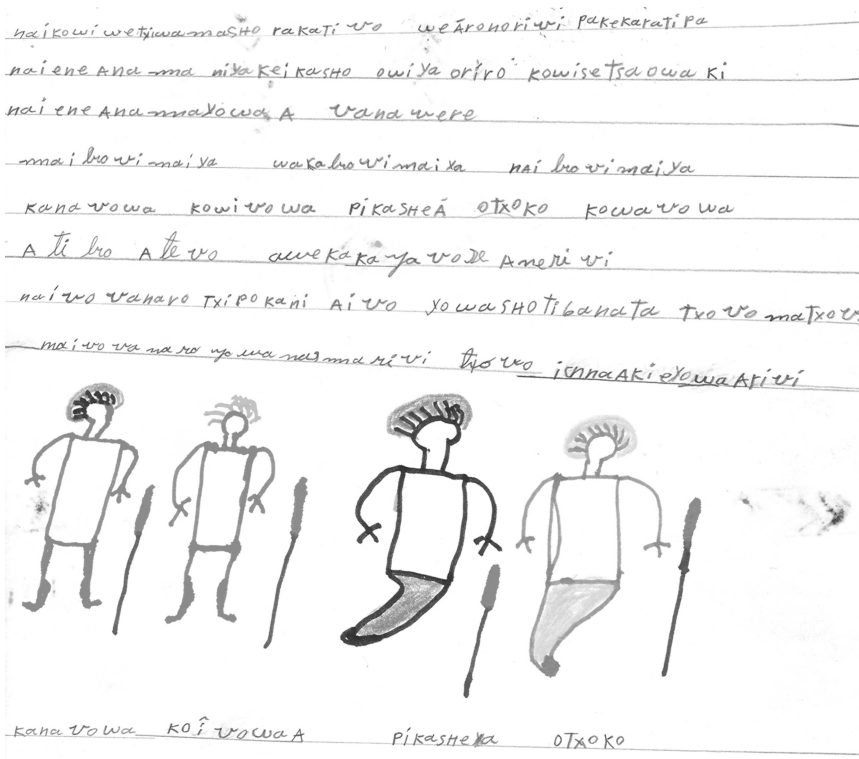

Figure 3.2 Kana Voã and Koin Voã demiurges. Drawing: Paulino Joaquim Memãpa 2005.

demiurge Kana Voã (left) and its nephew, Roin Iso (right). Explanations are written by Paulino (in alphabetic Marubo and translated here) at the verse of the page, displayed here in Figure 3.3. An approximate translation of this pictographic sequence could be done via the comparison with the first sequence of verses of the *Koin mai vaná saiti* sung by Paulino and translated by me (Cesarino, 2013a). The opening of the song would correspond to the circle of the bottom of the image: 'Wind of the Mist Land/ The wind embraces/ The sky's Mist-Wind/ And in the whirlwind/ For themselves appear/ Those called Kana Voã/ Those called Koa Voã/ And those called Koin Voã/ Those are the spirits' (Cesarino, 2013a:69ss). The rest of the pictographic sequence does not match precisely with my translation: an example, as Severi (2007) remarked, of the fact that pictographic compositions do not replace oral discourse but add new information to narratives and verbal performances.

In the overleaf of the same paper sheet (Figure 3.3), Paulino displays the demiurge Kana Voã and its spirit peers. The repetition of humanoid figures (chiefs with their spears, necklaces of jaguar's teeth and feather hats) is an anthroponymic convention, as common in pictographic compositions. The anthroponymic series is completed by explanations in alphabetic Marubo.

Translation of Figure 3.3 (alphabetic writing):

Naro Kana Voãne shovo, wetsaro Roin Iso shovovere
This is Kana Voã's longhouse, the other is Roin Iso's
Awen awe weníasvi Kana Voãne shavõtoaki Roin Isonã
The one who emerged with Kana Voã is his nephew, Roin Iso
Mai nãkosho wenímarivi Kana Voã, Koin Voã
Kana Voã and Koin Voã did not come from the land's nectar
Pikashea, Otxoko, ati yora mai nãkosho wenímarivi
Pikashea, Otxoko, these people did not come from the land's nectar
Koin Mai We chinkirina atõsho wenírivi
They really came from the whirlpool of the Mist Land
Mã tanai? Yoáyoákawãrivi taisnã
Do you understand? Maybe it's just nonsense what I say

In Figure 3.5, we find another juxtaposition of alphabetic and pictographic writing on the same page. The pictographic sequence is composed of the same conventional elements used in other drawings: circle (place of emergence), line (path of dislocation), longhouse (place of establishment) and humanoid figures (chiefs with their spears, feather hats, necklaces of jaguar's teeth and other adornments). The first pictographic line concerns the emergence and dislocation of the Kanã Mari multiplicity of spirits; the second, their dwellings or places of establishment. The alphabetic text explains the pictographic sequences and adds complementary information that is not exactly conveyed in the pictography.

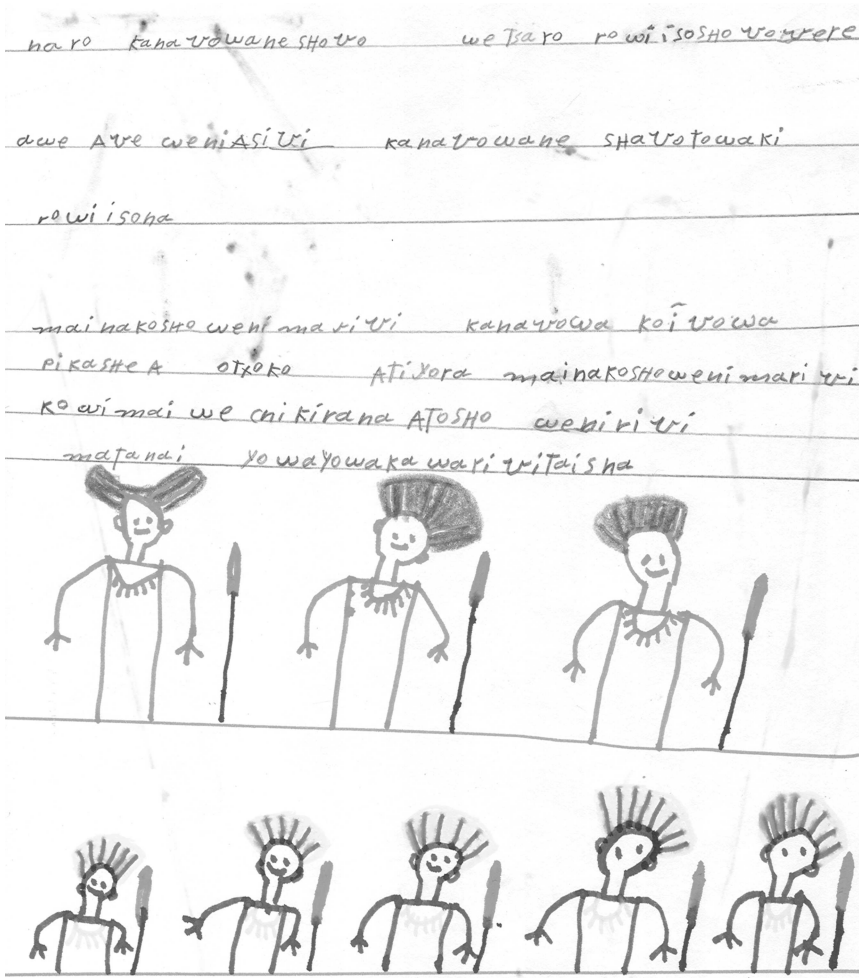

Figure 3.3 Kana Voã's longhouse (verse). Drawing: Paulino Joaquim Memãpa 2005.

Translation of Figure 3.5 (alphabetic writing):

Kana Voãro yora vevoke. Kanã Mariro txipo weníya
Kana Voã is the elder. Kanã Mari emerged later.
Naro Kanã Mari txipo shovisho. Naivo mai shovimaya
This is Kanã Mari, which emerged later. Maker of earth and sky.
Ivaivainavo Kanã Mari yoã ãtsasevi
There are several narratives about Kanã Mari, they used to tell.
Naro Kanã Mari shovo. Naro anõ weníya
This is Kanã Mari Shovo. This is his place of emergence.

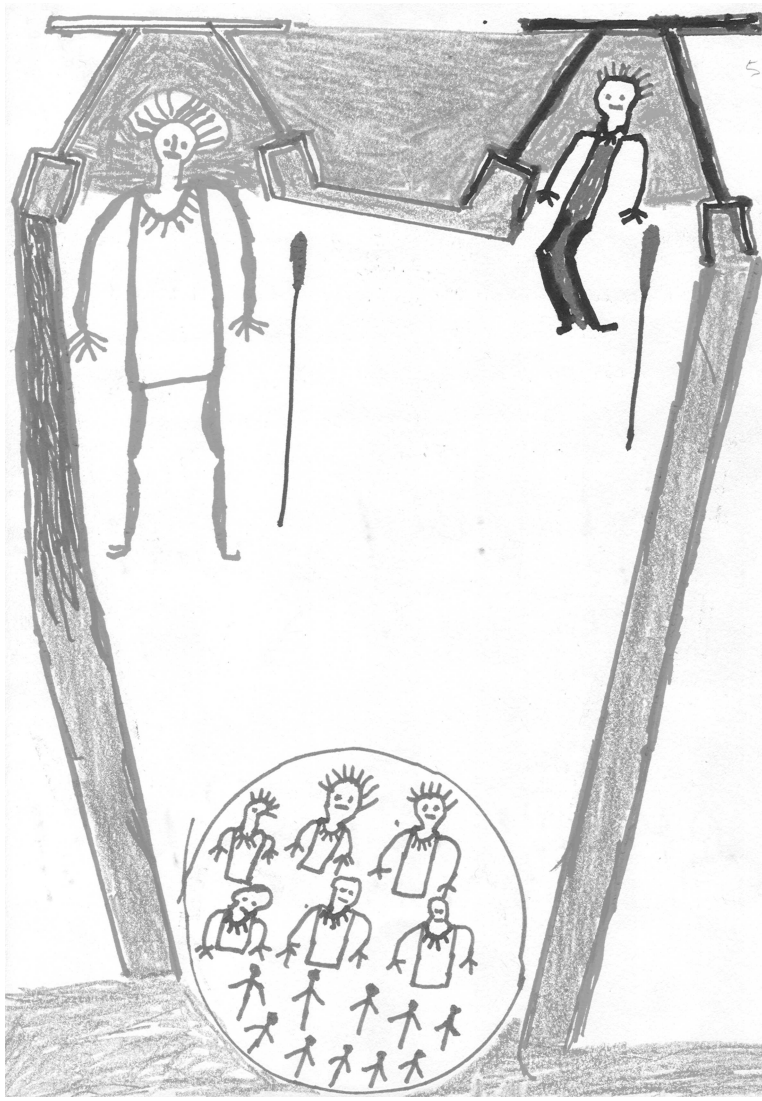

Figure 3.4 Kana Voã's longhouse (front). Drawing: Paulino Joaquim Memãpa 2005.

Figure 3.6 is composed by the conjunction of toponyms and anthroponyms (humanoid figures superimposed on longhouses) of the earth maker spirits (*mai shovimaivo*). Once again, the spirit names (*Txo Pino* and *Vo Pino*) are depicted as chiefs with their spears, necklaces and feather hats in front of their longhouses, or places of establishment. In the overleaf (not displayed here), Paulino depicted the complementary pictographic formula

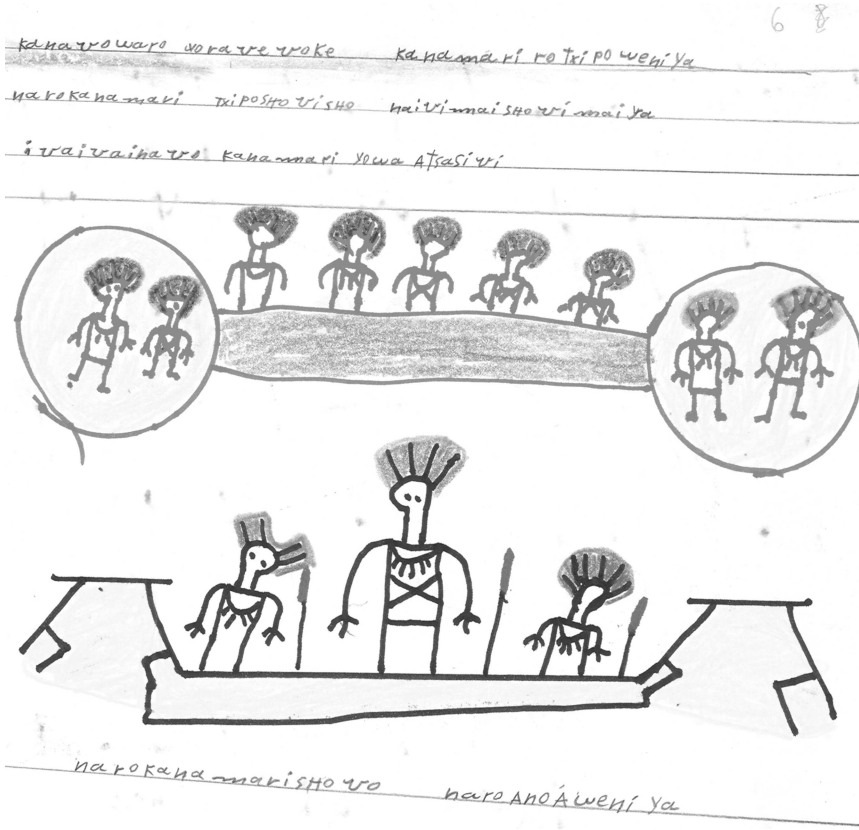

Figure 3.5 Kanã Mari demiurge spirits. Drawing: Paulino Joaquim Memãpa 2005.

related to the emergence of these spirits. The formula of the overleaf, composed by the juxtaposition of an anthroponym (humanoid figure) and the place of emergence (a tree, out of whose transformative principle [*nãko*] they have emerged), is then continued in the front side of the page, namely the sequence of Figure 3.6.

Shamanistic speculative thought and the politics of writing

The healer shaman (*kenchintxo*), Paulino Memãpa,[6] is considered as one of the wisest among the Marubo people of the Ituí river (Vale do Javari Indigenous Reservation, Amazonas state, Brazil). Master of *shõki* sorcery and healing songs, as well as of the *saiti* myth songs, Paulino was sceptical of white researchers and their intentions when I met him for the first time in 2004. He took a long time to trust and to engage in the process of documentation of verbal arts that I was carrying out during fieldwork, in cooperation with other

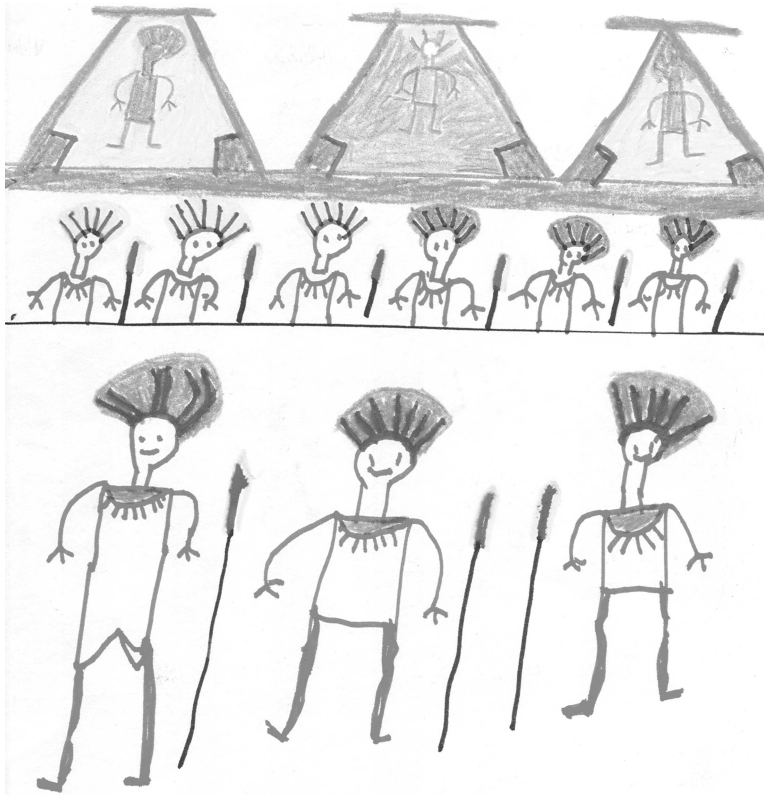

Figure 3.6 Earth makers. Drawing: Paulino Joaquim Memãpa 2005.

shamans and some Marubo schoolteachers. The present selection of drawings was gathered at the beginning of 2005. The original intention was to produce visual material about traditional narratives to be used as textbooks in Marubo community schools – an objective which was completed some years later, but without raising any special interest among the Marubo themselves, who did not seem to consider this new visual production as something aesthetically and intellectually relevant. On the other hand, Paulino and Armando, the other shaman-drawer, were particularly engaged in their productions, perhaps because they saw it as a new channel of dialogue with the foreigner ethnographer, as well as an alternative technology for the transposition of their previous virtual narrative schemes.

As mentioned above, the drawings are all composed of cosmographic schemes and condensed transcriptions of narrative sequences. Paulino's first set of drawings is particularly relevant because of this juxtaposition of two different writing systems: the alphabetic, established by the New Tribes Mission linguists and missionaries since 1950, and the pictographic, invented

by the Marubo shamans. With that combined use of writing systems, Paulino could explain his own iconography by writing directly in alphabetic Marubo in the images or in the overleaf of the paper sheets. Familiar with the textbooks produced by missionaries, with whom he was educated decades before we met, he created a new graphic system out of the materials introduced by foreigners, such as paper and pencils. This coexistence was probably made possible because the receiver of the enunciation was me – in other words, a representative of the alphabetic writing world as well as a researcher of shamanic knowledge. Paulino's composition demanded a complex process of interpretation, based on the translation of the alphabetic text, the decoding of the pictographic writing and in oral conversations with the author about the overall meaning of his productions. In the end, the hybrid composition created a safeguard for my potential mistakes and overwriting and an independent life for his messages 'so you can see it when I am dead,' as he wrote in one of the drawings not displayed here.

Paulino Memãpa's set must be understood as an Amazonian pictographic codex, but in a reverse fashion to that of Aztecs and other Central American peoples' colonial documents. The overwriting of pictographic sequences by Spanish or Nahuatl written alphabets in codexes such as the Azcatítlan and the Mendoncino, mostly composed from the first half of 16th century onwards, was a consequence of the transformation of a previously consolidated visual system by the introduction of European graphic and written space – an 'acculturation' process in Serge Gruzinski's (2003:21 passim) conception. Departing from a previously inexistent graphic system (at least in its physical manifestation, for an art of memory is always composed of mental images), Paulino showed – contrary to Gruzinski's remark – that the so-called acculturation was actually a positive and original process of intellectual invention (Carneiro da Cunha, 2009) of a new writing, established further by a reflexive commentary. The use of Western materials such as notebooks to create pictographic sequences, commonly annotated in alphabetic writing by foreigners, is well-known in other contexts such as in the Plains Indians 'Ledger art' tradition.[7] Nevertheless, Paulino used both graphic systems for its own purposes, commenting on and extending the pictographic writing encoded in the images. His use of alphabetic Marubo highlights the performativity of messages directed towards youngsters, as in the following examples extracted from the texts presented above: 'This word should really be told to young people. The youngsters, the youngsters ignore these words. The youngsters say it wrong; this is why I tell. Do you understand? Maybe it's just nonsense what I say.' Moreover, it is striking that Paulino actually reinforces the deictic character of oral and mythic enunciation, thus creating an effect of presentification, as in the following sentences: 'This is the origin of the sky,' 'This is Kana Voã's longhouse.'

In this set of drawings, Paulino Memãpa is not emulating the foreigners' writing system, as Lévi-Strauss argued in *Tristes Tropiques* in relation to the wavy lines produced by Julio the Nambikwara chief. In comparison,

Paulino's production could be understood 'not as fake, but as force,' as Marília Librandi-Rocha states (2012:181 – my translation) in a recent study on Lévi-Strauss' *cause célèbre* which understands the Nambikwara chief's inscription as 'generalised criticism of the functions of writing' (*idem*:197) represented by the European anthropologist. Not by chance, according to Déléage, Julio probably 'enlarged the referential extension of a common [Nambikwara] word [*iekariukediutu*, designating graphic lines] to understand the novelty which, for a certain time, writing represented to [him]' (2017:54 – my translation). Comparing other Amazonian polysemic words which designate at the same time the lines of complex graphic patterns and white people's writing, Déléage explains their semantic extension and persistence by the activation 'of the same neuronal system involved in the recognition of the shape of written letters and the graphic patterns templates' (*idem*: 60). Apart from the potential relevance of cognitive processes, which is not of my concern here, it seems important to understand the speculative criticism involved in Paulino's semantic extension of words associated with writing. Besides creating a hybrid alphabetic-pictographic text, Paulino also mobilises the very notion of *wichá* (line) in contrast with the term *kene* (drawing) to designate *two* conceptions of writing, as we can see in the following excerpt from a longer conversation entertained with me (Cesarino, 2011:83–85):

Wicháro neská.
Writing is like this.
Noken shenirasin ano venomta, noke awesama,
Our elders lost it downstream a long time ago, it is not ours,
nenosh venomtaina, yoãvãivãishnatõ a Itsãpapanã.
we lost when we came up here, so used to tell Itsãpapa.
Kape Tapãnamãsh venomta ikachia.
They've lost it when they crossed the Cayman-Bridge.
Nokero noke chinã kene aya,
But we have the drawing-thought,
noke chinã romei akasho nõ chinãrivi,
because our thought is shamanised, this is how we think,
mapõ nõ chinãrivi.
we really think with our heads.
Askámainõ nawaro deosne ramama atõ eneti vana,
But it wasn't now that god delivered the speech to the foreigners
aská petxikimas, atõ yosiasho petxitinpai
so they can't forget, they don't forget their knowledge
txipo kani mevi yosi kani,
and the young ones grow writing with their hands
ainvo mevi yosi kani,
women grow [writing] with their hands
vene mevi yosi kani,
men grow [writing] with their hands,

aki atõ toinrivi wichárasi.
[writing] really belong to them.
Noken shenirasiro chinãro chinã apawa,
Our elders had their thought a long time ago,
ato anõ vana apawa vana aya,
their speaking instrument they had a long time ago,
noke vana yosiyanã, noke vana yosiya neská,
our spoken knowledge, our spoken knowledge is like this,
txitxã kene nõ vana,
we speak by the drawn basket,
mõti kene nõ vana,
we speak by the drawn [tobacco powder] tube,
rewe kene nõ vana,
we speak by the drawn reed,
noke aká akásho ipawaverivi, iki nikãvãivãishna.
this is what we did a long time ago, this is what I have heard.[8]
(…)

In his speech, Paulino refers to the *Wenía saiti* (translated in Cesarino, 2018), a long song which narrates the origin of the Marubo elders and their travel towards the headwaters. In the middle of the journey, the ancestors found the monstrous Cayman Bridge, a common Panoan mythical theme, where the separation between the ancestors of white people and the Marubo took place, as well as the loss of alphabetic writing. This reveals an important aspect of Marubo conceptions of time: the events which took place in *Noa taeri,* 'the foot of the big river' (downriver, in the direction of Manaus and towards the mouth of the Amazon river) are associated with the past, for this is 'the place of emergence' (*Weníanamã*) from where the ancestors began their journey and, through their transformative actions, generated the present-day landscape and social relations. The present time, on the other hand, corresponds to the establishment of the ancestors in *Manari,* a region associated with the headwaters (probably in between Ituí, Javari and Curuçá rivers) and its hills of *terra firme*, the place the Marubo favor to build their longhouses. As we can see, Marubo conceptions of time reveals to be spatial: upstream (*Manari*) refers to recent time, downstream (*Noa taeri*) refers to the past.

While implying this temporal and spatial narrative configuration, Paulino was reaffirming the famous *sentence fatidique* explored by Lévi-Strauss in the *Histoire de Lynx* (1991), by reflecting on the loss of a technology that could have belonged to his ancestors, had they not lost it downstream a long ago. It is important to remember the consequences of this classical touchstone of Amerindian narrative thought: the technologies of foreigners (*nawa*) are not exactly a novelty for the 'real' or 'prototypical' people (*yora koin*), but rather something that they have always known – although have lost or abandoned – a long time ago. It is through this framework – which must be conceived as a historical reflection produced through narrative

transformations, as stated by Peter Gow (2001) – that we should see Paulino's criticism of alphabetic writing. If the foreigners' writing system cannot produce the embodied knowledge of shamanism, then it is also incapable of understanding the processes of emergence, displacement and establishment encoded in formulaic sequences, which are learned and memorised by the *chinã kene*, the 'drawing thought' mobilised by Paulino as an epistemological counterpoint to the lost technology in the crossing of the Cayman Bridge. This contrast evokes another critical shamanic reflection recently formulated by Davi Kopenawa (2010) through his synthetic expression 'paper skin,' also employed to refer to white people's writing. After all, the differentiation between Marubo elders and the foreigners reveals to be a divergence of epistemologies: on one hand, a corporeal technology endowed with special capacity of remembrance; on the other, the alphabetic writing, an external technology conducive to forgetfulness. It is worth remembering that Kopenawa and Paulino, though the latter in a less direct way, are explicitly constructing a political claim by associating alphabetic writing with white people's destructive eagerness.

As if conscious of Derrida's (1973:152) criticisms of Lévi-Strauss' *leçon d'écriture*, which pointed towards the anthropologist's ethnocentric consideration of other people's notions of inscription as an absence of alternative conceptions of writing, Paulino demarcated the epistemological autonomy of the two writing technologies, the *chinã keneya* (drawn thought inscribed in the body) and the writing lines of white people (inscribed on the paper with their hands). It is not by chance that he produced (at the same time as his other shaman colleagues) a *third* kind of writing, the pictographic. Once again, this invention established a political reversal of forces, for the alphabetic Marubo established by the New Tribes Mission in 1950s was not successful in its efforts to colonise the epistemological and ontological autonomy of shamanic and narrative knowledge. It was precisely this autonomy that safeguarded the existence of lineages of prayer shamans such as Paulino and Armando (both contemporaries to the operation of the missionaries in the Upper Ituí villages) as well as the emergence, in the recent years, of the pictographic iconography collected by me in the context of a larger project of documentation, transcription and translation of verbal arts.

Final remarks

Paulino, as his other shaman relatives, has always been interested in the books brought and the teaching carried out by missionaries – although in his own terms. In contrast to his peers, however, he is the only shaman and elder skilled both in the verbal arts and in Marubo alphabetic writing. Because of that, he was the only one who could combine pictography and alphabetic writing, thus producing a double innovation (and a critical twist) in this Amazonian visual system, one which refers to the consolidation of pictography, as a translation on paper of previous mental images and

sequences of verbal formulaic and parallelistic composition; another related to the insertion of the alphabet in the same graphic space of the pictographic sequences. Conceived both as a dialogue with me and with his younger relatives (not committed to the transmission of knowledge as they should be), the conjunction of two writing technologies also offers a reversed anthropological comment (Wagner, 1981) on ethnographic documentation and on foreign mnemonic and political technology, the alphabetic writing.

Romeya shamans who can externalise their doubles (*vaká*) aside from being prayer shamans, predicted some decades ago the arrival of 'good foreigners' (*nawa roaka*) and 'allies' (*nawa takeya*) – owners of writing such as NGO workers and anthropologists. In a temporal inversion of the Lévi-Straussian *sentence fatidique*, the Marubo experienced in the last two decades a return of the lost alphabetic writing technology through the hands of loquacious (*vanaya*) 'white people' whose ability to translate and speak Marubo language was explained via the influence of the spirits of birds such as the thrush (*mawa*, *Turdidae sp.*). Being at the same time interlocutors, apprentices, schoolteachers and ethnographers, these new representatives of alphabetic writing were also the addressees of Paulino's graphic enunciation, in a time when the opposition of the two technologies expressed in Paulino's narrative presented above was being complexified by projects of documentation and differentiated education.

The epistemic frame of Paulino's writing-drawings tends to highlight the veracity and authority of his teachings in the face of a change in the process of transmission of shamanic knowledge. It is not by chance that Robson Venãpa, a powerful *romeya* shaman and a young school teacher (Cesarino, 2014), as well as one of my most important interlocutors, had to negotiate with his *yovevo* spirit helpers and relatives the work of translation of songs and narratives that we were conducting in the Ituí river and in the cities nearby. As an Amazonian version of the ancient Socratic consideration of writing as a *pharmakon* (Derrida, 1972), Robson Venãpa's auxiliary spirits were initially concerned with the risk of forgetfulness produced by paper and pencil, in contrast to the knowledge derived from the *chinã kene* (drawing-thought). In his dreams, Venãpa had to explain to his virtual spirit peers (and owners of songs) that the core of knowledge, as well as his body, would not be threatened by a certain use of white people's oblivious-inducing technology. In the end, they agreed with our research.

Robson and Paulino both learned alphabetic Marubo with the New Tribes missionaries, whose objective was to produce books with adaptations of biblical passages and proselytism. Years before my arrival, during his adolescence, Robson was recruited to translate the distorted Christian message to alphabetic Marubo, working closely as a pupil of the missionaries until he was suddenly abducted by spirits and transformed into a *romeya*. With the passing of time, the missionaries' books, explicitly created to eradicate shamanism and its authority, backfired. Abandoned in communities' school buildings, they are no longer considered as a reference for

teaching. Robson began to use his intellectual abilities to transform himself in a 'researcher' (*pesquisador*), a task carried out in his dreams, where he encounters his relative *yovevo* spirits, and in collaborative projects with anthropologists.

Paulino, in his turn, created the hybrid *corpus* out of the combined use of two writing systems (selective and alphabetic), which is nevertheless subordinated to the key conception of *chinã kene* (the drawn thought) and its potential criticism of white people's knowledge, long lost at the Cayman bridge and ironically returned not to render shamanic knowledge subaltern (Spivak, 1988), but to reinvent it. He seems to be the opposite of Sangama (Gow, 2001), a Piro man who once shamanised alphabetic writing amid millenarian movements in the Peruvian Amazon, close to where the Marubo live. While Sangama personified a writing system whose graphic signs he could not translate, envisioning a female spirit-owner of writing who uttered the messages hidden in the paper, Paulino multiplied graphic signs in sheets of paper and performed its content himself, assuming that other people (such as myself) would be able to read his message in the future. Though in inverted fashions, Sangama and Paulino produced original and critical reflections on the white people's technology of memory and preservation of time, showing that shamanism is a dynamic reflective matrix which generates its own conceptions of time and knowledge.

Notes

1 VBLZ, verbalizer; CNS, consecutive; INC, inchoative; LOC, locative; PL, plural; PRF, perfective.
2 See Déléage (2017:52ss) for a detailed discussion on the Nambikwara word documented by Lévi-Strauss in a comparative perspective. See also Cesarino (2012) on the relationship between graphic patterns and writing in Amazonia.
3 The original set is composed of 20 colored drawings of 30 ×22 cm. composed with hydrographic pencils, colored graffiti and pastel on paper.
4 *Brugmansia sp* (Lily), *Senna alata* (Mata-pasto), *Nicotiana tabacum* (tobacco powder, 'rapé'), *Banisteriopsis caapi* (Ayahuasca vine). The scientific names refer to the correspondent species of this earth from the other world ones. Spirit realms are generally conceived as better and prototypical when compared with this impoverished earth and its constituents. The classifier 'mist' is not an adjective: its function in Marubo shamanic language is to identify the correspondent cosmological realm of each existing thing (such as an animal, a vegetable or a person): in the present case, the 'Mist Land.'
5 See the bilingual translation of 'The making of Mist Land' in Cesarino (2013a).
6 There are two types of shamans among the Marubo: the *kenchintxo*, healer or prayer shamans, masters of verbal arts and curing songs, and the *romeya*, which are capable of detach their doubles from their bodies and receive in turn the *yovevo* spirits. The *kenchintxo* (or *shõikiya*, 'performers of *shõki* curing songs') act through their spirit helpers, whereas the *romeya* externalise their own doubles to accomplish cosmological tasks.
7 For a detailed virtual documentation, see https://plainsledgerart.org. To understand the stylistic temporal persistence of such tradition, see Keyser and Klassen (2001).

8 Paulino refers to the set of instruments used by Marubo shamans: the bamboo tube to store tobacco powder and the reed to inhale it. Together with a basket weaved with geometric patterns (*txitxã keneya*), these objects are conceived as components of the person and instruments for the production of knowledge and verbal performance.

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Part II

Navigating possible worlds

Surfaces, patterns and shapes

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4 Primeval skins: the rugged and the smooth surface

Cultural keynotes and accords in the Middle Sepik, Papua New Guinea

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Introduction

The Middle Sepik Region of Papua New Guinea is an area that reaches from the banks of the meandering Sepik River and its southern tributaries through the grasslands bordering the swampy zone and extends up to the southern foothills of the coastal range in Northeast New Guinea. The Sepik River has created specific environments, flooded and swampy areas, stretches of grassland and finally hill regions. These environments, especially the periodically heavy-flooded Sepik Plains and adjacent swampy areas, offer harsh conditions for living. People's engagement with their environment was so dramatic that the coping with its challenges was a crucial experience and, therefore, became a milestone in their history. I suggest that these processes are remembered and periodically re-created by several means of cultural expressions, oral traditions and visual art as well as the performance of rituals. At the basis of some forms of these cultural expressions, which are part of a comprehensive system of aesthetics, lies a fundamental theme: the property or quality of the skin of primeval beings. Thus, their skin is conceived either as rugged ('engraved') or as smooth, depending on the cultural communities, their lifestyle and the memories of how their lifestyle came into being. Those who display the same surface or skin – men, animal, plants, artefacts – coalesce. In fact, the skin becomes the ultimate identifier. These cross-material identifications are most strikingly evident during the performance of rituals. Then, time is no longer presented as separate, linear periods such as 'past,' 'present' and 'future' (in the sense of McTaggart's A-Series; see Gell, 1992:149–155). Rather, time is perceived, presented and experienced as presence, as a spatio-temporal room that expands both into the past and the future. Such rituals create the possibility for inter-subjective empathy and an intuitive understanding among the actors about how past and future relate to one another.

In this paper[1] I am going show how primeval beings or rather their particular skins and their properties and innate qualities are dominant elements of a cultural keynote, conceived as a repository containing material and non-material clues of memory of how people created a new livelihood

system in an environment with which people had not been familiar previously. In rituals, senior, knowledgeable men select and activate pieces of memory and organise them into sequences that recall, reiterate or re-enact primeval events. The organisation or the configuration of these material and non-material fragments of memory differs, but these configurations – which I call accords – are all interrelated and share the same basic quality although they display different expressions and temporalities.

When people moved to the banks of the Sepik River and started settling there, the challenge of an environment with a water level seasonally rising and falling up to five meters a year must have been enormous. The periodically completely flooded basin required the development of an amphibious lifestyle and a fierce readiness to face and cope with the challenges of such a risky setting. The crocodile embodies a successfully achieved lifestyle for the riverine people. The crocodile primarily lives in the water but now and then surfaces, recognisable only by the cornified scale-ridge of its back and the contour of the zygomatic arches and nostrils; it easily moves between solid ground and the water. Accordingly, the oral accounts of how people began living in this region are about the story of the primeval crocodile (Wassmann, 1982, 1987). Crafting surfaces, wood and the skin of boys follow the 'mark of the crocodile', that is, patterns are incised into the surfaces creating relief-carvings among the riverine people. These are traces, enduring marks which, according to Ingold, lastingly shape surfaces (Ingold, 2007:42–45). What is typical for the art of these riverine people is the interplay between raised and deepened surfaces. Such deepened surfaces may be achieved by applying techniques of cutting, engraving, incising and sculpting depending on the material of surfaces (wood, bamboo, skin, bone, stone), the tools (adze, teeth, shells, stone flakes, razor blades) and the corresponding techniques used.

The communities who live at the fringe of the swampy zone live from sago (Schindlbeck, 1980; McGuigan, 1992:197–200). The trunk of the sago palm contains starch whose concentration is highest immediately before its flowering, which happens only once in the lifetime of the plant. The technique of extracting this starch and using it for food, is complex; it is a significant cultural invention or achievement. The sago palm with its fronds and pinnate leaves moving in the slightest breeze and its multiple roots, some of which originate as shoots that then grow down into the peat is understood as a primeval being (Schindlbeck, 1980). Oral histories tell how people became sago producers.[2] The sago arboriculturists have not been well documented with regards to their visual art, apart from Schindlbeck's detailed study of the village of Gaikorobi. However, filigree openwork carvings (so-called *malu* boards) seem to have been produced particularly in some of these villages. Whether there exists any connection between these types of carving and the primeval being of the sago palm would need further investigation (I cannot follow up this topic here).

Unlike the riverine people, such as the Iatmul who are fishers and sago extractors, the Abelam are cultivators whose subsistence economy is based on shifting cultivation. Many oral histories tell how the Abelam moved from the swampy Sepik Plains where they had practised a lifestyle similar to the Iatmul and the Sawos, to the foothills of the Alexander Mountains and how they adapted to the new environment by learning to cultivate crops, especially yam (*ka* and *wapi*). Abelam's transformation activities consist of the annual clearing of forests and the preparation of the land, which then displays a cleared surface, for cultivation. Forests are associated with wilderness perceived as a timeless domain of roaming ancestral spirits in different guises. The yam of a particular type called *mambutap* (*Dioscorea alata*) is evaluated as 'number one' yam. It has a smooth and almost hairless, delicate and fair skin. It refers to the most important primeval being, Wapinyan ('Yam-child'), who shifted between manifestations of a cultivar and a living human being (boy). Wapinyan is the cultural hero of the Abelam, comparable to the Iatmul's crocodile. According to oral accounts, he taught people how to grow yam (Hauser-Schäublin, 1983, 1987). He finally turned himself into a yam tuber when he disappeared in a hole.[3] The men dug out a huge and beautiful yam, the first *mambutap* yam from which subsequently all *mambutap* tubers, considered as his descendants, originated. Wapinyan is idealised as having a smooth and 'shining' skin which is an expression of its inner properties. The Abelam prefer smooth skins also in their artistic expression, such as sago palm sheaths or wooden planes, which they paint.[4] This preference is intrinsically tied to the *mambutap* tubers senior men grow and turn into a kind of artefact which they display (see Coupaye, 2013; this volume). Its smooth skin is compared to the shining skin of a man who looks well after himself and is appreciated for his high moral standards.[5]

Keynote and accords

The skin of the primeval beings and their inner qualities to which 'artworks' of different types and materials refer represent what I call a cultural keynote. Such a keynote is a kind of ever-present repository of culture-specific pieces of memory which people combine during special events to give shape to episodes of memory. These events may be performances like initiations, yam growing processes, carving/painting activities, decorating yam or men. Viewed together, these different 'artworks' are a ritual mapping of a culture's biography, mainly the achievement of settling and living in a new environment. I use the term 'cultural keynote' in analogy to what in musicology is called 'drone.'

I have chosen the metaphors of drone and melodic themes for two reasons. Music, like time, cannot be caught as such, only recorded, and noted. Both are elusive but all-pervading. Both are perceived and experienced in a way that is informed by culture. A drone, as a continuous sound, is immaterial but it can be intensely sensed – heard. Against this drone, other

sounds can be played and formed into motifs, themes or melodies, each with its own musical character. When all the temporarily limited sounds end, the drone is still present, seemingly without beginning and end. The drone's saturating quality is its *durée*. According to Bergson, *durée* is a subjectively intense experienced 'time' (beyond measurable time).[6] Such a *durée* encompasses a present which extends 'backward' and 'forward', that is, the memory of what just happened and what is anticipated to imminently happen, what Husserl called 'retentions' and 'protentions' (see Gell, 1992:221–228). In modifying Munn's (1992) ontological concept of time, we could say that the listener is in the sound of the drone; it is an 'inescapable dimension of […] social experience and practice' (quoted after Born, 2015:363).

By taking the notion of the drone with complementary sounds as a metaphor, I understand the material and non-material pieces of memory about the primeval beings, their skin and innate qualities, as constituting cultural keynotes. These pieces of memory are variations of the basic culture theme, yet in different materials and contexts, of how people created a new way of living. Cultural keynotes are an ever-present repository of pieces of memory. People create accords – comparable to what in musicology is called sound clusters – by selecting and arranging the fragments of memory into different sequences, each with its own temporality. These are materialising processes, such as creative activities, processes of incising, carving, painting, making, becoming and growing, and performing rituals, reciting chants and oral traditions and making music. All these activities are related to specific places and materials and dependent on objectives the actors want to achieve.

The cultural keynote on which cultural production draws may shift when new problems need to be tackled and gain importance for the actual livelihood. Thus, a new keynote may supersede the previous one as when, for example, the Christian Genesis or the New Testament, a new understanding of identity,[7] or even the introduction/mastery of the monetary economy or technology become issues to cope with. Accordingly, the accords shift as well depending on the degree of prevalence the keynote reaches at a certain point in history. Accords may also become independent when the keynote, as a repository of memory, loses its significance for people. However, it would be wrong to speak of accords any longer if they did not follow the constituting principles, that is, the cultural keynote, anymore.[8]

My approach is influenced by Lévi-Strauss. He compared myth to music also from the perspective of time. He provocatively argued that myth and music share the characteristic of '[…] both being languages, which in their ways, transcend articulate expression, while at the same time – like articulate speech […] – requiring a temporal dimension in which to unfold. But this relation to time is of a rather special nature: it is as if music and mythology needed time only in order to deny it. Both, indeed, are instruments for the obliteration of time' (1964 [1983]:15–16). There have been some further thrilling attempts to relate the structure of visual expressions to musical and

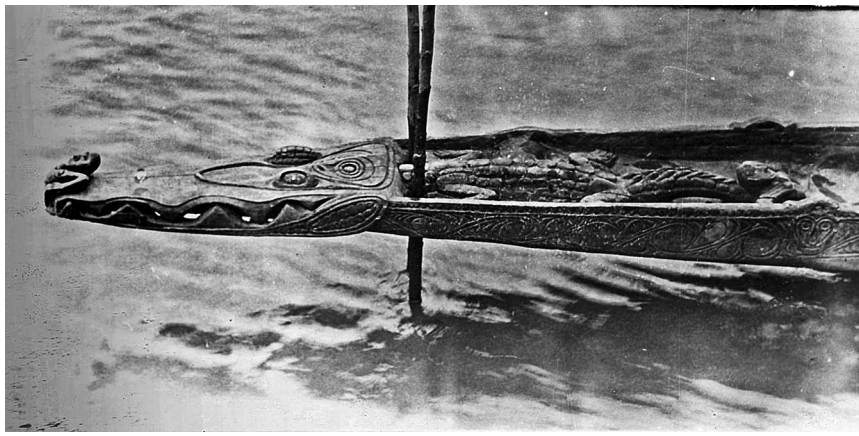

Figure 4.1 Canoe prow in the shape of a crocodile. The canoe is moored with two sticks near the bank of the Sepik River. Kararau village. Photo: Adolf Roesicke, German Sepik Expedition 1912/13.

rhythmic expressions ('dance'), such as by Kaeppler (1996), and to time (Ammann, 2017). More specifically regarding the Middle Sepik, Spearritt (1997) and Ammann (2011) were able to show that Iatmul flute music displays characteristic rhythms and tempi. A similar work has been carried out by Gesine Haase for the Abelam (Hauser-Schäublin et al., 1983). Ammann took up Bateson's suggestion that Iatmul flute music displays a characteristic pattern present also in some aspects of social organisation. In his comparative analysis, Ammann was able to substantiate that particular patterns of musical organisation recur on various levels of the musical form. Alternation, he concluded, is the most fundamental structural marker in the two Melanesian societies he had studied (2011:165–166). In fact, alternation is also one of the basic characteristics in the riverine people's visual expressions, namely the alternation between elevated and deepened surfaces as I am going to show. Apart from the identification of structural characteristics of giving shape to surfaces in artistic expressions in Sepik societies, I will deal also with 'contents' as contained in the cultural keynotes in which facets, or mosaic particles of knowledge about the past, resonate.

Keynote and skins: crocodile-man and yam-child

As briefly mentioned, Middle Sepik societies have distinct accounts of how people learned to adapt themselves to the environment they were not previously familiar with. At this turning point in people's history, a particular primeval being acting as a cultural hero taught people a new mode of subsistence previously unknown to them. Accordingly, the forming of

surfaces in visual art is determined by the concept of the primeval being and its skin in a particular Sepik culture. The application of the same properties of skin to distinct cultural media is a system of cross-stimulation (or even cross-revival) that keeps memory alive. Cultural keynotes are a total cultural fact that permeates most of the cultural domains (and organises social relations). It is through the combination of these different means of cultural production that the character of the temporality of what oral traditions seem to be about – an event in the past – becomes blurred in re-enactment and subjective experience. I will start with the culture of the riverine people.

The riverine people (Iatmul and some of their neighbours such as the Korewori people) tell many stories about how the seasonally flooded area was turned into a habitable environment. It is the story of the creation of land and light out of a dark primeval sea by a primeval crocodile. In an abbreviated form, such stories go as follows (Wassmann, 1982:140–141; translated by the author):

> At the beginning, there was an endless, empty water surface, only water, nothing else. The water was there but it didn't move. Suddenly, the water began to froth and then delivered a tiny being, a small crocodile which gradually developed legs and arms, a tail, a snout, eyes. It became a real crocodile. Its skin, its back and its legs were those of a crocodile but its face was that of a man. The crocodile became bigger and bigger until it became a huge and powerful crocodile. It dived down into the deep water and its darkness. There was no ground where it could stay. The crocodile exhaled in a mighty blow-out of air bubbles which drifted down to the bottom of the sea. Something tiny rose from there and attached itself to the crocodile's chest. It surfaced. Suddenly, there was light, and the ground had emerged, only a tiny spot. The crocodile swam around the tiny patch of land many times[9] and the ground grew bigger and bigger, until it looked like an island.[10]

Then, as the story continues, the first inhabitants of the earth arrived; first, the dog, then the cassowary, the opossum, and finally a man and a woman. This couple was the first human beings on the earth. Thus, it was the crocodile that had arisen from the water and had brought up the sun and the ground. The sun illuminated the world and made it habitable. A further version adds:

> The crocodile had opened its snout and the snout broke apart in two parts: the upper jaw rose up and became the sky with the sun. The lower jaw became the ground. The crocodile looked around and saw that mountains had come up, the ground became bigger, vegetation covered some parts of the earth and all kinds of animals inhabited the earth. The world had come into being.[11]

In one further variant of the many versions of the account, the construction of the first men's house is described:

> After the men's house had been completed, the men spent the night there. One night, a crocodile came and killed and devoured all of them. However, this crocodile was made of the wood of the *miamba* tree. Only one big man had survived. He rubbed his face with black colour, put a shell into his mouth and slipped into the trunk of the (*miamba*) tree. He turned himself into the crocodile which had previously devoured the people.

The narrator who told Wassmann the story of the aggressive crocodile added that he himself was this frightening crocodile. Consequently, the narrator continued: 'I dug out all small water ways and I devoured all of them [the people]. […]. I beheaded the men and the women and I devoured all of them' (Wassmann, 1982:142).

Figure 4.2 Posts of a men's house carved in the typical Iatmul style which consists of the interplay between raised and deepened surfaces. Kanganamun village. Photo: Jörg Hauser 1979.

The accounts of the creation of the world show how the actors are conceived as shifting between crocodile, human being (a man), and a 'carving' (the crocodile made of wood). Thus, it would be impossible to assign the primeval being to clear-cut categories such as human actor, non-human actor ('animal') or artefact. It is a multi-faceted being that/who reveals its corresponding face at specific times; its shape occasionally merges or slips from one into the other, like the man who slipped into a house post of the men's house and became himself the primeval wooden crocodile.[12] Moreover, the earth is the bodily remains of the primeval crocodile whose jaws broke and created the ground and the sky. The creation story deals with a distant past and the sequence with the crocodile invading the men's house is narrated as a subsequent episode. Then, this episode merges with the narrator's biography and the actions he had performed in his actual life. The 'shell' (shell knife, *wuli kama* cf. Wassmann, 1987:534) the crocodile-man put into his mouth are also the teeth of 'old crocodiles' (senior initiators) when they 'bite' the novices during initiation. The 'bite of the crocodile' on the back of these juniors (scarification), is a major accord created out of the fragments of memory as inherent in the cultural keynote. Moreover, the crocodile as a figure acts at different points in time and seems to move through time as if it were 'only' space. However, at each temporal site, it appears in a different guise while its inherent properties remain the same. Each of these guises presents an accord to the keynote. The crocodile or yam-child (see below) as ever-present primeval beings (always below the ground or the water) are associated with the world beyond.[13]

Among the horticulturalists (Abelam), the primeval yam-child – or yam-boy – manifests itself every cultivation cycle in the form of long tubers of *mambutap,* which senior yam growers dig out from its deep vertical planting hole. The dominant account about the primeval being who introduced yam cultivation to the Abelam goes as follows (Hauser-Schäublin, 1987:94–95):

> A woman was sitting in the menstruation hut and her husband had brought her, on behest of the woman, a couple of small (wild) yam tubers in case she became hungry. The woman asked him to put the tubers on a rack outside the hut. While sitting there, the woman suddenly saw how the yam tubers changed into boys; they played with each other on the ground. A bit later, they climbed up the rack and turned into yam again. This happened several times. The woman watched them with surprise and without interfering. When her husband returned, he inquired why she had not cooked the tubers. She explained to him that these yams were, in fact, small boys. The man wanted to put them into his store hut but the boys ran off and hid in the forest. When the boys became hungry, they intruded into the man's garden and picked ripe bananas. They ate all of them. One day, the man laid in wait for them and he caught one of them. The other ran off in the bush and disappeared.[14] The man took the remaining boy, Wapinyan (yam-

child), back to the village; the boy stayed with this man and his wife. One day, the woman wanted to shave the boy's hair, which had grown long. She took a bamboo knife and started shaving his head when she suddenly discovered that a yam shoot had grown out of the top of his head. She stopped and said to her husband: 'This boy is not a man, he is a yam.' They did not continue shaving his head.

One day, there was a competitive display of wild taro tubers between two villages and the man took Wapinyan to this feast. The taro displayed there had many offshoots and when the man and Wapinyan passed by, the boy unintentionally broke of a side-shoot that had grown out of the tuber like an arm. The hosts were angry and scolded the boy. He began to cry. Later that day, the guests were offered cooked tubers.[15] However, the boy refused to eat them.[16] The next day, the boy asked to be given a plot of land. He cleared it, fenced it and burnt the coppice. He then told his parents that the success of actions he was going to perform will depend on the couple's conduct; he said that sexual contact and consumption of meat were to be avoided. The couple promised to comply. The yam-child then stamped the ground with his foot and wherever he stamped with his foot, a yam shoot appeared.

(Here follows a description of the cultivation of the yam, the harvest and its display at a first yam festival).

The couple observed the rules Wapinyan had set for two years (seasons of planting and harvesting yam). When a new planting season had started, Wapinyan went to a sacred well far off from the village to collect some [magically potential] water that should promote the yams' growth. Meanwhile the man approached the woman and persuaded her to have sexual intercourse with him. When the boy returned and arrived at the border of the village, he smelled what had happened. He was rooted to the spot. The man wanted to drag him off but the boy finally managed to run away.

According to one version, the boy jumped into a pool and disappeared.[17]

Gradually, a shoot grew up from that spot when the pool dried up. The man called his co-villagers and they dug a deep hole into the ground until they reached the lowest point of the yam. They excavated it. It was a huge *mambutap* yam, tall as a man. They tied it to a bamboo pole and carried it in a parade through the whole area, from one village to the next.

From then on, the men cultivated the ceremonial yam in this way.

Skin and body

Many anthropologists working in Melanesia have emphasised a close relationship between the skin as a surface and the inner properties of the person (see, for example, Strathern, 1979; Küchler, 1988; O'Hanlon, 1989). Body decorations often bring things outside, such as inner qualities (Strathern speaks of 'the inner self') that are displayed in the person's body decoration (Strathern, 1979:249–250). The decoration consists of, in the cases described by Strathern and O'Hanlon, objects from the outside world, used in transactions with others (1979:254). To have the same skin is, in many New Guinea cultures, a metaphor for kinship relations (Flassy, 2017:62–64). In the Middle Sepik, however, having the same skin expresses sharing the same identity between distinct categories of beings and artefacts.

The riverine people (Iatmul) and the hill people (Abelam), for example, have an identical term for skin: *sibe*[18] (Jendraschek, 2012:547; Coupaye, 2013:166). This term is used for human beings, animals, trees and tubers. However, this expression designates more than the bio-physiological concept of skin.[19] It also includes the flesh, thus, more or less the surface and the body.[20] The look of the skin is taken as indicator of the individual's health condition and closely interrelated with it, of the individual's moral state of being. Thus, enhancing one's skin either by oiling or decoration underlines the inner properties that are to be shown and seen. McGuigan (1992:254) speaks of aesthetic 'brilliance.' The yellow paint applied to a dancer's face 'should reflect the brightness of his spirituality' (1992:257).

Riverine accords: incising the skin – transferring properties

Inspired by the skin of their primeval being, the crocodile, the riverine people have a predilection for creating wooden artwork with engraved surfaces by the technique of incising and carving. Their visual art displays an interplay between raised and deepened surfaces in different materials. These accords are achieved, firstly, in initiations where senior men become old crocodiles and 'bite' the boys. The old crocodiles 'bite' the novices by cutting crocodile scales patterns on their back. Secondly, by woodworking, especially by carving canoes, house posts and many other wooden artefacts that are provided with the patterns of a crocodile skin. Thirdly, by creating forms preferably in wood but also made from a combination of different materials using the principle of raised and deepened surfaces (not elaborated in this paper).

Initiations have their own temporalities and spaces with which I cannot deal in detail here (but see Wassmann, 1987). Initiation takes place in the fenced-off men's house, which is associated with the first piece of land floating on the Sepik River (as created by the primeval crocodile, see above). The fenced-off men's house is also the nest in which the crocodile breeds its 'eggs' and where young crocodiles hatch.[21] In this 'nest,' the 'old crocodiles'

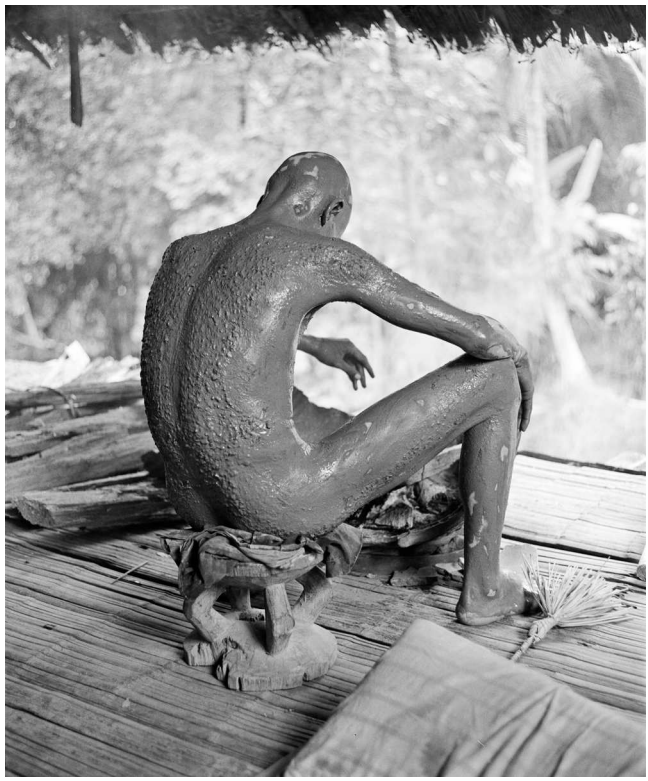

Figure 4.3 Novice with marks of the 'bites of the crocodile' on his back. Kanganamun village. Photo: Jörg Hauser 1979.

sculpt the back of the novices. Thus, they turn the body of the boys into those of crocodiles. The scars must become big (raised); as traces, they mark the men's skin for all their life. This incising (scarification) is, as told by the narrator quoted above, the bite of the crocodile that 'kills' the boys. When the scars are healed, they are 'reborn' as junior crocodiles and, therefore, fierce warriors so they will not hesitate to kill enemies and cut off their head.[22] Through the initiation, the initiators turn the boys into men and descendants of the primeval crocodile (see also Telban, 2008). One day, they will become 'old crocodiles' and act as initiators of the novices of the other ritual moiety.

The initiation scarification is not just a repetition of the primeval creation, it is the distant past acting at the beginning of the ritual sequences, still ahead of the present. By 'sculpting' the boys' skin and carrying out other related ritual activities, this imminent past gradually becomes present and finally past again. What is narrated in the myth is practised as an act of the

presence to create an anticipated world order. This anticipation is what Husserl called 'protention' (see Gell, 1992:222–223), which at the same time is 'retention' – the interrelatedness of the future and the past. The primeval events are part of a periodically organised temporal – generational – cycle. Such an initiation is a total cultural fact that (re-)organises and re-enacts manifold social relations. Regarding cultural production, 'sculpting' the novices' body is just one aspect of the wider field of ritual actions in which this process is inscribed. These actions entail, among other things, manifold voices (instruments), such as the sound of the crocodile forcefully lashing its tail in the water or the cry (growling) of the crocodiles (bullroarers), which all have characteristic rhythms and rhythmic structures (Spearritt, 1979; Ammann, 2011).

The relationship between man and crocodile is not just one of having the same skin but it is also about shared inner properties. Through modifying the skin – scarification – the crocodile's properties are inscribed in the boys' body and modify the person permanently. Thus, this kind of body decoration does not bring things outside the 'inner self', 'intrinsic attributes' as, for example, among the Hagen in the Highlands of Papua New Guinea (Strathern, 1979:254) nor is the skin simply an envelope or an outer form of the body (see Coupaye, 2018:232). On the contrary, by incising the typical patterns on the skin, the initiators engraft the properties associated with crocodiles, from the outside into the boys, who thereby become crocodiles.

The principle of creating patterns in relief – like incising the skin and engraving patterns onto wood – is one of the Iatmul's (and other middle Sepik riverine communities') artistic preferences in dealing with surfaces. It is the interplay between raised and deepened surface. Artists always engrave curved lines into wood, except for the incised traces on the back of boys, which are straight cuts understood as the marks left by the crocodile's teeth. Yet, the clan-specific incisions formerly made on the upper arms of the men were curvilinear (see Speiser, 1937:318). They referred to the fact that each clan has its own primeval being (clan-specific crocodile). The principle of incising and engraving as the fundamental form-giving mode can be met in almost all types of middle Sepik riverine wooden artefacts. This form-giving is indeed bringing to life. The extreme form of 'engraving' gave rise to three-dimensional openwork sculptures. The most elaborate form of this style are the famous wooden crocodiles from the Korewori River (see Telban, 2008:218) and the so-called 'hook style' (Bühler, 1960). Incising patterns into the surface of a log is analogous to scarification, as Moutu argues in regards with the central post of the men's house (2013:97). Treating in the same way the skin of men and the surface of trees, be them house posts or canoes, is aimed to provide them with the same quality of fierceness embodied by the crocodile. During initiation, Moutu noted, the initiate, the spear and the most important post of the men's house are all referred to with the same term: *bandi* (novice) (*ibid*:97).

When colour (pigments and paint) is applied, it is used to enhance and complement the basic carved patterns and motifs. Often, the raised level is bright, and the deepened level is dark (see also Thomas, 1995:42), creating a kind of dualism (sky-earth, light-dark) that is also evident in the creation myth.[23]

Horticulturalist accords: cultivating and implanting a smooth skin

Among the horticulturalist (Abelam), the skin of people and yam – as well as that of pigs sacrificed during rituals – is praised when it is smooth, hairless, delicate, tight, fair and 'shining.'[24]

Mambutap yam (the yam-boy who turned into a yam) displays an almost hairless tuber ('like the skin of a boy'), a bright skin ('like that of white people') and a straight cylindrical body with an almost circular section; its flesh is white and does not have long and strong fibres. As McGuigan sums it up: 'The skin of the yam [is like] the skin of the man' (1992:301). People distinguish between a young and an old man or yam according to the skin.[25] The length and circumference of a big yam are measured with rattan. Men speak of its length and circumference in terms of a male body: the circumference of the upper arms, the chest and the thighs. If a tuber displays scratches or produces 'limbs,' this is explained in terms of the yam receiving either flawed treatment by the yam grower or the yam's spirit wandering around and had unpleasant encounters on its way. *Mambutap* yam (together with other ceremonial yam species) is grown every year in special gardens protected by many taboos. The growing period lasts for six months before the largest tubers are carefully excavated from the deep mound in the same way the men had in the myth about Wapinyan. They are then decorated like humans and presented during competitive displays (Hauser-Schäublin, 1987;

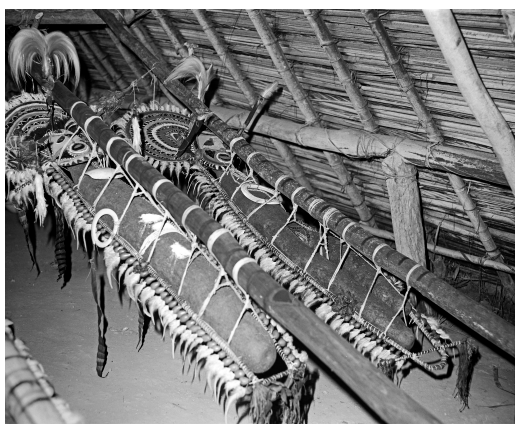

Figure 4.4 *Mambutap* yam decorated like a man at a yam festival, Lonem village. Photo: Jörg Hauser 1979.

Coupaye, 2013:chapter 5). The cyclical growing, harvesting and displaying of yam – the re-enactment of the primeval events – takes place at a relatively rapid tempo (see Coupaye in this volume). The individual tubers are ephemeral and are either left to shrivel, prepared as ceremonial food (also for first menstruation feasts), or – if they are not yet 'old and worn out' – are cut into several pieces as seedling for a new generation of yam.

There are many accords nested in each other, all based on the same keynote. During the planting process, young pre-puberty boys are invited to assist the senior yam growers. The analogy and even identification between yam and boy/man is expressed in a number of ways. The heads of small boys were, as described in the account about Wapinyan, formerly shaved. Only a tuft of hair was left on the tip of the head (fontanel) where Wapinyan's yam twine sprouted. Yam growers are not allowed to shave or cut their hair during the growing season unless the yam vine withers (see also McGuigan, 1992:214–215).

A man who is looking after himself well is compared to a *mambutap* displaying good qualities. His skin is an indicator of his inner (also moral) qualities, especially with regard to the ritual rules of conduct (*yagit*), namely to abstain from having sex with women.[26] Initiations, consisting of several staggered grades over the years, are comparable to cultivation cycles and are one of the most important accords created out of the cultural keynote constituted by the qualities of the yam's skin. Mc Guigan's work and my data also show that both 'yam cult' and initiation are closely interrelated (see, for example, Mc Guigan, 1992:429–430, Hauser-Schäublin, 2016:chapters 3 and 4). Since the 1980s, the 'yam cult' seems to have uncoupled from initiations (which, like ceremonial houses, are no longer carried out) as Coupaye's work documents.[27]

During some stages of initiation, the qualities of the yam were 'implanted' into the novices. When the novices entered the ceremonial house, they had to crawl in between the opened legs of a standing female figure (carving). The initiators then strongly hit and slapped the back of the initiates, leaving red and yellow patches of colour on their skin. These coloured spots are traces of (re-)birth, representing blood and urine. However, no permanent marks were left on their body. The novices received a new name to indicate the beginning of a new (growing) cycle in their life. From then on, they were like a young yam that needs to be tended. The most important step in aligning the novices to the yam-child took place when the initiators ritually fed the novices with yam. The qualities of a *mambutap* were thereby 'implanted' into the novices. This implantation lasted for a long time until the young men's skin displayed the desired features (smooth, tight and bright). At the end of the initiation, when the novices had completed a whole cycle of steps lasting weeks and dwelled in the world of the dead (on the sacred ground at the backside of the ceremonial house, *toiembo*), the initiates performed a dance. They carried an openwork flat and roundish head decoration called *noute* made of vines. This headdress is compared to the dried-up

Figure 4.5 After an initiation, the novices appear from the realm of the dead like spirits. Therefore, their skin is still black, and their head is decorated like a ceremonial yam. Lonem village. Photo: Brigitta Hauser-Schäublin 1979.

vine of a mature yam after harvest. Thus, the novices had turned into wonderful *mambutap*.

The smoothness and brightness of surfaces, as expressed in the appreciation of the delicate skin of both *mambutap* yam and human beings, have shaped the way in which people deal with other surfaces. Thus, the Abelam are not carvers as their riverine neighbours, they are primarily painters (Forge, 2017a, 2017b:129–131; Hauser-Schäublin, 1989). The huge carvings representing ancestral spirits (*nggwalndu*), for example, are roughly carved

logs. It is painting that brings them to life and for this reason they are repainted before every ceremony in which they are displayed. Through carving, the log is provided with planes rather than with finely incised reliefs. This principle applies even more to the mostly flat carvings called *wapinyan*. The most impressive paintings, however, are the façades of ceremonial houses (*korambo*) and the analogically related huge *wagnen* headdresses men dance with in high grade initiations. The basis of these paintings are flattened sago palm sheaths, which have been stitched together and displayed in a way that those uninitiated (especially women) should think that it is one large single plane which appears like a miracle. The surface of the sago palm sheath is smooth and shiny, and it is indeed surprising that the painting lasts on the glossy plane even for decades. To achieve this, the painters must follow many taboos, such as refraining from washing, having sex, and eating food not prepared by the painter's wife. The master painter is the first to start the painting process; he draws the first lines with white paint by using a feather. The white line takes the lead that determines the shape of each pattern and connects one set of motifs to the next. White is the most important colour since it outshines all others and is associated with the sun, the stars, and, correspondingly, with white shell rings (valuables) used in the decoration of ceremonial houses. The painting of a façade takes about ten days. The lifetime of a ceremonial house is about 10–20 years, depending on the weather conditions that gradually cause the painting to fade. A ceremonial house has its own lifetime. Mending and repairing are, therefore, never carried out.

In contrast to other ritual activities (such as initiations) where the voices of instruments (spirits and ancestors) fill the air, painting is almost a silent activity. We observed several times that some assistants started chatting. The master painter intervened and asked them to keep quiet. Thus, compared to carving with its regular rhythmic sound of chopping wood, painting is a silent activity.

Abelam's cultural keynote bundles even encompassing domains of their life. They all concern the transformation of overgrown surfaces into bare and smooth ones. The Abelam annually converse forested area associated with wilderness into cleared land apt for producing crops by slashing and burning its vegetation. Furthermore, the gardens need to be regularly weeded, otherwise the jungle takes possession of them again. In a similar way, surfaces in hamlets, especially the ceremonial ground in front of the formerly huge ceremonial houses, were painstakingly kept free from overgrowth. The bare smooth ground is considered the appropriate surface for humans to live on. Such cleared surfaces are the result of people's achievement to create a humane living in a setting that is encircled by a lush jungle and perceived as the realm of spirits. Such a transformation is also performed when a pig, the major sacrificial animal, is prepared for a ritual offering. Pigs often roam in the forest and their bristled skin is associated with wilderness. Like *mambutap* yam, pigs are perceived to simultaneously own a double nature, a nonhuman and spiritually powerful dimension and

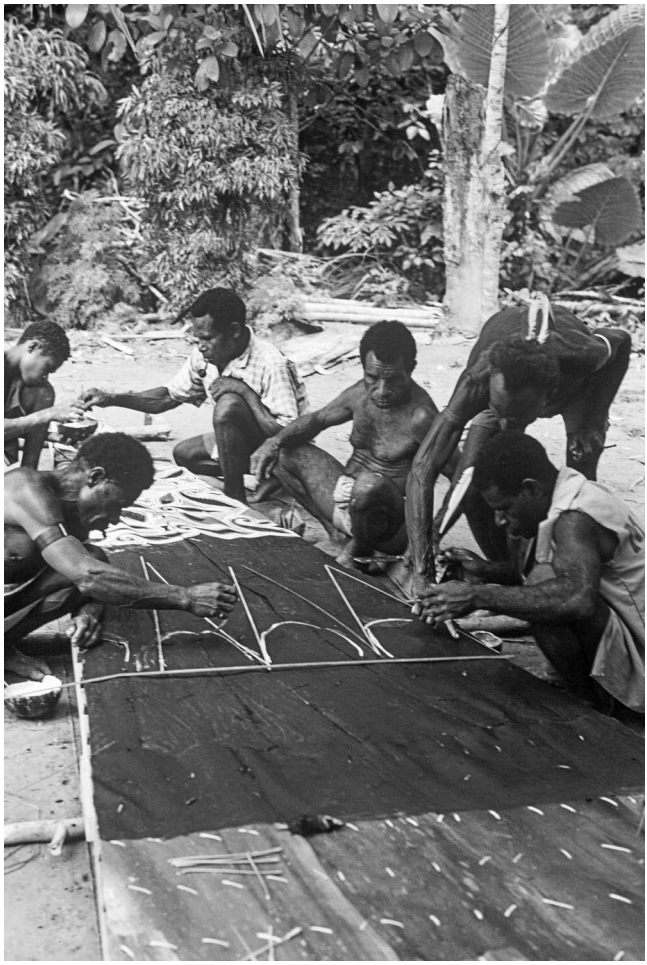

Figure 4.6 Painting of a façade of an Abelam ceremonial house. The painters apply the colour on the glossy brownish surface of flattened sago palm sheaths after these have been stitched together and covered with a black undercoat. Kalabu village. Photo: Brigitta Hauser-Schäublin 1980.

that of a human being (see footnote 24). Unexpected encounters with them in the forest are feared. For an offering, a pig had to be stripped from its wilderness. Thus, the bristles had to be removed while it was still alive: the pig was singed alive above a small fire since the animal should not be roasted, but its skin only cleared from its hair-growth. Thus, forests, hair, bristles, and overgrown grounds in the village are associated with the opposite of the ideal of the smooth, clean, and bright surfaces of Abelam's aesthetics. Instead, all these hairy covers refer to wildness and lack of control.

Conclusion

The aim of this chapter was to show how basic principles of 'visual art,' or even aesthetics, are related to what people perceive as turning point in their history, namely how Middle Sepik societies acquired a new way of subsistence in an environment they had only recently moved to. Oral accounts give testimony of these events and processes which are described as the creation of the world achieved by primeval beings, the crocodile among the riverine people and the Yam-child among the hill horticulturalists. Only few senior men know the full versions of these histories and can build a plot out of the clues contained in the cultural keynote. The reciting of chants and sacred stories are further accords played on the cultural keynote and exist side-by-side with other artistic expressions. The characteristic skin of these primeval beings – the cornified scale-ridge of the crocodile's back and the smooth and bright skin of the Yam-child – and the inner qualities they embody have influenced people's aesthetics. In visual expressions, the cultural keynote and accords, regularly arranged into sequences and performances, are bundled by fundamental aesthetic principles.

Among the riverine people, the crocodile skin has resulted in a predilection for the interplay between the raised and deepened surface by processes of cutting, incising, sculpting and engraving surfaces of different materials, including male skins and wood, thereby also transforming tree trunks into valued objects, such as canoes, slit drums and house posts. In initiations, 'old crocodiles' scarify the back of young men who become fierce 'crocodiles' through a process of re-enlivening and re-creation. Thus, there is a cyclic-generational understanding of time whereby the events in the past are perceived as future that will become present again – a biographical present of the novices – during initiation. The shifting and merging of time is paralleled by the shifting and merging between men, carved 'artefacts' and crocodile. The site of the initiation is the stage of dramatic events which is experienced in the sense of *Ergriffenheit* (deep emotional involvement; cf., Jensen, 1951). There, the initiates learn how the past, present and future are interrelated through the 'choreographing of [cosmological and] social activities' (Gell, 1992:191). Among the horticulturalists, a similar shifting between the long yam tubers, ancestors and men takes place. This shifting of shape is accompanied by a shifting of time and sequences in a similar way as among the riverine people. Yet, the quality of the skin of the primeval being, Wapinyan, differs fundamentally from the one of the crocodile societies since it is the smooth, delicate, tight and fair skin of yam and men that is highly appreciated as a general aesthetic principle. To conclude, the approach applied in this chapter allows us to understand why the riverine people (mostly Iatmul) predominantly produce carvings and the hill people (mostly Abelam) mainly paintings. The artistic styles of the Iatmul and Abelam display fundamental differences at first sight. In fact, these differences relate to the Iatmul's and Abelam's lifestyles and how people managed to adapt to their respective environment and

create a living there when they had newly moved into it. The artistic styles are informed by the qualities of the primeval beings and their skin. These beings and their re-enactments in male rituals have their own temporalities which ensure that memory does not fade. These artistic styles are a cultural format of people's memory, or rather what I called a cultural keynote, to which many accords exist. However, despite their obvious differences, the cultural keynotes of the Iatmul and the Abelam display similar structural relations which are isomorphic with Middle Sepik notions of time and men's cosmo-temporal and -spatial situatedness, fundamental, among other things, in the constitution of the biography of each group.

Notes

1 Fieldwork among the Iatmul was carried out in 1972/73 and among the Abelam between 1978 and 1985 with a brief revisit in 2015. I am grateful to the musicethnologist Raymond Ammann (University of Innsbruck) for his thoughtful comments and assistance in avoiding falling into traps as a music amateur. I am also grateful to the musicethnologist Don Niles (Port Moresby) for critically commenting my hesitant steps on musical grounds.
2 The Sepik area has been a transitional region at least for centuries. At a certain point in ecological development and history (see Swadling, 2010), a northward movement from the river valley to the costal range took place (see Roscoe, 1989; Swadling, 1997; Claas, 2007). These primeval beings in different ecological zones are closely interrelated with each other as a consequence of continuous migration movements and exchange. For example, in historical accounts, the roots of the sago palm are said to be clawed to a crocodile deep down in the wet ground (Schindlbeck, 1980:424–427).
3 Another account, apparently of Arapesh origin (see also Mead, 2002:252–253), tells of a cassowary-woman who was killed by her youngest] son. Out of her corpse grew all varieties of yam.
4 Incised patterns are applied to ceremonial pots and formerly also to bone daggers.
5 However, men often romanticise and sing of women's abundant pubic hair in ceremonial songs.
6 See Born's discussion of Bergson's and Deuleuze's concept of *durée* (2015:364–365).
7 I think here, for example, of young Iatmul men who lead an urban life but want to get the 'marks of the Sepik' (scarification) to demonstrate their Sepik identity.
8 I think here, for example, of the growing of long yam and its competitive display among the Abelam. During my brief return visit I got the impression that the knowledge about the cultural keynote had been lost or was no longer relevant, since other 'keynotes' existed side by side. The men I talked to in 2015 considered growing yam as a kind of elaborate technology, a fact that seems to be supported by Coupaye's work (2013).
9 Crocodiles pile up nests for their eggs in the water.
10 Such grass islands of different size float along the river especially during the flooding season.
11 All the creation stories tell of a single primeval crocodile or crocodile-man. However, each clan holds that it has its own named primeval crocodile. The crocodile's name is usually the first one in a long list of ancestral names that

senior men recite at the opening of rituals (Wassmann, 1982; Telban and Vávrová, 2010:219).

12 This description reminds of the huge carved crocodiles from the Korewori (Telban, 2018).

13 Telban and Vávrová (2010:19) note that among the Ambonwari of the middle Korewori clan-specific ancestral 'spirit crocodiles' are assumed to live at fixed places in the water or ground. These sites share the same name as the crocodiles. Similar to initiation, the site seems to create a solidification of time in the sense of retention and protention.

14 It turned into a wild species of yam called *gande*.

15 Today, the tubers of wild taro are considered inedible.

16 It is an offense if guests refuse to accept food offered to them.

17 Most of the pools hidden in the bush are considered sacred sites where spirits in the shape of pythons live.

18 The term is transcribed in many variations depending on the researcher and his struggle to cope with a language that has not its own written form.

19 In the Nyaura village of Timbunmeli, apparently the term *bange* is used instead of *sibe*. *Bange* means skin and body and feelings are felt in the heart and/or the skin (Falck, 2016:89). There exists a distinction between 'outside skin,' *bange simbe*, and 'inside skin,' *aura bange* (Falck, 2016:48, 250). In several Iatmul villages, a male name ends with *bange*, a signifier for a male person.

20 According to Jendraschek, some speakers distinguished between *si'bi* (skin) and *si'm* (body); others conflated both terms (2012:509). Coupaye renders *sëpë* for skin and *sëpëkwapa* for 'inside and outside skin' meaning 'body' and may also carry a moral connotation of the person (2013:166).

21 I have never come across a distinction made between male and female crocodiles in initiations. It seems to be the female animal that piles up the nest but male and female seem to look after their young.

22 See also Telban and Vávrová (2010:21) who emphasise the connection between the external skin and 'insideness' of the spirit crocodile, with whom the novices became identified after they were 'eaten' by the spirit crocodile (initiation).

23 The dualism relates to another cultural keynote that contains a wide repertoire of clues referring to the coming into being of the gender relations.

24 Another yam species, which in Kalabu in the 1970s was considered the second 'best' species, is *undinggil*. There is a similar story about its origin to the one included in this chapter (see Hauser-Schäublin, 2016:117–118). However, it is not a yam-child but a hairy boar-man that is described as the primeval being whose death produced the new species of yam. Thus, this primeval being oscillates between man, wild boar and cultivar (yam).

25 'Slack skin' is an indication of an old body be it man or yam.

26 I cannot enter in the discussion of the fact that it was a menstruating woman who discovered the shifting forms of the yam-child. The topic of gender would need to be discussed in a broader context; there are, for example, also female species of ceremonial yam and during the planting process there are many terms, such as breastmilk and placenta that are used as specific 'nourishments' for the yam's growth.

27 This is one of the cases where one could no longer speak of accords since crucial pieces of knowledge are no longer part of the former keynote.

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5 A meditation on time

Pattern and relational ontologies in Northwestern Amazonia

Els Lagrou

Introduction

The Huni Kuin (Cashinahua) from the Northwestern Amazonian rainforest value design very much and call themselves, along with significant non-human others, *keneya* beings – beings 'with design.'[1] The presence of design points toward specific cognitive, agentive and transformational capacities. The engendering of pattern in body painting and weaving is a female art and is understood by men and women alike to condense complex thought processes. In this chapter, I intend to show how patterns manifest connections across different topological levels of space-time and capture – in a visual formula – the logic of multiple relations and iterations that compose any single being. The art of patterning, thus, constitutes a relational topography, showing how proper distances should be kept and created, while showing, at the same time, how these distances collapse during the transformational processes of other-becoming that characterise all personal biographies of human beings in this Amerindian relational ontology.

I will explore the dimension of time present in Huni Kuin complex design systems from two different perspectives. First, the logic of design codifies a condensed reflection on biographical time and the destiny of the person from birth to death. This will be the principal subject of this paper. Second, this design system – as a generative template of patterns – changes over time, without losing its defining characteristics. As I have shown in previous writings, micro-variations and the delicate equilibrium between the symmetry of the weave or pattern and the systematic introduction of an asymmetric detail are constitutive of Huni Kuin graphic style (Lagrou, 1998, 2007, 2011, 2013, 2018, 2019). The interplay between symmetry and asymmetry and the way it engenders new motifs is an eloquent example of Amerindian chromatism and of the capacity of pattern to transform complementary opposites, such as figure and ground, into complex figures of spatio-temporal mediation.[2]

When women specialists discuss the presence of design in woven fabric, they tend to value complexity and multiplicity of patterns over the use of simple motives, repeated without change or perceptual ambiguity. The latter, simpler designs are attributed to apprentices or women who have not

gone through the specific initiation rituals and dietary rules necessary to learn design. The more complex a woman's woven patterns, the more complex her *xinan*, thoughts and ritual knowledge are.

As we will see, the logic of design is not far removed from myth as explored by Lévi-Strauss in his first reflections on the canonical formula: 'If the intention of myth is to offer a logical model to solve a contradiction (an impossible task when the contradiction is real), a theoretically infinite number of layers will be engendered, each one slightly different from the preceding one' (Lévi-Strauss, 1958 [2012]:247). This is exactly what happens with Huni Kuin patterning, where the same unresolvable questions are being dealt with, as synthesised by Lévi-Strauss – 'the impossibility of autochtony: to be born from one instead of two' (Lévi-Strauss, 1958 [2012]:233). This contradiction of the double or split character of all being could be rephrased as the crucial and unavoidable necessity of otherness – as well as of the existence of gender differences – combined with the longing to overcome this duality; two questions closely dealt with in the origin of design of the Huni Kuin and codified in its defining structure.

Later on, in the two volumes on myths that follow the publication of his *Mythologiques –La Potière Jalouse* (1985) and *Histoire de Lynx* (1991) – Lévi-Strauss will develop his canonical formula of the transformational relation that links myths and their different versions in space and time in terms of the 'double twist' of the Klein bottle, where it becomes impossible to separate the surface that unites the interior and the exterior of the figure, producing the holistic tri-dimensional image that obviates the possibility of switching perspectives between figure and ground. It is this version of a 'dualism in perpetual disequilibrium' that I have been trying to approach in previous comparative analyses of the formal characteristics of Amazonian design systems. The relation between symmetry and asymmetry, through the systematic introduction of asymmetric details that suggest the transformation of one pattern into another; the engendering of movement and the perception of profundity inside the patterned surface, through the interplay of encompassing and encompassed patterns; and the intertwined and reversible character of interior and exterior, are geometrical movements that lead us to the mathematical formula of the Möbius string or Klein bottle, both images of the canonical formula of Lévi-Strauss.

More recently, I explored the relationship between these double twists of complex design systems and the same twisted language present in shamanistic songs that produce shifts in the perception of reality (Lagrou, 2018a, 2018b, 2019). Here, I intend to show how a sequence of myths related to the origin of design can be read as versions of the same logic of transformation. The synesthetic relation between song, mythic narrative and design – as it unfolds in the lived world of the Huni Kuin – is a clear example of an Amerindian relational aesthetics that operates within the shamanistic ontology that has been called multi-natural perspectivism.

It comes, therefore, as no surprise that multi-natural perspectivism – as proposed by Viveiros de Castro (1998) – has been understood to be the manifestation of the canonical formula of myth, the transformation of a transformation of Lévi-Strauss's initial oppositional and complementary relationship between the concepts of Nature and Culture into the relational figure of perspectivism. Thus, the positions between Nature and Culture, human and nonhuman, have been twisted and turned in the *Mythologiques* until they reached the holographic image of the canonical formula (Viveiros de Castro, 2008; Kelly, 2010).

Birth: the changing of clothes, body and design

A person is constituted by its relations to human and nonhuman beings and by complex processes of incorporation of the agentive capacity of significant others. This leads to the paradoxical awareness of one's identity as a constant process of other-becoming that, if not countered, would result in transformation or death. The making and nurturing of a person implies a capacity to connect with a multiplicity of potentially predatory beings and agencies without being engulfed by their alterity. The balance between selfhood and otherness will be finally lost at death, when the human soul goes to live in the sky where he 'puts on the yellow cloth of' and becomes identical to the primordial enemy of the living, the cannibal god of the dead, called 'Inka.' One of the funeral songs directed to a dead person's eye soul encourages the soul to undertake the journey and subsequent bodily transformation: '*Inkan tadi sauwe, paxin tadi sauwe*' – 'put on Inka's cloth, put on the yellow cloth.' The Inka people come to receive the dead person's soul in their luminous clothes, covered in design.

The patterns on one's skin – or the absence thereof – act to connect, open, filter or close the skin for vital and lethal outside influences. Thus, at birth, the female kin attending the delivery sing: '*isku isku pui, nerun nerun kaini, min bati txuka menuikiki, menã kaindiwe*!' '*Isku* bird faeces, *isku* bird faeces; come this way, this way; your old clothes are burning; quick be born.' '*Isku pui*' is to smoothen the way, I was told, 'for the baby to be born quickly, you tell it that its clothes are old.' The 'old burning clothes' can be read as a reference to the amniotic sac and placenta from which the child has to be separated to acquire its human body and identity. As in the funeral song cited above, birth is figured as a change of clothes. To change clothes in shamanistic language – in mythical narratives as well as in rituals songs – is equivalent to change the body.

When a child is born, the final features of the new body still need to be defined. A woman from outside the circle of close kin will pick up the baby as it comes out of the womb and hold it in her hands until the placenta has descended. The women will only stop singing the birth song and sigh with relief once the placenta comes out. Only then is the birth process complete. When the blood stops pulsing in the cord, the woman who took the baby will be asked to also cut the umbilical cord. The placenta (*xama*) is then immediately taken to the forest and buried at a well to provide the child with

a 'strong heart,' by giving it 'the heart of a well' (*txatxa huinti inankine*). Thus, 'the life of the child will be like a well that never dries up.'

After separating the neonate from the placenta by cutting the umbilical cord, the 'godmother' will mould the baby's face, flattening the little cheeks and straightening the nose. This is considered to be the final touch in the modelling of the child, called *damiwa* – to 'give form,' to 'give the child her own body.' People say the child will resemble her/his godmother. After this, the grandmother will wrap the newborn in the new cloth given by the godmother. The grandmother will help her daughter climb into her hammock and place the baby on top of her. In the three births at which I assisted as godmother, the child was not washed until the next day with lukewarm herbal water, made of a mixture of more than ten different plant medicines, and then painted red with achiote (*Bixa orellana*). The mother, in turn, is washed with herbal infusions and drinks potions to make her stop bleeding. When painted with achiote, the girl's ear is also pierced.

The mother and the child will only leave the mosquito net for the first time when the child's navel is dried up. At this time, a hardworking and knowledgeable close relative will, while singing a ritual song, dye the child black with genipap and paint the forehead with *xeki xau kene,* corn cob design, for boys – to grow strong bones – and *xapu bexe kene,* cotton seed design, for girls – to give them a strong soul like the boa owner of cotton. The forehead is opened to positive influences, while the body is closed off to prevent the escape of the soul, still without strong roots in the neonate's heart, nor to let other souls or image-beings enter the baby's body, whose skin is still weak and permeable.

The song that accompanies the dyeing of the body with genipap paint invokes the dark fur of monkeys and the feathers of blackbirds. The painting protects the body, making it invisible to *yuxin* predation. The hands, sweat and words of the one who sings while painting the baby are believed to pass on their character, their power, their *dau* (charm, medicine) and *dua* (brilliance, health and good luck) to the baby. Thus, not only the body but also all aspects of the person are simultaneously modelled. The body is not perceived as a bounded independent entity, separate from other bodies. Both its shape and state of being are the result of collective modelling and fabrication and are of concern to all close-living kin.

Later on, when the children are growing and exchanging their milk teeth for permanent ones, an important collective rite of passage will be held for girls and boys alike. Their teeth will be blackened, and their bodies and faces painted for the first time with the labyrinthine patterns characteristic of the 'real design,' *kene kuin*. The width of the lines, however, will differ clearly from that of the delicate lines traced on the faces of adults. The 'broad' or 'badly executed' patterns on the children's faces and bodies have the intention, so I was told, to make the body permeable to the ritual intervention – to the songs sung over their bodies and the herbal baths made with plants to make them strong and clever. These two instances of the use of design in the

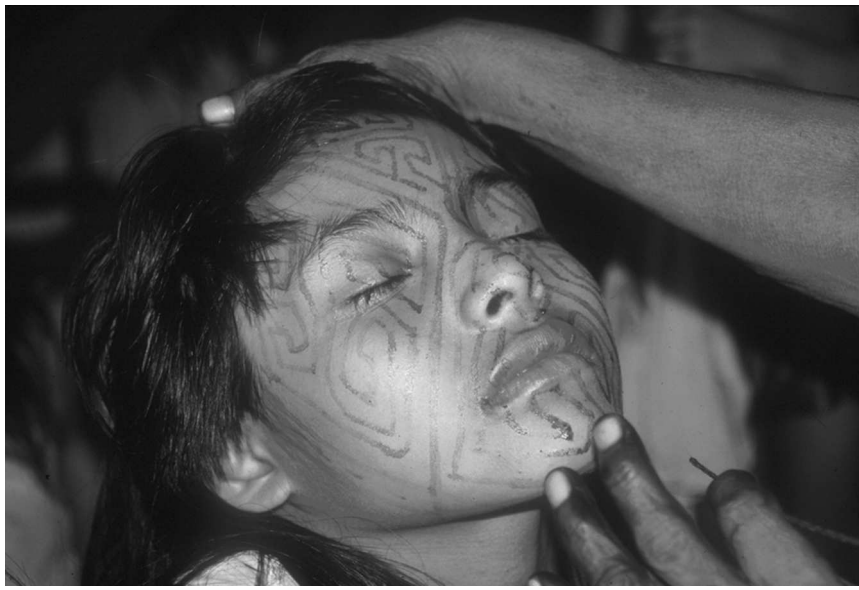

Figure 5.1 A girl painted with 'real design.'[3] Photo: Els Lagrou 1995.

modelling of the body in ritual context show how pattern and the biography of a person are intimately linked (Figures 5.1 and 5.2).

In the last section of this text, we will come back to the role of design at the end of a person's life, the risks and challenges involved in producing patterns at an old age, and the intimate connection between a person's eye soul – responsible for the vision, the only soul to survive after the body disappears, and design – because of their labyrinthine and agentive character patterns function as maps and as traps for the eye soul. They can show the way to connect different realms of being, but they can also trap the eye soul, impeding him/her to find the way back to the body. It is important to stress this aspect of Huni Kuin personhood: a thinking body is inhabited by a multiplicity of souls located at the places where they are active – there is the soul of the hands, of the ears, of the skin, of the sexual organs, etc. (Kensinger, 1995). All these souls can be gathered under the name *yuda yuxin*, or *yuda baka*, the soul of the body or body's shadow. When the body dies, these souls undergo a process of transformation and involution until they disappear or become transformed into something else – into other beings like ants and worms. The eye soul, in turn, undertakes its journey back to the Inka village in the sky where he/she came from and, on this journey, he/she will follow the paths drawn by design.

Figure 5.2 A boy painted for the *nixpupima* ritual. Photo: Els Lagrou 1995.

Kene: a spatio-temporal topography

When analysing the production of patterns, Boas (1927) was amongst the first to deviate attention from the meaning of separate design units to visual processes of image production, such as the phenomenon of 'split representation' in the transition of tri-dimensional to two-dimensional figures. Boas was interested in how the pattern works cognitively and visually. His interest in the formal principles at work in pattern formation prefigure the reading of patterning as the manifestation of geometrical and mathematical thought processes, revealing mindsets vastly different from the ones at work in the conception of pictures delineated against a stable background (see Gell, 1998; Belting, 2011).

Lévi-Strauss, when analysing Caduveo (Kadiwéu) facial design in Central Brazil, would take this analysis further by associating the formal characteristic of 'split representation' in design with the complexities of Caduveo social thinking (1955). In the asymmetric patterns of arabesques, Lévi-Strauss noted the operation of a symmetrical quadruple split along inverted axes, showing how their design followed the same formal logic of a 'game of cards.' The

Caduveo didn't possess a kinship or naming system composed of moieties, but their neighbours – the Bororo – did. Lévi-Strauss suggests that in facial design, through the symmetrical patterning hidden behind an asymmetrical design, the Caduveo aristocrats expressed their secret desire for the social equilibrium achieved by the Bororo. In other words, the Caduveo artists imagined, by means of patterns on their faces, what the Bororo achieved in their kinship system and spatial organisation. Huni Kuin design systems give an interesting twist to this Central Brazilian case because their relation to the kinship system is dynamic – the internal relations between the patterns point towards the complementarity between the intermarrying moieties, while at the same time pointing towards the instability of the interconnected complementary pairs.

If the logic of the 'game of cards' is applied to symmetric forms – as we find in the geometric art produced by the Huni Kuin – and we describe the forms in mathematical terms, we will find variations of patterns composed of four symmetries by reflection, around a horizontal and vertical axe and around two diagonals, combined with a rotation of the order of four. When composed of rectangular curls or meanders, we obtain a central pattern that, depending on the relational network in which it is entangled, will receive different names: *bawe kene* (pattern of the plant squeezed in the eyes to dream with design), *xamantin, xantima* (see below), *nawan kene* (pattern of the enemy-stranger), etc.

When composed of diamond shapes, this pattern is called *inu tae txede bedu* – the jaguar's paw with parrot's eye. Four diamonds enclosed by a path in the form of a diamond form this design. Inside of it, we have four eye patterns. The pattern of the 'white eyed parrot,' *txede bedu*, is the first to be executed by a girl learning to weave with design. In myth, this bird gained its defining features – the eyes surrounded by white – when it stole the cooking fire from its stingy owner, the cannibal Inka. In shamanistic songs, the pattern is invoked to acquire the capacity of clairvoyance, described to me as the capacity of the disembodied eye, not limited by forehead or eyebrows, to see what is normally invisible. Women invoke the pattern in ritual songs to visualise complex patterns when weaving (Figure 5.3).

The diamond shape with a dot inside represents the eye soul liberated from the limitations of bodily perspective. As a design unit, by means of specific combinatory rules, this motif gives rise to several patterns. When joined in a grid or lace, the diamonds compose the pattern called 'cottonseed' – *xapu bexe.* As we have seen above, this is the first pattern to be used on the forehead of girls when they are still babies. Young girls spend a lot of their time helping their mothers and other female kin with the preparation of cotton strings for weaving. The pattern refers to a strong soul for a long life. The parrot's eye, formed by a linear sequence of small identical diamond shapes and separated by triangles, can also be called the 'back of the boa snake' – *dunu kate* – especially when combined with other patterns within the pattern. The triangles in between the diamonds are, in fact, cut diamonds that continue beyond the perceived patterned surface. The suggestion of an infinite propagation of self-similar shapes in space is a defining characteristic of the style under study (Figure 5.4).

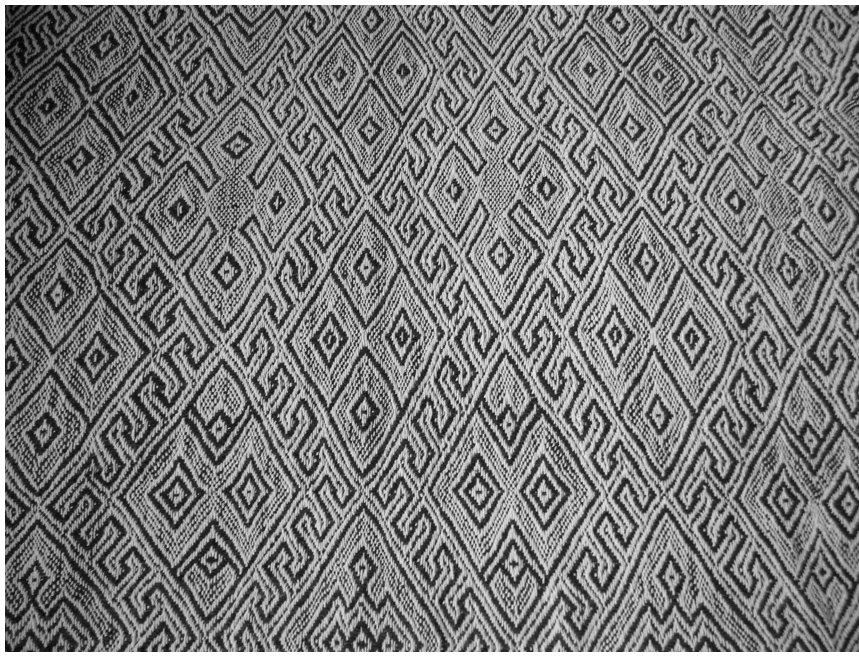

Figure 5.3 Hammock with several versions of motives related to the jaguar's paw and quadruple inversions. Photo: Els Lagrou 1992.

When the diamonds are linked to each other at the corner in strings, we obtain the pattern 'boa's brain' – *dunu mapu* – or 'intestines of the boa' – *dunu puku*. A variety of names of graphic designs refer to intestines and brains of important game or predators. This idea of a correspondence between patterns inside and outside the body refers to the Möbius structure of shamanic vision: the inversion and connection between inside and outside vision. The diamond motif, when iteratively and symmetrically joined in linear sequences of replication of equal elements, alternatively produces the multiplication of eye motifs or the surface of the skin of the boa. When joined at the points, the pattern refers to the interior organs of the same boa that engenders all possible forms out of its own body.

The Piro of the Peruvian rainforest and the Guna of the isles of Panama, and the Colombian mainland, have pointed out some interesting connections between placenta, guts and design to, respectively, Peter Gow (2001) and Paolo Fortis (2010) that can help us to further illuminate the relevance of the connection between interior and exterior design; between the designs of the guts/placenta and the designs on the surface of the skin.

For the Piro, the placenta is a person's *geyonchi* – 'first design.' When inside the mother's body, the child is wrapped in this design as if it were its

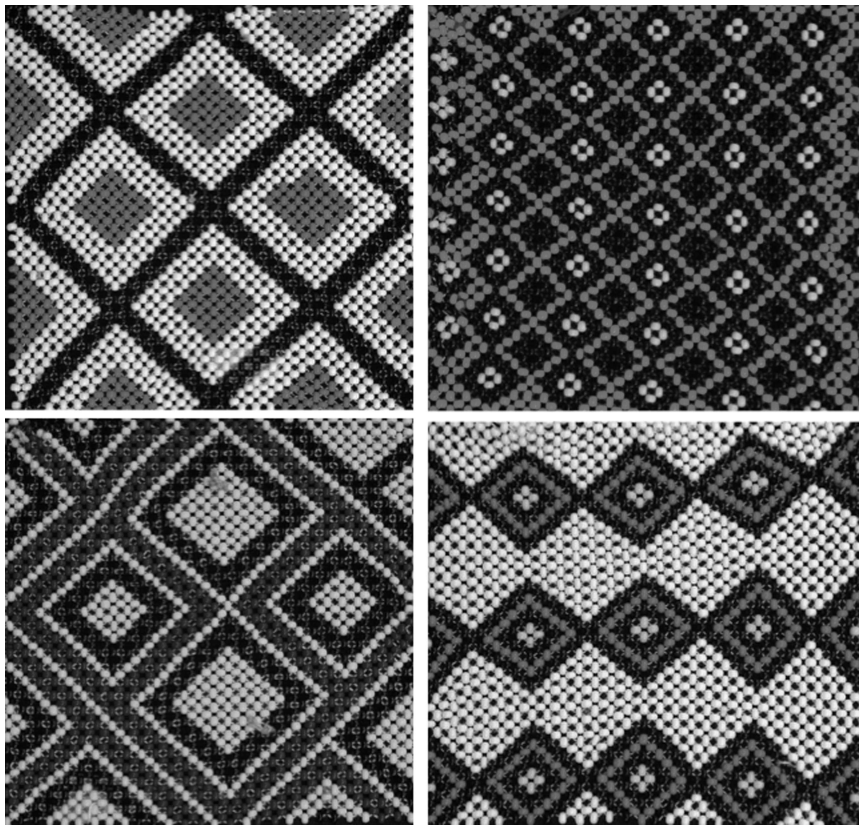

Figure 5.4 Cotton seed, jaguar's paw and parrot's eye motives in beadwork. Photo: Els Lagrou 2014.

outer skin, while at birth it must be separated from the placenta – also called its double or 'twin' – to become a real human being, capable of engaging in relationships with others. This new being will be one without any visible design. Only nonhuman beings and animals have permanent designs on their skin and humans will use temporary designs only later in life, on ritual occasions, to become as beautiful and fearsome for their visitors as other owners of design such as the jaguar. When inside the body of its mother, the baby's guts are connected to its placenta. 'Piro people identify the placenta with the guts and call the period of drying and falling off of the stump of the cord, "the closing of the guts"' (Gow, 2001:107). It is for this reason that the cutting of the umbilical cord and the drying of the navel are of such crucial importance. If this opening would not be properly closed, the fabrication of the new body/person who learns to 'live well' and care for others – by having his desires for food satisfied by his close kin – could not be established.

Among the Guna people of Panama too, design is an important feature in the fabrication of new persons and functions as a sign of the invisible connection of certain people to certain animals and other nonhuman beings. Fortis explains how some neonates are born with the *kurkin,* the amniotic sac, covering their head. In most cases, the *kurkin* is characterised by the presence of designs. These 'amniotic designs refer to the link between newborns and animal entities' (Fortis, 2010:481) and are identified by a specialist at birth. Knowing the link that unites the baby to a specific animal implies special learning capacities for the person identified. A child born with a white *kurkin* covering his/her head, on the other hand, is predestined to become a shaman, because of the potential of establishing relations with an unlimited number of nonhuman beings. Since most illnesses are caused by animal doubles, this knowledge is crucial for the well-being of the community.

As we will see further on – and as I have analysed in depth elsewhere (Lagrou, 2018a and 2018b) – the presence of patterns covering a person's soul during the ritual intake of ayahuasca, as expressed in ritual songs, points towards an aesthetic battle between the hunter and the double of his game who tries to capture the human soul by covering it with its design, cloth and ornaments. The names of the patterns refer to a complex network of relations between human and nonhuman beings that together constitute the human body/person.

But let us come back to the diamond-shaped pattern of the jaguar's paw, composed of four interrelated, symmetrically inverted, diamonds. It is possible to associate this pattern to the Dravidian alternating namesake system (with a Kariera inflexion) which presides over Huni Kuin social organisation. This namesake system is composed of a limited stock of names and follows gendered lines of transmission. A person's name attributes him or her a place in the intricate web of kinship terms and determines in which section one should find a marriage partner – in the same generation section of the opposite moiety and ideally in one's own village.

Recently, Mauro Almeida (in press), a colleague working with ethnomathematics and kinship patterns, noted that the same numbers – 2, 4 and 8 – that play a central role in Huni Kuin mathematics and weaving also have a vital role in their social organisation (Almeida, 2019). Thus, we could effectively read patterns of the family of the 'jaguar's paw,' as well as those composed of four rectangular meanders, with their four-fold symmetrical inversions of the 'game of cards,' not only in terms of moiety complementarity, as suggested by Lévi-Strauss for the Kadiwéu, but in terms of a formal language to show the proper relations between four equally opposed and complementary naming and marriage sections, connected through marriage.

Instead of design units or specific patterns differentiating social groups and moieties, as we have for the Jê peoples (Vidal, 1992), Huni Kuin women explained to me that all the patterns were part of 'one and the same big design.' This big design, however, is composed of many pathways – patterns in a pattern. Thus, I soon concluded that the labyrinthine patterns women produced were not to mark off internal differences, but on the contrary, meant to show the

multiple relations and iterations that compose any individual biography. A complex design contains a multiplicity of other designs in its inside. Each design has its path. A hammock with complex design patterns must be read following these different paths: the path of the white-eyed parrot (*txede bedu*), the path of the single line (*bai sepi)*, the path of the double line (*bai huku*), the path of the crocodile tail (*kape hina*), or *maemuxa* (*esperaí* vine), etc.

Learning to see with Huni Kuin women means to follow these paths into the fabric without losing them: some paths will touch, others will envelop. The possibility of entering the design from different perspectives transforms a name into a narrative of the movements of the eye in the labyrinth of lines that compose the patterned space. Pattern does not depict forms but relations. Thus, a 'jaguar design' referring to kinship is only one of the many possible designs within a pattern and will always be framed within other paths of design.

The jaguar stands for the relation between the two exogamous moieties: the spotted jaguar of the *inu* moiety, and the 'red jaguar' of the *dua* moiety. The patterns on the skin of the 'red jaguar' are almost invisible as if hidden by his red fur. We could call them *umin kene*, a much-valued weaving technique where patterns are produced without contrasting colours, making it much more difficult to visualise the pattern. One has to follow the paths of the fabric with one's finger rather than with the eyes. When disguised as forest spirits during the fertility ritual, members of the red jaguar moiety cover their genipap designs with patches of red achiote, thus becoming jaguars.

The *inu* moiety is composed of the sections 'tapir,' a terrestrial being, and 'lightning,' a sky entity; the *dua* moiety is composed of the sections 'peccary,' a terrestrial being, and 'anaconda,' a water being. Prescribed marriage occurs among people of the same generation: the terrestrial sections of opposed moieties or between the sections of water and sky people. When oblique marriages occur, they connect, respectively, earth and sky people, or earth and water people, people belonging to contiguous topologies that should normally be kept separate. Yet, this is exactly what design seems to do – at least, this is what we learn from the myths of origin. This virtual reality of connectivity is evoked and turned present in ritual song. In it, we recognise the important Amerindian cosmological figure of potential affinity (Viveiros de Castro, 2001).

In myth, we learn that the art of design and much other exogenous knowledge is the result of secret love affairs with beings situated either 'too far' from or 'too close' to ego. Design is about trying to find equilibrium between the ruling symmetry of woven patterns and the systematic disturbance of this symmetry by the introduction of an aesthetically much-appreciated asymmetry. It is the asymmetric detail in a pattern that connects it to another pattern, engendering smooth transformations from one design into another. Asymmetry stands for the dangerous but productive transgression of the appropriate distances between people, nonhuman beings and locations. Transgressions of this kind are constitutive of the initiation in the art of weaving with design, mastered only by a few women.

To conceive and produce complex patterns, a woman must pass the ordeal of the ritual killing of a boa constrictor and the subsequent incorporation of its *xinan* – thought-spirit – during the period of her apprenticeship. 'To know' means to partially become what is known; to partially become one with the one who knows and transfers his/her knowledge. To learn means to engage in a process of partial other-becoming. The art of weaving with design involves an initiation ritual and reclusion that resembles, in every respect, the initiation of men in shamanism. A Master of Design, *ainbu keneya*, becomes two in one: a human with the power of vision of the boa snake. During the period of seclusion, she also has the voice of the boa, with the power to kill. This excessive identification, through consubstantiation, is dangerous and only lasts for the period when the girl is secluded (Lagrou, 1998, 2007; Keifenheim, 1998).

The presence of design marks not only humans but also certain animals and plants with patterns on their skin, as well as inhabitants of the water world and the sky. All these beings possess the power of metamorphosis. Design does not only cover the bodies with its maze or net, closing them off or opening them to outside influences but, most importantly, traces connections between bodies and different topographies. From ritual songs, we learn that the inhabitants of the sky are connected to those who live on earth by means of the rainbow, called the path of the dead, *nawan bai*. This was one of the first designs to appear in the world when the ancestor *Yube* became the moon and received from his mother her cotton strings of assorted colours to climb up into the sky. The stripes that cross a patterned surface in woven fabric refer to this rainbow motif. Labyrinthine patterns can act as maps for the mental eye lost in a world of images, but also as a trap, when the eye cannot find its way out of the maze that separates the worlds of the living and the dead – two sides of the same world, invisible to one another.

If the living and the dead have different perspectives on everything, what connects them is design. The most important characteristic of Huni Kuin patterns – the kinetic instability of the relationship between figure and ground – makes visible the relativity of perspective. Although human and spirit are to see as figure what is ground to the other when looking at a labyrinthine design, it is impossible to keep the two perspectives separated. Thus, design establishes the path from one side to the other. To see and to be looked at are interrelated processes in the Amazonian universe. For this reason, people cover themselves in black genipap paint, when mourning or in reclusion, to hide from the view of spirit beings and become invisible to them. For the same reason, people who are extremely ill will avoid sleeping in hammocks with design.

Most myths related to the origin of design refer to the transformations of the ancestor *Yube* who, in one event, became the moon after committing incest with his sister; while, in another, he became the anaconda. The anaconda is a double androgynous being that was engendered by the combination of *Yube* with his wife *Sidika*, who were lying in their hammock with design when the great deluge covered and transformed them. Thus, we understand why the agency of design consists in attracting. Sexual attraction is the prototype of other capturing

strategies used in hunting and war. Design partakes in the mediating, double character of the skin of the boa and of the rainbow – two devices related to *Yube* that bridge topologically and temporally separated domains.

An important diacritic in the naming of motifs in a woven fabric is the difference between lines that touch (which are *detxia*, or *xantima*) and others that remain open (*medasua*). When painted, the patterns on the skin are composed of parallel lines that should be kept separate, while following the asymmetrical curves of body and face; these lines are connected to other lines 'that should touch.' 'No lines should be left open,' a woman explained to me. The art in composing a labyrinth of lines to be closed only at the end is to connect the right lines. If not, you destroy the kinetic effect of the pattern. The lines that touch hint at this dual character of *Yube*, where the connecting line means the encounter of male and female. The combination of the *xantima* (to touch) motif with *xamantin* (to contain), an important weaving pattern, was described to me on several occasions as referring to sexual intercourse: 'to place on the legs, to join.' In the fabric reproduced below, the enveloping motif with the big path that encompasses the smaller path is called *xamantin*. The fill-in lines of *xantima* (to touch) refer to the sexual encounter.

Frequently, people do not agree easily on the name of the pattern covering a whole hammock. This purposeful ambivalence can be explained by the principle of multiplicity: there is no vantage point to enter the patterned surface. In weaving as in drawing, it is considered of utmost importance to maintain a kinetic instability between figure and ground. This 'dualism in perpetual disequilibrium' points towards the possible reversibility of all positions: between prey and predator, consumer-consumed, body-soul, human-animal, male-female and interior-exterior. This oscillating dualism implies the possibility of different forms to transform into each other. The movement of other-becoming, as expressed in the shamanistic songs that accompany visionary experience with ayahuasca, is to systematically point towards the in-betweenness of all being, related to processes of becoming.

Shamanistic song and graphic patterns point in the same direction. That which has been ingested will ingest its 'predator' in return; that which has been encompassed will encompass and back again. There is a movement of inversion between inside and outside, between what was ingested and what ingests, the enunciator and 'that which is said,' producing a complex figure of unfolding, multiplication and other-becoming and the undoing of this process for the duration of the experience. We find ourselves in an Amazonian shamanic universe where to see and to know mean to partially 'become other' (Taussig, 1993). The idea that the point of view is located in the body implies that vision is understood as a tactile engagement between seeing and being seen. The eye touches and is encompassed by the surfaces it explores.

The logic of visualising pattern in this universe – a pattern in the constant and kaleidoscopic movement of metamorphosis, where spirals unfold between encompassing and encompassed patterns – brings us to the principle of the bottle of Klein, where, through an alternating inversion between figure and ground,

and a systematic folding and unfolding of positions, the separation between interior and exterior is suspended (see also Gow for the Piro, 1999:237).

If we read the myths of origin of design in this key, we come to the surprising conclusion that they can be read along the same lines of 'double torsion' suggested by the canonical formula of Lévi-Strauss as we proposed for the graphic style and the ritual songs. They show the possibility of inversion of positions but with a torsion.

$$F_x(a):F_y(a)::F_y(b):F_b^{-1}(x)$$

a = marriage, sexual relation
b = lack of reciprocity, undoing of the alliance
x = too close
y = too distant

The formula reads as follows: The function 'too close' (x) in the choice of a sexual partner (a) is to the function 'too distant' (y) in the choice of a sexual partner (a); as the function 'too distant' (y) in the 'undoing of marriage alliance' (b) is to the function 'excess of reciprocity' (i.e., the transmission of gender-specific knowledge and the resultant transvestitism – transgression of gender roles) (b^{-1}) with the one who is 'too close' (x).

The myths or parts of myths of origin of design presented here are:

1. Yube the moon
2. Muka and the origin of design
3. The deluge: revenge of the fish people (when the anaconda was originated)
4. Napu ainbu, the man-woman

1. Yube the moon

Too close, incestuous brother dies

The first myth about the origin of the moon recounts how the sister of Yube, to discover the identity of her nightly visitor, used genipap to mark his face. The founding relation in this version of the classic Amerindian myth of the origin of the moon (analysed by Lévi-Strauss, 1985) is that between brother and sister who, because of having been too close, are at the origin of celestial temporality, the phases of the moon, and the periodicity of menstruation. The sister of the moon is responsible for making visible the rules that govern reproduction. Once she marks the face of her nightly visitor with genipap paint, impossible to be washed off, a hidden relation has been revealed and has been made impossible. Ashamed, Yube decides to die. The marks on the face of the moon can be considered as the first design.

2. Muka and the origin of design

Too distant, animal lover is killed

This is one of the existing versions of the myth of origin of how women learned the art of design. The ancestor Muka would go to her garden every late afternoon. There, she would meet the boa – in her eyes, a beautiful young man. He would wrap himself around her body and, with his tongue close to her face, teach her the secrets of design. When her husband discovers the affair, he kills his rival.

3. The great deluge: revenge of the fish people

Too distant, fish people take revenge

In this myth, the fish people produce the great deluge to take revenge against the humans. The ancestor Ixan had given in to the song of a toad at nightfall and went to live with the fish people. His wife was heartbroken. When the fish people allowed him to visit his kin, his former wife caught him and didn't let him go any more. The fish people were received without food or drink; back home they produced the great deluge. Many artefacts were transformed into animals and the couple Yube and Sidika, lying in their hammock with design, were transformed into the anaconda.

4. Napu ainbu

Excess of reciprocity with what is too close

The ancestor Muka bukanku had learned the art of weaving with design from her sister-in-law, the boa Sidika. Every late afternoon, she would go to her garden where she sat down with the boa and learned to weave. She lived alone with her son and had no daughters to teach her art to. Thus, she decided to teach her son, Napu ainbu. When she died and he went to look for his distant kin, they took him for a woman, because he was covered in design and dressed as a woman. He accepted to have sex with a man who had fallen in love with him and wanted to marry him. He became pregnant but died during the delivery of his child because he had no birth canal. His body had not been prepared to give birth.

The myths of the origin of design are related to each other by means of transformations and inversions around the theme of appropriate and inappropriate distances between kin, between humans and non-humans, and between the living and the dead. The language of the art of patterning constitutes a relational topography, showing how proper distances should be kept and created while they need, at the same time, to be transgressed. Besides referring to the margin of improvisation in kinship relations between humans,

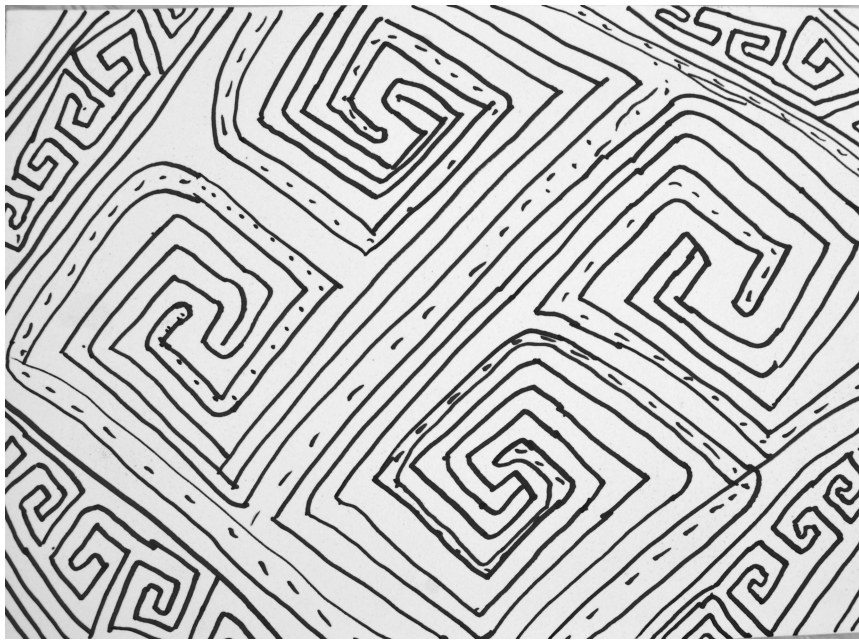

Figure 5.5 Genipap design on paper by Margerida, master of design form the Purus River: lupuna tree motif surrounded by the path of the *maemuxa* torn motif. Photo: Els Lagrou 2014.

myths refer to another important aspect of Huni Kuin lived experience: the ritually established virtual kinship relations with nonhuman beings that are crucial for the acquisition of specialised knowledge for men and women alike. The graphic design system of *kene* partakes in the agency of its owner, *Yube* – the boa-rainbow – to overcome opposites and reveal their continuity and interconnectedness: life and death, male and female, water world and sky world. The dual, bisexual character of the mediator is best expressed by Napu ainbu: a young man capable of mastering all female arts, as suits the son of the boa-anaconda. The differences between male and female and life and death cannot, however, be totally resolved – Napu ainbu, a man-woman, is not able to give birth to the fruit he is carrying in his womb Figure 5.5.

Conclusion: design and the world of the dead

Xunu kene – the design of the lupuna tree – is considered to be the most important of all designs (Figure 5.5). The lupuna tree, tree of life, has several names: *kene hi* (tree of design); *xinan hi* (tree of knowledge); and *Yuben hi* (tree of Yube). The design of the lupuna tree is a labyrinthine pattern with up to eight turnings. This design is exceedingly difficult to

weave and even more complicated to draw. To draw patterns can be a risky enterprise. This possibility dawned on me when observing the desperate attempts of Dona Chiquinha, an old Master of Design. Upon request, she tried to trace the path of the *xunu kene* motif. Each time she became lost, she threw away the paper and started anew, getting more nervous with each failed attempt.

To lose her way in the labyrinthine pattern that she herself was tracing prefigured the post-mortem risk of not finding her way to the village of the dead. The lupuna tree is a dwelling place for *yuxin* beings. *Xunu yuxibu*, master of the lupuna tree, has the power to make darkness descend upon the onlooker. Fainting and dying are expressed by the same word, *mawa*. The lupuna tree is considered the tree with knowledge of life and death and from its aerial roots, ritual stools are carved during the rite of passage of children changing teeth. *Xunu*, with its big crown of round and perfectly formed leaves, is considered the example of perfect, 'real' design.

Huni Kuin patterns – like those of the Yudjá, Asurini, Piro and Shipibo – show a clear resemblance with the labyrinthine designs studied by Gell (1998:73–95). The latter notes an interesting contradiction in the widespread use of maze-like designs as defensive screens or obstacles impeding passage. 'This "apotropaic" use of patterns seems paradoxical in that the placing of patterns to keep demons at bay seems contrary to the use of patterns in other contexts as a means of bringing about attachment between people and artefacts […] Apotropaic patterns are demon-traps, in effect, demonic fly-paper, in which demons become hopelessly stuck, and are thus rendered harmless' (Gell, 1998:83–84).

As in other parts of the world, labyrinthine design in Western Amazonia acts as a screen connecting or separating the living and the dead; embodied humans and image-beings. The Waiãpi say that a shaman is connected to his auxiliary spirits via invisible lines (Gallois, 1988). The line points towards different realms of reality not normally visible simultaneously. When the Yudjá are mourning, they never cover their body in design. They refrain from doing so because, although the dead have different perspectives on almost everything, design means the same to the living and the dead (Lima, 1996). The same holds for the Huni Kuin, who used to paint their bodies black when mourning and who still paint their babies black to protect their weak skins from being too permeable to contact with the outside world.

The use of design to bring forth the passage between different perspectives can be either induced or avoided. This is why a sick person should avoid using a hammock woven with labyrinth patterns. Following the lines of the pattern, the eye soul may become lost as the pattern traces for him the path to death. The agency of design – considered the 'language of the spirits' – consists here of capturing the eye soul and making him/her pass to the other side of perceptive reality.

Notes

1 This characteristic they share with the Shipibo-Conibo (Gebhardt-Sayer, 1985; Belaunde, 2009) and Piro people (Gow, 1999, 2001) of the same region, while it separates them from their neighbours the Ashaninka and Culina.
2 The multiple de-doubling of oppositions, leading to complex design patterns, follows a chromatic logic of transition from the discontinuous to the continuous that is similar to the development of hypercromatism in the mola art of the Guna, described by Fortis (2019). We can see a similar stylistic development of increasing chromatic complexity in Shipibo-Conibo embroidery with complex design from Eastern Peru. In previous writings I have shown how the systematic introduction of asymmetric details in a symmetric weave (the dynamic relation between stadium and punctum, Lagrou, 1998, 2011), points to a dualism in permanent dis-equilibrium and engenders new patterns. In another occasion, I intend to further elaborate the connections between graphic, acoustic and chromatic micro-variations in Amerindian aesthetics leading to the Lévi-Straussian concept of chromatism. On the subject of chromatism in Amerindian thought, see also Lévi-Strauss (1964), Lima (2005) and Gonçalves (2010).
3 All the photos have been taken by the author and authorised by the Huni Kuin.

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6 Biographical relations in Amerindian and Melanesian societies

Paolo Fortis and Susanne Küchler

Anthropology takes as its analytical lens the life cycle and with it the biographical relations and life projects that unfold within. As biographical relations are shaped by social norms, they are strategically navigated with as much ease and surety as one would plan, and execute how to move about in space. To speak of the shape of biographical relations acknowledges the dependency of time maps upon artefacts that 'magically become[s] what they [it] express[es]' (Wagner, 1986:6; Gell, 1992), namely images that are informed by an attention to sequence and its recursive and predictable nature.

What interests us in this chapter is the question of how artefacts in Melanesia and the Lowlands of Central and South America capture the concept of time and how shapes of time mirror shapes of relations. By the same token, the relations that artefacts afford with other artefacts and with human beings are themselves critical to shape conceptions and experiences of time. What both image systems share is a disregard for classification and a preoccupation instead with the geometric articulation of images in patterns, the design of which enables the contemplation of biographical relations. That the normativity of biographical relations is given form in artefacts and that design patterns give shape to the very essence of personhood has been argued for successfully in the now-classic writings of Antony Forge (1973) for Melanesia and Lévi-Strauss (1963) for the Americas. Here we will take this idea of relational immanence further by exploring how biographical relations – given shape in artefacts – allow for similar and yet radically distinct conceptions of the dynamic of intergenerational time.

Marilyn Strathern (1990) had shown that forms for Melanesia – such as babies, yams and artefacts – are the outcomes [effects] and external shapes of relations. In Amazonia, as Els Lagrou argues (this volume), attended to through form is the conception of the origin of relation as internalised repetition indexed in serially produced, stylistically uniform artefacts. By comparing the concepts of time manifest in artefact systems in Melanesia and Lowland Central and South America, we hope to contribute to an understanding of how distinct cosmologies of the geometry of time affect the shape of relations whose conception frames what the philosopher of history

Reinhart Koselleck (2004) has called the horizon of expectation and the space of experience. In both systems, we will argue, artefacts make visible relations whose biographical frame are not conceived in linear terms, but as an assemblage of points that translate a temporal relation into a spatial and metric value, made visible in the formal relations between artefacts. In both systems, artefacts allow the contemplation of the nature of relationships and of the continuity of social life by allowing 'multiple levels of action in view at once' (Riles, 1998:379). Both artefact systems serve as vehicles traversing the visible and invisible at key moments in the biography of a person's life. How biographies are made and understood via the shapes of relations externalised in wooden carvings and the difference their geometry makes to culture and society will be the question this paper asks by turning to two case studies – the *malanggan* of island Melanesia and the *nudsu* of the Guna in Panama.

Time and repetition – *nudsugana* and the articulation of continuous differences

As part of their material life, Guna people living on the San Blas Archipelago and nearby coastal area of Panama carve wooden anthropomorphic figures that act as household guardians and auxiliary spirits of ritual specialists. Kept in boxes or buckets within each household, they shield members of the family from the nightly incursions of predatory spirits. Their help is even more important when people become ill and ritual specialists carry out healing seances addressing the spirits inhabiting the wooden sculptures to perform the cure. The power of these spirits resides in mediating between the human will to protect and heal and the predatory agency of alterity. The realm of human beings and that of the multiplicity of other beings that inhabit the world – and whose agency can be either predatory or helpful – are separated by a space-time boundary. It is the maintenance of this boundary that keeps human life safe and viable in a world that constantly encroaches on it. Points of contact across these otherwise separate domains open at critical moments during the life course of human beings – birth, illness, and death. These are moments of crisis that involve the participation of different people, sometimes even the whole village, to re-establish the separation between the space-time of humans and that of alterity that threatens to impose the return of a state of non-differentiation – of death. To protect themselves from such occurrence, human beings strive to extend their own agency and control to the realm of alterity. This is done through the mediation of ritual specialists who rely on the help of their auxiliary spirits inhabiting the wooden anthropomorphic figures, mundanely referred to as *nudsugana*, 'little ones,' or *suarmimmigana*, 'little sticks.'

In their outward appearance, these figures are strikingly generic. Despite the minimal gender difference, no detail is given of individual features. They

are generic figures of a person. What is remarkable is that they are always kept in multitudes, gathered in wooden or plastic boxes within the household to which new figures are added occasionally. Their carving follows a standard process where the log brought home to the island from the mainland forest is carved into the figure of a person by an elder man who then passes it on to a ritual chanter who sings it to life (Fortis, 2012). Once the *nudsu* is alive, it will be treated as a 'guest' by family members who will nurture, wash, and make sure it remains in the good company of other *nudsugana*. Ritual specialists will regularly sing to or dream with their own *nudsugana* to maintain a relation of mastery and companionship with them.

Another remarkable quality of Guna wooden figurines is their stylistic stability through time. Looking at figurines kept in ethnographic museums and collected since the beginning of the 20th century, like those acquired by Erland Nördenskiold and kept at the Gothenburg Ethnographic Museum, minor difference can be seen with those made nowadays. This is in stark contrast with the lively stylistic changes occurring in women's decorated blouses – *molagana* – during the past century. If the latter's visual changes and dynamism are a means to reckon with time (Fortis, 2019), the visual continuity of the former is a mechanism for the defiance of its passage.

Contrasting – if not incommensurable – orders of time conflate in the making of these wooden figures, resulting in their capacity to articulate these contrasting temporalities and consequently help human beings hold multiple images of time in their mind. If on one hand *nudsugana* are brought to life by carvers and ritual specialists through a process that is equated to human birth, on the other, they remain part of the spirit world to which they regularly return from their earthly abodes. They are powerful primordial beings, 'familiarised' (Fausto, 2001) to exert control over the predatory forces that impinge on human life. The sources of both predation and healing have their roots in the distant time of origin – 'the beginning' as Guna people refer to it. Its distance is, however, deceptive for us, as the time of origin has for Guna people an ongoing 'deferred' agency in the present (Fortis, 2021). Just how this agency is harnessed, and the articulation of these incommensurable time dimensions indexed in Guna wooden figures, is what this chapter deals with.

What is stressed in the carving of *nudsugana* and in bringing them to life among human beings as powerful – but small, child-like, to-be-cared-for – beings is the repetition of a prototypical act: the ritual specialist will start his song with the words '*Baddo Diolele be uanali…*' – 'As God has already advised you … .' By placing himself in the master position, the singer establishes a relationship with the *nudsu* that enables him to ask for its help in healing. Rather than a creation ex-nihilo, carving is therefore a repetition, which allows the ritual specialist to draw on the agency of the owners of trees who live in the space-time of origin and who preside over each species.

Each *nudsu*, however, is not the replica of its owner or the simple distribution of its agency. In terms of subjectivity and agency, it is not the case

of the multiplication of the same, or the extension of the original; it is the multiplication of differences. Internal or 'intensive difference' (Viveiros de Castro, 2002) characterises the nature of the 'owners of trees' – *sabbi ibegana* – as singular multiplicities, different from themselves. Similar to how owner and master figures are understood in other Amerindian societies (Fausto, 2008), the owners of trees in Guna ontology are singularities with an internal multiplicity and difference. Each owner – in different versions of the myth of origin the first owners were eight or twelve (see Fortis, 2012) – gives rise to a multiplicity of spirit beings, or, to put it differently, it exists in a constant state of multiplicity. Its fertility and dynamism are given by its internal (self-)difference. They live in a different time from that of humans – a time that is intensive and whose rhythm is internal to their own being, though not a static repetition characterised by cadence but a dynamic one characterised by tonic accents, to use a language suggested by Deleuze (1994[1968]:21). Internal intensive differences characterise the time and temporality of the owners of trees. A time where tonic accents are definitely chromatic and differences, therefore, infinitesimally small, beyond human perception. This sets the time of origin as incommensurable with and the background of human experience. The infinitesimally small and different – which is infinitesimally big at the same time – is what Guna people aim to master through carving their wooden figures.

Multiplicity and self-difference characterise the pre-cosmological state of all beings. Before acquiring different outward appearances, or bodies, humans and animals had the same human appearance and their differences were internal. After each species acquired its present-day appearance through a rupture or conflict, only humans retained their original one; differences shifted outward and became external, bodily differences. The 'here and now' for Guna people is, therefore, one where the discrete – extensive – discontinuity of bodies is predicated on the chromatic – intensive – continuity of souls. It is precisely because of this continuity of souls, rooted in the pre-cosmological social continuity between humans and animals, that predatory alterity can breach the space-time of humans wreaking havoc and disseminating death and misfortune. The precondition of human life is, therefore, the externalisation of difference, whereby continuity with other beings – with alterity – is shifted to the background and continuity with human kinspeople is foregrounded through commensality and the fabrication of human bodies, which are at the core of Guna kinship (Margiotti, 2010). So, if the time of origin ticks, as it were internally to the spirit owners, human time is external to each individual. Instead of ticking through, it ticks against. The dynamism of intergenerational time – the continuity of human social life – is predicated on the finiteness of individual subjective time. If human beings are born through switching animal alterity towards the background and difference towards the outside, a process indexed by the diatonic designs visible on the post-partum amniotic remains (Fortis, 2010,

2019), death is the return to a state of chromatic continuity with alterity (see Lagrou, this volume).

Through carving *nudsugana,* the internal intensive differences of the owners of trees are transformed into the external extensive similarity between the wooden figures. In so doing, an articulation of incommensurable orders of time is operated. Differently from how human persons are made, where difference is externalised or rendered visible – through the making of bodies – *nudsugana* retain their alterity by means of the repetition of their generic appearance – through woodcarving. Seen as repetition, carving reproduces internal difference 'which it incorporates in each of its moments and carries from one distinctive point to another' (Deleuze, 1994[1968]:20). The seriality and stylistic uniformity of *nudsugana* – both synchronic and diachronic – is an index of difference. What appears as the multiplication of the same is in fact the repetition of internal and intensive differences that are indeed unrepresentable. The image – consciously adopted by Guna people – is that of an army, where individual soldiers are the undistinguishable repetition of one and the same. But whereas Western imagination is used to play with the image of the one, repeated in self similar fashion throughout the ranks and kept together by authoritarian order, Guna imagination plays with the multiplication of the multiple (Gow, 2016).

Repetition, as we know, is the enemy of representation. This is why Guna people have adopted it in the face of the shifting circumstances of history and the finiteness of human experience. While Western collectors and writers scrambled to find similarities between Guna wooden figurines and archaic representations of saints and divinities or contemporary symbols from their own world (Nördenskiold, 1929; Taussig, 1993), they paid little attention to the most important quality of these artefacts – their generic repetitiveness. This is indeed not surprising if one looks at the long history of engagement with representation that underpins Western art practice and theory. What remains to be understood are the implications of a visual system that has not as its precondition the representation of the one in a self-similar fashion (Figures 6.1 and 6.2).

If extensive difference characterises the discrete tonality of human time and its finiteness, extensive self-similarity is what brings the chromatic tonality of the time of origin into the here and now of human experience. Neither is static repetition, and both are characterised by different tonalities. In the here and now, the process of carving establishes a synchronicity between the time of origin of the spirit owners of trees that ticks through *nudsugana* and human biographical time. The rhythm of human life is inscribed into the carving of *nudsugana* through repetitive acts carried out in the middle of everyday activities with a strong ritual character. After selecting a tree from a set of trees whose owners are deemed primordial and powerful beings, the carver recites a ritual formula, then cuts an exposed root and makes an incision on the lower part of the log. Back at home, he starts carving the nose of the *nudsu* from the incision made in the forest, then he makes the head, torso and legs through a process that is explained as similar to the birth of a child who comes out headfirst from the birth canal. Subsequently, the singer will replay in detail in his chant the chain of actions

Figure 6.1 *Nudsugana* figures kept in a plastic box within the dormitory house. Photo: Paolo Fortis 2004.

undertaken by the carver, including the travel to the forest and all subsequent actions. This will infuse new life in the figure, which will thereon live and be familiarised by being put alongside other figures in the household that requested its carving. In the day-to-day life, it is usually older women who occasionally blow tobacco smoke on *nudsugana* to nurture them, while young girls are asked to wash them with water perfumed with sweet basil. Older men might sing ritual songs at night or early in the morning to converse with *nudsugana* and show that they are kept in mind by the members of the household. In a similar vein, people may call *nudsugana* during meals – like they would a guest – to invite them to eat, which the latter do by smelling the food. All these actions show that people aim at 'synchronising' the time of their protector spirits with theirs. With that, they aim to familiarise these primordial spirits to access their power and agency for healing and protecting their fellow kinspeople.

Familiarisation has, however, a crucial limit as *nudsugana* must remain others. This is indexed by their generic appearance of figures of a person devoid of any individual feature. They only have the appearance of a person, as their wooden figure is more akin to *clothing* than to a real *body*. It is in their difference from their human masters and hosts that lies the latter's capacity to establish relations of power and mastery with them. Such asymmetrical power relations are instantiated in the use Guna people make of military metaphors to describe the supernatural battles waged by the spirits of *nudsugana* against the army of pathogenic spirits, where the ritual

Figure 6.2 Three male *nudsugana* figures. Photo: Paolo Fortis 2004.

singer acts like a general leading an army, which is itself organised in battalions, each with its own commandant and internal ranks (Fortis, 2016). Difference and asymmetry are replicated both between humans and their auxiliary spirits and between the spirits themselves, the latter organised in hierarchies of first-comers – chiefs – and followers, betraying an internal dynamism and temporality (Fortis, 2021).

For the relation of mastery to remain safe for human beings, it is key that the border between the space-time of *nudsugana* and that of humans remain in place. It is the skilful management between these two space-times – between life and death – that partakes in the formal properties of these artefacts. Human agency exerts control over exactly how repetition maintains the limit between the same and the different and how they are combined. Their proper combination is the essential ingredient of life, their uncontrolled blurring brings death and the return to a past where relations

with alterity – in its varying historical forms of enemies, spirits and animals – were marked by war, predation and domination. *Nudsugana,* thus, combine protection and danger in that they bring together the controlled agency of the spirit owners that can help in healing and protecting and their deathly breath that can suck human life in a black-hole-like space-time dimension.

Working through a logic radically different from representation – what for us is the *representation* of bodies, for Guna people and other Amerindians is the *making* of bodies (Taylor and Viveiros de Castro, 2006) – carvers instantiate what cannot be represented: death and alterity. *Nusdusgana* are veritable 'figures of absence' (Fortis, 2012:202–204) that work through repetition and multiplication against the finiteness of human time. Outwardly the same, inwardly they repeat the multiplication of differences. *Nudsugana* are both familiar 'small ones' and powerful 'figures of absence'; they mediate between human and primordial time in that they *stand* in the middle, acting without visibly moving. They are neither born – they do not have a real body – nor are they dead – they cannot die as they simply return to the house of their spirit owners; they are both born – through the metaphor of woodcarving – and dead – they remain others. They stunningly combine what for human beings are incommensurable states. This is stylistically obtained through a 'double twist,' whereby difference is turned 'outside-in' through the multiplication of the multiple. The making of human bodies is the first transformation, whereby human life is the outcome of a process of turning difference outwards and of singularisation, obtaining identity with oneself in discrete forms, where each pair of body and soul is the outcome of the same process of humanisation and singularisation. Carving *nudsugana* is a further transformation and the outcome of a process of turning difference inward and of multiplication through a double twist, turning singularity with internal multiple differences (that of the owners of trees) into multiplicity with external identity, where each carved figure is different from the soul image it hosts. In this, the making of human bodies – akin to representation in Western ontology – and the carving of *nudsugana* – akin to repetition – are processes that, despite being different, are related in a specific way (see Morava, 2005 on the relation between the two sides of Levi-Strauss' canonical formula).

The human agency asserted through repetition is crucial in the fight against illness and mortality. Keeping alterity under the viable guise of their little familiar protectors, Guna people reckon with the incommensurability of life and death and the non-repetitiveness of human life. In their self-similar repetition, *nudsugana* negate the passage of time. They negate both historical time, through their stylistic stability, and biographical time; they negate mortality by being images of 'the beginning,' a time other to that of human beings, external to them and internal to the spirit owners of trees. Negating mortality, they partake in what Gell called 'the "real" four-dimensional space-time manifold' (1992:239) inaccessible to human subjective experience. Mediating the time of origin and biographical time, they

act as 'time-maps' (*ibid*:229–274; Fortis, 2021), allowing people to navigate the otherwise inaccessible territory of the time of origin which encroaches on and underpins human experience. Developing against a background of alterity and difference, human life constantly strives to create identity and sameness. It is through extracting difference and giving it the appearance of repetitive sameness that alterity and its intensive time are allowed among humans. Multiplicity and repetition are the taming of differences and this is given form in the silent and unmoving army of self-similar figures that protect Guna villages from the ever-present dangers of time and history.

The Soul Canoe – *malanggan* and the articulation of difference as continuity

Island Melanesia is a region with multiple island groups of varying landmass skirting mainland Papua New Guinea from the southwest to the northeast. The longest and geologically most articulated is a chain of islands known as the Bismarck Archipelago, skirting mainland New Guinea from Vanuatu and the New Hebrides in the West to New Britain, New Ireland and New Hannover in the East. The societies that inhabit the Archipelago have become famous in the anthropological literature for their use of patterns woven from vines, drawn into sand or carved into wood to map out sequences of succession and legacies of rights governing relations of loyalty, labour and land. Collections of artefacts from across the Archipelago document the societal attention to the transmission of such relations from a generation to another. The perhaps largest artefact collections identified with the Archipelago hail from the eastern-most extension, the island of New Ireland. It is from the northern part of this long and thin island that figures carved from wood or woven from vines known under the generic of *malanggan* reached western museums since the 1870s, each wave coinciding with the presence of merchant ships attracted to the island's many coconut plantations occupied by foreign landowners since the 1840s. The scale of carving activity over a period lasting until the independence of Papua New Guinea in 1975, when foreign owned plantations were returned, followed by a period lasting decades, concluding with the registration of land-rights in the 1990s (Küchler, 2002). The distribution of usufructuary rights carving had served throughout this period was informed by a conception of time, the mapping of which has continued via images materialised in time sensitive materials to the present day (Were, 2019).

Malanggan is the generic term for an event marking the secondary burial of one or more persons buried in a local cemetery. The event sees the collective gathering of hundreds of people living elsewhere on the island who come together for three days and nights to witness the reveal of figures carved from wood and woven from vines. Each figure, marking the death of one or more persons, is known also under the collective name of *malanggan,* in addition to a name that references a recognisable composition made

visible in the figure. Figures, in fact, are made in 'likeness' or *malanggan* to the 'social body' of the deceased, looking nothing like the deceased, but referencing biographical relations, both past and prospective. Village court proceedings over land and usufructuary rights disputes take as testimony the precise configurations of compositions witnessed at such events that punctuate the life-cycle of every person on the island.

Those who define their relation to one another via *malanggan* call themselves 'members' (*raso* – cut from the same skin) of *malanggan*. Sharing the same 'skin' compels people to support each other in the secondary burial of their dead, even though they may live scattered across the region where *malanggan* is practised. 'Bound' together by exchanges that punctuate the life cycle – from marriage, birth to death – such 'skin' groups constitute a distributed social polity of a spatially dispersed, but time-limited nature (Küchler, 2003). This is because each polity folds its biographical relations into the shape of a *malanggan* figure, folding time into an entity whose peculiar geometry modelled on the humble knot allows it to be unfolded into sequences of variegated shapes. Every image is, thus, a manifold, much as every knot can be opened and rebound. Retracing recursively the sequences of events that connect figures with one another over the course of the life cycle of one generation, biographical time is mapped usually for purposes of strategic moves to defend or apprehend titles to land (Figures 6.3, 6.4, and 6.5).

The process of this unfolding itself punctuates the life project of a person: it commences when a man (women can own but not initiate the carving of images) carves an image for his father's secondary burial. He will have watched this image being unfolded during numerous ceremonies organised by his father for the dead of those buried in his cemetery. At this first issuing of an image, gifted as 'skin' from one generation to the other, it is in its most complex articulation, with subsequent issues marking the secondary burial of relatives buried in the same cemetery through the man's lifetime, unfolding as parts whose interconnections are deducible to all those who have born witness to the process of unfolding.

The idea that *malanggan* is giving shape to folded time – unfolding it in a manner that allows for the mapping of biographical relations – is given a further twist when we note that all images, those that are newly innovated and those that are transmitted, are dreamt. The dreaming of images prior to carving resonates with the appearance of the figures that not by accident were the favourite collection pieces of surrealist artists – given the metamorphic assemblage of an array of snapshots of living entities encountered daily while walking, gardening and fishing – all in a state of attachment with one another via processes of absorption, containment or release. The dream state to which the images are assigned and from which they emerge is associated on the island with the twilight, the time between night and day – between darkness and light – making it appropriate for the figures within which the image takes shape to demarcate the passage from life to death. At

Figure 6.3 *Malanggan* figure collected by Alfred Buehler in 1932 for the Museum of Culture Basle, Switzerland, in 1932. VB10557 [The figures depict one and the same image at different stages of its unfolding, each in turn associated with a different phase of the ceremony staging the absorption, containment and release of the soul.]

the same time, the image occupies the space between life and death associated with the sea, for it is to an island beyond the horizon that the image is sent with its souls as cargo, and from where it is called to support the renewal of life at the start of the agricultural year. As Nancy Munn reminded us, the 'temporal increment' – that is, the spatial capture of time passing in things that augment cumulatively over time (such as ash on fire or figures of *malanggan* issued forth by a dreamt image) – is no mere representation of time as it is 'built on the spatiotemporal constitution of the world … emerging in and from daily activities' (Munn, 1992:98).

Much of daily life on this narrow island is shaped by the rhythm of the sea in connection with the lunar calendar. Tidal movements that expose the reef at various times during the day to make it suitable for harvest are intricately intertwined with other ecological events such as the ripening of nut trees and

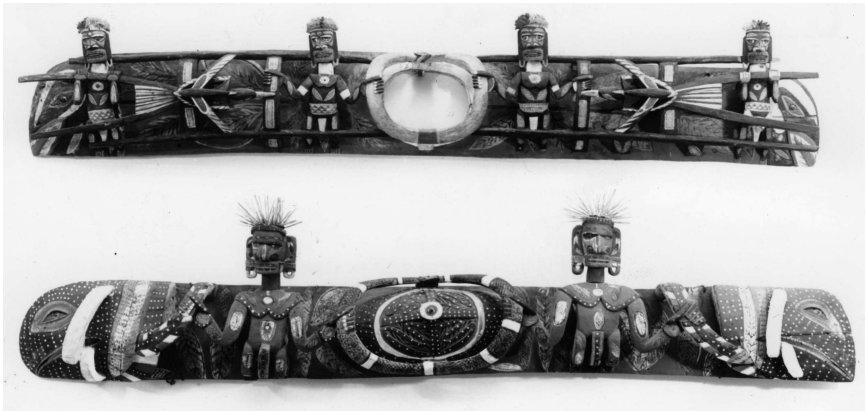

Figure 6.4 *Malanggan* figure collected by Alfred Buehler in 1932 for the Museum of Culture Basle, Switzerland, in 1932. VB10583.

Figure 6.5 *Malanggan* figure collected by Alfred Buehler in 1932 for the Museum of Culture Basle, Switzerland, in 1932. Vb10579.

the blossoming of other plants that offer the pigments for the painting of bodies and *malanggan* alike. The year is divided into 12 named lunar cycles that start and end with the appearance of a strange creature in the lagoon at high tide. This creature is the paloloworm, a polychaete worm (*eunice viridis*) which lives in coral reefs around many of the islands in the South Pacific and makes its spectacular appearance once a year when its posterior segments are cast off in vast numbers, causing a chemically induced light effect visible on the surface. In

the North of New Ireland, the paloloworm appears on the east coast in September and on the west coast in October followed by the rising of the new moon. The paloloworm opens and closes the year's two main seasons. The first half of the year (*matbung*) is defined by five moons named after events out in the sea (the arrival of sharks in the channels between the reef and of crabs on the reef and on land), while the second half (*marias*) is named after five moon phases and events on land (the ripening of fig and nut trees). Critically, the paloloworm's appearance in the lagoon constitutes the turning of the year, a two-month period in which gardens are prepared, but not yet planted. It is this third, much shorter sequence in the lunar cycle marked by the paloloworm that turns out to be most important. This is because it makes the year notionally reversible as much as it allows gardens to be renewed, aided by magic performed on the water's edge and hailed a success with the arrival of sharks a month later in passages that are mirrored by the internal layout of gardens into rows leading to the sea.

The significance of the events out at sea shapes the reversibility of temporal sequences that otherwise would be linear and make them amenable to calibration and augmentation. The importance of this for seeing and contemplating *malanggan* is indexed by the 'eye' of the *malanggan,* the suction pod of a shell gathered in the first low tide of the day at dawn during the months following the paloworm's appearance in the lagoon. The 'eye' is inserted into figures carved from wood and woven from vines as a must-have element signifying the agentive quality of the dry reef (*mat*) and its association with death *(ma-mat)* – the temporal nature of which it obviates and turns into a generative condition of life itself.

It is striking that both the paloloworm and the suction pod of the shell always come in multiples and yet are associated via practical activities such as gardening and carving with events that are experienced as singular and measured as such. Gardens on the island demand careful timekeeping as they must be left to fallow for a period of seven years between consecutive cycles of use. To measure this time span, fast growing trees are planted in the gardens. The time for initiating the carving and the duration of carving itself is equally measured, this time by the growth of taro tubers in the gardens prepared at the start of the agricultural year. The harvest of the first garden signals the onset of planning for the carving and the big event associated with its eventual reveal. The carvers' hut is built on the spot where the house of the deceased used to stand and it is surrounded by a fence, with new houses for cooking and sleeping, housing the many visitors expected for the event proper being erected in a semi-circular fashion around the enclosure. The harvest of the second garden, around three months later, initiates the start of carving inside the enclosure. The harvest of the third garden, placed on platforms between cooking houses and enclosure, signals that the ceremony is about to happen with news spreading far and wide, prompting anyone connected to those involved in this particular *malanggan* to get ready to travel to the site the following weekend.

Like the self-similar suction pod of the shell whose manifold existence on the reef during low tide is used for the 'eye' of the *malanggan*, the figure manifests the paradox of the collapse of multiplicity and individuality in that each, even the smallest part, refers to all others that came before and after. To understand this paradox, it is important to recall that the figure is carved for the staging of secondary burial and allows the contemplation of a social body (*raso* – or members of *malanggan*) that is independent of the mortal bodies of its members. As a 'skin' group of relations extended through marriage and exchange, members of *malanggan* also identify with the matrilineal clan, the term for which is *fabung* or 'caused to be ancestor.' As one becomes an ancestor and a member of a clan via the process of secondary burial, it follows that the social body of the living is founded on returning to 'the conceived defining quality of originating conditions and the courses and quality they inscribe' (Damon, 2012:177), via *malanggan*. It is a well-known fact that a common feature of the Austronesian diaspora is the notion of origin or precedence (Fox, 1995). As Frederick Damon (2012) made clear with reference to the Kula canoe iconic to the social polity of the Massim, artefacts model originating conditions (see quote above) qualitatively both via their formal properties and via the relations immanent within that produce effects as they are 'decomposed' (see Strathern, 1990, 1988) successively over time.

The quality of the originating condition – made manifest in the artefact via its own life course and generative formal properties – is akin to cinematography, the understanding of which drew Giles Deleuze and Henri Bergson to the mathematics of differential geometry (Duffy, 2013). Peculiarly apt to a conception of space-time common to maritime ecologies, the spatial measure given to individual moments of time allows a continuum of unfolding moments (over a lifetime or a journey by canoe) to be recursively traceable and predictable (Hutchins, 1995). The continuity of time is apprehended as difference, composed of heterogeneous and yet interconnected segments, the contemplation of which is possible via assemblages concretised in artefactual forms, which are themselves unfolding as transformations of an invisible prototype over time. The quality of assemblage of self similar and yet heterogeneous parts – given shape in artefacts such as *malanggan* figures or the *kula* canoe – is also the quality that enables maritime navigation to be met with both experience and expectation. The skill demanded when executing the nuancing of forms as continuous variations of a recognisable assemblage follows directly from the contemplation of a dream-like originating condition in which time is folded into form to be unfolded, one that is common and yet not unique to seascape ecologies (Gloczweski, 1989).

Now that we have set out the quality of *malanggan* allowing the idea of continuity to emerge from the marking of difference and see how the spectacle of their brief appearance in the village allows to navigate the course between the visible and the invisible, it is important to return to the formal properties of the artefacts. Rather than there being a bewildering manifold of possible motivic elements and possible combination, *malanggan,* in fact, are

recognised quite straightforwardly as falling into six differently-named types of assemblages, three of which are the sequel of the others. The definitive clues are motivic elements that serve as connectors for motivic elements: 1) The first pair of connecting motives is the mouth of the rock cod, ambiguously swallowing and ejecting a figure; the sequel to this is a figure captured by a bird (a hornbill). Both fish and bird, as well as other accompanying motivic elements (flying fish, land crabs, etc.), can occur together in different combinations. The connecting elements are well known mythical characters that are also associated with the first stage of the *malanggan* ceremony, the carving of the figure itself understood to lead to the absorption of bodily substance deposited in the place where the dead are kept prior to burial and the carving is performed some time later. The rock cod is known to be a hermaphrodite as it becomes female with age and, thus, is a perfect image capturing the idea of a matrilineal polity. The hornbill is equally a mythical character and a well-known and much looked out for creature whose appearance in the early morning over the lagoon signals the arrival of sharks (synonymous with the return of the spirits of the dead) and the successful performance of garden magic coinciding with the arrival of the paloloworm; 2) the second pair of connecting motives is the pig's head and its sequel the clamshell, both associated with sacrifice and death with the second stage of the *malanggan* ceremony. This sees the movement of the completed carved and painted figure to the cemetery itself under cover night, to be revealed to all present the following day, to be metaphorically 'killed' by actually breaking the figure or figuratively and sharing it between groups as sign of a new leasehold contract over the usufructuary rights of land; and 3) the third pair of connecting motives is the paloloworm visualised as the feathers of bird and the rib cage of a figure, both associated with the ending stage of the *malanggan* ceremony in the morning after the reveal of the figure. This stage focuses on the lagoon where all who came into contact with the figure congregate to wash in the sea at dawn, sending the remains of the *malanggan* off to follow the mythical soul canoe with its now genderless 'ancestral' crew (hence the rib cage) to the island of the dead beyond the horizon. There are further associations between each of the stages of the *malanggan* ceremony and the timing and sequencing of gardens within the seasons, so that invariantly the end of a *malanggan* event coincides with impending arrival of the paloloworm and the preparation of new gardens, to receive the stems of taro plants whose tubers were consumed during the event.

Malanggan is, thus, in more than one way a means to conceptualise the inter-generational life-span social polities progress through via the self-producing temporality (the folding and unfolding) of artefactual forms. Akin to an algorithmic system defined by the combination and interaction of elements substitutable by narrative or numerical characters, an artefact system such as *malanggan* offers the possibility to contemplate the temporal quality underpinning an idea of continuity untrammelled by the mortality of those who impersonate biographical relations at any one time.

Conclusions

This has been an exercise in comparison: looking at *nudsu* and *malanggan* together sheds light on both differences and similarities. Reflecting on what is at stake in these two different societies – mediating the relations between humanity and alterity in their varying historical forms in one case, mapping biographical relations and events over time to regulate access to land and resources in the other – these two artefact systems present us with a similar problem: how is time given specific shapes that are immediately recognisable and which transformations are consistent with the social processes entailed in the tensions between persons and groups, the singular and the multiple and, ultimately, life and death?

Both artefacts articulate human life cycles and non-human time – the life cycle of trees, paloloworms, shells, tidal cycles, the time of origin – the understanding of which is crucial to shed light on the notions of time they instantiate and whose contemplation they foster. This articulation maps onto a further one crucial for the continuation of social life – that between life and death. Intergenerational time and the continuation of social life beyond the death of individuals seem to be at stake in the making of *malanggan* and *nudsu*. Both artefacts negate the temporal nature of death, which is an inescapable dimension of human life, as myth and ritual differently elaborate on in the wider regions of Melanesia and Lowland Central and South America (Carneiro da Cunha, 1978; Taylor, 1993; Overing, 1993; Wagner, 1975; Strathern, 1991; Itenau and De Coppet, 1995). While in the case of *malanggan* the image is associated with the sea and the renewal of life and the agricultural cycle, in the case of *nudsu* the image is associated with the time of origin and is one of ontological alterity and incommensurability with human life cycles. The relations with the dead are clearly different in these two societies but provide an interesting case to reflect upon. If in New Ireland ancestors are ceremonially made through sending the soul of the deceased to a distant island to be then effectively forgotten, lineages are retained and the relations they represent are folded as images in *malanggan*. The presence of lineages in this image-based genealogical memory, as shallow as it may be, is different from the ontological gap that separates the dead from the living among Guna people. Among the latter, the dead are pushed away from the space-time of the living to a parallel and incommensurable dimension which they share with non-humans, such as the soul-images of animals. In the case of *malanggan* genealogies forgotten are folded in carved images which are modelled around the image of a knot (Küchler, 2003), through *nudsu* the afterlife is visualised as an all-encompassing dimension, a return to a state of undifferentiation that is seen as flat and unidimensional from the perspective of living human beings.

Yet 'originating conditions' are immanent in both artefacts, be they the 'time-map' to navigate the time of origin necessary for the protection and continuation of human life, or the instantiation of the recursive return to the ancestral domain that sustains the continuity of the social body. It is perhaps

the capacity of both *nudsu* and *malanggan* to differently enfold both biographical and non-human time – the latter being both necessary and adversary to social life – which makes them eminently comparable. How exactly they come to contain these incommensurable time dimensions is what has made their comparison worth exploring and which hopefully will open new avenues for the comparative study of image and artefacts systems in these two regions.

Thus, the opposition between individual, mortal bodies and the continuation of the social body – a classic theme in the anthropology of Melanesia and Lowland Central and South America – acquires new shape in the ephemeral yet very concrete life of *malanggan* and *nudsu*. The former, as a 'soul canoe' or 'skin' transcends individual bodies, transforming the dead in an ancestor; the latter, as a non-body shaped as a human soul figures out the continuity between humans and non-humans. In both, the interlocking of multiple and singular forms plays a crucial role. In the *malanggan* case, a multiplicity of self-similar shapes – the suction pods of shells – participates in the articulation of the sequence of intergenerational time. The eye of the *malanggan* is what makes it unique and repeatable at the same time. There is a style in making it, a style that allows for the navigation of biographical time, adapted to the shifting circumstances of history, when land became a scarce resource and people in New Ireland where faced with the new challenges of having to trace complicate genealogical lines to follow the rights to access plots of land. In the case of *nudsu*, a multiplicity of soul images – rendered through the repetitiveness, self-similarity and generic appearance of wooden figures – manifests the time of origin among the living, collapsing the difference between multiplicity and individuality by means of a double transformation predicated upon the prototypical action of 'making' human bodies (Fortis, 2014).

The style of both *malanggan* and *nudsu* builds on the multiplication of differences and exploits the heterogeneity of self-similar components. While *nudsu* makes visible the 'other side' of biographical relations – their establishment against a backdrop of undifferentiation, where life and death are on a continuum – *malanggan* obviates the temporality of human biographical relations by being at the same time made of the very stuff that makes human social life possible. What they ultimately have in common is the capacity to generate multiple visions of time and the capacity to master multiplicity as the precondition of the temporal unfolding of social life.

Finally, this capacity to generate multiplicity and difference is evidenced in the material form of these two remarkable artefacts. What they have in common is a reference to the human body as a 'pivotal entity' (Morava, 2005:54) to link together social processes undergoing transformative cycles. In *malanggan,* the outside of the figure – its 'skin' – is actually the inside that emerges through the process of carving. In this way, what is invisible and normally stored in image forms in the memory of people – the temporality of intergenerational life – is made visible; literally turned inside-out. The result

is an 'inverted figure,' where what you see as the outside actually lies inside. In *nudsu*, the outside – the visible figure, its 'clothing' – is as close as one gets to the image of a soul in a waking state, which nonetheless humans see in its real state only in dreams or through shamanic visions. This image is turned outside-in in comparison to the soul image generated by human bodies. That difference acknowledged, both *nudsu* and *malanggan* systems base their generativity on transformative references to the human body, which they differently negate and transcend in systematic ways but ultimately refer to, so that people in both societies can plan their actions based on their shared experience and common knowledge of biographical relations.

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7 Changing houses

Architectural transformations in the Ecuadorian Amazon

Victor Cova

Introduction

How may we make sense of architectural transformation, particularly as indigenous societies adopt styles and technologies from settlers? It is tempting to resort to narratives of cultural loss and modernisation, yet these do not describe transformation but discontinuity and replacement. This difficulty is particularly evident in Bourdieu's work, one that has profoundly marked the anthropology of architecture (Buchli, 2013). In his famous description of the Berber house, he shows that it both materialises symbolic systems and shapes social action (Bourdieu, 1970). The house thereby appears as a key locus of social reproduction, as it is both structured according to gendered dichotomies and, thereafter, structures them. The Kabyle house is also a key element in Bourdieu's critique of structuralism, to the extent that a materialist and phenomenological approach is sufficient to account for the regular patterning of the form of Kabyle houses, without needing recourse to structures of mind or logical rules of transformation. The Social Structures of the Economy (2000), on the other hand, is one of Bourdieu's lesser-known works, devoted to an examination of the market for pre-fabricated housing in France. As the title indicates, Bourdieu here wants to analytically re-embed the economy in social structures by showing how both the production of houses and their purchase is socially stratified. In many ways, it is an extension of Distinction (1984), as he shows how the supply for pre-fabricated housing is oriented towards the tastes of potential clients, which themselves are shaped by class dispositions, but also of his works on French higher education as he traces out the trajectories of engineers, owners and marketers.

These two works together provide us with a sophisticated sociology of architecture that breaches the divide between ethnography, economics and sociology and appears to encompass both construction and habitation, taste and money, pre-capitalist and capitalist societies. They embody both a fascination and a dissatisfaction for structuralism and Marxism. Yet in doing so, it leaves much to be desired. His account of the Kabyle House lacks a proper explanation that would make the many oppositions he

describes cohere in some way (see Hamberger, 2010). The economy only appears as a market, leaving aside the much broader ranges of phenomena that constitute capitalism. But more importantly, perhaps, he does not offer a way from one to the other – from the Kabyle house to the pre-fabricated one – which would require a theory of the transition to capitalism which he cannot provide. Moreover, it leaves us with the opposition "us" in modern France and the exotic Kabyle "other."

I argue in this chapter that structuralism and Marxism are better equipped to provide an account of architectural change in an Amazonia that is increasingly subsumed within capitalist processes. Instead of juxtaposing two distinct architectural histories, I compare the trajectory of indigenous Shuar architecture with that of hispano-descendant Macabeo settlers in the Morona-Santiago Province of Ecuador and their mutual transformation of each other. I argue that alliance, as a logic of social space, determines these trajectories up to the point where wage-labour becomes the new determining social relation. In other words, the architectural transformations I describe are immanent to the societies where they take place but occur as a function or their transforming relation to outsiders. The availability of building material and construction technologies, as well as the transformation of taste and the importance of political processes all, feature in this account.

Klaus Hamberger (2010) advocated for a structuralist reconsideration of the relationship between kinship and space. If Lévi Strauss considered the house as a figure of kinship for which material houses may stand metaphorically, and if Bourdieu insisted instead on the materiality of the house to ground the regularities of kinship, Hamberger has argued instead that the two orders are fundamentally co-homologous because kinship is a logic of space. In his own words:

> Much more than a simple projection of social oppositions (men/women, consanguine/affine, elder/younger, and so on) onto spacial oppositions (outside/inside, left/right, in front/behind, and so on), the importance of the house consists precisely in its ability to represent one social structure simultaneously or successively from many points of view. Thanks to this transformational structure, the schema of the house inscribes the other's point of view in the constitution of the group itself; and it can thus serve, as Lévi-Strauss proposed, as an objectification of a relation. (2010:9–10)

In particular, he analyses a phenomenon he describes as universal: that the plan of the house is structured by alliance. That is, houses are designed in such a way as to mark the difference between hosts and guests so that a new marriage means a spatial and perspectival shift: whereas the future son-in-law would have sat on one side of the house and seen it from one perspective, as a married man he joins the hosts on the other side (33).

In the case of Amazonia specifically, he proposes a topological model of kinship which articulates two axes: on one hand, the self and the Other, on

the other, man and woman. Both axes are spatially mapped out as a relation between the inside and the outside: the self is inside and the other outside, and women are inside and men outside. The relation between self and Other is paradigmatically that between a man and his male affines (real or potential brothers-in-law) mediated by women. As a result, Amazonian houses are organised in such a way that the front is oriented to the outside and constitutes a masculine domain, whereas the back is a feminine, intimate domain. Yet the centre of the house and of villages often constitutes a domain dedicated to the outsiders and men: 'if the centre represents the inside faced with the "external" periphery where Others originate, it nevertheless represents the outside faced with the "internal" periphery which is the sphere of women' (Hamberger, 2012:202). Finally, if both axes are asymmetric, only one of them is reciprocal and necessarily so: the Others, for me, are selves for themselves, they have villages and houses which, when I visit them, position me as an Other. Yet women do not turn into men – in fact, they must not turn into men if they are to be married to men, that is, to mediate relations between self and Others (Hamberger, 2012:208).

If matrimonial alliance constitutes the paradigmatic structure of the house, it need not be the only one. Houses in the societies described by Hamberger are structured by kinship because these societies themselves are primarily structured by kinship. I propose that Moishe Postone's Marx can help us generalise Hamberger's model to capitalist societies. As Postone puts it,

> Overt and direct social relations do continue to exist, but capitalist society is ultimately structured by a new, underlying level of social interrelatedness which cannot be grasped adequately in terms of the overtly social relations among people or groups – including classes. (…) What renders the fabric of that underlying social structure so peculiar, for Marx, is that it is constituted by labor, by the historically specific quality of labor in capitalism. (…) Since labor is an activity that necessarily objectifies itself in products, commodity-determined labor's function as a socially mediating activity is inextricably intertwined with the act of objectification: commodity-producing labor, in the process of objectifying itself as concrete labor in particular use-values, also objectifies itself as abstract labor in social relations.
>
> (Postone, 1993:153)

In other words, with Postone, we would expect that the various social relations that structure social life become increasingly subsumed by wage labour. As a result, the kinship relations that structure architecture in non-capitalist societies will become replaced by abstract value. The price of land, the cost of materials and of renting machinery, the wages of builders and architects, the expected rent price of flats being built, the expected resale price will become increasingly central factors in structuring the house the

more capitalist a society becomes. In combination with Hamberger's structuralism, Postone's Marxism allows us to think both about the relation between specific architectural styles and kinship systems, as well as their transition to a capitalist economy. Instead of a jump to a monolithic "modernity" to replace a plurality of traditions, this combination enables us to see contemporary architectures as resulting from historical transformations and the specific forms that their transition to capitalism took. In the rest of this chapter, I demonstrate this with regards to two neighbouring societies in the Ecuadorian Amazon – one indigenous and one Hispanic – and their social and architectural transformation over the past century.

To study these transformations, instead of postulating a jump from tradition to modernity, and from indigeneity to the occident, requires the parallel study of indigenous and settler architecture, both as it exists objectively in the present and in archival material, and subjectively in the memories and representations of informants of different generations. It also requires broader investigation concerning the transformation of the economy, available technologies, and legal measures to clarify both the history and transformation of the real estate market and that of the construction industry. This article is a first attempt at such an endeavour and results from a little over two months of fieldwork (with the inestimable help of Tania Macera) dedicated to architecture within 20 months of fieldwork in the Morona-Santiago province between 2011 and 2017. Beyond interviews with professionals in the construction industry and observation of architecture in various Shuar and settler cities, we carried out interviews where we asked participants (men and women, Shuar and settlers, aged 30–65) to draw maps of the houses they lived in as children and of where they are currently living, some of which will be featured further in the text.

When Spanish settlers arrived in the Upano valley in the 16th century, they encountered – besides the people they called Xivaros – a people they called the Macas who has since disappeared. They created a settlement of that same name on the Western shore of the Upano river which they have occupied almost continuously ever since. Because of its geographical location, Macas was difficult to access from both the Andes and the Amazon basin. As a result, the Spanish settlers lived in isolation from the rest of the continent, making the trip to Riobamba a few times a year only to sell spices such as vanilla and cattle (see Taylor and Landazuri, 1994; Costales and Costales, 1998). Yet, these settlers did not, for this reason, start identifying with the main local indigenous population, the Shuar. Until recently, they strongly asserted their whiteness as against the 'Indios,' who – for them – included even mestizos. In fact, they maintained relations with the Spanish elites; from the 19th century onward, Macas became a destination for political exiles from Colombia and Ecuador. The remoteness of Macas meant that it remained mostly unaffected by the economic transformations that the rest of the Upper Amazon underwent in the 19th century, such as the

hacienda system and the rubber trade, yet paradoxically, also consolidated its political significance as a civilised outpost from which the rest of Amazonia could be settled.

Macas also held another significance for Ecuador as it was located very near a contested border with Peru. Almost since its inception, the Ecuadorian State had claimed that its territory extended all the way to Iquitos, notably to gain access to the navigable parts of the Amazon river basin, while the Peruvians put the border near the Condor mountain range. As oil prospection replaced the rubber trade in the first half of the 20th century, the stakes of the border conflict shifted from access to axes of communication to control of potentially oil-rich land. A first series of battles to settle the border took place in 1942, although mostly on the Coast. As a result, it was decided that physical settlements would serve to adjudicate the conflict. The Ecuadorian State created military bases in the region, beginning with Macas and Taisha. In 1964, a military dictatorship intensified the efforts to colonise the border by encouraging Andean landless peasants to settle there. Their efforts served the double purpose of strengthening border claims and of preempting a Cuba-like revolutionary situation by re-distributing land. The newly-arrived settlers, who are still called 'Colonos' by many Macabeos, invested the town of Sucua as a rival capital city for the Province. The conflict that had for centuries opposed Macabeos and Shuar was replaced by competition for political and economic power with the Colonos, which simultaneously re-enacted the competition between Cuenca and Quito to become the Andean capital of the country.

The Shuar had been as isolated from the political and economic transformations that affected the rest of Amazonia as the Macabeos. Yet, these effects were felt indirectly – among other things – in the way it complicated the trade of metal tools and firearms. With the intensification of colonisation in the Upano Valley, they fought their way towards the North and across the Kutuku mountain range, thereby chasing the Achuar further East and North. In the 1940s, they welcomed the arrival of both Catholic and Evangelical missionaries after opposing them for centuries. The intensification of inter-family feuding might have motivated them to rely on the missionaries as third parties that could help defuse conflicts. After 1964, the missionaries also helped the Shuar gain land titles to limit encroachment from the Colonos. The 1964 reform had made land titles conditional on the agricultural exploitation of land, minimally with the presence of cattle. The missionaries helped the Shuar create cooperatives of cattle producers, which over time became powerful political institutions that both manage the land and mobilise Shuar people politically for protests and elections. Unlike the Macabeos and Colonos, the vast majority of Shuar land is owned collectively, which makes it more difficult to sell but also limits access to financial services as land cannot be set up as collateral.

From the 1990s onward, the insertion of Morona Santiago in global capitalist processes further intensified. First, a series of economic and political crises in Ecuador led to large-scale migration to the US and Europe, with Morona Santiago being one of the provinces with the highest rate of migrants per inhabitant. These migrants sent back remittances to their home towns, but also gifts, fashions, ideas, and skills they learnt in foreign universities. Second, the indigenous movement grew in importance as a result of the uprising of 1990, the constitution of nation-wide indigenous federations and of their political arm, the Pachakutik party, but also of the participation of Shuar elite troops in the 1995 war against Peru. Since 2008, Shuar politicians have been elected at both the provincial and municipal level, thereby increasing the indigenous participation in political and economic processes, as well as the greater involvement of the State in indigenous economic development. More generally, the Ecuadorian State has taken an unprecedented interest in its Amazon region and invested in both public services and transport infrastructure. It now takes less than 10 hours by bus to go from Macas to Quito, one hour by plane, and the city contains two hospitals, state-of-the-art sports facilities to train Olympic athletes, local branches of national universities, and a new bus terminal. These investments are not random but correspond to the keen interest of the Chinese State in the minerals and oil that lie under the ground of the province, and in the possibilities of using the Amazon river basin to by-pass the Panama canal and trade with Brazil.

Transformation of Shuar houses

Descola has given the definitive account of traditional Achuar houses which are very similar to Shuar houses (2000). Achuar houses are elliptical, with a roof woven out of palm leaves and – depending on the size of the house – one, four or six main posts. There may not be any wall; though, when they exist, they are made of chonta tree wood posts aligned at a small distance from each other, enabling one to see what is taking place outside the house without being immediately seen. In times of feuding, a second wall is erected at a few meters outside the walls of the house, though much higher and impenetrable. At one end is the men's side of the house, where guests are received and food is served, while at the other is the women's side of the house, where food is prepared and stored and where the family sleeps at night. During social events, the head of the household would usually sit in the middle of the house, facing the men's side, on a stool, with guests lining the walls and women serving manioc beer and food all around. Shuar people would sleep on elevated platforms more often than in hammocks, a space which may be partially enclosed in walls, particularly in the case of polygynous families. Alliance would, therefore, mean moving from the outside to the inside of the house, and from the male side looking at the female side to roaming in the centre looking out (Figure 7.1).

Figure 7.1 Brothers-in-law resting inside the house after cleaning out the garden. Photo: Victor Cova 2015.

Although such houses continue to exist and function in that way, they have become increasingly rare. The ones I saw usually belonged to older couples or individuals – or to a very young couple who could not afford to build what is now considered to be a more proper house consisting of two buildings, a dormitory and a kitchen. The dormitory consists of a square house on stilts with wooden planks enclosing it and a metal roof – which I will call a colono house – while the kitchen retains the traditional Shuar style though transforms its social use. Before I explain the contemporary use of domestic space among the Shuar, I need to briefly explain the historical trajectory that led to this model. The first colono houses were built by Shuar around the time when evangelical missionaries created the Macuma mission in the 1940s. The missionaries had initially built for themselves a house in the Shuar style, but seeing the proliferation of colono houses among the Shuar, they decided to adopt a style that was more congenial to them. They also started painting their houses after seeing that various Shuar houses had already been painted. In other words, the concurrence of new architectural style and missionisation does not indicate here a direct diffusion from missionaries to Shuar but rather a more profound transformation of Shuar society, perhaps in reaction to the intensification of feuding, which led them both to accept missionaries and to transform the houses they lived in.

The appearance of colono-style houses among the Shuar was certainly made possible by the greater availability of metal tools such as saws and nails, which made it easier to cut trees into beams and planks and to assemble them not only on one but two floors. Metal sheet roofs have also

become more available in Macas and could be transported, although with great difficulty, to Shuar territory by foot. Yet, the construction of Shuar houses did not stop with the appearance of colono-houses but would, on the contrary, continue to be built often next to them, sometimes directly appended to them. In other words, these new building materials and technologies did not replace previous ones but modified their use. It is, thus, important to locate this innovation within a transformation of the Shuar house which preserves just as it modifies its previous iteration (which itself most assuredly was a transformation of previous and of concurrent houses). What makes matters particularly tricky here is that the split of the old house into two buildings did not take the form of a simple separation of the male and female areas of the house, as one might have expected, but rather of a complete duplication.

Indeed, the Shuar-style building continues to exist and function in much the same way as it did before, with a kitchen at one end and benches or a table at the other. The guests sit by the wall and the hosts usually by the centre. Space is much reduced, however, and the spacial delimitations much less clear. Sometimes, the kitchen might, in fact, be located in the middle – with an area to receive guests at one end, and an area to relax at the other. In other cases, an area to receive guests is separated from an area where the family makes and eats food. As for the colono-style house, it usually begins with an entrance area from which the different bedrooms can be accessed, with walls serving as partitions. The entrance areas will also serve to welcome guests and socialise before bedtime, and that might be where guests sleep if they are not given a room. But the colono-style building is more than a dormitory, and will also house a shop if the family has one, as well as valuables such as computers and TVs. The walls of the colono-style house, because they are more difficult to see through or move around, make it possible to hide and protect consumer goods from prying eyes and hands (Figure 7.2).

The two houses, following Hamberger's model, make possible a progressive inclusion of outsiders in the house space. An outsider first sees the two houses together, may then be received in the Shuar-style house to drink manioc beer and talk, and might then be invited to stay in the colono house to sleep if he is close to the family. Yet, we might expect the two houses to be variations of one another, or the outside house to be (what Shuar imagine as) more congenial to outsiders. We see instead two houses that articulate an opposition between Shuar and settlers, but where the intimate sphere is located in the colono-style building. To get at the duplicated Shuar house, we need to understand the transformation of relations to outsiders.

To better understand the duplication of the Shuar house into two buildings, we have to understand how it fits with a broader transformation of sociality. Whereas Shuar and Achuar houses used to be isolated from each other, with infrequent and tension-laden visits from kin, Shuar people now live in interconnected villages which are visited not only by kin but also

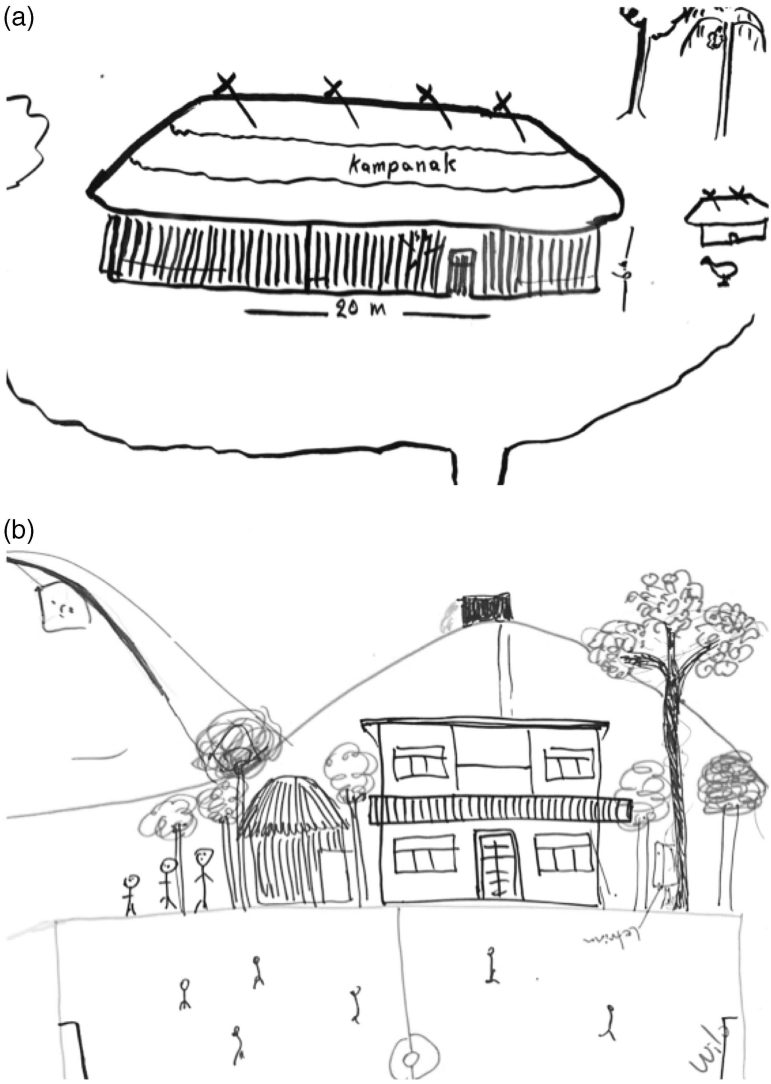

Figure 7.2 Drawings by two Shuar men in their mid-thirties showing the houses of their childhood in the 1990s. (a) Shows a traditional Shuar house in a community that until recently was located at a day's walk distance from the road. (b) Shows a duplicated house from a community that already had road access in the 1980s. 2016.

by complete outsiders such as doctors, civil servants, tourists, NGO workers, missionaries, and sometimes anthropologists. Villages often began as single households, with brothers building their houses near their parents'

house, and sometimes also hosting a brother-in-law. The land belongs to the community and is parcelled out to the different members in meetings. Recognition of land ownership often depends on participation in community activities, whether it is public works such as clearing a path or socialising such as parties or football games. It is possible to sell a parcel to an outsider but only if the transaction is approved by the community. In practical terms, this means that participation in fairly intense village life is mandatory, even though most households maintain as an ideal the simple and autonomous life of the household. The redoubling of the house may, therefore, appear as a way to resolve this difficulty by mediating social life.

This duplication is itself repeated at two different scales. First, the house currently occupied by a family is often one of a number of possible houses. Most families possess one house directly in the village, another on the margins of the village within a 30 minutes of walking distance, as well as – ideally – a hut deeper in the forest to go hunting, and a house in a more central town such as Macuma for children to live in as they go to school. Second, the existence of a community requires buildings that would not be private. In most villages, this takes the shape of two buildings which correspond to the duplicated Shuar house. One is the *espacio cubierto*, 'covered space,' a large slab of concrete with a metal roof over 6 meters high, where drinking, partying and games take place. The other is a colono-style building, now sometimes built in concrete, with offices and computers, which may be shared by the school. Thus, the reception of an outsider might begin at the espacio cubierto and/or the office, then move to the Shuar-style house of a family's townhouse, before being invited to the country house, and so on.

I have so far argued that the duplication of the Shuar house serves to mediate relations with outsiders by having, as it were, an outer house (the kitchen and reception building) and an inner house (the dormitory). Yet, as mentioned before, the inner house is modelled after the house of settlers, whereas the outer house is modelled after the traditional Shuar house. Beyond an aesthetic choice, building houses in these different styles requires different sets of social relations. Where a Shuar house needs mostly local materials and Shuar expertise to weave the roof as well as large quantities of people to put the roof up, the colono house requires metal and motorised tools such as a chainsaw, building techniques learnt from the settlers, and metal sheets for the roof which are both expensive to buy and difficult to transport. Building a colono house requires an important investment in relations to settlers, whether through wage-labour or through relations of patronage. These end up producing the 'inner house,' reserved for close kin. The outer house, which requires important involvement in kinship networks to source the different building materials and learn the craft, is reserved for occasional visitors, especially settlers. Taken together, these two houses point to a desire for the making-kin of outsiders and the making-outsider of kin. This is a familiar pattern in the ethnography of Amazonia, where the

maintenance of identity is understood to depend on the incorporation of alterity, whether through marriage, feud, meals, medicine, or various rituals (see Vilaça, 2002). As Kelly (2016) clarified, this process can be understood as the opposite of mixing – or *mestizaje* – in that the transformation of the self into another is non-identical with that of the other into the self. In other words, Shuar-becoming-settlers are not the same as settlers-becoming-Shuar, nor do they meet at a halfway point. It is no accident that this desire also manifests itself in the wish made by many Shuar men to have two wives – a Shuar one and a white one – each living in different places, living in harmony in their difference from each other.

As Rubenstein (1993) showed, capitalism has enabled Shuar men and women to become increasingly autonomous from each other, to such an extent that chain-marriages had come to replace polygamous ones.[1] As a result, some single women were able to have their own houses built without help from their husbands or boyfriends. Yet, men and women are not equal in front of capitalism. The labour market in Macas is strongly gendered. Some of the most lucrative activities in Shuar territory – such as cattle ranching, teaching, bureaucracy and politics – are almost exclusively available to men. As a result, most houses, especially larger, colono-style houses, belong to men, and so do most of the hotels and larger shops. We can see that increased integration in the capitalist economy has both made it possible for women to become more autonomous from men and yet, in practice, made them more dependent on them for housing. The more they try to gain independence from men (or are forced into it as their husbands abandon them), the more they become increasingly dependent on wage-labour. Ultimately, it has made both men and women more dependent on access to wage-labour, with Macabeo people being some of the more wealthy employers in the Province.

The transformation of Shuar architecture I have described is consistent with the broader anthropological record on Amazonian architecture, particularly with the transformations analysed by Elizabeth Ewart among the Panara (2013). She describes the transformation of the central men's house in Nansepotiti over a ten-year-long period. The single, roundhouse she had observed in 1997 was replaced in 2003 by two houses modelled after historical photographs, then again in 2007 by a single men's house modelled after those of their Kayabi neighbours with an enclosing wall which was taken down in 2010 (2010:62–63). These transformations, she argues, constitute part of a broader process of continuous social and architectural transformation where the size of houses grows to make space for more children and architectural style borrows (and transforms) from those of neighbours (31–32). But the men's house(s) play(s) a particular part as loci for the mediation of foreignness, where FUNAI agents and other foreigners are received before the gifts they bring get distributed to each family (105–110). Among the Ashaninka, Killick (2019) has shown that architectural transformations is also a function of indigenous interpretations of

the social demands that result from legal changes such as the introduction of "native communities" by the Peruvian State in 1974. My analysis of the transformations of Shuar architecture shows a very similar process taking place over a longer time span in a very different context (Upper Amazonia), where relations to the wage-labour economy and the State are more intense than in Ewart's or Killick's examples.

Transformations in Shuar architecture have been intertwined with Macabeo society and capitalism – at least since the second half of the 20th century. As a structuralist approach would have us expect, even the diffusion of a foreign architectural style can only make sense within a local system of signification. Colono houses were thereby transformed to fit Shuar social life even as they remain marked as non-Shuar. Young and old Shuar interlocutors envisage the future of Macuma after their knowledge of Macas – that it would become a large city covered in cement – and its past after their experiences in Achuar villages deeper in the forest – with only isolated, traditional houses – and admired and derided equally. At the same time, the construction of colono houses was the symptom of a profound transformation of Shuar social life and accompanied the move to village life and participation in both capitalist and democratic processes. Specifically, building colono houses required tools and materials only available through the market or as gifts from the State. The multiplication of colono houses both resulted and required participation in a wage economy and political clientelism. The kin relation that governed the layout of Shuar architecture has transformed into a relation to a range of outsiders who provide goods and services to the Shuar. As Shuar territory becomes increasingly subsumed in capitalism, we can expect architectural forms to become ever more shaped by the ability to summon capital for construction (to buy land, materials, machinery and labour) and by the prospect of making money (as rent for housing or office space).

Transformation of Macabeo houses

This story becomes even more interesting when we realise that the settlers in Macas used to live in houses almost identical to what I have so far called the traditional Shuar house. Little can be said about these houses without speculation: these traditional Macabeo houses have now completely disappeared and were not well-documented when they were in use, leaving us to rely on the memory of older Macabeos who lived in them as children and on contemporary attempts at reconstruction. The main differences with the Shuar house would have been an elevated floor in half of the house with beds partly woven in bamboo, the use of woven bamboo mats to fill the space between the chonta wood pillars, and a horizontal wall at one end of the house to make space for a porch. Macas was one city, made up of two 'moieties' in near-constant conflict, situated alongside the Royal Road but with a large empty tract of land in the middle where the Church was located. New households would build their houses near the parental house before moving further out as

it became increasingly independent, the house would then be lifted out and physically moved. Beyond the townhouse, Macabeo families also had country houses where they spent most of their time to care for their cattle.

The shift to what I have called 'colono-style' houses took place over the first half of the 20th century, as relations to the Highlands intensified. Previously, contacts with the highland would occur either during the yearly trip to the Riobamba market to sell cattle and spices, with the arrival of a foreigner or a new priest, or the visit of a travelling salesman. Selling goods or labour was considered an unworthy occupation and the sign of one's inability to maintain one's family. The first shop in Macas was created in 1910 with the help of the Catholic Church and was the first building entirely made of wooden planks, including the roof. This and subsequent houses required the work of travelling tradesman who carried long saws with them. Because money was rarely used within Macas, it had to be saved from the yearly trip to the Riobamba market. With the opening of a landing strip and a military base in the 1940s, trade became generalised. Macabeo families rapidly replaced their Shuar-style homes with Colono-style homes to avoid being associated with the Shuar. Many Macabeo families married into the families of military men from Quito. These new families, as well as those of newcomers who set shop in Macas, settled mostly in the central zone that had heretofore remained unoccupied. As noted in the introduction, the large influx of settlers from the Azuay region near Cuenca from the 1960s onward would provide a second enduring locus of both competition and alliances for Macabeos. The colono-majority city of Sucua entered in competition with Macas to become the economic and administrative capital of the Province, while Macabeos and Colono men vied to control political parties and economic and administrative institutions Figure 7.3.

The transition to colono houses led to a physical separation of different social functions. The most important one is the separation of the kitchen – which also served as an everyday dining room – from the dormitories which were often attached to the sala, the room where guests were received. These buildings would be organised around a small garden and only a few houses facing the street. The sala tend to be one of these outward-facing buildings, and the kitchen located more on the inside of the compound. Macabeo compounds were often patrilocal with the sons and their families occupying a dormitory each. The kitchen was a space mostly prohibited to non-kin and, as such, served to integrate the daughters-in-law around their mother-in-law, particularly during feast days. On the other hand, the sala was mostly unoccupied by the family and would only be invested when receiving visitors (for instance, when receiving doctors when a child was sick, or to discuss wedding proposals). Finally, the porch was a space facing the street where the entire family could congregate in the evenings and face other families walking by (Figure 7.3).

At this point, we can note the differences between Macabeo and Shuar architectural transformations. In both cases, the introduction of new

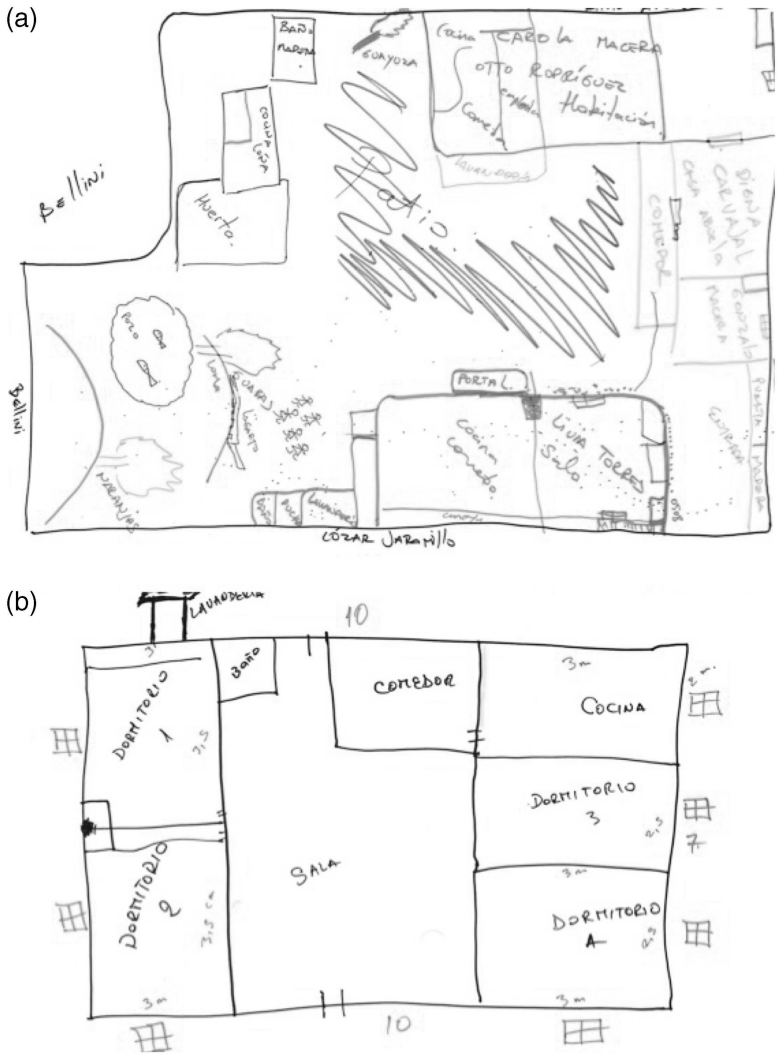

Figure 7.3 Diagrams by two Macabeos, a woman and a man, in their mid-thirties. (a) Shows the compound in which Tania lived as a child, with the small houses of each daughter-in-law set around a central patio and facing a common kitchen and with a separate building for the toilets. (b) Shows the inside of a modern flat, where the bedrooms, the kitchen, the bathroom and the dining-room all surround a living-room. 2016.

construction technologies and a new style led to the multiplication of buildings. Yet for the Shuar, this led to a functional separation (kitchen vs dormitory) but not a gendered one, among the Macabeos the division was

both gendered and functional: the kitchen was a women's space whereas the sala was a men's space. Consequently, among the Shuar, the kitchen is the space where visitors are received; for the Macabeos, it is the sala appended to dormitories. The path of integration into the domestic space takes opposite forms among Shuar and Macabeos – for the Shuar, one moves from the kitchen to dormitories as one becomes more tightly integrated within the family; among Macabeos, one (especially a woman) would move from the sala and dormitories to the kitchen.

Concrete capitalism

A further set of transformations has affected Macabeo and – to a much lesser extent – Shuar architecture since the 1980s with the introduction of concrete. In the past few decades, concrete has replaced wood as the main building material in towns of the Upper Amazon. Despite its many desirable properties, it is not an obvious favourite in tropical climates. Although it may protect the inside of buildings against thieves, prying eyes and the rain, it also makes it difficult to keep the heat and humidity out. It won't let in the cool evening breeze as wood does. Yet, concrete is here to stay. It has become central to local economies beyond the construction industry. Concrete provides work to architects and engineers, foremen and builders, sand factories, formwork makers, hotels, apartment buildings, and malls. Concrete arrived in Macas in the late 1960s, on the heel of infrastructural investments by the State in the region. It appeared to a number of Macabeo families as an economic opportunity that would ensure economic security against the competition from Colonos. Indeed, where woodwork requires craftsmen, concrete makes possible the emergence of a professional class. Engineers and architects can design blueprints from their offices, while de-skilled day labourers can execute those designs. Between the newly arrived landless peasants and the indigenous population of Shuar people, there was an ample source of cheap labour. The Macabeos could, thus, maintain their superiority by becoming professionals (engineers, architects and real estate lawyers).

Architect and engineers in Macas move back and forth between the public and private sector. Their work for the city council or the prefecture revolves around organising the competition for public work contracts and validating blueprints and real estate transactions. In their private practice, they sometimes design houses, hotels and malls, but mostly merely validate blueprints and observe that the construction process is taking place correctly. In both cases, then, they work as regulators rather than designers, experts in both legalese and structure who check on the work of others. It is foremen who often help people design their house and advise them on materials, colours and costs. Foremen are therefore crucial to the concrete industry far beyond the construction site. Of the handful of foremen currently working in Macas, most of them are indigenous Andean craftsmen from the Chimborazo province. In the name of safety and the hope that they

Figure 7.4 A renovated Macabeo house from the 1970s next to two (mostly unoccupied) concrete buildings. Photo: Tania Macera 2016.

may have more customers, architects and engineers have petitioned the city council and the prefecture to make their intervention mandatory throughout the construction process even of small individual homes. In other words, as a class which leverages its power within the state apparatus to protect its collective interests against outsiders.

Concrete is a capital-heavy construction material. Few of its basic components can be found together at one site, and the mixing and pouring of cement require machinery. In the case of Macas, cement and metal had to be imported from the highlands. Hardware stores rent out machinery and serve as mediators between individual buyers and wholesalers. Macabeos long despised retail as an occupation. They associated it to highland indigenous peddlers who would sometimes come to Macas. But with the rise of the concrete-based construction industry, families with construction professionals also sometimes invested in hardware stores. As for sand, it could be produced on-site by exploiting the riverbed of the Upano river, one of the affluents to the Amazon. Initially, a few colono families started to manually crush the pebbles of the riverbed into sand. The process was then mechanised, and there are now a few sand factories operating in the Upano valley. One firm created by a Macabeo man – the son and grandson of engineers – has integrated the two aspects of the concrete industry and proposed the services of engineers, architects, and foremen, while also owning a sand factory and a range of machinery. It now dominates the local construction industry.

Alongside concrete's rise to prominence, wood has become a luxury material. Deforestation has only become a matter of concern for the Ecuadorian State quite recently. In the 1960s, when it encouraged Andean landless peasants to relocate to the Amazon, the State wanted to turn the forest into pasture. Not only would it make the land more productive, but it would also help secure territorial claims against Peru. The trees the settlers cut to clear pasture land served to build houses. The situation changed over the 1990s. The conflict against Peru, which started in 1830, was durably settled. Environmental and indigenous concerns rose to prominence until the incorporation of indigenous rights and the rights of nature in the 2008 constitution. All the wood used in new constructions must now be traceable to an authorised exploitation. The cost of wood has risen dramatically; wooden houses have become a mark poverty and wood is now used ornamentally on the most expensive newly-built houses. Yet, concern for the environment is selective. The effects of sand factories on the river's ecology have not attracted much attention from lawmakers, even though the Macabeo population laments the destruction of a familiar landscape.

Neither modest direct state investments nor moribund local economic production could have fuelled the concrete boom on their own. Remittances from the US and Spain kept it alive. In the 1990s and early 2000s, a higher proportion of the Ecuadorian population migrated to the US than from any other Latin American country. In Ecuador, the provinces of Azuay and Cañar, from which the settlers of the 1960s originated, sent the highest proportion of their population to the US, closely followed by Morona Santiago. A census from 2001 estimated that 5,770 people from Morona Santiago population were living in the US in that year, or about 3% of the population, with a high turnover rate. Most of them were men, whom we know devoted a higher proportion of their remittances – around 10% – to construction projects (UNFPA-FLACSO, 2008). The State encouraged the scramble for private housing by subsidising the construction of small private houses.

Concrete has durably enabled a professional class to dominate the construction industry, but it has also helped create a rentier class. Before concrete, there were small hotels, canteens and shops. They were located in buildings of a maximum of two floors, which could only expand horizontally. As Macas grew in size and economic importance, the cost of land imploded. The price of a square meter in Macas rose to $1,500 – an exceptional cost for a small Amazonian town. Concrete made it possible to create six stories-high buildings. With so much space, one could let the bottom floor for shops or restaurants, create a hotel on the next four stories, and live on the top floor. The first two privately-owned concrete buildings in Macas follow this model, as do many others that have come since. Another popular model includes a shop at street level, office space for State institutions on the first floor, apartments to let for another two floors, and the top floor for the family. Some also offer very small, low-quality housing with low rent price for the increasing Shuar population that works in town. With

concrete, even a small plot of land could appear worthy of an investment, which helped keep the cost of land high.

Over time abstract value has become the most central for most relations around which housing is built. Land price, rent and resale value, cost of building materials and machinery, and the expertise of architects and engineers have all transformed Macabeo architecture. Houses are now built not only to be occupied by a specific family, but potentially by anyone – whether tourists occupying a hotel room, families renting an apartment, professionals or state institutions renting office space, restaurants and shops looking for commercial space, or more broadly anyone (even a bank) looking to buy the building to live in it or to sell it again. Standardisation serves to smooth out those transactions, allowing for rapid evaluation of the building. It also means that some idiosyncrasies are smoothed over – for instance, architects will not allow new constructions where the toilets or the kitchen are located in an external building, even though many older Macabeos would prefer that option.

At the same time, this same process encourages a quest for originality and an adaptation to the taste of specific segments of the population (visiting bureaucrats, workers from Azuay, religious tourists, Shuar students, Chinese mining bosses, and so on). There is an outward multiplication of architectural styles – El Alto-style Neo-Andean architecture, Mexican-style telenovelaesque villas, concrete-and-glass modernist country houses, baroque chalets, and so on – that rarely goes beyond the façade. Recent attempts to create or preserve specifically "Macabeo" – in fact, colono – houses are, by necessity, guided by the same concerns: to attract tourists and new inhabitants by fostering an "authentic" experience of the city (Figure 7.4). For instance, small colono houses often house "traditional" Macabeo restaurants selling ayampacos – a dish shared by both Shuar and Macabeos consisting of meat and palm hearts cooked in bijao leaves. But preservation efforts fail, as no one really wants to live and take care of these houses when they could instead build four-story hotels. In fact, as abstract value has slowly taken over from kin relations, the very relation between the universal ("anyone") and the particular ("Macas") has taken over from the relation of alliances between two families. As a result, this state of affair is a direct, immanent transformation of Macabeo architecture, and not a simple importation of foreign forms, even less a colonial imposition from the outside. Not unlike the Shuar, some Macabeo families point to specific places – Macabeo farms just outside the city, or small villages like Arrapicos – as living remnants of the Macabeo past, and dream of American cities and houses for their future, all the while pitying those who live in such places.

Conclusion

In this chapter, I presented the transformations of architectural forms in two neighbouring societies in Upper Amazonia over the course of a century. Where one might initially have seen a mere diffusion of a settler architectural

form from urban centres to indigenous societies, I have argued instead that these transformations were immanent to each societies as their relation to each other, to capitalism, and to the nation-state transformed over time. Macas was at the centre of State efforts to settle Amazonia and make it productive, a process during which its inhabitant competed with newly arrived settlers from the highlands. Shuar territory resisted these attempts with the help of missionaries and NGOs, before actively competing politically and economically with the settler population. Beginning with remarkably similar architectural forms and building techniques, both Shuar and Macabeo houses changed over time in step with each other. Yet, because of their different relation to capitalism, their transformations have also taken increasingly singular courses. For Macabeos, integration in capitalism has meant that construction became a trade and real estate, a lucrative investment. As land became scarce and remittances started pouring in from the US, compounds gave way to concrete buildings extending upwards. On Shuar territory, the focus has moved from the integration of potential brothers-in-law to that of non-Shuar – whether politicians, state officials, or tourists, and the house was reproduced as a series of more or less intimate spaces to both 'Shuar-ise' outsiders and 'modernise' Shuar families.

In both processes, however, we can see a similar shift in the orientation of the house from kin-relations to those between increasingly abstract self and others. It, therefore, becomes possible to understand the transformation of architectural forms in societies undergoing a transition into increasingly capitalist forms of organisation. The house continues to objectify paradigmatic social relations – as Hamberger, following Lévi-Strauss, has argued – even as kinship is increasingly subsumed by abstract labour, as Postone – following Marx – has proposed. Ahistorical dichotomies that oppose tradition and modernity or the indigenous and the settler can be rearticulated in terms of the historical forms of social relations that underlie them.

Note

1 Chain marriage refers to the transformation of synchronic polygamy into a series of marriages which follow each other in time but do not overlap. Instead of one Shuar man living with two or more women, ideally sisters, at the same time, in chain marriage both spouses will have had previous relationships and might remarry others in the future.

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8 Returned not remade

Visuality, authority and potentiality of digital objects in a Melanesian Society

Graeme Were

Introduction

In *The Right to Look* (2011), Nicholas Mirzoeff redefines visuality as 'both a medium for the transmission and dissemination of authority, and a means for the mediation of those subject to that authority' (2011:xv). His concern is to study the mechanisms of media and mediation that order the world not necessarily about images, but political struggles in which visual culture takes precedence. His compelling argument presents how colonial authorities or military forces wielded visual techniques like observation and surveillance to oversee and control plantation workers or survey military battlefields. At the same time, he claims how subjugated peoples also countered dominant power structures and claim authority by asserting their right to look. The right to look, therefore, centres on the governance of visuality and its media and how this invigorates or usurps sovereign regimes, for both dominant and marginalised peoples alike.

I offer this piece of work as an introduction to this chapter on visual systems because over the last decade, competing claims of visuality now lie at the heart of the contemporary relation between museums and source communities. The emergence of online catalogues, virtual walk-throughs and digital annotation tools raise significant issues about cultural representation and ownership and the right to look. A variety of scholars from anthropology, museum studies and information studies, have analysed the implications of the digital transformation of the museum from a range of perspectives: from source communities and participation (Brown, 2007; Harris and O'Hanlon, 2013; Salmond, 2012); education and learning (Tallon and Walker, 2008; Parry, 2007); and digital repatriation or return (Hennessy et al., 2013; Isaac, 2015; Phillips, 2013; Were 2014, 2015). While these scholars cover a gamut of themes raised by the contemporary museum and its work with communities, few have ventured to conduct in-depth ethnographic research to examine how projects of digitisation impact on communities and the types of political and social transformations taking place since the onset of digital media and the digital mediation of cultural heritage.

In this chapter, I intend to explore the politics of visuality in the context of the lives of the Nalik people of northern New Ireland, Papua New Guinea that is sympathetic to the 'complexity and reality of people's lives and thoughts' (Barth, 1987:17). By invoking Barth's words, I mean to investigate how ubiquitous technologies such as the internet and digital heritage technologies impact visual systems in a Melanesian society, a region where traditional image-making itself is considered under threat of loss and where there have been widespread revival movements since the 1950s to protect cultural practices from global forces of homogenisation in the aftermath of colonisation and mission Christianity. In so doing, I reveal ways in which images – in their digital guise – transmit political authority and so transform social hierarchies in the region.

Melanesian visual systems

Anthropology has been a productive field for documenting and analysing Melanesian visual systems. Besides the survey approaches to Melanesian and more broadly, Pacific collections housed in ethnographic museums around the world which frame objects in terms of colonial encounters and indigenous histories (Bolton et al., 2013; Brunt et al., 2012) coupled with a series of high profile exhibitions including the recent *Oceania* exhibition at the Royal Academy in London in 2018, there have been two main approaches that emerge from the discipline of anthropology that theorise and conceptualise Melanesian visual art systems to date.

The first of these examines artefacts in terms of their aesthetic and semiotic systems, drawing attention to the meanings of symbols and motifs in their design and articulation as a mode of visual communication. Much of this work takes its impetus from the research of anthropologist Anthony Forge (1973) and his analysis of Abelam art from the Sepik region of Papua New Guinea. Forge's work approached the vast architectural forms of the *haus tambaran* in terms of a symbol system and visual language. For Forge, artworks could be broken down into language-like elements that could be read and understood by communities who share the same art style.

This aesthetics approach has inspired a generation of other anthropologists to follow this mode of analysis. Anthropologist Brigitta Hauser-Schäublin (1996) focused on the aesthetics of the line, the strip, and the string in Abelam society as an attempt to draw out the ways in which artefacts are structured and transmitted in practice and extend Forge's earlier analysis. As crucial ordering elements, she observes how the Abelam prefer the appreciation of linear (rather than planar) elements that link paintings on barkcloth, carvings and net bags. Meanwhile, Shirley Campbell's analysis of the *kula* canoe prow boards offers another example that follows the aesthetics approach, revealing the different symbols and curvilinear forms and their relation to cosmological ideas about land and sea, and how these designs participate in mitigating the risks associated to seafaring in the

maritime culture of the Trobriand Islands (Campbell, 2002). In short, aesthetic theories appear to be a theory of response, in which the role of the anthropologist is to document and understand the response of subjects to visual stimuli.

The second approach focused on the materiality of artefacts, privileging the material design and temporal nature of artefacts in their production, circulation and eventual decay. Lifecycle is therefore a crucial feature in making these visual systems potent – artefacts are understood to emerge into social life before disappearing. Rather than frame the object itself as a finished product and an object of analysis as it exists in its final form, emphasis is placed on the mutability of objects and the value placed on their emergence into the world as much as their disengagement through deterioration and decay. Two anthropologists focusing on this aspect of visual systems are Harvey Whitehouse and Susanne Küchler. Whitehouse (1995), in his analysis of the Pomio Kivung cult movement in East New Britain in Papua New Guinea, refers to 'flash-bulb' memory as a model for theorising the transmission of imagistic knowledge in societies that codify ritual through episodic events. Indeed, emphasis is placed on the absence of the artefacts and transmission relies heavily on those ephemeral moments in which the physical manifestation of the image is publicly viewable, if only for a few minutes. The ephemeral nature of objects in the Melanesian context has led Küchler (1987) to argue, in the context of the Kara-speaking people of northern New Ireland, that it is not the physical object itself that is of value, but the image and rights to transact images over actual objects. These anthropologists have added weight to claims that visual systems of Melanesian societies are image-based rather than object-focused.

The work of Alfred Gell (1998) crystallised these two approaches by bridging theories of aesthetics and response with one that situates it within the field of agency and design thinking. Gell's work examines visual systems in terms of their relationality, drawing out the oeuvre of individual artists and collective art styles in a bid to reveal the system of operations and logical sequences in which certain art styles emerge and are made recognisable. For Gell, artworks cohere around 'the principle of least difference' in which an artist is compelled to create artefacts in a similar form as previous ones (signalling an intention to conform and an affirmation of continuity) while variation itself is achieved through slight innovation of the design, leaving tell-tale signs of individual artistic agency. According to Gell, Pacific artists fear transgression of the norms of stylistic practice in case they incur the wrath of ancestors or invisible forces which may do harm. On the other hand, innovation is also encouraged to produce difference and diversity. This system of variation – locked between a latent conservatism and an urge to innovate – is embedded in a series of retensions and protensions that extend back in time to reflect on earlier versions of the same object as well as forward to what future materialisations of a particular art object may be. According to Gell, these art forms are interconnected as a movement of

thought - entities that are relational through the maker knowingly thinking about past forms of an object and intending to make it bigger or more efficient and so forth.

Gell's principle of least difference is important to this discussion of digital images because it theorises how acts of visual transformation create structural homologies between corpuses of different objects. While Gell's work introduces a theory of variation and difference in visual systems of the Pacific, his work is predicated on a closed system of style – one that appears impervious to external factors such as the influences of colonialism, mission Christianity and the global market economy. My concern is that external forces have significantly impacted visual systems which have undergone significant transformation, continually, at least since the advent of the first missionaries who arrived in the 19th century. For example, Gell undertakes an analysis of Marquesan art style from Eastern Polynesia. Using the German explorer Karl von den Steinen's 19th century pictorial overview of Marquesan design, Gell (1998) teases out the complex set of motifs and their variations which make Marquesan art conform to a visually recognisable and coherent whole. While this analysis produces an interesting and revealing insight into variation and difference, I am less convinced it bears a resemblance to the flows and changes in which Melanesian societies are exposed through cultural influence and exchange. As I have recently argued, Pacific societies are continually innovating as they are exposed to outside influences and artistic and material expressions (Were, 2019).

To be sensitive to the influences of connectivity – local, regional, and global – my approach is to concentrate on visual systems through the lens of innovation and change. Recognising that visual systems are susceptible to both external and internal influences that are generative of innovative art forms is to frame a more pragmatic approach to art style in Melanesian society. I am not alone in thinking this. David Lipset's work, for example, on the Murik people of the Sepik in Papua New Guinea, highlights the issue of transformation and change (Lipset, 2005). His work explores innovation and categorisation of art forms as they merge with tourism and global art markets. Rather than a closed system of production, art works circulate in and out of the region, attaining certain value as they are marketed for sale to discerning art connoisseurs and tourists alike. Moreover, my own research amongst the Nalik people of northern New Ireland has also supported the view that outside ideas and images can be incorporated into existing visual systems, not simply to support ritual polities and cosmologies, but also to strengthen relations to the land and ancestors (Were, 2010). I argue how the introduction of the practice of placing cement headstones in clan mortuary grounds in line with the dictates of mission Christianity had the effect of transforming burial practices, but it fitted within an existing logic of absorption, release and decay which guided the production and transmission of carved wooden sculptures known as *malangan*. Cement's material propensity for decay fitted into a pre-existing operational logic which enabled

Naliks to see headstones as life-force containers in the same way carved sculptures absorbed, contained and released ancestral life-force. This reinforces Küchler's (2013: 27) re-engagement with Gell's principle of least difference, in which she likens it to a manifold with the capacity to 'combine generative agency with instantaneous recognition.'

While Pacific anthropology has focused on the impact of colonialism, missionisation and tourism on visual systems, very few scholars have examined the effects of digital technologies on knowledge systems in the region, and none to date have focused on their impact on art production. Since the introduction of a Digicel network across Papua New Guinea (and other parts of the Pacific), anthropologists have concentrated their work instead on examining how social relations have been transformed through mobile phone usage. A key concern has been models of morality and sociality linked to mobile phone uptake (see for example, Andersen, 2013; Kraemer, 2015; Lipset, 2013).

Beyond Melanesia and the Pacific region, scholars in anthropology, archival studies and museum studies have produced diverse research exploring how digital practices have transformed knowledge practices in regions of the world. These studies reveal the challenges faced by digital designers in building systems that mimic traditional knowledge systems (Christen, 2012; Verran and Christie, 2007; Verran et al., 2007); the ontological status of digital objects such as files and photos for archivists, curators and community (Brown, 2007; Salmond, 2012); or how the co-production of knowledge resources can be seen as a process towards physical repatriation or recovery (Bell, Christen and Turin, 2013; Isaac, 2015; Phillips, 2013). These studies have been particularly important in supporting cultural revitalisation projects as the adoption of digital technologies by communities allows the sharing, storing, and connecting of diverse communities and collections separated spatially.

Yet, I worry that what is conspicuously absent is any ethnographic study of the political transformations taking place in communities through the digital mediation of traditional images. As Favero (2013) commented, we lack an understanding of how people get their hands dirty using digital tools. Digital images are not immaterial or ethereal sequences of binary numbers, but their circulation and flow across space and time has a tangible impact on the operations and effects of community life. Specifically, I am interested in how digital heritage mediates new forms of visuality which transmits political authority in innovative ways. Thus, amongst the Nalik, digital images are not simply abstract entities – they are a visual manifestation of the manifold (Küchler, 2013) that reveal new modalities of thinking and being taking shape as a product of hands, eyes, and minds working with digital objects (McCullough, 1996).

My argument that visible forms and symbols – imported from afar – are integrated into existing regimes of value and authority (as parts and wholes) to strengthen and reinvigorate local beliefs and practices is a theme I want to

explore in this chapter. In particular, rather than focus on late 19th and early 20th century modalities of change of a region – such as the import of cloth and hoop iron, or Catholicism and Methodism and documented by a range of anthropologists including myself (Colchester, 2003; Küchler and Were, 2005; Thomas, 1999) – my interest lies in the recent transformations that have made an impact on Melanesian society and that position visual systems at the heart of political struggle.

Following Barth (1987) who explored intense ritual variation in a region, this chapter explores the ways in which digital technologies innovate cultural expressions and ritual polities. In a region of the world where rigid conservatism is placed on the production of ritual carvings, I demonstrate that while old images are returned through the development of a software interface that brings spatially dispersed objects back to the community of origin, emphasis is not placed at present on the images themselves as projects for acts of remaking. Instead, I argue how it is the transmission of images themselves – as potent digital entities – that remake social structures and are restorative of traditional power relations and ritual hierarchies in which objects and images circulate and are governed. In this sense, this chapter reveals ways in which creative engagements with digital heritage tools and images re-orders the social by transmitting visually political authority.

Mobile museum project in the Nalik context

The Nalik people are a group of Austronesian speakers who live in coastal hamlets along the east and west coast of New Ireland.[1] Nalik society is matrilineal and land is passed through the female line. Clans are organised around types of birds, and marriage follows an exogamous system. As horticulturalists, Naliks plant and harvest gardens in the forested interior slopes that lead up to limestone mountains, caves and ridges that run the length of the island. Since German colonial times, much of this land has been turned over to plantations, initially copra plantations which were managed by the Germans, and now oil palm run by multinational corporations.

The Naliks are famous for a set of funerary rites called *malangan*, for which a set of carvings are produced, bearing the same name (see Küchler, this volume). These rites take place several years after the death of senior people in the community and involve groups of people connected through kinship ties and allied clan groupings to gather in the hamlet of the deceased and engage in ceremonial exchange of shell money, root crops and cash.[2] During these events, *malangan* carvings, wooden – and sometimes woven – effigies of the dead are revealed from behind a leaf enclosure surrounding the clan cemetery (*rabaarau*) before participants are beckoned forth to lay small amounts of shell money at their bases. De Coppet (1981) has called these ritual events as the life-giving death; as the act of laying money finishes

the work for the dead and severing relations, it also signals a cycle of renewal as new relations are forged thereafter. The revelation of the *malangan* from behind the enclosure allows its image to be internalised by those participants before the carving is secreted away and left either to rot in the forest or placed on a fire. This emphasises the flash-bulb nature of image transmission in Melanesian society (Whitehouse, 1995).

Whilst *malangan* take place regularly in the Nalik area, there has been considerable change in the processes that lead up to the main feasting ceremony. Naliks refer to this as '*sotkutim kastom*' or (literally) 'shortcutting kastom,' a reference to the abridged sequence of events that clansmen and clanswomen participate in due to time and cost restraints. Kastom is a set of practices that Naliks recognise drawing from the ancestral past, a form of cultural expression which is owned and identified as something that belongs to the Nalik people. Kastom is hotly contested and men and women always debate whether it is correct, potent, wrong, or weak. Across Melanesia, a body of research has explored how kastom is imagined, invented or revised, and its relation (normally oppositional) to the influence of Christian missionaries (Harrison, 2000; Keesing, 1982; Lindstrom, 1993; Otto, 1992). In part, there are similar patterns to the oppositional nature of the mission to kastom amongst Naliks. The affiliation of Naliks to the Methodist, Seventh-Day Adventist and Catholic faiths compounds the way those orchestrating kastom is received by Naliks, as there are negative associations between mission histories and freedom to continue to practice traditional activities such as *malangan*. Thus, a *malangan* feast organised by a Catholic man may be roundly criticised because of the organiser's faith. A competitive rivalry and one-upmanship exist in relation to kastom and organising *malangan* formed the impetus for the development of the digital heritage project, Mobile Museum.

The economy of cash cropping, work in off-shore gold mines (in Lihir and Simberi islands), and in the provincial town of Kavieng – the province's administrative centre – mean that people have less time to fully engage with all the feasting activities that once took place in the build-up to the main feasting event.[3] Moreover, work-life constraints have also compounded what Naliks believe has been a gradual erosion of kastom over the last century with the advent of Methodist and Catholic missionaries on the island who converted entire villages so that the length and breadth of the island can be mapped as a sectarian landscape (Were, 2010). Despite inroads by the Baha'i faith (Were, 2005) who support the revival of traditional ritual practices, a discourse of loss is still pervasive though this is also coupled with a dream of revitalisation and renewal.

Ever since I first conducted fieldwork in New Ireland in 2000, there have been many projects that have attempted to revitalise kastom. Some of these projects included training young men to carve *malangan*. In many communities, carving knowledge is widely regarded to be in decline and contemporary carvings often lack the detailed design of the late 19th and early

20th century collections found in museums. After mobile phone masts were erected along the coastline of New Ireland in the mid-2000s, discussions began on how to utilise these resources to bolster kastom actitives. In 2011, during a conversation between a chiefly man (*maimai*), Martin Kombeng, and *malangan* carver, Adam Kaminiel, the idea to use the recently established Digicel mobile network that had been rolled out across parts of New Ireland – and which brought not only mobile telephone coverage but also a wireless internet signal to gain access to museum collections remotely – was put forward. Both men had seen in media reports how indigenous groups were using digital technologies to gain access to museum collections as a form of cultural revival. The initial idea was to use the fledgling internet connectivity to make museum objects relevant to the Nalik community accessible through the internet, even though it was weak and slow and only covered areas of the village near rocky coral outcrops or mobile masts. Thus, their hope was for carving techniques – now largely overlooked by a younger generation – to be rekindled through digital technology.

Funding for the project was provided through a competitive funding scheme called Collaboration and Industry Engagement Fund (CIEF) through the University of Queensland, pump-priming of pilot projects for larger grant applications through the Australian Research Council. Such grants require industry project partners, including costs (in-kind or actual). Ortelia, a visual imaging company based in Brisbane, partnered, offering preferential rates on the 3D scanning of artefacts; the Nalik *maimai* association – a cultural heritage group set up in the Nalik village of Madina in New Ireland – administered the project locally. Two museums: the Queensland Museum and the University of Queensland Anthropology Museum also partnered, both of which care for collections from New Ireland.

Digital mediated stories and object engagements

Basu (2011) has written about a cultural revitalisation project involving the British Museum and the Sierra Leone community based in the UK, stating how object diasporas can reactivate connections between diasporic Sierra Leoneans and their homeland. He explores how sharing object knowledge of ethnographic collections presented digitally on a website could be understood as a form of cultural remittance for those intending to give back to communities in Sierra Leone. While this is a novel application of digital technologies for cultural revitalisation, narratives of cultural remittance in the form of expatriate Naliks returning traditional knowledge is noticeably absent. In general, Naliks believe their expatriates to be bereft of traditional knowledge since they have been absent from community life. Instead, in the context of the Mobile Museum, any expectations of remittance came in the form of the image. Naliks had great hopes for the safe return of objects, which they referred to as '*bringim bek*' (bringing back). 'Bringim bek'

offered the opportunity for Naliks to revisualise *malangan* carvings and other objects remotely through a digital interface which would enable them to remember images and acquire knowledge (Van Dijck, 2007).

The digital return project involved coordinating a series of consultation workshops in the Nalik community and a visit to Brisbane by two senior Nalik men who would select objects from the collections at the Queensland Museum and the University of Queensland Anthropology Museum (Figure 8.1). These objects were to be photographed and prepared for a 3D environment which would be accessed through the software interface to be co-designed in consultation with Naliks. From the outset, the software engineer Lazaros Kastanis decided that a first step would be to build a prototype of the virtual environment and produce some test 3D images so that the Nalik community would be able to work with the software before beginning the design consultation. This involved making some basic 3D objects, placing them in the virtual environment, and then taking these to New Ireland for people to see.

After the initial prototype had been set up, a series of workshops took place in the Nalik communities. During one of the initial consultation workshops in the Nalik village of Panafao, senior people in the community sat round on the beach assessing the 3D image of a *tatanua* mask collected by H. H. Romilly, a British administrator in the late 19th century. One

Figure 8.1 Martin Kombeng examines *malangan* in the Queensland Museum collections. Photo: Graeme Were 2012.

Nalik man stood up and proclaimed: 'We are very happy to be involved in such a project, bringing *malangan* back to our community. However, we are happy that these are digital objects – they are not the real things. The 3D image is lifeless. The material object is powerful. The 3D object is useful for teaching *malangan*.' Bringing the real objects back would cause many problems. As one senior man added: 'How would people know what to do with them if they were returned?' and others, already imagining their return, claimed that the community would have to prepare a special ceremony and make sure that the carvings were returned to the right clan.

Digital return became a focal point to discuss material knowledge and cultural loss. During the workshops, community members speculated on the exact provenance of the *tatanua* mask, the types of materials used to produce the artefact and its significance in *malangan*. Throughout, when confronted with the material evidence of loss in the form of the digital prototype, the community were resolute that this would be an important new step in understanding *malangan*. Often, paradoxically, they also claimed how their own relation to *malangan* was not weakened and kastom was not at threat of loss. Other senior men used the project to speak about the detrimental effects of the Catholic mission on *malangan* and local ritual practices. A chiefly man, Momos, recounted the story of a renown carver called Mungas who had fled one of the Nalik villages because of the stipulations placed on carving *malangan* by the Catholic mission. The potential return of carvings – albeit mediated digitally – became a mechanism for Naliks to air grievances of the past and raise concerns about loss and dissipation (Rowlands, 2002). Their re-presentation became a focal point for this loss, but it also gave hope for the re-making of old carvings and the harnessing of ancestral power associated to them Figure 8.1.

Anthropologists working with ethnographic collections and communities often talk about forms of nurture and care attached to museum collections by source communities due to the life forces attached to collections (McCarthy et al., 2019; Marstine, 2011). This became evident during visits to the Queensland Museum storage facility: the two Nalik men quietly asked me whether others had visited the collections. I confirmed that I did not know but also that it was likely that others from the community had visited the collections before. They told me that these objects, if placed in the wrong hands, could be potentially dangerous if used in the wrong way. Much like Maori museum collections which are no longer referred to as objects but *taonga* to reflect their living status (McCarthy et al., 2019), Naliks believed the old objects were still imbued with exceptional life-force that offered an invisible contagion that could cause harm. The expectation that these objects were considered potent and potentially harmful was indicated when Adam asserted how he wanted to use the nitrile gloves to handle the collections. He explained how they would protect him from the *malangan*, rather than the gloves protecting the objects. Moreover, as further proof of the potency of the collections, the photographer and 3D designer, Lazaros Kastanis, had

found it difficult to capture the image of a *tatanua* mask on his digital camera. According to the two Nalik men, it had resisted the technology of photographic capture; to mitigate this, they suggested that the designer should talk (*vaapazak*) to the carving before photographing it.

The value of the digital image

In his essay questioning the commoditisation and ownership of culture, Brown (1998) identifies a threat from digital technologies in their capacity to potentially disempower indigenous communities. Brown adds how such technologies may support unscrupulous individuals and corporations to appropriate and profit from unauthorised use. Indeed, in Nalik society, property rights over images come to the fore in debates over *malangan* and other ritual forms, and their rights to reproduce them are rigidly guarded. These rights are transacted at mortuary feasts when land-holding clans may commission the carving of certain *malangan* images. Therefore, mortuary feasts can be tense occasions when knowledge of *malangan* is externalised and made visible for others to witness. Such processes of articulation are intimately tied to the capacity of clans to harness ancestral power and often lead to disputes over which clan has the right to produce certain images. Up until that point, ritual knowledge is closely guarded by carvers and senior clanspeople, as this knowledge is believed to be the property of clans and is closely linked to rites.

This could explain why, during some of the consultation meetings in the Nalik community, it became apparent that people were holding back their knowledge of *malangan*. As groups of men and women crowded around the computer set up in the centre of hamlets, some moved closer to the 3D image to take a closer look whilst others milled around and then wandered off, appearing to lose interest (Figure 8.2). One senior man, on observing this, said how people were hoping to see their own *malangan* in 3D. He added how many had forgotten their *malangan* or may have a partial understanding, so the software could help retrieve lost or partial knowledge. Thus, the software offered the potential for an idealised state of cultural completeness by returning dispersed knowledge and offering the chance for dignity in the face of loss (Rowlands, 2002) Figure 8.2.

The imaging technology became the focus over rivalries and contestations about ritual handling of carving knowledge, authenticity and authority. Intense rivalries exist between individual *maimais* and their ability to harness kastom and ancestral power effectively. On one hand, the Mobile Museum project was regarded as a potential resource that could enhance access to ritual knowledge and shore up reputations of *maimais*; on the other hand, it raised questions about the authenticity of ritual knowledge and its transmission. This became apparent during a workshop in the Nalik village of Kafkaf. Whilst working with the software, a man from the outlying islands of Tabar joined in conversations about malangan carvings. He then claimed

Figure 8.2 Nalik men testing the prototype software in Panafao village. Photo: Graeme Were 2013.

that the technology was not required in Tabar as people on these islands had not lost their knowledge of their past. He said, 'No need for the software in Tabar. It's in the blood!' He claimed that the Tabar people maintained past practices and that he knew stories about the carvings in the Mobile Museum which others did not know. Once the workshop finished for the day and the Tabar man had left, the Nalik men sitting close to me criticised the Tabar man, claiming that he was arrogant and a liar. They explained that customary knowledge is not normally transacted in public in the way that the Tabar man had talked about the carvings. Customary knowledge (*miskimaal*) is held back and transacted in specific contexts between trusted clan members. These actions made them point out his arrogance.

One of the key milestones of the project was the distribution of CD-ROMs containing the Mobile Museum software and all the 3D digital objects. This took place over several days, in which community members hired a vehicle and visited communities along the east coast. CDs were handed out in each community to senior men and women as well as those interested in using the software, such as school teachers and cultural activists. Many of the CDs were given to senior people in the community, including teachers and people with access to laptop computers. The presenting of CDs became known as *poxai*, a Nalik term used to describe a relationship of being in debt and obligation to another generated through gifting. Someone in *poxai* to

another person could be obliged to seek assistance through this gifting relationship. Naliks described how Adam would present the CD and this would make the receiver in *poxai* to him. Those requiring further support and guidance would be able to ask for assistance from Adam, who was technically adept and computer savvy, but it was evident that the relation of *poxai* also generated a new form of relationship mediated by the technology: Adam's membership of the *maimai* association enabled him to maintain control over the software and any possible image-making that might result from its application. As a cultural resource that signified the political authority of the *maimais*, it also instilled those in its possession the right to look (Mirzoeff, 2011).

With the limited distribution of CD-ROMs, the digital heritage tools became a 'scarce resource,' as Harrison (1999) has argued – one that requires defending as a form of property and highly valued commodity because of its links to cultural identity, land and ancestral power. The notion that technology was an object – a thing that could be possessed and innovated the way knowledge was transacted – became apparent during a visit to Panarilis village in September 2013. A chiefly *maimai* in the community (who had once been elected as governor of New Ireland Province) arranged a meeting to discuss the Mobile Museum project. At the meeting, of whom many young men in the village were invited to attend, the man presented 'his own' Mobile Museum project. This was a printed portfolio documenting how his stewardship of the project tied into a broader cultural tourism and education programme. He claimed to be one step ahead of the senior people in Madina and demonstrated his credentials by talking about an adult literacy programme he had launched in the community. Not only this, he claimed that he had undertaken UNESCO training in Asia and, therefore, understood heritage management projects better than his counterparts in Madina and the *maimai* association.

This assertion to take control of the project came at a time when the provincial government was offering funds to develop cultural tourism projects in the province. It was not the only attempt to step in. A senior man from Libba with close kinship ties to the Nalik area also staked his claim in running the project, claiming that 'the Mobile Museum was wasted in the Nalik area. It would work much better in the Notsi area.'

During the planning stage of the Mobile Museum project, the provincial government of New Ireland organised a special gathering of *maimais* from across the Tigak, Nalik and Kara speaking areas. Two days of workshops took place in Mangaai village, close to the local school. It was attended by Sir Julius Chan, the former prime minister of Papua New Guinea and the governor of the province then. The Provincial Government stated that the meeting had been arranged to discuss the restoration of traditional leadership in the province, though many cynics responded by claiming that the meeting had been arranged to garner political support from *maimais* given that an election year was fast approaching. As traditional leaders with an

influence in village politics, *maimais* were often coerced in the lead up to national elections with promises of cash payments to support local village development projects, visits to luxury resorts on the fringes of Kavieng, or advisory roles should the prospective politician win election.

During the discussions about traditional leadership, plans about the Mobile Museum project were raised. *Maimais* debated the best way to govern the software and how access could be administered. In the end, on a large blackboard placed at the front of the speaker's podium, a *maimai* drew a large diagram in chalk setting out the various committees that should oversee the Mobile Museum project and the revitalisation of traditional leadership in the province. The complex set of committees and sub-committees reinforced the highly bureaucratic notion of kastom in Papua New Guinea (White, 2012) – customary practices are embedded in political and ritual structures which seek to govern the circulation and transmission of traditional knowledge in the form of images, to which New Irelanders make property claims (Harrison, 1992, 1995).

While it is hardly surprising that technology becomes the object of desire within northern New Ireland society, it reinforces the notion of how the invisible (such as knowledge practices), and not simply the visible, are transformed through external import of images and ideas. The *malangan* carvings stored on the CD-ROMs are physical things, indexical to the actual objects in the museum storage facilities located far away in Brisbane, Australia. Yet, it is their return, as images in binary form, which instils renewed impetus to reinvigorate traditional structures for their governance.

Conclusion: content and structure

While anthropologists have often focused on the ways digital technologies transformed the visual culture of indigenous communities (Boast et al., 2007; Deger, 2016; Hennessy, 2012), this chapter demonstrated how the actual technology had minor impact on the actual images themselves in terms of stylistic innovation and creativity. Instead of simply providing access to ritual carvings and promote a renewed process of carving activities based on techniques of the past, the technology has (at present) strengthened the structures in which rights to carve ritual images are placed. Therefore, the technology has mediated new forms of visuality through the governance of the CD-ROMs and the images they store; as well as bureaucratising the ways in which the technology was made accessible to the Nalik people.

Images, therefore, model and concretise forms of hierarchical relations even though the actual images themselves may never exist in material form. It is a reminder of the algorithmic nature of images (Küchler, 2013:28) which find their resonance simultaneously across different domains and are re-cognisable as part of the whole. As the images relate to histories of the Nalik people and are indicative of a period when carving skill was much more intricate and ritually potent, they nonetheless assert their ritual authority as

'of the past.' However, the images also create potential and future possibilities as they remind people of their existence – that is, the images (in their digital form) afford Naliks an understanding of what needs to be done rather than what needs to be re-made. If, as Barth (1987) has pointed out, rank and status is denoted by the unequal distribution of resources, then in the case of the Mobile Museum project, what was initiated as an egalitarian project to offer access to ritual images was evidently administered by the *maimais* to shore up their own authority. As a result, this demonstrates how ritual hierarchies and power are innovated through access to new technologies, the latter of which demand an operational logic that affords control over visuality, much like Gell's (1998) principle of least difference. Opening access and encouraging participation in a technology that was originally intended to document and survey now appears to have been appropriated by Nalik *maimais* who have asserted their control over the visualisation of images and their right to political authority and the real (Mirzoeff, 2011).

Notes

1 See Were (2010) for a detailed ethnography of the Nalik of New Ireland.
2 Küchler's (1987) work on the Kara speaking people provides a comparative ethnography of malangan ceremonies as well as Lewis (1969) amongst the Notsi of New Ireland.
3 See Bainton (2010) for a description of some of the impacts of mining in the outlying island of Lihir, New Ireland Province. Gabriel et al. (2017) focus on the impacts of oil palm in Papua New Guinea on land resources.

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Epilogue

Images, ritual action, and deep time

Carlo Severi

In her famous essay on the cultural anthropology of time (Munn, 1), Nancy Munn writes that the social existence of time is inherently paradoxical since time is both 'something we live in,' and something that we constantly elaborate and give form to. 'We and our productions – writes Munn - are in some sense always "in" time (the socioculturally/historically informed time of our activity and our wider world) and yet we make, through our acts, the time we are in' (*ibid*:94). Time is, thus, according to her, constantly shifting from the status of a nearly imperceptible background of social experience to the social activities where time is socially and explicitly elaborated and measured by social actors Munn 1. 'These inescapable convolutions – Munn adds immediately after – are critical features that anthropologists should incorporate in their models of sociocultural time.' In his book dedicated to the *Anthropology of Time* published a few months after the appearance of Munn's review essay, Alfred Gell offers an implicit response to Munn's perplexities about the 'invisibility of time.' The time 'we live in' is not immediately perceptible, Gell argues, because human perception and the human experience of time are so integral to each other that they converge in the same experience: 'Perception – Gell remarks -is intrinsically time-perception, and conversely, time-perception, or internal time-consciousness, is just perception itself (…) time is not something we encounter as a feature of contingent reality as if it lay outside us (…) Subjective time arises as an inescapable feature of the perceptual process itself.' (Gell, 2:231).

Gell argues furthermore that this fundamental link between time and the human cognition becomes visible only if we understand that perception is not a passive reception of sense data. Perception is, for Gell, a mental way of image-making. It is an active process, a way to generate visual information, not only to receive it from the external world. Therefore, the crucial link, whose understanding might enable anthropologists to understand socially constructed temporalities, lies between time, perception, and image-making. This is why, for him, the study of images and the anthropological definition of time are intimately related. Gell's conclusion is that all images are not only elaborations of space, but also temporal maps — ways to materialise

the memory of the past, the perception as it unfolds in the present, and to potentially mobilise imagination, as a foresight of the immediate future Gell 2.

These are fascinating and bold thoughts. However, even when one shares (as I do) the general perspective proposed by Gell, one could make two objections. The first is that Gell responds here only partially to the paradox formulated by Munn. He explains, in a brilliant way, why one of the forms of temporality Munn refers to, the time we 'live in,' escapes perception. For Munn, however, time always unfolds on two different levels. We are in time, but we also create it; this gives time a kind of complexity that we should account for. If we accept Gell's explanation of the invisibility of time 'we live in,' we can still wonder about the kind of time we constantly 'make through our actions.' What relation the experience of time as a nearly imperceptible background entertains with social action? Gell convincingly argues that an important way to 'make, through our acts, the time we are in' (in the words of Munn), is to produce images, as we see them, for instance, engaged in ritual action. But how can images and ritual action create complex, socially constructed temporalities – as opposed to the temporality we live in – without perceiving it? What is the relationship between these two dimensions of time?

The second objection is that the fascinating link Gell establishes between time and mental images is still based on highly theoretical hypotheses about the functioning of the human mind. How can empirical iconographies materialise, or replicate the cognitive process of perception, and thus relate to time? This collection of articles provides several detailed answers to this question. It shows that, in diverse cultures, time is not only an inescapable part of a social context which allows us to understand iconographies. The presence of time into the image (or the belonging of an image to a cycle of actions) can go further and become *inherent* to the different ways iconographies generate meaning. The objects studied in this book belong to a time-cycle, such as the New Ireland Malangan (Küchler, 3, and this volume) does. They refer both to the past and present, like the *nudsus* among the Guna (Fortis, this volume). They might even, as in the case presented by Coupaye, incorporate in ritual iconographies the growth of a living being, like a yam. Time is, thus, not only a general condition for the social existence of iconographies. In many cases, it becomes – quite literally – the stuff images are made of. In other words, a relation to temporality is present both in the sociocultural time images 'live in' – to refer to Munn's terminology – *and* in the kind of time-images 'create.' To understand how iconographies relate to time, we need to account for this complex relation – both objective and subjective – that iconographies seem to entertain with time.

In this Epilogue, as a reaction to my reading of the papers collected in this book, I would like to offer some thoughts on the complex temporality that the study of iconographies requires. Let me start with one of the classic 'abstract dichotomies' many authors refer to when they try to deal with the concept of time. Time can be conceptualised either as an arrow (or a line) or

as a cycle. The use Lévi-Strauss has done of this opposition – and his distinction between 'linear' or 'hot' modern societies and traditional societies that regard time as a cycle constantly repeating itself – is too well known for us to get back to. More interestingly, we could recognise in Munn's objective time the inescapable, linear development of history, and, in its opposite term, what she calls the 'elaborations of time,' the organised cycles of social life. However, that obvious move would prevent us to see a crucial fact: the opposition between arrow and cycle is unproductive because it implicitly rules out a third possibility – a concept of temporality that would refer to both.

This conceptualisation is far from being only an abstract possibility. In a remarkable essay, Stephen Jay Gould (1987) has shown that the understanding of the 'deep time,' which characterises the evolution of the earth, has become possible only when scientists like Hutton and Lyell ceased opposing 'cycles' and linear sequences, and found a new way to refer to both. As Gould remarks, the central problem modern Geology had to solve was to combine the metaphor of the arrow and that of the cycle into a unified view of time, which 'would capture the salient features of each – namely the narrative power of the arrow and the immanent regularity of the cycle' (Gould, 1987:41). Any adequate account of earth's time requires both. Of course, it would be quite impossible in this brief comment to account for the intricacies of Gould's fascinating argument. Let us simply remark that, for Gould, the expression 'deep time' does not only refer to an enormous and unexpected quantity of time, which had been literally unthinkable until the discoveries of Lyell. From an epistemological point of view, it also refers to a complex time that includes the coexistence of different forms of temporality. I think that this way of conceptualising temporality could be useful in solving the problem raised by Munn (and subsequently discussed by Gell), as it would reconcile the existence of an objective time 'we live in' and a subjective, socially constructed temporality we constantly create. To illustrate this point, let me briefly look at two ritual elaborations of time where images play a crucial role: the reversal of the life cycle in the Umeda ritual of the *Ida*, studied by Gell (1975)5, and the short-cutting of present and past in the shamanistic chants I have been working on among the Guna (Severi, 6).

In *The metamorphosis of the Cassowary* (Gell, 5), Gell describes the *Ida* ritual in classic functionalist terms. His main argument is that the Umeda (a tribe of hunter-gatherers of New Guinea) perform this long sequence of dances where several masked dancers, from black Cassowaries to Red Men, are exhibited (with a number of intermediary terms) to keep their fragile society viable. Once a year, the Umeda mount this splendid performance to provide 'some degree of collective assurance that they can indeed do so, on condition that they hold fast to the principles underlying their social order, keeping ever-encroaching nature at bay, or, better still, pre-empting nature by cultural means' (Gell, 2:46). At first sight, this ritual seems to be about the regeneration of plants, but this is only an appearance. Gell's analysis

shows that what is really at stake in this ritual – that he sees as a process of bio-social regeneration – is the life cycle of the Umeda men as hunters and warriors. The development of this image of 'idealised masculinity is "rotated" before the enchanted spectators at *ida*, but in a direction, which is the inverse of the one in which the facets of the masculine persona are normally displayed during lifecycle development' (Gell, 2:48). 'The ritual figures appear in the inverse order to that in which the corresponding age categories are attained in real life' (Gell, 2:47). While in real life children come before young warriors, and young warriors come before mature men, in the time of the ritual action, the first to appear are the mature men, represented by Black Cassowaries. Only after them do the masked performers representing the youth appear. At the end of the cycle, the children (the regenerated men) will appear, represented by Red hunters, presented as the Cassowary chicks. In short, ritual action reverses the sequence of steps that are typical of ordinary life. A manipulation of time appears here, in which the symbolic time seems to 'reverse' the flow of the organic process time. In the critical reconsideration of this ritual, which is presented in *The Anthropology of Time*, Gell implacably identifies the weaknesses of his own interpretation and eventually recognises that the virtual temporality of the ritual sequence, typically organised as a cycle, does not cancel the implicit reference to linear time. The Umeda are far from being oriented by some metaphysical view of the world, where things could happen in a reverted time. 'What the Umeda want to do (in this ritual) – Gell writes – is to regenerate their world in real time, (…) not (...) in inverted time' (1992:52). There is no contradiction between 'synchrony' (cyclical time) and 'diachrony' (linear time) in the *Ida* ritual 'because diachrony and synchrony are not two kinds of time but necessary consequences of their being only one kind of time' (Gell, 2:52). What *Ida* is about – its 'deep purpose' – is not the reversal of time but 'the demonstration of the underlying continuity of the cassowary and the red bowman,' as they appear to be only apparently contradictory 'aspects of a single, multifaceted Umeda masculine persona' (Gell, 2:48).

Let us turn now to Guna ritual chants and consider a brief passage of the *Way of Mu*, the chant devoted to the therapy of difficult childbirth. As in many other songs in the Guna tradition, this chant begins with an introduction that contains a detailed evocation of the ritual gestures and procedures that are necessary for the utterance of a song. In this preliminary section, we find the shaman in his hut, asking his wife to prepare him a meal of boiled plantains. We see him go to the river to wash, then, sitting on his ceremonial seat in dead silence, start to burn cocoa seeds in the brazier placed before him. He then gathers the statuettes that will attend the utterance of the ritual song, sits down again, and finally begins to sing. Let us, very briefly, take a closer look to this passage from Holmer and Wassén (1947:36):

The midwife opens the door of the hut.

The door of the medicine man's hut creaks.

The midwife is about to enter the medicine man's door.

The medicine man is lying down in the hammock in front of her.

The wife of the medicine man is also about to lie down beside the medicine man.

The midwife comes to address the medicine man.

The medicine man asks: "Why have you come before me?"

The medicine man asks: "Why have you come to see me?"

The midwife answers… "My (sick) woman feels that she is being dressed in the hot garment of the disease."

The medicine man says (to the midwife): "Your (sick) woman says she is being dressed in the hot garment of the disease, I also hear."

The medicine man asks (the midwife): "For how many days has your woman suffered the hot garment of the disease?"

The midwife answers (the medicine man): "For two days my (sick) woman feels that she is being dressed in the hot garment of the disease."

The medicine man says (to the midwife): "For two days your (sick) woman feels that she is being dressed in the hot garment of the disease."

The medicine man says (to the midwife): "Having (then) no lights to see by, I shall enter into the dark inner place."

The midwife puts forth her foot (to go).

The midwife touches the ground with her foot.

The midwife puts her other foot forward.

The midwife is about to leave the medicine man's door.

The midwife puts forth her foot (to go).

The midwife touches the ground with her foot. e midwife puts her other foot forward

The midwife is about to enter the (sick) woman's door.

The medicine man lowers his leg from the hammock.

The medicine man rises to his feet from the hammock.

The medicine man takes hold of (his) staff.

The medicine man turns about in the hut.

The midwife puts forth her foot (to go).

The midwife touches the ground with her foot.

The midwife puts her other foot forward.

The medicine man arrives at the door of his hut.

The medicine man pushes the door of his hut open.

The door of the medicine man's hut creaks.

Outside his place the medicine man stands looking about in confusion.

The medicine man turns his steps toward the path of the woman's hut.

The medicine man puts forth his foot on the path to the woman's hut.

The medicine man puts down his foot on the path to the woman's hut.

The medicine man is about to enter the (sick) woman's door.

A small golden seat is put under the hammock of the (sick) woman.

The medicine man sits down on the small golden seat.

Under the woman's hammock there is put a brazier, the brazier being concave.

The medicine man looks for cocoa beans.

The medicine man puts the cocoa beans into the hollow of the brazier.

The cocoa beans are being burned.

The cocoa beans are healing.

The (smoke of the) cocoa beans fills up the hut.

To understand the paradox implied by a description of this type, we need to bear in mind that, in this passage of the song, all that the shaman is describing (the dialogue with the midwife, the meeting with the woman, and finally the preparation of the brazier, which is fundamental to the therapeutic rite) *has already taken place* when the singer begins his song. In other words, if we change the perspective and move from a simple reading of the text to a description of the conditions in which the utterance of the ritual recitation takes place, we discover that the shaman uses the third-person singular to refer to himself. In this way, a kind of *regressus ad infinitum* is produced: a shaman, sitting by his brazier beneath the hammock where the sick woman is lying, speaks of a shaman sitting by his brazier beneath a hammock containing the sick woman, … and so on. This description introduces a paradox regarding the timing of the action. If we bear in mind that, almost without exception, the only tense used in this part of the text is the present, this will be quite clear. The immediate consequence that follows

from this description is that all that is expressed here in the present tense, in fact, refers to the past. Since that moment, the past is present, and the present is past. The chant establishes a paradoxical co-presence of them. This shortcutting of time is particularly important in the definition of the identity of the ritual locutor. As in the Umeda case, the 'deep purpose' of the ritual lies in the definition of a multifaceted identity. From the moment the singer starts speaking of a singer who recites a song, two locutors appear – one a parallel image of the other. There is, on one hand, the locutor described as belonging to the faraway world (who is preparing for a journey in quest of a lost soul) and, on the other, another locutor who is here and now, in the real hut, beneath the hammock where the ailing woman lies. Starting from that moment, the latter locutor describes the one who is supposed to be elsewhere (and situated in a mythical time). Both converge in the plural identity of the shaman. It is precisely when this description of the position of the locutor is produced that the shaman's journey in the supernatural world can begin, and the wooden statuette of his *nele*, (the image of a seer and a ritual incarnation of the *nudsus* Paolo Fortis speaks about in this book) becomes alive and starts acting as his auxiliary spirit.

In both rituals, we could say that a manipulation of time is present. In the Umeda case, the sequence of the events that usually mark the flowing of the daily life of an Umeda hunter is reversed. In the Guna tradition, past and present are conflated to generate an exceptional temporal dimension, intimately linked with the special identity of the shaman-chanter. However, to state that these special definitions of time entirely replace the flow of linear time would be, as Gell would have said, to introduce an 'unwarranted metaphysics' in these ethnographies. It is more accurate to say that, in both cases, images establish a parallel temporality in ritual action, without cancelling the pre-existing one. These ritual images construct meaningful cycles of actions, without ceasing to refer to the inescapable flow of linear time that we all, in Munn's words, 'live in.' In this sense, ritual images evoke a plural dimension of temporality. They do not refer only to time as an arrow, nor can they be encapsulated in the endless repetition of temporal cycles. As virtually all the iconographies studied in this book, they belong, in the sense I have tried to define here, to the Deep Time of ritual action.

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