



"Diffusionism and Neolithic Script : at the origins of the franco-belgian mission on Easter Island (1934-1935)"

Christine Laurière

► To cite this version:

Christine Laurière. "Diffusionism and Neolithic Script : at the origins of the franco-belgian mission on Easter Island (1934-1935)". 2021. halshs-03462536

HAL Id: halshs-03462536

<https://shs.hal.science/halshs-03462536>

Submitted on 20 Dec 2021

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TOWARDS A HISTORY OF PACIFIC PREHISTORY

HISTORIOGRAPHICAL APPROACHES TO FRANCOPHONE ARCHAEOLOGY IN OCEANIA

Émilie **Dotte-Sarout**, Anne **Di Piazza**,
Frédérique **Valentin** & Matthew **Spriggs**



*Towards a History of Pacific Prehistory:
Historiographical approaches to francophone archaeology in Oceania*

TABLE OF CONTENTS

ÉMILIE DOTTE-SAROUT, ANNE DI PIAZZA, FRÉDÉRIQUE VALENTIN AND MATTHEW SPRIGGS INTRODUCTION <i>FOR A HISTORY OF PACIFIC PREHISTORY</i>	9
OSCAR MORO ABADIA <i>THE CONCEPT OF 'PROGRESS' IN ARCHAEOLOGY:</i> <i>SOME THOUGHTS FROM THE POINT OF VIEW OF EPISTEMOLOGY</i> <i>AND THE HISTORY OF SCIENCES</i>	27
ANNE DI PIAZZA <i>FRENCH THINKING ABOUT POLYNESIAN MIGRATION</i> <i>IN THE XIXTH CENTURY</i>	49
ÉMILIE DOTTE-SAROUT <i>'MARCHE QUAND MÊME': THE FIRST ARCHAEOLOGICAL</i> <i>EXPLORATIONS OF THE MARIANA ISLANDS</i> <i>AND THE TIRELESS ALFRED MARCHE</i>	71
ÉLISE PATOLE-EDOUMBA <i>CONTRIBUTION OF ETHNO-HISTORICAL DATA TO THE ARCHAEOLOGY</i> <i>OF THE SOUTH PACIFIC. A STUDY OF THE GUSTAVE GLAUMONT</i> <i>COLLECTION ON NEW CALEDONIA (1884-1899).</i>	99
CHRISTINE LAURIÈRE <i>DIFFUSIONISM AND NEOLITHIC SCRIPT: AT THE ORIGINS</i> <i>OF THE FRANCO-BELGIAN MISSION</i> <i>ON EASTER ISLAND (1934-1935)</i>	123
PHILIPPE SOULIER <i>ANDRÉ LEROI-GOURHAN AND OCEANIA</i>	147
FRÉDÉRIQUE VALENTIN <i>FROM FUNERARY OBJECTS TO THE ARCHAEOLOGY OF DEATH</i> <i>IN THE PACIFIC ISLANDS: ARCHAEOLOGISTS AND BIO-ARCHAEOLOGISTS</i> <i>VIEW ON ANCIENT BURIALS, 1938 TO 1985</i>	171
MATTHEW SPRIGGS & STUART BEDFORD <i>REDISCOVERY, CONFIRMATION AND DATING OF A STRATIGRAPHIC</i> <i>PROFILE DESCRIBED BY GUSTAVE GLAUMONT ON THE ISLAND</i> <i>OF AMBAE IN 1890</i>	197

LOUIS LAGARDE “WERE THOSE MYSTERIOUS MOUNDS REALLY FOR THE BIRDS?” REAPPRAISING THE ISLE OF PINES’ PUZZLING TUMULI (NEW CALEDONIA)	211
NICOLAS CAUWE THE MAKING OF HISTORY IN RAPA NUI. THE TRANSPORT OF STATUES AND ETHNOARCHAEOLOGY AS EXEMPLARY CASE-STUDIES.	233
ÉMILIE NOLET FOR A HISTORY OF LOW ISLANDS’ HISTORY: THE TUAMOTUS AS A CASE STUDY	251
CHRISTOPHE SAND THE QUESTION OF THE ‘FIRST INHABITANTS’ OF NEW CALEDONIA (SOUTHERN MELANESIA): ARCHAEOLOGICAL WRITINGS IN A COLONIAL CONTEXT AND ONE OF DECOLONISATION	279
THOMAS LAVACHERY HENRI LAVACHERY, AN AESTHETE IN EASTER ISLAND	309
CONTRIBUTOR DETAILS / Biographies	332

INTRODUCTION

**FOR A HISTORY OF PACIFIC
PREHISTORY**

**Émilie Dotte-Sarout, Anne Di Piazza,
Frédérique Valentin and Matthew Spriggs**

French and British traditions of historiography established 1859 as the creation year for prehistory, on the basis of three events: the publication of Charles Darwin's *On the Origin of Species*, the creation of the *Société d'Anthropologie* in Paris, and the acknowledgement of the high antiquity of 'man' by the scientific community (Stoczkowski 1993, Richard 2008). Which date should we pick for the Pacific?

Was it 1798, when Bernizet's engraving *Détails géométriques des monuments de l'île de Pâques*, drawn during the La Pérouse expedition and presenting what can be considered as "one of the earliest archaeological plans recorded for the Pacific", was published (Kirch 2017:14)? Or was it when the first questions were asked about monumental ruins found in the Pacific, those of Tinian in the Mariana Islands, illustrated and described by Georges Anson as early as 1748? Was it in fact 1846, when Horatio Hale published his sixth volume of *Ethnography and Philology* where he developed his theory of Polynesian origins based on philological comparisons? Or was it 1829 instead, with the publication of Reverend William Ellis' opus *Polynesian Researches* in which he considered the origin of the "Polynesians" (in the extended meaning of the time – cf. Douglas 2010), using a detailed analysis of material culture and occupation sites compared to the more traditional study of culture and languages (Haddow 2017)? Was it most appropriately 1872, the year when Julius von Haast organised and supervised the first planned excavations in the Pacific to study the stratigraphic relationships between prehistoric artefacts and moa bones in New Zealand? This was the same year the first instructions for scientific travellers that contained precise indications of archaeological methods to be applied in the Pacific were published: those for "Prehistoric Investigations", described and published by the Berlin Society for Anthropology, Ethnography, and Prehistory¹ (Richards et al. 2019).

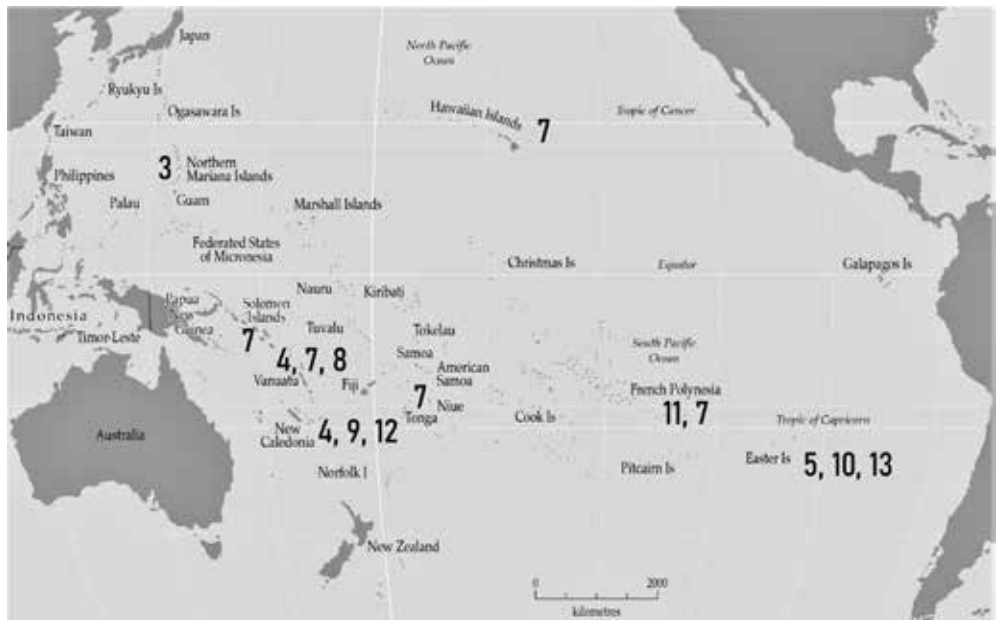
1 - Virchow R., A. Bastian, A. Braun, R. Hartmann, M. Kuhn, G.T. Fritsch, and H. Deegen 'Rathschläge für anthropologische Untersuchungen auf Expedition der Marine', *Zeitschrift für Ethnologie* 4 (1872): 325–56.

In reality, in Oceania as elsewhere, the birth of prehistory was a gradual process, marked by omissions and repetitions, empirical and theoretical contributions, all slowly acquiring an autonomy and an identity of their own. The first chapters of this volume offer a clear demonstration of this observation: the definition and subsequent professionalization of the discipline were constructed in the interstices between theoretical debates led by metropolitan scholars and field practices deployed by a variety of polymath explorer-voyagers, ranging from the religious scholar or naturalist-scientist to the ship's officer or colonial administrator. It must be concluded that the discipline was not born at a precise date, but has been progressively – and continuously – defined, advancing with the intellectual and socio-political currents of the XXth and XXIst centuries, specifically in colonial and postcolonial contexts as illustrated by later chapters in the volume.

It has been forced to adapt to new field data, shaped by individuals whose life experience influenced their attitudes and their scientific recognition. A discipline that progressed ultimately, as expressed by Oscar Moro-Abadía, through a process of demystification of its own past and by deconstructing previous “badly made knowledge” (Chapter 1 of this volume and Moro-Abadía 2017).

In Europe and in the United States, various archaeologists have been questioning this rich and complex history for nearly 30 years using a critical historiographic lens to consider its past, from Laming-Emperaire (1964) to Schlanger and Nordbladh (2008), via Trigger (1989). Such an approach has only recently been applied systematically to Pacific archaeology (see Dotte-Sarout and Spriggs 2017; Howes and Spriggs 2019). Historical events of the modern and colonial periods have left the region with a complex heritage of multiple academic traditions when it comes to archaeology and its application: anglophone and francophone ones, but also German influences, hispanophone, Russian and Japanese. While the anglophone tradition remains dominant – in terms of numbers of publications as much as numbers of research centres and researchers – francophone Pacific archaeology continues to be a smaller but influential player in the field. It has remained active throughout the last 150 years, developing in parallel but also in interconnection with the other approaches. Importantly, it is now also implanted within the francophone Pacific Islands, where it speaks directly to nearly half a million French-speaking islanders.

Figure 1: Map of Pacific countries with case studies presented in the volume, showing the number of relevant chapters. Modified from a map produced by CartoGIS Services, ANU College of Asia and the Pacific, The Australian National University (<http://asiapacific.anu.edu.au/mapsonline/>).



This is why it appeared essential to develop a specific focus on francophone traditions as part of the recent movement implementing a historiographical approach within Pacific archaeology. This volume proposes to reflect on the origins and history of a francophone prehistoric archaeology in the region: in regard to specific intellectual schools and debates, to French but also Belgian individuals, or as applied to the francophone archipelagos of the Pacific. Obviously without trying to cover the question comprehensively, 13 contributions consider the epistemological context, actors, practices and institutions that contributed to open this new field of research and to position it on the French and international scientific scene (figure 1). They are the result of a workshop organised in Marseille in May 2016 on the initiative of the CBAP project – *The Collective Biography of Archaeology in the Pacific: a Hidden History* – of The Australian National University, in collaboration with the CREDO² (research cluster UMR7308) and the ‘Prehistoric Ethnology’ team (research cluster ArScAn³ - UMR7041). In addition to the original workshop participants⁴, we also decided to invite other researchers with an interest in the history of the discipline in the francophone Pacific sphere⁵. The contributions to this volume offer the diverse perspectives of archaeologists, historians, cultural anthropologists, museum curators and writers.

The workshop analysed the works of authors with a diversity of profiles, who from the late 18th century voyages of exploration discussed the origins of Pacific populations or the archaeological remains they observed in the islands. It outlined some of the mechanisms at play in the construction of Pacific archaeology’s current models, theories or practices, and defined their sources (including historical, sociocultural, intellectual and biographical contexts). Relationships between theoretical trends in archaeology and sociocultural anthropology were highlighted, as was the role played by archaeology in the socio-political sphere of some islands and in processes of identity construction. This epistemological and historiographical approach applied to francophone Pacific archaeology contributes to the renewal of archaeological methodologies and interpretations. It is associated with the rediscovery of overlooked archival sources and early publications, with the reanalysis of collections preserved in European museums, and offers innovative perspectives on the history of the region and that of the discipline – not just in the Pacific but indeed globally.

This is why we open the volume with the epistemological contribution of Oscar Moro-Abadía, who considers how the history of archaeology has been and should be written (Chapter 1). In his chapter entitled *The concept of ‘progress’ in archaeology*, the author shows how resorting to history was central to the legitimisation process enacted

2 - Centre de Recherche et de Documentation sur l’Océanie

3 - Archéologie et Sciences de l’Antiquité

4 - 2016 workshop participants: Nicolas Cauwe (Musées Royaux d’Art et d’Histoire de Bruxelles), Anne di Piazza (CREDO), Emilie Dotte-Sarout (CBAP, ANU), Christine Laurière (CNRS), Pierre Lemonnier (CREDO), Oscar Moro-Abadía (Memorial University of Newfoundland), Élise Patole-Edoumba (MHN de La Rochelle), Christophe Sand (IANCP), Philippe Soulier (CNRS, ArScAn), Matthew Spriggs (CBAP, ANU), Frédérique Valentin (CNRS, ArScAn).

5 - Emilie Nolet (Université Paris I - Sorbonne and Louis Lagarde (Université de la Nouvelle-Calédonie) answered our call. In addition, Thomas Lavachery, whose documentary film *L’Homme de Pâques* was shown and presented by Nicolas Cauwe during the workshop, also accepted our invitation to participate in the current volume.

by this new science. The positivist conception was of an archaeology that progresses via an accumulation of successive discoveries subsequently translated into a presentist history, which is articulated around three axes celebrating a history of discoveries, a history of precursors and a history of technical developments. Beginning in the 1980s, post-modernist and relativist archaeologists have criticised the positivist paradigm, advocating that the past has no objective existence and that the convictions of our present cannot be used as criteria to interpret the science of the past. Consequently, the author, relying on the works of Bachelard, Ganguilhem, Foucault and Bourdieu, proposes to conceptualise scientific progress not as an accumulation of knowledge but as a process of demystification of incorrectly constructed knowledge. As a result, he suggests a history of archaeology that tells the story of the efforts led by archaeologists to get rid of prejudices hindering the knowledge of the past; an end to a history of majestic conquests. It is now time to question the eurocentrism that marginalised people and cultures seen as 'Others'. Australia and Oceania in particular have been pushed aside in debates about a so-called "cultural revolution" associated to the arrival of *Homo sapiens* on the Eurasian continent, about a supposedly "exclusively" western Palaeolithic art, or about ancient navigation techniques still diffidently acknowledged to explain the peopling of Australia/Sahul; an example detailed in the following chapter.

Anne Di Piazza (chapter 2) follows the precepts of this demystification of false ideas and proposes a reconsideration of the debates that developed in the XIXth century around the questions of migrations into Oceania and the methodologies by which they were investigated, before a strictly archaeological examination was even conceived of. Is it possible to go back to the "primitive" origin of a nation by studying languages and human types? To understand the intellectual foundations of this question, the author details the tensions that existed between philology and comparative anatomy, between polygenism and monogenism, taking Oceania as an exemplary case study. The vastness of this oceanic continent, its islands scattered, and the extreme diversity of its people brought into question the unity of the human species; while its relative linguistic homogeneity appeared on the contrary to support the thesis of a unique original population. Pragmatically, the voyager-scholars considered the question through the lens of navigation techniques and knowledge. Pacific islanders were successively represented as audacious conquerors of the high seas or miserable creatures drifting on fragile craft, according to a conjectural history of the navigational knowledge they were granted. Di Piazza concludes by putting into perspective our own "modern" scientific practices, showing that archaeologists have often supported just such a conjectural history of the ancient peopling of Sahul, favouring the raft rather than the canoe, and accidental rather than intentional voyages.

The history of prehistoric archaeology is also about individual destinies and singular trajectories. Far from a simple linear chronological or anecdotal narrative – as sometimes reproached to the biography genre – Émilie Dotte-Sarout (chapter 3) and Élise Patole-Edoumba (chapter 4) propose a cross-cutting approach to the stories of two pioneers of field archaeology: Alfred Marche and Gustave Glaumont. First, by collating biographical data, fieldnotes, original publications or unpublished manuscripts and ancient material collections, it is possible to re-evaluate the current value of the works conducted by some early archaeologists and to open new research perspectives. Secondly, adopting a history of science approach that uses biography as micro-history, it allows a fine-grained consideration of the social and intellectual contexts that shaped archaeology and its practice in the Pacific. It also enables the analysis to avoid the risk of presentism and to integrate the contingencies of “real-life science” or science as it is lived and experienced (Murray 1999; Kaeser 2003; concept from Latour and Woolgar 1979).

Alfred Marche was sent on a mission by the French Ministry of Public Instruction and Beaux-Arts to help develop the Pacific collections of the new “Muséum Ethnographique des Missions Scientifiques”, future-Musée d’Ethnographie du Trocadéro. Referring to himself as a “naturalist traveller” and as a “realist”, he diligently collected specimens of natural history and remains of the past in the Mariana Islands between 1887 and 1889. His descriptions of settlement sites made up of rows of “pillars” or “columns” that supported ancient “huts” contrast with the romantic style of early voyagers’ accounts and illustrations of the same monuments. He conducted excavations on habitation sites and in funerary caves, reported the presence of pre-European indigenous pottery, inventoried lithic and shell artefacts, recorded anthropological information on the inhabitants and took the first photographs of monuments on the islands. Yet the work of Marche remains underappreciated for a number of reasons. His collections were deposited in storerooms and forgotten, he did not produce the expected academic publications, and Marche quickly left France again. Émilie Dotte-Sarout thus set out meticulously to dig through his correspondence and collate his collections. This led her to re-establish the legacies left by Alfred Marche to Pacific archaeology and to offer a better understanding of the links between lived experience – notably in the field or within academic power circles – and the construction of the discipline.

Gustave Glaumont, an agent of the penal administration in New Caledonia, aimed at discovering the origins of the Indigenous Kanak, anticipating it could be in Southeast Asia (specifically the Lesser Sunda and Philippine islands). Glaumont, self-taught just as was his contemporary Marche, diverged from earlier scholars by undertaking the first

surveys and excavations in Melanesia. He drew the first stratigraphic profile in Vanuatu, producing data that Matthew Spriggs and Stuart Bedford (chapter 8) can now reuse to conduct their own research. He also developed interests in linguistics as well as cultural traditions. For Glaumont, Kanak culture was simultaneously Magdalenian because of its rock art style, its wooden sculptures and lithic technology, Mousterian through its flaked scrapers, Solutrean in its spears, Thenaisian due to its fire-cracked stone tools, its slings and gardens, and finally Neolithic according to its polished stone tools. In order to find an explanation for these cultural traits described as in Europe but of which the chronological order was disrupted, Glaumont developed his own theory: following the supposed cataclysmic event of the early Quaternary (Mortillet's "Quaternary hiatus"), a wave of refugees sharing the same ancestors as the Kanaks would have arrived in Europe well before European sailors themselves reached New Caledonia - satisfying in this way his political conviction on the injustice of colonisation. His intellectual itinerary illustrates the complex influences activated in the colonial and scientific contexts, personal relations put in place in the islands and with metropolitan academic circles, in the construction and evolution of archaeological interpretations as well as in the fates of archives and collections.

The following chapter brings to light such a case of entangled individual trajectories, personal relationships and influential schools of thought in the history of our discipline. Relying on her extensive research on Paul Rivet, Alfred Métraux and the Musée de l'Homme, Christine Laurière (chapter 5) examines in detail the ideological context and theoretical motivations of the 1934 Franco-Belgian Expedition to Easter Island, sponsored by the Musée d'Ethnographie du Trocadéro (MET) in Paris. She shows how this expedition, a founding event of Rapanui studies, "unexpectedly, discredited the very hypothesis supported by its organisers". Motivated by the sensationalist yet quickly legitimised hypothesis of Guillaume de Hevesy who had announced having identified the original Neolithic script in the *rongorongo* signs of Easter Island, the Franco-Belgian mission was really the brainchild of French americanist Paul Rivet, then director of the MET. An author of several diffusionist studies on the fundamental role of Oceanians in the history of humanity, he played a key role in launching and organising the expedition set to discover in the island's past the traces of the Neolithic civilisation originating in Asia and from which stemmed all historical civilisations. It was his meeting and immediate connection with another enthusiastic diffusionist, Belgian collector and philologist Henri Lavachery, that enabled the project to become a reality. Yet another set of personal encounters finally reversed the posited view on the past of the island: the relationship of Henri Lavachery and Alfred Métraux, the latter sceptical from the start about the original hypothesis;

and the encounter of the MET fieldworkers with the island and the Rapanui people. The researchers soon realised that it was impossible to validate a diffusionist hypothesis that isolated the past of the island from its inhabitants. They freed themselves from this intellectual framing and concentrated on conducting pragmatic ethnographic and archaeological research, the legacies of which remain essential in understanding the island's past.

While the influence of Paul Rivet on the development of a francophone "*archéologie océaniste*" is still poorly understood, that of André Leroi-Gourhan – the unavoidable figure of French prehistoric archaeology – also remains elusive. In the following chapter, Philippe Soulier (chapter 6), specialist on the works and career of Leroi-Gourhan, dissects the relations between "the boss" and Oceania. Can we trace a course of action that led to the placement by the Professor of his student José Garanger in the Pacific, diffusing his "prehistoric ethnology" or "palethnology" approach to the region as a legacy for future generations of francophone Pacific archaeologists (Julien *et al.* 1996; Di Piazza *et al.* 2008)? The analysis by Soulier highlights links that are primarily personal and institutional ones. Garanger first enrolled under the direction of Leroi-Gourhan to prepare a PhD in European prehistory but, under the influence of his supervisor, finally undertook a doctorate about Pacific prehistory (defended in 1970 and published in 1972). This change of trajectory was linked to the scientific politics and development strategies of French research in social sciences in the 1960s, in a region strongly occupied by North American, Australasian and British researchers. From there, as demonstrated by the author, the scientific and professional careers of the two men remained interconnected. Both were marked by the will to develop durable field-based research and training in francophone Oceanist archaeology. The strategy has proved efficient: francophone prehistorians are still working today in the Pacific islands, including within locally based institutions, and continue to apply an ethnological lens to archaeological questions (Di Piazza *et al.* 2008; Dotte-Sarout *et al.* 2018).

Following these purely historiographic case-studies, the second part of the volume presents a range of contributions that consider the transformations of narratives or interpretations centred on specific archipelagos, sites or types of archaeological structures.

Frédérique Valentin (chapter 7) offers the first synthesis of the history of funerary studies in Pacific archaeology – comparing anglophone and francophone traditions. Through 10 case-studies conducted between 1938 and 1985 in Melanesia and Polynesia, the author discusses the evolution of theoretical approaches, of the significance given to human remains and of the proposed interpretations about practices

of burial of the dead in Pacific archaeology. Despite funerary deposits being studied from the XIXth century, they were largely seen as a source of human remains (given the prevalence of physical anthropology) and of remarkable artefacts (as the case of Marche). It was very largely during the XXth century that archaeologists started considering burials as an object of study in themselves. They were first used in comparative analyses to discuss migrations and the peopling of Oceania, then to reconstruct the social and religious structure of ancient Pacific populations. The collaborations that started to be put in place in the 1960s between archaeologists and bio-anthropologists clearly illustrate the emergence of a “scientific archaeology” internationally (Martín-Torres and Kilick 2015). These studies concentrated on the analysis of human remains to reconstruct the living conditions of past populations. Valentin shows that the questions of funerary ideology, of “the relation with death and between the living and the dead” was ultimately only vaguely apprehended by archaeologists during the XXth century. This is despite the fact that some researchers explored innovative research directions allowing for the identification during excavation of specific practices of treatment of the corpse and of distinct steps in funerary rites. Such questions, helping to constitute an “archaeology of death”, have finally been considered systematically in the Pacific only since the end of the 1990s, through the application of the “archaeothanatology” or “field anthropology” approach. This chronological review illustrates the various lenses through which one specific type of site have been considered throughout the history of the discipline: by giving more or less importance to the remains and their intrinsic significations, or to the information offered by excavation data. The chapter invites us to reflect on the inscription of these transformations within intellectual trends and national traditions that influenced Pacific archaeology during the XXth century.

The two following chapters again illustrate the integration between anglophone and francophone traditions in Pacific archaeology, revisiting ancient archaeological studies with contemporary perspectives. Building on an initial study undertaken nearly 120 years previously, Matthew Spriggs and Stuart Bedford (chapter 8) demonstrate how stratigraphic analysis – the basis of archaeology – enables the identification of a succession of cultural and natural events and their impact on populations. Through their work, the authors confirm and extend the very first stratigraphic observations conducted in Melanesia, in the northeast of Ambae island in Vanuatu, by Gustave Glaumont. It was during his trip in 1890 that Glaumont observed a natural profile in a creek bed and found distinctive types of pottery sherds buried deep under several meters of volcanic deposits. Assuming that the contemporary island population did not produce any pottery, he interpreted the superposition of natural and cultural layers in terms of successive

migratory waves and hypothesised an ancient relation between Santo Island and Ambae populations. The authors define the historical depth of major volcanic events that were repeated at least twice in the past and the direction of interisland cultural relations in the northern part of the archipelago, between Ambae and Malakula, and between Ambae and Santo. Finally, they suggest a correlation between volcanic activity and population movements, highlighting the immediate interest of such archaeological studies in modern times.

The tumuli found on the Isle of Pines, in New Caledonia, have played a key role in the construction of the archaeological discourse for the archipelago. The analysis proposed by Louis Lagarde (chapter 9) underlines the influence of social and historical contexts but also the attitudes of the researchers on the interpretation of these structures, studied for nearly 60 years by anglophone and francophone archaeologists. Is a preceramic or pre-Austronesian population responsible for these structures? Are they geological anomalies or were they produced by extinct megapode birds? The author evaluates the plausibility of these interpretations in the light of recent work. The supposition of a pre-Austronesian population in New Caledonia or in southern Melanesia in general has now been recognised as most unlikely, and Lagarde demonstrates explicitly that the idea of a geological anomaly or the hypothesis of an animal production similarly have to be abandoned. His new research shows that the tumuli are undeniably associated with human activities. The author proposes that their correct interpretation is that of funerary structures, commencing in the first millennium BCE following the initial peopling of the island.

This type of approach using the “deconstruction of incorrectly made ancient knowledge” is also the one chosen by Nicolas Cauwe (chapter 10). In this chapter, he discusses the foundations of various theories concerning the transport of *moai* on Easter Island. He scrutinizes the idea first put forward by William Thomson in 1889, according to which the *moai* were only transported after their complete manufacture and shaping. This idea was repeated by numerous authors without really being questioned yet was not supported by any objective fact. For Cauwe, the completed and incomplete statues that are still embedded in the quarries could actually never have been destined to move, but instead could mark the transformation of the quarry site into a ritual centre. Similarly, the statues found along the paths are perhaps not accidents of transport, but monuments in their own right. The author shows how older as well as more recent theories about the transport of statues on Easter Island rely on prejudices and their repetition more than on realistic descriptions, archaeological facts and demonstration. He associates this situation with a form of presentism and a simplistic relation between archaeology and ethnology – issues possibly amplified

in the particular case of Rapa Nui. Remains of the past and accounts of the living are being placed on the same plane while these evidences might not be part of the same ideological register.

The historiographical review undertaken by Émilie Nolet (chapter 11) concerning the historical and anthropological discourse constructed by western – francophone – scholars about the Tuamotu Archipelago (French Polynesia) reveals the influence of the environmental context, and of its perception by the scholars in question. In the first section of the paper, the author examines the period of initial contacts, during which two contrasted visions of the archipelago were constructed: concomitantly as a treasure trove of pearl oysters and as an “oceanic desert”. The image of miserable populations, not capable of the cultural sophistication observed elsewhere in Polynesia, and the systematic opposition with the high islands perceived as rich and easy to live in, also appeared at this time. The second section develops a brief review of anthropological and archaeological studies conducted on *Pa’umotu* societies, examining the impact of complex material conditions but also of the historical European perceptions of the archipelago and its resources. Nolet concludes her discussion by showing how research undertaken over the last 50 years has allowed a more nuanced understanding of pre-European human-environment interactions to emerge, moving beyond deterministic and cultural clichés that insisted on the “misery” and “vulnerability” of the archipelago’s ancient inhabitants. She argues for an approach to the history of the “low islands” based on a dialogue between new archaeological data – including archaeo-environmental information – and accounts of oral tradition, with a critical use of historical sources, informed by the historiographical approach taken. Once again, it appears clearly that the history of archaeology – and more generally of anthropology – in the Pacific can assist the discipline to progress, through the demystification of former knowledge, the recognition of the intellectual, religious and social contexts that influence the historical formation of our ideas and theories, and finally the re-examination of previous research with fresh perspectives.

In the following chapter, Christophe Sand (chapter 12) examines the position of archaeology within contemporary society, using the particular case of New Caledonia. He considers the way in which ideas about the origins of the Kanaks developed by Europeans since the beginning of the colonisation in the archipelago have been manipulated for social and political aims. The author questions the influence of European archaeological discourse, understood as a rational historical account reconstituted “as close as possible to the true past”, on local populations who have a different perception of the past. The latter, oscillating between creation myths and historical events, appears

as a tool used to affirm the power of local groups and justify their attachment to specific lands through discourses that are many-faceted and fluctuating. Sand exposes the evolution of archaeological discourse that has been produced on the New Caledonian past over the last 150 years: from the interpretation of a past divided in several succeeding phases as proposed by Glaumont towards the end of the XIXth century, to the idea of a replacement of population according to which the Kanaks would not be the first occupants of the archipelago – promulgated from the early XXth century by Archambault and consolidated by Avias in the 1950s. The author describes this scheme of thought as deeply engrained in the collective representation of the New Caledonian society, despite the development of a scientific archaeology that started in the 1960s. Such ideas remain dormant, ready to re-emerge at the earliest appearance of conflict or rivalry between the communities living in the archipelago. Archaeological arguments have been politicised and are now being used contrarily by various ideological and political trends. In the end, Sand brings the reader to question the kind of social and political effects that can be produced by the accumulation of historical knowledge and the successive deconstructions of “incorrectly made knowledge”.

During the workshop, we had the chance to view the documentary made by Thomas Lavachery, writer and filmmaker with a background in art history, on the Rapanui experiences of his grand-father: Henri Lavachery, during the Franco-Belgian expedition of 1934. For this volume, the author has provided a written version of this story. Its literary style and intimate tone contrast with the other contributions, by their beauty and subjectivity. It provides an important illustration of the role played by personal experience, human encounters and emotions felt for the persons and places discovered during archaeological research. Access to sources and raw data, interpretive directions and academic legacies are indeed influenced by such experiences, rarely acknowledged formally (and analysed even less) in archaeology. At the same time, the contribution of Thomas Lavachery presents a detailed and richly documented analysis of an important chapter in the history of Oceanist archaeology. It examines the expedition in relation to its intellectual and historical context and refers to a number of rare publications and documents, such as the fieldnotes of Henri Lavachery that belong to the author himself. It also creates a dialogue with chapters 5 and 10 of this volume that present more classical historiographical analyses of the work undertaken on Rapa Nui and the motivations of the mission.

TO CONCLUDE, AND OPEN NEW PERSPECTIVES...

We hope that this volume will constitute a first step towards the implementation of a historiography approach within Pacific archaeology – within and beyond the francophone sphere. It is inscribed within the regional project launched by CBAP, which had as its objective to consolidate the detailed study of our discipline's history through a transnational perspective and a diversified set of methods and topics of enquiry (Spriggs 2017; Howes and Spriggs 2019; Jones et al., submitted). Hence, various themes have been considered in the chapters, from intellectual history and epistemology to the “real-life science” biographical approach; from the contextualisation and re-evaluation of ancient collections, excavations and texts to reflections on the danger of presentism and the potential of historiographic analyses in developing innovative research perspectives in archaeology.

These contributions, and their articulation, demonstrate the interest in viewing our own disciplinary past through a critically and historically informed prism and in questioning our own representation of this past. They enable each of us to question the intellectual, socio-political and even ideological and personal ‘baggage’ more or less unconsciously hidden in our research – a prism through which we contribute to the transmission and modification of the discipline. Such questions of representation are also associated with the use and integration of archaeological narratives in nationalist, colonialist or post-colonialist and identity discourses in the Pacific islands. They evoke the responsibility that science and scientists can assume in the diffusion and clarification of specific ideas or information that can be manipulated. The historiographical reviews focusing on an archipelago or a type of site also allow for a consideration of differences and complementarity between various linguistic and national traditions. They invite mutual recognition of these diverse legacies for Pacific archaeology and an extension of collaborations in the future. Finally, the case-studies presented here clearly illustrate the influence of biographic, historical and social contingencies in the construction of the discipline and of the history it conveys.

In quite an evident, albeit under-analysed, way, the personal experience of the field appears essential, in part because of the human relations that are woven there but also simply because of what the islands leave in each person. The words of Marche and Glaumont written at the end of the XIXth century, remembering the “grandiose and melancholic view” of the Mariana Islands lost in the Ocean, or the old “life of adventure (...) that allowed to so strongly enjoy an absolute freedom” led in New Caledonia and Vanuatu, echo those of Lavachery recalling in 1963 the “yellow grass” on the dramatic hills of Rapa Nui, and even

much more recently those of Patrick Kirch in his autobiography (2015), acknowledging with honesty that his attachment to the Pacific islands played a fundamental role in his research, and also in his synthesis of regional archaeology, where he writes of sometimes having the feeling that “the Pacific is in [his] blood” (2017:xvii).

Despite the diversity of themes and approaches presented here, this remains simply the start of the historiographic effort our discipline has to undertake. The most evident absences concern the analysis of the contributions of local and indigenous “guides” (in fact collaborators); and the recognition of the women who participated in the first studies and the development of Pacific archaeology. These two themes appear to us as essential research perspectives in the history of Oceanist archaeology, where the Pacific has the potential to provide pioneering and innovative case-studies in the history of science.

ACKNOWLEDGEMENTS

The original 2016 workshop was organised thanks to the financial and logistical support of several institutions and research groups: *The Collective Biography of Archaeology in the Pacific: A Hidden History* project, funded by the Australian Research Council [Grant Number FL140100218], based at the Australian National University (ANU) and directed by Matthew Spriggs; the Centre de Recherche et de Documentation sur l’Océanie (CREDO), Aix-Marseille Université-CNRS-EHESS (UMR 7308) ; and the Équipe ArScAn-Ethnologie Préhistorique, Université Paris 1-Université Paris 10-CNRS (UMR 7041). We thank Pascale Bonnemère and Véronique André for their precious help during the organisation of the workshop. Thank you to the editorial committee of the Pacific-CREDO publications and the reviewers of the various chapters for their efforts on early drafts and their work on the French version of this volume. Thank you also to the editions of the MAISON DES SCIENCES DE L’HOMME DU PACIFIQUE and its director Éric Conte for their support in publishing the English volume. Finally, we are grateful to the workshop participants and authors for their contributions and the exchanges generated, as well as their patience during the preparation of these volumes.

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**THE CONCEPT OF 'PROGRESS'
IN ARCHAEOLOGY:
SOME THOUGHTS FROM THE
POINT OF VIEW OF EPISTEMOLOGY
AND THE HISTORY OF SCIENCES**

Oscar Moro Abadia

ABSTRACT

In this chapter I propose to discuss some particularly significant epistemological challenges in regard to the notion of ‘scientific progress’, in the context of the history of archaeology from the point of view of the history of science. First, I will analyse the positivist notion that science in general – and archaeology in particular – progresses from the successive accumulation of discoveries. I will attempt to highlight the relations between this conception and positivist historiography that dominated the archaeology discipline for most of the XXth century. Secondly, I will present another conception of ‘progress’ according to which it does not result from the accumulation of scientific data but rather from gaining knowledge in opposition to previous ideas, i.e., by destroying knowledge that was improperly constructed. Lastly, I will examine some examples from the history of archaeology to demonstrate that it is possible to discuss the issue of scientific progress in negative terms, i.e., in terms of prejudices and mystifications that must be dismissed in order to move forward in our understanding of the past.

Translated from French by Mathieu Leclerc and Julie Robert, including citations, except for Bachelard 1983, 1962; Foucault 1969; Bourdieu 1986, 1994; which were sourced from the original English translations of the books. Original quotes are to be found in the French version of this volume.

KEYWORDS

History of archaeology

Progress

Positivism

Epistemology

Bachelard

Eurocentrism

INTRODUCTION: THE CONCEPT OF PROGRESS IN ARCHAEOLOGY

The concept of scientific progress is fundamental to understand the evolution of archaeology as a scientific discipline. It is also a key concept to understand how archaeologists wrote the history of their science. Since the XXth century, this has been at the heart of strong debates amongst archaeologists and historians of archaeology. During the XXth century, the centrality of this notion was associated with the recurrence of questions asking whether or not archaeology progresses through an accumulative approach; whether or not archaeological knowledge leads to the discovery of the truth about the past; or whether or not there is a way to measure objectively (as much as possible) the scientific development in archaeology.

Over the last years it seems that archaeologists became disinterested with these questions.

The notion of progress used to be commonly discussed in theoretical debates but since the quarrel between positivists and relativists at the end of the XXth century (the processual / postprocessual debate), it is not questioned anymore or if so, only occasionally. It is almost as if the issue that polarised the archaeological discipline for more than a century has suddenly been settled for good.

Why then come back to an expired topic? To answer, one must take into consideration two questions: First, even if the concept of scientific progress is outdated, the repercussions of the quarrel on the archaeological discipline are still being felt. Since the 1980s, the discipline is increasingly divided into two camps: on the one hand, some desire to model archaeology on natural sciences and support the idea that science is continually making progress in the quest of understanding nature. On the other hand, others want to model archaeology on social sciences and consider archaeological knowledge as historically constituted. The notion of progress played a fundamental role in the current divide in archaeology. Secondly, I think that the concept of scientific progress itself is not outdated, but rather only its specific definition attached to a positivist approach. As I will attempt to demonstrate in this chapter, there is another way to conceptualise scientific progress that has barely been considered by historians of archaeology: in science, progress is always achieved by destroying improperly made knowledge.

In order to explore this negative conception of scientific progress, this paper reviews the historical relations between the conceptual frameworks that guided archaeological research from the end of XIXth century to the beginnings of the XXIth century and the way archaeologists wrote the history of their science during this long span. In the first section of this chapter, I will examine how the positivist approach

that oriented archaeological research during the major part of the XXth century resulted in a 'presentist' history articulated around three main axes: A) A history of discoveries, B) A history of precursors, and C) A history of technical developments. This historiography is not unique to archaeology and parallels the discussions on the 'progress of science' popular during the first half of the XXth century. This historiography went through a crisis in the 1980s when the combined impact of the historicism on the historiography of sciences and of the irruption of postmodernism in archaeology shattered the hegemony of the positivist paradigm. A new historiography then rose from the critique of the presentism paradigm and the 1990s saw the end of the positivist concept of scientific progress that oriented archaeology and history for over a century. Nevertheless, as will be demonstrated in the second half of this article, the notion of scientific progress can keep its heuristic value if conceived of using different criteria. Indeed, the positivist approach must be rejected but not necessarily the concept of progress. In this regard, there is a school of thought in human sciences that conceives scientific progress in negative terms. Established by Gaston Bachelard during the 1930s, this approach had a significant influence on French epistemology and was carried on until the end of the XXth century by the works on Canguilhem, Foucault and Bourdieu. Even if these authors are very different from one another, they share the idea that social sciences progress from the demystification of the prejudices orienting our knowledge. In the last part of this article I will try to apply this conception of progress to the history of archaeology. My aim is to show that archaeology does not progress only by accumulating scientific data but also by destroying wrongly made knowledge. I will analyse specifically a prejudice prevalent in archaeology during the XXth century: eurocentrism.

THE POSITIVIST CONCEPT OF 'PROGRESS' IN ARCHAEOLOGY

The development of prehistoric archaeology during the last decades of the XIXth century was followed by a significant interest for the history of this emerging science (Schlanger 2002: 128, Kaeser 2008: 10). Prehistorians in France and elsewhere understood that this new science needed to be based on a historical narrative in order to be recognised. In a context where archaeology sought to be acknowledged by the general public and the scientific community, the recourse to history played an important role in the legitimisation process of this new science. History was used to introduce foundational books on this new knowledge (e.g., Hamy 1870, Mortillet 1883, Cartailhac 1889), to discredit non-scientific discourse about the past (Cartailhac 1878) and to praise the progress accomplished in the understanding of the very distant past (Reinach 1897). As mentioned by Annette Laming-Emperaire, this historiography of legitimisation went on during

most of the XXth century: “During more than half-a-century, the topic was not of interest to researchers anymore and the same data were used almost identically from one author to the other” (Laming-Emperaire 1964: 9). Even if the work of Laming-Emperaire (1952, 1964), Glyn Daniel (1950, 1975, 1981) and others perpetuated historical studies for a long period during which archaeologists were not interested by their history, the disciplinary historiography based on the axiom of scientific progress remained uncontested until the end of the XXth century. It is this historiography that I propose to examine in the following pages.

The history of archaeology during the XXth century has often been considered as an example of the presentist historiography of science. In history of science, the term ‘presentist’ is used to characterise the positivist history of science that supposes that scientific progress results from the process of accumulating discoveries (Moro Abadia 2008, 2009). Following this approach, some elements are overvalued based on the importance they currently have in the discipline, while others are considered to be secondary or anecdotal because they do not have any connection with rationality, which is currently the ultimate reference. In the first chapter of *L’activité rationaliste de la physique contemporaine* (The rationalist activity of contemporaneous physics), Gaston Bachelard describes this historiography: “We see the educational necessity to formulate a *recurrent history*, a history enlightened by the finality of the present, a history, based on the present certitudes, that discovers in the past the progressive formations of the truth” (Bachelard 1951: 26). During the last years of the XIXth century, the history of archaeology was developed around the concept of scientific progress. For example, *Le préhistorique* (The prehistoric) from Gabriel de Mortillet, a foundational work of French prehistoric archaeology, opens by praising positive science: “By generalising the investigative methods, the practice of serious observations and the use of independent examination, the major philosophical movement of the eighteenth century contributed vigorously to the progress of all sciences, almost completely renewed some, and created new ones. Then [...] last century’s mindset gave birth to a new branch of sciences, if not a new science, that acts as a transition between history and geology: palaeoethnology, the study of prehistoric times” (Mortillet 1883: 1). Émile Cartailhac expresses similar ideas in the first chapter of *La France Préhistorique* (Prehistoric France), significantly entitled “*Historique des progrès de la science sur les civilisations primitives et l’ancienneté de l’homme*” (A history of the progress of science on primitive civilisations and the antiquity of man). In this text, Cartailhac claims that: “Palaeontology does not care for myths and legends. Its interest lies before the dawn of historic times. It benefits from the marvellous progress of geology that allows it to tear down the veils hiding the past” (Cartailhac 1889: 2).

During the first years of the XXth century, references to archaeological progress became increasingly prominent. For example, Joseph Déchelette talked about “simultaneous progress and the joint effort of geology, palaeontology and archaeology that led to the definitive establishment [of the new science] based on positive data” (Déchelette 1908: 6). Marcellin Boule was even more affirmative in his work *Les hommes fossiles* (Human fossils): “The progress made in the last twenty years is so impressive that the ‘question of the human fossil’ is topical everywhere, perhaps even more so in the general public than in official scientific circles” (Boule 1923: VII). Even if archaeology was recognised as a scientific discipline during the first years of the XXth century, the cult of progress did not decline until the 1980s. The work of Glyn Daniel, the ‘father’ of British historiography of archaeology attests of this worshipping. In his book *A hundred and fifty years of archaeology* (Daniel 1975), he described scientific knowledge as “the light that cleared the fog of the apparent contemporaneity that surrounded prehistoric vestiges” (Daniel 1975: 33). Similar statements are found in *Origines de l’archéologie préhistorique en France* (Origins of prehistoric archaeology in France) by Annette Laming-Empeire. For example, when describing the institutionalisation of prehistory around 1860, she wrote: “Research projects on prehistoric periods are getting organised very rapidly. Soon the oppositions do not obstruct the progress of the new science anymore – they rather stimulate it – because the facts are now incontestable” (Laming-Empeire 1964: 167). All in all, even if there are some exceptions – notably the work of Léon Aufrère (1936) and Stuart Piggott (1989) in regard to the history of ideas – presentism was the norm in the historiography of archaeology until the 1990s.

The presentist history of archaeology adopts three fundamental forms: A) A history of discoveries, B) A history of precursors and C) A history of technical developments. First, during the XXth century, the history of archaeology was mostly a history of great archaeological discoveries. The positivist history described scientific development as the result of an accumulation process of positive facts. In this mindset and in the eyes of the historian, the discoveries were the dramatic element of the narrative: “The masterpiece buried for millennia is recovered, and the archaeologist is the first person, after many generations, to discover and admire its exquisite forms” (Daux 1958: 76). These discoveries dramatically affect our knowledge of the past; they “upset and ruin theoretical essays that are as fragile as appealing” (Daux 1958: 36). Therefore, the history of the discipline was written like a succession of findings that modified our understanding of the past. This idea was also crystal clear in the writings of Joseph Déchelette: “We will not explore further the origins of prehistory. In this book, we will

detail how innumerable discoveries resulting from uninterrupted efforts by researchers and explorers, allowed us to control the soundness of this science's foundations on many occasions" (Déchelette 1908: 12).

In France, the discoveries of Boucher de Perthes in the Somme Valley were often considered to mark the beginning of prehistoric archaeology. Breuil wrote: "It was reserved to a man of letters [Boucher de Perthes] to demonstrate the association of 'antediluvian' man-made objects, simple stone tools, with the remains of elephants, rhinoceros and hippopotamus in the Quaternary gravel of the Somme" (Breuil 1942: 671). According to Marcellin Boule, Boucher de Perthes acquired academic immortality thanks to "thorough observations and excellent evidences. The name of Boucher de Perthes will forever shine among the stars of Science" (Boule 1923: 13). All these accounts also insisted on the opposition met by these significant discoveries in scholarly circles. For example, Mortillet wrote, talking about Boucher de Perthes: "The same opposition, even greater if possible, was faced by Boucher de Perthes' research and discoveries" (Mortillet 1883: 12). It was because of this opposition that he defended his ideas "with an inexhaustible energy and converted gradually [...] the most established French and British scholars" (Déchelette 1908: 7).

Secondly, the historiography of legitimisation was a history of precursors. Since the XXth century, the history of sciences was perceived as the history of the scientists that contributed to the progression of knowledge. Again, the character of Boucher de Perthes illustrates the importance of the precursors for positivist historiography.

First, precursors are those announcing the truths to come. In other words, the term is often used to define the individuals who contributed significantly to the construction of modern rationality. In the case of Boucher de Perthes, he was often considered as a pioneer of prehistoric archaeology because he supported the idea of a very distant past for humanity *before* it was accepted by the scientific community: "This amiable scholar started from a false idea and reached an important truth despite many adversities" (Mortillet 1883: 12).

Second, precursors are considered to be geniuses; misunderstood heroes who have to face the ignorance of their time. For example, Boucher de Perthes was described as "a dreamer, some sort of lunatic" (Boule 1923: 11), a "curious figure, romantic and mystic [...], great nephew of Joan of Arc according to heraldic science" (Daux 1958: 42-43). He was acclaimed for his "obstinate efforts and numerous struggles" (Mortillet 1883: 13-14), because he defended the antiquity of man with "inexhaustible energy" (Déchelette 1908: 7), "admirable perseverance and admirable gentleness" (Boule 1923: 11). In the end, he overcame many adversities, the "systematic and often ironic opposition" (Boule

1923: 11) of a scholastic world that was “still peremptorily incredulous” (Daux 1958: 42-43) about prehistory. It was only thanks to the intervention in 1859 of two British scholars, Joseph Prestwich and John Evans, that “the French scholar finally saw his discovery generally accepted” (Mortillet 1883: 13-14).

Thirdly, the positivist history of sciences is often described in terms of technical advances. With this perspective, it is the technological development that reflects the progress of the knowledge about the past. The preponderant role of some techniques (such as radiocarbon dating) in the history of archaeology clearly shows the popularity of this viewpoint amongst archaeologists. If prehistoric archaeology was “rather a hobby for amateur, erudite and pastoral gentlemen” during the major part of the XIXth century, it then “rapidly became a science” around 1860 (Laming-Empeaire 1964: 176). Thanks to the junction of historical sciences and earth sciences, “suddenly flourishes a raw prehistory, barely conceived, with problems and methods not dissimilar to the actual problems and methods” (Laming-Empeaire 1964: 10). The technical development incited archaeology to “perfect its methods and to substitute the occasionally adventurous misconducts of its youth for an exact and ordered discipline” (Déchelette 1908: 13). In short, the positivist historiography assumed that scientific development resulted from an accumulation of discoveries made by great scientists using new analytical technique on archaeological material.

THE DECADENCE OF THE POSITIVIST CONCEPT OF ‘PROGRESS’

The 1980s mark the beginning of a quarrel that shook archaeology to its core: the dispute between positivists and relativists. From the end of the XXth century to the 1960s, archaeological research had been unified under the dominant positivism approach. Even if archaeologists discussed expansively during the XXth century about the type of positivism that is best suited to a science like archaeology, the hegemony of the philosophy remained uncontested. Nobody doubted that archaeology had made extraordinary progress since the XIXth century, that it changed forever our knowledge of the past, and that scientific analyses based on rigorous methodologies and observations moved the status of knowledge beyond superstition. Yet, from the 1980s many archaeologists started to question the paradigm. Their criticism of traditional archaeology was not against the fact that it is devoid of epistemological value, but rather against the fact it relies on two problematic assumptions: (A) That the past has an objective existence, and (B) that it is possible to understand how events really occurred (*“wie es den eigentlich gewesen ist”* as phrased by Ranke).

According to these authors, the past does not have an objective dimension since it is indissociable from subjective experiences. The positivist philosophy supports the idea that acquisitions are eternal. This notion is wrong because scientific truths are historical and change through time, as often demonstrated by the history of science. In this context, postmodern or relativist archaeologists severely criticised the positivist concept that progress is linear, cumulative, necessary and inevitable. Specifically, they formulated two objections based on the aforementioned arguments. First, according to these archaeologists there is no linear scientific development because there is no objective past to which we would indefinitely get closer. Secondly, there is no scientific progress because the truth itself is historic, which means that it has to be questioned as a contingent and variable entity. Even if some researchers continue to maintain the accumulative vision of science, the truth is that in the last few years the positivist notion of scientific progress has been discarded from the theoretical debates in archaeology.

The critique of positivism created the conditions to rethink archaeology from another perspective. That being said, the elements explaining the decadence of the concept of progress among the historians of archaeology are to be found in the evolution of the history of sciences. It is the publication of *The structure of scientific revolutions* in 1962 that modified how historians write the history of sciences. In his book, Thomas Kuhn (1970: 1-2) criticises the positivist concept of scientific development as a process of accumulation of knowledge. According to him, such a perspective is inappropriate because it supposes that science achieves definitive conclusions and thus neglects the historical value of scientific theories. Given that science does not evolve from the accumulation of inventions and discoveries (Kuhn 1970: 2), the historian cannot consider today's certitudes as criteria to interpret the science of the past. Instead of using the achievements of contemporaneous science to determine the significance of historical events in the past, the historian must place himself as contemporaneous to the scholars he/she examines (as phrased by Hélène Metzger). The Kuhnian critique of the positivist precepts showcased a critical historiography that already had a long tradition in Europe with the work of Hélène Metzger, Alexandre Koyré and Émile Meyerson.

It is in this context that a new generation of historians started to claim its position in the historiography of archaeology in the 1990s. The decade saw the publication of numerous important works dedicated to the history of archaeology (Trigger 1989, Schnapp 1993,

Vasicek 1994, Stoczkowski 1994). Thus, the history of prehistory has become a research topic on its own. It is the topic of popular science books, doctoral theses (Coye 1997, Richard 1991, 2008, Hurel 2006), biographic studies (Cohen & Hublin, 1989, Kaeser 2004, Coye 2006), research programs as well as innumerable articles. This change is not only quantitative, it also affects the quality of the historiography. Historians of archaeology (many of which are historians by training) denounced the “presentist” history (Kaeser 2008, Murray 2002) and developed a critical historiography incorporated into the history of human science. The rejection of the positivist concept of progress has become the identity marker of this new historiography. For example, Nathalie Richard in her doctoral thesis on the prehistory in France during the second half of the XIXth century called into question the traditional historiography of the beginnings, which aimed:

“to establish the scientific status of prehistory by demonstrating that it had progressively pushed back superstitions and contributed to the triumph of the positivist science. The enterprise was therefore a legitimisation exercise and prehistory became [...] a vector for the progress of knowledge following the steps described by Auguste Comte” (Richard 1991: III). According to these authors, “the history of archaeology, from the Antiquity to this day, is not the indefinite history of the progress of knowledge, but rather that of an agitated sea where violent waves leave shells on the shore that are pushed back by other waves” (Schnapp 1993: 34).

A NEGATIVE VISION OF THE SCIENTIFIC PROGRESS

Here we are then at the moment when the question of scientific progress is outdated after having been at the centre of theoretical debates for decades. This situation results from the fact that after many years of quarrel, both perspectives have become irreconcilable. On the one side, a majority of archaeologists (especially those not participating in theoretical debates) consider that the progress of science is an obvious and well-established fact. On the other side, archaeologists influenced by relativism consider scientific progress as a chimera, a utopia. The issue appears settled, so much so that both supporters and detractors of scientific progress do not feel the need to publicly express their opinion anymore. Even so, the concept of progress is not dead. Despite having disappeared from scientific debates, the concept continues to guide the historiography of archaeology to such extent that a majority of recent histories of archaeology are still structured around it (e.g., Bahn 2014, Díaz-Andreu 2008, Fagan 2018). The concept is so linked to the history of sciences in general and to the history of archaeology in particular that I think it is impossible to completely reject it.

Therefore, I propose here to explore an idea of progress that differs from the notion of progress associated with positivism. I call this concept ‘negative’ because it addresses scientific development in negative terms. Here the term negative is used with a twofold meaning: It evokes the opposite of *affirmative*, thus reflecting the opposition to the positive idea of scientific progress, but it also refers to the adjective negating the truth of a statement, thus reflecting the denial of the universal validity of scientific truth. Accordingly, there is a philosophical and historiographic school of thought that conceives scientific progress in negative terms. Instead of conceptualising scientific progress as an inherent accumulative process, this school of thought defines scientific progress as the demystification of a knowledge that was improperly constructed. This tradition cannot be defined strictly in relation to the history of sciences. Its origin goes back to *Idéologie et utopie* (Ideology and utopia) published by Karl Mannheim in 1929 that influenced an entire generation of researchers (Mannheim 2006). It then follows the development of the philosophical discourse that eventually led to Heidegger’s and Gadamer’s hermeneutic, as well as its Marxist criticism. That being said, the negative vision of progress has been used remarkably by French epistemologists in particular.

The origins of this tradition can be traced back to the work of Gaston Bachelard. He was an epistemologist and a philosopher of physics, chemistry and mathematics. He developed the original idea of the ‘philosophy of no’ (Bachelard 1962) at a time marked by the development of the non-Newtonian theory of relativity. According to Bachelard: “to form itself, the scientific mind has to destroy the non-scientific mind” (Bachelard 1962: 8). Bachelard insists on the fact that, “*the problem of the scientific knowledge must be addressed in terms of obstacles*” (Bachelard 1983: 13). According to him, ‘epistemological obstacles’ such as sluggishness and troubles appear by some sort of functional necessity during the act of learning. Amongst the obstacles, Bachelard mentions first-hand experiences, images, platitudes, general knowledge (generalities), the verbal obstacle (metaphors), analogies, the substantialist obstacle (the myth of substance), the animist obstacle and quantitative obstacles. These obstacles interfere with the objective knowledge and form some sort of unconscious of the scientific mind (they are anchored in the psyche of scientists). For this reason, Bachelard proposes to undertake “a psychoanalysis of the objective knowledge”, i.e., a study of the obstacles slowing down scientific progression. He criticises the way the history of sciences is written “in terms of progressive elaboration” (Canguilhem 1983: 176) and suggests the idea that science progresses by demystifying the myths and the prejudices that influence scientific knowledge. There is always an antecedent knowledge:

“Empirical thought is *clear in retrospect*, when the apparatus of reason has been developed. Whenever we look back and see the errors of our past, we discover truth through a real intellectual repentance. Indeed, we know against previous knowledge, when we destroy wrongly made knowledge and surmount all those obstacles to spiritualisation that lie in the mind itself” (Bachelard 1983: 13-14).

Yet, the philosophy of no is not negativism because it does not lead to nihilism: “On the contrary, it proceeds, within us and outside of us, from a constructive activity. [...] To dialectize thinking is to increase the guarantee that *complete phenomena* will be created scientifically, that all the variables which had degenerated or been inhibited will be regenerated, variables which science, just as much as naïve thought, had neglected to study the first time around” (Bachelard 1962: 17).

Since the 1950s, Georges Canguilhem extended Bachelard’s epistemology. From the start, Canguilhem questioned the work of historians who think of “the history of science under the category of the Enlightenment’s progress” (Canguilhem 1981: 20), meaning a history in which the totality of the past “is represented as a continuous given plan along which the starting point of progress can be moved depending on the interest of the time” (Canguilhem 1981: 14). For example, in his philosophical thesis *La formation du concept de réflexe aux XVII^e et XVIII^e siècles* (The formation of the concept of reflex in the XVIIth and XVIIIth centuries) supervised by Bachelard, Canguilhem questions the idea that the philosophy of Descartes prefigured the modern theory of reflex. According to Canguilhem: “if we find in the work of Descartes a theoretical equivalent related to some attempts at developing a general reflexology in the XIXth century, even a rigorous study does not allow us to find neither the term nor the concept of reflex” (Canguilhem 1977: 52). The example of Descartes illustrates what Canguilhem calls “the virus of the precursor”, which is the popular inclination for some historians to identify and celebrate the precursors of modern science. According to Canguilhem: “The history of sciences would be meaningless if there were precursors because science itself would have only an apparent historical dimension” (Canguilhem 1983: 21).

The historicity or the historical dimension of science is denied by the concept of the precursor:

“A precursor would be a thinker from different times, his own and the time of those who are identified as his continuators, as the executors of his unfinished enterprise. The precursor is therefore a thinker whom the historian believes he can extract from his cultural environment to insert him in a different one” (Canguilhem 1983: 21).

The precursor is therefore an artefact, a false « historical object » (Canguilhem 1983: 21). Canguilhem’s criticism has had significant legacies in the francophone historiography of science (see for example the work of Madeleine Barthélemy-Madaule 1979, Jacques Roger 1995, Claude Blanckaert 2010).

The work of Michel Foucault and Pierre Bourdieu extended the epistemology of Bachelard and Canguilhem in the fields of social and human sciences. The critique of positivism was carried on by Michel Foucault who considers himself as the student of Bachelard and Canguilhem. Foucault historicised scientific reason by philosophically interrogating both scientific truth and positivist historiography. The aim of Foucault's analysis has been to demonstrate that people "consider true or obvious certain themes that have been fabricated at a precise moment in history" (Foucault 2001b: 1597). Consequently, the scientific truth that appears to have a normative, obvious and universal façade is in fact historical, contingent, variable. This critique of the truth is accompanied by a critique of the positivist historiography. The concept of rupture in particular has allowed Michel Foucault to question the apparent linearity of scientific progress. According to him, the analyses of Canguilhem and Bachelard showed that: "the history of a concept is not wholly and entirely that of its progressive refinement, its continuously increasing rationality, its abstraction gradient, but that of its various fields of constitutions and validity, that of its successive rules of use, that of the many theoretical contexts in which it developed and matured" (Foucault 1969: 11). Consequently, Foucault proposes a critical history of ideas that: "is neither a history of acquisitions nor a history of the concealment of the truth; it is the history of the emergence of games of truth; it is the history of the 'veridictions' understood as the forms according to which discourses potentially said to be true or false are articulated over a domain of things" (Foucault 2001a: 1451).

If this *Auflärung* of the scientific mind was shared by Pierre Bourdieu, his reasoning however followed a different path than Foucault and the historians of sciences. In the case of Bourdieu, the critique of the positivist and scientific approach became "a sociology of sociology that allows the mobilisation of the gains already made by science against science" (Bourdieu 1982: 10). Bourdieu tried to show that what is considered true and universal is in fact partly historical: "My whole effort aims to discover history where it is best hidden, in people's heads and in the postures of their bodies. The unconscious is history." (Bourdieu 1986: 81). His whole career, Bourdieu questioned what he called "the privilege of the universal":

"Most of the human works that we are accustomed to treating as universal – law, science, the fine arts, ethics, religion, and so forth – cannot be dissociated from the scholastic point of view and from the social and economic conditions which make the latter possible. They have been generated in these very peculiar social universes which are the fields of cultural production" (Bourdieu 1994: 224).

In opposition to the universalist vision, Bourdieu proposed a genesis of the different fields of social production (the artistic field, the philosophical field, the judicial field, the artistic field, etc.) to show that the things that appear to us as obvious (the artistic canon, male domination, scientific truth) are in reality historical inventions. However, the idea of demystifying the prejudices raises a few problems. Specifically, it can lead to a form of presentism not dissimilar to the empirical positivism when pushed to the edge. In this perspective, the historian has to decide in light of the current rationality which knowledge is 'wrongly made'? It is worth mentioning that the historian always faces epistemological choices. Even if the risk of presentism exists, it is obvious that some prejudices oriented the research and can therefore be identified in the historiography.

A NEGATIVE HISTORY OF ARCHAEOLOGY

As was mentioned in the introduction, the history of archaeology was built around a positivist (and positive) perspective of scientific progress. It has often been described as: "a history full of excitement and fascinating personalities, a history relying on the determination of individuals such as Schliemann in Troy and Howard Carter in the Valley of the Kings, a history of the development of excavations and fieldwork, but also of the peculiar circumstances around the fortuitous discovery of some very significant findings" (Daniel 1981: 212).

Nevertheless, the history of archaeology *could* be told differently. It could be the long history of archaeologists struggling to get rid of the prejudices that impeded (and still impede) the knowledge of the past, instead of the history of great scientific conquests. With this mindset, the year 1859 would not be the year when the prehistoric antiquity of humans was established but rather a significant moment along the winding path that eventually led to questioning the dogma of the origins of humanity. Boucher de Perthes would not be the one who definitively demonstrated the distant antiquity of humans, but somebody who, without even pretending to it, contributed to questioning the religious narrative on the origins. The development of stratigraphy during the second half of the XIXth century would not be considered as a miraculous method that solved every riddle about human prehistory, but rather one of the instruments archaeologists used to prove, in opposition to what had been believed for many centuries, that time had a thickness that pushed back the age of Earth and life to very ancient times (Hurel & Coye 2011: 11).

Beyond the possibility to reinterpret key moments of the history of archaeology thanks to a new theory of progress, there existed particular prejudices along this history that influenced the directions

taken by archaeological research for many decades. The study of these prejudices has enabled science to progress more than any other discovery or technical development. To illustrate this, I would like to analyse a very popular prejudice among archaeologists during the XXth century: eurocentrism. This bias resulted in privileging the European record in explanatory models elaborated by archaeologists and marginalising the influence of other peoples and cultures. Eurocentrism guided archaeological research for a long time. It is particularly significant to understand the history of archaeology in Oceania and Australia, two regions that were forgotten or at the very least discarded from the debates on the origins of cultural modernity and arts during most of the XXth century. A ‘negative’ history of archaeology can help us to integrate these territories in the discussion about the origins of cultural modernity.

There is a model used to comprehend the origins of humanity and modern cultures that was accepted for a long time. According to this model, the origins of humanity are associated with a sudden cultural revolution (*the human revolution*) that occurred about 40,000 years ago, at the beginning of the Upper Palaeolithic (Bar-Yosef 2007, Mellars et al. 2007). It is believed that this sudden and explosive cultural revolution occurred in Europe and coincided with the arrival of *Homo sapiens* on the old continent. It is associated with the appearance of several new elements in the material culture of Upper Palaeolithic groups, such as objects with symbolic value, bone tools, stone tools, engraved and sculpted objects, rock art, etc. (Mellars 2005). This model oriented archaeological research in two ways. First, archaeologists interested by the origins of modern cultures worked almost exclusively in Europe. The transition from Middle Palaeolithic to Upper Palaeolithic was thus used as a model to explain the origins of humanity. Second, archaeologists (Europeans in majority) typically neglected the significance of the archaeological record from other regions and countries. By the 1980s however, many authors started to question the privileged place of Europe in the emergence of cultural modernity (McBrearty & Brooks 2000, D’Errico 2007, Habgood & Franklin 2008). Other models disagreeing with the idea of a “European cultural revolution” have recently been suggested (McBrearty & Brooks 2000, D’Errico et al. 2003). For example, many authors propose a scenario according to which cultural modernity progressively expanded across Africa since the emergence of anatomically modern humans (*Homo sapiens*) on this continent around 200,000 years ago (McBrearty & Brooks 2000, Aubert et al. 2017). This scenario supposes (A) a non-European origin and (B) a gradual evolution of human modernity. This model, suggested toward the end of the XXth century, boosted the search for material evidence demonstrating an African origin for ‘modern’ behaviours.

The discovery of two fragments of ochre in the Blombos Cave in South Africa provided solid evidence supporting this scenario. These two fragments of ochre are dated to 75,000 years ago, display engraved geographical motifs and were found in association with spearheads and numerous pierced shells probably used as adornments (Henshilwood et al. 2002, Henshilwood et al. 2009). More recently, the discovery of a piece of ochre engraved with parallel lines in the Klasies River Cave and dated to between 85,000 and 100,000 years ago seems to consolidate the argument that there was a very ancient artistic tradition in South Africa (D’Errico et al. 2012). Today, it is generally accepted that behavioural modernity did not originate from Europe and several authors have rightly highlighted the significant role played by Australia and Oceania in the emergence of the so-called “behavioural modernity” (Habgood & Franklin 2008). This example shows that archaeological knowledge progresses by the destruction of past models and myths that hinder our understanding of the past.

The question about the origins of art has also been at the heart of heated debates between archaeologists. The idea that Palaeolithic art was a phenomenon exclusively European (and particularly Franco-Spanish) was prevalent until the 1980s. For example, in *Préhistoire de l’art occidental* (Prehistory of Western art), Leroi-Gourhan wrote: “Palaeolithic art covers [...] most of Europe. Beyond, the documents are missing, extremely rare or insufficiently dated. Except for one point in South Siberia (Malta), Asia has yielded neither decorated rock walls nor objects associated with the times beyond the last 10,000 years. Africa, with its thousands of parietal figures, painted or engraved, still has to provide dates” (Leroi-Gourhan 1971: 146). In the last years however, many authors suggested that Palaeolithic art did not originate from Europe. It seems that anatomically modern humans that developed first in Africa were the first to practice truly symbolic and artistic activities. This is revealed by some recent discoveries in Africa, such as the engraved ochre at Blombos and Klasies River (100,000 years old) indicating an African origin for symbolic behaviours (D’Errico et al. 2012, Henshilwood et al. 2011). Moreover, the discovery of pierced shells at different locations across Africa reveals the existence of a tradition for ornaments dating to more than 80,000 years, well before the first symbolic objects in Europe (Bouzouggar et al. 2008). In light of these findings it seems obvious that the origins of Palaeolithic art are not to be found in Europe. Nevertheless, until the end of the XXth century Europeans could still at least comfort themselves with the idea that the great pictorial tradition of Palaeolithic rock art had emerged from France and Spain. This idea is however strongly challenged by the discovery of many figurative rock-art dating back to about 40,000 years on the Island

of Sulawesi in Indonesia (Asia). On this island, a team of archaeologists dated hand stencils to about 39,000 years and an animal figure around 35,000 years. These dates make Sulawesi's rock art one of the earliest examples of rock art in the world (Aubert *et al.* 2014, Aubert *et al.* 2017). These discoveries cast doubt on the idea that Western Europe was the cradle of Palaeolithic artistic cultures. The traditional notion must be re-examined and eventually replaced by a more adequate model. Indeed, a multi-nodal network seems more appropriate to understand the complexity of artistic and visual cultures of prehistory.

There are other significant examples supporting a 'negative' history of archaeology in Oceania and Australia. Among them figure the work of Martin Porr on the decolonisation of the origins of humanity in relation to Australia and the Philippines (Porr 2010, 2011) and the work of Robert Bednarik on the difficulty Westerners have to accept the early development of maritime transport in the course of the settlement of Australia (Bednarik 2003).

As these examples show, scientific progress is a phenomenon with a double dimension. On one side, the progress of our knowledge of the past is related to the use of new methods (such as radiocarbon dating) and the discoveries of new archaeological data (such as the Blombos Cave). On the other hand, archaeological knowledge always involves a reflexive approach aiming to demystify the myths, the prejudices and the false ideas about the past. The example of eurocentrism illustrates how the history of archaeology, through its progress, gets rid of mythical aspects that blur our understanding of the past.

ACKNOWLEDGEMENTS

This article was funded by *Memorial University of Newfoundland* (Canada) and the project Inter-Arq (ref. HAR2016-80271-P, financed by *Agencia Estatal de Investigación et Fondo Europeo de Desarrollo Regional*). The author thanks Matthew Spriggs and Émilie Dotte-Sarout particularly for inviting him to the seminar « Pour une histoire de la préhistoire océanienne » (For a history of Oceanian prehistory) where he benefitted from dynamic discussions about the concept of progress in archaeology. Heartfelt thanks to Noël Coye, Anne di Piazza and two anonymous reviewers for their enriching comments.

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**FRENCH THINKING
ABOUT POLYNESIAN MIGRATION
IN THE XIXTH CENTURY**

Anne Di Piazza

ABSTRACT

During the XIXth century, philology and comparative anatomy, both erected to the rank of meta-science, had the objective of defining the degree of relatedness between peoples and informing on the processes of migrations. The ‘premier’ or ‘essential’ character of language and/or physical traits that either differentiate or link nations were believed to reveal their history and origins. In France, Oceania became a privileged area for this kind of research. This region raised many questions. It was found to be unified by linguistic and cultural traits, yet its extreme insular scattering testified to the improbability of a common origin. Important physical variation among peoples inhabiting the same latitude, the same environment, was observed, contravening the theory that human types are profoundly influenced by the climate, their diet or their life-style. The hypotheses proposed by French voyager-scientists or by armchair scientists of the XIXth century to explain ‘the invasion’ of these races and their languages, namely the Polynesian migrations, are reviewed here. We will conclude by showing how – beyond their academic application of philology and comparative anatomy – the understanding of migrations by these scientists were also influenced by their personal experiences of navigation in the Pacific and by their encounters with islanders’ canoes.

Translated from French by the author. All citations are also translated by the author, original citations are to be found in the French version of this volume.

KEYWORDS

Oceania,
Migrations,
XIXth century,
Racial physiognomy,
Moral physiognomy,
Polygenism,
Monogenism,
Navigation

INTRODUCTION

From 1815 on, the French navy stopped embarking civilian scientists on its voyages of circumnavigation. The civilians were replaced by officers of the Naval Health Service, more familiar with military discipline, with long voyages and with living in the narrow confines of shipboard (Blanckaert 1996). Before leaving, these officers were sent to Paris to perfect their knowledge and received precise instructions from the *Muséum national d'histoire Naturelle*, the *Académie des sciences* or the *Société de géographie*. This brought them up to date on ongoing scientific debates, and the problem of the dispersion of human varieties across the *Grand Océan* became a recurrent theme in their travel journals as in XIXth century scientific reports.

In the first part of this chapter, I will return to the context of the XIXth century to show that the question of the origin of peoples was asked in terms of philology and comparative anatomy. It was incumbent on these scholar-voyagers to research the 'original' or 'essentialist' characters of the languages or physical traits in order to distinguish or to relate these nations to one another, to unravel their history, to reveal their origins. Migrations were not at that time within the province of archaeology, which had its source in the world of antiquarians, nor in prehistory, the notion of which was still in its infancy, but effectively in moral and racial physiognomy, in other words in anthropology¹. I will follow up with a short overview of the diversity of so-called 'races' in contrast to the homogeneity of languages in Oceania. The paradox of an infinite racial complexity within an area unified by linguistic traits was a challenge to the newborn science of anthropology. This thematic was even more challenging since 'Papuans', 'oceanic Negroes' or 'Neptunians' (see below) emerged as the 4th or 5th components of the three fundamental human colors (black, white and yellow); but there were no lack of hypotheses on the 'invasiveness' of these races nor on the progression of their migrations. These hypotheses, which will be discussed in the third section, apply particularly to Polynesia where the apparent linguistic, cultural and physiognomic uniformity are justifiable. It was more difficult to explain the melanesian racial diversity or to account for the micronesian region, still largely unknown. Proposed by naval officers as well as armchair scientists, they were the object of animated discussions within the recently founded scientific societies: The geographic, ethnographic and later anthropological Societies. I will conclude in looking at how this thematic of migration was also influenced by the experiences of these naval officers, by the conditions they encountered at sea (dominant winds and currents), by the canoes they saw and the trips they made aboard them. Traditional indigenous navigation and how it was perceived by these Westerners became a major component of any anthropology of Oceanic migrations.

1 - One may consider that in France, anthropology as a discipline and scientific program dates to the creation of the Société des Observateurs de l'Homme in 1799. "In the first article of its statutes, it is declared that the Society exclusively consecrates its work to the study of the physical, intellectual and moral man in all latitudes and during all historical periods" (Copans and Jamin 1994: 16). Including medical doctors, linguists, philosophers, historians, naturalists and the first so called 'anthropologist', François Péron, the Society took on the task of collecting numerous facts, to expand upon and multiply social and cultural observations to form the basis of an "anthropography of the different regions" (in the words of its founding member, Louis-Antoine Jauffret) integrating the study of ancient peoples (Antiquity), the study of indigenous peoples and indigents (in particular deaf-mutes and the poor). It proposed observation of the physiognomy of the diverse inhabitants of the Earth, of the "Physical man" embracing anatomy, physiology, medicine and hygiene, and of the "Moral man". It also proposed to "untangle the origins and the different migrations of peoples", to "shed light on the darkest points of our primitive history" and to compare "together the customs, the habits, the language, and the manufacture of the different peoples, and especially of those who are not yet civilized" (Jauffret 1909: 184).

RECONSTRUCTING THE HISTORY OF PEOPLES OR HOW TO GO BACK TO THE PRIMITIVE ORIGIN OF A NATION?

In his discourse from the chair of History at the École normale in 1794-1795 (year III of the revolutionary calendar), Constantin Volney suggested that languages are “living monuments” emerging out of the past “whose construction alone is a complete history of each people, and whose line of descent and analogies are the thread of Ariadne in the labyrinth of origins” (Volney 1980: 133-134 cited in Blanckaert 2007: 139). This medical doctor, linguist and historian went on to say:

“...the best monuments will be dictionaries of their languages and their grammars; I would say that nearly every language is a complete history, since it is the tabulation of all the ideas of a people, and by consequence of the facts which make up this tabulation. I am also persuaded that in this way one may go back the farthest in the genealogy of nations [...]” (Volney 1980: 139).

Some years later, Adrien Balbi, nicknamed ‘the Linnaeus of ethnography’ by scholars (Auroux 2015: note 100), strove to divide the languages and dialects of humanity into kingdoms, families etc. Convinced that the language of a nation is its “true characteristic trait” and that this trait “has the advantage to be nearly always inalterable, to be conserved across the centuries”, this great geographer believed that “by just the examination of the languages spoken by the different peoples of the earth one can go back to the primitive origin of the nations that they inhabit” (Balbi 1826: XVIII-XIX, XXI, cited in Blanckaert 2007: 140).

In this early part of the XIXth century, comparative philology, occupied with questions of the origins of languages was irremediably linked to questions of the origin of man. This science should allow one to go back to the origins of nations, perhaps even better than racial physiognomy that was believed to be under the influence of climate, diet or the peoples lifestyle. As Jean-Jaques Briu wrote:

“One builds up little by little a double certainty: first off that of the close rapport, concomitant, consubstantial and reciprocal between the relative origin of peoples and languages; then the certainty that the language of each people holds a permanent link with one or more peoples within its (pre)historic continuum, such that the particular languages (more or less well) known constitute the derived states, resurgent of older languages [...] one is attempting to go back to the origin or origins of ” (Briu 2007: 18).

If at the beginning the naturalists accepted the equivalence of ‘one language, one race’, the preeminence of racial physiognomy over philology (the paradigm switch of the beginning of the XIXth century)

ushered in the 'new' anthropology that would emerge during the second half of the century (Blanckaert 2007). For the medical doctor and naturalist Louis-Antoine Desmoulins, the parallel between languages and races was erroneous, physical traits should be given precedence. Peoples change idioms during episodes of conquest and numerous examples reveal the inferiority of inductions from language when it comes to establishing historical relatedness (Desmoulins 1826). In 1860, Paul Pierre Broca, the founder of the *Société d'anthropologie de Paris*, asserted that:

"... in anthropological studies, one should relegate to a second rank information given by linguistics or the study of behaviors and give preference to physical characteristics. Man may change his language, as he changes his customs and beliefs; he conserves much better his physical characters, which in many cases even survive the influence of intermixing" (Broca 1860: 254-255).

This rapid contextualization of the debates, at the core of the young learned societies of the day, permits better understanding of why, at the antipodes of Europe, the world of Oceania interrogates and disconcerts the XIXth. "These peoples are in forms so extraordinarily diverse [...] that one may say that all the nations of the world had been given the word to send colonies to this surprising region of the globe" (Von Zimmerman 1784: 183 cited in Labrousse 2000: 236). The voyagers discovered a place unified by linguistic and cultural traits while the extreme scattering of the islands testified to the improbability of a common origin. This debate became even more complicated since it was believed that human types were profoundly influenced by the climate or the lifestyle they adopted. Yet in the Pacific, they discovered great physical variation among people who inhabited the same latitude, the same environment. Oceania (and its paradoxes) was to allow deciding upon the original or essentialist characters of a nation. Is it through the examination of language or anatomy that one may best recover the 'primitive' origin of a nation? By fixing the distinctive characteristics of different peoples, the taxonomy (physical or philological) at that time raised to the rank of a meta-science, would permit estimation of their degree of relatedness, indicate their line of descent, their migrations and their intermixing. It was up to the voyagers to make adequate observations, which, as Quoy et Gaimard noted, was not easy to do: "How thus to seize all the delicate nuances that constitute what one calls the *faciès*, from the notes, the drawings or the memories weakened by the distances that one has travelled and by the absence of individuals with which to compare them to?" (Quoy and Gaimard 1830: 15-16).

DIVERSITY OF RACES AND HOMOGENEITY OF LANGUAGES:

A RAPID OVERVIEW

Near the end of the XVIIIth century, the notion of 'variety' or race emerged as either the 4th or 5th component of the three fundamental colors: black, white and yellow. Many scientists who had sailed the south seas returned convinced of the uniqueness of the peoples of Oceania (Douglas & Ballard 2008). These peoples were representatives of the variety of "brown race", "tanned", "swarthy", "olive", "malay", "oceanian", "malayo-polynesian" or "neptunian" (Labrousse 2000: 242). The latter designation had been coined by Bory de Saint-Vincent² in tribute to the god of the sea. The pelagic character of Oceanic societies was given pride of place over skin color or geography. The Neptunians formed a maritime race that he subdivided into malay, papuan and oceanian branches.

"Spread from time immemorial across archipelagos distant from one another, one cannot identify the epoch when they settled there. None of these races take account of past events to compose their histories: the traces of each migration have been erased [...] we recall first off that it [the race] is essentially adventurous; that having always been familiar with the dangers of the sea, it has spread from isle to isle, from heading to heading across two hundred and thirty degrees of longitude, without ever having taken possession, through force of arms, of an acre of land, in whatever country..." (Bory de Saint-Vincent 1827: 278, 279-280).

At this time new distinctions were established between tall blacks called 'Papuan', small blacks known as 'Negritos' or 'Endamenes', who took refuge in the interior forests, and finally the 'Alfourous', the generic name given to populations to the west, in particular the Moluccas. The term Papua comes from the Malay *pua pua* signifying frizzy, curly; the term Endamene from the toponyme of the Andaman Islands situated in the Indian Ocean. In the northern Moluccas, the term Alfourou signifies "uncultivated land, forest", and by extension "inhabitant of the woods, inhabitant of the interior", therefore "pagan, non-muslim" (Labrousse 2000: 244). The Negritos were considered to be the primitive aboriginal populations, pushed into the interior of the islands by the Papuans and the Malays, sometimes regarded as an ancient nation that may have formed the human substrate of Africa and Oceania. As for the Papuans, they raised questions: were they autochthonous blacks, blacks who came from Oceania, or did they result from intermixture between Neptunians and Oceanic negroes³? If the autochthonous character of the Papuans was accepted rather quickly during the XIXth century, they would lose the aura of the migrating peoples (the brown, tanned or swarthy races), agents of History.

2 - The hypothesis of a globe formed of three distinct Worlds: the Old World, the New World and the Maritime World, including the 'Oriental archipelago', 'Polynesia' and 'Australia', was supported by the French polymath Walckenaer in 1816 in his book entitled *Cosmologie ou Description générale de la terre, considérée sous ses rapports astronomiques, physiques, historiques, politiques et civils*; a hypothesis reiterated in 1819, in the introduction to *Le Monde maritime ou tableau géographique et historique de l'archipel d'Orient, de la Polynésie et de l'Australie*. But it was essentially thanks to Bory de Saint-Vincent that this hypothesis of a world inhabited by a nation of sailors was spread (Labrousse 2000: 243).

3 - For Malte-Brun, the human races that inhabit *Océanique* [Oceania] belong to two different roots, the Malays or Oceanic yellows and the Oceanic negroes. The latter are distinguished "by a black or blackish-brown tint, without traces of crimson, by a very obtuse facial angle, a flattened nose, thick lips, frizzy but not woolly hair..." This race inhabits New Holland, Diemen's island [Van Diemen's land or Tasmania], New Caledonia, Fiji, the New Hebrides, the Solomon archipelago and New Britain, as well as New Guinea... the Oceanic negroes race seems to have once occupied the Moluccas and Philippines" (Malte-Brun 1813: 244, 254-255).

This notion of race was caught up in the confrontation between two currents of thought, one monogenist, the other polygenist. For the monogenists, who adhered to the literal interpretation of the Scriptures, all people belonged to the same species, and descended from one divine creation. The polygenists took greater liberties with the biblical account. In the early XIXth century, with the multiplication of observations on human diversity, polygenism seemed more rigorous than monogenism, tainted by old fashioned religious ideas about the unity of man. The naval administration however seems to have chosen the side of conservative orthodoxy (Douglas 2009: 186). The fact remains that questions of origins were posed differently depending whether one was a monogenist or a polygenist. As emphasized by Pierre-Adolphe Lesson,

“... this question of origin would not elicit general discussion except among those who accept the theory of a unique primitive human couple; for polygenists, there should be no debate except on the point of departure relative to this or that group out of a delimited territory. It is certainly easier thereby to, with a single blow, cut that most mysterious Gordian knot of ethnology; but it is not so easy to find irrefutable proofs supporting one or the other opinion” (Lesson 1880: 379).

If the diversity of races was still problematic in the XIXth century, the uniformity of languages also raised questions. If the erudite generally admitted that the languages spoken in Malaysia as well as others further east in Polynesia, shared numerous similarities and made up the ‘malayo-polynesian’ family, named as such by Wilhelm von Humboldt in 1834, an explanation for their resemblance was still lacking. A second question of this century focused on the relatedness or not of the Melanesian languages with malayo-polynesian (Terrell 1986: 43). Dumont d’Urville (1833, 1834) in particular, would develop a lexico-statistical method, through the construction of tables of percentages of shared words, leading to a tree like structure of the relations of Pacific languages within which the “madekass” (Malagasy) languages and “malaïo” (Malay) are closer between them than they are to the languages of mawi (maori), tonga, taïti and hawaii (Métoz 2006: 130-140). His linguistic conclusions, based on the degree of similarity between the languages, were then applied to human groups.

“Among the polynesian dialects, the analogy of taïti to hawaii is so close, the number of perfectly identical words is so considerable, that it is not only evident that they have a common origin, but it is very probable that one of these nations has given birth to the other, and this at a time not so long ago, since the alteration of the languages has made so little progress”. (Dumont d’Urville 1834: 275-276).

AN INVENTORY OF HYPOTHESES ON MIGRATIONS IN OCEANIA

In a word, the question of languages and races, and more fundamentally, the question of the origins of peoples, intrigued. This problem was twice⁴ the subject of competitions by the *Société de géographie de Paris*. In 1823, the candidates were invited to:

4 - Due to the lack of a satisfying response, the *Société de géographie* again launched a competition into this problem in 1830 with greater attention placed on 'Negros': "One hopes that the author will make known and compare together the different negro races that live or lived in diverse countries of eastern Asia and that he will expose the relations that may have occurred between them and the malay race. It is to be desired that the author will base his researches on the Chinese authors" (Bulletin de la Société de Géographie de Paris, 1830: 195).

"Research the origin of the diverse peoples spread across the islands of the *Grand Océan*, situated to the southeast of the continent of Asia, in examining the differences and resemblances that exist in terms of configuration and physical constitution, their customs, their habits, their civil and religious institutions, their traditions and monuments between themselves and other nations; in comparing the elements of languages, relative to the analogy of words and grammatical forms, taking into consideration their means of communication according to their geographical locations, the dominant winds, the currents and the state of their navigation" (Bulletin de la Société de Géographie 1822: 65).

This proved difficult. René-Primevère Lesson and Prosper Garnot, naturalists who accompanied commander Louis Isidore Duperrey on the *Coquille* wrote about this question:

"How can one concord observations in all these genres, consigned in the written accounts by authors of quite variable merit, with different principles, and often under the influence of opposing experiences? The scholar who would coordinate within his cabinet that which has been said by the explorers about the races of the Pacific Ocean islanders, on their migrations; who tries to follow the line of descent of their ideas, of their arts, or their types of organization, will he not defer before the divergence of opinion and remain undecided in the midst of errors and incertitude that nothing could clear away?" (Lesson and Garnot 1826: 33).

Pierre-Adolphe Lesson (the younger brother of René-Primevère), a naval surgeon who participated in three campaigns in the Pacific⁵, would dedicate his *magnum opus* entitled *Les Polynésiens: leur origine, leurs migrations, leur langage* to this question. The methodology used by the author throughout his book is based on a comparative dialog between his predecessors, his contemporaries and his own observations. To understand migrations, Lesson brought up all the materials available in his day, citing, sometimes very extensively, the propositions of their authors, validating or documenting their knowledge to construct his own thesis. This general survey testifies to his encyclopedic spirit, as well as to his liberty to think and to doubt⁶. About the migrations, he wrote:

"...one may distinguish three principal theories [...] The first has them [the Polynesians] come from a large continent of which the islands of today are but the debris persisting after its

5 - The Pierre-Adolphe Lesson archives are kept at the *Médiathèque de la Corderie Royale* in Rochefort, France. The entirety of this collection has been digitized and is on open access on the platform Odsas of CREDO, Marseille (<https://www.odsas.net/>).

6- I rely heavily on this work herein to present hypotheses of migrations in Oceania in the XIXth century.

nearly complete submersion. According to the second, which has but a small number of partisans, they would have come from the east, that is to say the Americas. Finally the third, which is the most generally accepted, has them come from the west, that is the Malay islands or even Asia. It is to be understood that, in the study of these theories, we do not question the primordial fact of all oceanic ethnology, that of the migrations of the habitants of the south seas, from an island, from an archipelago, or even a continent, to neighboring islands or archipelagos; since, as we will see, the theory of a sunken continent implicates, as do the two others, the necessity of migrations” (Lesson 1880: 384).

Let us look at the migrations supported by each author⁷.

7 - See also Garanger (1982) for a review of hypotheses on Polynesian migrations in France as well as other countries.

An ancient submerged continent

Jules Sébastien César Dumont d’Urville, who participated in several campaigns of exploration in the Pacific, suggested in his memoir *Sur les Îles du Grand Océan* (1832: 16) that “the Polynesians came from the west, even from Asia”. Two years later he clarified his proposition, rallying to the opinion of J.R. Forster (1778). In his *Voyage de découvertes de l’Astrolabe... Philologie*, he wrote:

“when one attentively reflects on this astonishing similarity of physical traits, customs, religious ideas and languages among the Polynesian people; a similarity such that these islanders appear to belong to provinces of the same nation, rather than to archipelagos separated by immense expanses of sea; when one at the same time considers the singular diversity that reigns between tribes of the western islands; and finally when one reflects that nowhere, neither in the east, nor in the west of Polynesia, does one find regions that one may regard, with some semblance of support, as the birthplace of the Polynesian peoples; would it not be simpler to suppose that a continent or great island like Australia should once have occupied a portion of Oceania, inhabited by a people of whom the Polynesian tribes are but the debris that escaped some grand convulsion of the globe?” (D’Urville 1834: 303-304).

D’Urville’s hypothesis differs little from that of Jacques-An-toine Moerenhout, except that the former author supposed that the Polynesians, originating in Asia, arrived on the continent before it submerged, while the latter proposed the idea of an autochthonous race independent from other human populations. Moerenhout, businessman and diplomat who actively participated in the establishment of French sovereignty over territories in Polynesia noted:

“this beautiful race of olive color and tattooed bodies, had its primitive home on a continent situated to the east of the Pacific ocean [...]. One may perhaps object that if the continent, of whose existence I suppose, really existed, it may have extended, either as

far as the Americas in the east, or as far as Asia in the west; and may have received thusly its inhabitants, indifferently from one or the other of these two points of the globe: but either seems equally improbable, due to differences in the languages, their color, their features [...].” (Moerenhout 1837: 260).

8 - Jean-André-Napoléon Perier (1806-1880), chief medical doctor of the Hôtel impérial des Invalides and member of the *Société d'anthropologie* de Paris, published an *Essai sur les croisements ethniques* in 1870.

Paul Pierre Broca, medical doctor and anatomist, founder and secretary of the *Société d'anthropologie*, in his analysis of Perier's memoir⁸ on the study of the hybridization of human races declared, during the session meeting of March 1, 1860:

“without leaving Polynesia, one finds several races which it is impossible to confound into one alone, and since they cannot derive their diversity from climate, must necessarily owe it to their origin. May we suppose the migrations that populated Polynesia had come from numerous different regions? But in that case one could no longer explain the similarity of their languages, of their customs, of their religions, nor the uniform state of their civilization and their knowledge. All that is easily understood, on the contrary, if one supposes that there once existed in this region a vast continent, peopled like the others by a large number of nations of different races, which having for a long time communicated with each other, without communicating with the peoples of the other continents, having had exchanged their knowledge, mixed their languages and their beliefs, as existed on a large part of America prior to the sixteenth century, and like that which still exists in Europe, would had been suddenly separated one from the other by an immense submersion.” (Broca 1860: 216).

Edmond de Bovis, naval lieutenant and hydrographer, made the Polynesians as Malays who progressively lost their primitive characteristics (frizzy hair, spindly and nervous limbs) as they moved away from the west, and questioned:

“is there a sailor who could ever believe that it was once possible for canoes, or even for ships lacking compasses, to communicate regularly, or rather to ever have communicated from one to the other of these countries [New Zealand, Tahiti, Sandwich Islands]? [...] it does not seem to me that this could be a plausible explanation, unless one admits that these lands were once connected one to the other by non-interrupted chains of islands, or that they are the debris of a vanished continent [...]” (De Bovis 1855: 377).

During the November 21, 1872 meeting of the *Société d'anthropologie de Paris*, the doctoral dissertation in medicine of Joseph Horace Brulfert entitled *Sur l'origine et la disparition de la race polynésienne* was discussed. The following propositions were put forward:

“the Polynesians are not American emigrants; the distance to Easter Island, which would have been their first landfall, does not allow admitting [...] The volcanos still active on Hawaii are the last geological witnesses of a cataclysm that has caused the disappearance of part of an Oceanic continent. The Polynesians were therefore born in the countries they inhabit, or they spread successively into the different parts of the Pacific they occupy, before the catastrophe spoken of in their traditions.” (Brulfert 1872: 820).

For all these authors, the hypothesis of a sunken continent derives from deductive reasoning, based on three premises: - the Polynesians originated in America or Asia (except for Moerenhout who had them originate in place), - their racial and/or moral physiognomy is homogeneous, - their boats and/or their knowledge of navigation do not allow them to cross the considerable distances that separate their islands from either America or Asia. The deduction thus was the creation of a continent, that allowed accounting for the racial and linguistic homogeneity (the peoples being in contact with one another), as well as to surmount the maritime obstacle; the distance from Asia or America to this new continent being lessened.

American Provenance

The American origin of the Polynesians was a hypothesis that had few proponents in the XIXth century. It was however defended by Jules Garnier, geologist and mining engineer, charged with inventorying the mining and geological resources of New Caledonia, in particular nickel. His dissertation *Les migrations polynésiennes, leur origine, leur itinéraire, leur étendue, leur influence sur les Australasiens de la Nouvelle-Calédonie*, was read before the *Société de géographie de Paris* in 1870.

“I designate by Australasia the geologically ancient lands that delimit the west of Polynesia, the core of which is New Holland; the Australasians are therefore for me the inhabitants of these ancient lands, and they already lived there while Polynesia, formed exclusively by young volcanic or coralliferous rocks, was still being formed [...] man was anterior to the formation of these islands and he even inhabited the continent that preceded them, from which we may already conclude with certitude: that the Polynesians who today occupy Polynesia arrived by migrations [...]. The islands of Polynesia that neighbor the large ancient continents, such as America, Australasia, the Indian archipelago, served to receive navigators who arrived driven by the winds or under particular circumstances. It was thusly that the contours of Polynesia were populated first, the movement then continued toward the interior of the circle, but under different conditions, since the first inhabitants of the eastern isles were carried rapidly to the west by

the winds and the currents, while those inhabitants of the west and northwest carried out only a very slow expansion towards the east, the points where the peoples from the three continents encountered one another are, with rare exceptions, situated to the west and usually right at the boundaries of the ancient continents and the young islands; furthermore beginning at this time, the Polynesians, always favored by the east winds advanced very far to the west, and settled from New Zealand to as far as the King'smill islands [Kiribati] and left more or less profound traces of their passage in Australasia and even in Madagascar.” (Garnier 1870: 9,13).

Garnier's thesis was, so to speak, outside of the academic arguments of his days. He focused his attention on the 'earth's crust', and on the condition of the circulation of the winds, currents, counter currents and the Pacific doldrums. To justify his work and respond to the objections of the members of the *Société de géographie de Paris*, in particular those of Jean-Louis Armand de Quatrefages, he noted that "... he gave a smaller role to linguistics than to natural agents" and specified "... that following from the great age of the Polynesian islands and following their occupation by man, there must have occurred profound dissimilarities between the new Polynesian people and the nation from which they came.” (Garnier 1870: 9,13).

Asian Provenance

The compilation of Louis Domeny de Rienzi appeared between 1836-38. It was entitled *Océanie ou cinquième partie du monde : revue géographique et ethnographique de la Malaisie, de la Micronésie, de la Polynésie....* He wrote:

“After having treated the anthropology and the different ethnographic divisions of the Oceanic countries, let us attempt to classify and compare their languages, the most certain means to understand the origins of and the interactions of their inhabitants [...]. If one admits that the language of the Dayas [Dayak] is the mother-tongue of Polynesian [...], it results that, despite their alterations and their dissimilarities, taïtien [tahitian], tonga, mawi [maori] or new-zeelandais, haouaïen [hawaiian] and the idioms of Rotouma [Rotuma] and of the island of Waihou [Easter Island] derive from the former. I have in fact found a hundred of the most necessary Polynesian words in the daya language.” (De Rienzi 1836: 23, 68).

Pierre Louis Jean-Baptiste Gaussin, naval hydrographic engineer, is the author of a work entitled *Du dialecte de Tahiti, de celui des Marquises et en général de la langue polynésienne* which won the prize of linguistics in 1852. He wrote:

“we believe, like most of our predecessors, that the migrations had to have occurred from the west to the east [...]. We recognize

that, with the means we have today, such voyages are in effect very difficult; but suffice that out of a hundred voyages, one alone was successful: this is what could have happened when one of their double canoes, manned by able and enterprising sailors, profited from the west winds which sometimes blow with persistence in the Pacific ocean [...]. The general direction of migrations having occurred in the sense of west to east, it is natural to suppose that the Samoan islands were themselves settled by colonists who came from the west; for a long time already the ethnologists have, in effect, linked the Polynesians with the inhabitants of the Asian archipelago: this is demonstrated by the relations between the languages spoken by these two groups of peoples. It would certainly be premature and probably incorrect to derive all of these languages from one of them alone. We should consider them as belonging to the same family, divided into several branches. However, before any general comparison, one should separately study each of these branches. By that one would establish that there were several migrations within the Asian archipelago, and based on numerous facts, that of the Malay appears to have been the last. We may add that we have been struck by the much greater resemblance of polynesian with the languages of the Timor region than with malay and tagal [Tagalog]. Some of the points in common are based on words that, in polynesian, are composed of two roots; but the imperfection of the vocabularies that we have been able to obtain keep us from being more explicit in this regard." (Gaussin 1853: 272, 279).

Another erudite and man of influence, who never sailed across Oceania, was Jean-Louis Armand de Quatrefages de Bréau. He was a member of the *Académie des sciences*, of the *Société de géographie de Paris*, the *Société d'anthropologie de Paris* and occupied the chair of anthropology and ethnography at the *Muséum National d'Histoire Naturelle* from 1853. He published a work entitled *Les Polynésiens et leurs migrations* in the *Revue des Deux Mondes* in 1864. Two years later he brought out an augmented version of this work as a book under the same title. By way of introduction, De Quatrefages wrote:

"The research into these migrations, the discovery of the traces they have left, and the presentation of these results are part of the tasks allocated to the anthropologist, and one can comprehend effortlessly all that such a study may present in difficulties and pitfalls. The polygenists have not hesitated to seize upon these only too real difficulties, to exaggerate them even more, to oppose them, as objections to the monogenist doctrine. Most, even taking the problem in its most general sense, have declared such migrations impossible. It is especially about America and Oceania that this word has been pronounced, and that by men of incontestable knowledge. [...] I would today like to show how this pretended impossibility

of human migrations does not exist; and – to take the bull by the horns – , I will occupy myself with the Polynesians [...] this polynesian race that seems to have been isolated in the immensity of the seas, as if to cause the most difficult of ethnological problems to scientists.” (De Quatrefages 1866: 3,4).

De Quatrefages continued by insisting on the parity between language and race:

“one sees that linguistics and physical traits lead to the same conclusion. This is a capital fact and does not permit us to have any doubt about the reality of the ethnological facts that we are trying to put forward. Linguistics here even presents an advantage over the study of physical traits; it allows following these linkages much further, to recognize them in spite of the distances and the diverse modifications imprinted from populations through the mixing of races and differences of environment. This effort has been undertaken by different authors, and has always led to a result that merits all of our attention: that is that all the languages spoken from Madagascar to Easter island and from New Zealand to Sandwich [Hawaii] by the islanders other than the negroes form a single linguistic family, that of the Malayo-Polynesian languages [...]. The linguistic area is therefore exactly the same as the anthropological area determined by the physical characters of populations. It is impossible to desire a more perfect concordance [...]. Others have insisted on the direction of the winds and currents which raise, they say, an unsurmountable obstacle to any migration coming from Asia. These objections, we will show without difficulty, are based on an incomplete knowledge of the facts as well as a very inexact appreciation of the knowledge and resources of the populations in question. Such an argument, based on the direction of the grand currents of the sea and atmosphere, did however appear well founded prior to recent developments accomplished in this branch of human knowledge.” (De Quatrefages 1866: 18-19, 80).

He follows with a long discussion on the direction of the winds and currents, and concludes:

“To settlement by migration, which one may always consider more or less voluntary, should in the Pacific, necessarily be added settlement by accidental and involuntary propagation; and the latter has probably not played a lesser role than the former. To summarise, not only the invasions of Oceania in general, but of Polynesia in particular, by populations coming from Asia is not impossible, as has been said, but is rather easy and nearly inevitable, with the only condition that on the frontiers of these regions was found an active, adventurous population, familiar with the sea.” (De Quatrefages 1866: 99).

[illegible]

For these various authors, the descriptions of the ‘Moral man’ and the ‘Physical man’ that they had to collect, were not as pertinent as they were meant to be theoretically. And the emergence of a new trait, that of the pelagic character of the people of Oceania, to use the expression of Bory de Saint-Vincent, hence became a marker of human migrations. The origin of peoples, the invasion of lands would henceforth be explained in terms of navigation; navigation that would become a major component of all Oceanic ethnology as practiced by the voyaging naturalists as well as by metropolitan scientists; De Quatrefages for example, makes heavy use of this theme.

ON NAVIGATION, EMBODIED EXPERIENCES

9 - It is not my intention here to examine the encounters between Europeans and Pacific islanders to detail the way these “first contacts” or the agency of the islanders modified the vision of the Westerners on polynesian navigation. For examples of these kinds of analyses refer to the works of Douglas (2014) or Starbuck (2016).

Migrations have driven these scientists to think of the Polynesians either as audacious sailors, conquerors of the seas, or as helpless creatures aboard frail watercraft, thrown ashore by the winds. Here I propose that the conditions experienced firsthand by these scientific voyagers⁹ influenced their ideas about migrations, that the weather conditions (direction and force of the winds and currents) they endured or the types of canoes they encountered led them to support an american, asiatic or (sunken) continental origin for the Polynesians. In the first case (american origin), the people were driven westward by the winds and currents, forces they were unable to struggle against. In the second case (asiatic origin), the sailors knowledgeable about tradewinds and the westerlies could make roundtrip voyages. Thirdly, (sunken continent) the Polynesians only navigated over relatively short distances. In support, here are a few examples Jules Garnier presented to his reader:

“a table of 149 observations of winds made [...] in 1866 at the observatory at Nouméa [New Caledonia]. According to this table, west winds never blew, *without interruption*, for more than a day at a time; north-west winds for more than four days, and that only once; but as for southeast winds, they blew almost all the rest of the time and for up to 20 days; in Oceania I made frequent and rather long voyages in their canoes [...]. Also the natives, who are as unhurried as they are full of prudence in their actions, sometimes wait a fairly long time for the winds to become established in the quarter that would favor their departure; it is the result of these principles of navigation of the Polynesians and from the general direction of the winds that relations either voluntary or forced are primarily established between lands that are so oriented that the winds from the eastern region may serve for trips both out and back.” (Garnier 1870: 43-45).

Again in regard to the winds, and benefitting from his visit to Tahiti, Edmond De Bovis wrote:

“a more exact understanding of these seas has shown that at certain periods of the year, the west winds dominate in passing, by series

of from 3 to 15 days. These winds sometimes bring magnificent weather. In this case they have a special name: Arueroa [southwest wind in Tahitian], and the natives of the leeward part of the archipelago use them even today to sail windward [eastward] in their veritable cockleshells. Nothing is easier to imagine than that these winds have always carried their migrations on their wings [...]. They depart, in fine westwind weather, to go in search of lands known or unknown, knowing well that the east winds will return sooner or later, and allow them to the return to their island [...].”
(De Bovis 1855: 372).

The final word is from P.-A. Lesson who reviews their navigation.

“In effect, at first glance, it is difficult to explain that peoples in the savage state, necessarily lacking wide astronomical knowledge, deprived of the means that favor and guide the navigation of civilized peoples, were able to transport themselves over often considerable distances, with only the aid of what writers have generally called ‘frail skiffs’. One even learns that the currents and the winds that most ordinarily blow, were regarded as insurmountable obstacles to the coming of the Polynesians [...]. But when one reflects that these people must have had more astronomical knowledge than is generally supposed, since it was possible for Tupaia to tell Cook for a fairly long time where Tahiti was, regardless of the changes in latitude and longitude of the Endeavour: when one knows that the canoes of the islanders, rather than being frail craft were veritable little ships, with platforms, of a solidity to resist heavy seas, and so large, that they could carry more than a hundred people; when one knows, as we do today that the winds in the Pacific Ocean are variable, that they blow in distinct times of the year, and in opposite directions; and finally when one knows that habit and experience have rendered the Polynesians as hardy as they are able: not only should one cease to find the stated difficulties as large as most writers have made them, but one should rather suppose that, whether favored or opposed by the winds, these little polynesian ships could arrive and did usually arrive safe and sound at lands far from their points of departure” (Lesson 1884: 2-3).

Therefore, whether the winds blew from the west or the east, whether the canoes encountered were frail skiffs or little ships, whether the sun and the stars sufficed to hold a course... one formulates a conjectural history that supposes a more or less profound recognition of navigational competence and practical knowledge of naval architecture, unless of course, one considers the pelagic trait of Polynesians a natural racial characteristic. Some of these arguments seem to presage controversies about Oceanic navigation of the 1960's on accidental versus deliberate navigation, or those of the 2000's

about the true performance (speed, ability to windward) of the ancient canoes of Oceania (Sharp 1957, Golson 1963, Anderson 2000, 2001, Irwin 2008). Leaving these controversies aside, let us return to these precursors to highlight the ‘modernity’ of their thinking. Garnier in 1870 insisted on the different wind regimes prevalent in the western and eastern Pacific and the good sense of the Polynesian sailors who made use of them. A century later, Finney *et al.* (1989) detailed the intermittent character of the west winds (episodic, monsoon, or El Nino) and their strategic utilization by the Polynesians. In the XIXth century, P.-A. Lesson already recognized the extraordinary knowledge of Tupaia and inventoried the voyages recorded by the missionaries and scientists to attest to polynesian navigational knowledge. This resembles the article by Denning (1962) which, based on Tupaia’s chart and listing the deliberate voyages reported in (European) sailor’s logs, underlined the extent of Polynesian navigator’s geographical knowledge. Another example is De Bovis who made explicit the strategy of the Polynesians, who sailed (east) with the west winds and returned to their islands of departure with the tradewinds; a strategy reminiscent of Irwin’s (1992) hypothesis, according to which sailors would prudently explore eastward using the variable westerlies being certain that they could return as soon as the tradewinds resumed. For all these authors the underlying idea is similar, to play with the inversion of the winds to make round trip voyages having favorable winds in both directions.

Beyond the similarity of some of their arguments, XXth and XXIst century prehistorians have also used new methodological elements. Experimental reconstitutions of canoes, computer simulations of canoe trajectories, wind tunnel tests, historical linguistics, etc., are the kinds of novel approaches that, while not substituting for ethnographic data, have renewed the history of oceanic navigation and its investigation. Still, are we open to recognizing a much more ancient navigation, one which led to the initial settlement of Australia some 60,000 years ago, or of Flores by *Homo floresiensis* some 800,000 years ago? This is also a question of how one defines navigation. We should recognize, however, that our interpretations have often been pernicious in denigrating ancient oceanic navigation. Archaeologists have often adopted a minimalist position, opting for rafts rather than canoes, and drifting rather than paddling for these most ancient craft. They have also postulated that these crossings were made during the lowest marine regressions, along the shortest possible routes, without ever really leaving the coast, etc. The degree of intentionality (whether accidental or intentional crossings), the level of technology (rafts or canoes), and the degree of maritime knowledge attributed to these ancient *Homo sapiens* recalls the difficulty the early western observers had recognizing the navigational abilities of the peoples of Oceania

in the XIXth century. Might it be that archaeology today carries on some XIXth century ideas? Might it be that the cognition of an ancient *Homo sapiens* is different from our own or that we persist in believing – in a very anthropocentric fashion– that navigation was invented by *Homo sapiens* and not an even more ancient species of *Homo* (Bednarik 1997, Moro Abadia this volume).

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**‘MARCHE QUAND MÊME’:
THE FIRST ARCHAEOLOGICAL
EXPLORATIONS OF THE MARIANA
ISLANDS AND THE TIRELESS
ALFRED MARCHE**

Émilie Dotte-Sarout

ABSTRACT

Between 1889 and 1898 two short communications and two detailed accounts of archaeological explorations conducted in the Mariana Islands were published in academic circles of the time. The author was Alfred Marche, self-described “traveller naturalist” who was conducting from April 1887 a pluri-disciplinary scientific mission for the French *Ministère de l’Instruction Publique, des Beaux-Arts et des Cultes* in that archipelago. Marche’s Marianas mission is only vaguely remembered in both the history of XIXth century French scientific explorations and that of archaeology in the Pacific – while he is relatively well known for his earlier missions in West Africa and the Philippines. Yet, the energetic Alfred Marche conducted an intensive two years mission in the Marianas, where he visited six islands to fulfil his mission statement of researching the geography, natural history, physical anthropology and ethnography of the archipelago. In particular, he developed a specific focus on ancient monumental remains and archaeological excavations. His very early contribution to the region’s archaeology is a significant one, placing him amongst the handful of field archaeology pioneers active in the Pacific in the 1870s and 1880s. His fieldwork also produced an array of new observations for the Marianas: confirming the presence of pre-European indigenous pottery, evidencing the variety of material culture remains, conducting the first excavations in what is now known as *latte* sites, demonstrating the diversity of their types and their widespread presence in several islands of the archipelago, and capturing the first photographic images of some of these *latte*. Archival material and archaeological collections relating to Marche’s missions are presented here and analysed in relation to their intellectual and biographical contexts, in an effort to re-establish the legacy of Alfred Marche for Pacific archaeology.

Translated by the author, including citations, originals in the French version.

KEYWORDS

Alfred Marche,
Archaeology,
Mariana Islands,
Micronesia,
Excavations,
Latte,
Anthropology,
Chamorro,
Musée d’Ethnographie du Trocadéro,
Museum National d’Histoire Naturelle

INTRODUCTION

In 1889, the *Revue d'Ethnographie* printed in each of its two annual issues the extracts of correspondence notes describing archaeological observations and finds, some recovered by excavations, from the Marianna Islands. The author of these early academic communications on the archaeology of Micronesia was Alfred Marche, self-described “traveller naturalist” who was conducting since April 1887 a pluri-disciplinary scientific mission for the French *Ministère de l'Instruction Publique, des Beaux-Arts et des Cultes* (hereafter referred to as the Ministry) in that archipelago (Marche 1889a, 1889b). Although Marche sent back to French Institutions close to a thousand specimen of natural history (especially birds, plants and insects) and at least 136 ethnographic and anthropological items (including archaeological artefacts and human remains), his Marianas mission is barely remembered in both the history of XIXth century French scientific explorations and that of archaeology in the Pacific. Marche's reputation is mainly established around his earlier expeditions in Africa and the Philippines. However, the pragmatic and energetic Alfred Marche conducted an intensive two years mission in the Marianas, where he visited six of the seven largest islands in the archipelago to fulfil diligently his mission of describing facts and collecting items relative to the “geography, natural history, [physical] anthropology and ethnography” of the Marianas. In particular, Marche's mission project included a specific focus on ancient monumental remains and archaeological excavations (under the “ethnography” banner), forming a significant portion of his activities and reported results. His pioneer work produced new information about the past of the islands and their archaeological potential, opening the way for subsequent specialised archaeology projects conducted in the early XXth century. As noted by Carson (2012) in his historical review of archaeology in the Marianas, Marche especially demonstrated the widespread presence of what we now refer to as *latte*¹ sites in the archipelago outside of the already known Guam and Tinian examples. He confirmed their habitation uses and proposed specific interpretations based on the results of his surveys as well as excavations which he pioneered as applied to *latte* structures. He also recorded the existence of other types of material remains worthy of investigation, such as pottery, shell and lithic tools, as well as ornaments and various remains associated to past subsistence activities. Finally, the writings of Marche depart from the explorers' literature of the time in their anti-romantic tone, including when it comes to the so-called “antic ruins” that excited the imagination of many during the XIXth century. My aim in this paper is to make the details of his pioneer work, both for the archaeology of Micronesia and the Pacific, better known and understood in its intellectual and biographical contexts. Alfred Marche was indeed, with such characters as von Haast (1871), Kubary (1873) and Glaumont (1889), one of the very first archaeologists of the Pacific². His story, that of a solitary tireless walker/collector, deserves to be told.

1 - Although the origin of the term '*latte*' is uncertain, it has been used at least since the 1920s to refer to the Chamorro architectural tradition consisting of a double row of stone columns each topped by a semi-spherical capstone, supporting habitation structures (Thompson 1940; Laguana et al. 2012). Marche himself did not use the word '*latte*' but described the structures as rows of “pillars” or “columns” supporting the ancient “huts” of the inhabitants (see below in the paper).

2 - In 1873, Johann Stanislaw Kubary, another multi-disciplinary explorer and collector, had published a description of Nan Madol remains (Caroline Islands) and of his collections in funerary deposits, in the journal of the German Godeffroy Museum; translated in French within 3 years (Kubary 1873, 1876). One of the same two volumes of the *Revue d'Ethnographie* where Marche published also contained the first report of archaeological excavations in Melanesia, those of Gustave Glaumont in New Caledonia (Glaumont 1889; see Dotte-Sarout 2017 and Patole-Edoumba this volume). Together with the extensive studies of von Haast in New Zealand (1871) and those led by Kubary throughout the 1870s and 1880s, Glaumont and Marche's works are the earliest known archaeological investigations, especially based on planned excavations, conducted in the Pacific islands.

ALFRED ANTOINE MARCHE: BACKGROUND AND FIRST EXPEDITIONS

Only scattered sources are accessible to trace the life story of Alfred Antoine Marche, referred to more simply as 'Alfred Marche', born on February 15, 1844 in Boulogne-sur-Seine, a neighbouring city to Paris. There is no information available on his early years, but his birth certificate indicates that his father, Alfred Eugene Hippolyte Marche was a paper-miller; while his death certificate, dated 1st September of 1898, records the presence of his younger brother Edouard Marche, then living as a pensioner ("rentier"). It also appears that Alfred Marche's very first travels were conducted using his own finances, involving the selling of his collections, before he quickly gained the patronage of rich private and then public sponsors³. It is hence possible that the family was wealthy enough to support a basic education for Alfred, but he was clearly never part of the high-class society then very much dominating academic circles. He especially had to request the support of the Ministry to find a paid position in the later years of his life, having "reached the end of (his) resources"⁴. Nevertheless, several facts point to a self-taught, wide ranging and experienced-based education. On the one hand, his original reports are notable for their many orthographic mistakes and his academic reviewers (including Ernest-Théodore Hamy) lamented on the fact that his manuscripts needed careful corrections before any publication since their writing was "utterly rudimentary"⁵. On the other hand, what has remained of his private library demonstrates a certain erudition, comprising more than 170 volumes relating to scientific and exploration voyages (including some about the Pacific Islands), adventure accounts and maps, but also classical and contemporary literature, from Voltaire to Victor Hugo (Florio 2005). It also appears that between 1876 and 1879 he attended the seminar series organised by Ernest-Théodore Hamy and Armand de Quatrefages at the *Museum National d'Histoire Naturelle* (MNHN) to provide formal training to collectors and mission agents employed by the Ministry.

3 - Marche's first voyages are only vaguely referred to by himself and the Ministry's correspondence as 'his' travels, but in his publication on his West Africa explorations (Marche 1879), he acknowledges the sponsorship of 'Mr Bouvier', while all his subsequent travels would be made under paid mission placements by the Ministry.

4 - Manuscript (ms) letter of Marche to Mr Charmes, 30 April 1893. Archives Nationales de France (AN), Dossier Marche, Serie Ministère de l'Instruction Publique (F.17.12987b) - All translations, including those for the 1891 report, are by the author.

5 - Ms letter of Prof. Hamy to Dr Delisle, undated but relating to the years 1889 to 1891, AN, (F.17.12987b).

The French Ministry of Public Instruction had founded in 1842 a *service des missions* that allocated grants for voyages by explorers, travellers, and "distinguished savants" in all fields of knowledge (Conklin 2013: 34). During the second half of the XIXth century, the number of such voyages dramatically increased, together with a geographical extension of the regions visited, in close link with colonial expansion. These publicly funded missions were driven by the will of the new French republic to demonstrate the prestige of French culture and science abroad. They were also motivated by the race in which European Museums had engaged to establish extensive collections in the realm of the well-established natural sciences and the emerging anthropological sciences (Conklin 2013: 19-57). The MNHN had been the official institution representing French science since its foundation under the Ancient Regime and after its nationalization during

the Revolution. The Museum's vocation was hence also to co-sponsor and scientifically manage the scientific expeditions funded by the Ministry. By the end of the XIXth century, the ethnographic collections had become too large for the MNHN to store and display appropriately, while its focus on natural sciences and physical anthropology limited their proper study. During the Universal Exposition of 1878 in Paris, Hamy managed to get the support of the Ministry of Public Instructions to open a museum showcasing the rich ethnographic collections amassed by French collectors over the preceding 100 years. *The Museum ethnographique des missions scientifiques* finally got to be officially instituted in 1880, with Hamy as Director of the museum and of the scientific missions. This became the *Musée d'Ethnographie du Trocadéro* in 1882, later to be transformed in the *Musée de l'Homme* (1937) (Hamy 1880, 1890; Dias 1991). Marche's career as a collector funded by the Ministry spanned the MNHN period and its strong traditional focus on physical anthropology to the establishment of the Trocadéro and of the science of "ethnologie" itself.

Although his mission in the Marianas took place at the end of his career, Marche's interest in the Pacific region at large seems to have been a long-standing focus. Indeed, at 25 years of age, Marche set out on what appeared to be his first long-term voyage of exploration towards the northwestern edge of Oceania. He wrote: "As early as 1869, I took the direction of these regions (the Philippines area), but, before reaching them, I stopped for a few months in the Malacca peninsula" (Marche 1879: 1). Remarkably, the Minister of Public Instruction, in a letter of recommendation for Marche towards the end of his life, wrote: "the Museum of Natural History and my department supported, before 1870, his studies on the Polynesian fauna"⁶. It appears that for Marche and his interlocutors, his work in the Marianas was a logical continuation of his previous studies in Malaysia: in his proposal for a scientific mission in the Marianas written in 1886, Marche explained that his projected explorations in the Marianas would allow him to "hence continue [his] studies on Oceania, by extending them eastward"⁷ (figure 1).

6 - Ms Letter from the Minister of Public Instruction to the Minister of Finances, 31 Octobre 1889, AN (F.17.12987b).

7 - Ms Letter from Alfred Marche to the Minister of Public Instruction, 24 February 1886, AN, (F.17.12987b).

Figure 1: 1888 map of Oceania showing the location of Marche's expeditions in the region as conceptualised at the time. This is a representation of the region of "Oceania" in an atlas used in primary schools, edited under the auspice of the General Procurer for Education (*Atlas de géographie physique et politique*, par F.I.C. 1888 [17th edition]. Paris: Procure Générale; detail from p.6) The map clearly shows that both Micronesia and Melanesia could be conceived as subregions of Polynesia, a part of Oceania. Hence the floating concepts of "Polynesia", "Malaysia" and "Oceania" applied to Marche's works in the Marianas and the Philippines. Source gallica.bnf.fr / Bibliothèque nationale de France.



Unfortunately, the Franco-Prussian war of 1870 put an early end to his first expedition in Oceania, as Marche went back to France to fight alongside his compatriots. He would only be able to go back to Malaysia 10 years later, and push on towards the east and the Marianas a further eight years after that. In the meantime, though, Marche gained much experience and some momentary fame as an explorer and ‘traveller-naturalist’ (figure 2). In the months following the end of the 1870 war, he managed to organise a solo expedition of exploration in West Africa, where he led two voyages (collecting specimen for the MNHN) between 1871 and 1874. In 1875, the French government organised a mission in the Gabon-Congo region, led by the soon-to-be famous Pierre Savorgnan de Brazza. Marche was warmly recommended to join the mission by the *Société de Géographie* - of which he was a member - based on his previous experience in the region and emphasising that he had already “proved himself as a naturalist”⁸.

8 - Ms Letter from the President of the *Société de Géographie* to the Minister of Public Instruction, 22 April 1875, AN (F.17.12987b).

Figure 2:
Alfred Antoine Marche,
by Alexandre Quinet,
photographe (collection
de la *Société de Géographie*).
Possibly around the time of
the Paris Universal Exposition,
1878. Source gallica.bnf.fr /
Bibliothèque nationale
de France.



9 - Ms Letter from Savorgnan de Brazza to the Minister of Marine and Colonies, 22 April 1876, AN (F.17.12987b).

10 - In the typical evolutionist view of the time, Marche freely compared the indigenous societies of the Philippines and those he had encountered in West Africa since they were all part of populations which had “remained at the same level of civilisation” (Marche 1887: 30). His opinion on the indigenous population of the Marianas seems to have been the same, since he kept these types of comparison going when interpreting ancient remains, but there he was frustrated by the fact that there were no Chamorro of ‘pure race’ left. The mixed population was in his view a degenerate offspring of the original indigenous and historical migrant populations (Marche 1891, 1898).

The success and resulting colonial endeavours of the Gabon mission made Alfred Marche famous and more importantly a respected explorer-naturalist and collector in the view of the Ministry and the MNHN; with de Brazza gratefully acknowledging Marche’s “unfailing energy”⁹. From these voyages, Marche also brought back a certain universal vision of non-European populations of “savages”, using his understanding of West African societies as references for his subsequent socio-cultural interpretations in the Philippines and Marianas¹⁰.

Another long-lasting legacy of his African voyages was the severe health issues he developed, in particular by contracting malaria. The condition occasioned violent fever occurrences he would have to fight regularly during his Marianas mission, ultimately forcing him to a premature retirement from travels until his early death at only 54 years of age.

After more than three years in Paris between 1876 and 1879, Marche managed to get away again, back towards the East in charge of a scientific mission for the Ministry in the Philippines. From July 1879 to April 1885, the avid explorer conducted an extensive program of geographic, natural history and ethnographic studies, sending back to the MNHN several thousand plant, animal and geological specimen that made him known internally as ‘Mister Philippines’ (Florio 2005: 11). Marche also collected several hundred artefacts and human remains for the brand new *Museum ethnographique des missions scientifiques* directed by Hamy. Especially important for the subsequent

Marianas mission, Marche seems to have become increasingly interested and excited by discoveries of ancient artefacts. These were made during his searches for human remains, especially skulls that were in high demand by the metropolitan anthropologists, especially within the French anthropology dominated by ‘racial science’ as developed in the MNHN (Conklin 2013: 19-57). As part of this search, Marche conducted many excavations in funerary caves, where he clearly described having “sifted the earth” (“*grabeler*”) to find artefactual and human remains (figure 3) (Marche 1887: 235). This apparently new interest in relics is again demonstrated by the excursion he organised to visit the Angkor ruins in Cambodia on his way back to France in 1885 (Marche 1887: 403). Following on from this, the study and excavations of “relics of monuments” found on the Mariana islands were central foci of Marche’s mission proposal in 1886.



Figure 3: “Exploration of a cave”.
Illustration published in Marche, Alfred 1887.
*Luçon et Palaouan. Six années de voyages
aux Philippines*. Paris : Hachette. (p. 369).
Source gallica.bnf.fr / Bibliothèque nationale
de France.

MARCHE’S MISSION TO THE MARIANAS

Planning for the mission and context

Less than a year after having returned from the Philippines, Marche devised another travel plan and sent a letter detailing his proposal for a new mission to the Ministry of Public Instruction. At the height of his career¹¹ and with a thoughtful consideration of prevalent topics of the time in his tender, Marche was granted his mission within six months. In his submission letter, he explained how he would undertake a series of original anthropometric measures on the indigenous population of the islands, while especially looking for skulls and human remains and pioneering the use of photography in the archipelago to document his anthropological observations (he had been using the new art of photography since his very first travels)¹². He noted his desire to continue collections of specimens of natural history for the MNHN, but laid most stress on his ethnographic endeavours, especially in regard to archaeological questions (though he does not use

11 - In early 1887, while waiting in Manila for the boat to Guam, Alfred Marche would be made *Chevalier de la Légion d’Honneur* by the French Government upon the recommendation of the Minister of Public Instruction and Beaux-Arts, Mr Charnes, AN (F.17.12987b).

12 Some of the photographs taken by Marche can be found in the iconography collection of the *Musée du Quai Branly – Jacques Chirac* (MQB-JC). There are over 100 items authored by Alfred Marche, including some from his African and Philippines’s travels, with duplicates in the form of negatives or printed material. Together, there are around 25 different images documenting anthropological aspects of his Mariana expedition, 20 of which having been published in 1982 by the University of Guam (Marche, 1982). Most of these can be accessed online through the MQB-JC

13 - Ms Letter of Alfred
Marche to the Minister
of Public Instruction,
24 February 1886,
AN (F.17.12987b).

the term). He wrote: "In regard to ethnography, in addition to the research and collections I will be able to do, I also plan to study the relics of monuments that have often been mentioned and are found in the island of Tinian and maybe in other islands. I hope that by excavating and with a careful study of these ruins, I will be able to find a few traces of inscriptions of which I will take the impression, and which will throw some light on the history of these monuments."¹³

14 - Translated into French
in 1749

In France, and in Europe in general, the descriptions of relics of ancient monuments on some of the islands of the Marianas (then also known as the Ladrões Islands) had excited the imagination since their first report in a widely distributed volume: that of George Anson's account of his circumnavigation in the years 1740 to 1744. In his account, Anson painted an idyllic image of Tinian, an island to "be truly stiled romantic" (Anson 1748¹⁴: 337). He explained how there were "in all parts of the island many ruins of a very particular kind" (Anson 1748: 311), describing the remains of what would later be known as *latte*, and publishing the first engraving of these. He related indigenous accounts according to which these ruins "were the foundations of particular buildings set apart for those Indians only who had engaged in some religious vow" (Anson 1748: 311). These descriptions had a significant impact on the French and European intellectual landscape of the Enlightenment period, through their direct inspiration for Rousseau's widely popular novel *La Nouvelle Héloïse* (1761) and its representation of uncivilised nature and 'savages' as the optimal and authentic state for humanity.

Indeed, when nearly 80 years after Anson, the French artist Jacques Arago approached Tinian on-board the *Uranie* commanded by Louis de Freycinet, he looked in anticipation at the "island of antiquities, illustrated by a page from Rousseau and by the stay of Anson" (Arago 1862: 187). In the extremely popular account of his voyages (republished several times between 1822 and 1882), Arago accentuated the romantic descriptions of Tinian and its mysterious ruins: "Everywhere some ruins; with each footstep, remains of columns and pillars. Who lived in this immense construction half eaten up by the grass? Where are the people who overthrew it? What became of the defeated ones? Where did the victorious ones go?" (Arago 1862: 187). Arago described in some detail the most impressive site, also illustrated by himself, and which appears to have been, as for Anson, the site now known as the House of Taga on Tinian. But he also explored the interior of the island with some of his fellow travellers, and discovered there "a tremendous chaos of buildings defeated by the centuries...Here, circular edifices; there, straight galleries, cut through by other sinuous galleries, sometimes very elongated, other times interrupted, according to the architect's fancy" (Arago 1862: 188) (figure 4).



Figure 4: "Ruins found in the interior of Tinian by Misters Gaudichaud, Berard and Arago". Lithograph by Jacques Arago (1822).
Reproduction courtesy : National Library of Australia

Additionally, Arago noted the presence of a type of "elliptic stone, pinkish, polished, still called antics' stone and said to have been used for the slings of elite warriors" (Arago 1862: 188) (see figure 7). Finally, the illustrator and his colleagues led an excursion to Rota, where they observed the ruins of an ancient "circular colonnade" that he interpreted as a temple forming a "vast monument of more than one thousand steps in circumference", made up of "imposing masses, of more than thirty feet high, well carved, regular, without engravings, without any sign that details, that could even let us suspect the probable time of their mysterious foundation" (Arago 1862: 186). It is noteworthy, in the light of Marche's interest in travel accounts of the Pacific and given the details of his mission's proposal that Arago finished his account of the ruins found in Rota and Tinian with these thoughts: "who knows if, with the help of new research in the neighbouring islands, Aguigan, Agrigan, Seypan, Anataxan¹⁵, one will not find the moral and maybe the source of the only historical document through which the erudite persons of this country explain the establishment and destruction of these colossal remains of temples, amphitheatres and palaces" (1862: 188)¹⁶.

15 - Now: Aguijan, Agrihan, Saipan, Anatahan.

16 - Here, Arago refers to the oral tradition related to the House of Taga (already noted by Anson before him).

Regardless of whether Arago's writings directly inspired Marche or not to undertake his Marianas mission, they certainly resonated in the XIXth century voyage literature that presented a range of romantic descriptions of mysterious ruins and dangerous or innocent

savages in faraway lands. However, this tone is strikingly different to the self-assumed “realistic” one adopted by Marche in all of his writings, so it is unlikely that he was motivated by overly idealistic expectations. Already in the account of his first African exploration, he clarified how life as an explorer is “painful above all” and without any “romantic appeal”, contrary to the “mirage through which it is all too often envisioned” (Marche 1879: i). When he left on his first exploration, he wrote, “less happy, or more, as the reader will like, than many of my predecessors, I was carrying no illusion” (Marche 1879: 1). Nevertheless, he was still hoping by this time to attach his name to the exploration of one of the areas “still remaining white on our maps” (1879: 1). With the Marianas, no white spots had been left on the charts by 1886; however, the archaeological ruins remained under-documented and their history unknown to European scholars.

Contrary to other parts of the Pacific (Dotte-Sarout 2017), by displaying monumental remains, the Marianas and other islands of Micronesia and Polynesia were indeed considered as potentially providing rich archaeological prospects – just as in South America and parts of Southeast Asia. Indeed, archaeological remains recovered in excavations from these regions were clearly part of the collections envisaged by Hamy for the new *Musée d’Ethnographie*, to be established by missions sponsored by the Ministry of Public Instruction (Hamy 1880): if Classical, Oriental and European archaeology had already been assigned to the Louvre or the *Musée National des Antiquités*, items of material culture gathered in other parts of the world, both from excavations and from ethnographic collections were to be curated and studied at the proposed new museum. Ethnography, announced Hamy, was to cover “the study of all material manifestations of human activity” and to demonstrate “the doctrine of continuous progress of societies” – relying heavily on collections of artefacts from all over the world (Hamy 1880: 400). By the 1880s, several explorers had become famous after archaeological discoveries in Asia and the Americas, such as Louis Delaporte in Angkor or Charles Wiener in Chan Chan and other Peruvian sites (both are cited by Hamy in 1880). For Marche, the elucidation of the mysterious Marianas ruins would have represented some promise of posterity, just as his enduring energy appears to have been fuelled by the discovery of new lands (more so than new people) and the constant mobility of the exploring life. Conscientious service to national science was also a clear motive, as Marche diligently collected hundreds of biological specimens and artefacts and set out to inspect as many islands as possible.

Importantly, when Marche arrived in the Marianas in 1887, the Chamorro people had been subjected to Spanish colonisation for nearly 200 years, suffering forced removal from their traditional villages and islands, which left the last survivors to be concentrated

mainly in Guam. A re-settlement program conducted during the XIXth century had brought mainly Carolinian Islanders to live in the Mariana Islands. These events meant that it would prove almost impossible for Marche to make a direct connection between local indigenous knowledge and the archaeological ruins he would observe. This might explain his frustration and lack of interest in the local inhabitants and their oral traditions, fragilized by the endangering of Chamorro language. At the same time, the timing of Marche's mission provided him with a unique opportunity to visit many archaeological sites, and indeed whole islands, relatively free of post-colonial disturbances – as opposed to subsequent archaeological works undertaken after the division of the archipelago between German and American occupations (Carson 2012).

Chronology and execution of the mission

Marche's mission to the Mariana Islands is documented by his report to the Ministry, submitted in 1889 and published – evidently after corrections by his reviewers the anthropologist Dr Delisle (for the MNHN) and Prof. Hamy (for the *Trocadéro*) – in 1891 in the *Archives des Missions* series (Marche 1891 – also published in an English translation by the University of Guam in 1982). The same accounts are repeated in his more popular *Travel Notes on the Mariana Islands* published at the very end of his life, in 1898, but this account is enriched by more personal observations, as will be seen below. Extracts of some of his letters back to Hamy and the Ministry were also published in the *Revue d'Ethnographie* (1889a, b), the originals of which are kept with the Archives of the Ministry relating to the missions, in the *Archives Nationales de France*. Indeed, Marche sent two report-letters to the Ministry during his stay, the first in July 1887 – presenting Guam and the Marianas and focusing on his stay on Saipan – and the second in September 1888 – mainly relating his observations on Rota. The 1889 (1891) report repeats all information provided in these letters, although rewriting changed a few details, while some new information was added in the final report, as will be presented in this section.

Marche arrived in Manila in January 1887, where he had to wait for three months for the next boat to Guam – keeping busy by exploring several caves in Luzon. He also used this time to enrol as assistants, hunter and cook, “two men, tagals¹⁷, who had accompanied me before” (1898: 125). Together, they arrived in Guam in April and established their “base-camp” in Hagatna. From there, Marche and his men would set out on a two months exploration to Saipan, a one-week prospection of Pagan, a three months mission on Rota, four weeks of fieldwork on Tinian and a three-months stay on Agrihan – with surveys of Guam in between (table 1) (figure 5). Marche had to rely completely on the few official or commercial sailing connections within the archipelago,

17 - Tagalog people from Luzon. Marche cites their names in his 1898 publication: Mariano and Eulogio. These details do not appear in the reports. Both of them were photographed by Marche, the original glass negatives and prints are kept at the MQB-JC and visible online on the catalog under collection number PP0050111, PP0050132.

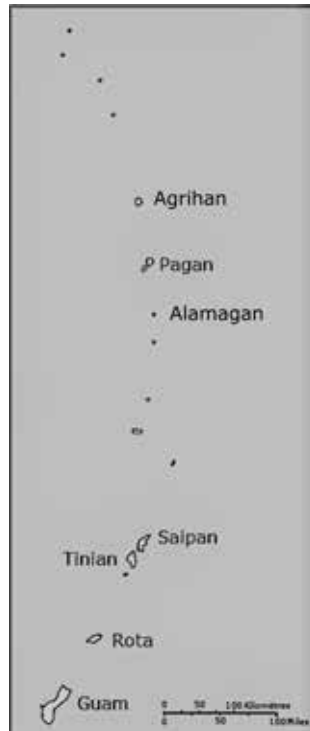
often having to be left on the islands with his team while waiting for the boats to stop by on their return trip, several weeks or months later. He expressed several times in his report-letters and publications his frustration at being dependent on these boat schedules to organise his explorations. Indeed, it sometimes restricted his time (as on Pagan) or to the contrary extended it for too long (as on Rota or Agrihan). He also had to abandon his plans of visiting other islands for lack of voyaging possibilities or unfavourable weather conditions (as was the case for Alamagan or for a return to Pagan). He left Guam in May 1889 and after some more cave excavations on Luzon in the Philippines, arrived back in France in July 1889.

For each island visited, Marche was determined to “ramble in every direction” – occasionally quite proudly “wearing out [his] indigenous guides”¹⁸ (1898: 135) in order to collect as many natural history specimens as possible and conduct his ethnographic investigations on remains of material culture. He seems to have worked with a team of men including his original Tagalog assistants as well as unspecified “indigenous guides” – i.e. mainly Carolinians then living on the islands. His only mention of a local informant with whom he appears to have developed close links was the Priest Palomo, his “friend and excursion companion” on Guam and Tinian at least, “half-Chamorro, known of almost

all Guam inhabitants, educated man, who speaks Spanish, French, English and even Carolinian (...)” (1891: 13) (figure 6). He was evidently the only local inhabitant who positively impressed Marche. Indeed, his tone about the Chamorro and Carolinian people remained generally dismissive in his writings as he himself recognised, despite his time in the archipelago: “arrogant and lazy, pleasure-driven like all Oceanic people, ungrateful and thieves, such are the Marianans, according to the authors who spoke about them. If I am asked my own opinion, after two years among them, I dare not say that these judgements, which appear very severe, are precisely unjust” (1898: 129). On some of his excursions, Marche was also accompanied and sometimes assisted, by the Spanish resident Governor Lieutenant Colonel Francisco Olive y Garcia, known to have developed a specific interest in the ethnography (and archaeology) of the archipelago (Olive y Garcia 2007)¹⁹.

18 - And indeed, Alfred Marche was known for walking great distances over difficult terrain. His records detail the impressive distances and elevations he covered each day of his work (Mike T. Carson, pers. com. April 2018)

Figure 5: Map of the Mariana Islands showing the islands visited by Alfred Marche and the location of Alamagan (not visited).



19 - Marche mentioned in his reports that in February 1887 (while in Manila) he sent to the Ministry the copy of a report written by the governor about the Marianas, the original to be sent to Spain for the Madrid Colonial exhibition of 1887, as part of an array of collections set to represent Spanish possessions from the Pacific (including the Philippines) (Marche 1891: 2). Marche's first tour of Rota, Tinian and Saipan was while accompanying the governor, who especially led him to the burial cave of Kalabera ("calaveras": skulls in Spanish) on Saipan.

Marche appears to have conducted excavations in the burial caves and ancient habitation sites (*latte*) he identified – though the archives are not always clear on the provenience of his finds (surface collection or excavations). His report, report-letters and the export catalogues he sent with his collections (now kept in the *Musée du Quai Branly - Jacques Chirac* [MQB-JC] archival documentation)²⁰ provide the information to assess the origin of the items. Based on these, it appears that out of the 136 “ethnographic” items, close to 50 were recovered from archaeological contexts – some evidently now missing from the current collection. Table 2 summarises the archaeological fieldwork conducted by Marche during his Marianas mission, based on the different sources mentioned and identifies some of the related items from the Marche collection-



now kept at the MQB JC (illustrated in figures 7 and 8). Although Marche clearly spoke of excavating sites to recover artefacts, sometimes indicating that he went down one meter, he never noted any information about the sediments, layers or stratigraphy (contrary to his contemporary Gustave Glaumont for instance, see Dotte-Sarout 2017; Patole-Edoumba and Spriggs & Bedford this volume).

20 - MQB-JC documentation records related to collection 71.1894.34: archives D000976 and original catalog from the *Musée de l'Homme*.

Figure 6: “Père Palomo”. Photography by Alfred Marche. 1887-1889. Reproduction courtesy of the MQB-JC (PP0050109).

Saipan was the first island he surveyed, and the one from which he sent back the most archaeological items (36). Maybe unsurprisingly²¹, he did not mention any *latte* sites but was clearly on a quest for anthropological remains and accompanying artefacts: he excavated several caves with funerary deposits and even reported having excavated a relatively recent Carolinian cemetery on the islet of “Magnyahan”. On Saipan itself, he especially reported having excavated a cave “with a layer of human bones more than one meter thick” and specified that the artefacts recovered in the caves (including “several” slingstones) were found amongst the human remains (1891: 12-13) (table 2 and figure 7). Although lamenting on the fact that most of the human remains were too deteriorated to be collected, he amassed 35 skulls from Saipan altogether. At least half of these could have come from

21 - Saipan had been completely depopulated during the Spanish *reducción* program and the *latte* structures, a lot smaller than those of Tinian and Rota, were not identified until the Hornbostels’ work analysed by Laura Thompson in the 1930s (1932).

22 - It is not clear why the 1887 letter-report detailing his activities on Saipan, and written from Saipan evidently after the cemetery excavations, does not contain any mention of this; the 1898 *Notes de Voyages* do not describe any excavations in the islet's cemetery either. Given the sacred status of the island to Carolinians of Saipan, it could be that Marche was indeed conscious of the unethical (and presumably unauthorised) aspect of his excavations there. He had caustically referred to his skull collecting as "anthropological robbery" before (1879: 102).

23 - "Ethnographie des Mariannes et des Carolines", catalogue of objects numbered 301 to 381 sent to the Ministry, undated, signed Alfred Marche; MQB-JC archives D000976.

24 - Ms letter of Alfred Marche to the Minister of Public Instruction, dated 7 July 1887; AN (F.17.12987b).

his excavations on the island he called "Kagnagousa or Lostagios" in his 1889 report (1891: 15)²² and then "Magnychan" in the log of his first collections export (undated)²³. In his report, Marche noted that on the islet was found "an ancient Carolinian cemetery dating from the beginning of the century" (i.e. XIXth) (1891: 15), while in his report-letter of 1887, without describing his excavations, he wrote that "at the start of this century, a few Carolinian families pushed there [Saipan] by the winds and the currents, settled in"²⁴. Taken together, these pieces of information indicate that Marche excavated the site of a Carolinian cemetery that could be linked to the oral tradition of Aghurubw, a chief and navigator who brought Carolinians to Saipan in the early XIXth century and whose burial place is said to be located on the islet of Managaha (still commemorated by modern-day Saipanese-Carolinians). Marche's reported that his "excavations gave [him] a few skulls, a few ethnographic objects, pieces of turtle shell, glass beads, etc" (1891: 15), and in his log are listed no less than 18 items from his excavations there. Some of these objects are now missing or difficult to identify with certainty in the MQB-JC collection, but others can be clearly documented (table 2 and figure 7).

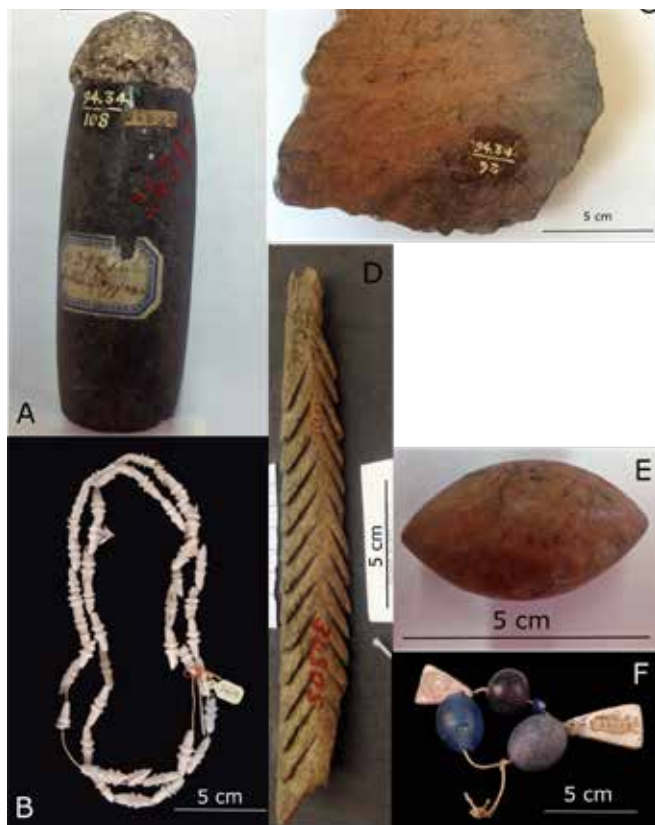


Figure 7: Examples of artefacts recovered by Marche in his excavations in Saipan.
 A) Stone axe showing a label typical of late 19th century MET practices, bearing his log number and "excavation Saypan" (71.1894.34.108);
 B) shell beads from the Managaha cemetery (71.1894.34.113);
 C) pottery sherd still showing Marche's original log number and "A.M." inscription (71.1894.34.93);
 D) barbed bone spearhead (71.1894.34.47);
 E) sling stone (71.1894.34.91);
 F) glass beads and shell ornaments from Managaha cemetery (71.1894.34.79). All images by E. Dotte-Sarout except B and F from the MQB-JC online catalogue. Reproduced with the permission of the MQB-JC. (Regarding labelling practices at the MET see Martin 2017).

Subsequently, Marche set out to explore some of the smaller northern islands, starting with Pagan. Unfortunately his surveys were cut short because of boat schedule constraints, and he had to leave just before he was preparing to visit the south of the island that he described as previously densely inhabited (1891: 21). In Pagan, he was the first to report the existence of *latte* structures, visiting two sites based on information from the Carolinian inhabitants then present. According to the information available in the report, the second site noted by Marche might correspond to one later identified as ‘Apan Sang Te’ by Egami and Saito (1973). He conducted excavations within the structures, from which he collected lithic and pottery remains as well as marine shells (table 2 and figure 8). In his report (1891: 20) he identified these ruins as “pillars” for what he called the “huts” of the ancient indigenous people. This idea was presumably derived from general local knowledge, possibly provided by his island informants, rather than from some of the earlier European interpretations that had associated these with the higher classes of traditional Chamorro society (Carson 2012). Interestingly, it was only in his 1898 *Notes de Voyage* that Marche allowed himself some more detailed interpretations, based on his excavations at this site in particular. He wrote:

“This hut, if it was on top of these four pillars, would not have been more than 4 square meters. But we should admit, I think, that it was continued by a kind of lean-to roof (appentis). The hut itself, on the pillars, was the dwelling of the family; the lean-to, which was juxtaposed along its length, formed the kitchen, and it is where one would stay during the day” (1898: 206).

After this expedition, Marche spent six months on Guam, during which he conducted his main period of fieldwork on the island. His descriptions of *latte* sites appears largely incidental to his explorations, with very few details recorded and no excavations reported (and indeed no archaeological artefacts listed in the export log). Still, he observed that close to some of the “pillars” were found “some very hard stones, more or less large, in which one, sometimes several, holes had been cut” adding that “these holes served and still serve to pound the grains destined for food” (1891: 25). Marche was particularly unhappy about his explorations on Guam, stating that he “obtained only scarce results on all fronts” (1891:26). Maybe this was also related to his disappointment with a promising cave indicated to him as being “full of inscriptions” (1891:25). Upon visiting it, the disenchanted Marche could only find what he understood as “a few lines drawn by a madwoman, whom had used the cave as a refuge” (1891: 25), though he still copied these (but this copy hasn’t been located in the archival material as yet). Interestingly, Marche visited this cave while at Inarajan, which is also the area where Hornbostel later recorded rock art within a cave (Thompson 1932: 20, 22).

Figure 8: Examples of artefacts recovered by Marche in his excavations in Rota and Pagan.

A&B) tridacna adze from Rota (71.1894.34.21);

C) pottery sherd from Rota, showing Marche initials and original log number (71.1894.34.22);

D&E) pottery sherd from Pagan, showing carbonised remains inside, as indicated by Marche (71.1894.34.35);

F) hammerstone from Pagan, with MET original label, bearing log number and "excavation from Pagan Island" (71.1894.34.40).

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Having by then resided for a year in the Marianas, Marche went on to explore Rota. He seems to have focused a lot of his work on the ruins he encountered “disseminated on all parts” of this island (1891: 29). He also appears to have conducted excavations in some of the *latte* sites he visited, as indicated by the information provided by him on the export log of objects from Rota²⁵. However, there is no mention of excavations in his reports. The artefacts included pottery sherds and shell tools (table 2 and figure 8). Not more than six such objects are currently part of Marche’s collection at the MQB-JC. However, Marche reported having lost half of his Rota collections when the rowboat transporting him, his team and his collections back to a schooner capsized mid-way in bad weather (1891: 30; 1898: 216). On Rota, Marche visited the Mochong *latte* site that he described in some detail in his second report-letter (and 1889 report). He specifically interpreted this site with reference to West African villages he had visited in his youth: the presence of a large tree at the centre of the “village” was seen as possibly indicating “as in population centres of Africa, the meeting place, ‘the discussion place’ (*la place aux palabres*)”; the sizes of original huts, estimated according to the size and number of “pillars”, was used to infer the presence of a small hut that “could have been that of the sorcerer, priest or healer” and of a hut “a lot larger than any of those we have been able

25 - “4th export, Ethnography”, catalog of objects numbered 393 to 427 sent to the Ministry, undated, signed Alfred Marche; MQB-JC archives D000976.

to observe”, which would have been the residency of a “king or tribal chief”²⁶. Interestingly, this is the extract that Hamy chose to publish in the first issue of the 1889 *Revue d’Ethnographie* – after some rewriting (1889a). He also reported the fact that the largest structure was unusually made up of a “wall” on one side, and advanced the idea that the capstones covering the pillars served to support the crossbeams on top of which the house would have been placed (1891: 29) (also see table 2).

26 -All quotes from ms letter of Alfred Marche to the Minister of Public Instruction, dated 3 September 1888; AN (F:17.12987b); and from the 1889 report (1891: 29)

Marche then discovered a site (no location given) that he described as “masonry pillars laying on the ground and appearing to have been constructed so as to form the support of huts”, also noting that “they were covered by a layer of lime friable and poorly consistent” (1891: 30). This information indicates that he could have come upon the quarrying site of As Nieves, observing the remains of the lime by-product from the process of quarrying coral limestone. More intriguingly, Marche also related having visited some ruins which were pointed out to him on the east-south-east coast (seemingly in the Mariiru Point area), that are described in both his 1891 and 1898 publications as a *latte* site made up of “pillars” of approximately 4 meters high”, still covered by their capstones (1891: 30; 1898: 215). However, his original 1888 letter described these ruins as “a double row of six columns being 1.70 to 2 meters high and still covered today by their capstones”²⁷. This site appears to be undocumented by subsequent studies, including those by Spoehr and Thompson, although both note “reports of large monuments” from localities on the island (Thompson 1932: 20) but also the incidence of large-scale destruction during WWII (not to mention as a result of tectonic events) (Spoehr 1957: 102).

27 - ms letter of Alfred Marche to the Minister of Public Instruction, dated 3 September 1888; AN (F:17.12987b).

While on Rota, and previously during his mission, Marche suffered severe recurrences of malarial fever. The rowboat incident and prolonged stay in the water apparently aggravated his condition, forcing him to pause for a few weeks on Guam before leaving again for a short mission to Tinian. This time, Marche aimed mainly at taking photographs of the monuments on the island, and recording anthropometric information on the Carolinians living there – including through the use of photography (some have been published in the re-edition of Marche’s report, 1982). The first site visited by Marche is the one now called the House of Taga, already made famous by Anson and Arago’s descriptions and adjacent to the modern village of San Jose. He noted “the columns or monuments of Tinian are called *astaga* by the natives; they are 3m90 high” and went on to describe the well-known structure and its impressive dimensions (1891: 34). At the time of Marche’s visit, six latte stones were still upright and surmounted by their capstones. Importantly, he undertook the earliest known photography of the site, later published in his *Notes de Voyage* (1898) (figure 9). Although he seems to have been aware of the oral tradition of chief Taga attached to the site (especially as he apparently first visited it with the Priest

Palomo), Marche made no mention of it when he proposed that the size of the construction evoked the “house of a king or chief” (1891: 34). However, he did write that one of the capstones was cut in the form of a coffin, within which, “according to the tradition, would have been placed the corpse of a chief’s child” (1891: 34). Marche also thought that the “pillars” and their capstones “were certainly built directly onsite” (1891: 34), but only in his *Notes de Voyage* did he add: “since we can’t admit that the natives transported and erected them” (1898: 217). Marche then went on to survey the neighbouring ruins of Tachonga, noting that the largest structure was surrounded by “the remains of several smaller huts” and hence having constituted a “small village” (1891: 34) (table 2). He also observed that the largest ruins “resembled those of Rota island”: with one side of the structure being made of five “pillars” and the other of a “wall” of same width and height. Possible images of this site have not been positively identified in the MQB-JC collection.

Figure 9: House of Taga as photographed by Alfred Marche in 1889. Reproduction courtesy of the MQB-JC (PP0050118).



The last expedition of Marche was a return to the smaller northern islands. Difficult weather conditions delayed arrival on Pagan where he could only afford a three-day stopover, during which Marche went on to find some burial caves, and removed three skulls (1891:37;

1889b). During this time, Marche also “acquired” (either from the Carolinian workers residing on Pagan or from sailors) “two large earthenware vessels, found a few days earlier on Alamagan island” (Alamagan) (1891: 37) - an island he could not visit because of weather conditions. He explained that the pots had been found covered by a large stone, and positioned upside down with their aperture on the ground (1891: 37; 1889b). These pots were important for Marche for two reasons. First, they confirmed that Chamorro people indeed made pottery before the arrival of Europeans, as they had been found on an island uninhabited since the early XVIIth century and were both made “from the same coarse mixture as that of the remains I found during my excavations” (1891: 37). Already at the start of the report, he had ascertained that the pottery remains he had found in all of his excavations on all of the islands “were of indigenous manufacture”, as evidenced by the “shape and the grain of the earth used” (1891:13). Secondly, the existence of indigenous pre-European pottery itself, as well as traces of fire observed by him within the two vessels and some sherds (figure 8) demonstrated that Chamorro people knew how to use fire, disproving “the words of certain writers” (1891: 13; 1889b).

Here, Marche might well have referred to Jesuit scholar Charles Le Gobien's assertion that Chamorro people had never seen fire before the arrival of the missionaries, on the basis of examining Jesuit records of the late 1600s in his book *Histoire des Iles Mariannes* (1700)²⁸. In addition to disproving an argument set up in a book that represented then the authority on Marianas history, the very notion of fire control appeared as an important one for Marche. This is possibly related to the idea that the use of fire was then a pertinent element to classify human societies within the evolutionist frame of thought. Indeed, he repeated the argument several times in his report-letters, 1889 report and on his export log, where for instance he noted under the entry for the first sherds he collected in his Saipan excavations: "remains of ancient pottery, the natives do not manufacture it anymore. A few authors said that Mariana people from the time of discovery did not know of fire, this pottery which appears to have been cooked would tend to contradict this fact"²⁹.

28 - I am grateful to Mike Carson for pointing out the original reference of Le Gobien's work (English translation by Coelle de la Rusa 2016), repeated by subsequent authors who wrote about the Marianas before Marche.

29 - "Ethnographie des Mariannes et des Carolines", catalogue of objects numbered 301 to 381 sent to the Ministry, undated, signed Alfred Marche; MQB-JC archives D000976.

Finally, Marche arrived on Agrihan, where he had to remain for three months with his small team, waiting for the boat to return. He spent all his time there collecting specimens of natural history and did not report any archaeological activities or observations. The island being an active volcano, it is probably not surprising that he did not encounter any ancient remains. At the end of his stay there, Marche lamented being trapped with nothing more to do, a feeling he kept with him until the end of his mission in the Marianas, writing in his *Notes de Voyage*: "Finally, the 4th of May, the Philippine ship came to put an end to my two years stay in the small archipelago, of which I had exhausted all the interest" (1898: 222).

THE LEGACY OF ALFRED MARCHE FOR PACIFIC ARCHAEOLOGY

Upon his return to France in July 1889, Marche quickly put together a report for the Ministry, based on his previous letters and his travel notes. In October, the report was submitted to the Ministry, to be reviewed by Hamy, director of the scientific committee of the missions, and also by the anthropologist Dr Delisle, who seems to have been in charge of gathering Marche's anthropological specimen at the MNHN. In the same year, two extracts from the explorer's letters were published in the *Revue d'Ethnographie*, while a summary of the mission was to be presented at the *Société de Géographie* by Charles Maunoir in early 1890. However, Marche's last mission rapidly became invisible: the report took two years to be ready for publication, the ethnographic collections³⁰ were stored and forgotten as the Oceania exhibition hall of the Trocadéro had to close between 1890 and 1910 for lack of funding, while Marche did not present any communication nor publish anything in the immediate years following his return. In fact, as soon as possible he left France again. As early as November 1889 the Minister of Public Instruction was looking for a position for

30 - Marche's rich botanical collections apparently suffered a similar fate, and were only rediscovered - with much amazement - in the 1950s (Fosberg and Sachet 1957). Only his faunal collections seem to have secured immediate interest. The physical anthropological specimens are more difficult to track.

31 - Ms letters from the Minister of Public Instruction to the Minister of Finances, dated 31 November 1889, and to the General Transatlantic Company, dated 7 January 1890; AN (F.17.12987b).

32 - Ms letter of Alfred Marche to the Minister of Public Instruction, dated 30 April 1893; AN (F.17.12987b).

Alfred Marche, whose deteriorating health prevented him undertaking any further missions, and in January 1890, Marche was set to move to Algeria, “for health reasons” and to “nevertheless pursue some studies profitable to the interests” of the Ministry³¹. However, three years later, Marche, still in Algiers, was forced to write a letter to the Ministry to ask for help in finding a position – any position, “I am not difficult” – that would provide him with a salary: “I would be very happy if, finally, I could have a position, that would secure my existence”³². Over the next few months, the Minister set out to recommend Marche to several public bodies, and finally, at the beginning of 1894, Marche was installed as government archivist of Tunis (Florio 2005: 23). The same year the “Carthage Institute” for arts, literature and science was created in Tunis. Marche was amongst the first members, regularly presenting communications in the *Revue Tunisienne* attached to the Institute. This provided an easy platform to finally publish his personal account of the Marianas mission, and the Committee Director of the Carthage Institute agreed to include it “even though it does not relate to North Africa”, because of its interest since “Mr Alfred Marche is, we believe, the only one of our compatriots to have ever visited the Marianas archipelago” (Marche 1898: 125). It would be published a few months before Marche’s sudden death during a visit to Paris.

The work done by Marche as first archaeologist of the Marianas has remained largely unknown and under-valued. He is recognised by archaeologists working in the archipelago, especially thanks to the English translation of his report (1982), but the details of his surveys, his excavations and the collections brought back have been overlooked. His very early contribution to the region’s archaeology is significant in itself, placing him among the pioneers of field archaeology active in the Pacific in the 1870s and 1880s. His fieldwork also produced an array of new observations for the Marianas: confirming the presence of pre-European indigenous pottery, describing the variety of material culture remains, conducting the first excavations of *latte* sites, demonstrating the diversity of their types and their widespread presence in several islands of the archipelago, and capturing the first photographic images of some of these *latte*. His collections still provide unique material for new and more detailed studies.

In addition, his interpretations of the *latte* sites, well in accord with his factual and “realist” style, are noteworthy in their reliance on the results of his excavations and in their anti-romantic tone. In 1898, freer to express his opinion than in his report for the armchair scholars in charge of grand theories, he wrote: “I call in particular the attention of the reader to these antic remains which were made by great navigators who explored these regions as the witnesses of ancient monuments from an accomplished and lost civilisation. These columns are nothing else than the support of the destroyed wooden huts” (1898: 217).

This is an interesting tone, departing from the general views applied at this time to the emerging archaeology of Pacific people: these seem to have moved along an axis that went from the impossibility of recognising a prehistory for those considered as primitive remnants of ancient humanity, to the imaginary of lost civilisations having been annihilated by subsequent migrations or by the degeneration of their people, for those considered as noble natives. Although clearly influenced by the evolutionist ideas of the time, Marche kept well away from any of these preconceptions, simply using the facts observed to deduct pragmatic interpretations. However, he does not appear to have been interested in the local traditions and interpretations about the past of the island and the sites he documented. He was probably disappointed by the loss of connection between the Marianas people and the remains of their past, a result of nearly two centuries of drastic depopulation and forced population removal in the archipelago. Still, he remained on the islands longer and visited more places than many outsiders, even to this day – attending weddings and funerals, testing the local cuisine, meeting a large number of the inhabitants including local celebrities still remembered today such as Father Palomo and Governor Olive³³.

33 - Mike T. Carson, pers. com. April 2018.

Marching – no matter what, through malaria fever and injuries – across new lands to discover new landscapes, new facts and new specimens was clearly his main pulling force (figure 10). Throughout all of his writings about the Marianas for instance, the only passage that uniquely gives way to more than detached observations relates to his ascension to the top of Saipan's Tapochao mountain, from where he could see the whole island surrounded by the coral barrier reef and Tinian in the south: "a grandiose and melancholic view: two islands that seemed deserted and, indeed, were virtually so, and on all sides the ocean" (1898: 135).



Figure 10: Personalised letterhead of Alfred Marche, letter wrote by Marche to Mr Charmes, dated 20 February 1887, on the occasion of his decoration as Chevalier de la Légion d'Honneur; Image by E. Dotte-Sarout, AN (F.17.12987b).

ACKNOWLEDGEMENTS

The author wishes to thank Philippe Peltier, Sarah Frioux-Salgas, Constance De Monbrison and Marie-Laure Bouvet of the *Musée du Quai Branly Jacques Chirac* for their help during the research undertaken in the collections and documentation. I also thank Helene Martison-Wallin and Mike Carson for their helpful reviews. This research is realised thanks to the support of Matthew Spriggs and his project CBAP (Australian Research Council (ARC) Laureate Fellowship Project 'The Collective Biography of Archaeology in the Pacific: A Hidden History').

Table 1: Chronology of Alfred Marche's Marianas mission. Sources include Marche's four publications (1889a, 1889b, 1891, 1898) and archival records of the Archives Nationales (F1712987b) and of the *Musee d'Ethnographie du Trocadero* now at the MQB-JC (D000976). Note that the MQB-JC records additional items brought back by Marche, including ethnographic artefacts probably collected in the last months of his mission from Guam and Yap (collection 71.1894.34 / archival records D000976); 136 items altogether.

Dates	Islands - occupation	Collection exports & reports
1887, 22 April – 4 May	Guam - arrival	
1887, 4-11 May	On board the Governor's ship, short visits of Rota and Tinian	
1887, 11 May – 25 July	Saipan – fieldwork	report-letter 1
1887, 30 July – 26 November	Guam – injury recuperation, natural history specimen collection	Probable first export of collections (<i>specimens of natural history, "35 skulls from ancient inhabitants and Carolinians, a few ethnographic objects" from Saipan [1891: 17] – at least 81 objects according to Trocadero/MQB- JC records</i>)
1887, 29 November – 5 December	Pagan - fieldwork	
1887, ? December – 1888, ? May	Guam - fieldwork	Second export of collections (<i>specimens of natural history and 11 ethnographic objects from Pagan</i>)
1888, ? May – 10 August	Rota - fieldwork	Half of the Rota collections were lost when the rowboat capsized on leaving the island
1888, ? August - 8 November	Guam – illness recuperation & cyclonic activity, meteorologic observations	report-letter 2 Probable third export of collections (conflicting records)
1888, ? November, 27 November	Tinian - fieldwork	
1888, 8 December – 1889, ? February	Agrihan - fieldwork	No record of archaeological observations - but a stopover of three days on Pagan & collections from Alamagan
1889, ? February – 4 May	Guam – fieldwork	Fourth export of collections, with a letter (<i>extracts published as 1889b</i>) (<i>at least 35 ethnographic objects from Rota and three "ancient Chamorro skulls" from Pagan, according to records of the Archives Nationales and Trocadero/MQB-JC</i>)

Table2: Summary of archaeological activities by Marche in the Mariana Islands. Sources comprise his 1889 (1891) report, letter, reports from 1887 and 1888, export catalogue and MH collection log kept by the MQB-JC. Note that after reception by the Ministry, all “ethnographic” material was to be taken by the Musée d’Ethnographie du Trocadero, while “anthropological” material (i.e. human remains) was gathered by the MNHN – along with every natural history specimens, probably including those from excavated materia

Island	Sites	Fieldwork type	Reported (collected) finds	Identified MQB-JC artefacts as illustrated in Figures 7 & 8
Saipan	“Several” funerary caves, no details	Surface finds & excavations	<ul style="list-style-type: none"> Human remains including skulls “Ovoid pointed stones likely used for slings” – at least three “Two or three barbed spearheads made in human femur” Stone axes “Remains from fired reddish earthenware pots or vessels” 	71.1894.34.91 71.1894.34.47 71.1894.34.108 71.1894.34.93
	Burial cave in “Mount Calaveras” (<i>Kalubera cave</i>)	Surface find	<ul style="list-style-type: none"> “One entire human skeleton in extended position” 	
	Burial cave in Mount Marpi (<i>Suicide cliff</i>)	Surface finds (?)	<ul style="list-style-type: none"> Three skulls “A few femurs” “Two pieces from barbed spearheads made from a human bone” 	
	Burial caves at “Point Inagen”	Surface finds (?)	<ul style="list-style-type: none"> “a piece of wood, apparently worked to make a coffin, but without any drawing or carving” (not collected?) 8 skulls “in line” 	
	“Ancient Carolinian cemetery” on “Kagnagousa” or “Magnaayan” Islet (<i>Managaha</i>)	Excavations	<ul style="list-style-type: none"> “A few skulls” (evidently around 15) “A few ethnographic objects” (export log: ornamental artefacts, arm ring, necklace, earrings, shell beads) “Pieces of turtle shell” Glass beads 	71.1894.34.113 71.1894.34.79
	Isolated <i>latte</i> structure along the track linking the western and eastern coasts of the isthmus	Surveys & Excavations	<ul style="list-style-type: none"> “Four upright stones that might have served as pillars for a dwelling of the ancient natives of the island”, “3 to 4 square meters in area” Pottery remains (excavations) Two stone tools, “weapons or cultivation tools” (excavations) “A few marine shells” (excavations) 	71.1894.34.35 71.1894.34.40
Guam	Isolated <i>latte</i> structure on the eastern side, (possibly “Apan Sang Te” site?)	Surveys & excavations	<ul style="list-style-type: none"> “Habitation traces” on top of plateau 3 to 4 meters above sea level: 4 pairs of “pillars”, 90 cm high, “anciently topped by half-spherical stones”, fallen down on the sides. Unfruitful excavations 	
	Burial caves in southern part of the island	Surface finds (?)	<ul style="list-style-type: none"> Three skulls 	
	<i>Latte</i> site along the road between Merizo and “Inajahan” (<i>Inarajan</i>)	Survey	<ul style="list-style-type: none"> “Ancient village” without any details recorded apart from upright stones Grindstones with cupules that “served and still serve to grind grains used for food”, associated with <i>latte</i> structures 	
	Cave “filled with inscriptions” in Inarajan area	Transcription	<ul style="list-style-type: none"> Transcription of the “few lines” observed, that “offers no coherence nor writing characters” (lost record?) 	

	Isolated <i>latte</i> structures north of Tafotofo (Ipan area)	Survey	<ul style="list-style-type: none"> Two "remains of ancient huts", no details
	Isolated <i>latte</i> structure along the inland track between the "Ilic" river (<i>Ilig</i>) & "Agagna" (<i>Hagagna</i>)	Survey	<ul style="list-style-type: none"> "Remains of a large construction" made up of "approximately one meter high" pillars, with fallen capstones
Rota	<i>Latte</i> site at "Matcham" (<i>Mochong</i>)	Survey & excavations?	<ul style="list-style-type: none"> "Ancient settlement centre" of at least 12 structures; made up of "pillars" 1 to 1.20m high, and covered with capstones that "served to support the crossbeam of the huts": Mainly pairs of 8 pillars, but one smaller of "4 or 5" pillars, and one "much bigger", over 17m long by 3m wide; made up of a wall 1.20m high/50cm wide on one side and similarly large pillars (4?) on the other side.
	<i>Latte</i> site "ruins on the east-south-east coast" (possibly Mariru point area?)	Survey & excavations?	<ul style="list-style-type: none"> "Double rows of 6 columns approximately 4 (in reality 2?) meters high and covered by their capstones", smaller structures present, all having lost their capstones One skull from adjacent cave
	<i>Latte</i> site or quarry in undocumented location, possibly As Nieves?	Survey	<ul style="list-style-type: none"> "Masonry pillars laying on the ground and appearing to have been constructed so as to form the support of huts; they were covered by a layer of lime friable and poorly consistent"
	Undocumented locations		<ul style="list-style-type: none"> Generally, observed ruins of <i>latte</i> site were "disseminated on all parts of Rota" Shell "spoon" (excavations, no location information) Two chiselled adzes (excavations) Two pottery sherds (excavations)
			71.1894.34.21 71.1894.34.22
Tinian	<i>Latte</i> site at "Astaga" (<i>House of Taga</i>)	Survey (photographs)	<ul style="list-style-type: none"> "Hut of a king or chief", made up of "two rows of 6 [columns], half of them overthrown" (records the dimensions and material)
	<i>Latte</i> site at "Tachuna" (<i>Tachonga</i>)	Survey	<ul style="list-style-type: none"> "Ruins similar to those of Rota island": one structure made up of a wall 1m30 high/70cm wide, 16m50 long, faced by 5 pillars. "Remains of several smaller huts of which the pillars in volcanic stone were of one piece"
Alamagan	Undocumented location	Collection (purchase?)	<ul style="list-style-type: none"> "2 large earthenware vessels", "almost intact", with "traces of smoke" on the inside and no mark left on the outside (lost as not listed in export and collection logs?)

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**CONTRIBUTION OF ETHNO-HISTORICAL
DATA TO THE ARCHAEOLOGY
OF THE SOUTH PACIFIC.
A STUDY OF THE GUSTAVE GLAUMONT
COLLECTION ON NEW CALEDONIA
(1884-1899)**

Élise Patole-Edoumba

ABSTRACT

Gustave Glaumont was one of the first Frenchman to study the history of Melanesian populations in New Caledonia and Vanuatu in the last quarter of the XIXth century. Self-educated and excluded from the circles of specialists in prehistory, anthropology and ethnography, this employee of the penitentiary administration became passionate about archaeology after reading reports from the explorations of the XVIIIth century and after his meeting with R. P. Lambert, on the Isle of Pines.

Results from his fieldworks and his publications would be particularly noticed by the scientific community and would have a seminal influence on future research. Its contribution to the knowledge of Kanak culture will be addressed here from the angle of the history of science and the colonial context at the end of the XIXth century.

Translated from French by Mathieu Leclerc and Julie Robert, including citations unless otherwise stated (originals to be found in the French version of the text).

KEYWORDS

Archaeology,
Prehistory,
Oceania,
New Caledonia,
Vanuatu,
Glaumont,
Kanak

INTRODUCTION

The historiography of archaeology provides many examples of discoveries made by bright amateurs on the fringe of learned societies and circles of established scientists. The emergence of the knowledge of Oceania's past is a good example of this. In the wake of the first great explorations of the XVIIIth century, published testimonies from military personnel, doctors, administrators and missionaries were commented and appreciated in the capitals' scientific enclaves throughout the XIXth century, notably during its second half. Gustave Glaumont is part of this category of observers. During the last quarter of the XIXth century, he was among the first to study the history of the Kanak populations in a quite peculiar way. Self-instructed and excluded from the circles of specialists in prehistory, anthropology, ethnography or linguistics, this employee of the penitentiary administration became passionate about archaeology after reading reports on the explorations of the XVIIIth century and after his meeting with R. P. Lambert, on the Isle of Pines (Patole-Edoumba 2013b).

His writings, as well as the rest of his collection, are valuable for ethno-history, archaeology and ethnography. These complementary collections provide new insights on the historiography and the epistemology of Oceanian archaeology. Two main categories of sources are gathered: writings and objects. Usually, each provides contrasting means of historical understanding. From an ethno-historical perspective, objects can at best help to understand a context. From an archaeological point of view, objects are prioritised, and writings consolidate and to a lesser extent invalidate the technical and functional observations. I propose here to explore both collection types at the same level and to consider them together as a coherent set that reveal a peculiar approach. Their trajectories are apprehended from the stage of the data collection (observations on fieldwork and the constitution of a collection) to the presentation of the results (publications and transferring collections to institutions)¹. These data are selected based on an acknowledged objective (the search for the origin of Kanak). Thus, Glaumont's contribution to the knowledge of Oceanian archaeology will be restored in relation to the scientific and political context at the end of the XIXth century.

1 - How the recipient institutions are selected is an interesting topic that deserves to be analysed but this is beyond the scope of this article.

THE JOURNEY OF A YOUNG MAN FROM ANGOULÊME IN OCEANIA

Biographical elements

Sébastien-Gustave-Octave Glaumont was born in 1855 in Angoulême. His father Jean-Baptiste Glaumont-Salzerac, a merchant from Charente, died in 1870. This left the young Gustave, 15, in charge of the family, considering that his mother, Marie Juzaud-Roux did not have a profession. After having completed college, he served in two administrations, the taxation office of Charente and the railroad company administration, before requesting his transfer to the Navy as a civilian assistant. He was sent to Cochinchina in 1879. However, with poor health and unable to deal with the subtropical

climate, he was forced to resign. Yet, his taste for travel and the exotic prompted him to apply to the penitentiary administration for a posting in New Caledonia, which at the time had been a French colony for almost 25 years. He became clerk editor in December 1884 in Nouméa. Very quickly, he distanced himself from his administrative tasks which resulted in regular sanctions. He was eventually sent to the Isle of Pines in December 1885 as a disciplinary measure for an umpteenth misconduct. This marked the beginning of his passion for Kanak history, linguistics, ethnography and archaeology. Gustave Glaumont spent six years in New Caledonia without earning any promotion. He spent the entirety of his spare time studying Kanak culture with the approval of the Governors Nouët and Pardon. The latter facilitated his assignment in Bourail in 1888 and then in the region of the Diahot in 1889. He also authorised Glaumont to take three months leave in 1890 in order to participate in the expedition of the Ministry for Public Instruction directed by the doctor-naturalist Philippe François in Vanuatu (Patole-Edoumba 2013a). After having spent time to explore parts of the New Hebrides archipelago and despite the results not being up to his expectations, Glaumont could not convince himself to return to his mundane administrative job. Suffering from malaria, he returned to Paris to recover and took on the opportunity to negotiate his transfer to another administration. He was once again supported by Noël Pardon who, in the meantime, allowed him to be nominated at the Order of Academic Laureates (*Ordre des Palmes Académiques*).

And so began his new career as a tax collector in August 1891, instead of leaving for Guyana. His professional career ended in Fécamp in 1916. He married Jeanne-Félicité de Pontavice de Vaugamy in 1893 and they had a daughter together in 1897². It is very likely that the family then moved back to Charente since the daughter is registered in the civil registers of the town of Royan in 1945. Did he stop scientific work because of the birth of his daughter? He then spent the next eight years following his return distributing the results of his observations and stopped abruptly by getting rid of all his collections. An anonymous volume presumably written by Glaumont and entitled *La colonisation et le bagne en Nouvelle-Calédonie par un vieux colonial* (The colonisation and convict-prison in New Caledonia by an old colonial) was published in 1902³. It strongly advocates for colonisation, which is in opposition with everything he had written before.

Chronology of the work

It is useful to review how Gustave Glaumont assesses his life overseas in 1898 in order to better understand what triggered his interest for the Kanak culture. At the time, he was reviewing his fieldwork notes from Vanuatu “written over there, day after day under the ardent sun surrounded by indigenous tribes”, working on a book that would eventually be published a year later: *Voyage d'exploration aux Nouvelles-Hébrides* (Glaumont 1899).

2 - Marie, Lucie, Marguerite Georgette Glaumont (14/12/1897 Fleurance - 5/1/1945 Royan).

3 -Entire excerpts are from his manuscripts written in 1888-1889 and today held at the *Musée des Beaux-Arts de Chartres* (Inv. E113).

“For six years I had been living in New Caledonia: thanks to my posting as an administration officer, I had travelled across this island from the South to the North and from the East to the West, spending my free time studying the traditions and customs of the indigenous people and the nature of the country itself. I took such genuine and charming pleasure in these excursions and the interesting studies it allowed me to undertake (...) I did this trip and I came back with malarial fevers, but I was charmed, thrilled from what I saw and what I will probably never see again. Today I am in France, confined in a lost backcountry town where I live such a bourgeois lifestyle (...) I said farewell to this life of adventure, to these remote explorations where one might well lose his life but that allowed to so strongly enjoy an absolute freedom, to see a wild and grandiose nature, completely virgin of civilisation and with the primitive lifestyle of its fierce inhabitants recalling the early days of humanity.” (Patole-Edoumba 2013a: 23-24)

Fostered by the tales of XVIIIth and XIXth centuries exploration trips, the title of the book on the New Hebrides shows in itself an aspiration to walk in the footsteps of illustrious personages. Perhaps he started dreaming about adventures when still in Angoulême, which would explain why he requested successively to the Marine and the Ministry of the Colonies to get to New Caledonia. His first colonial experience was brief but seems to have made an impression on him. As will be detailed later, it gave him the opportunity to note some observations that would later influence his future hypotheses. His first publication was about the wreck of the frigates Boussole and Astrolabe commanded by Jean-François de Galaup, Count de la Pérouse (1785-1788). In two articles in 1885 and 1886, he reported the discoveries made by the captain of the Bruat, missioned by the New Caledonian company of the New Hebrides off the coast of Vanikoro two years earlier⁴.

Each assignment was then an opportunity for new studies. However, his meeting with Father Lambert on the Isle of Pines was decisive, as he described⁵:

“It was when reading the book of R.F. Lambert on Neo-Caledonians that I was struck for the first time by the many similarities that seemed to exist between the traditions and customs of the Canaques and those of the populations of Asia. Was there any link between these populations, however currently so removed from one another? That is motivated by this idea that I began my work”⁶. (Glaumont 1888, preface).

Through his contact with the missionary, Glaumont began by studying the languages and the myths from the Loyalty Islands. He compared them to those from Vanuatu and from three of the Sunda islands in an effort to explain the origin of the settlement of New Caledonia⁷. He then proceeded to analyse the customs, which eventually resulted in a manuscript on traditions and customs. A section of it was dedicated to languages⁸. It would later be published as an article for

4 - “Le naufrage de La Pérouse”, *Bulletin de la Société de géographie commerciale de Paris*, 1885, t.7, p.481-482.

“Notices. Recherches faites et à faire sur le sort de l’expédition de La Pérouse”, *Bull. de la Soc. de géographie commerciale de Paris*, 1886, t.8, p.482-490.

5 - Pierre Lambert (1822-1903) is a missionary of the Mary congregation. He arrives at Nouméa in 1855. He is on the Isle of Pines from 1876 to 1889 when he meets Glaumont. Glaumont must have known about the book on the *Ethnographie des Canaques de la tribu Bélep* (Ethnography of the Kanaks from the Bélep Tribe) from 1876-1879.

6 - Translation from Dotte-Sarout, Émilie 2017. “How dare our ‘Prehistoric’ have a Prehistory of their own?! The Interplay of Historical and Biographical Contexts in Early French Archaeology of the Pacific”, *Journal of Pacific Archaeology*, 8 (1): 23-34

7 - “Ethnogenie des Insulaires de Kunié (Ile des Pins)”, *Revue d’ethnographie*, Paris, t.6, 1887, p.336-342. “Lesîles Loyauté”, *Bull. de la Soc. de géographie commerciale de Paris*, 1887, t.10, p.67-68.

8 - "Études sur les divers idiomes calédoniens en général et sur celui du "Nii" en particulier. Systèmes d'énumérations usités dans les idiomes de la Nouvelle-Calédonie, des îles Loyalty, des Nouvelles-Hébrides. Comparaison de ces systèmes avec ceux des 33 îles de l'archipel de la Sonde", Deux études. *Nouvelle-Calédonie. Îles Loyalty. Nouvelles-Hébrides*. Presses autographiques de l'Administration Pénitentiaire, à Montravail, dated March 1st 1887.

9 - "Usages, mœurs et coutumes des néo-calédoniens", *Revue d'ethnographie*, Paris, t.7, 1888. This article comprises the first section of the manuscript up to page 105 (with some deletions). There is only one figure with the caption: "guerrier néo-calédonien revêtu du masque à pendentif - statuette en bois sculptée représentant le même costume (musée d'ethnographie)" (New-Caledonian warrior wearing a mask with pendants - wooden sculpted statuette representing the same costume (Museum of Ethnography)). The second part was supposed to be published in t.8 of the *Revue d'Ethnographie* but the journal was interrupted in the meantime.

10 - *Étude sur les us, mœurs, coutumes, funérailles des Néo-Calédoniens - Théorie du continent austral englouti - Origines des Néo Calédoniens*, 55 figures, 300 ethnographic objects, Nouméa, December 1888.

11 - *Bulletin de la Société d'Anthropologie de Paris*, 1889, 12, 1. Léon Moncelon, miller in l'Allier, establishes himself in New Caledonia at the end of the XIXth century. He stays ten years and then becomes delegate representing New Caledonia at the conseil national des colonies (National Council of the Colonies). He writes several chronicles on the country's lifestyle before moving back to Paris. He fervently supports the right for Kanak to live on their land and is the author in 1886 of a book entitled *Le bague et la colonisation pénale à la Nouvelle-Calédonie*

the *Revue d'Ethnographie* after having been considerably rewritten by Théodore Hamy (director of the Trocadéro Museum)⁹. The full manuscript was finally published a year later with the title: *Étude sur les us, mœurs, coutumes, funérailles des Néo-Calédoniens - Théorie du continent austral englouti - Origines des Néo Calédoniens* (Study of the practices, mores, customs, funerals of the New-Caledonians - Theory of the submerged austral continent - Origins of the New-Caledonians)¹⁰. This publication allowed him to immediately gain recognition from the scientific community. He joined the *Société d'Anthropologie de Paris* and became national correspondent thanks to the patronage of Hamy, Léon Moncelon and Georges Hervé¹¹. The Governor Noël Pardon was interested by his quest for the 'primitive Kanak' since it legitimised the colonisation and he got him a posting in Bourail (Glaumont 1888-1889: preface). This was a real opportunity for him to back up his "moral evidences" by material elements from archaeological excavations¹²:

"It was good luck for me; after having known and studied the Canaques on the Isle of Pines, Ouen Island, Goro, Touaourou, Ounia, Yaté, etc... in short, in tribes from the Far South of New Caledonia, I was then able to compare my observations and make new ones on the canaques from the Centre of the island. (...) Bourail, for any other than a canacophile, if I may use this word, would be an absolutely stultifying stay. Apart from ten free individuals, the white population is comprised of convicts or ex-convicts on land concessions; not a very interesting element. I hence fully devoted myself to my studies of predilection: to the Canaques." (Glaumont 1889-1890: 5)¹³.

He excavated sites that were burned down during the 1878 insurrection in a radius of 25km around Bourail¹⁴, without losing his interest for the wreck of La Pérouse¹⁵. A stay in the Diahot region allowed him to develop his comparison between different types of prehistoric and contemporaneous lithics supporting his settlement theory, detailed in an unpublished manuscript¹⁶. He would submit parts of the latter (on the culture of taro and yam, pottery and fetish stones) for publication in renowned journals after his return in Paris¹⁷. He ended his data collection by a three months trip to Vanuatu¹⁸.

GLAUMONT'S CONTRIBUTION TO THE KNOWLEDGE OF NEW CALEDONIA'S PAST

Gustave Glaumont's work is still relevant today because he was one of the pioneers of Oceanian archaeology. The precision of some of his ethnographic observations and his methodological intuitions were original for his time.

An original and innovative methodology

I believe that Glaumont developed a pre-modern scientific approach. His objective was to identify the origin of the Kanak people and he thought they could have originated from Southeast Asia. He was looking for evidence amongst various disciplinary fields that were more or less developed at the time: linguistics, ethnography

and archaeology. He compared diverse observations and reached conclusions that were published and validated in renown journals:

“It is only through the similarities offered by their mores, customs, funerals and diverse burial practices, etc... with those used by other people, and especially through anthropology and linguistic, that we will be able to demonstrate, maybe not that they are autochthonous, but certainly that they are related to people today located more than 2000 leagues away, or at least that they have had with them enough prolonged or very frequent contacts to have kept such similar practices and customs.” (Glaumont 1888: 150)

The circumstances of his professional career first guided him toward linguistics and ethnography. The similarity he noted between some words and myths resulted in a short study of comparative linguistics in his book on mores and customs in 1888 (Glaumont 1888: 38 and 39). For instance, the words ‘sagaie’ (spear) or ‘hache’ (axe) are examined¹⁹. Accordingly, he was planning to work on every language of New Caledonia in order to establish a comparative grammar. This survey allowed him to determine that the majority of words had roots that were comparable to many Southeast Asian languages, thus identifying the Austronesian language family without naming it. Based on this conclusion, he was inclined to consider the Kanak as autochthonous, all the while acknowledging shared cultural traits with Papuans. According to him though, their differences would be due to a brutal separation that occurred at an unknown time.

He also spent his time describing cultural practices such as taro irrigated pondfields, funerary traditions or pottery craft. Therefore, he used linguistics and ethnography to review the contemporaneous Kanak material culture, from which he extrapolated on the origins of the human settlement based uniquely on ‘moral evidences’. “In 1889, a public servant from New Caledonia, in a short study entitled ‘de la pierre chez les néo-calédoniens’ [on lithics in New Caledonia], suggested a brand-new hypothesis on the origins of Kanaks, very attractive indeed though only supported by ‘moral evidences’” (Anonymous 1902: 24). As a matter of fact, all his later endeavours would be driven by this quest for ‘material evidence’. For example, the archaeological surveys and excavations in Bourail and the Diahot in New Caledonia, as well as the analysis of objects, would become a necessity to determine the origins of New Caledonia settlement.

“The presence of prehistoric tools from the age of knapped or even simply chipped stone in New Caledonia provided me with material evidence. These tools, about a thousand of them, document an almost complete sequence of the slow but continuous progress of an industry that was born in the country and then magnificently developed on site without interruption from the randomly picked up raw stone to the polished tool and the polished adze.” (Glaumont 1889-1890: 1)

par un témoin oculaire (Convict-prison and penal colonisation in New Caledonia by an eye-witnessed), Paris, C. Bayle éd. Georges Hervé is Professor at the école d'anthropologie de Paris and titular member of the *Société d'anthropologie de Paris* since 1880. *Bulletin de la Société d'Anthropologie de Paris*, 1889,

12 - The expression ‘moral evidences’ proposed by Glaumont and used by Pardon must be understood as a hypothesis lacking material or intuitive foundation.

13 - *De la Pierre chez les néo-calédoniens*. Présence de l'âge de la pierre simplement taillée en Nouvelle-Calédonie (On New-Caledonian lithics. Presence of the knapped stone age in New Caledonia) – unpublished manuscript, Nouméa, Diahot, 1889-1890 (Musée des Beaux-Arts de Chartres – E113). Translation adapted from Dotte-Sarout, E. 2017. “How dare our ‘Prehistoric’ have a Prehistory of their own?!” *Journal of Pacific Archaeology*, 8 (1): 23-34.

14 - “Fouilles à Bourail”, *Revue d'ethnographie*, t. 8, 1889, p.217-218.

15 - Gauthiot, Ch. “Mémoire et lettre relatives à l'expédition La Pérouse”, *Bulletin de la Société de Géographie de Paris*, 1888, T. 9, p.384.

16 - It must be compared to the manuscript addressed to Théodore Hamy *liste des objets trouvés jusqu'à ce jour par M. Glaumont en Nouvelle-Calédonie dans les environs de Bourail* (List of the objects found to this day by Mr. Glaumont in New Caledonia around Bourail), also dated from June 25, 1889 and kept in the archives of the *Musée du Quai Branly* - Jacques Chirac (Inv. D000939- 35300).

17 - “De l'art du potier de terre chez les Néo-Calédoniens”, *L'Anthropologie*, t. 6, 1895. “L' eta della pietra nella Nuova Caledonia. Breve riassunto con aggiunte e considerazioni di E. Giglioli”, *Archivio per la Antropologia e la Etnologia*. Vol. 26, Fasc. 3, pag. 801 à 810. “Travaux gigantesques des indigènes en Nouvelle-Calédonie”, *L'Anthropologie*, janv.-février 1897.

"La culture de l'igname et du taro en Nouvelle-Calédonie, travaux gigantesques des indigènes", *L'Anthropologie* 8, 1897, p.41-50.
 "La culture de l'igname et du taro en Nouvelle-Calédonie", *Bull. de la Société nationale d'acclimatation de France*, 1897, n°1, p.375-384.

18 - The aim was to assist Philippe François, who had been appointed by the Minister of Public Instruction and the National Museum of Natural History, to collect and study insects. But Glaumont took advantage of this opportunity to gather additional observations of ni-Vanuatu customs, notably on Espiritu Santo Island. He bought there several objects that he added to the collection he had already constituted from various other collectors.

19 - 'Sagaie': *n'gi* on the Isle of Pines, *n'dji* in Touaourou, *tchi* in Goro, Païta and Ouen Island, *n'dzi* in Unia, *dii* in Yaté, *n'djo* in Bouendi, *tchen do* in Pouébo, Kéra in Ni. 'Hache': *tanguï* on the Isle of Pines, *gni* in Touaourou, *ghi* in Goro, *ghi-é* in Unia, *ki-é* on Ouen Island, *gui-é* in Yaté, *gié* in Bouendi and Païta, *gui* in Pouébo, *oué-za* in Ni

20 - Only 200 pieces are left from this collection and clearly identified in European fonds (Musée d'Histoire de Nantes, Musée du Quai Branly, Musée Pigorini à Rome, Musée de Florence, Pitt Rivers Museum à Oxford, Musée de Berlin) (Patole-Edoumba 2013b).

The excavations were in fact embankment earthworks during which stratigraphic profiles were occasionally exposed and remains clearly identified in situ. Glaumont was aware of the novelty of some of his findings, such as the petroglyphs, and he even considered them as opportunities for further research (Glaumont 1889-1890). The work of Archambault (1901) a few years later will confirm this. The development of a collection and the study of objects also contributed to the process of elaborating theories. Glaumont stated that he managed to gather a thousand pieces including a hundred axes of different styles for this study (Glaumont 1889-1890). He completed his series with the analysis of specimens from accidental discoveries kept by acquaintances who joined him on fieldwork (the names of Guimard, Drouin, of the excavator Roussan, El Méloud or Azareuth appear in his writings). He also used the corpus gathered by the Secretary-General of the Home Secretary (*Direction de l'Intérieur*) M. Gouharou²⁰. All these objects were considered within an evolutionist framework. Starting from the current state, the fully finished objects used by the Kanak society he was familiar with (as a sort of reference), he then characterised every other piece found in different contexts based on their degree of technicity. The preforms reveal little investment from the artisan and are therefore considered older than the more complex finished forms. The descriptions are often paired with sketches occasionally evoking what would be called today '*chaînes opératoires*'. On this topic, the study of stone tools is particularly characteristic. He discriminated three categories based on raw materials: limestone, schist, hard rocks: serpentines, jadeite. In each group, he identified categories that could be qualified as typo-chronological (from raw stone to polished and pierced stone, including chipped stone or heat-treated stone by fire) (Glaumont 1889-1890: 139).

"These tools, about a thousand of them, document an almost complete sequence of the slow but continuous progress of an industry that was born in the country and then magnificently developed on site without interruption from the randomly picked up raw stone to the polished tool and the polished adze. Thanks to this series of tools that I had the pleasure to examine closely we can follow this primitive people in its constant walk forward."

(Anonymous 1902: 24)

With all these data gathered, Glaumont proposed interpretations based on two main sources. He referred to Kanak oral traditions to find the meaning of the objects, a process that was unusual at the time. It is this process that is mostly used to decipher the signs engraved on some stones: "it is always better to rely on the natives rather than ourselves for these kinds of matters, even if it is sometimes necessary to control and critique their observations" (1889-1890: 113). The role of the scientific literature he had access to several thousand of kilometres away from Paris is essential. Unfortunately, it was often outdated and aimed at the general public and therefore became the source of many errors as will be detailed in the last part of this chapter. This shows the

limitations of the approach we previously called prescientific. Glaumont was self-educated and not familiar with the scientific method and its required critical reasoning.

Ethno-historical and archaeological advances

The objective here is not to enumerate every contribution made by Glaumont to the knowledge on New Caledonia given the richness of his descriptions. I will analyse mainly the historical, ethno-historical and ethnographic information complementing the archaeological data. He began his investigations in Bourail where he tested his approach by undertaking a quasi-archaeological assessment of the villages that were burned down during the insurrection of 1878 (grand Kérou, petit Kérou, Ménéfou, Néo, Néra, Ouan, Guaro, Irunié, Nessadiou, Téné, etc...). Here is the context in which the discoveries were made:

“since they [the Kanaks] were taken by surprise (the fire started during the night), they had to flee in a hurry and abandoned 3/4 of their domestic objects”. They are therefore remains abandoned in a hurry in 1878 and preserved because “very few people are even remotely interested by ethnographical questions.” (Glaumont 1888: 7). Using the same approach, he aimed at characterising precisely the contemporaneous habitat (of 1878)

during this fieldwork, so as to later identify some older techniques within archaeological features, i.e., simpler and morphologically different (Figure 1).

“Here is the usual shape of the huts’ locations: a circular platform with a diameter of 5 to 6 meters elevated on a 0.6m high embankment with its edges at a 45° angle for water drainage. Most of these embankments are made of soil. They are covered with non-cemented stones for chiefs and notables. They show a zone of recess for the door. There are two types of fireplace: fireplaces in houses are squared circular or elliptic but always delimited by large stones or pebbles. (...) And the fireplace in a few

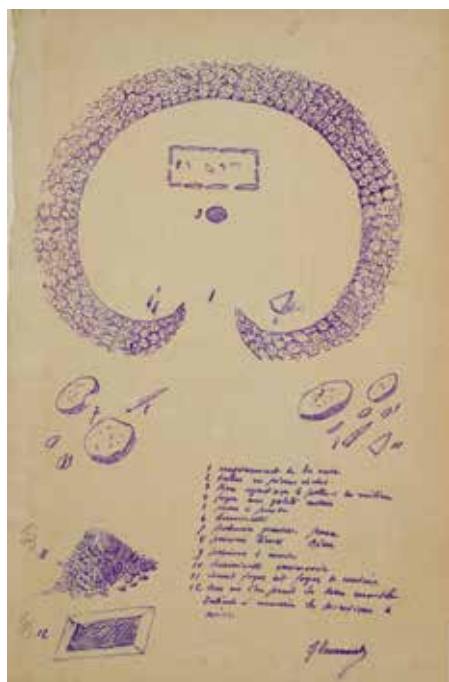


Figure 1: Map of structures from a village burnt down in 1878 (Glaumont, 1888-1889: 30). Courtesy collections of Musée des Beaux-Arts de Chartres (Inv. E113)

steps away from the hut, appears like a pyramid made of rocks: this is the Kanak oven, the kitchen. Alongside is a hole from which loose dirt is collected to bury the food (yams, taros, bananas) for steamed cooking.” (Glaumont 1889-1890: 28)

Other structures are also mentioned: hangars, large stones placed nearby and used to polish axes, adzes, sling stones, pearls for necklaces, wooden maces and spears. Some lithic flake burins used to sculpt the weapons, as well as wooden architectural elements and fire cracked rocks complete the assemblage. In a hut attributed to a chief “based on its appearance (elevated position, large hut, coconut trees, banyans)”, he recovered a pottery vessel still standing on its support and included it in his corpus for a future comparative study of pottery (Glaumont 1889-1890: 30). In a cluster of ash at the entrance of the hut he found a triton shell in which 48 small flaked and polished sling stones were placed along with a very large chief’s polished sling stone and a jadeite adze. It is not mentioned if it was during this investigation that the club attributed to the Chief Ataï, killed during this insurrection, was recovered (Figure 2). However, his work in localities around Bourail allowed Glaumont to gather a series of objects on which he based his theory on the evolution of flaked and polished stone.

Figure 2: Club attributed to the chief Ataï.
Glaumont collection,
courtesy Musée d'Histoire
de Nantes (Inv. 979.30.45)



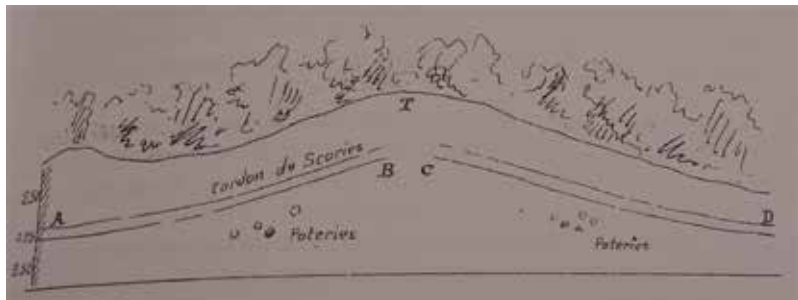
Glaumont stands out from his predecessors by being the first to undertake archaeological surveys and excavations, and to record stratigraphic profiles. At Ambae (Vanuatu), he located pottery sherds in a stratigraphic profile (Figure 3). Matthew Spriggs and Stuart Bedford address in this volume the significance of this discovery and how it was beneficial to their work.

“The side of the right bank is a high, vertical earth cliff. Coming near it I judged it to be 5-8m high. In examining it closely we saw that at 2.5m height there was a black band some 0.25m thick. I pulled off a piece and saw that this black deposit is just a layer of volcanic scoria, shot through with iron, etc. The most remarkable thing is that below this band of scoria, 0.25m thick,

(...) we pulled out of a lower clayey layer thick sherds of pottery without designs nor marks of any kind”²¹
(Glaumont 2013 [1899]: 84).

21 - Translation from
Spriggs M. and Bedford S.,
“Rediscovery, Confirmation
and Dating of a Stratigraphic
Profile Described by
Gustave Glaumont
on the Island of Ambae
in 1890”, this volume.

Figure 3:
Stratigraphic profile
recorded in Ambae
(Glaumont, 1899: 84)



But let us go back to New Caledonia and focus on the discovery of petroglyphs and the excavations undertaken. The book from 1889-1890 details many, including these ones:

“During one of my excursions to the caves of ‘Oua Oué’. One day I was with the Chief Massavero visiting other natural caves I suspected had been inhabited in the past: the one from ‘Pa oro’, that I already mentioned. It is below ‘Pa oro’ that I discovered an enormous flat stone 3 meters high and 2 meters wide, covered with engraved drawings made in notches/hammering. There are seventeen images, seventeen engravings on this ‘Pa oro’ stone and I faithfully reproduce them here.” (Glaumont 1889-1890: 113).

“Not far from Oua Oué (...), at about 6 or 7 kilometres, still in the mountains and on a quite elevated hill is the engraved stone of ‘Moi ne vra’ of 4 to 5 cubic meters. On this stone are some signs, crosses, criss cross lines, etc, debossed using the same technique as at Pa oro.” (Glaumont 1889-1890: 115).

Glaumont also mentions the finding of 13 stones with engraved motifs made by hammering on the concession of a man called El Méloud, located on the road to Nésadiou.

But his investigations were not limited to finding the stones. He described them, drew them and tried to understand the meaning of the petroglyphs. The demonstration he gives about two of them is particularly convincing (Figure 4). Having previously observed the culture of yams, he suggests the hypothesis that the series of superposed semi-circle are representations of yam fields planted on some hills. “On this mound, he plants a wooden stick around which curl up the leaves and branches of the yam, a bit higher, he makes another concentric semicircle mound identical to the first one and more again. These concentric semicircles cover the whole hill and appear as below. Every hill with old yam plantations is like this.” (Glaumont 1889-1890: 134).

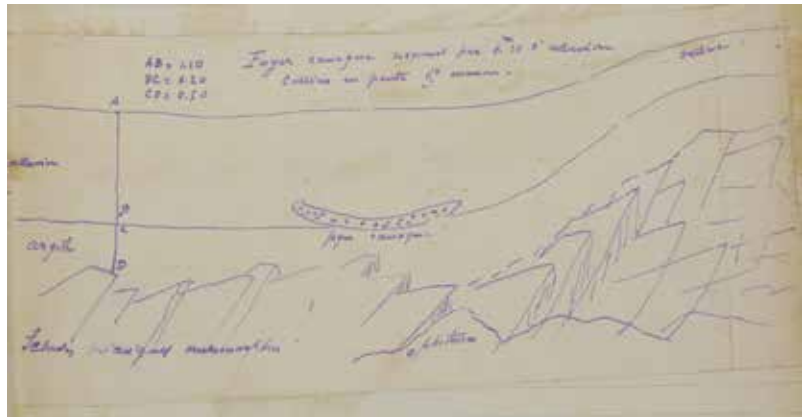


Many rock shelters of Pa Oro and Oua Oué seemed to have been identified and visited in order to survey or excavate them. Joined by the Commandant of Bourail in one of the caves and after having crawled for several meters to reach its end, Glaumont reached a narrow cavity in which he found sling stones and the remains of a Cardium shell obviously eaten by humans. On the site called the ‘Devil’s hole’ located on the property of a man called Drouin in the locality of Téné, 17km away from Bourail and at the feet of the central mountainous chain, he identified old Kanak villages (at least a thousand

Figure 4:
Petroglyph drawings.
The signs on figures 10 and 13 are interpreted as yam gardens (Glaumont, 1889-1890: 130). Courtesy collections of *Musée des Beaux-Arts de Chartres* (Inv. E113).

huts according to him) surrounded by 200 km of taro pondfields. At a short distance from there and nearby a river, he exposed two circular enclosures comprised of natural rocks and others evidently brought by humans. Amongst the alluvium under the stones are pottery sherds, stone hammers, pics, and Cardium shells displaying holes made by percussion. At a depth of 2 meters, two sandstone rocks (non-local), one of them weighting 25 kg, have holes made by hammering on each of their sides in a symmetrical fashion. The Kanak who were with him considered the stone taboo and refused to transport it. Further away, he unearthed another shale stone with a series of five small 1 cm deep cups on one side and 31 on the other, including an oval one. Once again, the Kanaks did not want to touch it because of its sacred character. Lastly, on March 9, 1889, the worker named Rounan found at 1.10 m deep an old fireplace while digging a trench behind his own house in Houailou (east coast). Glaumont recorded the stratigraphic profile. At the base was a natural layer of schist over which there was a 50 cm thick yellowish clayey layer and a 1.10 m thick layer of alluvium. It is in the clayey layer that a 20 cm thick circular fireplace was identified (Figure 5).

Figure 5
Stratigraphic profile
recorded in Houailou (Glaumont, 1889-1890:160). Courtesy collections of
Musée des Beaux-Arts de
Chartres (Inv. E113).



In addition to his archaeological descriptions, Glaumont also studied ethnographic and archaeological objects which he always placed in a diachronic context. He studied contemporaneous objects with a technical and functional approach.

“The Kanak always has some baskets in his hut to stow his supplies or his little fetishes. They are of all shapes and they are manufactured with the stems of various shrubs depending on their purpose. They generally have an oval oblong shape constricted in the middle. The women manufacture them at the same time as the small square bags the Caledonian carries when he travels. It is almost the same form as our basket. It is held by two braids that go over the shoulders.” (Glaumont 1899: 92)

“The costume of the natives is not very complex: a rolled strip of fabric tied in the back hides their body; the extremities are passed between the legs and over the belt from which they hang like an apron; their nudity is thus hidden. For some, the belt is made of tree bark, the apron is a fine mat with regular yellow and red drawings.” (Glaumont 1899: 22) (Figure 6).

He also attempted to explain the evolution of techniques or even their disappearance when not finding older equivalents in the excavations: “the complete disappearance of such an important industry can only be explained in my opinion by the detrimental action of an immigrant element, invader and conqueror that ignored pottery and used only wooden bowls” (talking about Vanuatu, Glaumont 1899: 86). Archaeological remains and ethnographical objects are therefore integrated within an evolutionist continuum, while the appearance or disappearance of a technique is explained by a diffusionist theory (of population migration). (Figure 7).

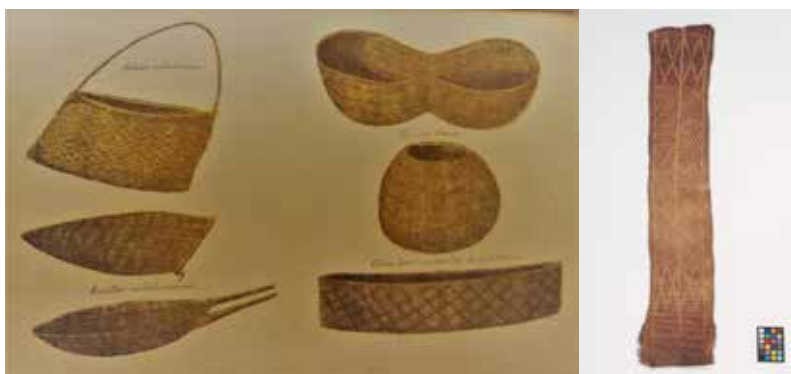


Figure 6:
Drawings of various baskets
(Glaumont, 1888) Courtesy
collections of Musée des
Beaux-Arts de Chartres
(Inv. D388).

Figure 7:
Vanuatu clothing-mat.
Glaumont collection, courtesy
Musée d'Histoire de Nantes
(Inv. 979.30.41)

HYPOTHESES AT THE SERVICE OF A POLITICAL CONVICTION

Before addressing in detail the global theory proposed by Glaumont about the primitive peopling of New Caledonia, it is worth reviewing the scientific context at the end of the XIXth century. What is the level of knowledge about the past of New Caledonia in 1884?

Otherness and the Kanak past in 1884, date of Glaumont's arrival in New Caledonia

Since the irruption of New Caledonia in the European imagination in 1774, after the discovery of the Grande Terre by James Cook, the various descriptions of the environment and of the customs resulted in a stereotypical representation of the Kanak during the XIXth century. Two complementary images are conveyed: the savage and the cannibal. Although the concept of race (a term not used) in the XVIIIth century and at the beginning of the XIXth century is synonymous with the human variability caused by behaviour and climate (Buffon 1749 and Lamarck 1909), around 1850, it is confirmed, essentialised and

22 - Linné, in his *Systema Naturae* (1738 to 1758), is the first to have attributed a classification for individuals based on colour (white, black, yellow, red)

fixed around hereditary characters (Douglas 2006). The exploration of Oceania exemplifies the evolution of interpretation. Cook and Forster for example, distinguish a 'yellow race', rather Polynesian and Micronesian and according to them corresponding to tall, robust individuals with an open physiognomy; and a 'black race', Melanesian and characterised by individuals with broad cheekbones, narrow forehead, thick lips and flat nose (Cook 1778 and Forster 1778).²² Probably under the influence of established naturalists such as the Swedish Carl Linné and the French Georges-Louis Leclerc, Count of Buffon, the differences are explained by the influence of climate and behaviour. Following the geo-cultural and racial classification advanced by Dumont Durville in the 1830s distinguishing between Polynesia, Micronesia and Melanesia, the Kanaks, along with the aboriginals of Australian and Tasmania, integrate the population group of the black islands, supposedly inferior (because they are "hideous", "brutal", "limited" according to him). The counterpart of this category is the supposedly superior race from Polynesia, Micronesia and the Malay Islands (Dumont d'Urville 1832). Other members of the crew during Dumont d'Urville's first and second circumnavigation trip develop analogous theories. The phrenologist Dumoutier on the *Astrolabe* and the *Zélée* supports the commander's theory by suggesting a hypothesis for the peopling from Asia based on the morphological characters of analysed populations. The botanist, Pierre-Adolphe Lesson and the surgeon Jean-René Constant Quoy both theorize independently a more nuanced and contrasted version of this notion (Patole-Edoumba 2016 and see the chapter of Anne di Piazza in this volume).

23 - Analysis undertaken based on a corpus of 57 Kanak skulls, filed at the MNHN, the *école de santé navale* (School of Nautical Health) of Toulon and the *Société d'Anthropologie de Paris*.

The debate still goes on in learned societies after 1853, thanks to data acquired in the field. Those provided by the surgeon Adolphe Bougarel notably extend Quoy's hypothesis according to which there were three races in New Caledonia (a native pure black one close to Papuans, a yellow one arrived more recently and a mixed race). He also addresses the question of race-mixing and the autochthonous character of the Melanesian race that will later be particularly discussed (Bougarel 1860, 1861; Bertillon 1872)²³. All these classifications are influenced by the emergent evolutionist reasoning according to which there exists a continuous chain of living beings that links the monkey, the savage and the civilised man (Darwin 1859; Haeckel 1874; Lamarck 1909; Wallace 1869). The populations from Africa, America and Oceania (with all the aforementioned nuances) are therefore considered as 'living fossils' or some missing links of evolution depending on the case. The emerging European science of prehistory struggles to expand its metropolitan territorial scope and does not address the question of Oceanian material remains until 1871, when Bonnafont explores some caves in the Loyalty Islands and finds a *Tridacna* necklace in a chief's burial (Bonnafont 1871). The first actual archaeological remain is attributed to Edmond Marie, Deputy Commissioner of the Marine in Nouméa, who recovers an axe from quaternary deposits on Koutomo Island (Isle of Pines). Jean-Baptiste Gassies, director of the Museum of Prehistory in Bordeaux, presents the discovery

in front of the *Société d'Anthropologie de Paris* in 1874 (Gassies 1874). From the first half of the XIXth century and the establishment of religious congregations (1843 in New Caledonia), missionaries convey the notion of cannibals to justify the necessity of their enterprise to convert 'lost souls'. However, it is worth noting that Father Montrouzier concludes from his observations of Kanak customs that an Asian origin could be considered based on similar cultural practices, such as taboo, across much distanced territories (Montrouzier 1860). Such is the extent of knowledge about the past of New Caledonia and the perception of Kanaks by Europeans in 1884.

Glaumont's main theories: between indigeneity, evolutionism and quaternary hiatus

In this context, Glaumont appropriates a number of theories and adapts them to his field and his political convictions as a self-described "canacophile". His sources are ambivalent, some being scientific and others more informal. This dichotomy is also found in the corpus of objects still preserved to this day. Some pieces of remarkable craftsmanship and historical value are found alongside 'curios' or objects manufactured for overseas export. As a result, his deductions are ambivalent; while some of them reveal a valuable intuition, others appear totally unfounded.

Glaumont claims that the Kanak population of New Caledonia and the New Hebrides is autochthonous. He seems unaware that this has already been argued previously by Bougarel (1860). According to Glaumont, the population arrived from Southeast Asia (Sunda Islands and the Philippines) at the time when an austral continent existed. But this population is also a link in humanity's chain of evolution. The Kanak is:

"a complex being that developed slowly, very slowly, isolated in the middle of the vast ocean (...) [They] are not worthless and degraded beings, they represent one of the stages of humanity, more civilized than was the Cheullean man of Europe. When the White man comes, the Melanesian tends to disappear. It is yet another link in the human chain that is lost. This is my hypothesis and its development." (Glaumont 1889-1890: 33)

"In summary, we took the New Caledonian at his birth, we followed him through his life and after his death; we were able to note the similarities between his customs and traditions and those of people inhabiting the islands of the arc that goes from New Caledonia to New Guinea, the Philippines and even Asia (...) Since these different people, so distanced from one another, share the same customs, the same mores and ceremonies, etc... given that they are also similar from an anthropological point of view, it must necessarily be that the New Caledonians, people from New Ireland and the New Hebrides, etc.... either originate from New Guinea and the Philippines, in short from the same source, or are autochthonous in their respective islands (...) The latter hypothesis is only possible if the islands were connected in the past, if they were forming a continent." (Glaumont 1888: 175-176)

Glaumont admits willingly that the distance between the islands is not an obstacle for settlement. However, he is unable to explain the differences between the 'black race' and the 'Polynesian race'. Since the winds could not have segregated the populations, he has to rely on the theory from the famous French prehistorian Gabriel de Mortillet (1821-1898) about the 'quaternary hiatus'. This theory argues that there was a key moment in time when a cataclysm caused the submersion of a continent, which justifies the isolation of the South Pacific Islands and the differential evolution between Melanesia and Polynesia. The populations were trapped and evolved in complete isolation, with some of them, including the Kanaks, remaining in the Stone Age. "The New Caledonians and their brothers the Melanesians, isolated on their islands, have remained through their traditions, customs, implements, weapons, industry, the men of the Quaternary hiatus."²⁴ (Glaumont 1888: 182).

24 - Translation from Dotte-Sarout, E. 2017. "How dare our 'Prehistoric' have a Prehistory of their own?!", *Journal of Pacific Archaeology*, 8 (1): 23-34.

But this demonstration is not totally satisfactory when confronted with the objects and the observations from fieldwork. Kanak culture is paradoxical, he says; its rock art, wooden sculptures and the use of stone is Magdalenian, its flaked scrapers are Mousterian, its spears are Solutrean, its heat-treated stones by fire, gardens and slings are Thénaisian and its polished stones are Neolithic. In fact, Glaumont considers that the Kanak civilisation has cultural traits corresponding to different periods of the European Palaeolithic and Neolithic. In order to break this intellectual deadlock, he develops a theory of peopling from New Caledonia and moving from the East to the West. According to him, the invention of the stone adze, for which he showed the technical evolution (from its shaping to its polishing), is the ultimate evidence of their indigeneity and their evolution in isolation. Following the cataclysm at the beginning of the Quaternary ('quaternary hiatus' of de Mortillet), a wave of refugees, including the Kanak, arrived to Europe well before the Europeans landed on New Caledonia. This hypothesis would also explain the fact that the Kanaks were in New Caledonia before Europeans. The idea of a settlement of the European continent from Asia, commonly known as 'orientalism', appears at the beginning of the XIXth century with the geographer Balbi²⁵. It will become so popular amongst archaeology amateurs until the beginning of the XXth century that the famous prehistorian Déchelette (1908) will feel obliged to denounce it in his archaeological textbook.

25 - A. Balbi, Introduction à l'atlas ethnographique du globe, Paris, Rey et Gravier, 1826, p. 5-6.

Glaumont thereby completes his argumentation in such a way that it satisfies his deep political convictions about the injustice of colonisation, which he voiced in his 1888-1889 manuscript in a section preceding that on the remains from the 1878 insurrection (Patole-Edoumba 2013b).

His influences

Written sources

Gustave Glaumont amalgamates different geological, palaeontological and prehistorical postulates. He uses two main sources to support the existence of a continent and its submerging at a key moment in Earth's history. One is the theory of the 'uprising craters' or of the mountain system developed by the geologist Elie de Beaumont (1798-1874). It argues that chains of mountains angled in the same direction are of the same age, regardless of their locations. This concept is developed in 1829-1830 at the same time as the authoritative theory of catastrophic evolution by the naturalist Georges Cuvier. It will however rapidly fall into disuse in the 1870s.

Glaumont's other inspiration is the hypothesis of an old continent called Lemuria advanced by the British zoologist Philip Lutley Sclater in an article in 1864 and rapidly popularised by Ernst Haeckel (1834-1919) in 1868²⁶. Sclater thought that a bridge linking Southeast Asia and the Indian Ocean once existed, which explained the biogeographical distribution of mammals and lemurs in particular. The theory was widely diffused thanks to Haeckel's book and was in vogue until the beginning of the XXth century. Later on, it was heavily criticised by the British naturalist Wallace (1823-1913) and invalidated by subsequent naturalists.

"We could argue with as much likelihood that all these islands, united with the Sunda archipelago, the Moluccas, Borneo, the Philippines, etc... primitively linked Asia to Australia. In other words, that almost all of current Melanesia formed a vast continent similar to South America and that the Malacca peninsula connected it to Asia, like the Panama isthmus joins South and North America, until the catastrophe transformed it into a series of archipelagos. This is our starting point." (Glaumont 1888: 151).

Glaumont's anthropological inspiration comes from the debates on the origins of mankind that emerged in the middle of the XVIIIth century in Europe (Buffon 1749; Linné 1758) before real investigations were undertaken a century later. Many schools of thought addressed the issue. On the one side are the anthropologists such as Paul Broca (1824-1880), founder of the *Société d'Anthropologie de Paris* and Jean-Louis-Armand de Quatrefages de Bréau, naturalist at the *Muséum national d'Histoire naturelle*. On the other side, are found the prehistorians led by Gabriel de Mortillet. For the former, two conceptions of alterity are opposed around the debate on whether evolution is polygenist (Broca) or monogenist (Quatrefages) (Richard 2008). Do extra-European peoples belong to the same line of evolutionary process from apes to modern humans? Did they simply remain at an inferior stage of development? Or, as suggested by Quatrefages, do they show that there is another human species?

26 - Sclater presents his hypothesis in an article entitled "The Mammals of Madagascar With Lithographic Plate of Typical Mammals", *Quarterly Journal of Science*, vol. 1. 1864. Haeckel mentions it in his "Natürliche Schöpfungsgeschichte" in 1868 and more generally in his popular book on the origins of humanity (*Histoire de la création des êtres organisés, d'après les lois naturelles*, Volume III, *Anthropogenèse*, p. 214-215).

For the emerging science of Prehistory, evidences of antediluvian humans provided by Boucher de Perthes in 1859 (incised bones and human skeletons from in situ Pleistocene deposits) are followed, twenty years later, by the notion of *Anthropopithecus*, or an intermediary Tertiary Man between apes and modern humans, able to intentionally knap stones (Coye 1997). Mortillet is behind the concept. He states that there are three species differentiated by different knapping techniques. Glaumont adheres to Broca's polygenist theory and applies it in Oceania. In fact, he reuses the arguments of his predecessors who differentiated a 'Melanesian race', a 'yellow Polynesian race' and a mixed race:

"we tend to believe that Kunié's population [Isle of Pines] is comprised of two main elements: a pure New-Hebridese black; a pure yellow, Polynesian, Tongan or other foreigner. The mix of these two elements in very uneven proportions resulted in the actual Kunié type. Before, as proven by old skulls, existed the pure Papuan type" (Glaumont 1888: 148).

"It is worth noticing that men from the West Coast, at Malekula or Santo [Vanuatu], look Melanesians, while men from the East Coast are Polynesians or the result from a blend/mix between Polynesians and Melanesians. The blurred issue of these races deserves dedicated research." (Glaumont 1899: 36).

Nevertheless, Glaumont favours Quatrefages' spiritualist approach (that excludes the human species from the animal kingdom) and the notion of a link in the evolutionary process over Mortillet's *Anthropopithecus*. However, the efforts of the Father of technical classification (Mortillet) are useful for his study of knapped and polished stone tools in order to infer a theory of human settlement: "I will use M. de Mortillet's method given that New Caledonians belong to the Quaternary, that they touch and belong to the various divisions of this Period" (Glaumont 1888-1889: 32). Gabriel de Mortillet structured the prehistoric, or palaeoethnological as it was called at the time, discipline by proposing a classification for stone tools inspired by Lamarck's transformism, to which he added a diffusionist dimension. Each tool is thus characterised by morphological (typological) criteria, an eponymous site and a stratigraphic position. He applies the evolutionist principle of the naturalists to the prehistoric material culture, assuming that the transformation of the tools results from a combination of influences from the environment on the biology and therefore on the technique. In other words, the improvement of the tools is related to societies' needs and follows the law of continuous and uninterrupted progress. In addition is the idea according to which the presence of a similar shape results from population migration. This theory is in opposition with Quatrefages' vision of technical changes that views them in terms of exchanges between groups. Yet, by 1880 this diffusionist conception is challenged by the Belgian geologist Edouard Dupont, who develops a model based on the synchronic evolution of cultures with geographical variations (Coye 2011).

It is also worth mentioning that the Anglo-Saxon culturalist trend, initiated by Tylor in England in 1871 and reused by Boas in the United States, is in opposition to evolutionism and the idea that culture is the product of the material conditions at a specific time and place (Rozin 2016). Glaumont is also inspired by Mortillet's methodology in regard to the long lived tradition of ethnographic comparatism developed by Joseph François Lafitau and Yves Coguet during the XVIIIth century. According to discourses of the time, it consists in restoring the primitive traditions by observing "*les peuples rejetons*" ("offshoot people")²⁷ that the biblical episode of the Flood excluded from any evolution and from the original land, i.e., Europe²⁸. At the instigation of John Lubbock in England and in a more materialistic version, Mortillet only considers the so-called savage populations. This scheme is transposed into a social perspective by Lewis Morgan who offers three main levels of evolution: savagery when Nature and Culture merge, barbarity and civilisation, highest level reached by Western nations²⁹. Glaumont's method described previously emanates directly from this approach. Like Haeckel, Mortillet benefits from a very wide audience in the circles of amateurs thanks to the diffusion of two books of popular science: *Le Musée préhistorique* (The Prehistoric Museum) in 1881 and *Le Préhistorique, antiquité de l'homme* (The Prehistoric, antiquity of man) in 1883 (Coye 1997; Mortillet 1869, 1872; Richard 2008). Glaumont extensively uses these two vade-mecums.

27 According to Coguet's expression and in contrast with the 'policed nations'

28 Coye, *opus cit.*

29 Theory developed in 1877 in the book *Ancient Society*, translated in French as *La société archaïque* by H. Jaouiche in 1971, Anthropos editions, Paris.

Similarly, Henri de Cleuziou, who wrote a book of popular science entitled *La création de l'Homme et les premiers âges de l'Humanité* (The creation of Man and the early days of Humanity) and edited by Flammarion in 1887, also inspired Glaumont. This is the illustrated version of Mortillet's theories. The prehistoric man is given a Herculean profile, compared with contemporaneous exotic populations possessing more modern tools. A section is dedicated to the petroglyphs on Breton dolmens ('peoples of the dolmens' according to Mortillet) to which Glaumont regularly refers in order to support his hypothesis of Kanak migration in Europe (Glaumont 1889-1890). All in all, being the precursor of New Caledonian archaeology, Glaumont cannot rely on solid intellectual references to support his claims. Consequently, he invents his own image of the Kanak from which he develops a hypothesis.

Material source

In addition to the written sources, there is a corpus of objects which selection and descriptive method allow us to better understand Glaumont's approach. The composition of the corpus and the nature itself of the objects are characterised by their ambivalence. Significant historical pieces (such as the bird beak club that belonged to the chief Ataï, decapitated during the insurrection of 1878) are alongside objects more suited to a commercial display such as a traditional Kanak chambranle (Figure 8) or a ceremonial axe - a type of object for which Glaumont shows a real interest (Glaumont 1888, illustration 37 and 1889-1890: 40-43; Figure 9).

Figure 8:
Chambranle (door frame)
 from the chief's house
 or "grande case".
 Glaumont collection, courtesy
 Musée d'Histoire de Nantes
 (Inv. 979.30.1)



Figure 9:
 Ceremonial axe.
 Glaumont collection,
 courtesy Musée d'Histoire de
 Nantes (Inv. 979.30.3)



Glaumont benefited from being able to refer to Mortillet's work to guide his own work on stone tools. However, he seemed unable to methodologically describe other types of objects. As opposed to Great Britain or Germany, the emergence of ethnology occurred late in France (beginning of XXth century)³⁰. For New Caledonia, the first monograph was written by Fritz Sarasin in 1911. The Museum of Ethnography was the only institution where comparative studies of objects were undertaken. Directed by the anthropologist Théodore Hamy from its opening in 1878 (with whom Glaumont communicated as soon as he was back in Paris), the museum followed a naturalist approach and the object-document or the material archive was classified following a systematic logic so as to reflect "the order in which the needs and tendencies of humanity are developed" (Hamy cited by Dias 1991). This approach is quite similar to Mortillet's and could have been beneficial to Glaumont. But Hamy, as opposed to Haeckel or Mortillet and Cleuziou, did not produce a version of his work for the general public. Consequently, Glaumont, who probably did not have access to specialised literature from New Caledonia, could not avoid the inherent difficulties in developing a collection for his material of study.

30 - The discipline was developed in these two countries by the museums (Peabody in 1866, Cambridge and Oxford in 1884 for Great Britain and Berlin in 1873 and Hamburg in 1879 for Germany).

CONCLUSION

In 1902, Glaumont's professional trajectory and his success in bringing his material of study from the field to the museums suggest that he achieved his objective formulated 17 years earlier: to find an explanation for the origins of the Kanaks³¹. This issue resolved, what would have been the point in continuing to publish and keeping objects that had become nothing more than cumbersome souvenirs? He had received the honours (Palme Académiques, member of several established learned societies), and had settled in a bourgeois and provincial lifestyle. Far from the field, the passion for the Kanaks progressively diminished and even reached a point where his ideas on colonisation radically changed (Anonymous 1902).

Glaumont's character is the archetype of the bright amateur who operates within the network of scientific production and diffusion typical of the XIXth and the beginning of the XXth century in France. He is one of the actors of research. He is a man of fieldwork rather than theoretical syntheses, probably similar in that sense to Alfred Marche in the Mariana Islands (see Émilie Dotte-Sarout's chapter in this volume). Within the ecosystem of producers and diffusers of knowledge, he feeds learned societies with data and potentially feeds collectors and museum with objects. Everyone examines his findings and occasionally reinterprets them according to contemporaneous theories and national and European discoveries. At the same time, Glaumont, just as others, uses variously outdated books popularising theories to train himself and reach conclusions, which put him at risk to produce biased observations. This flux of information is also influenced by the political and sometimes religious convictions of the different actors. In fine, the image of the past of this distanced territory represented both in the scientific communities and the general public (especially through the museums) of Paris, is often quite different from the objective reality.

Yet, Glaumont's work remained seminal for many years. Marius Archambault adopted and further developed his analysis of petroglyphs. Fritz Sarasin, who wrote the first monograph of the Kanak culture at the beginning of the XXth century, was inspired by his various works³². Lucquet, who wrote the first synthesis on the Kanak art, reproduced many objects from Glaumont's collection³³. Still today, it is common to see the publications of this pioneer being cited in recent studies³⁴.

31 - His last publication and his last identified object donation are from 1902. He progressively resigned from the various learned societies he was involved with and there is no other mention of activity past 1916, the year of his retirement.

32 Sarasin, F., 1917. *Die Ethnologie der Neu-Caledonier und Loyalty-Insulaner (La Nouvelle-Calédonie et les Îles Loyalty : souvenirs de voyage d'un naturaliste, traduit de l'allemand par Jean Roux)*, Bâle, Georg.

33 Luquet, G.H. 1926. *L'art néo-calédonien, documents recueillis par Marius Archambault*, Mémoires de l'Institut d'ethnologie, t. II, p. 1-60.

34 Gosden, Ch. et Hather, J. 1999. *The prehistory of food: appetites for change*, Routledge. F. Valentin, F. et Sand, Ch., 2008. "Prehistoric burials from New Caledonia (Southern Melanesia): A review", *Journal of Austronesian studies* 2(1), p. 1-30. Boulay, R. 2008. « Et si les bambous gravés kanaks racontaient l'Histoire ? Un bambou inédit de la collection Gustave Glaumont au Musée d'histoire de Nantes » (What if the Kanak engraved bamboos were telling a story?). In: Roberta Colombo-Dougoud (dir) *Bambous kanak. Une passion de Marguerite Lob-siger-Dellenbach*, Catalogue d'exposition. Genève, Musée d'ethnographie, Gollion : Infolio éditions (collection Sources et témoignages No 9).

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**DIFFUSIONISM AND NEOLITHIC SCRIPT:
AT THE ORIGINS
OF THE FRANCO-BELGIAN MISSION
ON EASTER ISLAND (1934-1935)**

Christine Laurière

ABSTRACT

Galvanized by Guillaume de Hevesy's sensationalist hypothesis announcing the discovery of a Neolithic script (that could be the *rongorongo*), the Franco-Belgian mission of Alfred Métaux and Henri Lavachery on Easter island in 1934-1935 is a significant event for Rapanui scientific studies. Unexpectedly, it discredited the very hypothesis supported by its organisers. Yet, Hevesy's 'discovery' had gained some legitimacy by 1932 since it was aligned with a series of ethnographic, archaeological and linguistic studies all pointing in the same direction: South Asia or Insular Southeast Asia. At the time, these regions were considered the starting point of the migration of the Oceanian civilisation, the first great human migration. The French Americanist Paul Rivet and his diffusionist work on the fundamental role played by Oceanians in the history of humanity were key to the launch and organisation of this mission sponsored by the Trocadéro Ethnography Museum in Paris. However, once arrived on Easter Island it became obvious to Alfred Métraux, who was sceptical from the start, and Henri Lavachery that it was impossible to validate the hypothesis. Instead, they distanced themselves from this diffusionist framework and undertook "only" ethnographic and archaeological studies efforts.

Translated from French by Mathieu Leclerc and Julie Robert, including citations. Originals are to be found in the French version of the text.

KEYWORDS

History of archaeology,
History of anthropology,
Alfred Métaux,
Henri Lavachery,
Guillaume de Hevesy,
Paul Rivet,
Oceania,
Easter Island,
Diffusionism

Galvanized by Guillaume de Hevesy's sensationalist hypothesis announcing the discovery of a Neolithic script (that could be the *rongorongoro*), the Franco-Belgian mission of Alfred Métraux and Henri Lavachery on Easter Island in 1934-1935 is a significant event for Rapanui scientific studies. Unexpectedly, it discredited the very hypothesis supported by its organisers. A diffusionist approach was forced upon the mission and significantly influenced its expected results. The thorough study of how the mission unfolded, its posterity, its multiple ethnographic facets, its results and the dissection of Métraux's work systematically refuting the divagations of this hypothesis have been published elsewhere (Laurière 2014). In this chapter, I will review the conditions in which the mission was organised by focussing on its archaeological aspect, which was crucial to its legitimisation.

IN THE FOOTSTEPS OF THE DIFFUSIONISTS

On September 16, 1932, during the opening session of the *Académie des inscriptions et belles-lettres*, the Orientalist Paul Pelliot, Professor at the *Collège de France*, read a letter he had received from Guillaume de Hevesy on September 1 (Hevesy 1932a) in which the Hungarian linguist, living in Paris, shares his thoughts on the "very great similarity between the characters of two writing systems", i.e., those of Easter Island and of the civilisation of Mohenjo-Daro and Harappa. Both are separated by more than five millennia and about 25,000 km. According to himself, Guillaume de Hevesy thought about investigating further this idea while attending a lecture given by the great Indianist Sylvain Lévi at the *Collège de France*:

"Mr. Sylvain Lévi [...] talked about the new civilisation of Mohenjo Daro. He insisted on the unsuccessful attempts to relate its script to other hieroglyphic systems. But it was only compared to scripts from further West. To the East, there was, among others, the less studied script of Easter Island. I decided to investigate further this idea [...]" (Hevesy 1933a: 440)

He began his investigation based on a single photograph of a tablet from Easter Island held at the British Museum and reproduced in Katherine Routledge's book *The mystery of Easter Island* (1919), and reproductions of seals from the Indus published in G. R. Hunter's study (1932).

In 1922 the community of archaeologists, philologists and orientalists was excited about the incredible news of the discovery of an archaeological site a lot older than the Aryan period at Mohenjo-Daro, literally the "place of the dead", in the Sind (South of Pakistan). The discovery of this new civilisation nested in the Indus Valley, one of the most ancient in the Orient, shook the chronology of the settlement of India, prolonging its history by more than 2000 years. Sir John Marshall was then the Director of archaeological services in India and directed excavations at Mohenjo-Daro from 1922 to 1927.

1 - See Steven Roger Fischer's remarkable study (1997: 140-157) on G. de Hevesy's 'discovery' and other numerous theories on Rapanui script. I owed an intellectual debt to this study that allowed me to better understand the debates on the Easter Island script and its historiography..

He published in London in 1931 three volumes entitled *Mohenjo-Daro and the Indus Civilization*, which presented an overview of the research on this rich proto-Indian city characterised by a well-drawn geometric plan and equipped with a much-elaborated sewer system. Above all, the archaeologists were intrigued by the thousands of steatite seals recovered from the ruins. These seals were covered with inscriptions that were impossible to decipher or to relate to any known language or writing system. Since the language spoken at Mohenjo-Daro had also disappeared, the plot thickened and opened the door to any extravagant idea.

Sir John Marshall proposed the wildly popular hypothesis that there was a Neolithic writing system that would have been the common ancestor of Sumerian, Egyptian, Hittite, Cretan, Proto-Indian and Proto-Elamite scripts. Guillaume de Hevesy even believed that this Neolithic writing could be the *rongorongo*, the signs found on Easter Island, “the ancestor of all hieroglyphic scripts of Antiquity”. “This Neolithic writing, this ancestor of every writing system, isn’t it in front of our eyes on the tablets of Easter Island, an island that still had a Neolithic culture when it was discovered? Allow me to doubt that it is not the case.” (Hevesy 1933: 48) He went as far as supporting his claim by identifying similar glyphs in Proto-Elamite and Easter Island signs, even if these characters were not used in the script of Mohenjo-Daro anymore - that showed that the script of Easter Island was in fact older than Mohenjo-Daro’s. To detail his argument, Hevesy made a table including almost 150 comparisons between glyphs from Easter Island and the Indus. According to him, the design of the former is “much more detailed, a lot finer; there is not yet this simplified character, this effort to standardise that is already noticeable at Mohenjo-Daro” (Hevesy 1933a: 440)². Hevesy argued that the similarity between both writings was obvious and attested that they originated from a shared linguistic background. However, he could not understand the nature of the filiation between them, because of the insufficient data available from the scholarship at the time. Guillaume de Hevesy supposed that the tablets were imported on Easter Island by its first colonisers and that their geographic origins could be traced back to “New Zealand. The inhabitants of Easter Island came from Raotonga Island but after it had been colonised by New-Zealanders. Some details of the rituals and customs and [...] some linguistic peculiarities have always supported the idea that the native inhabitants of Easter Island were closely affiliated with New-Zealanders.” (Hevesy 1933a: 440).

2 - Steven Roger Fischer specifies that the hypothesis for a Neolithic writing is today a “fairy-tale” (1997: 598, note 20).

Hevesy was convinced that the first inhabitants of Easter Island who brought the tablets had nothing in common with modern Rapanui and that two waves of immigration occurred. These assumptions were reinforced by the Baron Robert Von Heine-Geldern, who wrote to Hevesy about his discovery: “[the Baron thinks he] discovered indisputable evidence of the relations between the indigenous

culture of this large island [New Zealand] and the Neolithic culture of Northern China, Korea and Japan. » (Hevesy 1933b: 34) The Indian subcontinent, China and the Pacific were therefore connected in a common civilizational continuum whose origin was probably somewhere in Asia. The news of Guillaume de Hevesy's discovery spread like wildfire in scientific circles and "created a buzz similar to the explosion of a bomb" (Imbelloni 1951: 120), at least for its supporters. Some suggested that it was one of the most significant discoveries of the last decade (Bonnerjea 1936: 148) and that it already sparked myriads of comments and an almost unanimous admiration (Dobo 1933: 554). In conferences where Hevesy was invited to talk, he bragged that "no scholar who has seen both the comparisons [...] and my much more detailed manuscript (and I showed it to French, Belgian, British and Austrian scholars) has raised doubts" (Hevesy 1933a: 442). He even claimed that his hypothesis was already authoritative. As highlighted by Steven Fischer (1997: 148): "some of the finest minds of Europe" at the time were convinced of the soundness of the hypothesis, as absurd as it might appear today.

OCEANIA, CRADLE OF MANKIND

The eminent French Americanist Paul Rivet, Professor of Anthropology at the Museum of Natural History, director of the Trocadéro Ethnographic Museum, Secretary-General of the Institute of Ethnology at Paris University was not the last to believe in the links theorized by Guillaume de Hevesy, given that they corroborated in every aspects the researches he had been undertaking in the last eight years on Oceanians. As for the Hungarian linguist, his research was originally formalized by a presentation given on his behalf by Antoine Meillet, his mentor in linguistics, at the *Académie des inscriptions et belles-lettres* on December 12, 1924: *Les Mélanésio-Polynésiens et les Australiens en Amérique* (*The Melanesio-Polynesians and the Australians in America*). By a striking coincidence not lost on Paul Rivet, his own work had also begun by a study of the Rapanui vocabulary in which he had supported the idea that a North American linguistic group, the Hoka group, must be associated with the Melanesio-Polynesian language family and that a South American group, the Chon group, had many affinities with Australian languages (Laurière 2008: 249-261). His interests lied first in identifying the origins of Native American populations and he progressively expanded the scope of his research to include Oceanian populations since he thought they had a major role in the settlement of the world - from European regions to American shores via Mediterranean coasts and East African littorals (Rivet 1927a: 24-26).

The simple denomination 'Oceanian' clearly reveals the diffusionist influence on the research undertaken by Paul Rivet in the preceding decade. It originated and continued the work of Father Schmidt on this region of the world: "By 'Oceanians' I mean the ethnic complex comprised of Australians and Tasmanians, Melanesians, Polynesians

and Micronesians, Indonesians, Mon-Khmer and Munda. The linguistic coherence of this complex is now established based on the works of W. Schmidt, A. Trombetti and my own research.” (Rivet 1933a: 235)

A FRENCH DIFFUSIONISM

Paul Rivet quickly understood the implications of Guillaume de Hevesy’s hypothesis. Not only did it confirm the existence of the first great human migration across the globe, it also geographically circumscribed its origin. “Ethnologists attribute almost unanimously their [the Oceanians] origins to some region in Southern Asia or Insulindia and the remarkable discovery recently made by G. de Hevesy [...] brings additional evidence, as unexpected as decisive, to this thesis.” (Rivet 1933a: 238). On the Oceanian origin of the famous Neolithic writing and language, he specified: “G. de Hevesy’s discovery [...] might bring an unexpected support to this thesis [of an Oceanian influence on Europe and Africa]. It is actually possible that the script of Mohenjo-Daro and Harappa, so similar to the script of Easter Island, is also affiliated to the Proto-Elamite and maybe even to the Cretan alphabets” (Rivet 1933a: 247-248). And therefore, indirectly, to Europe... He fantasized about “this Far-Eastern world irrupting in our old Europe, well before the Semitic and Indo-European invasions.” Paul Rivet warned, “sceptics will once again argue that the ‘oriental mirage’ lures us with deceptive depictions. On my part I think that the real researchers must begin their bold walk toward this mirage without hesitation, even if it eventually turns out to be an attractive illusion.” (Rivet 1933b: 54). One recognises here one of Paul Rivet’s most striking personality traits: audacity, a relentless and bold will to tackle the most intriguing and insoluble problems of his time.

Paul Rivet was right on at least one aspect: these controversies are extremely important for the vitality of science. They vigorously stimulate and fertilise it by forcing those supporting or opposing a hypothesis to sharpen their wits, to develop stronger arguments and to further and theorise their positions. They are privileged moments of enlightenment during which everybody must take a stance. In France, Paul Rivet was not the only one to believe in the likelihood of Guillaume de Hevesy’s discovery. It immediately gained significant legitimacy given that it was aligned with a series of ethnographic, archaeological and linguistic studies all pointing in the same direction, focusing on the same area: South Asia or Insular Southeast Asia. At the time, these regions were considered the starting point of the migration of the Oceanian civilisation, the first great human migration. His work was in agreement with what was beginning to be discovered at the time in regard to the prehistory and archaeology of the region. It seemed to be “destined to shed some singular light on the problem of the origins of mankind” (Rivet 1927b: 155) in the sense that it could be the cradle of mankind, as previously advanced by Marcellin Boule in *Les Hommes fossils* (1920), one of Paul Rivet’s most adored bedside table books. The previous years were rich in sensational palaeontological discoveries, among which the Java Man and the famous *Sinanthro-*

pus pekinensis discovered in 1933 at Chou-kou-tien and described by Teilhard de Chardin (Hurel and Vialet 2004). These recent discoveries tended to “demonstrate that South Asia was a region where surprising /preforms of humanity, if not the most primitive forms of the human phylum, developed in a very distant past” (Rivet 1932: 1129). All these discoveries would confirm his own theory on the importance of Oceanians in the history of humanity, given that Rivet thought they must represent one of the most significant source for the origins of humanity: “It belongs to future researchers to determine the chronological sequence, the special traits, the areas of expansion of the diverse waves from South Asia or Insulindia. Their role in the history of the settlement of the world and of civilisation appear considerable.” (Rivet 1933a: 255-256).

Other ethnographic and linguistic studies undertaken in France and influenced by a diffusionist approach also supported indirectly this hypothesis. Of course, there would be many others to cite from Germany, Austria, the United Kingdom or the Netherlands. It is enough to go through one of Paul Rivet’s bibliographies to be convinced that a large part of the scientific community was ready to hear and endorse a discovery like Guillaume de Hevesy’s. Marcel Mauss also agreed with the hypothesis: he refused to believe that the Indo-European world was exceptional and was the only one to have reached civilisation. This opinion must be seen as a rehabilitation of every society previously seen as excluded from the civilizational process: they actually participated to it, even if it was a long time ago. There were not primitive societies, our world owed them a lot. It is worth citing in extenso these thoughts from Marcel Mauss at the end of a talk by his student Paul Mus during a session of the *Société Française de philosophie* (French Society of Philosophy) in 1937 attended by Paul Rivet. They make Rivet’s reasoning evident and show the extent to which he was in line with the scientific sensibility of some of his most eminent colleagues at the time:

“[...] Most of the so-called ‘primitive’ populations from Oceania are as much primitive, and perhaps even less, than was probably a certain part of the Indo-European world; [...] these populations were clearly advanced. [...] Consequently, all this Malayo-Polynesian world was, before the separation of the Polynesians from the Malays, an extremely advanced world. There is absolutely no reason to consider the Polynesians as primitives. I am with Rivet, who is here, one of those who think that Mr. de Hevesy’s demonstrations in regard to the Easter Island and Mohenjo-Daro (Indus) scripts is credible. To a lesser extent, but to some extent nonetheless, we are a few to also agree on the connections between the scripts of Mohenjo-Daro and those of Chinese antiquity during the 14th century or maybe even the 17th century before our era. (links observed by M. Heine Geldern) We might be in front of a great civilisation. In itself first, and we might even think about a relatively vast area of origin, since it extends from Sumer in Mesopotamia to the centre of China;

but already the same Neolithic and the most ancient of the Eneolithic occupied all the way from Honan to the Tripolye of the Danube” (Mauss 1969: 157)

Terms such as: Neolithic civilisation, the origin of the first human migrations, filiation or cultural affinity between linguistic or ethnographic elements, all reveal a vision of the cultural history of humanity conceptualised within an undeniable *diffusionist* framework. It was indeed very difficult for researchers in human and social sciences between 1910 and 1930 to escape from it, as the paradigm impregnated virtually everyone. The hegemonic dominance of diffusionism in French and foreign anthropological circles largely explains the positive reception of Guillaume de Hevesy’s hypothesis in 1932. Since the beginning of the 1910s, the dominant conceptual framework in social and cultural history had switched from evolutionism to diffusionism (Laurière 2008: 236-249). By a thorough study of ethnographic objects, of their styles and forms as well as their dispersion and geographic spread, the diffusionist model gave a historical depth to societies previously fixed in a false timelessness. It demonstrated that these societies were also subjected to historical change, explained by contacts and borrowings between civilisations. Aiming to elude the problem of historic dates, it compensated for the failings of historical chronicles by using geographer’s maps. It attempted to reconstruct the history of these societies without written sources by examining the evolution of their lifestyles, technologies, customs and mythologies, languages, under the influences exerted by other societies they had been in contact with. The model had the undeniable advantage of complexifying the world and its history and blurring the line between civilised and primitives. Imperceptibly, the diffusionist framework distanced itself from racialist anthropology in the sense that it then associated humans with their culture instead of only with their nature or race.

Far from being an isolated case based on speculations, Guillaume de Hevesy’s hypothesis is truly aligned with an anthropological school of thought that had a predilection for problematics related to historical reconstructions of the great human migrations around the globe, hoping to follow the trail all the way back to the origins of mankind, and to the mapping of spatial distributions of various objects, techniques, linguistic characteristics, physical particularities, etc. These provided material evidences documenting contacts between populations, thus helping to identify migratory movements. In fact, the priority was to determine the ultimate origin of the studied phenomenon, the network through which it spread and its connections rather than its intrinsic meaning or its social relevance. Regarding the case discussed here, the main source of interest was to identify the possible connections between the enigmatic script of Easter Island and other writing systems, rather than decipher it. Accordingly, Alfred Métraux, one of the protagonists of the mission on Easter Island, recalled: “no new key had been proposed to help deciphering the

tablets but it seemed that their origin and nature had finally been revealed” (Métraux 1941: 159), which is exactly what some scholars were passionate about. Already, “ardent diffusionists highlight similarities between Chinese archaic characters and the characters of Mohenjo-Daro. One begins to talk about a mysterious centre of civilisation somewhere in Asia from where other civilisations radiated [...] All this gives an idea of the complexity and the significance of Easter Island for the history of civilization.” (Métraux 1941: 9).

A FRANCO-BELGIAN ETHNOLOGICAL AND ARCHAEOLOGICAL MISSION TO SOLVE THE CONUNDRUM OF EASTER ISLAND

Following the reading of his letter at the *Académie des inscriptions et belles-lettres* and having his hypothesis popularised by newspapers that presented it as a significant advancement for science, Guillaume de Hevesy was invited to give multiple talks in learned societies and museums. Convinced of the significance of Guillaume de Hevesy’s ‘discovery’, Paul Rivet proposed to display at the Trocadéro Museum of Ethnography, in December, “a showcase with every object we have from Easter Island, our three casts of ‘talking boards’ (*‘bois parlants’*, i.e. *rongorongo* tablets), and, if you agree, the table of concordances between the signs on these tablets and the characters of Mohenjo-Daro. The public would thus be informed of your great discovery in a visual way³.” The Hungarian linguist agreed and provided photographs of his tablets. Paul Rivet, Director of the museum, wrote for the occasion an introductory notice⁴ on which he briefly presented Easter Island by insisting on two points. First, there were two waves of settlement, the first one being Melanesian, “Negros of Oceania”, and the second Polynesian. Secondly, “the Polynesian migration that would have brought these precious documents to Easter Island would have left South Asia before the time of Harappa and Mohenjo-Daro”. The tablets would therefore be relics of a “Neolithic writing most probably expressing a Polynesian or proto-Polynesian or even better an Oceanian language”.

A few days later at the end of December 1932, Paul Rivet made a quick trip to Belgium. Deeply intrigued and enthusiastic about the tablets of Easter Island, he wanted to form his own opinion and so visited the *Musée de la Congrégation catholique des Sacrés-Coeurs de Picpus*, at Braine-le-Comte, about 20km from Brussels. The Fathers that evangelised several islands of French Polynesia in the middle of the XIXth century (including the Tuamotus, Tahiti and the Marquesas) and Easter Island some time later belonged to this missionary order. At the moment of the vote for the separation of Church and State in France in 1905, their head quarter had been established in Hainaut and the collection of objects gathered by missionaries was moved there. Even if some of the nicest pieces went instead to the brand new Vatican Ethnological Museum of Latran, the museum of the congregation still held the famous four tablets known as “*la Rame*” (the Oar), “*l’Échancrée*” (the Indented), “*la Vermoulue*” (the Mouldy) and “*le Miro*”⁵.

3 - Letter from Paul Rivet to Guillaume de Hevesy, December 14, 1932 (Archives Bibliothèque centrale du Muséum national d’histoire naturelle (BCM), 2 AM 1 K48d. «*Bois parlants*» was the term used to designate the Rongorongo tablets. See Delpuech, Laurière & Peltier-Caroff, 2017 for a history of the Trocadéro

4 - Paul Rivet, text for the showcase on Easter Island, December 16, 1932 (Archives BCM 2 AM 1 K48d). The integral text is in Ahne (1932: 185-186).

5 - Ethnography Museum. His Eminence Jaussen, bishop of Tahiti, was the first to report in 1869 that these tablets actually existed and to understand their significance. This followed the intuition of Father Roussel and Zumborn who were informed about the tablets by Brother Eugène Eyraud, first missionary sent to Rapa Nui. Étienne (Tepano) Jaussen discovered the first one by chance when he received as a tribute from Father Zumborn’s followers, a lock of hair rolled up around a piece of wood that turned out to be a fragment of the tablet - *l’Échancrée*. The significance of these tablets was lost on the modern Rapanui who were using them as kindling. See Ropiteau (1935) for a review of the collection from Easter Island at the museum.

6 - See the article of Thomas Lavachery in this volume for more details on Henri Lavachery.

7 - Henri Lavachery, "Visit on December 29, 1932 of the convent of Sacrés-Coeurs de Picpus at Braine-le-Comte by Doctor Rivet, Madam Vacher, Charles Leirens, Henri Lavachery" (Archives BCM, fonds Rivet, 2 AP 1 C).

8 - It is Alfred Métaux, on his way back from the mission, who obtained the reproduction of both tablets from the National Museum of Santiago, Chile

In Brussels, Henri Lavachery, "a handsome look in the style of Jean Gabin, tall stature, direct myosotis-coloured gaze" (Lavachery Th. 1995: 11), welcomed Paul Rivet at the train station. He was his cicerone during his short stay. Like Rivet, Henri Lavachery was persuaded that Guillaume de Hevesy had established "definite relations" (Lavachery 1934b)⁶ between both writings. He was as curious as Paul Rivet to see the tablets of the Picpus Fathers with his own eyes. They visited the museum on December 29, 1932. Casts and photographs of the tablets were made and the Polynesian ethnographic collections was carefully inspected. "Doctor Rivet wishes that a specialist undertakes the thorough study of the tablets' wood?", that the collections from Easter Island and the Marquesas get published as well as the manuscripts of His Eminence Jaussen and Father Laval. A complete work plan was indeed laid down. The director of the Trocadéro was aiming to make available as much scientific documentation as possible to the researchers working on elucidating the questions of Easter Island. This shows his sharp practical sense and his will to support scientific work by giving researchers every tool necessary. Back in Paris, he asked for casts of their "bois parlants" to some of the institutions holding tablets around the world – Washington, London, Vienna, Santiago, Leningrad. "This will be the first time that they [the tablets], even as models, will be together in the same location. It will then be possible to set up a directory of every glyph, which is essential to fully unravel the extent of Mr. de Hevesy's discovery." (Lavachery 1933: 51)⁸

For a long time, the *Musée de l'Homme* was a must-see for every researcher specialised in the study of rongorongo as it was the only institution in the world that had as many casts – no less than 13 of the 25 recorded tablets – and photographs. This allowed for extremely productive comparative work while saving on travel costs (Fischer 1997: 399-400). Another issue about the tablets was to determine precisely the type of wood they were made of. If, as claimed by Guillaume de Hevesy, migrants brought the tablets with them from the Indus, the tree taxa should originate from this region. On the other hand, if the script of Easter Island was a local invention – as suggested by other scholars though he did not believe in it – local wood *Sophora toromiro*, today almost disappeared, would have been used to manufacture the tablets. Determined to solve this specific issue, Paul Rivet "gathered wood samples from various tablets and, for the sake of comparison, every wooden object from Easter Island he could get his hands on. About 15 samples were collected not without pain [...]. The analyses were undertaken by M. L. Conrard, assistant at the laboratory of phanerogamy and studied by Professor M. A. Guillaumin at the Museum." (Lavachery 1934a: 69).

It was the first time such a scientific study was undertaken. During his talk in front of the members of the *Société préhistorique française* (French Prehistoric Society) on June 22, 1933, Guillaume de Hevesy could already present some results that seemed to support his ideas. To the question: "Were the tablets imported or not? We are

already able to answer with confidence: yes. We are currently undertaking the analysis of the wood to determine its species [...] We are still early in the process but the analysis of the first tablet discovered, the one with hair rolled up around it, already revealed that it was a *Podocarpus*, which is a type of wood that does not grow on Easter Island.” (Hevesy 1933a: 442-443) With the permission of Paul Rivet, Henri Lavachery published the results for the analyses in the *Bulletin de la Société des américanistes de Belgique* of which he was the editor. They revealed that none of the analysed samples originated from Easter Island, which seemed to support the thesis that the tablets were brought on the island by its first migrants, that they are very ancient and that the current inhabitants were not responsible for the tradition⁹. According to the old legend heard by Thomson¹⁰ from natives on the island at the end of the 1880s, the 67 tablets were brought by the first civilizing king of the island Hotu Matu’a. However, the tale did not provide additional information.

Paul Rivet’s visit at Braine-le-Comte did not only result in initiatives related to the logistics of setting up a corpus of scientific studies on Rapanui. While in Brussels, he also realised that all things considered, few scientific studies had been undertaken on the questions related to Easter Island. He then had the idea to organise an expedition to Easter Island in order to undertake research and “apply the new ethnological methods to tackle the conundrum of the origins of the inhabitants of Easter Island”¹¹. It would also be an opportunity for the Trocadéro Ethnography Museum to expand their Polynesian ethnographic collections and to attempt to acquire on the island one of these famous tablets, a *rongo rongo* - because the museum did not hold one. From the start, a Belgian collaboration was evident since Paul Rivet and his museum did not have the resources to organise such a remote mission on their own. He also knew from experience that it would not be easy to raise the amount of money required and that he would have to “beg”¹² ministers and scientific commissions for funding. This archaeological¹³ mission in Oceania would be a first for the Belgian kingdom that had never ventured in the Pacific Islands. Henri Lavachery was enthusiastic about the project and mobilised the *Musée du Cinquantenaire* and the Belgian *Fonds national de recherches scientifiques* (National Fund for Scientific Research). He also found some funding for his participation. Inspired by the small exhibition at the Trocadéro, he organised a similar event in mid-February 1933 in order to raise awareness among the Belgian scientific community. The casts of the tablets from Braine-le-Comte were exhibited and the objects from Easter Island held at the Royal Museums as well as some particular collection pieces displayed. The exhibition captured the curiosity of regular visitors of the museum¹⁴ and officially confirmed Henri Lavachery’s participation to the mission.

On Saturday February 22, he went to Paris after having been invited by Paul Rivet and Guillaume de Hevesy. They had lunch together in a Parisian restaurant and discussed profusely about Easter Island,

9 - As suggested by some scholars, the wood could have floated and ended up washed-up on the shores of the island, but G. de Hevesy rejected this hypothesis..

10 - In fact, we ignore how old this legend is. Steven Fischer rather thinks that it is a recent legend of Mangarevan influence.

11 - Press release: “Exhibition Easter Island (Franco-Belgian mission in Oceania). June 21 – October 31, 1935” (Archives BCM, 2 AM 1 C1f). Georges Henri Rivière is the anonymous author of this press release.

12 - Letter from Henri Lavachery to Paul Rivet, February 8, 1933: “I started to ‘beg’, as you rightfully said and I do not lose hope to get something.” (archives BCM, 2 AP 1 C)

13 - The mission had exclusively archaeological goals almost until its departure in March 1934. It was only from the confirmation of Métraux’s collaboration in January 1934 that ethnology was integrated into the scientific program. See *supra* and Laurière, 2014: 52-61).

14 - Letter from Henri Lavachery to Paul Rivet, February 21, 1933, (archives BCM, 2 AP 1 C).

the tablets and the affiliation between both scripts, about the future mission. The general tone of the letter Henri Lavachery sent to Paul Rivet as soon as he was back in Brussels reveals the atmosphere during this lunch and shows the impact on the group that had the Museum's Professor in Anthropology: "the will to work, this is what I bring back from Paris, for a task for which I feel that your impetus supports and stimulates me... but there I am, almost as exuberant as M. de Hevesy¹⁵..."

15 - Letter of February 24
(archives BCM, 2 AP 1 C).

While the Belgian delegation was assured by the presence of Henri Lavachery, Paul Rivet still had to designate somebody to represent the Museum of Ethnography. It seems that the decision was taken as soon as January/February 1933 since Paul Rivet mentioned Louis-Charles Watelin in his correspondence with Henri Lavachery¹⁶. Archaeologist, almost in his sixties, Louis-Charles Watelin was a specialist in Mesopotamia. For the University of Oxford, he conducted fieldworks in Iraq, at Kish, under the direction of Sidney Langdon. Numerous steatite seals associated with the Middle Indus civilisation and attesting of commercial contacts between both cities were recovered from these sites. Continuing the work of Dieulafoy, he proceeded to the explorations of the ruins of Suse in Persia. His few publications were about this country (Watelin 1921 and sd). He had no real intellectual aura. In light of these elements, it is difficult to understand and identify the motivations behind Paul Rivet's improbable decision to select him and the archives do not provide additional information on that matter. It was not a member or even an acquaintance of the scientific team at the Museum of Ethnography who was picked for the job. It was even less an ethnologist or a student at the Institute of Ethnology who was selected. It was neither a young recruit able to endure fieldwork conditions that are a lot harsher than in Mesopotamia, where British archaeologists were surrounded by numerous experienced workers as well as servants ready to answer all their requests.

16 - Letter from Paul Rivet,
February 4 1933
(Archives MBH, 2 AM 1 K57e).

In fact, it is uncertain that there was a decision to be made in the first place as it seems that Louis-Charles Watelin imposed himself by providing plenty of funding to support his candidacy. Early in 1933, Paul Rivet commissioned Georges Henri Rivière to publish a call for funding in several newspapers asking for donations to help setting up the financial arrangement of the project. The *Société des Amis* (Friends) of the Trocadéro Ethnography Museum opened a special bank account for that purpose and solicited its members. Paul Rivet and Georges Henri Rivière contacted potential sponsors and asked for the support of various ministries. It was the usual fund-raising tour. The same press release was published in *Beaux-Arts*, *l'Écho d'Alger*, *la Revue des questions historiques*, etc. It put into perspective de Hevesy's discovery by explaining:

"a truly scientific expedition to this island is likely to yield significant results of the highest interests. A Franco-Belgian mission is organised for that purpose. Unfortunately, the official subventions

do not provide enough resources to undertake the mission. We are still short by 30,000 Francs. This urging call is addressed to every Friend of the Museum of Ethnography and to everybody who is curious about the mysteries of the Pacific and South Asia¹⁷

Louis-Charles Watelin generously answered the call: he transferred 25,000 Francs in two checks on the account of the SAMET¹⁸. It is legitimate to wonder if this is how Watelin won his ticket for the mission, thereby forcing Paul Rivet's hand to become its 'natural' chief since he did not find anybody else to send to Rapa Nui...In his eyes, the stakes were high and he was absolutely adamant that the participation of the Museum of Ethnography in this mission should be guaranteed and that the partition of the collections collected on Easter Island should not be made at the expense of France.

Obviously – and to his credit – Watelin knew the writing system of the Middle Indus. He claimed to be convinced by Hevesy's thesis and its "incontestable association between the writing of the tablets of Easter Island and the writing on the seals from the Indus Valley" (Watelin 1934: 63). Watelin's experience on archaeological fieldwork was welcome since Henri Lavachery, for all his good will and enthusiasm, had never been on an archaeological fieldwork before. After all, the question raised by the Hungarian linguist was by nature historical and archaeological and the aim of the project was to find tangible evidence of relations between the ancient civilisation of Easter Island and the South Asia civilizational source. The Belgian representative made a good impression to his intended French travel companion and assured him in a letter that: "you can rest assured that I too wish nothing less than undertake the expedition with you. Plain and simple, I don't see myself undertaking it with anybody else but you"¹⁹. Watelin left for a fieldwork expedition in Syria in 1933 but they saw each other and corresponded regularly. They exchanged in particular on the purchase of material and the selection of clothes for the mission. A note presumably written by Watelin listing the arrangements necessary for the transport and the repatriation of the collections from the mission specifies: "one must not expect much from the locals. According to Ms Routledge, who stayed on the island in 1914-1915, [...] they are lazy and thieves and they expect high wages for any help they provide. On the island, the material and the supplies will probably have to be guarded²⁰." In good faith, Watelin was duped by the proverbial stinginess of the Routledge couple that jeopardized their expedition and complicated their relations with the native population and the crew of their sailboat, the *Mana* (Van Tilburg 2003).

It was obvious for the members of the expedition that there was nothing to expect from contemporaneous Rapanui who were considered to be the descendants of the second migratory wave on the island. At best, perhaps they could be used as workforce to clear the sites or as carriers. At this stage of preparation for the mission, no ethnographic study was seriously envisaged: How could it contribute to enlighten the millennial mystery of the Easter Island script?

17 - "For a scientific exploration of Easter Island", *Beaux-Arts*, December 1, 1933 (press clipping). Calls were published all through the year 1933; this one is one of the latest.

18 See the letter from Watelin to the president of the SAMET on July 30, 1933 and the letter from Georges Henri Rivière to Watelin on August 5, 1933 (Archives BCM, 2 AM 1 M1f).

19 - Letter on July 11, 1933 (Archives BCM, 2 AM 1 K 57e).

20 - Archives BCM, 2 AM 1 M1f.

21 - "Archaeological exploration of Easter Island", report from Henri Lavachery, p. 4 (private archives)

22 - *Ibid.*

23 - "For the first time, a French mission goes to Easter Island. Its chief, M. Watelin, tells us...", *La Dépêche coloniale*, March 7/8 1934 (press clipping).

24 - Letter from Henri Lavachery to Paul Rivet, February 13, 1934 (archives BCM, 2 AP 1 C).

Moreover, what good could come out of these "400 inhabitants, degenerate descendants of previous occupants: 400 Rapanui watching the sheep graze in the savanna. That's it" (Lavachery 1934b)? In a report on the "archaeological exploration of Easter Island" dated to February 20, 1933, Henri Lavachery argued that ethnographic studies had already been undertaken when it was still possible to do so: "To undertake such an enquiry today, with the actual population more or less civilised, Christianised, mixed by the passage of Chilean and European ships, will not be rejected but cannot yield additional facts about the ancient times²¹." The project would be principally focussed on archaeology since "everything [...] is left to be done²²":

"The principal goal of our mission is to investigate what the primitive civilisations were on Easter Island. Are we facing a single civilisation or a palimpsest of civilisations? Hopefully it will all be revealed by the excavations we will undertake. Are all the famous statues of the same age? What is the meaning of the inscriptions engraved on them, are they related to the script on the tablets? What information will be gained from the rigorous survey of the remains of habitations and tombs scattered across the island? Such are the problems we will try to resolve²³."

Both parties needed at least a year to raise the necessary money. Nothing was simple in a period of severe budgetary restrictions made worse by the worldwide economic crisis. A lot of talent, interpersonal skills and connections were required to persuade funders and find the ship to transport the missionaries. The 25,000 Francs paid by Watelin were spent on equipment for the archaeological excavations, tents, food and material supplies for the stay. The *Commission des missions du ministère de l'Instruction publique* (The Commission for Missions of the Ministry of Public Instruction) gave 10,000 Francs, the Institute of Ethnology voted in favour of a small contribution of 2000 Francs, the Museum granted its imprimatur to the scientific interest of the mission and gave 15,000 Francs, donors were solicited. Once the material purchased, Watelin had about 20,000 Francs for the mission itself.

Henri Lavachery was turned down many times by the *Fonds national de recherches scientifiques* (FNRS) despite having crafted two or three less ambitious projects to convince them. Breaking the deadlock required Henri Lavachery's obstinacy but mostly Paul Rivet's decisive initiative of asking the banker Adolphe Stoclet to use his influence on the Belgian minister of National Education Maurice Lipens himself. The project of the joint mission finally took off just a few days before the accidental death of king Albert I²⁴. In extremis, the FNRS gave Lavachery 20,000 Belgian Francs for the mission in addition to offering a return to its members, their material and the collections from the island onboard the navy training ship the *Mercurator*. Lavachery's administrative difficulties made Rivet uncertain that

he will be able to join the mission and he asked the Americanist ethnologist Alfred Métraux to join in extremis in January 1934.

From the arrival of Alfred Métraux, the direction of the mission changed imperceptibly. Even if the archaeological ambitions were still the priority at this stage – since they were supposed to shed light on the mystery of Easter Island's script – the ethnographic study of the island became an integral part of the mission. From then on, the focus was not only on the prestigious past but the humbler daily life of the Rapanui, their modern beliefs, their customs and traditions then also drew the attention of the scholars. It could reasonably be assumed that this would provide a better understanding of this isolated population and its language – for which there was no reliable dictionary – that would move away from rehashed and naïve stereotypes.

Métraux was aware of the possible excesses of the diffusionist approach though he admitted that it could be fertile and justified if restricted to a precise geographical area. Given his scientific scepticism, he immediately challenged Guillaume de Hevesy's hypothesis as the tables of correspondences between both languages appeared too perfect to him: "The glyphs were so similar that it would have been audacious to be sceptical. What worried me at that moment was precisely that both writings shared too much similarity." (Métraux, 1963: 15). As opposed to Henri Lavachery or Louis-Charles Watelin who got acquainted with Hevesy and were convinced by his ideas, Alfred Métraux avoided any contact with him before departure.

FROM A SENSATIONALIST HYPOTHESIS TO FIELDWORK.

THE ARCHAEOLOGICAL EXCAVATIONS OF HENRI LAVACHERY

Métraux became chief of the mission in June 1934 after the death of Watelin from a pneumonia during the trip. Against all odds, the refocusing of the mission toward ethnography was confirmed. Henri Lavachery joined Métraux on July 18, 1934 in Lima. To break the ice during their first meeting, "what a surprise, the topic of the tablets is brought up" (Lavachery Th. 1995: 13). Without preamble, Alfred Métraux did not hide to his new travelling companion that he was suspicious of Guillaume de Hevesy's assertions: "the transmission of this script across centuries – without any known relay point – appears to him, and rightfully so, in contrast with every known historical phenomenon" reported Lavachery (1935: 56). Métraux must have been convincing as Lavachery would also distance himself from the theory after his return in Brussels. He then justified his original burning enthusiasm by the fact that "his imagination triggered an extra-scientific sympathy for Hevesy's thesis" ... (Lavachery 1935: 56). Métraux and Lavachery landed on Rapa Nui on July 28, 1934. They would leave the island on January 3, 1935 after having undertaken a wide ethnographic collect and studied some of the archaeological riches of the island.

25 - On Tepano's career and his role in the co-construction of the ethnographic knowledge with Métraux, cf. Laurière, 2014: 70-72, 92-102

For five months, they conducted the archaeological survey of the whole island, helped by a small team of Rapanui informants and helpers (Laurière 2014: 88-111). Once the first surveys were done, only Henri Lavachery worked on site and measured, noted and drew everything he could. He was helped by his enthusiastic assistant Nikola Pakomio, who lifted rocks, cleared the dirt on their surfaces, marked with lime the petroglyphs discovered to highlight their outlines, etc. With limited training in archaeological methods of excavations, Lavachery essentially explored the outdoor monuments and the caves, undertook topographical surveys, drew the damaged monuments and studied them. It was the first time that an ambitious investigation of petroglyphs was undertaken. Juan Tepano²⁵, the principal informant who worked with Katherine Routledge, explained to him that a piece of coral was placed in the eye orbit of the *moai* to enhance the intensity of their gaze. Other chapters of this volume review in more details the personality and sensibility of Henry Lavachery, the archaeological work on Easter Island. At the end of his stay, in a letter-report to Paul Rivet, Henri Lavachery reviewed the state of his knowledge and admitted his prejudices against any possibilities for further archaeological research, fortunately refuted later on.

"[...] This trip will give us the opportunity to do the most fruitful comparisons based on what we now know about Rapa Nui... During the four months we spent under a tent, camping at the most interesting locations that have at times scarcely been studied, I, as you know, was particularly focused on the archaeological aspects. The West Coast and the North Coast yielded particularly promising information. I recorded about 500 petroglyphs, the majority of them unnoticed by our predecessors. Their drawings and their topics offer continual parallels with the figures of the tablets, of which we are continuing the graphical and critical study. (I presume Métraux gives you all the details about his discovery [in his letter]). Thus, the petroglyphs from Orongo, where the participants in the race for the first manutara egg gathered, and the petroglyphs from Motunui Island might have been recorded for the first time. We also studied and excavated various *ahus* at sites chosen for their historical significance – old royal residences, important agglomerations. We were able to determine the true character of these monuments that were until now exclusively considered funerary. Some of them are certainly tombs and amongst the largest of the South Seas, but they are also ceremonial centres always corresponding with villages bearing the same name as the *ahus* located on their coastline.

I drew the complete plan of Anakena, a royal residence where the school of *rongorongo* (tablets) was located; of Hanga-O-Onu, where la Pérouse landed and where a substantial population was established; of Ahu Tepeu, another royal residence; and of Ahu Orongo from where originated the head at the Trocadéro. When I return, I hope to be able to establish the plans and the elevations for the entirety of these sites. I am also planning to complete some reconstitutions, with the statues in position and the villages in the hinterland.

The *ahus* with peculiar construction or located in interesting locations, the *ahus* located inland, those with a special character were also recorded. Similar work has been undertaken on the houses, those on the surface and those underground, the temporary buildings at Orongo, the chicken pens, the culture enclosures, the watch-towers, the tapu signs, the water sources etc.

A special attention involving abundant line-drawings was paid to the study of the technique and the style of the statues, especially for those that are still standing in the quarry of the Rano Raraku volcano. Now that the packaging and the inventory of the collections are completed, I spent the last days painting with watercolour famous or typical sites. I think these will be the first documents brought back to Europe that render as realistically as possible the colours of Easter Island. I compiled a complete list of the *ahus*. It is more complete than Thomson's list and its 70 entries from 1891, which was the last and only list ever published.

The complete inventory of the island remains to be done, i.e., the plan of every [underlined by H.L.] *ahus* and corresponding agglomerations, to record every other monument. We think it would take at least a year of uninterrupted work to undertake this difficult and ungrateful task and it would probably not provide opportunities for additional constructions [?] different to the ones we did.

As you see dear mister Rivet, there are very few words on excavations in this report you just read. Indeed, we did open many *ahus* vaults and excavated numerous caves as prehistorians do. What did they yield? A large quantity of bones and debris from branches or reeds; fishhooks, almost all of them broken and some at different stages of manufacture; bone needles. The most interesting objects recovered were collected from the surface, barely buried in the ground or lost amongst the innumerable volcanic stones of all shapes that cover the most interesting areas of the island and are so painful for walkers: mortars, stone basins, obsidian weapons, scissors, stone adzes, sexualised and carved stones etc.

One must have lived on the island and explored every corner while scanning the surface like we did to realise that undertaking deep excavations is impossible. In that regard, as opposed to Métraux who was more informed, I initially shared Watelin's illusions to a certain extent. I acknowledge my mistake here. The ground on Easter Island is comprised of a very thin layer of humus overlying very dense bedrock. All significant signs of human culture are on the surface. Deep excavations cannot and never will be undertaken"²⁶.

26 - Letter from Henri Lavachery to Paul Rivet, Mataverí, December 6, 1934 (archives BCM, Paul Rivet fonds, 2 AP 1 C).

BACK TO POLYNESIAN REALITIES

Alfred Métraux was less inclined to certitudes and self-satisfaction. He knew that his mistrust for Hevesy's hypothesis, which was confirmed by the results of the mission and would increasingly be proven right in the following years, was in opposition with Paul Rivet's expectations. He was also tormented by the imperatives of salvage ethnography and the quest for an illusory cultural purity, which were

almost unrealistic in 1934. “Easter Island is like a chewed old bone” he used to say to his confidants (Laurière 2014: 64). This dark expression can have different meanings. It echoes Métraux’s initial pessimism and worry that interesting ethnographic data had already been gathered when it was still time and that all there was left for him was to gather “the remains from a great wreck” (Métraux 1951: 10). It also hints at the horrifying socio-historical situation of Easter Island that faded into oblivion during the 1860s. This macabre metaphor is a recurrent theme in Alfred Métraux’s writings that describe the history of Easter Island: even more disturbing terms such as “decomposition” and “decay”²⁷ are used when he tells the fascinating story of this small island and its tragic destiny. Métraux experienced a professional displeasure at finding himself in a society forgetful of its traditional culture. However, he also admired them greatly for their resourcefulness and adaptive capabilities when confronting the intrusion of another culture with different codes. The numerous conversations he would have with American colleagues in the following years would gradually help him realise that he did not pay enough attention to this dynamic situation of acculturation, essential to the survival of this society.

27 - For example: “I think I briefly described in a previous letter the state of decomposition and decay of the semiindigenous population of the island” (Letter from Alfred Métraux to Paul Rivet, December 5, 1934, archives BCM, 2 AP 1 C).

In fact, the study of cultural change and adaptation, of the passage from one “pattern of culture” to another, was not amongst the objectives he had set himself at the beginning of the mission. He clearly considered he was undertaking an effort of salvage ethnography given that the rapid social changes on the island threatened to make its ancient history, its customs and its traditions disappear. After two and a half centuries of contact with the Western world, the major part of its population had been massacred, deported and then repatriated. Christianity was well and truly adopted by the population. All these factors made it difficult to undertake an ethnographic study of the traditional lifestyle of the ancient Rapanui since it had stopped existing many decades before. In 1934, the only thing left to Métraux (1951: 10, 45) was “to study the remains from a great wreck”, a society “rotten to the core by an inescapable misery” after the destruction of its social order and its colonial subjugation. “I have never done ethnography in more difficult circumstances. I can only record the stammering of agonizing people”²⁸, he reported to Marcel Mauss, his mentor in ethnography.

28 - Letter from Alfred Métraux to Marcel Mauss, September 11, 1934 (Marcel Mauss Archival fonds, IMEC, MAS 9.12).

According to Métraux, the folklore and its corpus of myths and legends (Métraux 1940: 362)²⁹ was the only aspect of the ancient culture conserved by the modern population of Easter Island. Sceptic by nature, Métraux could hardly believe it, considering his struggle to investigate other aspects of the social life of ancient Rapanui (Métraux 1944: 448). His main informants Juan Tepano and Victoria Rapahango (Laurière 2014: 102-103) as well as others, told him every detail of the oral tradition relating to the migration to Easter Island, the more or less legendary episodes of the trip made by the civilising hero Hotu Matua, how he settled on the island with his companions, the wars between clans, the major events of the old history, the cannibalism

29 See his transcript of the oral heritage, *Ibid.*, p. 362-389.

of the winners and the list of successive kings. This litany of stories was told with the repetitive style that enriches Polynesian storytelling and its audience but exhausted the ethnographer... Towards the end of his stay, villagers repeated that they had told him everything and that he knew every myth and legend. “I do not have any reason to doubt their sincerity, specified Métraux, since they have always showed great eagerness to help me recording ancient traditions. My collects of indigenous texts were their guarantee that their folklore would be forever conserved.” (Métraux 1940: 363)

He could not have been aware – and neither were his indigenous collaborators – that in fact he was recording the vision of the world and of the past forged by the Rapanui in the early 1890s (Cauwe 2011: 105; Fischer 2005: 147-148), once the dust had settled after the cataclysmic events that crushed their society in the 1860s and under the influence of the Polynesian catechists who accompanied the missionary Fathers. This is the paradox of Métraux’s scientific endeavour: he believed he was preserving precious and rare remains documenting the history and the ancient ethnology of a world that did not exist anymore. In fact, he was actually undertaking ethnographic work without realising it, as he documented the reinvention of the traditional history resulting from the efforts of reconstruction, reappropriation and adaptation undertaken by a handful of Rapanui in the 1890s. Anthropophagy for example, much described and decried by the modern Christianised Rapanui, was “totally narrative and not archaeological” (Fischer 2005: 55)³⁰. The Rapanui appeared to collaborate willingly with Métraux in 1934, yet they kept their sacred books for themselves. These books were composed and written in the 1890s and contained myths and legends illustrated with *rongorongo* motifs, hence the name “*rongorongo* books” or “Rapanui manuscripts” (Fischer 1997: 113-114; Fischer 2007: 148) given to them after they were discovered by the Norwegian archaeological mission in 1955-1956. Revered by the Rapanui as much as the Bible, these manuscripts were preciously kept hidden from the *tangata hiva*, the foreigners. To show them was taboo, which shows that their mana was still very real despite the loss of the meaning of the *rongorongo*.

30 - Alfred Métraux entitles his chapter 5 of *Easter Island* “A cannibal society”, and a sub-section of chapter 8 on social relations “War and cannibalism”.

For a good decade, Alfred Métraux methodically published the results and conclusions from his fieldwork. They definitely anchored Easter Island in a Polynesian historical and cultural context and refuted many fanciful fantasies on Easter Island. For example, in his first demonstration in an article published in the British journal *Man* in 1936, he challenged the idea that there were two languages spoken on Rapa Nui with the first one, more ancient, of extra-Polynesian origin. This reasoning implicitly relied on another diffusionist speculation, i.e., that there were two waves of settlement on Easter Island. The first migration would have brought with them the tablets and would be responsible for the great lithic constructions and the *moai* statues. On numerous occasions Alfred Métraux reaffirmed how essentially

Polynesian Rapa Nui's character is and reasserted that deep social similarities are shared between Rapa Nui and the islands of Eastern Polynesia. He also highlighted the inanity of the theory according to which they were two waves of settlement that satisfied only the promoters of an old and glorious civilisation completely independent to the actual population of the island – primitive and degenerate. Similarly, he also vigorously refuted Hevesy's hypothesis, denouncing its implausibility (Métraux 1938). He maintained that there was no affiliation or possible connections between both glyph systems. The *rongo rongo* did not date back 5,000 years and the settlement of Easter Island likely dated back to the second millennium after Christ. Most importantly, Métraux proposed a postulate with a fundamental methodological value that would definitely align the studies on Rapa Nui with a scientific approach: the *rongo rongo* problem can only be solved within the context in which it emerged and existed. "To dissociate the tablets from the rest of the civilisation on Easter Island, to see in them something else than a local art piece, one needs to ignore both the data on style and the most constant traditional testimonies" (Métraux 1939: 205). This exhortation is still relevant today, which explains the identity tensions and the occasionally conflictual relationship with the Chilean colonial tutelage: Rapa Nui is undoubtedly a Polynesian island.

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**ANDRÉ LEROI-GOURHAN
AND OCEANIA**

Philippe Soulier

ABSTRACT

André Leroi-Gourhan (1911-1986) disseminated many references to the South Pacific continent in his work, although he was not himself a specialist of Oceania. It would be impossible to review these references thematically since the facts related to Oceania selected by Leroi-Gourhan are scattered across his lifetime's work. Instead I will list them here chronologically following three main periods of Leroi-Gourhan's life: the pre-war era at the Trocadero Ethnography Museum and at the Institute of Ethnology of the University of Paris (1925-1936); after his fieldwork in Japan (March 1937 to April 1939) with his thesis on the *Archéologie du Pacifique Nord* [*Archaeology of the North Pacific*] (1944) and the publication of *Évolution et techniques* [*Evolution and techniques*] (1943-45); and finally his teaching period at Lyon (colonial ethnology from 1944 to 1957) and at the Sorbonne (general ethnology from 1956 to 1968) where he replaced Marcel Griaule after he passed away. I will conclude this overview by presenting three other researchers with whom he was in contact, in very different circumstances, in relation to Oceania: Jean Guiart, Jean Poirier and José Garanger. This review of the numerous references to Oceania in Leroi-Gourhan's work will reveal how he goes beyond specific examples and how he analyses societies from a global and extensive perspective. This leads to a renewal of the programmatic and methodological ambitions related to the study of human beings regardless of the specific approach; whether biological or cultural; technical or aesthetic and symbolic.

Translated from French by Julie Robert and Mathieu Leclerc, including citations unless otherwise indicated, originals in the French version of the text.

KEYWORDS

Ethnology,
Colonies,
Symbolism,
Aesthetic,
Technology,
Institute of Ethnology,
Leroi-Gourhan,
Guiart,
Poirier,
Garanger

INTRODUCTION

To explore the relations between “André Leroi-Gourhan and Oceania” as I was asked by the organisers of this workshop is for me a tricky challenge for two main reasons. Firstly, I am not by any means an expert on this vast and largely maritime continent, as they know. Secondly, even though Leroi-Gourhan’s thesis was devoted to the Northern part of the Pacific region after he had spent two years on fieldwork in Japan (March 1937 to April 1939), he actually never set foot in the South Pacific.

Nonetheless, a thorough examination of his work reveals that over many decades his courses and lectures, his articles and publications, are filled with references to examples from this region and that his academic and museographic trajectory often crossed with specialists in Oceania. I will attempt to review the references to Oceania in Leroi-Gourhan’s archives and publications and highlight how they contributed, or not, to his general views on ethnology, archaeology or art history.

It would be impossible to address this topic thematically since these references to Oceania are scattered across Leroi-Gourhan lifetime’s work. I will therefore explore this topic following three chronological sequences: the pre-war era and his time at the Institute of Ethnology of the University of Paris (1925 - 1936), then the period after his fieldwork in Japan with his thesis on the *Archaeology of the North Pacific* (1944) and the publication of *Évolution et techniques* [*Evolution and techniques*] (1943-45), and finally his lecturing at Lyon (colonial ethnology from 1944 to 1957) and at the Sorbonne (general ethnology from 1956 to 1968). I will conclude by presenting his relationship with three Pacific specialists with whom he was in contact, in very different circumstances, in relation to Oceania: Jean Guiart, Jean Poirier and José Garanger.

PRE-WAR ERA

Institute of Ethnology

It is appropriate to begin by recalling the origin and the first ambitions of the Institute of Ethnology (IE)¹. The IE, along with Marcel Mauss’ lectures and the first experiences at the Trocadero Ethnography Museum (MET) contributes significantly to Leroi-Gourhan’s education in Ethnology. This Institute is established in affiliation with the University of Paris and with the support of Daladier, Minister of the Colonies in 1924, by decree on the 1st of August 1925. The IE: “aims to coordinate, organise and develop Ethnological Studies, particularly those devoted to the French colonies; to train workers for these studies; and to publish their work. The Institute can organise fieldwork expeditions in the colonies when approved by the Governors. Exceptionally, they can organise fieldwork in other regions too; it will have the capacity to subsidise publications in the colonies according to its resources”. Its head office is located at the Institute of Geography, Saint-Jacques Street, Paris (France).

1 - The handwritten records of the minutes of the IE Council Meetings and of its Steering Committee are at the Central Library of the National Museum of Natural History (ref.: 2AM2). Every citation originates from these documents.

The actions and letters of Lucien Lévy-Bruhl, co-founder of the IE, are aligned with these goals:

“Training [...] professional ethnologists and also provide the opportunity for every individual living in the colonies (now or in the future) with an interest for ethnographic or linguistic studies to get adequate instructions to be able to undertake such studies appropriately. Give to those who are interested (future administrators, colonial doctors, missionaries, etc.) the tools to record good ethnographical observations and adequately take casts, photographs, films, phonograms, record languages and texts, etc.”.

Because of the peculiar political context post world war I during which colonial territories are being reallocated, he adds the objective of “preventing foreigners from undertaking great ethnological projects in the French colonies as happened too often in the past. To collect, classify, and study the documents and objects of all kinds related to present and past indigenous civilisations. Many of these objects are at risk of quickly disappearing or being stolen by foreign ethnographers”.

One note kept in the minutes register, explains that the IE “is available to Governments and colonial protectorates for any information on (French or foreign) fieldwork expeditions; the study of indigenous races; the conservation and the study of monuments and collections; the study of social facts. It will also be responsible for establishing scientific relationships (Ethnology, Anthropology, etc.) with foreign governments, Institutions, Museums, Academies, Learned Societies, etc.”.

Indeed, the work program and the research program are explicitly as much scientific as political and institutional.

It should be noted that the IE curriculum covers Oceania from as early as 1925, even if the classes (five lessons per year) are first delivered by Jean Przyluski, Professor at the Collège de France and orientalist specialised in Vietnamese studies and Buddhism. He is temporarily replaced in 1940-41 by Father Patrick O'Reilly² (but only for two lessons even though he has a better grasp of Oceania since he did fieldwork there in 1936-1937).

2 - Patrick O'Reilly (1900-1988) would be the secretary of the Society of Oceanists from 1944.

Despite being located at the Institute of Geography, the IE contributes to some exhibitions at the MET. In regard to Oceania, it contributes notably to “Ethnography of New Caledonia” and “Melanesian Arts” (collections of Baron Von Huydt) in January 1934, and “Easter Island” (Franco-Belgian missions in Oceania) in June 1935. The IE will only be transferred to the Trocadéro in 1938 when the latter becomes the *Musée de l'Homme* as part of the “*Exposition universelle des arts et des techniques*” [World exhibition on arts and technology] in 1937.

André Leroi-Gourhan, first essays and works

Leroi-Gourhan dropped out of school at 14, like the majority of young people of that generation, and then studied to become a librarian thanks to the classes delivered by the City of Paris. In his spare time, he visits the flea market looking for collectible items, and buys some from the South Pacific. Eventually these eight³ items will become a minute part of his collection that will end up comprising hundreds of objects of all sorts - notably cold steel weapons from Africa and 'Eskimo' items— a testimony of his wide curiosity early on. From 1929 to 1932, he mentions in his notes an Australian wooden boomerang (5 francs), a wooden club from New Caledonia and a "seven teeth" wooden comb originally thought to be from Africa but originating from The Comoros (figure 1). At the time, he frequents the Guimet Museum but eventually ends up at the MET where he meets his future mentors: George-Henri Rivière for museography, Anatole Lewitsky for the classification of technologies according to Marcel Mauss, and Doctor Paul Rivet for ethnology. Later on, after he comes back from Japan in 1941 (Soulier 2009, 2012) with new ideas for research, the notes mention only a few polished stone axes or adzes from Melanesia, New Guinea, New Caledonia, New Zealand or Polynesia⁴. These purchases convey more his interest in axes and adzes technology than Oceania itself.

3 - His notebooks with the records of his purchases are kept by his descendants (private archives) but the archives services of the Maison de l'Archéologie et de l'Ethnologie (MAE) has a digital copy (ref. ALG171_1) available for consultation with authorisation from the assignees.

4 - Every geographic term (generic and specific) mentioned in this article are those used by Leroi-Gourhan in his publications.

Pacific objects in Leroi-Gourhan's purchases notebooks



In 1936, Paul Rivet invites Leroi-Gourhan to contribute, like many of his collaborators at the MET, to the *Encyclopédie française* of which he edits volume VII devoted to the human species. Leroi-Gourhan is responsible for chapters on Europe, the Far East and the Far North. His only mention of Oceania is in the general introduction of the chapter on “European and modern culture”: Polynesia, as well as Papuans, are mentioned as emblematic antipodean references, which serve to relativise ethnological notions as applicable to the study and observation of modern western societies:

“Ethnology is the science of peoples, but mainly the science of the culture of peoples. If we present to the French people a general picture of Polynesian culture displaying the aesthetic, pottery or weapons, it might seem logical to present similarly the modern European culture. For example, to consider radio transmission and the drums as comparable communication means, to identify the suit as the typical clothing of indigenous males, and the machine gun as a throwing weapon” (Leroi-Gourhan 1936a: 24-18).

The unusual character of these comparisons allows him to better define ethnology since “it becomes clear that ethnology is actually the science of primitive civilisations and that we are misleading as soon as we try to apply its definition to modern culture. Yet, we are able to outline a sketch, something like a summary of ethnology for the Polynesians to use since, according to them, we are the Papuans” (Leroi-Gourhan 1926a: 24-18). He will later use this approach of reversing perspectives on numerous occasions in his demonstrations.

The chapter on Oceania from this volume VII is attributed to the americanist anthropologist Alfred Métraux, chosen by Rivet to conduct a mission to Easter Island in 1934-1935, as indicated previously.

Evolution et techniques

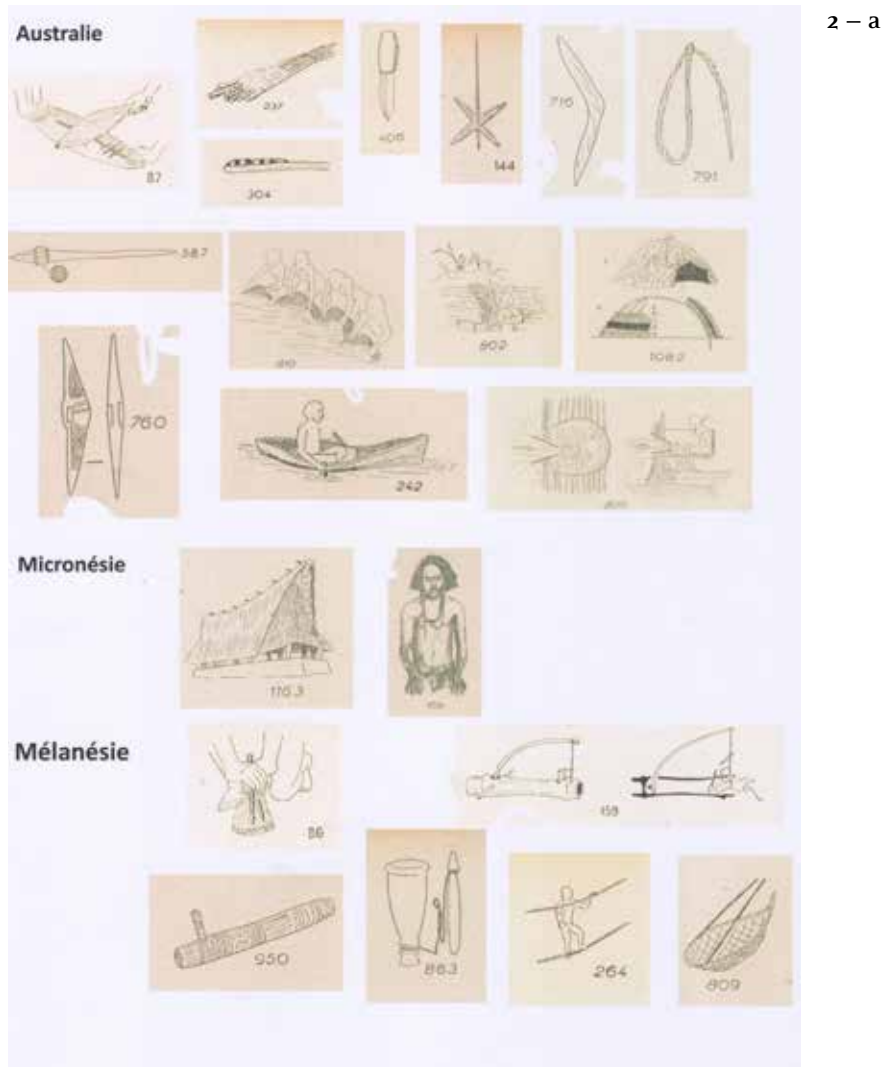
After his contribution to the *Encyclopédie française* in which he expresses his first ideas about the theorisation of the technological approach (Leroi-Gourhan 1936b: 10-3 to 10-16, 12-1 to 12-4), Leroi-Gourhan leaves for fieldwork in Japan, in the Northern part of the Pacific rather than the South. From his two-year mission – March 1937 to April 1939 – he gets the topic for his doctoral thesis eventually submitted in June 1944 (Leroi-Gourhan 1946). Simultaneously, he extensively develops the theoretical aspect of his topic in both volumes of *Évolution et techniques* [Evolution and techniques] (Leroi-Gourhan 1943, 1945a). Their purpose is essentially to present new avenues for research and a new way of conceptualising the evolution of technical assemblages that govern and reflect the relations between men and nature through their productions. Instead of developing long sections on specific areas, he achieves this by using more than 1,200 examples to illustrate his arguments, among which 62 are related to the Oceanian area. These examples are from catalogues or museums storages – mainly from the Musée de l’Homme – and are used to support a number of thematic chapters (elementary means of action on matter, means

of transport, manufacturing techniques, acquisition techniques and consumption techniques) (figure 2).

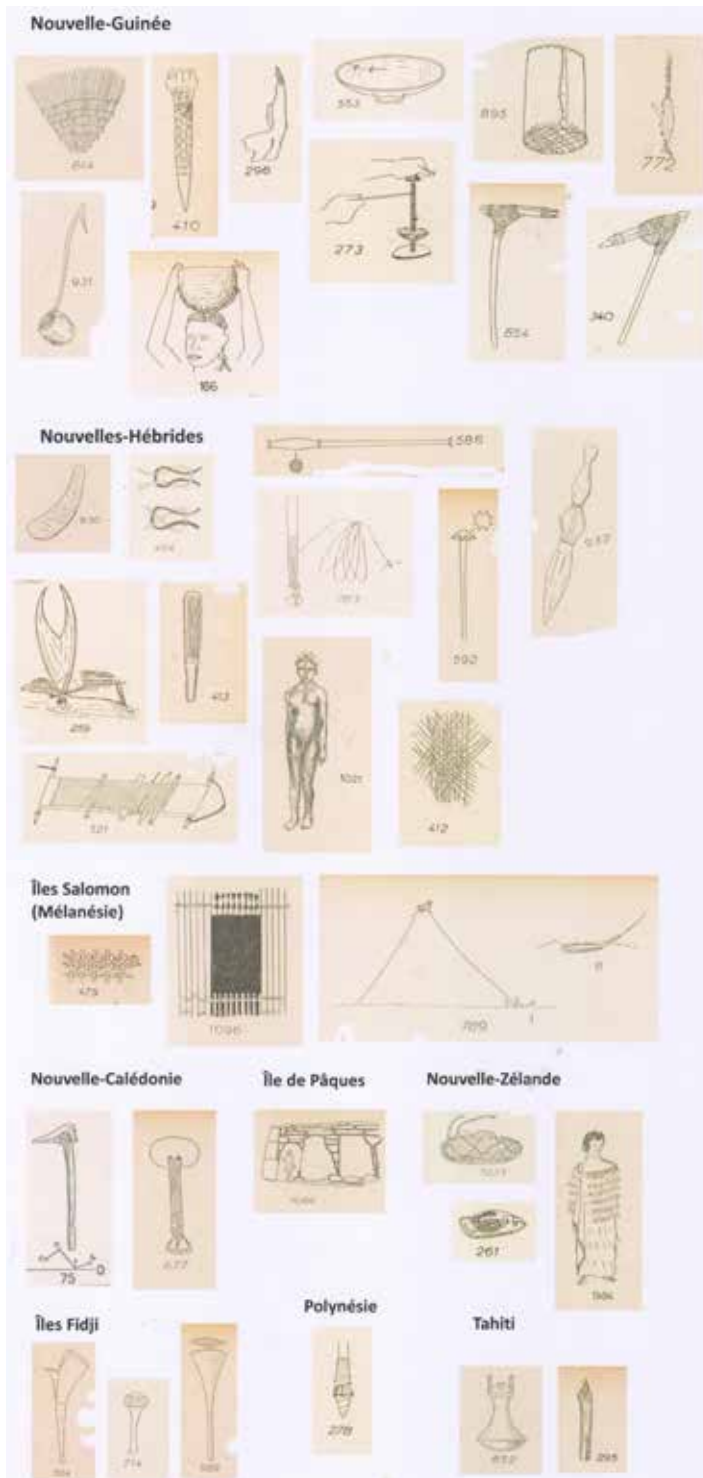
Furthermore, examples from Oceania are used in the first volume to illustrate his determination of 'degrees of fact' by using the example of the spear-thrower using a board or a stick.

Figure 2:

Techniques observed in Oceania and used as examples in the volume *Évolution et Techniques* (1943, 1945a). 2a, 2b, 2c: illustrations by regions; 2d: themes of the chapter (top to bottom: elementary means of action on matter; transport; manufacturing techniques; acquisition techniques; consumption techniques; legends and position in the book of the figures related to Oceania). (Reproduced from original Albin Michel editions)



2 – b



2 – c

Légendes et emplacements des figures d'Evolution et techniques concernant l'Océanie			
chapitre	description objet ou action	pays	figures
moyens alimentaires	casse-tête	Nouvelle-Calédonie	75
	Feu par percussion oblique-posée	Mélanésie	86
	Feu en frottant un bouclier avec un propulseur	Australie	87
	Bobine pour renvider la cordelette à mesure du tordage (nord-ouest)	Australie	144
	Piège à ressort	Mélanésie	159
transport	Transport (Mélanésie, Nlle Guinée)	Nouvelle-Guinée	166
	Radeau de rondins recouverts d'un tapis d'algues, Queensland	Australie	237
	Canot d'écorces cousues	Australie	242
	Grand canot à balancier, voile de tapa, abri d'écorce	Nouvelles-Hébrides	259
	Écote de canot à balancier (Maori)	Nouvelle-Zélande	261
	Pont à deux lianes	Mélanésie	264
techniques fabrication	Perçoir à toupie	Nouvelle-Guinée	273
	coquille gastéropode sur un perçoir	Polynésie	278
	couteau à bois en dents de requin	Tahiti	295
	Échoppe, mandibule de rongeur	Nouvelle-Guinée	296
	Lame de bois garnie de silex taillés fixés par de la gomme	Australie	304
	Herminette à lame de jade	Nouvelle-Guinée	340
	Couteau de pierre à emmanchement de gomme	Australie	406
	Poinçon d'os (Tumleo)	Nouvelle-Guinée	410
	Disposition des fibres d'un tapa (grossi)	Nouvelles-Hébrides	412
	Battoir d'un tapa en bois	Nouvelles-Hébrides	413
	Nœuds plats	Nouvelles-Hébrides	454
	Tissage en spirale	Mélanésie (Îles Salomon)	475
	Métier à un rang de lisses	Nouvelles-Hébrides	521
	Plat de bois (Tumleo)	Nouvelle-Guinée	553
techniques d'acquisition	Massue de bois (Erromango)	Nouvelles-Hébrides	586
	Massue de bois (Nlle Galles du sud)	Australie	587
	Massue plate	Îles Fidji	588
	Massue à tête étoilée (Tanna)	Nouvelles-Hébrides	592
	Casse-tête	Îles Fidji	594
	hache à lame de jade	Nouvelle-Calédonie	677
	Massue de jet	Îles Fidji	714
	boumang	Australie	716
	Bouclier actif, (Victoria)	Australie	760
	Hameçon constitué par un article de patte d'insecte	Nouvelle-Guinée	772
	Ligne, hameçon et flotteur (Santa-Cruz)	Nouvelles-Hébrides	783
	pêche au cerf-volant: 1/ ensemble, 2/ leurre en toile d'araignée	Mélanésie (Îles Salomon)	789
	Lacet de strangulation, cheveux humains et pointe d'os de kangourou	Australie	791
	Barrage à entonnoir d'écorces	Australie	800
	Barrage de roseaux poussés pour rassembler le poisson	Australie	802
	Trouble	Mélanésie	809
	Groupe de pêcheurs posant des troubles	Australie	810
techniques de consommation	Crible pour le manioc (Tumleo)	Nouvelle-Guinée	844
	pilon pour les tubercules (pierre)	Tahiti	852
	Marteau à broyer le manioc (Tumleo)	Nouvelle-Guinée	854
	Mortier et pilon pour broyer la noix d'arec (Santa-Cruz)	Mélanésie	863
	Boîte d'écorce à claire-voie, pour fumer le poisson (Tumleo)	Nouvelle-Guinée	895
	Cuillère, coquille de nautilus (Santa-Cruz)	Nouvelles-Hébrides	930
	Louche de noix de coco (Tumleo)	Nouvelle-Guinée	931
	Palette à bouillie	Nouvelles-Hébrides	932
	Pipe de bambou (Torres)	Mélanésie	950
	Cape masculine (Maori)	Nouvelle-Zélande	984
	slip	Nouvelles-Hébrides	1021
	Slip (Îles Mariannes)	Micronésie	1024
	Sandale de fibres	Nouvelle-Zélande	1035
	Terrasse mégalithique	Île de Pâques	1086
	Porte dans une paroi de lattes de bambou	Mélanésie (Île Salomon)	1096
	Hutte sur terrasse de pierres (Île Yap)	Micronésie	1163

Post-war era

Institute of Ethnology and Musée de l'Homme

Familiar with the MET before his assignment in Japan, André Leroi-Gourhan naturally gets affiliated to the new Musée de l'Homme as soon as he is discharged after his return in 1940. During the writing of *Évolution et techniques* he gives many seminars at the Société des Américanistes and at the meetings of the Institut Français d'Anthropologie [French Institute of Anthropology] directed then by Maurice Leenhardt. The various topics of his talks are related to the themes addressed in *Évolution et techniques*, e.g., "Variations in axes in Eastern Asia" (in 1944), "Ethnology in Asia and Oceania" or "Some questions in the archaeology of the Asian Pacific" (in 1945).

Lectures on Oceania at the Institute of Ethnology (IE)

After the passing of Jean Przyluski in 1944, Pierre Gourou, a tropicalist geographer and Vietnam expert, takes over the teaching of the course "Ethnography of Southern Asia and Oceania" at the IE as soon as 1944-45. However, the following year, Pierre Gourou is not available to teach so Leroi-Gourhan ends up replacing him temporarily for the course "Ethnography of Southern Asia and Oceania" (still for five classes) while Maurice Leenhardt (Director of the École des Hautes Études) is busy lecturing the course "Descriptive Ethnology" (30 classes). This is not his area of expertise though so the board of directors of the IE decides to create a new course for him on Techniques (the number of classes he teaches annually on this topic thus increases from one to ten). In 1946-47, Pierre Gourou is back at teaching Oceania, Leenhardt still lectures General Ethnology and Leroi-Gourhan⁵ is settling in what he calls "comparative technology", the label that will be given to his laboratory in the basement of the *Musée de l'Homme*. The following year Leenhardt and Leroi-Gourhan keep their assignments but the courses on Southern Asia and Oceania (still five classes) are now assigned to the orientalist Paul Mus who had just been appointed Professor in Far East Studies at the Collège de France, where he succeeds to Jean Przyluski.

Overall, since the inception of the IE, it is fair to say that the courses on Oceania were mostly given by orientalists and linguists specialised in continental or insular areas of the North Pacific region.

The issue of race

The post-war years see heated debates around issues on "human races" and the recently established UNESCO organises international meetings of scientists. The French Government contributes to the discussions by appointing Leroi-Gourhan to edit two fascicules of *Documentation française* on the matter (Leroi-Gourhan 1950a to 1950b) among other things. After a quick review of the issue, he introduces the concepts of isolation and of population size for potential recognition of specific groups, such as Australian Aborigines:

"modern men only belong to a common species, *Homo sapiens*, but they are divided in three major groups: Black, Yellow and White people. These three groups, on large continental landmasses,

5 - Leroi-Gourhan, Lester and Jacques Soustelle (by interim) are co-Directors of the *Musée de l'Homme* from 1946 to 1951.

benefit from relative isolation which, for thousands of years, has maintained their general characters. [...] Human races only show very distinctive characters when small groups have been isolated, such as the Australians or the Bushmen, who have been under intense pressure from natural selection. Larger populations, on the opposite, show variations between individuals which blurs race boundaries.” (Leroi-Gourhan 1950b:1)

Leroi-Gourhan teaches in Lyon

From 1944 to 1957, Leroi-Gourhan teaches courses in colonial ethnology in Lyon, first as a Lecturer and then as a Professor. His teachings are aligned with the original objectives of the IE regarding the relationships with the colonies of what is still the French Empire. His lectures are attended by students in sociology or linguistics but also by future executives of the colonial administration or religious missionaries. This situation is all the more legitimate given his position was created in 1942 by the Ministry of the Colonies, is funded by this ministry and is not affiliated to an academic professorship (Soulier 2005: 43-56, 2009: 115-125).

Leroi-Gourhan’s core conceptions on ethnology and on the populations affected by colonisation did not change during his decade in Lyon, regardless of who was in the attendance or how he conveyed his ideas. Although he favours a humanist approach toward colonised populations, inevitably based on an intimate knowledge of their cultures gained through respectful studies, he remains sceptical about the actual aim of colonial policies to prioritise human interest over economical or strategical benefits (Leroi-Gourhan 1945b).

It is within this context that the bulk of his lectures and references addressed the populations from African colonies, most of them without writing systems. He also addressed Far Eastern colonies for which written records occasionally go back millennia (Leroi-Gourhan 1951a). Mentions of the Pacific region remained rare.

For example, after a quick review of the general aims of ethnology during a presentation in front of Catholic missionaries in 1949⁶, he mentions the people from the antipodes to help define the discipline by detailing the historical progression of sociological research:

“Ethnology is not a science. It is a scientific complex with boundaries forever imprecise and impossible to cover entirely over a single lifetime. [...] Its scope is only limited by pure convention; it first focused on ‘primitive’ people: Australians, Papuans; then it addressed every ‘non-civilised’ population; then it was realised that the values of ‘civilisation’ are quite relative since the investigator himself is inevitably the civilised one; so the focus moved to modern Europe. Its worth was to show the universal value of human beings, to introduce the idea of respecting cultural forms foreign to the Western world.”

6 - Unpublished manuscript, MAE archives: ALG90/1/1-90/2

On the other hand, he uses examples from the Pacific region to clearly express his pessimism in regard to the real- and deleterious - effects of colonisation, in complete opposition with this ethnological theory of 'universal value of human beings':

"Can we really boast about results when we completely destroyed the bases of local societies, as in Polynesia for example? For the missionary, the whole experience concludes in exhausting efforts, a few new solid Christians and a drifting maladaptive majority. In Melanesia, in New Caledonia for example, can we say that the average morality really progressed since we brought the shiny beacon of our laws? Cannibalism disappeared, the introduction of pigs rendering it to a luxury; the rigorous system of sexual taboos has also disappeared: it was linked to the cult of the ancestors and thus judged reprehensible by the missionary. Despite all this, it resulted for the majority of Canaques in a significant decline of morality".

Mixing facts and caustic opinions, he is hence particularly critical in front of his audience of the objective purposes of the missionary efforts and of colonisation in general.

Ethnology, from theory to practice

In addition to his lectureship in Lyon or at the IE, Leroi-Gourhan establishes 'Centres' aimed at linking theory and practice in order to help preparing students ahead of their archaeological or ethnographical fieldworks. In regard to ethnography, he creates the '*Centre de formation aux recherches en ethnologie*' (CFRE: Training centre for ethnographical research), hosted as early as 1946 at the Musée de l'Homme and endorsed in 1948 by a CNRS ordinance. The centre gives priority to students close to finishing their program without fieldwork experience and inversely individuals accustomed to fieldwork but lacking theoretical background.

On the 15 trainees for the first year of the CFRE (class of 1946-1947)⁷, three were affiliated to the ORSC (i.e., the Office for colonial scientific research that later became ORSTOM, then IRD) and specialised in Oceania: Georges Condominas (technology: navigation), Mme Condominas (sociology: ornaments) and Jean Guiart (sociology: masks from the New Hebrides). The following year, Annette Laming (trainee CNRS-CFRE 1947-1948 and affiliated to Leroi-Gourhan's laboratory) is admitted as a Research Fellow at the CNRS to work on a thesis on "the Neolithic and Bronze Age civilisations in the South Pacific". Eventually the topic of Mme Laming's research changed so this thesis remained unfinished⁸.

Meanwhile, Maurice Leenhardt left for New Caledonia in 1947 to become Director of an Institute for Oceanian studies (Poirier 1947) and Jean Guiart quickly joined him in the area after accepting a position in the New Hebrides. In early 1951, the Board meeting of the IE⁹ reports that he:

"has worked relentlessly and with expertise for the last two years

7 - The list of trainees for each year is published in the *Bulletin du CFRE* (CFRE Bulletin)

8 - Having worked with Fernand Windels in 1948 at Lascaux, she undertook a thesis on rock art with Souriau, Professor of Aesthetics at Sorbonne. She finished it in 1957 with Leroi-Gourhan.

9 - Minutes of the Board Meeting of the Institute of Ethnology, February 1st 1951, MNHN archives.

at the French Institute of Oceania. He established a laboratory in ethnology in which the files and samples are admirably organised. He was the first to undertake the ethnographical study of the inhabitants on the Island of Ouvéa, the only island of the New Caledonian archipelago with a culture distinct from the surroundings and recalling North Melanesia. He undertook significant research in the New Hebrides of which he reports in a book that will be the first ethnographical monography on the New Hebrides written by a French. His observations complement or rectify those made by his predecessors. His work on myths, kinships and alliances yield new elements which presage an excellent ethnographical volume”.

If Leroi-Gourhan shows enthusiasm for these first results (as reported in the CFRE Bulletin), he also regrets the general isolation of ethnologists during fieldwork:

“It is obvious that strictly individual work efforts should not be undertaken anymore. To assign an ethnologist to study the whole territory of French Oceania (as it still exists today) is an archaism that should not be justified by the scarcity of resources provided by the State. His efforts, regardless of their value, will only allow us to regret the irremediable loss of a world that had as much value for Humanity as any other” (Leroi-Gourhan 1951b: 1).

Leroi-Gourhan remains adamant that teamwork is fundamental, something he values since his pre-war tenure at the MET (Leroi-Gourhan 1936c) and still puts into practice during his lectures. He cherishes team-working environments in which everybody brings their competences and where the opportunity to debate and discuss novel situations encountered during fieldwork is given.

It is around that time that Leroi-Gourhan and the geographer Pierre Deffontaines create the journal *Revue de géographie humaine et d'ethnologie* (Journal of Human Geography and Ethnology). In the only four issues published in 1948 and 1949, the unique reference to the Pacific made by Leroi-Gourhan relates to the debate on the human settlement in America. He supports the idea that humans arrived from the North, across the Bering Strait, rather than from the Oceanian archipelagos.

In addition to these sparse mentions, Leroi-Gourhan gets the opportunity a few years later, during his course “*Initiation à la recherche ethnologique*” [Initiation to ethnographical research], to introduce his students to the role of Lucien Lévy-Bruhl (Lévy-Bruhl 1925) in understanding a “pre-logic” Australian thought: “He directly influenced Maurice Leenhardt [whose] work on New Caledonia connected the work of Lucien Lévy-Bruhl, who has never been in the field, with modern sociological thought, [which made it possible to] understand Caledonian thought”. Similarly, Leroi-Gourhan mentions the Melaneans during one of his courses on technology (Leroi-Gourhan 1956: 29) when he details nuances related to geographic determinism:

“In Melanesia, [...] there are human groups isolated on their islands where they subsist essentially on fishing and agriculture. The population is divided between coastal and inland groups, which represent in extreme cases two different ethnic entities, exogamous, often with relations of subordination. Whilst each group is internally characterised by individual polyvalence, externally they develop complementary economic systems and a techno-economic symbiosis based on the exchange of marine and terrestrial resources”.

This is aligned with what he was already advocating more generally in *La civilisation du renne* (1936) [Reindeer civilisation] and in various parts of *Évolution and techniques* (1943-1945), i.e., that the behaviours and technologies of a group depend largely on the environmental conditions in which they live.

The sixties and beyond Gesture and speech

Leroi-Gourhan publishes many seminal volumes (Leroi-Gourhan 1965b, 1965c) more than a decade after having replaced Marcel Griaule at the Sorbonne following his death in 1956. Among them, both volumes of *Le Geste et la Parole* [*Gesture and Speech*] (Leroi-Gourhan 1964, 1965a) represent significant advances (Schlanger 2017) toward the more extensive conceptualisation of the ethnographic discipline he is aiming to develop. His arguments are aligned with *Évolution et technique* as he connects the similarities between technical and biological evolutions and enriches them with symbolic and esthetical perspectives. In both volumes, examples are cited but regional developments are not detailed. Thus, Oceania is mentioned on two main occasions in sections about art and territorial structure. In both cases the focus is put on symbolic functions (figure 3).

First, he compares the first graphic representations by prehistoric individuals (Châtelperroniens sticks with hypothetical ‘hunting marks’) with Australian

“*churingas*, stone or wood tablets engraved with abstract designs (spirals, straight lines and clusters of dots) and representing the body of the mythic ancestor or the places where the myth unfolds. Two aspects of the *churinga* seem relevant to the interpretation of Palaeolithic ‘hunting allies’: first, the abstract nature of the representation, which as we shall see, is also characteristic of the oldest known art, and, second, the fact that the *churinga* concretizes an incantatory recitation and serves as its supporting medium, the officiating priest touching the figures with the tips of his fingers as he recites the words. Thus, the *churinga* draws upon two sources of expression, that of verbal (rhythmic) motricity and that of graphism swept along by the same rhythmic process. Of course, my argument is not that Upper Palaeolithic incisions and Australian *churingas* are one and the same thing, but only that among the possible interpretations, that of a rhythmic system of an incantatory or declamatory nature may be envisaged.” (Leroi-Gourhan 1964: 263 et figure 83)¹⁰.

10 - English translation
from Leroi-Gourhan, A. 1993.
Gesture and Speech.
Translated by
A. Bostock Berger.
Cambridge:
MIT Press, p.188.

Illustrations relatives à l'Océanie dans *Le geste et la parole*.

Les légendes sont celles d'André Leroi-Gourhan



Churinga australien¹ 1 : les cercles « a » représentent des arbres et les cercles de points les pas des danseurs ; les lignes « d » représentent les bâtons qu'on bat en mesure et « e » les mouvements des danseurs ;

2 et 3 : churinga d'un chef du totem de la fourmi à miel. « a » : son œil, « b » ses intestins, « c » la peinture sur sa poitrine, « d » son dos, « e » un petit oiseau associé à la fourmi à miel.

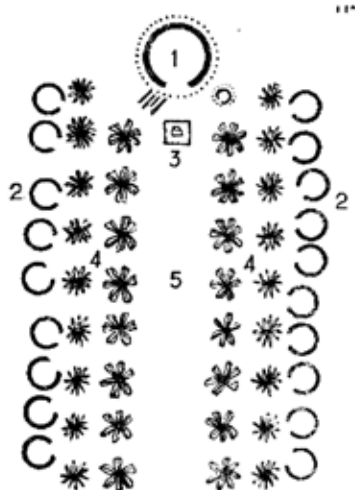
On peut constater (...) que les représentations liées à un contexte verbal et gestuel comme celui des churingas peuvent être dépouillées de tout contenu figuratif réaliste.



a) Polynésie, Toubouia, Statuette figurant le mythe de la création des dieux et des hommes par le grand dieu de l'Océan.

b) France, XVIème siècle, Correspondance du zodiaque et des parties du corps de l'homme.

Village canaque 1 : case des hommes ; 2 : case des familles ; 3 : autel ; 4 : allée des femmes (rites de famille) ; 5 : allée des hommes (fêtes de clans, banquets, danses), d'après Loenhardt M. (1930) – *Notes d'ethnologie néo-calédonienne*,



¹ « d'après Spencer B. et Guillen F.J. (1917) – *The Arunta, a study of a stone age people*, Londres ».

This example of a visual comparison with prehistoric representations illustrates how symbolic interpretations can be imagined in situations where they cannot be understood without an associated speech. Leroi-Gourhan's demonstration goes further when he describes the analysis of more complex representations associated with known mythologies

“Our life is moulded by the practice of a language whose sounds are recorded in an associated system of writing: a mode of expression in which the graphic representation of thought is radial is today

Figure 3:
Pacific examples used in *Le Geste et la Parole* (1964, 1965a), illustrations and legends written by Leroi-Gourhan to represent symbolic functions in art and territorial structure (Reproduced from original Albin Michel editions)

11 - English translation from
Leroi-Gourhan, 1993: 196.

practically inconceivable. [...] Behind the symbolic assemblage of figures there must have been an oral context with which the symbolic assemblage was associated and whose values it reproduced in space [...] The same fact is evident in the spiral figures Australian aborigines draw on sand as symbolic expressions of the unfolding of their myths of the lizards or the honey ant [...]. It is still alive in areas of thoughts that came into being in the early days of linear written expression, and many religions offer many examples of spatial organization of figures symbolizing a 'mythological' context in the strict ethnological sense." (Leroi-Gourhan 1964: 273 et figure 98)¹¹.

The following chapters also refer to examples from Oceania, when the functional aesthetic of an axe from New Guinea (Leroi-Gourhan 1965a: 132-134) is addressed or when the correspondence between the territorial and social structure of a Kanak village is detailed:

"A century of sociology has taught us that the dwelling and, more broadly speaking, the habitat, is the concrete symbol of a social system. The layouts of the camps of Bushmen or Indians of the American southwest, or of Amazonian or New Caledonian villages [...], expressing as they do the separations between families and clans within the topographical unit, are classic examples. We need only turn the pages of the Paris trade directory to realize how closely the same rule still applies to a modern city."

12 English translation from
Leroi-Gourhan, 1993: 322.

(Leroi-Gourhan 1965a: 150)¹².

To relate 'exotic' data with more common situations like this is a practice used recurrently by Leroi-Gourhan to demonstrate his arguments. Lastly, it is worth noting that Maurice Leenhardt is the only specialist in Oceania to be cited in the bibliography (Leenhardt 1930 et 1947) in *Le Geste et la Parole*!

A course at the Sorbonne on 'art without writing' (1967-1968)

Leroi-Gourhan refers to objects manufactured by Pacific populations in his work for the last time during the course he lectures at the Sorbonne in 1967-1968 (Leroi-Gourhan 1968a). Ten years after having begun to elaborate his analytical method for Palaeolithic rock art and only two years after the publication of his broad synthesis essay (*Préhistoire de l'art occidental*; [Prehistory of Western Art]), he opts for a new approach to study so-called 'artistic' productions. This time he takes into consideration recent populations from the five continents and his bibliography is mainly comprised of seminal works (at the time). His examples for Oceania originate from three sources (Tischner 1947, Kupka 1962, Guiart 1963) characterised by abundant illustrations from fieldwork realised by authors familiar with the territories studied.

Leroi-Gourhan is not trying to define some conceptual signification of figured expressions anymore but rather to analyse how the artists express themselves plastically within their ethnic groups. In order to do this, he relies on his conceptions of technology. He is interested mainly in the forms obtained, their proportions and their

modulations, but he also considers the raw materials and the ways in which they can be modified. He proposes a descriptive vocabulary based on a vast intercontinental comparative effort involving hundreds of artworks. Among them is a selection of about 80 figured examples from which a dozen originate from the Pacific region: Australia (Arnhem), Solomon Islands, Easter Island, Hawaii, Marquesas, New Guinea, New Hebrides (figure 4).

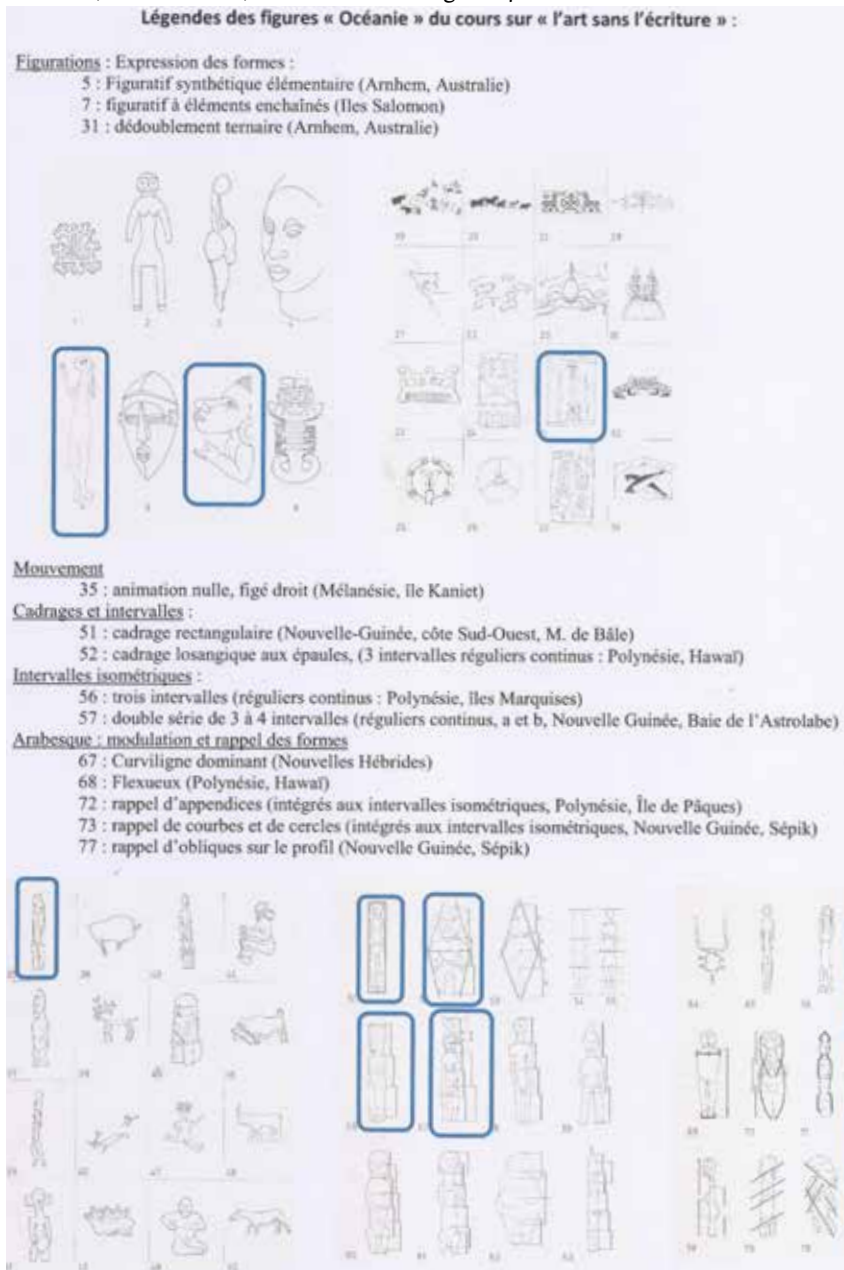


Figure 4:
Pacific examples considered by Leroi-Gourhan in his course on "art without writing" at the Sorbonne (1968a), to illustrate his comparative analysis of universal techniques in plastic art. (Reproduced from the original edition of the Institut d'Ethnologie).

However, regardless of their origin, Leroi-Gourhan considers these objects outside space and time. They are only considered based on their plastic criteria because the main objective of his essay is not to identify territorial zonings or technical evolutions but rather to determine and describe plastic expressions in an “objective and universal” manner. For him,

“The study of art is one of the sources of ethnological research (defined here as the research of what makes every human group particular in time and space and in connection with its past and the neighbouring groups). This course is not an aesthetical attempt (still premature), nor a proper history of primitive art (for which there is still not enough material), but rather an approach of ‘elementary practices (*pratiques élémentaires*)’¹³ by the means of plastic representation [...]. Arts in general (literature, music, modelling), explicitly or not, express the most intimate aspects of the ethnic personality (cf. strong attachment to folkloric elements in mutating societies). The ethnology of music borrows interpretative tools from general musicology, literature and plastic arts have only been addressed by ethnology in their aspects reducible to language (method of the “imaginary structures” and of “social anthropology”) in the domain of oral myth” (Leroi-Gourhan 1968a: 1)¹⁴.

13 - “Elementary practices: manifestation of the deepest social behaviour: rhythm of the gestures, attitudes, proportions of the whole and its parts, values of the intervals, colours, (...)”.

14 In the annexed bibliography Leroi-Gourhan cites Durand 1960 and Lévi-Strauss 1958, 1964 on respectively “imaginary structures” and “social anthropology”.

For Leroi-Gourhan the aim is thus to complete these specific methods and even go further by adding a complementary dimension to the understanding of human groups. Developing on what he had written in *Gesture and Speech*, he presents to his students the possible association between these different fields of study, notably on the “relationship between manual representation and language: [...] The knowledge of some oral content does not prevent studying what is expressed non-verbally: which is a specific character of manual representation [...], one of the two ways to express thoughts”. He notes here a:

“mutation of the manual representation when transmitted in writing: from the ‘mythogram’ to the pictogram, the ideogram, the letter [...]. Manual representation spread through space (in surface and volume). Symbols are generally concatenated only by the related oral myth (often lost); the meaning and the relations between figured symbols can be ambiguous. The analysis of a certain number of sets of symbols allow us to develop a mythographic layout that abstractly defines the relations between symbols”. (Leroi-Gourhan 1968a: 2).

ASSOCIATE RESEARCHERS

Leroi-Gourhan acquired the qualification required to supervise doctoral students in 1956 but during his time at the Sorbonne and then at the Collège de France (after 1969), he was part of only a handful of panels for theses with Oceanian topics:

– Jean Guiart in 1963 for *Structures de la chefferie en Mélanésie du Sud* [Structures of chiefdom in South Melanesia],

- Pierre Vérin in 1965 for *L'ancienne civilisation de Rurutu (Îles australes, Polynésie)* [The ancient civilisation of Rurutu (Austral Islands, Polynesia)],
- José Garanger in 1970 for *Archéologie des Nouvelles-Hébrides: contribution à la connaissance des Îles du Centre* [Archaeology of the New Hebrides: contribution to the knowledge for the Central Islands].
- Georges Condominas in 1970, thesis by publications¹⁵
- Anne Lavondès in 1973 for *La culture matérielle en Polynésie d'après les collections archéologiques et ethnographiques du musée de Papeete* [Material culture in Polynesia based on the archaeological and ethnographical collections at the Museum of Papeete].
- Daniel Frimigacci in 1975 for *La préhistoire néo-calédonienne, synthèse des connaissances actuelles* [New Caledonian prehistory, current state of knowledge].

Three specialists in Oceania in particular are closely associated with Leroi-Gourhan¹⁶:

Jean Guiart

Part of the first cohort of CFRE trainees and student of Maurice Leenhardt at the EPHE, Jean Guiart (1925–2019) joined Leenhardt in Oceania. In 1949 he contributed to the *Revue de géographie humaine et d'ethnologie* [Journal of human geography and ethnology] with an article on Australian boomerangs. Jean Guiart also signed an article detailing his fieldwork in the last issue of the bulletin in June 1953. This article benefitted to the new trainees by illustrating but also contrasting Leroi-Gourhan's ideas. He would succeed Leroi-Gourhan as Professor of General Ethnology at Sorbonne-Paris 1¹⁷ between 1968 and 1973 before being appointed as Professor of Ethnology at the MNHN (1973-1988). He then became Director of the Musée de l'Homme at a time that coincided with the last years spent by Leroi-Gourhan at the Museum, in his Department of Technology located on the ground floor of the institution.

Jean Poirier

Jean Poirier (1921-2009), avid excavator at Arcy during the first years, contributed to the management of the site¹⁸. He is mentioned as one of the three teachers at the CFRE and contributes to the *Bulletin du CFRE* (Poirier 1951, 1953). Active member of the *Société des Océanistes* [Society of specialists in Oceania], he published numerous articles in the *Journal de la Société des Océanistes*, including a review of the *Revue de géographie humaine et d'ethnologie* directed by Leroi-Gourhan and Deffontaines in 1948-1949.

As a law specialist, he trained executives of the colonial administration and was the main author of the volumes of *l'ethnologie de l'Union française* [Ethnology of the French Union] published by PUF (French Academic Press) in 1953 and co-authored by Leroi-Gourhan (Leroi-Gourhan & Poirier 1953a and b). As he related himself, the editors insisted for adding a renowned co-author to his work for

15 - See the tribute from Leroi-Gourhan that is a repeat of his comment at the thesis defence: Leroi-Gourhan A. (1982), "Sacrifice rituel en Sorbonne [Ritual sacrifice at Sorbonne]", *Orients pour Georges Condominas*. Paris: Sudestasie/Privat, p. 25-28.

16 - After this first generation of specialists in Oceania contemporaneous of Leroi-Gourhan, it is worth mentioning the name of Pierre Lemonnier (born in 1948). Founding member of the "Techniques & culture" team in 1980, heavily influenced by the work of Leroi-Gourhan following Robert Cresswell, he was the Director of the research team "Identité et transformations des sociétés océaniques [Identity and transformations of Oceanian societies]" (Paris). Collaborating with Maurice Godelier, he is a member of the Centre de recherche et de documentation sur l'Océanie [Research and documentation research centre for Oceania] (CNRS-EHESS-Université de Provence, Marseille). Specialist in ethnology and anthropology of techniques, he led many anthropological comparative investigations in Papua-New Guinea.

17 - The courses on ethnology according to Leroi-Gourhan are given by Robert Cresswell at Paris V and by Hélène Balfet at Aix-en-Provence.

18 - Arcy-sur-Cure (France-Yvonne) is the vast site where Leroi-Gourhan and his collaborators developed, from 1949 to 1963, a new way to conceive prehistoric archaeology that privileges the ethnological perspective over the chrono-geologic sedimentation.

commercial purposes. So Leroi-Gourhan, freshly promoted as '*Professeur des Universités*' at Lyon, ended up associated with the work to which Georges Condominas and André-Georges Haudricourt also contributed. Poirier succeeded Leroi-Gourhan at Lyon from 1957 to 1958 before being appointed as Professor at the University of Madagascar.

19 - Jean Poirier was then still the Director of the Department of Human Sciences at the University of Madagascar. He was subsequently forced to leave and go teaching in Nice following the social movements and contestation against the French influence (personal communication, Jean Poirier).

In 1968, Jean Poirier¹⁹ invited Leroi-Gourhan to write an article for his *Encyclopédie d'Ethnologie générale* [Encyclopedia of general ethnology] published in the collection 'La Pléiade'. The broad and theoretical perspective of this article allowed Leroi-Gourhan to entangle the different fields and methods of social sciences – ethnology, ethnography, anthropology, sociology – and some of its trending themes at the time – economy, aesthetic, linguistic, musicology, structuralism, technology, etc. It is worth noting that the only human group mentioned was once again from the antipodes – geographic and technic –, i.e., the Papuans: "Alas I believe that there will never be Papuans ever again. This is immensely regrettable for the Papuans themselves but also because it represents an impoverishment of the human collectivity" (Leroi-Gourhan 1968b: 1824). For Leroi-Gourhan, the richness of human culture comes from its diversity and the wide range of behaviours in relation to other human beings and the environment. Jean Poirier contributed to Leroi-Gourhan's festschrift in 1973 with a methodological paper (Poirier 1973).

José Garanger

José Garanger (1925-2006), trainee at the CFRE and excavator at Arcy at the beginning of the sixties, is certainly Leroi-Gourhan's disciple who had the most significant influence on archaeology in the Pacific region. His impact is similar in scope to what Georges Condominas achieved in Southeast Asia a decade earlier. Because of his rather mild interest for ethnology (particularly linguistic)²⁰, José first undertook a thesis in prehistory with Leroi-Gourhan on a classic topic: "*Les structures d'habitat au Paléolithique dans le Sud-Ouest de la France* [Dwelling structures of the Palaeolithic in the Southwest of France]". His career path drastically changed in 1962 when he was strongly encouraged by Leroi-Gourhan to leave for Polynesia where Jean Guiart wished to appoint a fieldwork archaeologist combining archaeology and ethnology. Garanger later acknowledged Leroi-Gourhan's positive influence by also contributing to his festschrift with a chapter describing his work on Roy Mata (Garanger 1973).

20 - Personal communication, José Garanger., June 2001

José Garanger's itinerary would eventually join Leroi-Gourhan's path in a two-step process. First, his thesis marked the beginning of a chain of events that eventually led to his return in France via tertiary teaching at Nanterre from 1969 to 1977. That year he left the CNRS to be appointed Lecturer at the University. The members of his team in Oceania (attached to the RCP 259 "*ethno-histoire de l'Océanie*" [ethno-history of Oceania], directed alternatively by Jean Guiart, André-Georges Haudricourt and José Garanger himself) then merged with the ERA 52 (CNRS-Collège de France) directed by Leroi-Gourhan.

This incited Leroi-Gourhan to apply for changing the status of the team to a “*Laboratoire associé*” [Associated Laboratory], which was granted in 1976-1977 under the name LA 275. Through these changes José Garanger managed to maintain a distinct research team independent from the linguists and ethnologists: the ERA 859 “*préhistoire de l’Océanie*” [prehistory of Oceania]. José Garanger became Professor of Prehistory at the Université de Paris 1 in 1980 and eventually, the members of his team merged with LA 275 in 1982 as Leroi-Gourhan was forced to retire. José Garanger then became the sole director a year later and paid tribute to his ‘boss’ in the introduction of the activity report (1984-1985) for the laboratory, published in 1986.

Lastly, it is worth highlighting as an anecdote the differential treatment between Australia and Oceania in the editions of 1965 and 1992 of the *Préhistoire* [prehistory] volume from the Nouvelle Clio Collection at PUF. The first edition, edited by André Leroi-Gourhan at a time when José Garanger had just left for Oceania, addressed Oceania very succinctly through the contribution of the Americanist Annette Laming-Emperaire. In 1992, José Garanger was named editor of the new edition on a de facto basis, given that he had been the Director of the Laboratory of Prehistoric Ethnology for a decade, after having succeeded to Leroi-Gourhan.

The theme of this new edition was *La préhistoire dans le monde* [World prehistory] so logically, it was more voluminous than the 1965 edition and Oceanian matters were a lot more detailed, with maps and drawings of artefacts included.

CONCLUSION

Even if this review presented numerous references to techniques and behaviours of Oceanian populations in the work of Leroi-Gourhan, it remains obvious that he was not a specialist of Oceanian regions. That being said, one could argue that in fact he was not a specialist of any particular region from any other continent around the world. Accordingly, none of his publications address a specific region, to the exception of his thesis largely devoted to Japan and for which he spent two years there in 1937-1939. Even in *Archéologie du Pacifique nord* he considers Japan within its international context, from the Siberian and Far-Eastern regions of Asia to the Far North American landmass. His objective remained essentially to consider a new way of observing and characterising the discernible modalities of the cultural trajectories of technical influences. His few real monographs focused on archaeological sites that had already been excavated and therefore addressed only limited areas. They were also mostly concentrating on methodological and programmatic arguments. Truly, the essential characteristic of the seminal work of Leroi-Gourhan was to promote a renewal of the ambitions, perspectives and methods related to the study of human beings, regardless of the approach; biological or cultural; technical or aesthetic and symbolic. This goal was the common thread at the core of his work and the populations from Oceania, along with many others, were naturally integrated into it.

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**FROM FUNERARY OBJECTS
TO THE ARCHAEOLOGY OF DEATH
IN THE PACIFIC ISLANDS:
ARCHAEOLOGISTS AND
BIO-ARCHAEOLOGISTS
VIEWS ON ANCIENT BURIALS,
1938 TO 1985**

Frédérique Valentin

ABSTRACT

This chapter, dedicated to ancient Oceanic funerary practices, analyses the developing themes and approaches taken by XXth century archaeologists to study burials and behaviours to cope with death and the dead. It draws on 10 case-studies, consisting of field work undertaken between 1938 and 1985, whose publications describe groups of burials and present a ‘social’ or ‘ideological’ interpretation. Works published between 1950 and 1970 utilised the characteristics of burials as a means of discussing the culture history of the region, and/or to reconstruct the social structure of a “burying” population. This latter theme was the subject of important developments from the 1960s on and above all during the 1980s. In parallel, during the course of the 1960s there was renewed interest in analysis of funerary ideology along with growing collaboration between archaeologists and biological anthropologists. These last were mainly oriented towards detailed study of the living conditions of these populations at the expense of the funerary procedures and the treatment of the dead. Questions of funerary ideology were not usually considered during the XXth century. They came into their own only at the end of the 1990s, using new conceptual tools and the methodology of archaeoethnology.

Translated from French by Matthew Spriggs, including citations, originals in French version of the text.

KEYWORDS

Burials,
Funerary practices,
Human remains,
Pacific,
Archaeoethnology,
Biological anthropology,
Funerary archaeology,
XXth century

INTRODUCTION

How do archaeologists reconstruct and interpret the past burial practices of Oceania? How do they use them to define ancient cultures and historical trajectories in the Pacific zone? Ancient burials have been observed since the earliest archaeological work carried out in the region at the turn of the twentieth century. But their “paleoethnographic” significance (in the sense of Leroi-Gourhan, cf. Soulier 2015, 2018) was not truly recognized at the time, between a mere mention and use as an “artifact” equivalent to pottery. For example, Father Meyer only reported that there were burials of an adult and a child at the site of Reber-Rakival on Watom, New Britain, in Papua New Guinea (Meyer 1910). Father Suas reported the discovery of two or three burials under blocks of stones at Olal on Ambrym, Vanuatu (Suas 1902:593) which he interpreted according to the dominant paradigm of the time in terms of migratory waves and successive races (Dotte-Sarout 2017). He observed a change in the forms of burial and the placement of bodies between an ancient period and the present which he considered as evidence of an earlier people, different from those of today (Suas 1918). Formerly, the deceased were buried in a crouched position in small circular pits, while at the time of his residence they were given extended burials in pits 30 to 40 cm deep.

Beyond issues of skull collecting, migration and race studies whose historiography and epistemology have already been studied (see Douglas & Ballard 2008; Howes 2011; Melander 2017), this chapter explores another side of the study of human remains: that of the context of their placement in the ground. Its objective is to measure the development of themes and approaches exhibited in the work of twentieth-century archaeologists in studying burials and the funerary behaviours of ancient Oceanic societies. This area of research is less understood and has only recently been addressed in archaeology. In fact, Anglo-American researchers in the 1960s-70s started to develop “social” interpretations (Binford 1971; Saxe 1970; Chapman 1987) that had earlier, in the 1930s, been considered of little interest (Bartel 1982; Rakita & Buikstra 2005). In France, “burial became an object of study in itself” in the same period of the second half of the twentieth century (Lauwers & Zemour 2016: 15). Funerary studies undertaken by prehistorians (e.g. Bottet 1950; Leroi Gourhan et al. 1962) paved the way to the development of an ‘archaeoethnology’ or an ‘archaeology of death’ (in the sense of Boulestin & Duday 2005:28). Thanks to new concepts, principles and methods of excavation and field recording developed in the 1970s and 1980s, studies of burial in France rely today on a detailed analysis of funerary acts and, more broadly, of the relation of the living to the dead and to death (Leclerc 1975; Duday & Masset 1987; Duday et al. 1990, 2014; Duday 2009; for histories see Knüsel & Robb 2016; Zemour 2016).

1 - The modern term of biological anthropology is used here in the broad sense to designate all studies related to biology and bio-archaeology of human skeletons found in archaeological contexts.

This chapter examines more specifically the interpretations proposed by anglophone and francophone archaeologists and biological anthropologists¹ during the development of institutional and professional archaeology in the Pacific Islands, from the 1930s to the 1980s (Kirch 2017). It is based on the analysis of 10 examples selected from the archaeological literature, which provide a description of burial assemblages and a “social” or “ideological” interpretation of the observations made. These consist of fieldwork carried out between 1938 and 1985 and published between 1950 and 2010. The 10 case-studies are presented in chronological order in the chapter’s first part. The second part discusses the funerary approaches and interpretations of the various authors and evaluates changes over time.

CASE STUDIES

Kenneth P. Emory, Hawaii, 1938-1940, (Buck 1957: 570-571)

Exceptional burial assemblages but also more ordinary burials have been brought to light in several islands in Oceania, since the early development of prehistoric archaeology in the first half of the twentieth century in Hawaii and New Zealand. In 1938, Kenneth P. Emory initiated large-scale archaeological excavation of coastal burials in the Mokapu Dunes on Oahu, Hawaii, following occasional discoveries made there at the end of the nineteenth century (Bowen in Snow 1974:131). More than 300 burials were discovered during three years of excavation (1938-1940). However, due to events related to World War II, the results were never published (Quigley 2001), with the exception of a short summary that emphasized the burial positions and the ornaments associated with deceased:

“skeletons of women and children, among those of men, and burial in both the extended and flexed positions. Ornaments were found, chiefly the Lei palao hook in bone, stone, and shell, indicating early stages in the development of the ornament. Bones of pig, dogs and birds were also found with the skeletons” (Buck 1957:570-571).

Roger Duff, New Zealand, 1942-1949 (Duff 1950, 1956, 1977; Trotter 1975)

2 - The earliest period of New Zealand prehistory (Duff, 1950), now dated as beginning about 1288-1300 AD (Higham et al 1999).

Discovered at the same time, in 1939, the burials at Wairau Bar (New Zealand), which were attributed to the “Moa hunter Culture”² are particularly spectacular (Duff 1950, 1956, 1977; Trotter 1975). Roger Duff (1956:32-82) noted thanks to the examination of some 40 burials excavated between 1942 and 1949, the high frequency of bodies deposited face-down, the removal of the skull and other bones (sometimes in large numbers), the re-burial of some skeletons, the presence of a wooden container in at least one case, covering of the graves with flat pebbles or gravel, and the presence of particularly rich grave goods, including various ornaments in whale ivory, sperm whale, porpoise and moa bone and stone, argillite and nephrite adzes and moa eggs (figure 1). As shown by the description of Grave B4 (Duff 1956:41-42), that of a man lying on his belly, grave goods were found on the upper part of the fill and adjacent to the body:

"[the] upper layer (...) [contained] (...) numerous flint flakes, flakes from argillite adzes and broken moa bones (...). Eight large flat water-worn stones were found to be placed in a line towards the bottom of the layer as a covering for the burial. Under the largest stone, immediately above the pelvis, a moa egg was found broken (...) and intermingled with seal or dog vertebrae. Approximately above the left hand were seven uniform 'whale-tooth' units in moa bone. (...) a set of 23 uniform units, also of moa bone found scattered round the neck (...). Four adzes were found with the burial".

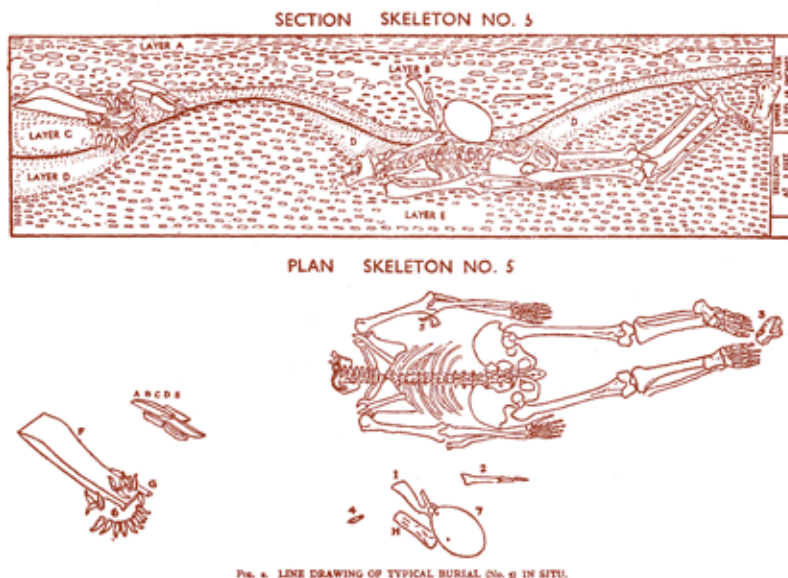


Figure 1:
Burial n°5 of Wairau Bar
(New Zealand), after R. Duff
(Moas and man, part II,
Antiquity, 1950, vol
24, issue 94, pp 72-83,
[https://doi.org/10.1017/
S0003598X00022961](https://doi.org/10.1017/S0003598X00022961)).

Duff (1956) compared his observations with ethnohistoric³ descriptions of New Zealand and Easter Island and observed differences between eighteenth century Maori funeral practices and those at Wairau Bar. He takes into account the social dimension of funeral practices and concluded that the burials he brought to light were those of a hierarchical society, where women and children had little importance:

"It is generally not difficult excavating to distinguish between the carefully placed bones of the male of rank, with his burial offerings, including the moa egg water bottle, and the trussed bones of a woman or a young person of no particular rank, bundled without ceremony into the smallest possible grave"(Duff 1956: 58).

Robert Suggs, *Marquesas Islands, 1956-1957* (Suggs 1961)

Robert Suggs (1961) presents a study of archaeological funerary contexts oriented by three directions of analysis: cultural origin, the structure of the society and its religion. Suggs undertook archaeological excavations on Nuku Hiva in the Marquesas during two field seasons in 1956 and 1957-1958. He described placement of human

3 - This term refers to all written information produced by European observers (accounts by travelers, missionaries and ethnographers) as opposed to descriptions from Oral traditions recounted by local informants

remains in built structures, in caves and trees, and above all diverse primary and secondary burials in settlements. He compared them to those of Wairau Bar (Duff 1956), the only well-documented burials in Polynesia at the time. He observed differences in orientation and in position of individuals and noted that the ornaments and grave goods were different, being more abundant and more frequent at Wairau Bar than on Nuku Hiva. He concluded there was a possible difference of cultural origin between the two regions: "The grave goods placed with the male Moa Hunter burials contrast sharply with those of the Marquesan burials, which seem naked by comparison (...) which indicate a possible difference in source for the two cultures" (Suggs 1961:172). He defends the hypothesis of a local cultural evolution of Marquesan culture: "the complex and varied Polynesian burial customs seem to have been a part of the heritage carried to the Marquesas by the Polynesian discoverers" (Suggs 1961:168).

Suggs connected the various treatments of the dead and associated grave goods with the social status that the deceased had in their lifetime. Concerning the graves at Ha'atuatua, he declared: "Burials 32, 33, and 34 are all of individuals possessing status (...) Their head had all been removed" and "Burial 15 at NHaa 1 was a young woman, obviously of some importance, who had been interred with a male trophy head" (Suggs 1961: 168). And, beyond this, he linked the observed practices to the belief system:

"ancestral cult practices, involving the preservation of the skull of the dead, were part of the earliest culture of Marquesas. They also demonstrate that at that time the concept of the head as repository of individual mana had already developed in Polynesia. (...). We can also infer the presence of cult places, separate from house areas, in which the skulls were deposited" (Suggs 1961: 171).

Robert Bowen, Hawaii, 1957 (Bowen 1961, Bowen in Snow 1974: 129-148)

Supplementing the information obtained by Emory at Mokapu, further salvage excavations were conducted in 1957 by Robert Bowen who discovered 116 additional burials⁴ (Bowen 1961; Bowen in Snow 1974:129-148). In his Master's thesis undertaken at the University of Hawaii (Bowen 1961), he presents the archaeology of the site, the burials and funeral practices. A summary of his funerary archaeology was published as an appendix to a book on the biological anthropology of the site, and sought to assess the role of lifestyle, culture and physical environment on the skeletal morphology of the ancient Polynesians of Mokapu (Snow 1974).

Bowen described in detail the pits, the position and orientation of the bodies, observed the manipulation of bones, artefacts and other related objects, and traces of body containers. Following the logic of the funerals, he revealed a simple mortuary protocol where the deceased - man, woman or child - were buried very shortly after death, in an flexed position, on the back or side, with the mouth frequently

4 - 355 other burials were found in 1982-1983 in Keopu (Kona, Hawai'i Island), which provided additional information on this Hawaiian tradition of coastal burial in the sand dunes (Han et al. 1986).

open (which he considered to be done by the gravediggers), usually without ornaments but sometimes with animals (piglets, chickens, or fish), possibly wrapped in a perishable container or associated with perishable materials. Through comparisons with ethnohistorical data, he saw these burials as those of ordinary people. Bowen also observed some special cases of multiple burials, secondary burials and “looted” burials for the latter of which he presented the following description and interpretation:

“in this case, the complete body and articulated body, lacking appendages, lay on the back, with the head turned sharply to the left. All long bones of both arms and legs had been removed and fragmented and lay in a pile on the right side of the body. The pile contained the distal and proximal ends of both femora, the distal and proximal ends of the right humerus, and the proximal ends of the radii. As with the first burial, most of the pile consisted of unworkable fragments. The patellae could not be identified; they either were missing or had been fragmented. The articulated hands and feet lay in what may have been natural positions on top of the body. One hand was next to the left side of the face and the other lay on the chest. Both feet were in the abdominal area. (...) the body may have been desiccated when uncovered by vandals, requiring dissection, or it may have been sufficiently decomposed so that no cutting was necessary” (Bowen 1974: 145).

Yosihiko H. Sinoto, French Polynesia, 1962-1965 (Emory & Sinoto 1964, Sinoto 1963, 1966a et 1966b)

For Yosihiko Sinoto, the burials, which he investigated on his own or with Emory in 1962- 1963 on Maupiti and 1964-1965 in the Marquesas, constitute elements of material culture in the same way as the objects they contained. He utilised their characteristics to reconstruct the pattern of settlement of Polynesia (Sinoto 1963, 1966a). For example, he stated:

“On the island of Maupiti the Bishop Museum Tahitian Archaeological Expedition in June 1962 excavated a burial of an adult male with accompanying ornaments, adzes, and fishhooks. Because the forms of the artefacts differed from the historic Tahitian forms and were so nearly identical to those artefacts which the earliest settlers of New Zealand buried with their dead, they confirmed an East Polynesian derivation of the archaic Maori culture”(Emory & Sinoto 1964: 143).

Similarity in the position and orientation of the deceased and distribution of ornaments and other associated objects (whale tooth pendants, perforated human teeth, perforated discs of mother-of-pearl, “magic stones”, pearlshell fishhooks, and basalt adzes) encouraged him to see a close relationship between the Society Islands and New Zealand. At Maupiti as at Wairau Bar:

“The two skeletons (...) were in extended positions on their back, faces turned to the side, and oriented with heads toward the south-east (...). Beside one of these skeletons were four adzes, two whale-tooth

ornaments, a trolling-hook shank, and two “fetish” stones. Covering the pelvis were found another trolling-hook shank and a (...) whale-tooth ornament” (Emory & Sinoto 1964: 147-148).

5 - I thank Guillaume Molle (ANU) for bringing this collection of photographs to my attention.

Sinoto does not propose an analysis of the observed variations within the same site or region (Hane and Maupiti), despite the discovery of a significant number of human and animal burials with remarkable arrangements (Bishop Museum archives).⁵ His interpretation is sometimes related to the cause or circumstances of death. For instance, a burial pit at Hane in the Marquesas containing the bodies of 19 men, women and children with no trace of violent death, stacked in two levels and surmounted by a stone statue in tuff, was said to have resulted from an epidemic or an accident (Sinoto 1966b: 292-293).

Jose Garanger, Vanuatu, 1963-1967 (Garanger, 1966, 1972, 1975, 1976, 1979, 1997)

Between 1963 and 1967, José Garanger uncovered nearly 120 graves in the regions of Efate and Tongoa in central Vanuatu, when he excavated in 15 funerary and/or religious sites (Valentin et al. 2009). These burials and burial complexes revealed a wide variety of arrangements: from simple burial without ornaments to a multiple burial with more than 40 individuals in various positions and modes of deposition. On Mele Islet, for example, he discovered a young woman buried on her back with the forearms flexed on her chest, holding a bird in her hands. A newborn in foetal position and covered with red ochre had been placed between her feet (Garanger 1972:34).

Garanger did not directly interpret the exposed burials. He left that task to his local interlocutors. They proposed to interpret the variations of orientations and burial position according to “social” criteria: foreigners would have a different orientation than local people, and certain individuals (sorcerers, clairvoyants) belonging to the local group would have been buried in positions different to those of other individuals (Garanger 1966:63-64). The oral traditions explained the orientations of the graves of the southwest region of Efate (Mele, Mangaasi, Retoka and Lelepa) which, despite their diversity, converge towards a unique geographical point considered as the point of departure of the dead rather than any other possible ethnic/cultural differences (Garanger 1972:36; Garanger 1997:329). Local oral tradition, combined with other ethnohistoric data, also explains the funeral rites and unequal distribution of ornaments in the Retoka site, the burial place of the local culture hero Roi Mata (see Garanger 1972:58-77 for a detailed description of this discovery) and allows a reconstruction of the course of the ceremony (figure 2):

“One first dug an area of more than one hundred square metres to about thirty centimetres depth. One uncovered a pit of equal depth and six square metres in area. In this pit was placed an upright stone in front of which was placed the body of Roy Mata⁶. Between his legs, a packet containing the bones of a complete skeleton (a secondary burial) was deposited. Next was deposited to his right

6 - The translation follows the Garanger spelling; the spelling in use today is Roi Mata.

Roy Mata's Atavi [spokesman], drugged by a strong dose of kava (...). Before this pit was closed a human couple, a pig and a young woman were deposited (...) the young woman was laid at the feet of Roy Mata (...). Further volunteers to take part in the journey to the afterlife lay on the ground. The men fell asleep, the women embracing them. Perhaps strangled at the last moment?" (Garanger 1979).

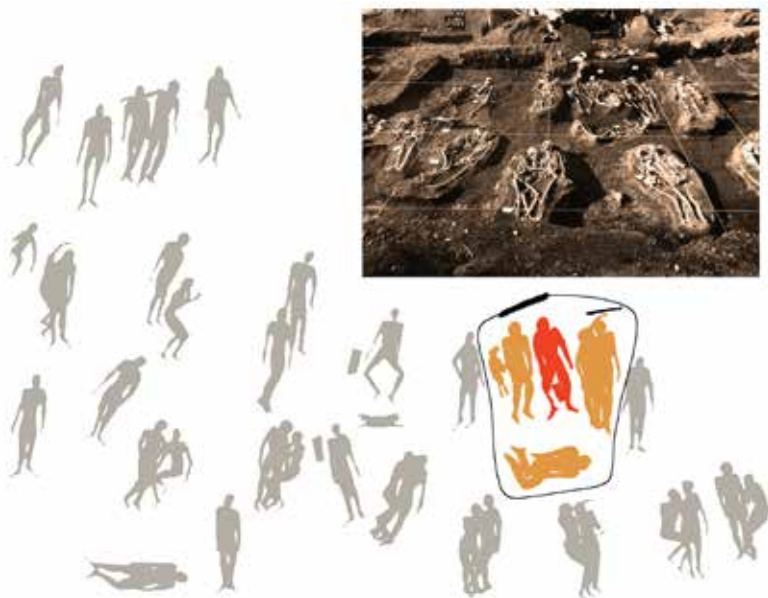


Figure 2: Reconstitution of Roy Mata burial complex by Maurice Hardy CNRS UMR 7041 (after Garanger 1979):.

Garanger also identified perishable items used during the ceremonies. He observed the existence of clothing or a shroud enveloping the pelvis and the lower limbs by analysing the spatial distribution of deposits of red ochre in burials on the Mele Islet (Garanger 1972: 117). He noted that ornaments, necklaces, armbands, and belts were part of the clothing of the dead. He also showed that amulets, protected in packets (indicated by traces of red ochre), were associated with the bodies at Retoka, (Garanger 1972: 50, 118) and that the secondary burials were wrapped tightly in perishable containers (Garanger 1972: 63).

The analyses of the burials also allowed him to discuss Pacific settlement. For this he relied not only on the ornaments and funerary arrangements but also on the forms of burial and the notion of "accompanying deaths" (in the sense of Testart 2004) to demonstrate relations between the Centre of Vanuatu and islands further north (Garanger 1972:129). He wrote:

"The 'magic stones', associated with the recent burials in the centre of the archipelago, have never been reported in New Zealand, although they are known in the graves of Maupiti (...). These magic stones are more characteristic of the islands located in the north

of the archipelago (...). We found only one adze (...), while they are abundant in all the ancient burials of New Zealand (...) Secondary burials 'in packages' are known in New Zealand and are everywhere in Oceania. The multiple burials, comprising individuals sacrificed to accompany the deceased, have never been reported in Polynesia (...). This practice, to the contrary, was common in the north of the archipelago, in Maewo and Aoba as also in the south of the Solomon Islands" (Garanger 1972:129).

Janet Davidson, Tonga, 1964 (Davidson 1969)

The excavations conducted in 1964 by Janet Davidson in two burial mounds on Tongatapu (Atele, Tonga), on the other hand, broke with the research traditions devoted to cultural definitions and the study of Pacific settlement. They were intended to only document ancient funerary practices in Tonga and to verify the hypothesis formulated by McKern (1929) that there was a relationship between burial and infilling made of white sand. Davidson (1969) described the mounds, devoid of a central vault, built up over time, death after death. Individuals were placed in pits filled with white sand (according to varying percentages: from absence to total filling) sometimes marked with discoloration attributed to the decomposition of the bodies in vegetal containers of Tapa, usually laid out on their back but with a wide range of orientations and positions of the upper limbs. The many successive burials, usually individual, are those of adults and children. Davidson, who took a particular interest in the population being buried, does not describe any variation according to the sex of the deceased but notes variation according to age at death, and notices an aged-distribution that she deems unusual: "the population structure appears to be unusual for this site [To-At-1], with a high child mortality rate" (Davidson 1969: 262).

Davidson proposed an interpretation of the observed facts by making comparisons with ethnohistoric data. She concluded that the two mounds were the burial places of ordinary people because the excavated mounds did not display a central vault unlike mounds dedicated to the elites described in the traditions. However, according to the archaeologist:

"Little can be said about the groups using the mounds. Again, historical research may produce evidence about Tongan social structure which would provide a clue as to the identity of the groups (...). The apparent evidence for continuity of burial practice at each site suggests that each was used by members of one social group who were acquainted with the practices relating to each mounds" (Davidson 1969: 283).

Foss Leach & Helen Leach, New Zealand, 1969-1972 (Leach & Leach eds. 1979)

Sixteen human burials and a dog burial were revealed at Palliser Bay, New Zealand, during an extensive archaeological program of excavations, led between 1969 and 1972 by Foss and Helen

Leach and with the collaboration of biological anthropologist Douglas Sutton when burials were discovered (Leach & Leach 1979). The archaeologists described in detail the orientations, positions of the deceased and the mode, primary or secondary, of the interments. They examined the arrangement of the bones, including the opening of the mouth, in regard to decomposition of the corpse. They had questions on the cause of death of individuals, and on the relationship between burials and associated structures (Leach & Leach 1979a: 205-213). They indicated for example that:

“This was the body of an adult female and was clearly a secondary burial. It appeared that the body had been only partly decomposed because sesamoid bones were present in the knee joints which were still in articulation. On the other hand sufficient dismemberment had taken place, so that a number of bones were missing, including most of the chest area and the right humerus. (...) the mandible, while still in articulation, had been forced open to an unnatural angle. Just how or why this was done is not known; however, the act of forcing the mouth open in this manner was obviously of some importance” (Leach & Leach 1979a: 205).

They reconstructed a dynamic protocol comprising several differentiated actions: inhumation, exposure of the deceased on a platform, exhumation and secondary deposition. The authors used regional comparisons to underline the unique diversity of the burial positions used by the prehistoric gravediggers. These positions are interpreted as testifying to a high degree of individuality and thus a non-stratified society (Leach & Leach 1979b: 269). An evolution of attitudes towards the dead and their location in space is remarked upon by the archaeologists who note a spatial closeness between shell middens, dwellings and burials, a practice not existing today in contemporary Maori society. This proximity symbolized, according to the authors, a social continuity between the dead and the living:

“a strong supposition is that members of the family unit were buried close to one another, in that way maintaining social proximity after death. (...) this community buried their dead within the village, close to structures connected with their daily life. This knowledge of proximity must have operated as a reminder of their deceased relatives and the links between life and death” (Leach & Leach 1979b: 267).

***Foss Leach & Janet Davidson, Solomon Islands, 1977-1978
(Leach & Davidson 2008)***

In the same decade, in 1977-1978, Janet Davidson and Foss Leach carried out excavations on the Polynesian Outlier of Taumako in the Solomons, with the objective of linking “archaeological observations” to “Polynesian culture” (Leach & Davidson 2008:4-6). They discovered 200 burials at the Namu site and commented on a burial practice consisting of simple inhumation, very similar from one individual to another but with a great diversity of ornaments whose nature and abundance varied from burial to burial. Based on the idea that the deceased

were buried in accordance with their social status during life, Leach and Davidson interpreted the observed differences between men and women and between adults and children as a sign of a stratified society:

“The people at Namu were buried with many ornaments and other objects that were valuable during life, some of which reflected their social status in their community” (Leach & Davidson 2008: 289) where still “... the total amount of the ‘wealth proxy’ buried with people at Namu, males had nearly twice as much as females. We argued that this signifies that women had considerably lower status than men in prehistoric Taumako society” (Leach & Davidson 2008: 318).

According to Leach and Davidson, such funerary associations indicated a transmission by descent of elite status, a characteristic of Polynesian societies as opposed to many Melanesian societies where status can change over the course of life: “This finding supports the view that (...) high status was inherited at birth. This perhaps points more to customs of inheritance in Polynesia than in many Melanesian societies where high status can be acquired during life” (Leach & Davidson 2008: 318).

Éric Conte, Tuamotu Archipelago, 1984-1985 (Conte 1996, Conte & Dennison 1995, 2010)

In 1984-1985, Éric Conte led excavations on the *marae* Te Tahata, on Tepoto, in the Tuamotu Archipelago of French Polynesia, assisted by biological anthropologist Kenneth Dennison who examined the burials in situ. Thirty single burials were revealed on the monument (Conte & Dennison 1995, 2010). In 2010, these authors summarised their characteristics as follow: “They are, for the most part, indicated on the surface by stone cists. They are primary burials (apart from numbers 7 and 8) ...buried, it would seem, without having undergone desiccation or embalming treatment. In three cases... with objects ... The proportion of infants was significant” (Conte & Dennison 2010: 122)⁹. At the *marae* Te Tahata, the deceased, infants, women and men, are buried simply according to a uniform practice: body on the back, bodies laid out in the same direction and very rarely accompanied by grave goods.

The authors discuss two particular aspects: the methods of burial treatments and the location of the burials on a sacred monument. Based on ethnohistoric documentation contemporary with the burials, the authors put forward an hypothesis according to which: “Inhumation, which seems to have been the usual burial method in the Tuamotus, and particularly on isolated islands like Tepoto, would correspond to a less hierarchical type of social organization and relations between living and dead than known in nearby archipelagos during their prehistory” (Conte & Dennison 2010: 125)¹⁰. According to the authors, this kind of burial would have been an early practice that would have continued on Tepoto, while a shift towards more complex burial types matching social complexity and greater social

distance between groups characterized the other archipelagos of French Polynesia (Conte & Dennison 2010: 124-127). In addition, they pose, without being able to provide a full answer, the question of why bury on a *marae*, and thus that of the funerary function of these monuments. They raise the idea that the close relationship between burials, funerary space and the sacred space of the *marae* was a result of spatial constraint, the atoll of Tepoto being of modest size (Conte & Dennison 2010: 125-127). Conte (1996; cf. Conte & Dennison 2010) notes on the other hand a failure of collective memory or lack of transmission of traditions. As Emory (1934) found fifty years previously, there were no oral traditions associated with the deceased individuals and burials in the *marae* Te Tahata, a situation which, according to Garanger (1975: 308), is common in Polynesia.

DISCUSSION

This overview has discussed excavations and archaeological studies of burials and funerary assemblages carried out in the Pacific Islands in an emerging institutional and professional framework between 1935 and 1985 and published between 1950 and 2010. It demonstrates the diversity of approaches, interpretations and use of funerary data. It stresses changes in theoretical positions relating to the history of archaeological practice in general and the practice of funerary archaeology in particular, but also highlights personalities with original perspectives and attitudes.

The years 1930-1950, pioneering studies

The early years of pioneering studies between 1930 and 1950 addressed three main themes: social structure, culture history and the religious dimension of burial arrangements. This final theme, widely explored by archaeologists in the nineteenth century and gradually abandoned during the second half of the twentieth century (Bartel 1982), was only addressed by Suggs at the end of the 1950s. He proposed a reconstruction of the ancient Marquesan belief system based on comparisons with features of contemporary Polynesian societies, such as the association between skull manipulation and *Mana*. His approach anticipated to a certain degree the reconstruction methods by triangulation proposed by Kirch and Green (2001) to define Ancestral Polynesian Society. Suggs inferred that three key elements of the general Polynesian belief system existed formerly in the Marquesas Islands: ancestor worship, the importance of the head and a separation between sacred and profane spaces. However, more generally authors of this time period regarded comparisons with regional ethnographic data to be of little interest because they are too piecemeal; when they propose comparisons these remain consequently only illustrative.

Archaeologists Duff and Suggs were also interested in defining ancestral Polynesian social structure, a theme equally on the margins of Anglo-American ways of thinking in the first half of the twentieth century. The idea according to which funerary practices revealed such social information was strongly criticized during the 1930s

(Bartel 1982; Rakita & Buikstra 2005). The social interpretation proposed by Duff (1956: 34) for the graves at Wairau Bar, New Zealand, was based on two ideas; first, that the associated grave goods, their types and quantities, defined the social status of the deceased and, second, that it demonstrated male dominance. Observing the differences between men on the one hand and women and children on the other, Duff restored the image of a strongly “gendered” ancient Maori society where women and children had little importance (Duff 1956: 58). Displaying a different attitude, Suggs (1961), based on the same principle of status defined by the nature of associated grave goods and the treatment of the body, highlighted individuals of differing social standing, among whom were women of high rank in the Nuku Hiva burials.

During this period, the characteristics of the burials were mainly used by archaeologists to establish a culture history for the region. An analysis of the differences between objects present in the graves of Wairau Bar and those of Maori culture of the eighteenth century allowed Duff to reject the hypothesis of a first settlement of New Zealand by non-Polynesians (thought to be Melanesians), in favour of an East Polynesian origin (Duff 1950: 177-178). Concerning the Marquesan Islands, Suggs (1961) suggested that the diverse burial practices were inherited from the first Polynesian settlers, so that different origins were the source of differences between burial practices on Nuku Hiva and at Wairau Bar. If the discussion started by Duff was interested directly in the question of the Melanesian/Polynesian divide, the one initiated by Suggs concerned the issue of “cultural” change. By his method of reasoning Suggs clearly broke from older migrationist models, still put forward by some at the beginning of the twentieth century which, for the Marquesas, championed the successive introductions of different forms of burial (Linton 1925). This paradigm shift could perhaps be correlated with a change in attitude towards the collection of skulls⁷ and the effectiveness of craniology, perceptible from the middle twentieth century in the USA (Shapiro & Suggs 1959). Biological anthropology gradually reoriented its objectives from the end of the 1950s. Biological anthropologists moved away from large-scale comparative studies in order to adopt a so-called bio-cultural approach, studying the interaction between humans and their social, cultural and physical environments (Zukerman & Armelagos 2011).

The years 1950-1960, diverse approaches

The 1960s were characterised by a major growth in archaeological work in the Pacific Islands, accompanied by an equally strong growth in the studies of burials and cemeteries. Varied approaches to burial were used to discuss culture history and social structure. These approaches reflect methodological innovations and bring together Archaeology and Biological Anthropology.

7 - Very active in Polynesia and the Marquesas Islands especially in the first half of the twentieth century, skull collecting was then controlled and even banned by local populations (Melander 2017:82). In this regard, some skull deposits in pits found at several ceremonial structures (tohua) on Nuku Hiva may not provide evidence of pre-European ritual activity at all, but rather of a post-Contact activity that reflected a desire to hide skulls from foreign visitors (Ottino et al. 2003).

Some archaeologists still focused on reconstructing culture history. They read the objects associated with the dead, the orientations and placement of burials or the ways of treating the corpse as cultural markers, to understand links between Polynesian archipelagoes or between Polynesia and Melanesia (Garanger 1972: 129; Emory & Sinoto 1964; Sinoto 1966). Other archaeologists, using different approaches, concentrated on the reconstruction of social structures. Davidson (1969), for example, used comparisons between archaeological and ethnohistoric data drawn from various sources. Garanger, on the other hand, relied on oral history and the knowledge of local interlocutors. These provided information on the circumstances of the deaths and the conduct of the funeral and defined the social status of the deceased (Garanger 1972, 1975: 316-318, 1976: 157-159; see also Luders 2001 and Guiart 2004). This original approach, related to the anthropological research of Jean Guiart (Espirat et al. 1973), demonstrated that oral traditions, generally considered in the 1960s as a historical myths, had a real historical dimension.⁸

Several innovations mark the period of the 1960s: first, exclusively “funerary” archaeological research projects came to the fore; second, biological anthropological study of human remains were sometimes associated directly with the archaeological study of burials, third the way of looking at burial practices changed. For example, the principal objective of the research by Davidson (1969) in Tonga was to define the nature of the burial mounds and to understand the burials within their biological context. Davidson combined her archaeology study with biological anthropology research carried out three years later (Pietrusewsky 1969). Even if there was no direct interaction between the two disciplines in this case, the effort to reconcile their results was undeniable: both studies were published together in the same volume of the *Records of the Auckland Institute and Museum*.

During this period, burial itself was seen in a new light. It was not only just a skeleton and associated grave goods. It was interpreted as a dynamic process. For the American Bowen, as for the French Garanger, the burial was a reflection of a sequence of actions: clothing of the body, transport and interment, which conditioned the way the body was in the ground (Bowen 1961; Bowen in Snow 1974: 129-148; Garanger 1972: 35, 17). These events were sought archaeologically through direct and indirect evidence. The archaeologists linked their field observations to behaviours by undertaking two types of research: first, observing the spatial distribution of the various elements: objects, bones and the sediments surrounding the burial and, second, examining the relationships between different parts of the skeleton in relation with the decomposition and taphonomy of the corpse.

Influenced by the work of Jean Leclerc on the collective burial of La Chaussée-Tirancourt (published as Leclerc 1975) and by the particular archaeological approach of Leroi-Gourhan and his team from

8 - Other burial excavations followed this approach (Conte & Dennison 2010; Sand et al. 2006; Valentin et al. 2007) but they did not identify the same degree of correspondence between archaeological studies of burials and oral traditions. These authors concluded that there was a complementarity between oral traditions and archaeological excavations and paved the way for a different approach to the reconstruction of Oceanic history where local experts and archaeologists work together (Sand et al. 2010).

the 1950s onwards (Leroi-Gourhan 1975; cf. Soulier 2018), Garanger conducted a detailed analysis of the spatial distribution of sediments and arrangements of the various elements (grave goods and bones) comprising the burial. He looked for structural evidence (state of joint articulations, constraining effects, “effet de paroi” or “wall effect”) to understand what was initially present, definitions for which had been formalised by Leclerc (1975). He thus managed to identify clothing or shrouds enveloping the pelvis and the lower limbs for some of the bodies at the time of their burial, packages containing amulets placed with the body and wrappings enclosing secondary burials:

“The [secondary] “bundle” burials include all bones of the skeleton. The skull, broken, is placed on top [at one extremity] and covers the lower mandible, the bones of the pelvis are at the bottom [at the opposed extremity] (relative to the orientation of the articulated skeleton). The long bones and what is left of the other bones are found in the middle of the bundle. This must have been wrapped in a fairly rigid plant material (...) it has the shape of a parallel-sided rectangle” (Garanger 1972: 63).

Bowen (1961; Bowen in Snow 1974: 129-148) outlined a taphonomic analysis of the burials at Mokapu (O’ahu, Hawaii) similar to the more recent approach of “*anthropologie de terrain*” or “field anthropology”⁹ (Duday et al 1990). He described primary burials as interred shortly after death and before decomposition of the body; he observed that the position of the body followed the contour of the grave-pit and concluded there was a lack of rigidity of the corpse at the time of burial; and he noted that the mouth was open in a third of the burials studied and concluded that this had been the case at the time of interment because the bones remained in articulation in their natural position. His approach may have been part of the same movement as other innovative burial studies by American archaeologists and biological anthropologists of the time such as Roderick Sprague and Douglas Ubelaker (Sprague 2005; Ubelaker 1974), aimed at better describing burials and standardising the terminology used in this. This movement may also have benefited from the earlier taphonomic work of the anatomist Wilder, carried out in the medico-legal context of “forensic” anthropology. Wilder sought to understand burial practices through an analysis, which he termed “*necrodynamics*”, of the decomposition of the body in relation to its archaeological context (Wilder & Whipple 1917; Wilder 1923).

The years 1970-1980, an ambition to reconstruct social structure

Reconstruction of social structure was particularly discussed during this period, by bringing in not only archaeological data but also biological evidence from the skeletons themselves collected by an all-New Zealand group of biological anthropologists – Philip Houghton, Douglas Sutton, and Kenneth Dennison. The archaeological and biological data were examined in parallel with information from written ethnohistoric sources, sometimes contemporaneous with

9 - This corresponds to the “method” part of archaeoethnatology.

the use of the site itself, or taken from ethnography, to discuss the form, hierarchical (or stratified) or not, of the “burying” group. Thus, the way the dead were treated on Tepoto, an atoll in the Tuamotus, by simple burial, would have denoted a less “hierarchical” social organization than that operating in other archipelagoes of French Polynesia (Conte & Dennison 2010:125).

Leach and Leach (1979) and Leach and Davidson (2008) were influenced by Anglo-American trends of the 1960s-1970s and the New Archaeology approach to burial labeled “Saxe-Binford” (for example by Chapman 1987, 2003). This was based on the principle that the dead were treated according to the social status that they possessed during their life and used ethnographic analogies to interpret funeral practices and reconstruct the type of society at play at the time. The Palliser Bay group (New Zealand) was thus supposed to be “non-stratified” because of the diversity of the observed funerary practices and that of Namu (Taumako, Solomon Islands) was said to be “stratified” because of the uneven distribution of ornaments and thus of wealth. Even if some of their observations at Taumako seemed surprising to them, the archaeologists concluded that high social status was inherited at birth:

“What was certainly a great surprise was that the wealthiest person of all was actually a woman. This was Burial 151, a young woman of only 16-17 years age who had already borne one child. She must have been someone very special in Namu society, perhaps the wife of a chief. Of the 12 most wealthy people at Namu, 3 were infants (Burials 80, 124 and 153, aged about 1 year, 9 months, and 2 years respectively)” (Leach & Davidson 2008: 318).

The applicability and generalization of this principle are certainly debatable. The treatment of the deceased and the choice of their place of burial are, to varying degrees, influenced by other factors, whether emotional, ideological, symbolic, and/or political (see for example Chapman 1987, 2003; Parker Pearson 1982 1999). In part these also reflect the belief system whose importance Suggs (1961) had already pointed out for Marquesan society, and reactions to the loss of a member of the social body that Emmanuel Vigneron (1985) had analyzed for French Polynesia in general.

During this period, another topic was much discussed. Burial was no longer considered only as an isolated, decontextualized entity. Its place at the heart of the space occupied by living people became an object of study. This distinctive theme was rarely taken up by archaeologists working in other regions in the 1970s-1980s, above all interested in questions of hierarchy and social complexity (Bartel 1982). The spatial proximity between funerary activity and spiritual activity observed on Tepoto (Tuamotus), where graves were emplaced on the Marae Te Tahata intrigued Conte and Dennison (1995, 2010). The spatial proximity between funerary activity, burial, and domestic

activities was also noted at Palliser Bay in New Zealand (Leach & Leach, eds, 1979). The latter case indicates a relationship to spatial arrangement different from that seen in New Zealand now. Indeed, a strict separation between the activities of the living and the dead exists today in contemporary Maori society (Mills 2016). This distinctive development of the study of Oceanic burials can be linked to the growth of the 'Settlement pattern studies' in the Pacific Islands during the 1980s (Green 1984; cf. Kirch & Kahn 2007). The human landscape is in effect envisaged as a space likely to reveal economic, social, political, religious and spiritual relations that govern communities (Kirch 1985; Valentin & Molle 2016).

Archaeologists of the 1970s and 1980s were intrigued by the meaning of some of their field observations. They sketched out taphonomic analyses from observations on the state of decomposition of the body. For example,¹⁰ the open mouth observed in several cases and in several sites was surprising. It was repeatedly interpreted as a funeral act, as a position given to the body at the time of its burial:

"This old man had both legs tightly bound together and his knees had been drawn forward. His shoulders were hunched together, again suggesting tight binding. His jaw had been forced wide open" (Leach & Davidson 2008: 203; see also Bowen in Snow 1974: 129-148 and Leach & Leach 1979: 205-213).

Yet, if one follows the principles and methods of field anthropology (Duday et al. 1990), an alternative analysis must be proposed. Many burials associated with very different cultural, chronological and geographic contexts present this feature, suggesting a more general process. The loss of connection between the cranium and the mandible can result from a natural phenomenon related to the taphonomy of the body buried in the ground. The slackening of the mandible in a secondary void released by the decomposition of organic tissues can happen by the effect of gravity and, possibly, because of the initial presence of a perishable container. This hypothesis was first proposed in the 1950s, during the analysis of a prehistoric burial in southern France showing a tilting of the mandible forward, on the vertebrae (Bottet 1954: 316, 319). This discussion takes up a part of the philosophy of the archaeothanatology approach. It is based on the idea that the position of the skeleton at the time of the excavation will be different from that of the body at the time of burial, due to the occurrence of several taphonomic phenomena during decomposition of the corpse (Duday et al. 1990, 2014; Duday 2009). This approach to burial that emerged in France during the 1980s, was only applied later in the Pacific, at the end of the 1990s (Maureille & Sellier 1996; Valentin et al. 2001).

10 - The "looted" graves of Mokapu (Bowen in Snow 1974) could equally be considered as requiring reconsideration today.

CONCLUSION: EVOLUTION OF THEMES AND METHODS DURING THE TWENTIETH CENTURY

Archaeologists studying ancient burials in Oceania during the twentieth century tackled themes that were classically studied during this period (cf. Parker Pearson 1999): culture history and social structure. Between the 1950s and 1970s, Duff (1950), Suggs (1961), Sinoto (1963, 1966a & b), and Garanger (1972) accepted that burial features or layout were identity or cultural markers that they could use to trace culture history. They emerged from models of settlement through comparisons between ancient and recent or contemporaneous burials from the same island or between nearby islands. This perspective is still seen in the study of the Namu burials on Taumako (Solomon Islands) which, according to Leach and Davidson (2008), might reflect Polynesian traditions, and thus be an indication of the “polynesianisation” of this Melanesian island (cf. Kirch 1984; Carson 2012).

Since the 1950s, however, archaeologists have displayed a parallel interest in questions about the social and religious dimensions of burial and funerary practices. Although attempts at characterization of religious ideas (Suggs 1961) were quickly abandoned, there was a significant interest in social structure from the beginning of the 1960s and especially in the 1980s (Leach & Leach 1979; Leach & Davidson 2008), linked with the so-called Saxe-Binford social approach to burials (for example, Chapman 1987, 2003). Pacific archaeologists of the years 1930-1950, observed distinctions between individual burials and, following an internal logic, interpreted them as resulting from social differences, particularly between men, women and children (Duff 1956; Suggs 1961). Archaeologists of the 1960s onwards used information external to archaeology to bring the social dimension to light. Davidson (1969) and Conte (2010) used ethnohistoric information from accounts by explorers and missionaries, generally contemporary with early European contacts and describing the region where the site in question is located. Garanger (1972) relied on oral tradition and the knowledge of local informants. Leach and Leach (1979) and Leach and Davidson (2008) used analogies with contemporaneous Polynesian cultural traits to define a societal type.

By the end of the 1960s, Pacific archaeologists also made appeal to biological anthropology. In contrast to earlier archaeologists such as Duff (1950, 1956), Suggs (1961) and Garanger (1972), who provided their own estimates of age and sex of the skeletons that they unearthed, Sinoto (1963, 1966a, 1966b) and Davidson (1969) did not provide such estimates and limited themselves to distinguishing adults from children. However, they were not uninterested in the biological nature of the population being buried. They approached a biological anthropologist to provide detailed descriptions (Pietruszewsky 1969, 1976). This change of attitude may have been related to questioning of the reliability of Duff’s sex estimates for the graves of Wairau Bar.

The biological anthropology study conducted by Philip Houghton had shown that the initial estimates were erroneous (Houghton 1975; cf. Buckley et al 2010) and therefore that the social interpretation was wrong: the number of men associated with grave goods was in fact no greater than the number of women (Leach 1977). These results showed the need for close collaboration between archaeologists and biological anthropologists to study such ancient burials.

From the end of the 1970s and into the 1980s, New Zealand biological anthropologists were integral to archaeological projects involving the excavation of burials: Sutton for the graves of Palliser Bay, Houghton for those of Namu and Dennison for those of Tepoto. However, the interaction between the two disciplines remained limited. The interests of biological anthropologists were above all focused on characterizing the conditions of life for individuals (Dennison 2010; Sutton 1979). This was posited as an aim for biological anthropology in New Zealand as opposed to the large-scale comparative studies carried out on other burials in Polynesia (for example, Pietrusewsky 1969, 1976; Snow 1974). The objective as defined by Sutton (1979:185) was to get: “an increasing emphasis on the elucidation of the biological and social conditions of life experienced by single groups of people living at known points in time within the prehistoric period”. This approach resulted in several syntheses about Polynesian populations (Houghton 1980, 1996), and the same orientation continues today (for example, Oxenham & Buckley 2016).

The question of funerary ideology, the relation of the living to the dead and death, became only understood little by little by Pacific archaeologists during the twentieth century. Suggs (1961:171) observed a spatial differentiation function of the type of burial. Conte (2010) addressed the question of the funerary function of *marae* sites and Leach and Leach wondered about the place of burials within human space (Leach & Leach 1979b: 267-269). The importance of taphonomic study of the funeral process to reconstitute the different stages, and beyond them, the funeral system that motivated these practices, was perceived by twentieth century archaeologists but remained undeveloped. Bowen (1961; Bowen in Snow 1974) and above all Garanger (1972) from 1960, brought elements of the required methodology to bear, thus paving the way for a deeper understanding of the treatment of the body at death and the conduct of funerary ceremonies. But the research direction started by Garanger, to do with the perishable elements used in the ceremonies, was not further taken up. Research conducted by Leach¹¹ at the end of the 1970s took the same direction as that of Bowen, being interested in the analysis of the relations between skeletal elements during body decomposition (Leach & Leach 1979a; Leach & Davidson 2008). The results, however, remained incomplete or even inaccurate, suffering from a conceptual and methodological framework still insufficient to the task.

11 - For example, Leach and Leach (eds) (1979) do not cite Garanger (1972) at all.

Research utilising the tools of archaeoethanatology was developed in synergy between archaeologists and biological anthropologists but it would only begin to appear at the end of the 1990s in the Pacific and during the 2000s (Campbell & Hudson 2010; Sellier 2015; Valentin et al. 2010, 2016). Today they are not being presented as an archaeology of burial, but rather as an archaeology of death, where discussion is focused on the management of the corpse, and with the timing and funeral sequences including not only the history of the treatment of the body but also that of the funerary assemblage, whether mound or cemetery, and its place within the human landscape.

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**REDISCOVERY, CONFIRMATION
AND DATING OF A STRATIGRAPHIC
PROFILE DESCRIBED BY
GUSTAVE GLAUMONT
ON THE ISLAND OF AMBAE
IN 1890**

Matthew Spriggs & Stuart Bedford

ABSTRACT

Recent survey and excavation on the island of Ambae, northern Vanuatu, have confirmed the pioneering observations of Gustave Glaumont who in the late XIXth century published a stratigraphic section, the first such archaeological section from the Western Pacific, identifying deeply buried archaeological deposits located in northern Ambae under a volcanic layer. The 2005 and 2007 field-work revealed further evidence for a sequence of archaeological deposits sandwiched between volcanic layers. The rapid and relatively recent eruptive events emphasise the widespread nature of such episodes in Vanuatu and their regular impact on the inhabitants of the archipelago. Recent events, including the evacuation of the entire population of Ambae due to a significant volcanic eruption, have shown the salience of Glaumont's pioneering observations.

KEYWORDS

*Gustave Glaumont,
Volcanic activity,
Ambae, Vanuatu,
Stratigraphy,
Pottery,
Disaster management*

INTRODUCTION

The aim of this paper is first of all to point to the value of examining the history of archaeology in our region. Such an examination is valuable not only as reflecting upon earlier ideas and ideologies about the Pacific – although that of course is very important. It can also in some cases be of direct use in setting research agendas today. The example given is Gustave Glaumont's short visit to Ambae Island in Vanuatu on 28 August 1890, the first known occasion of archaeological recording in Vanuatu. It was not to be for another 115 years that any detailed archaeological observations were carried out on Ambae. These were undertaken by the present authors as a direct result of having read Glaumont's accounts of his visit (Glaumont 1895, 1899 [the latter republished 2013]).

Information passed to the authors in 2005 by a local inhabitant, Paul Vuhu, made sense in the context of Glaumont's publications and sharpened a desire to visit the island. As a result we are now better able to interpret Glaumont's original findings in the context of current knowledge of Vanuatu archaeology. This work has also had implications for volcanic hazard management on the island, by establishing that areas thought to be relatively safe and suitable as evacuation centres have in fact suffered catastrophic volcanism within the last several hundred years. Starting at the end of September 2017 the entire island was evacuated for over a month and 12,000 people displaced as a result of the summit eruption of Mount Manaro on the island. Glaumont's original findings, as confirmed by us, certainly had a part to play in the decision by the National Disaster and Management Office (NDMO) of the Government of Vanuatu to evacuate the entire population rather than concentrate them at the western and eastern ends of the island as happened during previous eruptions.

The island of Ambae (405 km²) lies at the heart of northern Vanuatu (Figure 1A). It is also the largest and one of the most dangerous active volcanoes in a volcanically active archipelago. The island is dominated by the 1496m high Manaro volcano. On its summit region there are two caldera lakes known as Vui and Manaro. The two bodies of water that overlie the active vent comprise c. 50 million and 11 million m³ of water respectively (Cronin et al. 2004) (figure 1B). The eruptive history of the island is not well known but it is thought that the dominant Manaro cone formed around 2000 BP based on assessment of levels of erosion (Warden 1970:117). Subsequent lava flows and lahars in the last few centuries are recorded as having destroyed villages and contributed to significant loss of life (Cronin et al. 2004:653). The latest intra-caldera eruptions temporarily formed an island in Lake Vui in December 2005 (Bani et al. 2009; Nemeth and Cronin 2009) and again in September 2017 (Spriggs, personal observation and media accounts).

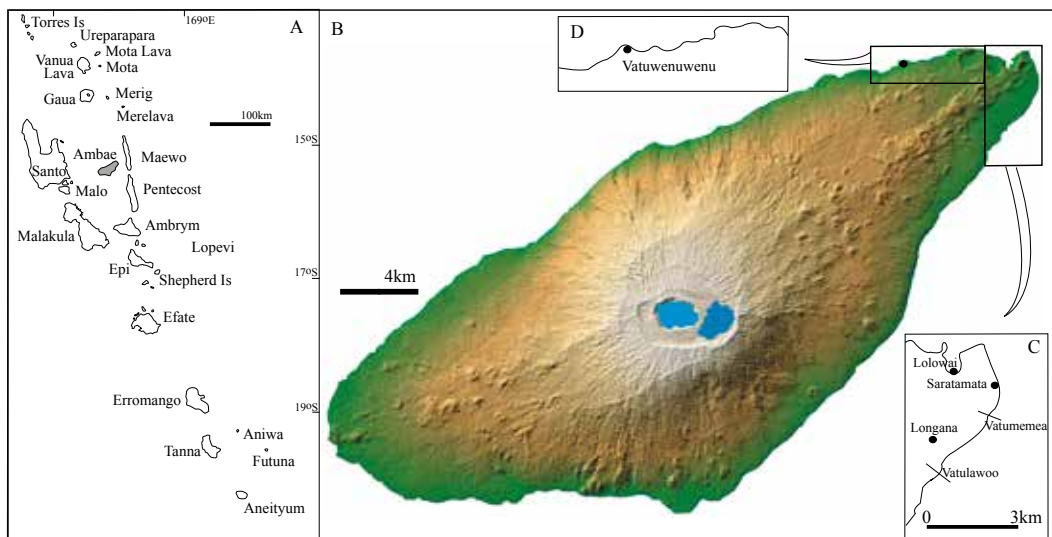


Figure 1: Vanuatu. B. Ambae Island (modified from NASA/JPL/NGA) C. Area of coastal survey and test pit excavations. D. North Ambae and area of dry creek. Copyright by Stuart Bedford and Matthew Spriggs.

The evidence and influence of such events are found in archaeological research throughout the Vanuatu archipelago – such as that of Father Suas on Ambrym (Suas 1902, 1917-1918; cf. Dotte-Sarout 2017:29-30) and the excavations by José Garanger (1972) on Tongoa in Central Vanuatu. They are a constant reminder of the major impact such activity has had on the history of human settlement of the islands. It is ironic that Ambae, which has received the bare minimum of archaeological attention to date, was the first island in Vanuatu where deeply buried archaeological deposits were described in publication (Glaumont 1895, 1899 [2013]).

GLAUMONT'S 1890 DISCOVERY

Gustave Glaumont, a penal colony administrator for nearly six years in New Caledonia from 1884 (see Patole-Edoumba 2013 and this volume for a brief biography), managed to make a short tour of Vanuatu during his return voyage to France in 1890. Glaumont published a number of pioneering articles focusing on New Caledonian customs, lifestyle, rock art and subsistence (see Patole-Edoumba, this volume). But he can also be credited with a number of publication firsts in relation to archaeological observations in the Western Pacific. He was the first to note archaeological deposits of pottery in New Caledonia (Glaumont 1889), and the 1895 stratigraphic drawing noting pottery at some depth on Ambae (figure 2) is both the earliest published observation of archaeological deposits in Vanuatu and the first drawing of an archaeological stratigraphic section to be published for the Western Pacific (Glaumont 1895: 50). The pioneering stratigraphic section was from a creek bank somewhere in northern Ambae.

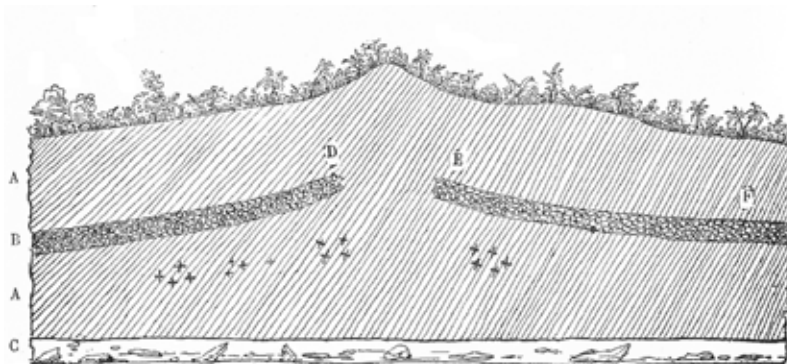


FIG. 18. — Berge d'un ravin de l'île d'Aoba (Nouvelles-Hébrides).
A.A. Argile. — BDEF. Couche soulevée de scories volcaniques. — C. Lit du torrent.
(Les croix indiquent les gisements des poteries.)

Glaumont was on board the *Maire*, a small schooner that had come from the island of Santo. He wrote in his shipboard journal:

"Je vais à terre, accompagné du capitaine Gaspard et du matelot canaque Katcho. Nous nous engageons dans une sorte de gorge de gave, complètement à sec à l'heure actuelle, mais qui doit être un torrent impétueux pendant la saison des pluies... La berge de la rive droite est une haute muraille argileuse, verticale; en m'approchant, je constate qu'elle a de 5 à 8 mètres de hauteur.

En l'examinant de plus près, nous voyons qu'à 2m, 50 de hauteur, il règne un cordon noirâtre, large de 0m, 25; j'en détache un morceau, et je constate que cette tranche noirâtre n'est qu'une couche de scories volcanique, de grenaille de fer, etc.

Enfin la chose la plus remarquable est qu'au-dessous de cette tranche de scories de 0m, 25 d'épaisseur, le capitaine Gaspard, Katcho et moi, nous avons détaché, dans la couche argileuse inférieure, des fragments d'une poterie grossière, sans dessins ni gravures d'aucune sorte"

(Glaumont 1895:50; cf. 1899: 66 [2013: 84] with slightly different wording)¹.

Glaumont noted that within a 5-6 metre high section, large plain pottery sherds were located some 2.5m below volcanic scoria deposits, themselves buried by 2.5m of further volcanic deposits. The sherds were described as *"primitive, grossière; on n'y voit ni dessin, ni gravure; elle est mal cuite et noirâtre"* (1895:51)².

He described the current population as *"Polynésiens ou métis de Polynésiens et de Mélanésiens"* (1895:50)³, and elsewhere *"de race polynésienne, ayant détruit ou absorbé les anciens habitants mélanésiens de l'île, frères des canaques de Santo qui font encore de la poterie"* (1895:51)⁴. The pottery was thought to be connected to these earlier inhabitants of the island as the local population of the time were said to be *"au dire de tous les voyageurs"* (1895:51)⁵ completely unfamiliar with pottery. In fact, we now know that to be untrue – pottery

Figure 2:
Stratigraphic section drawn by Gustave Glaumont (from Glaumont 1895). Out of copyright.

1- English translation: "I went ashore, accompanied by Captain Gaspard and the Kanak sailor Katcho.

We found ourselves in a sort of creek gorge, completely dry at the time but which must be a violent torrent during the rainy season...The side of the right bank is a high, vertical earth cliff. Coming near it I judged it to be 5-8m high.

In examining it closely we saw that at 2.5m height there was a black band some 0.25m thick. I pulled off a piece and saw that this black deposit is just a layer of volcanic scoria, shot through with iron, etc. The most remarkable thing is that below this band of scoria, 0.25m thick, Captain Gaspard, Katcho and I pulled out of a lower clayey layer thick sherds of pottery without designs nor marks of any kind" (all translations by the authors).

2 - "Crude, thick; no design or mark was to be seen. It is black and badly fired".

3 - "Polynesians or mixtures between Polynesians and Melanésians".

4 - "Of Polynesian race, having wiped out or absorbed the former inhabitants of the island, brothers of the natives of Santo who still make pottery today".

5 - "as any traveller will tell you".

6- "Pottery is generally characteristic of the Melanesians; it could not come from the Malayo-Polynesians, as they don't know of it"

was produced into the contact period in the XIXth century on Ambae and would have been remembered by people at the time. But there is no evidence Glaumont ever actually spoke to any Ambae people while he was there. In southern Ambae today there is an indigenous term for pottery, *vuro*, and there are oral traditions relating to pottery making clay sources. Glaumont believed as did all scholars of the time that: "*La poterie est caractéristique des Mélanésien en général; elle n'a pu leur venir des Malayo-Polynésien, ceux-ci ne la connaissant pas.*"(1895:44)⁶.

THE 2005 AND 2007 FIELDWORK

More than 115 years later, Glaumont's stratigraphic observations were finally confirmed. The north of Ambae, as opposed to the centre and much of the west, is characterised by more undulating terrain with wide coastal plains in the northeast. At Saratamata in the north the coastal plain grades down towards the sea with no substantial drop off to the beach. Coastal erosion and encroachment are constant and obvious features in the northeast where dead coconut trees can be seen some 50m out into the sea in some areas. Moving further south the terrain slowly rises and from Vatumemea southwards the coastline is characterised by an eroding cliff-face, which in some places is more than 2m high.

Cultural deposits were first noticed in 2005 eroding out of a 1m high coastal section at Vatumemea (see Figure 1C for location) and a collection of pottery was made by the local landowners. In August 2005 the authors were alerted by Vanuatu Cultural Centre Ambae Fieldworker Paul Vuhu and subsequently visited the island. In this area of the coast there appeared to be a single phase cultural layer buried by up to 50cm of volcanic airfall tephra and a pyroclastic surge deposit. In a subsequent survey, southward along the coastline, this same layer could be tracked for some 2.5km. Cultural deposits were identified along the full length of this rapidly eroding coastline. In a more sheltered bay known as Vatulawoo, south of Longana, the beach section reached a height of more than 2m and an additional later cultural deposit could be identified (figure 3).

Another field season was undertaken in June 2007 in which two one by one test-pits, located several metres behind the eroding coastline and more than 2km apart at Vatulawoo and Vatumemea (figure 4A & B), were excavated in order to collect securely provenanced dating and pottery samples. Taking all sites together, both the excavated deposits and the exposed coastal section, the acceptable dates appear to cluster into three distinctive time periods: Layer 3 can be dated to between 1830-1530 cal. BP, the lower part of Layer 1 to between 790-670 cal. BP and the uppermost cultural deposit to 470-140 cal. BP⁷. This means that the highly-destructive pyroclastic flow that lies between the two cultural deposits was emplaced sometime between the dates of 1710-1530 cal. BP and 790-670 cal. BP. As we shall see later this time range can probably be further narrowed down.

7 - Calibrations using OxCal v. 3.10 (Bronk Ramsey 2005) were provided by Fiona Petchey, University of Waikato, Radiocarbon Dating Laboratory. Calibrations utilise Southern Hemisphere atmospheric data from McCormac et al. (2004). The samples are labelled in Figure 4, circled as 3 and 5, 2, and 1 and 4..

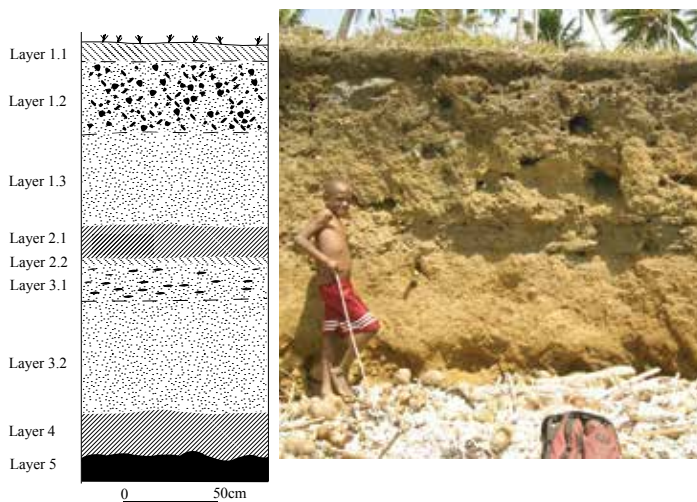


Figure 3: Stratigraphic drawing and photograph of the exposed coastal section near Vatulawoo showing major volcanic deposits and cultural materials. Copyright by Stuart Bedford and Matthew Spriggs

Following the completion of the test-pit excavations a survey of the very north of Ambae was undertaken in an attempt to relocate the dry creek in which Glaumont had made his original observations. Narrowing down the most prospective area was made easier by the fact that there are few dry creeks in the north and much of the coastline is made up of steep sided cliffs. Driving several kilometres west from Saratamata, the administrative centre of the island, along the high coastal road flanked by steep cliffs we arrived at a more open coastal flat, some three kilometres in length that slopes gradually to a sheltered beach. The area is a recognised anchorage and the coastal flat is cut by four deep, steep-sided dry creeks. The two most westerly were inspected first and although the stratigraphy resembled that as described by Glaumont there was no sign of any pottery in the exposed creek banks. It was at the third creek, Waliueru, where pottery was located below airfall tephra and a pyroclastic surge deposit. The several thick plain sherds and thinner heavily red-slipped sherds resembled pottery from the lower cultural deposits at Vatulawoo and Vatumea.

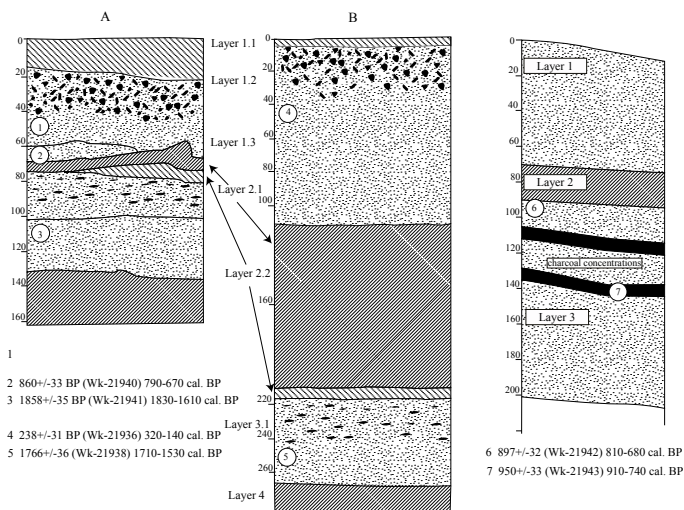


Figure 4: Stratigraphic sections of test pits at Vatulawoo (A), Vatumea (B) and the dry creek section at Vatuwenuwenu (see text for stratigraphic descriptions). Copyright by Matthew Spriggs and Stuart Bedford.

Survey undertaken at the next dry creek, Vatuwenuwenu (see figure 1D for location), revealed further archaeological remains sandwiched between the same volcanic layers. The stratigraphy some 250m inland from the beach was 2.2m deep and comprised the following layers (figure 4C). Layer 1 (0-70cm) was a tephra rich developed soil with only a single potsherd as archaeological evidence. Layer 2 was a cemented pyroclastic flow deposit 20cm thick. A charcoal sample was collected from immediately below this layer (810-680 cal. BP: labelled as 6 in the figure) and is likely to give a good indication of the date of this eruptive event. The upper part of Layer 3 comprises a reworked airfall tephra some 40-50cm thick with two discrete charcoal lenses (the lower of which contained oven stones) associated with oven features.

A charcoal sample from the lower oven feature, 140cm below the surface provided a date of 910-740 cal. BP (circled as 7 in the figure). A red-slipped sherd with applied nubbins was recovered within the feature. Below this lower hearth there is a further 80-90cm of orange/yellow airfall tephra down to the creek bed. If it is assumed that this pyroclastic flow deposit is the same as that exposed in the coastal deposits at Vatulawoo and Vatumemea then we can further pin down the age of the flow as being bracketed by a date of 790-670 cal. BP above it at Vatulawoo (already discussed, circled as 2) and a date immediately below it of 810-680 cal. BP at Vatuwenuwenu (circled as 6). It suggests an eruption at about 750 cal. BP.

Pottery was found by us only on stretches of the creek banks below the road and some 250-300m inland from the present beach. While we are confident that it was on this coastal flat where Glaumont made his original observations, his description of a 5-6m high section suggests that this particular segment of creek bank has yet to be located and that it is perhaps further inland in an area where the flat terrace slopes upwards towards the hills behind. Thus was “Ambae’s 117 year old mystery solved” as the *Vanuatu Daily Post* put it in their front page headline of June 30 2007.

Recovered artefactual material from the coastal survey and excavations consisted almost wholly of pottery. Other material included was concentrated basaltic cobbles in the upper cultural layer, some of which appeared to be contained within oven features along the beach section. Shell and bone were noticeably sparse and where present were heavily degraded due to the acidic nature of the tephra. A single, heavily corroded, butt end of a *Tridacna* sp. shell adze was recovered from the upper cultural layer in the Vatumemea test pit (in Layer 1.3). Faunal remains in the upper cultural layer of the exposed coastal section included human bone in the form of a dispersed burial. Bone recovered from the test-pit excavations included pig bone throughout the stratigraphy and very occasional human and fish bone.

A detailed analysis of the excavated artefact assemblages will be provided in a separate publication. Here we will only give the briefest description of the changing pottery styles, as illustrating stylistic connections with other islands in northern Vanuatu. The ceramics from the upper and lower cultural layers are distinctly different. The later period ceramics are of a widespread style, with its known distribution partly corresponding to Bonnemaïson's "Oceanic Mediterranean" group of islands (1996:208), namely Malakula, Malo, Santo, Ambae, Pentecost and Maewo.

Named by Bedford Chachara Ware and tentatively dated to between 600-200 BP, such pottery is restricted to settlement and ceremonial sites in areas associated with a distinctive political system created through a hierarchy of grades, which are achieved through a series of complex ritual and economic tests (Bedford 2006:151). These typically involve the sacrifice of full-circle tusked pigs – erroneously called by Glaumont "babyroussas" (as quoted in Capitan 1901:121) but actually just *Sus scrofa*. It is a status system that is only found in northern Vanuatu and contrasts significantly with the chiefly systems of the centre and south that are based on inherited titles rather than achievements (see map in Bonnemaïson 1996:201). The dates from Ambae for this style of pottery (470-140 cal. BP) also correspond to the broad chronology established from research on Malakula.

Direct parallels with the recovered ceramics from the lower cultural layer on Ambae are again found with sherds from both surface collected and excavated contexts on Malakula and other islands in the north (Bedford 2006). The dates from Ambae provide the most reliable ages (1830-1530 cal. BP) for such material thus far. The heavily red-slipped sherds of the lower cultural layer are reminiscent of Santo pottery and pottery recently found in the Banks Islands further north (Bedford and Spriggs 2008).

What these data provide are some detail on the historical depth and development of localised inter-island cultural connectiveness and the shifts in geographical orientation that appear in northern Vanuatu. The Ambae pottery indicates strong cultural links with Malakula dating from at least 1800 years ago and into the recent past. The strengths of these cultural links are likely to have fluctuated over such a lengthy period and this is perhaps evidenced in the Santo-like attributes seen in some of the Ambae pottery dating to 1800-900 years ago. Such connections are significant as they hint at where Ambae populations would have moved to if extreme volcanic activity warranted evacuation of part or all of the island.

DISCUSSION

Glaumont's stratigraphic section drawing and description had long intrigued both authors. We had planned to try and locate where exactly on Ambae he had landed and found evidence of catastrophic volcanism affecting the island during the time of human occupation, that is within the last 3000 years since people first arrived in Vanuatu. We were reminded of Glaumont's work when reports reached the Vanuatu Cultural Centre in 2005 of finds of pottery eroding out from exposed coastal sections at the east end of Ambae. The 2005 visit by Bedford confirmed the potential of the area for investigating the effects of volcanic eruptions upon Ambae's population, and the field-work of Bedford and Spriggs in 2007 was explicitly designed both to date the evidence of such volcanic activity and to re-locate the site recorded by Glaumont in 1895.

What might have been interpreted as a very local effect of volcanism if we had only investigated the recent finding of pottery in East Ambae, took on much wider importance when the general area of Glaumont's observations was located in 2007. It revealed that the pattern of repeated volcanic catastrophe that we had identified from the coastal erosion sites of the east end of the island was in fact representative of a much more widespread pattern. The regional-scale effects of volcanic destruction that linked Glaumont's original observations and those from our excavated sites several kilometres away helped convince the National Disaster Management Office (NDMO) that in the event of significant volcanic summit activity on the island it would be advisable to evacuate the entire population of the island to safer neighbouring islands. Previous advice had been to concentrate the evacuated population away from the summit area to the eastern and western ends of Ambae. The eastern end had turned out to be an area that we revealed, following on from Glaumont's original discovery, harboured its own potentially catastrophic dangers during periods of heightened volcanic activity.

It is clear that the coastal plains of the north east of Ambae have been created primarily through volcanic activity. The earliest major volcanic deposits appear from at least 1800 years ago, potentially associated with the Manaro caldera forming event, with later contributions from the formation of post-caldera cones of Lakes Vui and Manaro in 495-298 cal BP (Warden 1970:120, date calibrated by the authors), and potentially from many other localised phreatic craters. Lava initially flowed over the fringing reef and tephra was subsequently deposited on top of that.

There is evidence for extensive human settlement along the northeast coastal zone on top of the initial lava and tephra fall at around 1800 BP and on the north coast around 850 BP, but it is subsequently interrupted by further catastrophic volcanic activity dating to soon after that latter period. An origin point among the several phreatic craters of the eastern tip of the Island is most likely.

After a period of abandonment people returned once again to this coastal region and more concentrated settlement is evident by c. 400 BP. The sparse nature of the midden deposits suggests a pattern of dispersed but widespread settlement along the coast, existing for relatively short periods in any one place.

This research and the associated geological work of Massey University in New Zealand (Cronin et al. 2004; Németh and Cronin 2009) have shown that the volcanic hazard maps for Ambae in use before the latest 2017 eruption needed to be reconsidered, particularly as what was generally considered to be one of the safest areas on the island can now be shown to have been catastrophically affected by pyroclastic flows only some 750 years ago.

CONCLUSION

The results of this research have highlighted the radically changing landscapes that are found on volcanic islands such as Ambae, a constant factor in the lives of the indigenous inhabitants. The geomorphological and human history of Ambae remain relatively poorly known. It is recognised as home to one of the most dangerous volcanoes in the Vanuatu archipelago and the coastal sections on the north east coast confirm that volcanic activity has had a major impact on the lives of the population in the past. Further coastal and river valley surveys on Ambae examining areas where sections are exposed are likely to return similarly valuable settlement pattern and historical information. These in combination with further geological research will provide valuable additional data for volcanic disaster-mitigation strategies that are being designed to minimise future impacts. They will also do some long-overdue justice to the significant and pioneering archaeological observations made by Gustave Glaumont over a century ago.

ACKNOWLEDGEMENTS

The authors were first alerted to the eroding cultural material by Paul Vuhu, the Vanuatu Cultural Centre Fieldworker (VCC) from West Ambae. Bedford carried out fieldwork on Ambae in 2005 in collaboration with Paul Vuhu, James Garae, the then Vanuatu Cultural Centre fieldworker for East Ambae and Andrew Hoffman from the Vanuatu Cultural Centre, Port Vila. Claude Vusi directed us to the initial findspot and showed us a collection of sherds. In 2007 Spriggs and Bedford collaborated with the newly appointed fieldworker for the area, David Boe, and the field assistants were Claude Vusi, Lonni Vusi, Ferno Vusi, Oscar Leo and Erickson Mala. We thank landowners Dickinson Vusi and Matthew Tari for their permission to excavate on their land. The research was part of an Australian Research Council funded project (DP 0556874) focusing on cultural transformation in northern Vanuatu. Shane Cronin of Massey University, Palmerston North provided valuable information regarding the tepthrostratigraphy of northeast Ambae, and key references.

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***“WERE THOSE MYSTERIOUS
MOUNDS REALLY
FOR THE BIRDS?”***

**REAPPRAISING THE ISLE OF
PINES’ PUZZLING TUMULI
(NEW CALEDONIA)**

Louis Lagarde

ABSTRACT

The title of this paper is a transparent allusion to an article, published in 1988, in which Roger C. Green put forward a non-anthropogenic hypothesis for the origin of the mysterious earth mounds found on Isle of Pines, in southern New Caledonia. The interpretation of these structures played a key role in the New Caledonian archaeological discourse and the historical paradigm that locally emerged from it in the 1960s. Green, who had perfectly understood their importance, suggested they were natural phenomena, which then allowed the debate to settle down.

More than 30 years have passed, during which further archaeological fieldwork on Isle of Pines has been undertaken. New data from global surveys and new radiocarbon dates now allow us to reconsider what has been written on these enigmatic structures. After a thorough reevaluation of the earthmounds' diverse interpretations from a historiographical perspective, we suggest the possibility that the tumuli are of anthropogenic origin, bear a ritual/funerary function and that at least some of them were used as funerary mounds for primary burials.

Translated by the author with Mathieu Leclerc, including citations.

KEYWORDS

New Caledonia,
Isle of Pines,
Tumulus,
Ferralitic,
Megalithism,
Sylviornis neocaledoniae,
Megapodius
Molistructor,
Funerary practices,
Roger C. Green,
Daniel Frimigacci

To Pr. Jack Golson and Daniel Frimigacci, pioneering field archaeologists in the study of the Isle of Pines' mysteries

INTRODUCTION

Isle of Pines (150 km²) lies 45 km away from the southern tip of mainland New Caledonia (i.e. *Grande Terre*). Among its various curiosities are hundreds of easily visible earth mounds, scattered across the ferrallitic plateau. Their number, their denomination and their easy access contributed to their increasing popularity throughout the XXth century. They have thus become one of the main elements of interest for local and international specialists, as well as for amateur archaeology enthusiasts, especially in the past sixty years. However, their function is still unknown, despite having been the focus of numerous articles and publications.

In order to obtain a precise context on the tumuli story, it is important to recall the different theories that researchers have put forward over the past decades. We then wish to counterquestion and evaluate each hypothesis, allowing us to test their plausibility. Lastly, an intensive fieldwork mission conducted between 2006 and 2010 on Isle of Pines yielded important new data regarding these enigmatic structures. This recent dataset is discussed in light of Daniel Frimigacci's pioneering work on Isle of Pines' tumuli in the 1980s, whose interpretation we believe is still valid.

ISLE OF PINES AND THE TUMULI RESEARCH HISTORY

French Doctor Theophile Mialaret was a naval medical officer and a strong proponent of free colonisation in New Caledonia at a time when the local penal administration was still using the Isle of Pines for the confinement of convicts. He published a book in 1897 that focused on the island's potential economic development and the possibilities of installing free settlers instead of a penal population. He also described an array of local customs and natural curiosities (Mialaret 1897). He is probably the first to mention the Isle of Pines' large earth mounds. Twenty years later, geographer and botanist Robert H. Compton mentions the partial excavation of a tumulus where nothing was discovered: while he admits that these structures "resemble nothing more than the burial tumuli so frequent in many parts of England", he also writes that the natives "are positive that they are not the work of man", yet "advance no explanation for them" (Compton 1917: 103). To our knowledge this is the oldest comment questioning the anthropogenic nature of these earth mounds.

Throughout the XXth century, the tumuli on Isle of Pines have also been considered as a possible set of megalithic structures indicating the presence of an ancient pre-ceramic culture. This belief was racially connoted as some of its supporters argued that "these lithic structures do not look as though they can be linked to the present indigenous civilisation" and that the civilisation responsible for their construction was probably "more refined than current indigenous, [...] probably white-skinned originally, and coming from North-East Eurasia" (Avias 1949: 47-49). Geologist Jacques Avias was then attached

Les Groube, Wal Ambrose and Colin Smart also measured and listed more than 120 tumuli during the 1959-1960 Isle of Pines fieldwork season (Golson 1959-62: 12), and identified two main types of earth mounds: some of conical shape and some “saucer-shaped” (Golson 1996: 310).

Around this time, engineer and amateur archaeologist Bernard Brou, who was a founding member of the local *Société d'Études Historiques de Nouvelle-Calédonie*, chose to follow Avias' already dated theories. Several factors might explain this, amongst which:

- the fact that Avias himself had simply applied new data to an already popular theory of population replacement published by Marius Archambault, a local prehistory enthusiast who was a correspondent of the *Société d'Anthropologie de Paris* in New Caledonia in the early XXth century;
- the difficulty to access specialised scientific literature in New Caledonia in the 1960s and 1970s;
- the opportunity of such a theory, which could be used as a sociological leverage tool at a time when Kanak intellectuals were slowly entering the political arena.

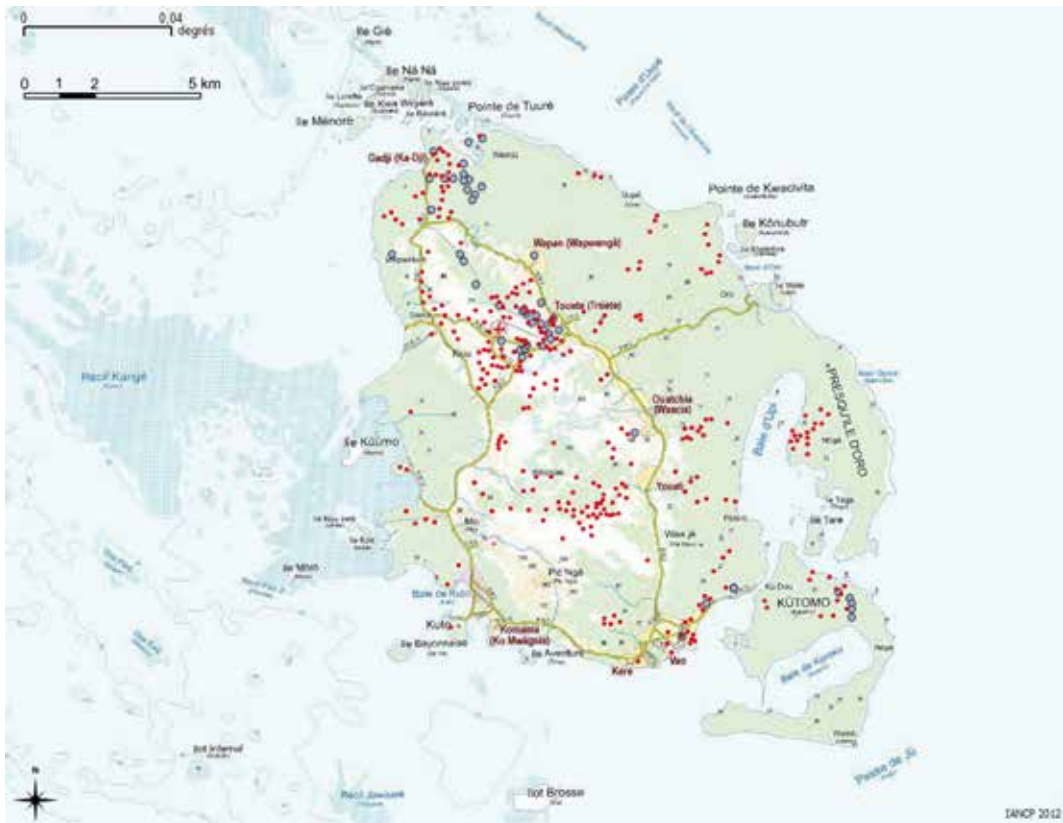
Therefore, despite the already important breakthroughs that had been made at the time in the understanding of the human settlement of the Pacific, Avias' racist and obsolete viewpoint was to gain public knowledge in New Caledonia, thanks to Brou's classic book, *Préhistoire et société traditionnelle de la Nouvelle-Calédonie* (1977), which acted simultaneously as a vulgarisation volume and a political indoctrination tool. As a proponent of a primordial white population, later replaced by the Kanak, Brou remained cautious in his book in regard to the earth mounds. He presented all previous known hypotheses, yet favoured a geological origin for the structures (Brou 1977: 100-101). Simultaneously, Compton's original hypothesis received the support of geologist Henri Gonord who was at the time working on New Caledonia's ultramafic environments.

At the same period, French archaeologist Daniel Frimigacci was working at the KVO003 St Maurice/Vatcha Lapita site excavation in the Isle of Pines. His other research focus were the tumuli. His surveys in the 1970s led to the inventory of many previously unrecorded tumuli. Thanks to Frimigacci's work, 307 earth mounds in total were mapped for the first time (fig. 2), revealing that hundreds of these massive structures were scattered not only across the ferrallitic plateau but also in the forest plains covering the vast uplifted coral belt around the island.

Frimigacci should also be credited for being the first to study these coral tumuli (closer to the shore) and not focus exclusively on the ferrallitic ones located on the plateau (Frimigacci 1986: 27). He was helped in this task by the fortuitous discovery of human remains inside the tumulus of *Tüu* (KVO005) by inhabitants of Vao village, near St Joseph bay. To this day, Isle of Pines inhabitants sometimes use

the earth mounds as crushed limestone quarries to repair small roads or house verandas. After the almost complete destruction of the large earth mound of Tüu, Frimigacci undertook an archaeological excavation of the remaining 1/8 of the structure (Frimigacci 1986: 30). In a rather complex stratigraphy, two complete human burials and numerous other human bones were uncovered. Both individuals seemed to have been buried in anatomical connection, with one of the two in *dorsal decubitus* (Frimigacci 1986: 31). Loose bones found in the upper levels of the tumulus were broken and heavily disrupted, probable signs of the mound's numerous restructurations. Radiocarbon dates obtained from the two complete skeletons gave somewhat ancient results: 1440 ± 35 BP (UW766, Seattle) and 1845 ± 65 BP (UW765, Seattle). A charcoal sample collected at a depth of 40 cm also gave similar result at 1930 ± 70 BP (UW655, Seattle). This crucial discovery should have allowed the idea that these puzzling structures had a human origin to be considered more seriously.

Figure 2: Map showing the global positioning of tumuli on the Isle of Pines (from Frimigacci 1986). In red, previously known tumuli. In blue, tumuli surveyed during our fieldwork (2006-2010) (Louis Lagarde and David Baret, IANCP. Background: georep.nc.)



Yet, this was not to be, as other discoveries were to complicate the debate in the late 1970s and early 1980s. The remains of a large subfossil bird, *Sylviornis neocaledoniae* (fig. 3), were uncovered in 1974 by Father Marie-Joseph Dubois during an ethnographic mission on the Isle of Pines for the National Centre for Scientific Research

(CNRS). Dubois had insisted on visiting an oral tradition site, where the remains of the sons of the god Kukwiede were supposed to be visible. In fact, the site was a natural trap within an uplifted coral environment, where several birds had fallen. Their remains were clearly visible within a coral concretion in 1974, and the people of Isle of Pines had explained this by adjusting Kukwiede's myth (Dubois 1976). This site is now inventoried as KKA017.



This important breakthrough¹ in the knowledge of New Caledonia's extinct avifauna first led to a deeper understanding of human impact on Oceanic insular ecosystems at the time of first human settlement: it is now proven that New Caledonia's megafauna disappeared within the first few centuries following the arrival of the first Austronesian canoes, some 3,000 years ago. Secondly, this discovery provided an acceptable explanation of the Isle of

Pines tumuli. Roger C. Green, in one of his seminal and thought-provoking articles, presented a hypothesis that suited almost everyone: "Those mysterious mounds were for the birds" (Green 1988). The ferralitic tumuli were neither geological anomalies of unsure origin nor human-made structures, as demonstrated by the lack of archaeological evidence inside most of them. Large birds, megapodes, were in fact responsible for their construction. To support this hypothesis, Green compared the structures with large mounds of earth and branches constructed by other megapodes from Oceania². This bird nesting theory also provided a simple explanation for the previous radiocarbon dates obtained from a key element of some ferralitic tumuli: a central "lime" column that most of them bear. Dating the recarbonation process had led to quite disperse yet ancient dates, ranging from 4120 ± 90 BP to 7710 ± 70 BP (Rafter et al. 1972: pl. 9). Furthermore, the dating of a *Placostylus* land snail encased within a central lime column by Dubois (1976: 237) had also led to a very ancient date (12900 ± 450 BP, Gif 298). Since these dates were incompatible with human presence, they led Green to state that the tumuli had been bird-made. In order to explain the presence of human remains in some earth mounds, he suggested (like Dubois before him) that a few of those ancient natural structures could have been later re-used by the Isle of Pines inhabitants for different activities, some of them involving funerary practices.

Since Green's article, the origin of the tumuli has been discussed occasionally (Sand 1995, Golson 1996), but further archaeological research on the Isle of Pines' plateau was not undertaken until 2006, as if the case had been closed on a consensus between palaeofauna specialists and archaeologists, each of the parties agreeing on a practical, simplifying and convenient solution. Thirty years later, recent discoveries finally allow us to reevaluate previously proposed theories and assess their plausibility.

Figure 3: *The Sylviornis neocaledoniae* (from Balouet 1993; Jean-Christophe Balouet and Société géologique de France).

1- Surprisingly, the discovery of subfossil birds in New Caledonia had been predicted by Paul Griscelli, through the analysis of vocabulary and kanak oral traditions (Griscelli 1976).

2 - For instance, some earthmounds in North-East Australia could have been constructed by the species *Megapodius reinwardt* (Stone 1991 : 255).

INTERROGATIONS OF THE DIFFERENT MODELS

A prehistoric, pre-ceramic population?

The possibility of an early settlement on Isle of Pines (and the rest of New Caledonia) by a Paleolithic-like, non-ceramic culture, was a popular theory in the recent past (Shutler and Shutler 1975), particularly in the works of the *Société d'Études Historiques de Nouvelle-Calédonie*, in the 1960s, 70s and 80s (Brou 1970, and specifically Brou 1977: 55-85). Petroglyphs, stone alignments on mainland New Caledonia or the Isle of Pines' tumuli therefore fueled the theory of an advanced primordial culture, mother of megaliths and in some cases Lapita pottery (Brou 1977: 97-98). This original society, replaced millennia later by the Kanak, would have arrived by foot, thanks to hypothetical terrestrial bridges, and had to be "fairskinned", given the "quality" of the material culture they left behind. The Isle of Pines' earth mounds were therefore instrumentalised (until recently, see Exbroyat 2009) in order to justify the theory of a paleolithic settlement which favoured the New Caledonian population of European descent, then dealing with the important Kanak land claims of the early 1980s (see Monnin and Sand 2004: 38). The "scientific" arguments inherited from Avias' racist articles published in the 1940s, themselves grounded in Archambault's early XXth century vision, gave the 'Caldoche' community the possibility of denying first occupancy and rightful land ownership of the archipelago to the Kanak. This political approach from the *Société d'Études Historiques de Nouvelle-Calédonie* culminated in the publication of a primary school history manual in 1992, which aimed at comparing French and New Caledonian history. Destined for both teachers and students, this manual was supposed to follow the will of the Accords de Matignon (a political agreement between 'Caldoche' and Kanak communities following a decade of civil war in New Caledonia), by integrating local history within the education program. The rapidity with which this manual was put together and its large diffusion thanks to the Société's networks both explain its popularity and the important impact the population replacement theory has today on all constituents of contemporary New Caledonian society³.

3 -At the University of New Caledonia, within the History of New Caledonia course (second year), students of all origins/ethnicities confess to having heard or learnt at some point in their education, that the "Kanak were not the first occupants of New Caledonia".

However, after sixty years of archaeological activity on Isle of Pines, the hypothesis of an ancient human settlement that would pre-date Lapita by thousands of years should be abandoned. Every dig and survey campaign has only brought back evidence of material culture in connection with already known assemblages from mainland New Caledonia and its global, well-known, diverse cultural traditions of the last three millennia. Ceramics were introduced in the New Caledonian archipelago by Austronesian seafarers of Lapita tradition (Sand 1995: 66), the first true discoverers of the archipelago. Since the creation of a local archaeology department in 1991 and the rise of large scale preventive archaeology following the creation of the *Institut d'archéologie de la Nouvelle-Calédonie et du Pacifique* (IANCP), no artefact that would indicate a pre-Lapita culture has ever been found on Grande Terre or the Loyalty islands, despite efforts to do so. The same goes for Isle of Pines, where no evidence of any culture that would

pre-date Lapita has been found during our four-year research campaign.

Geological anomalies?

For Compton (1917) or Gonord and Brou (1977), these structures could be geological anomalies, typical of ferralitic, lateritic and ultramafic environments. However, the exact roundness of these potential anomalies is the first argument weakening the geological hypothesis. This has been underlined on numerous occasions by proponents of a megapode-made theory for Australian earth mounds (Schmidt 2018: 614). Furthermore, the geological hypothesis leads, in the case of New Caledonia, to the following interrogation: why are tumuli virtually absent from southern Grande Terre's environment, very similar to the Isle of Pines' plateau? The Isle of Pines' plateau is indeed of the same geological nature as the lateritic, ultramafic environments of Southern New Caledonia, which cover one third of Grande Terre (L'huillier et al. 2010). It is therefore illogical that over these 5,000 km², these "natural" earth mounds are not more numerous.

There is also a second problem with the natural, geological explanation: there are two very distinct geological environments on the Isle of Pines: the ferralitic plateau, dating to the Eocene period (37 million years) and a quaternary, Pleistocene-dated, uplifted coral plain. This emerged fossil reef is similar to other uplifted coral islands in the Pacific, such as the recently formed, and nearby Loyalty Islands. On both these geological formations, tumuli exist: the ones of the coral plain, known as 'seashore tumuli' and the better known 'plateau tumuli'. Yet this important fact is not mentioned by the authors who offer a geological explanation to the earth mounds. We find it very unlikely that the same anomalies could have occurred in these two extremely distinct environments, different not only by their age but also by their geological and chemical characteristics.

In order to defend the geological anomaly hypothesis, Brou wrote the following demonstration:

« We are doubtful of the presence of 400 tumuli on an island that could never have fed more than 1000 or 2000 individuals, making a total working population of 300 to 400 workers during a third or a quarter of the year. However, the volume of earth and stones represented by the mounds adds up to 40 or 50 000 m³. A fantastic motivation was hence needed to undertake such colossal work: it is not impossible, but unbelievable » (Brou 1977: 102).

This short series of numbers calculated by Brou has the merit of addressing two key interrogations. The first one is the approximation of the total volume of earth and rocks those mounds represent. To answer this, we have to be able to estimate the actual volume of a tumulus. The earth mounds are generally dome-shaped, the most eroded ones having been classified as « saucer-shaped » by Golson. (Golson 1996: 310). Both these shapes are variations of a dome of a sphere,

i.e. a sphere cut by a horizontal plane between its pole and equator. The calculation of a dome's volume can be obtained with two key measures:

- the radius of the circle corresponding to the said plane (here the ground), so the radius of the tumulus, noted r ;
- the height between the plane and the dome's summit, i.e. the height of the tumulus, noted h .

We can then proceed to calculate the volume, noted V , with the following formula: $V = \pi h/6 \times (3r^2 + h^2)$.

In fact, the earth mounds have a flatter shape than a perfect dome, so this calculation actually gives a high estimate of a given tumulus' volume. The heights of the earth mounds measured during our fieldwork vary between 1.8m and 4 m with a diameter of 15 to 25 m for a volume comprised between 150 and 1 000 m³ per tumulus (Lagarde 2012). If we consider an average volume of 500 m³ for each tumulus, the 307 earth mounds of Isle of Pines add up to roughly 150 000 m³, three to four times the estimation of Brou. In addition, it is more than likely that the high density of structures observed in the surveyed area of Gadji (evergreen forest on calcareous soil) extends to the similar environment of the nearby areas of Wapan and Tuete, which means that at least 150 more mounds are still unsurveyed in Isle of Pines' forest environment. The total volume represented by the tumuli is therefore probably closer to 225 000 m³, five times the estimate of Brou.

The second question arising from Brou's demonstration relates to the time of construction and the potential work such an achievement would require. Therefore, it indirectly addresses the size of the Isle of Pines' population in remote times. It is generally acknowledged that the settlement and colonizing process of new spaces induces rapid demographic growth. Sand (1995: 112) gave a careful, reasonable estimate of the global New Caledonian population at the end of the first millennium BC, on the basis of a natural growth rate of 0.9% during the first 300 years and 0.7% during the 700 remaining, ending to a population of 55,000 for the whole archipelago.

This number represents 35% more than the estimate of 40,000 established by navigator and admiral Fébvrier-Despointes in 1854, at a time when the Isle of Pines population was of 2,500 (1840). If we can imagine that the Isle of Pines' population has always been within the same ratio of Grande Terre's, therefore at the end of the first millennium BC, the Isle of Pines was likely to carry a population of 3,500. This number and the working population induced, are higher than what Brou suggested 35 years ago. Recent research (see below) shows evidence of anthropogenic activity on the earthmounds for a period spanning at least five centuries, a period which, once reported to their total volume, indicates a total moving of earth and rocks of 450 m³ per year. With only 1000 individuals, we obtain 0.45 m³ per person per year. It is very clear that even if the total number of tumuli or their size is doubled, even with only half the population, Brou's argument of an improbable «fantastic motivation» and «colossal work» proves to be unfounded.

Birds?

A third theory concerning the origin of these structures is that they could have been erected by birds, specifically a species of sub-fossil extinct megapodes. Elsewhere, in near Oceania, megapodes are known for the construction of mounds made of earth and branches (Green 1988: 153-158 and Jones 1989: 147-148). The *Sylviornis neocaledoniae*, a large extinct bird, was suggested, in the thought-provoking article by Green previously mentioned. This bird is however the only taxon of its family, the *Sylviornithidae*, and therefore it is impossible to know if this family of birds used to incubate their eggs in earth mounds. Furthermore, this taxon is closer to ratites/galliforms than to actual megapodes, a fact already noted by Golson and recently confirmed (Worthy et al. 2016), thus diminishing the probability of the said hypothesis.

Following Green's intuition, a second species of birds has also been suggested: a quite smaller, also extinct megapod, *Megapodius molistructor* (Balouet and Olson 1989: 9-11), discovered along with *Sylviornis neocaledoniae* at site KKA017. Its chosen binominal name has provided a bias to the debate (since *molistructor* means "mound builder" in latin) in favouring the bird hypothesis. Indeed, some of this species' present relatives are known for the construction of earth and branch mounds, their eggs' incubation being favoured by organic material decomposition and induced proliferation of thermogenous fungi (Jones 1989: 148 and Golson 1996: 311). Yet, birds of this family construct mounds in sunny beachfront or volcanic ash environments, both of these being very different to the Isle of Pines' ferrallitic plateau or evergreen forest on calcareous soil, thus lowering the probability of the bird-made hypothesis. There is also another strong argument against the construction of these earth mounds by birds: the ecological niche where most of these extinct subfossil birds have been found are the Pindai caves in northwestern Grande Terre (Anderson, Sand et al. 2010). Yet where these caves are located, no tumulus is to be found. As a general rule, earth mounds are extremely rare on Grande Terre: geologist Maurice Piroutet (1917: 65) mentions three in the Koumac region (northern Grande Terre), and one at "Pointe Maa" (near Païta, southwestern Grande Terre). Two other existed in Païta region (they have now disappeared) and two more are visible near Boulouparis village (also southwestern Grande Terre). Ethnographers who never went to the Isle of Pines hardly ever mention them (Sarasin 1929: 37). On the Isle of Pines, as we have seen, there are hundreds of them (fig. 2). All in all, if these structures were indeed bird nests, it is implausible that these flightless birds would have nested on Isle of Pines and died on Grande Terre.

RECENT RESEARCH AND SURVEY RESULTS

As documented here, a significant amount of scientific data had been published on the matter before our four-year field research (2006-2010) on Isle of Pines. This new research program aimed at getting a better global picture of the Isle of Pines' prehistory spanning three

millenia of human presence, from Lapita settlement to the beginning of the XXth century. Topics that had been extensively researched, such as Lapita settlement and the tumuli, were of little concern to us, as so many long periods of the island's prehistory had yet to be documented. For example, little was known of the relations between the Isle of Pines and the rest of the New Caledonian archipelago during these 25 centuries, or of the inner dynamics such as the colonizing rate of insular space, the development of horticultural practices and transformations in material culture. Yet, over the course of our research, we acquired valuable evidence on a corpus of both limestone and ferrallitic tumuli. A large fire in September 2010 led to the partial destruction of the plateau's pine forest and ground ferns, over 2 500 hectares. This provided the opportunity to actually see the ground and the preparations associated with tumuli for the first time ever across such a large surface. The archaeological data recovered allowed a considerable breakthrough in the analysis of human settlement on the plateau and the anthropogenic character of the ferrallitic tumuli (Lagarde 2012).

Anthropogenic aspects of the plateau tumuli

Forty-nine earth mounds were surveyed during our mission between 2006 and 2010, 22 of them inventoried after the 2010 fire (fig. 2). If their anthropogenic nature is still debatable, certain anthropogenic human modifications or global characteristics of the tumuli support the idea they were associated with human action:

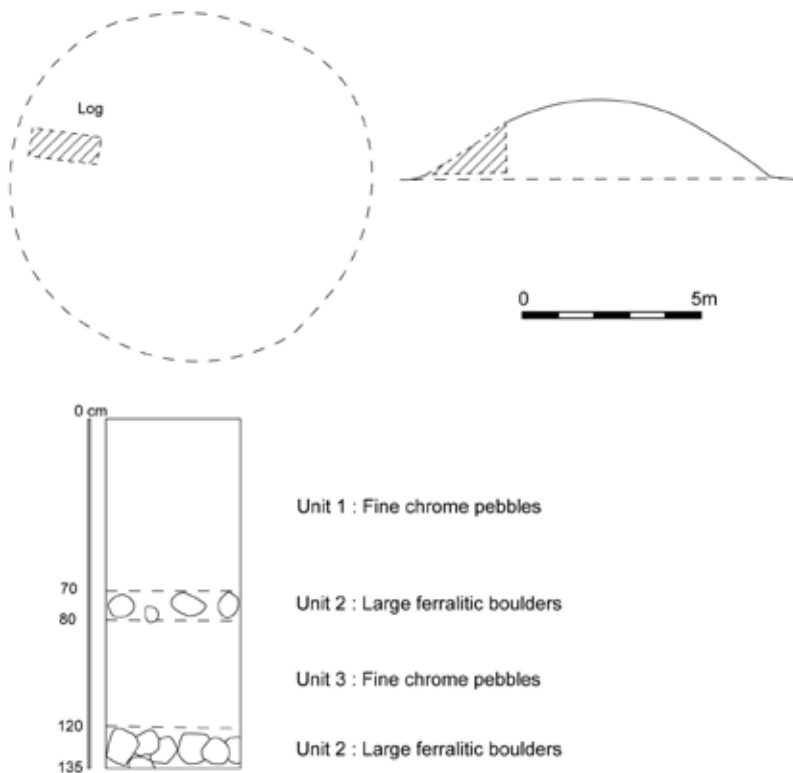
- everywhere on the plateau, ceramic sherds are extremely rare. Yet, three out of twenty-two earth mounds (13,6%) are associated with the presence of potsherds;
- eight tumuli (36,4%) are associated with seashells food remains or fossil uplifted limestone blocks, necessarily brought from the shore or the forest;
- six of them (27,3%) show diverse types of anthropogenic characteristics: pathways, depression on the top, large blocks in the structure of the slope;
- six of them (27,3%) bear one, two or three large ferrallitic boulders at the very top (fig. 4).

Figure 4:
Left: ferrallitic boulder
on top of tumulus KTU029.
Right: three ferrallitic boulders
on top of tumulus KTU049.
(Picture Louis Lagarde)



Furthermore, we found a tumulus (KTUo33) that had recently been opened by a mechanical digger. This allowed us to witness its inner stratigraphy, in which at least four construction phases were identified (fig. 5). A large bed of ferrallitic boulders forms the base of the structure. Then a very homogenous layer of fine chromite pebbles comprises the first metre of infill. This underlies a second flat layer of large ferrallitic boulders, and finally a second fine chromite pebble layer.

Figure 5: Archaeological log of tumulus KTUo33, on the ferrallitic plateau, disturbed by a mechanical digger. (picture Louis Largarde)



Tumulus KTUo46 is characterised by the presence of very large ferrallitic blocks placed halfway through the slope (twenty of them are almost a meter in length and weight up several hundred kilograms). It is impossible that birds moved them given their significant weight and size. The precise mapping of the tumulus shows evidence of a double circle of lateritic boulders and a trapezium-shaped enclosure on its east side (fig. 6). It is one of the “saucer-shaped tumuli” (Golson 1996: 310), indicating that erosion and weathering probably caused the fine chromite pebbles to progressively cover the large boulders which originally marked the perimeter of the structure itself (fig. 7).

Figure 6: Mapping of tumulus
KTU046.
(Drawing Louis Lagarde; CAD
David Baret, IANCP)

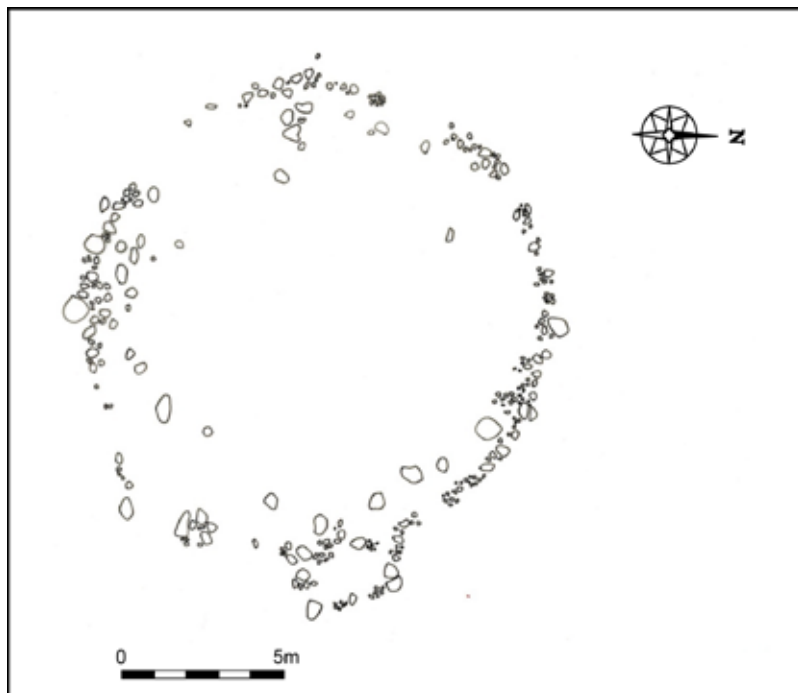
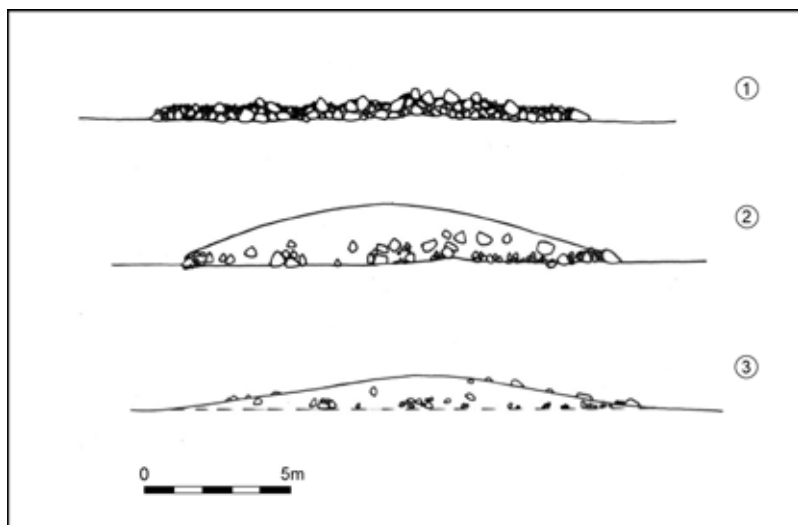


Figure 7: Proposition for the
construction and erosion
process of a "saucer-shaped"
tumulus (KTU046).
(Drawing Louis Lagarde; CAD
David Baret, IANCP)



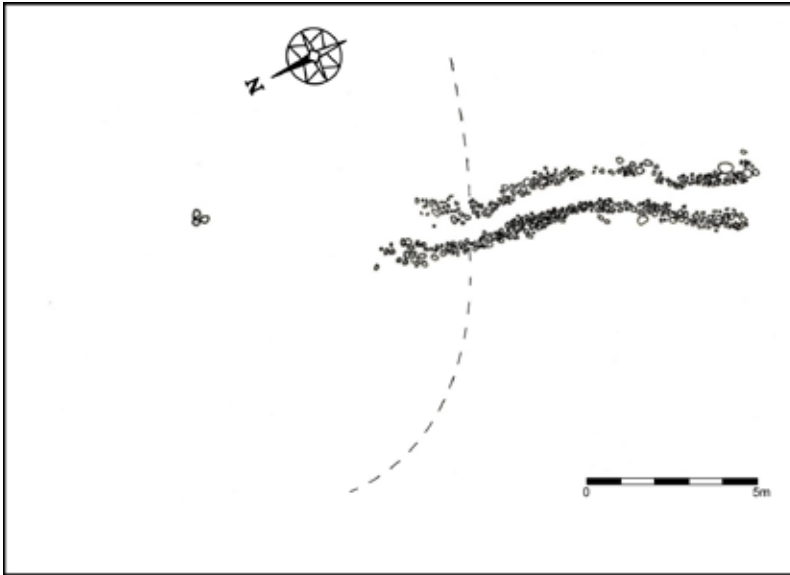


Figure 8:
Mapping of tumulus KTU049.
(Drawing Louis Lagarde; CAD
David Baret, IANCP)

Lastly, tumulus KTU049 has a stone pathway leading to it that stops a third of the way up the slope (fig. 8), with three ferrallitic boulders placed at the very top. Elements of oral tradition mention posts planted on the top of earth mounds and scenes of “torture” (Frimigacci 1986: 31). While the word is probably excessive and oral information to be taken with caution, especially considering the important and ancient Christianisation of the Isle of Pines, it does link the tumuli with more or less complex rituals.



Evidence of funerary practices

Radiocarbon dates obtained by Frimigacci in the 1980s on the Tüu tumulus indicate burials in the first centuries AD. Our sampling of human bones in open tumulus KGJ003 (fig. 9) in Gadji (northern Isle of Pines) gave results around the first centuries BC (2208 ± 39 BP cal 2309-2003 BP, 2σ Wk 20880).

In light of this data, it is legitimate to suggest a new interpretation for the earth mounds as funerary structures. One major difference separates the plateau structures from the coral plain ones:

Figure 9:
Long bones and seashells
of funerary function from
tumulus KGJ003.
(Photo Louis Lagarde)

4 - The term *xaca* is applied to fossil coral limestone, in several Kanak languages including *nââ kwényi*, the language of Isle of Pines.

in the plateau tumuli, no evidence of archaeological material is to be found, whereas every open tumulus of the limestone environment (through Frimigacci's or our more recent fieldwork) seems to contain human remains (Frimigacci 1986: 29). Recent oral testimonies mention systematic discoveries of human bones when locals use the earth mounds as quarries for *xaca*⁴ (J. Douépéré, personnel communication, October 2006). The function of these limestone tumuli seems therefore at least ritual, if not exclusively funerary for primary burials (Valentin and Sand 2008: 64). The general state of the bones must also be observed: despite the calcareous, high pH of the limestone soil, which should have helped bone preservation, the samples from KGJ003 and KVO005 showed evident signs of decay. This bad preservation is probably due to the structure of the earth mounds themselves. They are made of tiny limestone blocks, allowing rainwater drainage on the bones over centuries, along with consequential oxidation and growth of moss and fungus.

If we consider the fact that the plateau earth mounds bear the same structural characteristics, clearly not ideal for bone preservation, and the extreme acidity of the soil (pH=4,7, see L'Huillier et al. 2010: 39), fast dissolution of human remains is plausible in ferralitic context, a hypothesis already put forward by Sand (1995: 51). The complete disappearance of human remains in a funerary tumulus can seem far-fetched. Yet, severely weathered human bones were witnessed in ferralitic environments in 2008, lying in rock shelters or buried in shallow soil in the region of Ouinné (southeastern Grande Terre) (Lagarde et al. 2008). They were clearly associated with Nera pottery, emblematic of the last millennium in Southern Grande Terre. Their state of degradation was extremely advanced showing that only a few centuries are enough to cause the almost complete disappearance of bone matter. This process has been further recorded and confirmed in other ferralitic environments more recently (Sand et al. 2012: 41).

DISCUSSION

Ever since the New Caledonian petroglyph question has been dealt with scientifically (Monnin & Sand 2004), the puzzling tumuli of the Isle of Pines' ferralitic plateau were the last piece of evidence for believers in the existence of a pre-ceramic, megalithic culture in New Caledonia. If the theory of a pre-Austronesian settlement was possible as recently as 25 years ago (Gorecki 1992), no data on site occupation or paleoenvironment acquired since support that hypothesis (Sand 2010: 212).

Furthermore, the hypothesis that petroglyphs, biconical stones, Lapita pottery, erected stone alignments and the Isle of Pines' earth mounds are the testimony of a unique, advanced population, recently replaced by the Kanak (Exbroyat 2009) is coming to a final stop. We now know that New Caledonia's petroglyphs were carved throughout the whole chronology of the archipelago. The tumuli on Isle of Pines

suggest something similar, i.e., a construction phase spanning several centuries and not linked with first human settlement. They seem to belong to a rather ancient part of New Caledonia's prehistory, and to a localised, endogenous tradition, born several centuries after the breakdown of the Lapita Cultural Complex during which such earth mounds are unknown. The fact that the majority of Grande Terre's tumuli have been discovered in its southern region (and in different geological environments) supports the idea of an anthropogenic tradition originating on the Isle of Pines and exported to nearby southern Grande Terre.

Funerary customs of the first Austronesian settlers in Melanesia are better known today, since the discovery of a Lapita settlement cemetery at Teouma site, on Efate island, Vanuatu (Bedford *et al.*, 2010: 140-162). On the Isle of Pines however, it has not been possible, during our fieldwork, to discover burial zones dating to the first centuries of human presence. Those first cemeteries, probably located on sea-shore plains, have long since been heavily disrupted by 3,000 years of progressive intensification in occupation and horticultural activities. Accordingly, accidental discoveries of bones, followed by their collection and secondary burial, are still occurring today. We suggest the Isle of Pines' earth mounds to be essentially of funerary nature and to represent burial locations. Their structural organization is difficult to comprehend, for the accumulation of material seems precise and random at the same time:

- random, because the body positions seem disorganised, especially for the upper layers (Frimigacci 1986: 29) and also because the earth mounds vary considerably in size;
- precise, because the overall shape of the tumuli is very regular and the general size of the pebbles is quite homogenous. In the forest, it is nearly impossible to find such small pieces of limestone anywhere around a tumulus, meaning that the builders either harvested them prior to the construction sequence, or broke larger blocks to produce finer pebbles, thus showing aesthetic or ritual constraints.

The island's isolation from the rest of Grande Terre led its inhabitants to research innovative solutions to the problems associated with the increasing population during the first millennium BC. Among these solutions were perhaps some new funerary practices and management strategies for the bodies. The progressive reduction of usable land for horticulture could have led the island's inhabitants to gather the dead in collective tumulus-shaped cemeteries, some of which located on soil that could not be used for horticulture due to its high acidity, metal-induced toxicity, and poor levels of key nutrients.

This hypothesis has two corollaries: a) It assumes both types of tumuli had the same function, despite the lack of archaeological evidence coming from the plateau ones; b) It is very much in phase with the interpretation suggested by Frimigacci. The plateau earth mounds and those of the calcareous seashore plain are structurally

and morphologically identical, their differences coming only from the environment in which they were erected. Typologically, they are identical and linguistically, the people of the Isle of Pines call both kinds *purè*. Furthermore, they are distributed in similar proportions in terms of specimen/space ratio across both main biotopes of Isle of Pines, as hundreds of them are to be found in both ferralitic and coral environments. If one of the types was much rarer, if language could differentiate the structures, if the inner structure of the earth mounds was typologically different, then we would have separated the tumuli into two categories. On the contrary, we stand confident with the hypothesis of a unique anthropogenic tradition in which minor differences are to be explained by the surrounding environment. This is not our idea, as Frimigacci was the first to point out the similarities existing between the two populations of tumuli, and to try to explain the use of the plateau ones by the contents of the coastal ones (Frimigacci 1986: 32). His excavation of the human remains in the Tüu tumulus is for us the key finding of the past sixty years on this topic.

CONCLUSION

We hope to have demonstrated convincingly that the tumuli of the Isle of Pines are more complex than straightforward, natural, bird-made structures. If this hypothesis is legitimate and can be verified in Australia (Stone 1991), where even other possibilities of animal fabrication have been explored (such as marsupial burrows and shelters, see Schmidt 2018: 614), the situation is different in New Caledonia and on the Isle of Pines in particular. Stone considers archaeological material retrieved from northeastern Australian earth mounds as traces of ancient aboriginal settlements that have been raked by megapodes during the construction of their nests. In New Caledonia, the situation would, at best, be reversed: bird-made structures, maybe during the Pleistocene, would have been later reused by humans, two millennia ago. The use of systematic comparison with Australian earth mounds has, in our opinion, clearly shown its limits.

Although being the last pieces of evidence that could have supported the theory of an extremely ancient human settlement of the New Caledonian archipelago, the Isle of Pines' tumuli actually belong to the three millennia of Austronesian presence. In our opinion, they illustrate, at least partly, the funerary practices over a timespan of five to six centuries, between the end of the first millennium BC and the first centuries AD.

The presence of rare earth mounds on mainland New Caledonia raises questions of local absorption of cultural specificities from the nearby Isle of Pines. The presence of several limestone earth mounds recently discovered in Lifou (Loyalty islands) and similarly shaped mounds of funerary nature in western Polynesia also address the question of contacts/interactions between these zones in ancient

times. Could an interesting logistic approach to the treatment of the dead have been exported at some point from the Isle of Pines?

Other limestone tumuli are also known on Maré island (Sarasin 1929: 37 and 238). Quite different to the ones on the Isle of Pines, they act (at least nowadays) as territorial boundaries, thus reminding us that similar-looking structures, made of similar materials, can be linked to different choices and different purposes.

A great deal of work is yet to be conducted on the Isle of Pines' earth mounds, with proper excavation methods, stratigraphic comparisons and microscopic analyses of soil. Meanwhile, we are confident in the fact that these structures have a lot more to tell us than what has generally been agreed on.

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**THE MAKING OF HISTORY
IN RAPA NUI.
THE TRANSPORT OF STATUES
AND ETHNOARCHAEOLOGY
AS EXEMPLARY CASE-STUDIES.**

Nicolas Cauwe

ABSTRACT

Archaeological research on Easter Island (Rapa Nui) has long been marked – unfortunately, to this day – by some preconceptions, the nature of which escapes scientific means.

The source of this anomaly is probably to be partially found in the first European explorations of the XVIIIth century that produced rather naive “ethnographic” observations. However, the phenomenon is mainly due to the success of a few pioneers’ works, the quality of which there is no reason to question but of which the results have frequently been considered as definite foundations. For instance, the transport of the *moai* keep being examined to this day without questioning the presumption of William Thomson (1889) that ancient Rapanui were willing to move only fully sculpted statues – an act that is far from being completely established.

Many works on Easter Island were similarly fragilized by methodological mistakes, such as the frequent confusion between ethnography and archaeology. The information of the former was quickly used to explain the data collected during excavations, as if the contemporaneous situation of the interrogated islanders was the direct and unaltered continuation of cultural experiences from the preceding centuries.

The outputs are intellectual constructions that are often plausible in their developments but are erected on rather fragile foundations. The persistant absence of critical examinations of these few dogmas can appear surprising, given that it is only the force of tradition that justify them.

Translated from French by Emilie Dotte-Sarout, including citations unless otherwise noted (original French ones are to be found in the French version of the text).

FOR AN EPISTEMOLOGY OF RAPANUI ARCHAEOLOGY

To reconstruct the history of Easter Island, it seems necessary to assume a series of remarkable facts that make of this island an original case within the Polynesian group. For instance, the population would have produced the lithic statues (*moai*) by starting their carving with the faces, before detaching any block of raw material from the bedrock. Moreover, the Rapanui people would only have moved their stone giants once these were totally carved, which made the operation particularly complicated; they would hence have abandoned tens of them during their transport. It is also acknowledged that the Rapanui would have deserted their quarry where they left hundreds of preforms and would have systematically destroyed all their large ceremonial monuments (*ahu*)... These singularities guarantee the alterity of this land, specifically the most isolated in the world. Mysteries, at the very least, could be conceived, given how abundant are such anomalies that remain difficult to understand. Yet, these elements appear as concrete unavoidable facts: the ancient carving edges of the quarries are really cluttered with incomplete *moai*; statues lie in open country, far from any monument; the stone giants are on the ground, often fragmented, all around the ceremonial platforms that are now obstructed by stones clusters... Is it possible to forsake such conditions that are linked to objective and measurable facts?

However, didn't we misjudge material evidence from the beginning of their interpretation? For example, to call "preforms" some *moai* that seem incomplete is a comment rather than an objective description. The term evokes not a formal category but an anticipated end: this statue 'should' have been completed. Similarly, the use of the word "abandon" when discussing the quarry or the isolated statues, injects a signification into the objects: the renunciation is a deliberate intention, but its reading in archeological remains is not an immediate evidence. The same process could be applied to the ceremonial platforms that are said to be "destroyed" or "ruined", qualifiers that encompass an explicative part going beyond the palpable materiality. Visibly, it is important to entangle the facts from their interpretation, so as to measure the degree of credibility of the principles that guide a large part of the historical reconstructions in Rapa Nui.

The most ancient occurrence of these hypotheses was by William J. Thomson (1843-1909), officer of the American Navy. Enlisted on board the "USS Mohican", he landed on Rapa Nui in December 1886, to start an investigation for the Smithsonian Institution of Washington (United States National Museum). Thomson established the first outline of a dictionary of the Rapanui language, started a study of the traditions and customs of the islanders he met, recorded an inventory of the monuments, attempted to understand the famous tablets said to support written signs (the *kohau rongorongo*)... His study, published in 1889, took on the classical aspects of ethnographic works

at the time, organised according to a recurring plan: environment (geology, climate, flora, fauna), physical anthropology (anthropometry, physical aspect, health conditions), material culture (housing, tools, clothing, monuments, craft production...), social structure and life events (hierarchy, institutions, birth, marriage, death...), intangible heritage (language, dances, myths...). The whole study was conceived without any temporal depth, remains from the past and testimonies from the living being placed on the same plan. In any case, it is the first substantial scientific study focusing on Easter Island. Older testimonies do not have the same significance, although it should be reminded that the first European explorers only remained a few hours on Rapa Nui, and with other concerns.

William J. Thomson's publication is hence seminal, and it would be undignified to hold this researcher responsible for not having respected our contemporaneous scientific criteria. Indeed, this individual showed a healthy curiosity and produced a series of hypotheses, in particular about the statues, their manufacturing and their transport. He advanced that the apparently unfinished figures of the Rano Raraku volcano-quarry were representatives of different stages of the ancient sculptors' *chaîne opératoire* (Thomson, 1889: 492-493). He also estimated that the fully carved *moai* that were still present on the volcano-quarry were awaiting their departure towards an alter built somewhere else on the island (Thomson, 1889: 497). Many other examples could be cited, we will only mention his idea that the transport of a series of statues was interrupted, several giants being left on the ground in open country (Thomson, 1889: 497). Nowadays, critics can without doubt be raised against these postulates. The point is not to take an easy advantage of anachronisms but to guarantee the scientific debate and recognise science's developments since the end of the XIXth century. Accordingly, his description of ancient actions associates observations and suppositions, such as the hypothesis of a "sudden" abandonment of the transport of statues. As noted before, the notion of abandonment itself should be exposed to debate; what of the "unexpected" character of the event, of which it is unknown how it could be illustrated in the documentation? But at the time the categorisation between facts and hypotheses did not follow the same criteria as today, while the form of publications corresponded as much to a tale as to a rational demonstration.

This ambiguity between observations and deductions is similar to the one often associating archaeology and ethnography. Oceania represents an excellent field of research for studies combining both disciplines: although there are no actors from the past anymore to tell the story of their times, contemporaneous societies (those interrogated since the XIXth century if not before) are linked to the traditions and can still explain cultural facts. Yet, some did not hesitate to establish direct relations between ethnographical and archaeological data, particularly in Rapa Nui. However, oral testimonies only very rarely correspond to past material facts. This phenomenon can

easily be explained by the nature of compared elements: on the one side, the account of a specific representation of the world with its associated social order; on the other side, the material remains of ancient expressions of cultural discourses. Two distinct classes that do not share simple one-to-one relations, even though both concur to cultural reconstructions. In other words, oral tradition is not the tale of anecdotes fixed in tangibles artefacts of the past; it partially gives them a context. Still, any discourse is anchored, one way or another, within that of preceding generations – just as cultural constructions only exist on the basis of heritages. It remains that there are numerous filters preventing us from moving directly between present and past: modifications of traditions due to passing of generations; acculturations due to meeting other cultural worlds; colonisations and annexations; cultural context of the observers; evolutions of human sciences... In Rapa Nui there is furthermore the effect of the catastrophic XIXth century demographic fall, before any of the ethnographic investigations, the Christianisation of the whole population or the drastic economic modifications throughout the XIXth and XXth centuries. This complexity should not discourage real ethnoarchaeology, but it should lead to abandoning the direct questioning of material remains from a more or less distant past. Tales, myths and legends first give an account of how those who carry traditions conceptualise their present and their past (Van Tilburg 1994: 37-39). Strangely, many researchers ignored this evidence. Concerning the issue of the transport of statues, for instance, some have tried to stick to accounts of the past telling the story of statues that walked by themselves (Lipo *et al.*, 2013), others drew from legends recording since the end of the XIXth century the wartime context characterising the end of the quarry exploitation (Bahn & Flenley 2011; Diamond 2005).

Should we accept a direct anchoring of the present into the past, without any modification of the cultural features except at an anecdotal level, we would be obliged to deduct that Rapanui islanders are fixed in a cultural immobilism, a past long gone. This proposition is not defensible. In any case, it is evident that the XIXth century largely disturbed the situation, through forced acculturations – including Christianisation – and through a quasi disappearance of the population. In 1877, the French explorer Alphonse Pinart only counted 111 indigenous inhabitant on Rapa Nui, of which only 26 were women (Pinart 1878: 238). The writings of this explorer must be taken with care as his discourses about other topics are full of approximations and errors, but there are other sources confirming the drastic demographic fall occurring on Rapa Nui at the end of the XIXth century (Jaussen 1874: 382 ; de Lapelin 1872 : 114-115 ; Geiseler 1883 : 19 ; Métraux 1940 : 23).

William Thomson started his fieldwork in 1886. At the time, the island was still “independent” (it was incorporated into Chile two years later) but had already lost almost all its population. The sovereignty of Rapa Nui at the time of Thomson was very relative, largely

altered by external contacts (Van Tilburg 1994: 29-39; Fischer 2005). The islanders from the XIXth century paid a heavy price. There were only a few hundred of them, surviving by chance through exactions and epidemics, when William J. Thomson started his work. Nothing in this can discredit the testimonies recored by the American, as long as this painful context is taken into account before taking the risk of establishing direct and unequivocal relations with a distant past.

THE TRANSPORT OF THE STATUE, AN EXEMPLARY CASE STUDY

Aspects of the problem

The question of the statues' transport on Easter Island only recently started being considered despite being so recurrent. During the Enlightenment, non-Polynesian visitors first wondered about the nature and origin of the raw material used for the statues, rather than about their manufacturing or moving. Jakob Roggeveen, first European to land on Rapa Nui, in 1722, estimated that the *moai* were made with soil:

"These stone statues caused a surprise among us, because we could not understand how these people, without having access to trunks big enough to make any machines nor strong ropes, could possibly have erected such statues as high as at least 30 feet and with large proportions. However, this perplexity stopped when we discovered, by detaching a fragment, they were made of clay or another type of rich soil and small fragments of silex had been consecutively stuck very close to each others so as to look like a human figure"¹ (Roggeveen 1838: 112).

A few decades later, in 1774, James Cook similarly wrote: [...] "some of gentlemen who travelled over the Island and had an oppertunity [sic] to examine a great many were of an opinion that the stone on which they were made was different from any other which they saw on the Island and had much the appearance of being factious [...]" (Beaglehole 1969: 358). Questions in regards to the transport of the stone giants emerged only at the end of the XIXth century, when at last the Rano Raraku was discovered: the now famous volcano from which was extracted the tuff, used for most of the *moai*. The very first mention of the quarry dates from the 1860s, when the catholic missionaries were attempting to evangelise the islanders. One of them, Father Hippolyte Roussel, synthetised his observations in a report addressed to his superiors. The letter was posthumously published in 1926:

"All those who visited Easter Island were astonished when they saw the statues, ludicrous for sure, but gigantic, spread in such a high number all over Rapanui [sic]. They wondered, where were they extracted from? How were they erected and transported so far away? These statues made in a soft stone, being seven meters high and three meters in diameter, were all extracted from the external sides of the Otuiti crater [Rano Raraku], at the northern end of the island [in reality in the southeastern part of the island]"

(Roussel 1926: 17-20; observations made around 1866-1867).

1 - "Wat de godsdienst deser menschen beteft daervan heeft men geen volkomen kennis, wegens de kortheyd van ons verbylf, konnen bekomen, alleenlyk hebben wy opgemerkt, dat sy voor eenige bysondere hoog opgeregte steenen beelden, vuuren aansteeken, en vervolgens op hunne hielen nedersittende met gebogen hoofd, bregen sy's platte der handen te saemen, beweegende die op en nederwaerds. Deze steenen beelden hebben in 't eerst veroorsaekt, dat wy met verwondering aengedaen wierden: want wy konden niet begrypen hoe 't mogelyk was, dat die menschen, die ontbloomt syn van swaer en dik hout om eenige machine te maeken, mitsgaders van kloek touwwerk, echter soodanige beelden, die wel 30 voeten hoog en naer proportie dik waren, hadden konnen oprigten: doch dese verwondering cesserde met te ondervinden door het aftrekken van een stuk steen, dat deze beelden van kley of vette aarde waeren geformeerd, en dat men daerin kleene gladde keysteentjes hadde gestookten, die heel dicht en net by den anderen geschikt synde, de vertooning van een mensch maekten" (translated from original translation in French by Alexandra De Poorter — see French version of this chapter)

Only once there was no doubt left about the fact that the statues had been made in the rock extracted from Raraku volcano, were raised the questions of their manufacture and especially of their transport. William Thomson was the first to address the issue with success (1889: 497). An important development occurred at the start of the Great War, thanks to the British Katherine Routledge who stayed on Rapa Nui from March 1914 to August 1915. This pioneer of the research conducted on Easter Island observed the traces of ancient roads, probably used for carrying the statues:

“At last a lazy Sunday afternoon ride, with no particular object, took one of us to the top of a small hill, some two miles to the west of Raraku. The level rays of the sinking sun showed up the inequalities of the ground, and, looking towards the sea, along the level plain of the south coast, the old track was clearly seen; it was slightly raised over lower ground and depressed somewhat through higher, and along it every few hundred yards lay a statue. Detailed study confirmed this first impression. [...] The road can be traced from the south-western corner of the mountain, with one or two gaps, nearly to the foot of Rano Raraku, but the succession of statues continues only about half distance. [...] There are on this road twenty-seven statues in all, covering a distance of some four miles, but fourteen of them, including two groups of three, are in the first mile” (Routledge 1919: 194).

It is evident that these ancient paths must have been used for more than strollers' rides: care and sophistication of the constructions demonstrate more than what is necessary for ordinary travels. Deciding that all this was ineluctably aimed at the circulation of statues is not that easy, though: for example, paving or retaining walls are constructions that cannot support the weight of several tons without damages. Yet, there are around 50 statues that lay along the paths. Some are broken, damages that could potentially have occurred during their transport and could have justified its interruption. However, most of them are intact, making it more difficult to understand the reasons for their abandonment along the roads. British researcher Paul Bahn established a list of possibilities: temporary set up of the giants to complete their carving; temporary exhibition for ritual ceremonies; storage until the death of the person represented... (Bahn & Flenley 2011: 212). Other authors, more assertive and catastrophists, suggested that the transporters terminated their work suddenly and without notice (Diamond 2006: 86-87). All of this is plausible, although impossible to verify, since it is important to highlight that none of these hypotheses is supported by material evidence. It follows that all these ideas create as many questions as they answer some: if halts were potentially necessary to complete the carving of the statues and/or to sacralise them, nothing here can justify the definitive termination of the transport; while the idea of porters abandoning the area in a hurry raise the question of the event(s) responsible for such a flight. Finally, is it normal that around 50 giants would have been moving at the same time? Proportionally speaking, the congestion around the Rano Raraku is close to that of our megalopolises' roads at close of business.

Whatever the answers to all these questions, the *moai* scattered along the roads, already carved in all their details, seem to attest one essential point: the Rapanui would have transported, not tuff blocks or preforms, but entirely sculpted giants. This is not such a trivial proposition, since the carved giants are more fragile than the raw monoliths, especially given that these very statues are made of tuff, a volcanic ash conglomerate that is crumbly and brittle. There are not many examples worldwide of similar processes. Still it is noteworthy to remind that the originality of a presumption does not *de facto* render it null.

These ‘details’ apparently did not discourage the Rapanui in their rather hazardous enterprise. On the Rano Raraku is found the confirmation of *moai*’s being completed before their transport towards an *ahu*. Indeed, preforms that indicate the stages of *moai*’s manufacture are observed in every workshop set in the volcano-quarry. It shows that the face’s details were carved first (Thomson, 1889: 492-493; Routledge 1919: 175-179; Van Tilburg 1994: 21). This is a singular approach: a sculptor usually first tries to manage the global proportions of his creation before taking care of the last touches. This “anomaly” hence shows that the Rapanui’s work was directed by a deep concern for finishing details, even before the detachment of future statues from the bedrock. Accordingly, on the lower slopes of the Rano Raraku are found complete statues that seem to be waiting for their departure, some vertically fixed in the soil, others laying on the side of the roads: everything appear to indicate that incomplete creations were not supposed to get out of the Rano Raraku’s vast workshop. Finished *moai* laying along the paths; complete statues erected on the Rano Raraku’s slopes; preforms already bearing the face’s details... this accumulation of evidences looks unequivocal. Under all appearances, Rapanui were moving through hills and plains only completed statues, an ascertainment that have to be taken into account by all tentative technical reconstruction of the transport.

In their testimonies or their legends, the ancient Rapanui did not provide the details of the techniques they used to move their *moai*. The few and short tales that are known talk mainly about statues that moved towards the *ahu*, thanks to the magical powers of kings, priests or gods (Métraux 1940: 304). Florentin-Étienne Jaussen, Bishop of Tahiti between 1848 and 1884, had the opportunity to record seemingly more concrete elements from the Rapanui who found refuge in Tahiti: “According to Hauonouo-kou, rounded stones were placed under the *moai*, people pushed and pulled and hence it moved little by little until its destination” (Jaussen 1893: 7). At first, the method’s simplicity affords it some credibility, but the continuous friction between the sculptures and the stones can only be damaging, even if a little. In 1934, a Rapanui told to Alfred Métraux that his ancestors lubricated the paths by sliding taros and sweet potatoes under the *moai* (Métraux 1940: 304). But how many tons of these precious tubers

could have been needed for transporting only one statue? Probably enough to starve the whole island's population!

Around 20 years earlier, Katherine Routledge recorded a more unexpected "testimony": "[...] according to another account, quoted by a visitor before our day, 'they walked, and some fell by the way.'" (Routledge 1919: 193). This explanation addresses two distinct problems in one sentence: the mode of transportation – the statues "walked" – and the reason why there were giants along the paths – some statues "stumbled down". There lays an unquestionable poetic force that could, elsewhere, be misjudged for childish naivety. However, myths and legends are not here to report material or historical facts, but to support a specific conception of the world. It is evident that the *moai* existed for themselves, had a life and force of their own, qualities that are given away by the physical properties lent to them here. To go further would be to give some materiality to the tale. Does one really believe that the gods interfered during the fights of the Trojan war, as exposed by Homere? The Iliad is not a History book; the poet writes about other values.

We are hence forced to recognise that there is no element in the tradition to help us understand transportation techniques used for the *moai*. The few bits recorded at the end of the XIXth and the beginning of the XXth centuries indirectly demonstrate the value of the statues, not their practical aspects and their displacement. As a result, several hypotheses about the techniques and the transport have been advanced since the last mid-century (Skjølsvold 1961: 369-372; Mulloy 1970; Pavel 2009 ; Van Tilburg 1994 : 148-162; Love 2000 ; Flenley & Bahn 2002 : 131; Hunt & Lipo 2011 ; Lipo et al. 2013; Velasquo 2015).

A never discussed starting point

The point here is not to review the description and critics of all these hypotheses – they are all characterised by a similar flaw, despite their respective originality, that of not aligning with all the field facts. Whatever theory is examined, it stumbles on a series of pitfalls that cannot be neglected:

- Many of the *moai* that are said to be "abandoned" along the paths or those erected on the Rano Raraku's slopes have dimensions that are a lot greater than those already associated to the ritual platforms. Hence, were these giants really affected to *ahu*? If yes, why did almost none of these ever reach a monument?
- No transportation technique can explain why there are so many statues laying down along paths (around 50). If this is due to incidents during their transport, why are they not, for most of them, showing any damage? If not, why was the transportation of so many giants interrupted?
- Following the same logic, no transportation technique can explain the high proportion (2/3) of statues laying on their face along

the paths. If the *moai* were carried horizontally with their face towards the ground during the trip, the preservation of a large number of elements would have been made more complicated. If the giants were transported in a standing position and would be laying after their fall, it would be difficult to believe that almost all of them would have collapsed without any damage as a result.

- Most of the transportation technique that have been imagined until now necessitate large enough areas to deploy teams of porters. However, it is almost impossible to benefit of such surfaces everywhere along the ancient paths. The island is full of hills and gullies cluttered with crushed lava flows that transformed large sectors in stone fields. It would have been rather fastidious for the porters to move along without stumbling, while they were looking upward to guide heavy ropes fixed to *moai* of several tons and a few meters high, balanced precariously.

- Lastly, it is difficult to understand why the statues “stored” on the Rano Raraku volcano-quarry, would have been erected on the slopes rather than at the bottom of the volcano – complicating their departure towards other places. Indeed, these *moai* are standing because large parts of their bodies are enclosed in sediments. To take them away necessitate a long effort of excavation putting them in a very unsteady equilibrium.

Transport experiment attempted until now did work out. The mistake is to be found elsewhere. Could it be that the starting point is problematic, this idea according to which the Rapanui only transported entirely carved statues? The theory is based on three elements: the presence of completed statues along the paths, others also fully carved on the slopes of the volcano-quarry, and lastly, the preforms still found in the workshops. The context of preservation for these remains do not fit any of the transport hypotheses imagined to this day. In short, the same facts demonstrate one thing and its opposite. To recognise the paradox is to admit that the questions were wrongly asked.

As early as the end of the XIXth century, Hyppolite Roussel signalled the existence of incomplete statues on the Rano Raraku (Roussel 1926: 18), while William Thomson suggested that these pieces could help recognise the different stages of the artists’ work:

“Here we found images in all stages of incompleteness, from the rude outline drawing to the finished statue ready to be cut loose from its original rock and launched down the steep incline. The modus operandi appears to have been to select a suitable rock upon which the image was sketched in a reclining position. The upper surface having been carved into shape and entirely finished, the last work was to cut the back loose from the rock. This necessitated the exercise of great care to prevent the breaking off of exposed portions, and was accomplished by building piles of stones to sustain the weight while it was being undermined” (Thomson 1889: 492-493).

Since then, this chain of actions is continuously repeated, without ever having been analysed in detail. Undoubtedly, it does appear rather evident. At the beginning of the XXth century, Katherine Routledge did go through the same observations, after her field examination:

“[...] the face and anterior aspect of the statue were first carved, and the block gradually became isolated as the material was removed in forming the head, base, and sides. [...] When the front and sides were completed down to every detail of the hands, the undercutting commenced. The rock beneath was chipped away by degrees till the statue rested only on a narrow strip of stone running along the spine; those which have been left at this stage resemble precisely a boat on its keel; the back being curved in the same way as a ship's bottom” (Routledge 1919: 179).

A few years later, Alfred Métraux observed himself the same sequence of actions: “After finding a satisfactory spur or ledge, the sculptor first shaped the face, next the front of the body, then the sides, and last of all the back. I know of only one statue which was detached before the details had been carved” (Métraux 1940: 292).

For most of them, contemporaneous authors stick to this interpretative framework, which accuracy appears self-evident. The situation would be unequivocal: the quarries are full of preforms that allow understanding the order of the artists' actions. The latter aimed at detaching from the slopes of the *Raraku* volcano only pieces fully set with all their attributes and details. It is not so much this originality of ancient Rapanui that is questioned, but rather a series of discrepancies between the reconstituted skills and the preserved remains. Katherine Routledge already alluded to the impressive dimensions of several preforms:

“Some images are little more than embossed carvings on the face of the rock without surrounding alley-ways. In one instance, inside the crater, a piece of rock which has been left standing on the very summit of the cliff has been utilised in such a way that the figure lies on its side, while its back is formed by the outward precipice; this is contrary to all usual methods, and it seems improbable that it was intended to make it into a standing statue. Perhaps the strongest evidence is afforded by the size of some statues: the largest is 66 feet in length, whereas 36 feet in the extreme ever found outside the quarry; tradition, it is true, points out the ahu on the south coast for which this monster was designed, but it is difficult to believe it was ever intended to move such a mass” (Routledge 1919 : 182).

This improbable *moai*, “el gigante” as it is called nowadays, is sculpted in high relief on the external face of the volcano, similarly to the large Bouddhas recently destroyed at Bâmiyân in Afghanistan.

Moreover, it is curious that there are so many preforms in the workshops. Alfred Métraux perceived the problem and tried to answer it: “The number of statues in process of construction is so great that it is difficult to believe that they were being carved at the same

time. The number of experts could hardly have sufficed for the task. Many statues were evidently left unfinished because of flaws in the material” (Métraux 1940: 292). It is evident that in some cases, some sculptors might have cursed the rock’s flaws and had to abandon their work. But this explanation can’t be generalised. Some thought about training workshops. It is an appealing idea, but it cannot be applied to all the remains. Even if it is a gathering of drafts, failures and apprentices’ pieces, why were they not regularly destroyed so as to maintain the workshops’ activity? Rapanui people would have absurdly cluttered their workshops by keeping them all, strongly reducing their possibilities to continue manufacturing new statues. The rate of unfinished pieces is out of the ordinary. For around 20 years, it has been said that this would be the result of an ecological crisis that brought along an economic collapse and rivalries, *in fine* the end of the quarry (Diamond 2005; Bahn & Flenley 2011). Even if this was true, nothing would be explained yet as a termination of the work should have left only the statues in the process of being manufactured – potentially close to a few aborted or beginners’ pieces – not hundreds of variously initiated *moai* in every corners of the quarry.

To conclude, strictly based on facts, it appears that the workshops are so cluttered that they would first need to be cleared of all preforms to enable the continuation of *moai*’s extractions and manufacture. Yet, it is evident that some of these preforms are impossible to complete, others can’t be moved without being damaged, others still are located in places too complicated to access for any possible transport. Heads without a body, outlined rather than sculpted figures, giants too long to be detached from the rock walls, clusters too tight to be extricated without damage, aberrant orientations...none of this make sense as long as we keep seeing in there only the stages of *moai*’s manufacture.

The quarry that were previously exploited for tuff extraction manifestly became at some time the stage of another activity (Cauwe 2011). The hundreds of faces that inhabit it, more or less free from the rock, with or without a body, are cultural pieces in themselves. They are characterised principally by their impossible completion while their profusion cannot systematically be linked to chance or incidents. Here is represented, not an interrupted work, but a type of rich and invasive rock art. Even if this hypothesis raises interpretative issues (why would a quarry and workshops be transformed in ceremonial places?), it totally converges with materials remains. Profusion, impossible completion, cluttering... specificities often characterising rock art: there are many instances worldwide in which this type of expression plays with accumulation and crowding, all the while combining several creative processes (drawings, carvings, embossments...).

Similar critics could be made in relation to other “evidences” for the transport of entirely sculpted statues. Regarding the isolated *moai* along the paths, in reference to recent studies that are based

on geomorphology, it appears that the famous *moai* were not abandoned during their transport but erected especially along the ceremonial ways (Hamilton 2013; Cauwe & De Dapper 2015). Whatever the arguments advanced in these works, the number of *moai* that would have been moved concomitantly (around 50!) would have been surprising anyway, just as much as their dimensions and shapes that are completely different to those of the *ahu*'s statues. Concerning the giants planted on the Rano Raraku's slopes, they are hardly linked to the possibility of storage before any transport. This is not even an idea needing demonstration but objective and unquestionable facts: nobody would fix giants more than 10 meters high on the slopes of a volcano, keeping them standing thanks to specific lay-outs of the ground and by wrapping them under tons of sediments, to then only polish their shoulders and back before taking them away. The Rano Raraku was evidently a long-lasting repository of finished pieces voluntarily fixed in the ground (Van Tilburg 1994).

The conclusion of this debate is that evidences do not support the transport of finished statues throughout Easter Island anymore. It does not mean that the proposition is false. Only that it is not supported by any objective fact and hence is only pure assumption. It follows that this idea cannot anymore form the only starting point for studies examining how ancient Rapanui populated their island of giants. It was only developed to stick to a documentation that has definitely no relation with the question of transport. The 'preforms' incrustated in the ancient workshops, the statues erected on the slopes of the Rano Raraku and the *moai* of the paths are monuments in themselves, not waste, undistributed stocks or lost cargo.

THE ETHNOARCHAEOLOGY OF EASTER ISLAND

A thesis appeared several years ago, according to which the Rapanui civilisation would have collapsed following an ecological crisis, resulting in starvation, rivalries and *in fine* the fall of this ancient culture. The idea is still very popular, especially as modern climatic changes remind us of the danger in overexploiting our environment. Easter Island would be a small-scale example of what awaits us if we do not quickly change our ways of life. American author Jared Diamond wrote the ultimate updating of this thesis, in his book *Collapse* (2005), where he reviews the different civilisation - led by that of Easter Island - that would have persisted in dead-ends until their own annihilation. Recent works conducted on Easter Island definitely refute this idea (Hunt & Lipo 2007; Cauwe 2011; Boersema 2015). The history of this small island was not a quiet one, but it was far from one of self-destruction.

The hypothesis could have seemed perfect, as it was based on ethnographic data – especially oral tradition – in addition to factual evidences. Indeed, testimonies and legends confirm the occurrence of difficult periods. Juan Tepano, the informant of Katerine Routledge

in 1915, of Macmillan Brown in 1924 and Alfred Métraux in 1934, reported how during his childhood the elders described “the tumult of statues falling down”. He even remembered the tale told by one of them about how Paro, according to tradition the last standing statue, was overthrown on Ahu Pito Kura:

“a tupa-hotu woman had been killed and eaten by the people of Tuu. Her son showed his filial devotion by chasing into a cave around 30 persons originating from the district where the insult had been committed. Paro was the victim of this quarrel: ropes were attached around his neck, a group of warriors, intoxicated by their victory, clamped to them and the enormous mass fell down face on the ground” (Métraux 1941: 156).

It is generally evident that Polynesian societies demonstrated a certain degree of violence and that clanic rivalries could result in some fights (Bellwood 1987). There were numerous weapons everywhere, essentially wooden clubs, and they are an important part of Polynesian collections. The weapons also had enough interest within collective imagination to regularly be transformed into prestigious objects serving the hierarchical society. Rapanui culture is deeply Polynesian and there is no doubt life was not all about blissful peace.

In such a context, it is not surprising that Rapanui myths and legends include many allusions to the feats of warrior-heroes, just as in Tahiti, the Marquesas or New Zealand. But this is no proof of irrepressible behaviours leading to disaster: nowhere does a cultural context full of heroic battles demonstrate the occurrence of wars that brought about a total annihilation. It illustrates at best that fights against neighboring clans must have happened from time to time, just as in many traditional societies around the world. If so, why should we admit that legendary tales of Easter Island – similar to those of other Polynesian islands (see for instance Henry 1968; Babazan 1993; Brun 2007) – would be the only one demonstrating a merciless war, when the same texts elsewhere only inform on the characteristic of the societies that composed them?

Beyond the collapse theory, the abusive use of oral traditions in order to make them stick to factual history is of importance. In the specific case of Easter Island, there is even more. Myths and legends were only recorded from the very end of the XIXth century, after the population suffered a near-genocide (Van Tilburg 1994: 29-39 ; Fischer 2005). So what does these stories represent: the conservation of traditions, despite dramatic demographic and cultural changes, or the resilience effort of the survivors who had to provide for themselves new means of cohesion? In 1955, Thor Heyerdahl had an experience that he remains the only one to have correctly judged important. During his archaeological fieldwork on Easter Island, several of his workers gave him access to what they called their “secret” family caves. The latter were full of lithic sculptures, their themes being mostly foreign

to Rapanui traditional art and their fresh-looking state clearly indicating a very young age (Heyerdahl 1975).

However, several evidences showed that these were not quickly made curios to manipulate and profit from the explorer: no financial transaction were demanded; the impressive number of these objects could not have resulted from a last-minute manufacture; the represented elements were so strange they could not be frauds since forgers try to imitate in the hope of deceiving the specialist. And indeed, the Norwegian's informants never tried to cover up the modernity of their pieces, saying they had been made by themselves, their wives, their parents or grand-parents. Thor Heyerdahl hence acquired a popular art that was still produced during the 1950s and had remained hidden, apparently for religious reasons. The Rapanui knew the catholic priests would not appreciate them, especially as a number of superstitions were associated to these figurines accumulated in "family caves". At first, the secret cavity anecdote does not appear very serious, but it could be part of a more fundamental movement of recreated beliefs starting during the mid-XIXth century, following a near-disparition of the Rapanui. It appears that all this resilience work was guaranteed on more popular than expert bases, mixing ancient superstitions, anachronisms and inherently modern features, and offering an original syncretism.

This phenomenon had never been accounted for until now, although it is without doubt a key element to better understand the cultural specificity of contemporaneous Rapanui. Yet, it is on this basis that the Rapanui culture was rebuilt from the end of the XIXth century. More attention should be given to this process: its study would be more profitable than the futile representation of the past based on these recent testimonies, especially as these are in contradiction with ancient facts. Yet this discrepancy between historical facts and legends can only be wrong for those who refuse to understand its context: a society that, as any other, was dynamic but also had to be entirely rebuilt after the bitter interference of the external world.

In such a context, the use of ethnographic data as elements of demonstration for archaeological reconstructions is a methodological mistake. In any case and as everywhere else, traditions first inform on a way of perceiving the world and giving sense to it. Never are they intended to record historical facts. Why would Easter Island be an exception in this?

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**FOR A HISTORY
OF LOW ISLANDS' HISTORY:
THE TUAMOTUS
AS A CASE STUDY**

Émilie Nolet

ABSTRACT

This chapter focuses on the history of research conducted on the past of the Tuamotus (or *pa'umotu* islands), an archipelago of French Polynesia made up of 77 low islands. It examines how this research may have been limited by difficult communications, lack of first-hand documentation and poor preservation conditions for archaeological ruins, but also influenced by perceptions of the archipelago, its resources and its inhabitants that were formed during the first contacts period. At that time, Europeans discovered the economic interest of the lagoons of the “Pearl archipelago”. They also spread a negative vision of the material conditions of existence and of the *pa'umotu* societies and cultures, considered as less sophisticated than those of the surrounding high islands. Missionaries, in particular, have depicted miserable populations, subject to the vagaries of a limited and debilitating environment. While our knowledge remains more limited than for other French Polynesia archipelagos, a body of research has recently advanced our understanding of both the history and the conditions of life of the ancient inhabitants. Archaeological data, oral traditions and the writings of some Western travellers now suggest that this dynamic and resilient society had, over the centuries, put in place very effective coping strategies, based in particular on mobility and a fine knowledge of local environment.

Translated from French by Emilie Dotte-Sarout. Original citations in French to be found in the French version of the text.

KEYWORDS

Tuamotus

French Polynesia

History of archaeology

Perception of atolls

Ecological determinism

Representation

Appropriation and management of island ecosystems

Interdisciplinarity

“One wonders in astonishment how it is possible that some men came to pitch their tent and settle there, especially before the introduction of the coconut”
 Father Albert Montiton, 1855, p. 442.

More than $\frac{3}{4}$ of the atolls currently recorded on the planet are found in the Pacific. Scattered across the three geographic zones of Oceania¹ these low islands formed by an annular coral reef that protects a generally shallow lagoon are highly diverse (Figure 1): sometimes isolated, sometimes gathered in archipelagos, atolls can also occur in different sizes, morphologies, extents of landmass, have closed reefs or ones opened by varying number of channels that can be more or less deep. All these characteristics are synonymous with variable opportunities or constraints for people. Western sailors hence discovered, next to variously large and fertile mountainous islands, some other islands that were only a few meters high above sea level, constantly reshaped by climatic hazards. Even though the mechanisms of atoll formation attracted the curiosity of a few scholars onboard exploring expeditions in the Pacific, most of the travellers did not grant them attention: they did not offer much useful or commercial resources (fresh water, wood, food, minerals, spices) and sailing conditions around them could be difficult, with no anchoring possible. The wordings that were used to describe them and the names they were given between the beginning of the XVIIth century and the second half of the XIXth century demonstrate a mainly negative view and the idea of a strong influence of natural constraints - particularly linked to their low elevation. For some travellers, these atolls, constantly under threat of being submerged by the sea, were hardly islands. Earliest accounts talked about “rocks”, or “crushed”, “drawn”, “inundated” islands that barely raised above water, sometimes comparing lagoons to “swamps”. Gaspar Gonzales de Leza, a member of the 1606 Quiros expedition, called them “a piece of the ocean surrounded by lands” (Quiros 1904, II: 340), and Louis-Antoine de Bougainville, who had to give up landing on Hao atoll (Tuamotus) in 1768, some “sand bands that a hurricane could submerge under water at any moment” (1771: 182). Although some sailors indicated the presence of somewhat abundant resources², most of the oceanic atolls were perceived and described as hostile environments³, especially where the development of pearls and mother-of-pearls exploitation was hardly feasible. These islands were conceived as imposing difficult living conditions because of their lack of fresh water and arable land, as well as a significant vulnerability to natural hazards (storms, cyclones, but also heat waves and droughts. Cf. Di Piazza 2001).

1 - i.e.: Melanesia, Polynesia and Micronesia. A reviewed listing of atolls in the world was recently published by Walter M. Goldberg (2016). For Melanesia, atolls of different sizes and structures are recorded around Papua New Guinea, in the Solomon and Santa Cruz Islands, in Vanuatu (Rowa, Banks Islands) in Fiji and in New Caledonia. Amongst atolls are found a number of Polynesian outliers, such as Nukumanu, in Papua New-Guinea. Still, the largest concentrations of atolls are found in Micronesia and Polynesia. They are observed in particular in the Caroline, the Marshall and Kiribati (Gilbert, Phoenix and Line islands) archipelagos, in Tuvalu, in the Cook Islands and, especially, in the Tuamotus.

2 - Jacob Roggeveen mentions some Tuamotu islands as “having a charming green cover, garnished with beautiful trees and many coconut trees in between” (1739, I: 148). William Blight talks about “abundant fish life” in *Tetiaroa, an atoll in the Society Islands* (1792: 184-185).

3 - See for example Jules de Bloesville, around 1823, on his trip to the Tuamotus. Microfilm 5JJ 82, Archives Nationales de France (AN), Paris.

Figure 1: Lagoon and coconut
plantation on an Eastern
Tuamotu atoll.
Picture E. Nolet, 2017



Some Westerners saw in these material conditions the origins of some stronger cruelty and primitivity in their inhabitants. For Horatio Hale, ethnologist onboard the north American expedition commanded by Charles Wilkes, the inhabitants of Micronesia's atolls, exposed to important material difficulties and a lack of food, did not show the same "kindness of heart" as other islanders (1846: 72). This western representation, made of fascination, of misappreciation, sometimes of disdain, progressively left place to a touristic mythology of the Edenic and pristine atoll – especially from the 1960s (Gay 1994: 285). This image is in turn being questioned today by sea-level rise and the reappearance of the fear of submersion.

However, Pacific atolls experienced very diverse socio-economic and political trajectories since the first explorations, under colonial regimes and, for some, after independence. Some atolls benefited from a faster development, being closer to large cities, profiting from local or regional commercial dynamics or offering geostrategic and military stakes for western powers (in particular in the context of the Pacific War). Demographic dynamics have also been different between regions and through time. Nowadays, some atolls are going through a period of negative progression because of high emigration rates (for instance in Tokelau), while others, such as Majuro and Ebeye in the Marshalls, are overpopulated. Politically, some atolls or groups of atolls remain closely associated to western powers (including the Tuamotus, still part of French Polynesia under French dominion), while others, such as Kiribati, have long been independent. Moreover, Great Britain (in Kiribati), the U.S.A. (in the Marshalls) and France (in the Tuamotus) chose several atolls as sites for their nuclear tests. Through a sad historical irony, the isolation, geological, biogeographical and morphological features of the atolls of Oceania have hence provided firm geostrategic advantages to western powers.

In addition, the societies that developed on the Pacific atolls – before and after the first European contacts – are documented at various levels. As early as the start of the XXth century, a scientific expedition organised by Georg Thilenius from the Hamburg Museum, resulted in the collection of important ethnographic material on the German colonies of the time, particularly about the Marshall and Caroline atolls in Micronesia.

After World War II, the CIMA (Coordinated Investigation of Micronesian Anthropology) program also enabled the publication of papers and volumes on the region (Kiste and Marshall 2000: 267). Still, the same attention was not given to all the Micronesian atolls, as Jean-Paul Latouche highlights about Kiribati that “remained [...] the Cinderella (Macdonald, 1982), not only of the Empire but also of research” (2017: 174. See Thomas 2009). Similarly, Tuvalu atolls attracted a limited number of studies in anthropology, history and linguistics and remain, according to Patrick V. Kirch “almost unexplored archaeologically” (2017: 161)⁴.

The Tuamotu archipelago (or *pa'umotu* islands), exclusively composed of atolls, is still one of the “neglected children” of research in human and social sciences. Although the Bishop Museum’s teams visited the archipelago as early as the end of the 1920s, studies on pre-European societies have globally remained less numerous and diversified than for the rest of French Polynesia – so much so that there is still no chronology currently available on the peopling of these islands. Accordingly, it is remarkable that famous syntheses focusing on Polynesian societies simply did not examine – or only marginally – the case of these atolls (Sahlins 1958; Goldman 1970). This is probably due, for a part, to the small size of the communities considered and to a lack of available documents. There is no synthesis volume either on the contacts period, similar to those published for the Marquesas or Tahiti, although some studies considered the conditions of evangelisation or examined the journeys and discoveries of some navigators (Desmedt 1932; Baert 1999). Similarly, social formations that developed after the French settlement in Tahiti are known through a limited number of researches, conducted for the most detailed during the 1950s-1960s. It appears that physical and biological aspects of *pa'umotu* atolls aroused more scientific interests than did the human societies prospering on them⁵. Finally, the real or supposed constraints of these island environments have become real “interpretation keys” of the social, explaining conflicts or political organisation of the islands since the XIXth century. This chapter will propose elements to understand and analyze the history of research. A first part will examine the first-contacts period, during which two contrasted visions of the archipelago were structured: concomitantly as a treasure source and as an “oceanic desert”, for which productivity could only be achieved through human intervention (systematisation of pearl diving, plantation of coconut trees, etc.).

4 - For a history and detailed bibliography of research in Melanesia, Polynesia and Micronesia, see Kiste and Marshall 2000; Rainbird 2004; Kirch 2017.

5 - On this topic, see for instance publications in *Atoll Research Bulletin* since the 1950s.

The image of pathetic populations, incapable of the cultural sophistication observed elsewhere in Polynesia, was also born out of this period. In a second part, the history of researches conducted on Tuamotu societies will be reviewed, paying close attention to the impact of material conditions but also to the European perceptions of the archipelago and its resources. To conclude, I will show that the works undertaken over the last 50 years have allowed a more nuanced vision of human-environment interactions during pre-European times, by revealing the adaptability and resilience of people who were probably less destitute and at the mercy of nature than what has been believed in the past.

“LANDS AS SAD, POOR AND MISERABLE AS IT IS POSSIBLE TO BE”.

THE DISCOVERY OF THE TUAMOTUS AND THE COLONIAL PERIOD⁶.

The Tuamotus are an archipelago of 77 low islands of various sizes and morphologies that stretch along a northwest/southeast axis, eastward from Tahiti and southward from the Marquesas. Currently one of the five archipelagos of French Polynesia, the Tuamotus distinguish themselves from the Marquesas, Gambier, Austral and Society Islands, both because of the large number of islands and the absence of any high and mountainous island. They were amongst the first islands sighted by western sailors, being almost unmistakably along their paths when crossing the Pacific from South America. However, the difficult sailing conditions due to numerous reefs and the low frequency of secure anchorages, as well as the hostile reception received by some seafarers played a repulsive role and gave the archipelago a series of unflattering names: for instance the Bad Waters, the Pernicious islands (phrase attributed to Jacob Roggeveen who lost one of his ships there in 1722), the Dangerous archipelago (Moerenhout 1837, I: 158), etc⁷. It is noteworthy that the archipelago was long perceived as a “ships cemetery”, able to confuse even the most experienced explorers or whalers. “Here, maps are not much use, and how to distinguish one line of coconut trees from another?” wondered the traveling writer Bernard Gorsky in the early 1950s (1956).

Although John Byron reported to have seen “a prodigious number of cocoa-nut, plantain and tamarind trees” on an atoll (1767: 126), most of the explorers, merchants and, more particularly, missionaries, insisted on the contrary on the difficulties of a life in the low islands archipelago: both because of a low diversity, scarcity and precariousness of resources and because of the frequency of dangerous climatic events (Figure 2). The Tuamotus offered a striking contrast to the neighbouring high islands, especially the fertile Tahiti lauded by Bougainville. The Franco-Belgian merchant and diplomat Jacques-Antoine Moerenhout evoked for instance the poor food resources and judged the islanders’ life “as sad and destitute as that of the Indians of Cobija [modern Chile]” (1837, I: 166-167). Catholic missionary Germain Fierens wrote for his part: “nowhere are to be seen these fruits of which Oceania is usually so rich, neither the feis [*Musa troglodytarum*], elsewhere numerous, nor the famous maioré [*Artocarpus altilis*]

6 - The phrase “lands as sad, poor and miserable as it is possible to be” is extracted from a published letter of Father Albert Montiton, who was a missionary of the Congregation of the Sacred-Hearts (1855: 442).

7 - Napuka and Tepoto atolls were called “Disappointment Islands” by British sailor John Byron, who encountered islanders armed with spears and was unable to resupply there (1767: 126-127). For other stories, see bibliographies of Danielsson 1956, chap. III, and Nolet 2014.

[...]. The main and often the unique resource is the pandanus: its meagre fruit, here is the daily bread. Fishes are rare and often poisoned.” (1884: 384). In fact, the Tuamotu islands, qualified as “a land damned by God and men” by Father Germain Fierens⁸, among other negative descriptions, are perceived from the beginning as the “dark side” of the Polynesian Eden.

8 - Letter to the “Very Reverend Father”, Tuuhora (Anaa), 5/05/1870, Archivio della Congregazione dei Sacri Cuori di Gesù e di Maria (Archives of the Congregation of the Sacred Hearts of Jesus and Mary, or ASC), Rome



Figure 2: The quay at Tapuarava (Reao), hit by waves.
Picture E. Nolet, 2017.

During the XIXth century, Westerners also alleged that such natural environments would have influenced the characters of the Polynesian societies from the Tuamotus. Their traditions would hence be less sophisticated, their language less pleasant, their personality less friendly than those of the Tahitians – reflecting an environment renown for its difficult and crude nature. So negative would be the influence of the environment that, according to Moerenhout, the Tuamotus’ islanders could “after some stay away from their country of origin” adopt “a clearer complexion” and “more pleasant features”, becoming “more flexible and alert than even the inhabitants of the high islands” (1837, I: 166, note 1). Two other ideas were also established during this century marked by the triumph of evolutionism and a strong attention given to ecological determinism of cultural and social facts: firstly, many of the *pa’umotu* social characteristics would be directly linked to the material conditions of life and survival needs on these low islands; secondly, the Tuamotus would only offer simplified, altered, versions of institutions (chiefdom) or artistic practices (tattooing, carving) that are found elsewhere in Polynesia. The latter could not appear nor be maintained in all their complexities in such desolate and destitute places.

Throughout the XIXth century and the first 30 years of the XXth century, travellers and scholars propagated an image of small chiefdoms permanently fighting among themselves for the control of resources (Caillot 1932: 16), far from the proto-States of Tonga and Hawaii. Some reported on a religion largely focused on survival needs, the difficulty that chiefs (*ariki*) had in maintaining a strong authority, or more rarely the presence of tyrants exploiting a starving and miserable population (Beechey 1832: 156; Caillot 1910: 25; Desmedt 1932: 17). Jules-Sébastien-César Dumont-d'Urville, who considered that the “people of Hawaii, Taïti and Tonga were those who had made the most progress towards civilisation”, with “regularly constituted monarchies”, “separated castes” and “religious ceremonies grandiosely conducted” estimated that on the contrary, the Polynesians from the Tuamotus were “deprived of institutions” and lived in a “state not much different to that characteristic of Melanesian tribes”, maybe offering the “transition between the two races” (1832: 7-8). This association with Melanesian people was also facilitated by the Pa’umotu’s skin colour, described as darker than that of the Marquesas or Tahiti islanders (Dumont-d'Urville 1832: 15), and seen as evidence of primitivism. Almost a century later, a book by the (contested) historian and adventurer Eugène Caillot still alleged that the Tuamotus’ inhabitants “did not know any other law than that of force” and that “the true cause” for “expeditions against distant islands, to acquire what they were missing at the expense of their inhabitants” was “the poverty of the islands’ soil” (1932: 16-17). The highly competitive character of *pa’umotu* society, the importance given to demonstration of the *mana* (see Nolet 2014: 55 sq), the conflicts dividing the archipelago at the times when Westerners arrived, all were consequently attached to a more backward nature and the influence of an environment perceived as limited and debilitating⁹. In the first writings about the Tuamotus, the fight for survival was hence often substituted to culture, and seen as a common feature linking the archipelago’s populations. By contrast, their linguistic and sociocultural differences were rarely described and considered, until being highlighted by the Bishop Museum’s studies.

9 - This unflattering image of the societies that were contemporaneous to the first contacts was probably influenced by two categories of parameters: for the missionaries, the need to justify and promote their actions, by insisting on the misery of the Tuamotus and the importance of their “civilising” mission; for the traveling writers, the need to satisfy their European readers in search of exotism, either enchanting or shocking. Eugène Caillot, still, does not hesitate to write: “they ferociously smiled at the view of the huts burned along their way, the blood they had poured, especially when it was from chiefs. They particularly liked to cut up the body of such chiefs, to cook them in an earth oven, and eat them in grand ceremony” (1932: 16).

10 - Letter of Bishop Étienne (Tepano) Jaussen to the “Very Reverend Father” [Marcellin Bousquet], 30/09/1873, ASC.

11 - Father Germain Fierens explained for instance in 1873 that he “distributed several thousands of coconuts to plant” to the population of Fangatau. Letter to the “Very Reverend Father Marcellin Bousquet, Superior General of the Congregation of the Sacred-Hearts of Jesus and Mary”, Anaa, 26/08/1873, ASC.

Such an unfavourable vision was also possibly influenced by the opinion of the Tahitian aristocracy who, while considering the *pa’umotu* archipelago as “conquered” (although there was never any real conquering war), feared its formidable warriors (Hale 1846: 35). The effects of the cyclones, particularly those of 1903 and 1906 that resulted in hundreds of deaths in the Tuamotus (partly because of artificial gathering of the population due to mother-of-pearl collecting) could also have fed the negative prejudices of Westerners. It is noteworthy that the catholic missionaries’ will to “save the souls” of the inhabitants was associated to a voluntarist strategy of coconut tree planting, which was made easier by the acquisition of a small boat, the Vatikana, in 1870¹⁰ – in sum, missionaries sought to transform the islands so as to transform, and control, the islanders¹¹. This little documented dimension of missionaries’ action contributed (more

or less rapidly in the various atolls) to a profound alteration of islands' economies and landscapes. In parallel, some merchants learnt to profit from the resources found in the lagoons of the "Archipelago of Pearls". Exploitation of mother-of-pearl and pearling oysters started in the early XIXth century, resulting in, as expressed by Bonvallot et al. (1994: 91-92), "a true plunder economy" and a near-exhaustion of natural stocks around 1950¹².

Similarly, the exploitation of phosphate deposits on the atoll of Makatea contributed to the economic development of Polynesia between 1908 and 1966, when the island became an "industrial fallow land invaded by vegetation" (Decoudras et al. 2005). The most neglected and disparaged archipelago of French Polynesia was nevertheless an economic centre for the whole region (even more accurately after the start of nuclear experimentations, of which I will talk again). It appears that some resources from the Tuamotus were already considered as precious during pre-European times and sought by elites from the Society islands, in particular mats "exceedingly fine and beautiful" (Ellis 1831, I: 187) and feathers used in ceremonial contexts. According to Queen Marau Taaroa: "Numerous people were sent to the Tuamotus where were found the most beautiful birds, looking for the [']ura - the red feathers" (1971: 44).

After the French Protectorate being proclaimed in 1842 and Tahiti and dependencies being annexed by France in 1880, most of the Tuamotu atolls remained isolated and only occasionally visited by Westerners. In fact, clear differences appeared between the western and eastern atolls, starting from the first contacts. Firstly, in regard to the evangelisation: Polynesians who had converted to Protestantism started to preach in the western islands from the late 1810s (Ellis 1831, III: 305-306; Gunson 1969: 74), while the easternmost islands were not Christianised before the 1860s, by catholic missionaries of the Congregation of the Sacred-Hearts¹³. The proximity of Tahiti and the commercial opportunities offered by some western and central atolls also resulted in more frequent visits and faster social transformations¹⁴. Conversely, many atolls only experienced sporadic visits of catholic and mormon missionaries, merchant-sailors and touring administrators, sometimes until the 1950s-1960s¹⁵. Some of the colonial administrators denounced the lack of political interest in these islands: "for 16 years, wrote the Tuamotus Delegate to the Commander of the colony in 1879, no one was able nor willing to take care of the serious organisation of this archipelago, which has been so neglected, so disregarded, that several of the edicts relative to this organisation were not even published in the *Messenger* nor in the *Bulletin de la Colonie*"¹⁶. Others highlighted the impact of slow and difficult communications that complicated the operation of institutions and the provisioning of the islands, the maladjustment of the laws to the spatial scattering of the Tuamotus¹⁷, the difficulties in maintaining real social control¹⁸.

12 - Moshe Rapaport (1995) talked about "oysterlust" and highlighted the intensity of western appetites. At the beginning of the XVIIIth century, Roggeveen already estimated that "a very advantageous pearl fishery could be established there" (1739, I: 148-149). Still, the development of modern pearl culture, implying the breeding and grafting of *Pinctada margaritifera* oysters did not start before the 1960s.

13 - On the arrival of the Sacred-Hearts and the foundation of a catholic mission at Faaite in 1849, see Father Clair Fouqué, letter to Father Ernest Heurtel, Faaite, 2/06/1849, ASC. On the missions in the easternmost islands of the Tuamotus, see Montiton 1873.

14 - In 1959, Hikueru atoll could still receive "a numerous population coming from the neighbouring districts and even from the other provinces (around 1000 people)", during the diving period. Report by the *chef de circonscription des Tuamotu-Gambier*, Archives du Service du Patrimoine Archivistique et Audiovisuel de la Polynésie (SPAAP), Papeete, Tahiti.

15 - In June 1883, while visiting Reao, Captain Ingouf commented: "Reao's people had never seen a steamer ship, and they only very rarely see any boat coming from the Ocean to touch land on their island [...] they would only hope for a schooner to come and pick up their merchandise; the last one came one year ago" (SPAAP).

16 - SPAAP.

17 - Magistrate Cambazard explains in the report of his 1938 justice tour: "in a non-appeal case, condemnations might well not be executed before the next passage of a boat of the administration, that is to say, often, one year later" (SPAAP).

18 - In 1949, the head of the Tuamotu-Gambier administrative district explained that the island of Kauehi, where 150 inhabitants were then living, had "no policeman, no school teacher, no shopkeeper" (SPAAP).

19 - This image, still alive in the Society Islands, is also probably inherited from negative stories told by European observers, subsequently repeated in several travel accounts. It has been a source of suffering, but also the ferment for identity affirmation in the Tuamotus: "Only 40 years ago, it was socially fashionable to *not be* Pa'umotu [...]. Indeed, the Pa'umotu embodied the under-evolved Polynesian, crude, lazy hence stealer, cunning and devious, always dressed with bad taste [...], an indigent who could only survive thanks to his coconuts providing his copra" (Te Reo o Te Tuāmotu 2001: 60).

20 - Father Germain Fierens talked about "dangers from the savages, whose moral sense is completely obliterated", "danger at sea where so many times the storms and winds threaten our small boat", "dangers still to land on the islands", "dangers finally from hunger and thirst". In a subsequent letter, written from Anaa, this missionary even explains "sometimes, I am so disgusted that I wish to die" (letter to the "Reverend Father Superior of the Sacred-Hearts House in Louvain, Papeete, 1/06/1877, and letter to the "Very Reverend Father", Tuuhora (Anaa), 15/02/1883, ASC).

This prolonged isolation favoured the persistence of stereotypes according to which the Tuamotus remained either pockets of primitivity (where incest, violence, witchcraft – seen as relics of the pre-Christian past – were more frequent than elsewhere)¹⁹ or a cultural conservatory where a set of practices and values representing the true Polynesia would still be found. However, the transformations that took place from the XIXth century should not be overlooked: Christianisation, creation of villages, coconut monoculture that resulted everywhere in significant changes. As in the rest of Polynesia, the missionaries' influence has affected many domains, such as marital practices, habitat modalities, artistic expression, etc. Father Albert Montiton explained for instance that he gave "houses conforming to hygiene and moral" to the islanders "living and sleeping in chaos, under some completely unprotected sheds" (1873: 281). The beginning of the activities led by the Pacific Centre for Experimentation (CEP) in the early 1960s was another major turning point in the Tuamotus' history. The CEP made it possible for the inhabitants of the most isolated atolls, such as Tureia or Reao, to access services, wages, and new goods. It generally contributed to significant professional migrations and to an improvement of air services in French Polynesia. In parallel, the development of pearl culture and tourism benefited to several western and central atolls, although a large part of the profits has remained in the hands of external actors.

HISTORY OF RESEARCH ON TUAMOTUS' SOCIETIES

The atolls extreme scattering and the fact that most travelers mainly tried to avoid them²⁰ have had consequences on research that we now need to consider. First of all, only a small quantity of first-hand sources is available to the researchers, describing the social practices of the populations encountered before or during the Christianisation period. Most of these writings are limited to short comments, even though some observers, such as Father Albert Montiton (1874), offered more details. The information is significantly more important for islands located in the western part of the archipelago (such as Anaa), closer to Tahiti, or for those where diving for mother-of-pearl was practiced. Accounts about these islands tend to focus on describing diving activities or socio-economic stakes generated by the business of pearls and mother-of-pearl. The relative scarcity of the historical documentation is fortunately somewhat compensated by a corpus of oral traditions, of unequal importance depending on the islands. Still, these traditions, often relating to pre-European religious practices, present issues of translations and interpretations that complicate their use by historians and archaeologists (Nolet 2014: 26-27). It is also important to highlight that it long remained difficult to reach these islands: the distance from Tahiti or between atolls, the low frequency of maritime crossings, the expensive travel costs, all contributed to discourage scientists in general. The famous Bishop Museum's Mangarevan Expedition (1934), able to rely on its own ship, the *Tiare Tahiti*, possessed financial and logistical means

that only a few teams were able to access subsequently. The relatively low number of social and human sciences studies conducted in the archipelago is a direct reflection of this geographical isolation, even though it can probably also be explained by a highest interest for the societies and cultures of the high islands. In the Tuamotus, no petroglyphs nor spectacular *tiki* to be found, but remains of *marae* less impressive than those of the Society Islands (cf. Molle 2015, 2016), and a generally limited material culture, essentially made from vegetal, coral and shell raw material (Emory 1975). Moreover, a good number of *marae* have been damaged²¹ by cyclonic swells, the vegetation, voluntary destructions and reuse of coral blocks during Christianisation, or transformed during subsequent restorations by the islanders (Figure 3).

21 - Kenneth P. Emory already asserted in the early 1930s: "The maraes in the western part of the archipelago have suffered the most. In the vicinity of the main village at Anaa, Faaite, Apataki, Kaukura, Arutua, Makemo, Katiu, Raroia, Hikueru, and Amanu, I did not discover a single marae of which enough remained to show its form" (1934: 3. See also Conte 1990: 99).



Figure 3: Marae of Reao, invaded by *gapata* vegetation. Picture E. Nolet, 2017.

The image of societies that had been presented as destitute, static, mainly focused on their material survival, might have reinforced the impression of a low archaeological potential for the *pa'umotu* atolls, with a history limited to simple "re-adjustments" to environmental changes. In addition, it was long admitted that there was no real stratigraphy to be discovered on Oceanic low islands – although such an idea was already questioned by the work of Janet Davidson on the Polynesian outlier of Nukuoro in 1965 (1967). As summarised by Paul Rainbird regarding the Caroline atolls in Micronesia: "The small land area, poor coralline soils and vulnerability to environmental catastrophe have in the past led archaeologists to believe that atolls are also impoverished archaeologically" (2004: 163; Kirch 2017: 151). In the case of the Tuamotus, the cyclones did cause the destruction of monuments (for instance the two main *marae* of Napuka in 1903),

but the surveys and excavations conducted have shown that the islands were differently affected and that discoveries remain possible (*infra*). Regarding social anthropology, in addition to the already mentioned difficulties of fieldwork accessibility and to evident language obstacles for Anglo-Saxon researchers, the reputation of acculturation given to French Polynesia generally could have contributed to discouraging scientists, more attracted by such contexts as Papua New Guinea, Vanuatu or New Caledonia. The small number of social and human sciences studies conducted in the Tuamotus explains how the ideas conveyed during the first contacts could have endured and long remained references. Paul Ottino cites a handbook of geography published in the 1950s. It is possible to read there about “the Tuamotus’ inhabitants, the Paumotu”, that “their physical aspect is heavier, their skin darker than those of the Tahitians, their character more savage, more secret” (Huetz de Lempis 1954: 106, cited by Ottino 1972: 19) – which is not without reminding the negative accounts of the first European observers.

During the XIXth century and at the beginning of the XXth century, a number of authors developed initial hypotheses about the settlement and pre-European history of the Tuamotus, often based on second-hand data and without ever having been in the field. These speculations aimed at elucidating how Pacific populations could have reached such isolated lands and explaining the linguistic and physical particularities described by the travellers. Armand de Quatrefages, for whom the *pa’umotu* population demonstrated “a number of traits that unquestionably attach it to the large Polynesian family”, highlighted the fact that “it is in the low islands that are found the darkest tribes, with hair sometimes woolly, with crude features. These particularities reveal the mixing of a high proportion of black blood.” Material culture comparisons (very basic) led him to postulate the arrival of Micronesian or Melanesian populations: “Which fleet of black Carolins, lost in a storm, was hence tossed by the hazards of the sea until these regions? Was the mixed race born in Fiji pushed until there without having settled the intermediary large islands?” (1864: 153-154, 199). The scenarios edified at this time insisted on the accidental or constrained nature of the human settlement, coherent with the negative image of the islands as represented in travel accounts: who indeed could have wished to live in the “dangerous” and “destitute” *pa’umotu* atolls? Oral traditions collected in the archipelagos of French Polynesia appeared to confirm the idea according to which some populations originating from the high islands and defeated at war must have fled to the Tuamotus and durably settled there (Caillot 1910: 383-384; Handy 1923: 20-21). Other traditions suggest the occurrence of voluntary departures, of explorations or chance discoveries (see Te Reo o te Tuāmotu 2001: 64). But, for Father Maurice Desmedt, the Polynesians could not have remained in these atolls by strategy or choice, the travelers would have been “trapped” by the poor resources: “they couldn’t find the material necessary to provide new fleets and run away again in search

of distant lands" (1932: 10). Before the development of archaeology, few authors attempted to place these migrations on a timescale or conceded them any antiquity. The "Notice" describing the French territories of Oceania during the Universal Exhibition of 1900 indicates: "It is probable that the peopling of the Tuamotu atolls did not significantly precede the passage of the first [western] sailors in these regions" (Lemasson 1900: 84). Finally, let's mention the original perspective of Moerenhout, who hypothesised that a vast continent became flooded during a cataclysm, leaving the Polynesian islands as the remaining summits of ancient mountains (1837, II: 215, 254).

During the same period, travelers, naturalists and especially missionaries started to document the local cultural practices and to collect elements of vocabulary, genealogies, tales about the creation of the world, etc.— with methods that were not those of modern scientific ethnography yet (for instance Seurat 1905; Audran 1919; Mazé 1929). Not until 1929 was a real pluridisciplinary expedition organised to the Tuamotus, under the leadership of the Bishop Museum, followed by a second mission in 1934. In parallel to an inventory and typology of the *marae* documenting 17 atolls, these two missions allowed for the collection of hundreds of songs, toponym lists, data about the cosmogony, social organisation, political history or vocabulary of the different Tuamotus' cultural and linguistic groups. Part of this material was analysed and integrated in publications (see for instance Burrows 1933; Emory 1934, 1947a, 1947b; Stimson and Marshall 1964), but numerous traditional accounts have remained unexploited scientifically. More than 15 years passed before any new significant research was conducted about the *pa'umotu* societies. Bengt Danielsson, ex-member of the Kon-Tiki expedition, visited Raroia for two stays in the early 1950s and brought back important information on the ancient societies (through oral traditions collected with the islanders and observations on the *marae*) and on the socio-economic conditions of his times (1952, 1956). The research undertaken in the 1960s by Sachiko Hatanaka on Pukarua (1968) and Paul Ottino on Rangiroa (1965, 1972) also resulted in the collection of historical and anthropological information, and even in the writing of an *Ethnohistoire de l'atoll de Rangiroa* entirely based on oral tradition (Ottino 1965).

Ottino's research served as foundations for an archaeological study conducted by José Garanger and Anne Lavondès, looking to validate the oral traditions of Rangiroa (1966: 25) and including the detailed excavation of several structures. Later on, research associating archaeology, social anthropology, linguistic, psychology and biological anthropology was conducted in 1976 and 1980 on Reao atoll, known for its linguistic particularities (University of Kanazawa 1976 Polynesian Scientific Expedition 1978; Hatanaka and Shibata 1982). Jean-Michel Chazine, having established a first archaeological inventory on Takapoto in 1975 (1977), oversaw the archaeological work during the second franco-japanese mission, together with Eiji Nitta and

following Yosihiko Sinoto. He observed massive planting pits, studied during subsequent missions throughout the archipelago (2008). During the 1980s, Éric Conte conducted ethnoarchaeological research on the exploitation of marine resources, based on his Napuka fieldwork (1988). He established the archaeological inventory of Napuka and Tepoto and excavated on this latter atoll the *marae* Te Tahata, revealing its funerary purpose - not retained in oral tradition (1996). In 1985, a survey and inventory mission visited 12 atolls from the centre of the archipelago, completing the documentation gathered 50 years earlier by the Bishop Museum (Conte 1990). Other studies, sometimes limited to surface observations or test-pits, have been conducted since the 1960s. Among these are found the work of Pierre Vérin (1964) and Paul Niva (2008) on Makatea, Pierre Souhailé on Tureia (1972), Jean-Michel Chazine on Makemo (2003) and Tatakoto (2005), or missions conducted by the *Service de la Culture et du Patrimoine* of Tahiti on various atolls (Dauphin 2005; Marchesi and Maric 2005; Maric 2010). Recent inventories were completed on Anaa (Maric et alii 2010), on Fangatau and Fakahina, associated to environmental surveys (Jacq, Butaud et Maric 2011; Jacq, Butaud et Molle 2011). In addition to this non-exhaustive list, Guillaume Molle published a synthesis book and an article analysing the *marae* complex in the Tuamotus (2015, 2016) (Figure 4).

Figure 4: Excavations at Fakahina atoll, April 2018 (direction G. Molle).
Picture G. Molle, 2018.



Since the 1960s, a limited number of works has been realised in social anthropology, sociology and geography. Candace Carleton Brooks researched the socio-kinship organisation on Manihi (1968), François Ravault the territorial system (1978) and Éric Conte the fishing practices and processes of food preservation and cooking (1986). Doctoral theses were completed by Laure-Hina Grépin on teenage boyhood in the eastern islands (2001), Émilie Nolet on ancient and

modern sociopolitical organisation (2006), and Frédéric Torrente on the ethnohistory of Anaa (2010). Bruno Saura analysed the 1987 dramatic events of Faaite, when six persons suspected of being possessed were killed by the islanders (1990). Linguistic research was also conducted by Jean-Michel Charpentier and Alexandre François for their *Atlas linguistique de la Polynésie française* (2015). Finally, important collection and promotion of traditions have been realised by local cultural associations, sometimes since the 1970s, and should not be omitted, resulting in several publications (Te Reo o Te Tuāmotu 2001, 2006).

This short historical review delivers a somewhat mixed assessment. Generally, the research focused on the pre-European societies or on the collection of traditions have been more numerous than those looking at post-contacts social transformations – with notable exceptions such as the exceptionally detailed, but already old, monography of Paul Ottino on Rangiroa (1972). Nevertheless, we are now facing an important erosion of traditional knowledge with the passing of generations. We are also sometimes confronted to a kind of “distanciation” from information that relates to pre-Christian monuments and religious practices – because the islanders do not consider themselves as competent enough, and prefer to refer to published works, or because evoking past traditions can be experienced as embarrassing, especially for the elderly. Although archaeological works have increased throughout the last few years, thanks to the development of aerial liaisons and financial sources, the details characterising the first settlement of the islands remain largely unknown. To tackle this issue, we can only so far rely on origin stories and indirect information, relating to sea level changes and the progressive constitution of habitable coral islets (*motu*) during the Holocene (see Montaggioni et al. 2018). We also only have clues, indications and isolated data regarding the processes of diffusion and diversification of ritual architecture, or inter-islands exchanges as attested by traditions and artefacts circulation (Collerson and Weisler 2007). Religious life at the time of first contacts has been better documented, thanks to the collection of oral traditions that were still abundant and precise during the 1920s-1930s – even though their interpretation was contentious from the start (see Nolet 2014: 27 on the invalidation of the Kiho Tumu cult by Kenneth P. Emory and Father Paul Mazé). Similarly, the study of genealogies and traditional tales provided significant information on the ancient socio-kinship organisation, highlighting the centrality of the *gati*²² (cognatic kinship group attached to material and immaterial inheritance) and of territorial references (Emory 1947a; Ottino 1965; Nolet 2014). Another important contribution has been delivered by interdisciplinary research that contributed to a better understanding of the islanders’ interactions with the environment of the Tuamotus, moderating the image of extreme dependency or total misery as transmitted by most of the first travelers.

22 - Here, the grapheme g represents the velar nasal, following the *Académie pa’umotu’s* standards. It should be noted that there are variations in vocabulary within the archipelago. These differences are still unequally documented.

AN INCREASED UNDERSTANDING OF HUMAN-ENVIRONMENT INTERACTIONS

While research on *pa'umotu* societies has remained limited, the atolls environmental characteristics have been extensively studied by natural sciences. Such an interest arose during the XIXth century, through publications that interrogated the formation processes of the mysterious “madreporic islands” and described their physical properties (Ribourt 1878; Beltran y Rozpide 1883). Following on, several studies have been conducted on the characteristics and dynamics of the islands ecosystems, particularly marine species with economic potential such as *Pinctada margaritifera* oysters (Bouchon-Brandely 1885; Hervé 1933-1934; Andréfouët et alii 2016), or *Tridacna maxima* giant clams, extremely numerous in some lagoons (cf. Salvat 1971; Gilbert et al. 2006). The establishment of the CEP and the radiological monitoring both played a role in launching this type of works.

Within studies of social and human sciences focused on the Tuamotus, the questions of human-environment relations have also remained a central theme, especially in regards to processes of adaptation to the natural constraints of the low islands. Practices of maritime and terrestrial resource exploitation, management of food stocks and natural hazards, traditional ecological knowledge have long excited the scientific interest (i.e. Pollock 1978; Conte 1988; Chazine 2008; Worliczek 2013), just as in the Micronesian atolls (Lessa 1964; Alkire 1999) and without excluding other topics (kinship, traditional history, political life, etc.). Moreover, the interpretation of *pa'umotu* social institutions has regularly highlighted the economical limits and material conditions of existence on the coral islands – similarly to other atoll societies. In 1972, Paul Ottino considered, in agreement with Marshall Sahlins, that “the ecology of the atolls and low islands” favored a “type of undifferentiated social and kinship organisation”, observable in the Tuamotus amongst other places (1972: 449). For this author, a set of social representations and practices – including marital and adoption systems or spatial mobility – eventually enabled “to secure the perpetuation of local residential units in charge of controlling the wealth (*faufa'a*), i.e. the land, simultaneously the purpose and the condition of their existence” (1972: 435-436). The stress on the ecological determinations of cultural and social facts, not restricted to atolls, reached its peak in the 1950s-1960s, under the influence of cultural ecology and Julian Steward’s works (see Fischer 1958; Mason 1959; Vayda 1959; Hainline 1965).

Finally, the Tuamotus have recently been the focus of increased scientific research because of the specific risks that confront atolls in the face of climatic changes and sea level rise. Various projects have been proposed or engaged in these islands to study the local expressions of climatic changes or the community risk-management and human-environment relations in general – to the point that the solicited inhabitants and associations are reaching their saturation point. As important as such studies might be in the context of

the real climatic threat we are facing, it is remarkable that the environment (feared, admired, despised, coveted) of the *pa'umotu* atolls often remains the main reading grid to comprehend the local societies. This scientific interest for human-environment relations (echoing the fascination-repulsion generated by atoll environments from the very first explorations) has eventually delivered important progress and a reconsideration of the impression of vulnerability transmitted by the first travelers. Although traditional and archaeological data represent a significant resource to address this issue, a few European accounts (especially missionaries) can still enrich our understanding of the representations, management and exploitation practices of the islands' environments. Let's consider some examples already established through available sources²³.

Detailed terminologies collected since the start of the XXth century (Stimson and Marshall 1964) and the *fakatara* songs describing kinship groups' estates demonstrate a precise understanding of the atolls' terrestrial and marine environments. Oral traditions also show that the islanders knew how to best use the indigenous species present on the islands – despite their low numbers – before the arrival of the Europeans, for food or various other medicinal and technical purposes (see Butaud 2009-2010; Butaud and Jacq 2009). The fleshy part and almonds of *Pandanus tectorius* var. *tectorius* (*fara*, *tima*) drupes, for instance, were eaten²⁴, while roots were used to make ropes or remedies to treat some mouth ulcerations. Polished dried pandanus' leaves were also used to plait mats which were softer, finer and more durable than those obtained with coconut palms. The islanders had learnt to employ the mechanical properties of diverse tree and bush species (*Pemphis acidula* or *mikimiki*, *Heliotropium foertherianum* or *geogeo*, *Cordia subcordata* or *tou*, and others) for building and crafting purposes. The rarity of large trees was compensated for by the ingenious sewn-plank canoe model. Along the same line, the work of Jean-Michel Chazine demonstrated the importance of the pit cultivation system (called *maite*, *kāuai*, etc.) that made it possible to grow taro and other food crops thanks to the interception of the freshwater lens found under most of the atolls – freshwater also collected in wells for domestic family needs (Emory 1975: 2). Some areas of the atolls demonstrate massive planting pits concentrations, providing arable lands of a total surface reaching up to 1500 m² (Chazine 2008: 213). It is also noteworthy that the original forest covering the atolls before the extensive planting of coconuts (which was dominated in particular by *Pisonia grandis*, locally called *gatae* or *puka*) attracted large bird colonies²⁵ and contributed to humus production – largely missing nowadays. In addition to sea birds such as the great frigate-bird (*Fregata minor*, *kotaha*), sooty tern (*Onychoprion fuscatus*, *kaveka*), redfooted booby (*Sula sula*, *kariga*) and brown noddy (*Anous stolidus*, *goio*), Pa'umotu islanders fed on imported species (dog, chicken and pig), recorded in varying quantity. Pig and dog may have been mostly reserved for ritual feasts (cf. Conte, Molle and Nolet 2017: 57-58).

23 - Within the limits of this article, only a brief overview of this question is proposed here. Also see on the same topic: Conte, Molle and Nolet 2017.

24 - Father Germain Fierens notes, about Fangatau: "Giant clam fish and pandanus constitute their sole food [...]". Letter to "Reverend Father" [Clair Fouqué], Tuuhora (Anaa), 28/06/1871, ASC.

25 - As for Napuka, Father Albert talked about "countless swarms of black and white birds". Letter to the "Very Reverend Father", Anaa, 15/04/1869, ASC.

Moreover, we know that the populations – not settled in permanent villages during the pre-European period but living along the stretch of habitable land grouped by clans or extended families – used to move through their islands and to uninhabited islets to collect resources, depending on needs or seasonal availability. Father Albert Montiton, during the evangelization of Fangatau, explained: “I rarely managed to keep them gathered in the village. [...] they usually spread throughout the island to look for their daily food” (1873: 280). Father Gustave Nouviale confirms the seasonal abundance of some food resource: “Ahe is a small uninhabited sandy island; where birds abound. During the egg-laying season they gather there in such large numbers that their flocks flying above the islets darken the sky. The more numerous are the kaveke [kaveka] of the gull type. [...] The birds are so widespread on the island and their eggs so abundant that we could fill boats with eggs”²⁶. These trips could have taken a more durable aspect, when needed. According to Father Germain Fierens, the islanders of Tematagi (an island that he said had “no other food supplies than pandanus and very little fish, and no giant clams”) requested for Father Paul to “transport them on another island where food could be found” and all left to settle on Tureia²⁷.

26 - Undated notes, Tm 72-1, ASC. These observations could have been made during a boat trip in 1913 (cf. Nouviale 1989: 30).

27 - Letter to “Reverend Father Albert”, Tuuhora (Anaa), 15/05/1894, ASC

The exploitation of marine resource played a central role and was adapted to the local species’ feeding behaviours and seasonal rhythm (Conte 1988). We know that giant clams *Tridacna maxima* (called *gaiere*, *pahaa*, *koeha*, etc. in the various islands), were part of the basic foods and could have been present in very large quantity in some atolls’ lagoon, such as in Reao or Tatakoto; “although their size is not imposing, wrote Father Paul Mazé, their number in some islands goes beyond anything imaginable” (1926: 526). While not all lagoons were rich in fish or *Tridacna*, marine wildlife could abound during precise times of the year, such as during eggslaying or spawning seasons. Germain Fierens explained in 1871, about Tatakoto: “At the season when the turtle comes to lay its eggs onshore, they can have a lot of it”²⁸. Father Albert offered convergent information: “I stayed for a month on Vahitahi, with a handful of flour; but, since it was the turtle season, I did not suffer from hunger” (1873: 371). In 1849, Father Honoré Laval also recorded a particularly profitable fishing party in Fakarava: “We just had a golden week. God allowed that my Fakarava people caught on the 13th of September 75 sperm whales that resulted in ceremonial invitations”²⁹. Ethnographic observations indicate that when turtles (*honu*) were caught in large numbers, they could be confined in enclosures or natural pools for later consumption; a practice maintained until the 2000s on Reao. Various techniques (cooking and drying of *Tridacna*, drying of octopus, etc.) also allowed for the preservation of part of this marine food, for instance for times when strong swell would make fishing difficult (Conte 1986). Moreover, it appears that specific arrangements were made to favor the reproduction of valued species. We know that Reao’s chief could decide of a taboo on the collect of giant clams in part of the lagoon, pushing the population to

28 - Letter to Reverend Father [Clair Fouqué], Tuuhora (Anaa), 28/06/1871, ASC.

29 - Cited in Hermel, *Histoire de la Mission*, Archdiocese of Papeete. Pacific Manuscripts Bureau (Canberra), PMB 1080 Catholic Archdiocese of Papeete: administrative archives, 1833-1969.

settle elsewhere (Hatanaka 1982: 41), or that parts of Napuka's lagoon were considered as reserves where the *Tridacna* could not be collected, except for special occasions (Conte 1988: 96)³⁰. Propitiatory rituals were also conducted, notably for the seasonal return of the green turtles *Chelonia mydas* (Emory 1947a). In addition, the marine environment provided material adapted to specific technical purposes. Ray's caudal sting could be used as spear armature and moray's jaws could be used as knives. Spades made of turtle bone or oyster shell and *Tridacna* adzes have been collected in several islands, in association to basalt adzes imported from high islands or locally manufactured from imported blocks of basalt (Emory 1975: 100, 119).

European accounts clearly show the significant damages of storms and cyclones, against which the atolls do not offer any natural protection. In addition to the loss of human lives³¹ and material damages, food supplies could be left durably affected. About a year after the January 1903 cyclone, pandanus on Napuka atoll, which had "been so tormented", were not "producing anything"³². Father Athanase Hermel explained also that after the 1906 cyclone on Faaite: "there was no soil left; the sea dug through the ground down to the rock"³³. Conflicts could result in similar food shortage, with notably the Anaa (or *parata*) warriors being used to burn down the coconut trees of the defeated islands before leaving; this changed them, according to Moerenhout, "into horrible desert" (1837, II: 371). However, islanders could rely on relief resource. The roots of the yellow purslane (*Portulaca lutea* or *pokaa*, herbaceous plant now restricted to feeding of pigs) were cooked and eaten during food shortage times, when the *Tridacna* were covered under a thick layer of sand after a cyclone³⁴. The kapara (a red gelatinous organic deposit constituted by cyanobacterial mats that form in the swamps bordering the lagoon) could represent a relief food source when needed. Also of note, a range of environmental signs (*tapa'o*), differing between islands, could warn the islanders of the coming of strong swell or storm. Finally, kinship links and inter-islands marital networks provided other support forms to be raised during times of danger or food shortage. As highlighted by Kenneth P. Emory: "The main purpose of the ocean-going vessels, however, was [...] for migration in times of scarcity of food, or in times of danger of attack" (1975: 3). Thus, the January 1903 cyclone appears to have resulted in significant mobility for the populations of the devastated islands. Father Amédée Nouailles wrote, in September 1904: "they are slowly rising from their ruins. The inhabitants are less nomadic, and everywhere less scattered and more attached to their respective villages"³⁵. While we should not underestimate the difficult conditions of life on *pa'umotu* atolls, it appears evident that the islanders progressively developed solid adaptive processes, based on kinship solidarity, traditional ecological knowledge and an important mobility that was made possible by the sophisticated navigational means admired by Westerners (Moerenhout 1837, I: 158-159; Wilkes 1845, I: 327).

30 - About the Polynesian tradition of taboo on specific areas or resources, notably for environmental conservation, see the recent synthesis of Bambridge 2016.

31 - See for instance the *Journal Officiel des E. F. O.* dated 12-13 February 1903 (11-17 January 1903 cyclone - <http://lexpol.cloud.pf/document.php?document=312490&deb=35&fin=36&titre=QXZpcyBkdSAX-Mi8wMi8xOTAz>) and the *Journal Officiel* of 22 February 1906 (8 February 1906 cyclone - <http://lexpol.cloud.pf/document.php?document=312003&deb=39&fin=41&titre=QXZpcyBkdSAy-Mi8wMi8xOTA2>)

32 - Letter of Father Isidore Butaye to the "Very Reverend Father Superior General", Fakahina, 17/02/1904, ASC.

33 - Letter of Father Athanase Hermel to the "Very Reverend and Beloved Father" [Marcellin Bousquet], Papeete, 13/03/1906, ASC.

34 - Letter of Father Amédée Nouailles to "Bishop" [Marie-Joseph Verdier], Katiu, 4/07/1905, Archives de l'Archidiocèse de Papeete (Archdiocese of Papeete Archives, or AAP).

35 - Letter of Father Amédée to "Reverend Father", Fakahina, 25/09/1904, ASC.

CONCLUSION

In this chapter, it has appeared that multiple parameters have contributed (or still contribute) to limiting, directing, conditioning the research focusing on the past of *pa'umotu* societies. These include: (i) difficult accessibility, explaining a late beginning and unequal development of field research in the different islands ; (ii) the perceptions of the first European travelers, simultaneously demonstrating a strong attraction for marketable resources (mother-of-pearl, pearls, phosphates, copra) and a form of repulsion for the local environment and cultures – as a result, their accounts are less numerous or poorer than those focusing on other Polynesian regions and often directed towards the atolls concentrating European interests, offering the researchers little material and few possibilities for comparison; (iii) poor preservation conditions for archaeological ruins, with intense erosion processes of coral soils, aggravated by slash-and-burns conducted by copra producers; (iv) the fragility and low diversity of material remains attributed to the ancient societies, also generally not of a spectacular nature; (v) the fact that some aspects of ancient lifeways in the Tuamotus are better documented than others, particularly the religion – because the *marae* are among the rare remains to have partly resisted destruction, because the associated traditions are the most abundant and because the missionaries were mainly interested in the pre-Christian rituals and concepts; (vi) the weight of evolutionist ideas and ecological determinism, inviting to consider the *pa'umotu* society as an uncompleted or degenerated version of the Tahitian society; (vii) the idea that human populations could not have been sustained for a long period of time on these low islands with limited resources. Despite these material and conceptual obstacles, the multiplication of research studies resulted, as noted, in real progress on a number of topics. But which resource can we mobilize so as to keep improving our knowledge base?

To start with, while historical sources are relatively scarce, we are not confronted to an archival desert. The missionaries of the Sacred-Heart, the colonial government administrators and a number of seafarers left accounts of the transition period, marked by a transformation of the living conditions, which has remained insufficiently studied. A detailed study could offer a different perspective and could help to understand, for instance, under which conditions (psychological, ideological, political, etc.) was realised the abandonment of the pit cultivation system and the change from an economy based on regulated predation and optimisation of local resources to coconut monoculture. It could also help to comprehend the conditions for the spatial and temporal reorganisation conducted by the missionaries, or for the appropriation of new materials, techniques and capabilities. Similarly, an analysis of the forms and impacts of the very first contacts between sailors and islanders (exchanges, conflicts, vegetal and animal introductions, etc.), now systematically established in some regions of the Pacific, remains to be conducted on the Tuamotus.

Beyond this, it is evident that new archaeological excavations, especially where surveys have already been completed³⁶, should be treated as a priority. I already highlighted the scarcity of data available on the human settlement of the Tuamotu islands, where the discovery of ancient occupation sites is made difficult by the low sedimentation. At a time when the re-dating of previously excavated sites or the launching of new projects tend to renew our approach of French Polynesia's settlement (see Conte and Molle 2014; Kirch et al. 2010), it appears specifically important to address the current gaps in our knowledge by collecting as much data as possible on the Tuamotus. Much hope can be placed on the development and multiplication of *marae* excavations, a necessary complement to the surface surveys completed since the start of the XXth century. Such excavations can potentially provide information on the dynamics of foundation, abandonment, re-use or transformation of these highly significant sites, the diversity of ritual activities being conducted, or their possible and still poorly understood funerary purpose (cf. Molle 2015: 77). The question of human-environment interactions also remains a considerable challenge. For a start, most of our current understanding about the pre-European uses of the environment relies on oral traditions collected during the XXth century.

The development of palaeoenvironmental research could bring complementary data, allowing for instance an evaluation of the human impact on atoll ecosystems since the first settlement, or an examination of cultural choices and exploitation strategies. Zooarchaeological research should be conducted in order to identify the species used for food at different periods and to understand their ceremonial utilisation (turtles, large fish, etc.). Our knowledge about the exploitation of terrestrial resources could also be improved through an application of anthracological analyses on wood charcoal remains from ovens found on *marae* and by studying the macro-remains potentially present in cultivation pits. It should be noted that the exploitation of terrestrial resources remains generally less well documented than that of the marine environment. Research on indigenous taxonomies and about particularly important and valued vegetal species such as the coconut tree have previously been conducted (Emory 1947b; Goo and Banner 1963; Te Reo o Te Tuāmotu 2006). Yet, a vast program collecting, analysing and comparing traditions that relates to species still present or extinct in the archipelago (birds, plants, insects, etc.) would be beneficial – with the inventory work already completed by the naturalists offering a precious foundation. It would also be important to try reconstituting more precisely the exchange networks and the different stages of the intra and inter-islands nomadism that was practiced at the time of the first European contacts. With which communities did the islanders of Reao, Kaukura or Hikueru exchange products or spouses, which uninhabited islets could they exploit, at what time of the year and for which type of resource? Although some data is available for a few islands, the information has not yet been

36 - A new research project conducted by the *Centre International de Recherche Archéologique sur la Polynésie* (CIRAP) and focused for its first phase on Fakahina atoll, was hence started in April 2018 (see Molle 2018), and continued in April-May 2019.

assembled, mapped, comparatively or diachronically analysed. To study or re-examine together European accounts, genealogies, traditions and archaeological data could help progressing in this direction.

To improve our understanding of the pre-European societies and of the conditions under which took place the cultural encounters and socio-economical transformations of the XIXth and XXth centuries, it is hence necessary to have a dialog between the data provided by archaeology, traditional history and European accounts. It has appeared that such disciplinary openings could help to move beyond cultural *clichés* and determinist paradoxes (originating for a part, but not only, with the missionaries) that insist on the destitution and vulnerability of ancient inhabitants of the Tuamotus. Let's hope that access to new technical means (for the study of palaeoenvironments, food practices, etc.) and better communications, but also the training and increasing engagement of researchers and students in the field will support the continuous development of archaeology, history and historical anthropology in the Tuamotus – in turn, carrying on with the critical reappraisal of many commonly held ideas.

I sincerely thank the anonymous reviewers, Guillaume Molle and Jacques Vernaudeau for their helpful comments and suggestions, as well as Emilie Dotte-Sarout for her thoughtful translation work. Eventual remaining errors are mine.

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**THE QUESTION OF
THE 'FIRST INHABITANTS'
OF NEW CALEDONIA
(SOUTHERN MELANESIA):
ARCHAEOLOGICAL WRITINGS
IN A COLONIAL CONTEXT
AND ONE OF DECOLONISATION**

Christophe Sand

ABSTRACT

This paper analyses the different forms of archaeological narratives around the question of the origin of the indigenous Kanak of New Caledonia. At the start of the XXth century, Archambault relied on the study of the petroglyphs of the Grande Terre to propose the existence of several successive waves of settlement during the past of the archipelago, thus denying an Indigenous legitimacy within its long-term history. This hypothesis profoundly influenced how the local colonial society imagined the New Caledonian past. From the 1970s onward, in opposition to this view, Kanak leaders have developed the indigenous claim for 'first occupation'. During the 1990s and 2000s, the concept of a 'long term' chronology proposed by local archaeologists privileged a dynamic approach to cultural change over the last 3000 years. This historical discourse had as one objective to reconcile the New Caledonians with their past from the perspective of a 'common destiny' between the different communities of the archipelago. But the lack of collective uptake of this idea has meant that in the last few years there has been a resurgence of the old questioning of whether 'the Kanak were in fact the first inhabitants'. This paper undertakes a chronological study of the evolution of archaeological discourse in New Caledonia, with an attempt to identify the major themes that could explain the persistence of contemporary antagonisms.

Translated from French by Matthew Spriggs, including citations.
Originals to be found in the French version of this chapter.

KEYWORDS

Archaeology,
New Caledonia,
Settlement colony,
Politics,
Historical legitimization,
Waves of settlement,
First inhabitants,
Cultural chronology,
Common destiny.

In regard to the contribution of Caledonian archaeologists, I fear... that to relativise, and rightly so, through appeal to the tangible pieces of archaeological proof, the political (therefore passionately held) concept of ‘first inhabitants’ will not be acceptable to the Kanak of the country. I have the impression that the Caledonian archaeologists... are contesting the legitimating foundations of contemporary Kanak nationalism, relativising by means of some kind of ‘scientific neutrality’ the Kanak way of rooting our origins in the land through the historical genres of oral traditions (Sand 2005:20).

INTRODUCTION

As the referendum of self-determination on the independence of New Caledonia loomed at the end of 2018, the debates over the multiple historical legitimacies that produced current Caledonian society have become stronger than ever. The most southerly archipelago of Melanesia, settled some 3000 years ago by navigators of the Lapita culture, New Caledonia became a French settlement-colony in the second half of the XIXth century, leading in the course of the first century of colonisation to settlement by convicts and free settlers, and then Asian indentured workers (De Deckker 1994). Successive statuses of autonomy or direct rule followed after the Second World War, in a political context alternatively of scope for decolonisation and tacit re-colonisation (Angleviel 2014). Until the 1990s, the archipelago had the reputation of being a “land of unsaid” (*pays du non-dit*) according to Barbançon (1992), where the taboos about the past closed off each community in a discourse that can be described more as one of “the invention of tradition” than as a real approach to the character of its history. The return to peace at the end of a period of civil war between 1984 and 1988 connected with the claim for Indigenous Kanak independence (‘the events’/*les événements*: see Houdan 2013), has permitted over the last 30 years a real metamorphosis in the type of analysis possible on the archipelago’s past, with the undertaking of a considerable number of historical studies on different episodes of the past, produced by local as well as outside specialists (for example: Barbançon 2003; Bencivengo 2014; Drouet-Manufekai et al. 2009; Merle 1995; Muljiono-Larue et Larue 1994, Naepels 1998, Pidjo 2003, Terrier 2003, Van Mai 1994).

The publication of numerous books and scientific and popular articles, as well as the presentation of papers at colloquia and public conferences, should have allowed a dispassionate approach to the Caledonian past at the start of the XXIst century. However, local society continues to be affected by basic divisions over the rights that history brings (for example, Angleviel 2003; Graille 2015). On no other historical subject are the disagreements so plain as – for more than a century – those around the recurrent question: “Were the Kanaks the first inhabitants?”. This apparent non-question to anyone

used to envisaging human history as a dynamic process of rootedness in place as well as of relationships of exchange with the outside world, has again gained attention in the recent Caledonian context. The hypotheses and analyses regularly re-introduced from the 1880s onwards by each new archaeological generation working on the past of the archipelago, confronted by the multi-millenary Oceanic approach to time which is equally contemporary in a context of anti-colonial claims (Sand et al. 2011), continue to produce among New Caledonians a politicised discourse around a scientifically defunct question concerning “Kanak legitimacy”.

This paper attempts to analyse the foundations of this question, through a historical presentation of archaeological studies undertaken over the last 150 years in New Caledonia. The study of the different theories which developed in a colonial context and then were mirrored by the progressive construction of a unifying Kanak identity from the 1970s onwards, allows better understanding of the mechanisms which have permitted the contemporary revival of this questioning. The instrumentalization of archaeological findings to serve political ends, in the colonial context as well as in the context of moves towards decolonisation, is illustrated by the similar ways in which the narrative on the precolonial past of these southern isles of the Melanesian crescent has been constructed across the different phases of this process.

ARCHAEOLOGY, ITS POLITICAL INSTRUMENTALIZATION AND THE KANAK ORAL TRADITION

No society in the world treats its history in a neutral fashion without linkages to the daily lives of its population. It thus follows that archaeology, the science of the material traces of history, cannot be entirely detached from its contemporary context. Despite denials during presentations made to the public at large, this is a science of a profoundly political character (Kohl 1998). It developed during the emergence of European nation states in the XIXth century, with its first objective to contribute to conceptualising unifying ‘origin myths’, searching for an ‘original unity’ in the buried remains in order to transform them into an idealised, legitimated history of the modern nation (Schnapp 1993). Archaeological analysis was thus often influenced by the political and social context which underwrote the research (Diaz-Andreu 2001). This was particularly true in the colonial context, where the archaeology of non-Western societies has often until very recently been the exclusive privilege of non-local researchers, coming to study ‘scientifically’ the past of ‘the Other’ (Schlanger and Taylor 2012). In the context of processes of decolonisation, the Indigenous elites of certain of these societies have legitimately raised the issue of the “colonial” nature of archaeology (for example, Cornelis 2012; Sartre 2017), and its role in potentially deconstructing –through the study of traces excavated from ancestral lands – their oral traditions and their local historical legitimacy.

New Caledonia is a place particularly representative of such processes of instrumentalization of the past, archaeological discourse there having always had a political role in addition to its strictly scientific contributions towards historical knowledge.¹ In effect, it is the definition itself of what characterises “history” which is fundamentally debated, the Kanak claiming a specifically Oceanic approach to the past. This approach derives from millennia of development of an island perspective on history. Conceptually and at the risk of excessive caricature for specialists, the structure of old Kanak traditions (Tjibaou 1976) can be defined as a constant fluctuation between two approaches to the past, the one mythical in character and above all symbolic, and the other applying itself to ‘historical’ events and people who really existed (for examples, Leenhardt 1930; Guiart 1963, 1992; Métais 1988; Bensa and Goromido 2005). The porosity between myth and history in traditional Kanak discourse, always underwritten and justified by the affirmation of clan legitimacy in a particular place, often renders a chronological structuring of time difficult (for example, Tjibaou 1976, Pillon 1999). Yet, this enumeration of ‘time’ is the context for the analysis of ‘history’ as conceived of within a Western approach. This resulted in a dichotomy of approaches of the meaning given to the ‘past’, thought of on the Oceanian side as a tool permitting the affirmation of the primacy of local groups and justifying their attachment to a territory through fluctuating and many-sided narratives, and on the Western side, as an historical research tending towards an account as near to past ‘truth’ as possible.

Contrary to the myths of central and eastern Polynesia, full of civilising heroes who were the discoverers of virgin lands, Melanesian myths of origin offer for the most part a structure giving birth to humans from the earth. If today the mythic cycle of Téa Kanake from the Paicî linguistic area is valued as an account of the origin of a unitary Kanak people, to the detriment of Kanak myths from other areas of the archipelago (Tjibaou and Missotte 1976), it reflects nonetheless quite well a fundamental aspect of Kanak cosmogony: the first human came from no other place than the island itself. This principle being affirmed, Kanak narratives could without contradiction allow the arrival over time of new canoes, often recalling their point of origin in islands further north in Melanesia – such as the groups of the Xetriaan network (Guiart 1963; Sand 1995: 203-212) or even further away in western Polynesia (Guiart 1953, 1963). A certain number of local accounts make note of actual ‘replacement of groups’, whether by the departure into exile of former land holders, or through what could be defined as localised ‘exterminations’.² The conceptual context of historical legitimacy on the land was at the same time so codified between first occupants and those who arrived later, that Kanak organisation had integrated an apparently paradoxical tradition of access to political power, in creating a mechanism reserving the position of ‘chief’ to the latest arriving group (Leenhardt 1937; Bensa and Rivierre 1982). Even if this tradition is not unique to

1 - Despite the length of its bibliography, designed with the objective of being representative of the diversity of views over time, this paper does not attempt to make reference to the entire corpus of books, papers and reports published on the archaeology of New Caledonia.

2- While Kanak generally consider such events as indisputable facts, these accounts are debated among anthropologists, with some specialists denying outright their historical veracity (cf. Guiart 2002). In order to avoid polemicalizing the issue, this question will not be taken further here. For an example, see Mathieu (1868).

the Kanak and can be found in other Melanesian societies (Kaplan and Rosenthal 1993), it witnesses probably better than any concrete example, that the New Caledonian archipelago has seen the regular arrival since the first peopling by Lapita groups 120 generations ago of canoes coming from neighbouring islands, bringing Oceanic families of different cultures.

ARCHAEOLOGY IN THE NEW CALEDONIAN COLONIAL CONTEXT

The tripartite division of Pacific peoples proposed by Dumont D'Urville in the 1820s has fossilized Oceanic populations in ethnographic writings since that time, with a rigidified classification through considerations that are above all racial (cf. Tcherkezoff 2009). Even though the indigenous population of the north east of the island named New Caledonia by James Cook in 1774 had been described in particularly favourable terms by the English navigator (Beaglehole 1961), the identification of cannibalism and endemic tribal warfare by the Western visitors who followed quickly classed the Kanak in the less respectful category of 'savages'. The question of 'origins' of the Melanesians however was not a central theme in writings on the Pacific for a long time, this question being only asked above all of the Polynesians, dispersed over hundreds of small and isolated islands across the immensity of the eastern Pacific (cf. Kirch 2017: 12-27). The presence on those islands of monumental constructions such as *marae*, large *paepae*, *tiki* and great megalithic walls, permitted the Westerners to rehearse hypotheses in echo of those relating to the ancient Mediterranean. Nothing of that was seen in Melanesia, where the supposed violent and primitive character of the indigenous population retarded the process of Christianisation engaged ahead of colonial possession of the various archipelagos. As noted by Dotte-Sarout (2017: 31), to accept the existence of a long prehistoric past for the populations of the southwest Pacific considered by the Europeans to be themselves 'prehistoric' was intellectually difficult (cf. Testart 2012: 33). Thus it was more simple at the end of the XIXth century to follow Dr J.B. Maurice Vincent in considering that "Nothing of the Kanak past remains. No monuments, no writing, no old legends, no symbolic signs fixing them in time. It is almost impossible to follow succinctly their appearance and their evolution over time in New Caledonia; one cannot even give a schematic outline" (Vincent 1895: 11).

The early writings of Gustave Glaumont

In the regional context, New Caledonia was the first archipelago of the Melanesian arc to live under colonial rule in a settlement process, following from the French taking possession in 1853 (Saussol 1979). While noting missionary accounts and observations (for example, Lambert 1900) or general writings (for example, Bertillon 1872, Gaphier 1870) and descriptions from colonial reports, it appeared that the first body of writing on the Kanak past taking an archaeological approach was that of a penal administrator, Gustave Glaumont.³ Based in New Caledonia between 1884 and 1891, he had the opportunity through his employment on the Isle of Pines, then at Bourail

³ - For a more detailed analysis of this early period see Dotte-Sarout (2017).

and in the Diahot region to visit former sites of Kanak habitation, abandoned for several years or decades at least. He was impressed by the extent of traces of taro irrigation that can still be clearly seen on the slopes of various hills that extended to the foot of Mont Mé Ori (Glaumont 1897). During his visits to the tribes, he noted down Kanak traditions, obtained artefacts and made word lists of languages (Glaumont 1888). He was the first to publish an article on the existence of petroglyphs in the archipelago (Bonnemère 1895a, 1895b) and undertook stratigraphically-informed excavations (Glaumont 1889).

The result of all these activities was a first attempt at a chronology of Oceanian settlement of New Caledonia, firmly based on the European periodisation. In the second half of the XIXth century the West saw the first real development of the discipline of archaeology (cf. Murray and Evans 2008), permitting the construction of a historical framework stretching back to the prehistoric past. Glaumont recognised in his excavations and other observations what he considered to be similarities with the major European prehistoric phases (Glaumont 1888; Giglioli 1896). First human arrival was thus envisaged as having taken place at a time when humans lived in caves, the 'Paoro Man' being equivalent to the 'cave dwellers' of the Palaeolithic 'flaked stone age'. The chronology put forward by Glaumont finished with the 'Nessadiou Man', a farmer and pottery maker (Glaumont 1895), who was the local equivalent to people of the Neolithic 'polished stone age'. This 'Nessadiou Man' developed the characteristics of the indigenous culture of the archipelago observed by the Westerners from the end of the XVIIIth century.

Despite imposing an exogenous veneer on the Caledonian context in creating its cultural chronology, Glaumont was well-disposed towards the Kanak and this explains his willingness to propose a historical continuity between the succeeding periods. Contrary to many archaeologists of the time in Europe (Gran-Aymerich 1998), he did not have recourse to a succession of peoples in order to explain the cultural changes that he recognised from his excavations. On the contrary, he affirmed for example of the rock engravings that they "are contemporary with the culture that we have described, perhaps marking the beginnings of this culture" (Glaumont 1888: 113). Through this approach Glaumont demonstrated a unique perspective in the colonial context of the time (Dotte-Sarout 2017: 30).

The impact of Marius Archambault's hypothesis

A decade later, another colonial officer, postmaster Marius Archambault, took an opposite position to that of historical continuity as argued by Glaumont. Intrigued by the petroglyphs that he saw throughout the archipelago, he began an inventory, accompanying some of his observations with photographs. Although from the start of the XXth century, writers who have defended the idea of a late arrival of the Kanak in New Caledonia have principally based their arguments on oral tradition in developing their theories, Archambault was

the first to use archaeological remains as the main plank of his interpretations. His interpretation of the complexity of the petroglyphs “leads us far from these frizzy-heads” (Archambault 1908: 309). The first publication on this topic that he placed in *L'Anthropologie* in 1901 gives the flavour of his approach:

“These monuments (i.e. the petroglyphs) should not be attributed to the Canaque population that presently lives on the island... This leads us to attribute the Caledonian megaliths to a race that would have lived on the island before the present Canaques... Did it disappear because it was chased away or exterminated by a cataclysm, a deadly change in the climate, an epidemic, or was it conquered, massacred or absorbed by men of the Melanesian race?” (Archambault 1901: 266).

Archambault - who however was obliged to recognise that the Kanaks had oral traditions concerning the petroglyphs (1901: 266) - justified his conclusion through a clearly racist viewpoint:

“Apart from the fact that the Papuan races – of which our native New Caledonians are part – have never, to my knowledge, demonstrated any propensity to carve symbolic signs on rocks, the lack of interest they have in rocks and glyphs would be sufficient to demonstrate that these have nothing to do with their existence... The native New Caledonians, in other ways very dissimilar, present the extremes of refinement and grossness. Artistic to a very weak degree... he is a mediocre grower but a fine irrigator... But these talents do not suit his taste, through natural aptitudes, for the Canaques will only work under the order of his chiefs; he would prefer to live on the worst food available as long as it costs him nothing” (Archambault 1901: 266).

This weighty narrative, developed over at least 11 articles and publications refuting the theory of cultural continuity presented by Glaumont, marks a major turning point at the start of the XXth century in approaches to the archipelago's past. Progressively planted in colonial Caledonian society from this point⁴ was the idea that “the Kanak are not the first inhabitants”.

Scientists between the wars and the origins of the Kanak

The interwar years saw the dismantling of the Caledonian penal system, the start of an exodus of a section of the smallholder colonists to Noumea and a disengagement by the colonial power, taken up with the post-war reconstruction of France. Several works continued to examine locally the origin of the ‘natives’ during this period, particularly those of pastor Maurice Leenhardt (1930, 1937).⁵ Contradicting Archambault, the philosopher and psychologist Georges-Henri Luquet concluded, following an exhaustive analysis of the Caledonian engraved images taken from Archambault's photographs, that the petroglyphs fit without doubt within an indigenous graphic system identifiable across the other forms of Kanak art (Luquet 1926: 100-103). A similar conclusion was reached by the Swiss anthropologist Fritz

4 - The first decades of the XXth century are historically characterised by the phase of most harsh period of ‘native regime’ for the indigenous population, but also by the end of the process of Kanak depopulation and the beginning of the first claims for land by returning Kanak who had been recruited to go overseas in World War One

5 - It must be stressed that Leenhardt's writings on traditional Kanak society did not present any significant chronological perspective (cf. Leenhardt 1937: 97)

Sarasin (1917: 10-11). This did not prevent the latter, however, based on his collection of Kanak skeletons looted from ancient cemeteries during his expedition of 1911 to 1912, from publishing an article entitled 'On the relations of the New Caledonians with *Homo Neanderthalensis*'. Providing an authoritative opinion, this theory allowed the affirmation of the following conclusion from the official publication on France's Pacific colonies published for the Grand Colonial Exhibition of 1931 in Paris:

"The study of the Canaque skeleton has led several authors, such as pastor Leenhardt and Dr Sarasin to recognise that the Caledonian represent a very primitive type of modern humanity, earlier even, it may be supposed than not only the Australians but even perhaps than all fossil humans that have been discovered to the present-day" (Archimbaud et al. 1931: 13).

In this interwar period the Kanak found themselves classified by the scientific establishment as one of the most primitive branches of humanity.

The triumph of the theory of 'succession of races'

Throughout this period, the few amateur publications produced in the Caledonian colony continued to deny any Kanak legitimacy in regard to the distant past of the archipelago. Thus, T. Oriol concluded yet another paper on the petroglyphs in the local journal of the *Société des Etudes Mélanésiennes* (Society of Melanesian Studies) founded on the initiative of pastor Leenhardt, by affirming that the engraved rocks "are the work of a group earlier than the current indigenous Melanesians" (Oriol 1948: 46). It was again an amateur archaeologist that we must blame, after the end of the Second World War, for having pushed to its extremes the theory of 'succession of races' in Caledonian history. The geologist Jacques Avias, recruited by the new French research organisation called L'Institut Français d'Océanie (IFO or the French Institute for Oceania, the future ORSTOM-IRD) to map the geological diversity of Grande Terre, undertook numerous archaeological observations during the course of his expeditions. In the context of presenting his main discoveries, he developed a historical chronology based on archaeological remains, presenting a tripartite model of the pre-European past. During the most distant times "small, black 'proto-tasmanoids' with frizzy hair and flattened noses" (Avias 1949: 48) were living in New Caledonia. These 'earlier inhabitants' witnessed the arrival of 'Ainu' navigators, whose origin was clearly stated by Avias:

"the culture under consideration, seems to have corresponded to one or more migrations, *most likely of white people at the outset... probably coming without doubt from northeastern Eurasia...* related in a distant but unquestionable manner with the Neolithic populations of central Asia, the Caucasus and Europe [and] in a probably much more direct manner the 'Proto-Ainu' of Neolithic Japan" (Avias 1949: 48, italics in the original).

One of the important markers supposed to have characterised these populations was the manufacture of finely-decorated pottery with geometric dentate motifs, noted from near the start of the XXth century from a beach in Koné (Piroutet 1917) and only a few years previously from a beach on the Isle of Pines (Lenormand 1948). This ancient group “related to the ancestors of *today’s whites*” (Avias 1950: 137, italics in the original), “who must have engraved the celebrated ‘petroglyphs’... would have finally been destroyed by a Melanesian (Papuan) invasion before the latter absorbed Polynesian elements and produced today’s ‘Canaque’ population by the beginning of this century” (Avias 1960: 113).

The theory of racial successions during the course of Caledonian prehistory championed by Avias (1953), with the ancient population “subsequently absorbed and destroyed by the less evolved and probably more ferocious culture of Melanesians proper” (Avias 1950: 134), was equally accepted by other prominent researchers of this time period. Pastor Leenhardt published a paper in 1951 entitled ‘The problem of migrations in New Caledonia’, concluding on the basis of a series of Kanak oral traditions that the archipelago had seen successive migrations, of whom the carvers of the petroglyphs were described as “a light-skinned people” (Leenhardt 1951: 316). The same year, the historian Jean Poirier (see also Poirier 1953) synthesised the argument in a ‘definitive’ manner: “The ‘Canaque’ ethnic group of today is thus a composite ensemble which has been formed since a Canaque migration installed itself on the Grande Terre, a migration which absorbed entirely little by little non-Canaque ethnic groups that had preceded it in this habitat” (Poirier 1951: 173).

The difficult birth of new hypotheses

No researcher working on New Caledonia tried to contradict this apparently ‘scientific’ demonstration of the theory of ‘succession of races’ at the time of its publication in the *Journal de la Société des Océanistes* at the start of the 1950s. The idea didn’t shock anyone in the new historical context as the colony drove itself towards modernity, marked by the entry of the indigenous population into political life, claims for autonomy and the struggle for wage parity by the first independent trade unions (Kurtovitch 1997). Few researchers during this decade took account of the conclusion of the first truly scientific program of archaeological research, undertaken in 1952 by American archaeologists Edward Gifford and Richard Shutler Jr. In the course of their six months of survey and excavation exclusively on Grande Terre,⁶ most significantly they undertook the first stratigraphic excavations of a beach site on the Foué peninsula near to Koné, that they named ‘Lapita’ (Sand and Kirch 2002). They used the novel technique of radiocarbon recently invented by Willard F. Libby to date the layer associated with dentate-stamped pottery to about 800 BC. At the end of their analyses the two American archaeologists concluded that there was no preceramic human occupation (Gifford 1953) and that nothing in their studies signalled a brutal replacement of population

6 - Despite the six months of this expedition, only two paragraphs of a few lines were published in the newspaper *La France Australe* about the program of archaeological research (cf. Sand and Kirch 2002: 183).

at any time during their prehistoric chronology (Gifford and Shutler 1956: 95).

During the same years 1950-1960, the Caledonian ethnobotanist Jacques Barrau, during the course of a survey addressing the future of Kanak agriculture, took the measure of the extent of abandoned indigenous horticultural structures and of the significant traces of former settlements found across Grande Terre. His conclusions directly questioned the historical and ethnographic orthodoxy postulating that the Kanak had not been numerous prior to European arrival. The hypothesis of a more numerous pre-colonial indigenous population was so explosive that Barrau's local contract was not renewed and he saw a long text by the ethnologist Jean Guiart imposed as an introduction to his publication by the South Pacific Commission (Barrau 1956). In the very first Caledonian school textbook, published in 1959 under the leadership of Jean Le Borgne, the author made clear – having noted that “the [indigenous] population developed through successive migrations” (Le Borgne 1959: 97) – that “on Maré it is under the name of Eletok that one designates the first inhabitants about whom elsewhere we know very little” (Le Borgne 1959: 99).⁷

7 - A major work on the Eletok was published by Father M.J. Dubois (1976).

ARCHAEOLOGICAL WRITINGS IN THE CONTEXT OF ANTI-COLONIAL CLAIMS *Turning point in the 1960s*

Building on the first archaeological programs undertaken over the previous two decades, the 1960s saw a turning point in the history of scientific archaeology in the western Pacific, with the putting in place of the first teams of professional specialist on Oceania at various universities in New Zealand and Australia. The principal theme of these researchers was the first peopling of the region (Golson 1959), in which New Caledonia appeared to have held an important place. One of the very first long-term expeditions of Jack Golson's team took place on the Isle of Pines in 1959-1960 (Golson 1961, 1962), several years before he sent his student Colin Smart to excavate several pottery sites on the southwest coast of the Grande Terre for his doctoral research (Smart n.d., Vanderwal n.d.). From the results of these excavations Golson proposed a revolutionary hypothesis for its time, considering that the Lapita period had the characteristics of a ‘community of culture’ pre-dating the cultural divide between Melanesia and western Polynesia (Golson 1961: 76). This idea of breaking down the division between Melanesians and Polynesians did not gain unanimity among Pacific archaeologists, with Roger Green insisting upon a direct link between the Lapita tradition and the Polynesians (Green 1967, 1973).

Local archaeological studies in New Caledonia also increased during this decade, in particular under the impetus of the Director of the Territorial Museum, Luc Chevalier. Following the recording of new petroglyph sites (Chevalier 1959, 1964), of the excavation of ‘tumuli’ (Chevalier 1963) and the discovery of a series of pottery sites (Chevalier 1967), Chevalier put forward a synthesis of New Caledonia's past in 1965 (cf. Costes 1965). Without formulating any conclusions about

the origins of the Kanak, he demonstrated, for example - contra Avias (1950) - that "the pottery with handles of New Caledonia is a Melanesian pottery" (Chevalier 1967: 49). The Marist priest J.M. Dubois who had been collecting numerous Kanak oral traditions since the 1940s in the different islands where he was stationed, also wrote some articles and other publications in the field of New Caledonian archaeology (for example, Dubois 1970, 1975, 1981).

New Caledonian archaeology in the context of the anticolonial struggle

In New Caledonian political history, the end of the 1960s was marked by the appearance of new cultural and political claims on the part of a section of Kanak youth (Chappell 2013). This was when the archipelago underwent a major economic boom thanks to nickel, leading to the arrival of a new wave of immigration coming principally from France and the Polynesian islands. For the first time – if one excludes the writing of the informants of Pastor Leenhardt such as Bwesou Eurijisi (Guiart 1998) or the other rare examples of Indigenous writings on the ancient past (for example, Naisseline 1953) – a Kanak author wrote a historical piece with the political aim to present the Kanak approach to the past (Anova-Ataba 1969). At the same moment in Nouméa a *Société d'Etudes Historiques* (Society of Historical Studies) was established as a counterweight to the *Société des Etudes Mélanésiennes*, with the will of descendants of the colonists to research on the archipelago's past by publishing detailed studies as well as syntheses. It is not a coincidence that the first thematic work of this new academic society was a 1971 book titled *Kounié or the Isle of Pines* by the local historian George Pisier which presented a synthesis of the entire history of the island. Several years later the public works engineer Bernard Brou published *Prehistory and Traditional Society of New Caledonia* (Brou 1977) in the same series, a re-worked version of his 1970 publication. He again took up in detail the theory of 'succession of races' supporting his remarks with numerous examples drawn from Caledonian and regional archaeology. The chronology presented in the original version was divided into three major phases. After a first peopling "as of the Palaeolithic...of small men with black skin, flat noses and frizzy hair" (Brou 1970: 23) came the "sudden arrival in New Caledonia, twenty centuries before our era... of immigrants of white origin" (Brou 1970: 38-9), which began "the golden age of local prehistory: Lapita pottery, petroglyphs, megalithic construction" (Brou 1970: 48), before the later arrival of the ancestors of the Melanesians (Brou 1970: 44-7).

If the general framework of the hypotheses of Archambault and Avias were reaffirmed by Brou – under his own name or under that of a pseudonym (Paléo 1977) – all through the 1970s Caledonian archaeology was influenced by the new politicisation of the past of the country. This translated on the part of many Kanak into a rejection of the contribution of archaeology to the knowledge of their own past. The archaeologist Jean-Pierre Maitre, holding a position at ORSTOM

in the second half of the 1970s could not obtain authorisation to begin an archaeological program in the Loyalty Islands, the customary authorities refusing him access to the area (Daniel Frimigacci, personal communication, 1983). This science was clearly thus perceived as 'colonial', the Kanak having the feeling that it was principally focussed on themes tending to deny Indigenous legitimacy on the past. This viewpoint was not wholly unfounded as the three major subjects of study of the sole professional archaeologist working in the archipelago from the end of the 1960s, Daniel Frimigacci, were devoted principally to Lapita sites (Frimigacci 1977; Siorat 1990), petroglyphs (Frimigacci 1976, Frimigacci and Monnin 1980) and the 'tumuli' (Frimigacci and Maitre 1981). He had tried, under the guidance of ethnologist Jean Guiart, to undertake a program of ethnoarchaeology in the region of Mont Mé Ori between Bourail and the high Kouaoua, applying a model of research developed successfully by José Garanger (1972) in Vanuatu (formerly the New Hebrides). But the growing tensions caused by Caledonian land tenure issues were such that there was opposition from a large part of non-Kanak political and administrative areas at the time towards archaeological work carried out specifically about Indigenous heritage, thus preventing the program from being effectively achieved (Frimigacci 1974: fig. 101).

In Caledonian society in the 1970s the raising of claims for independence (Chappell 2013) led increasingly to a hardening of historical attitudes, with the affirmation in anti-independentist writings that the Kanak did not have historical legitimacy for launching a decolonisation process, for "they were not the first inhabitants" (Carloz 1976; Surleau 1970). Opposing this, Kanak leaders chose a major semantic rupture in the idea of history from this decade onwards in structuring a narrative around the notion of 'first inhabitants' (Graille 2015). This concept is known elsewhere in the context of anti-colonial struggle and defined by some as an 'invention of traditions' (for example Babadzan 1999, Douaire-Marsaudon 2002, Hobsbawm and Ranger 1983). It is characterised, amongst other things, as a rejection of the notion of chronology and cultural evolution, fundamental to Western 'historical science'. The narrative of 'first inhabitants' was constructed around a myth of origin explaining the emergence of humans on Kanak land, followed by a timeless existence, characterised by an unchanging traditional culture, where each generation pursued its daily existence in the same way as previous generations (Tjibaou and Misotte 1976). As J.M. Tjibaou stated, "(i)t seems that we cannot speak of a notion of time, intellectualized, objective, and therefore able on the one hand to be understood as a kind of totality and, on the other, that can be cut up into a calendar. That is devoid of interest for the Canaque" (Tjibaou 1976: 285).

In the political process at play, multiple clan and chiefdom histories are relegated to the local sphere to the benefit of an integrating history of the culture hero Téa Kanake, having a unitary and national character for all 'Kanak people' in a movement of anti-colonial

struggle. In this new context, archaeological writings sought to propose a middle way between the two conflicting approaches to the Caledonian past. Thus, Daniel Frimigacci in 1977 published a synthesis on New Caledonian pottery chronology, concluding that “Lapita potters are found in New Caledonia for close to a millennium, when new traces of a population having a different ceramic tradition appears. These new arrivals will co-exist with the Lapita during close to 12 centuries...That is to say that the Melanesians of today are... the result of a large-scale mixing of populations” (Frimigacci 1977: 82).

Opposed discourses during the period of the “événements”

The decade of the 1980s, culminating in the civil war of 1984-88 (the *événements*/events) saw this process of opposition between divergent historical narratives carried to its extreme in New Caledonia. The New Caledonian Museum which opened in 1983 abolished the notion of history in putting objects of different eras side by side, without any chronological context. This museological approach stripped the galleries of archaeology as it did too with any colonial remains, in order to focus exclusively on cultural artefacts and Kanak traditions, presented again without chronological context. In this it took up the Kanak idea which would consider that:

“the history of a clan is not inscribed in a linear succession of epochs, but appears as a collection of scenes, organised on a unique plan in hierarchical and spatial order, as required by a politics stressing the security, cohesion and survival of the group” (Tjibaou 1976: 287).

The 1982 creation of an *Office Culturel Scientifique et Technique Canaque* (OCSTC, Kanak Cultural, Scientific and Technical Office) by the Government of Jean-Marie Tjibaou, in which archaeologists – under the leadership of Jean-Christophe Galipaud, at the time preparing his PhD thesis (1998) – and Kanak ethnologists worked together, opened up unique perspectives for collaboration on ancient Kanak heritage. The difficulties of organising field visits in periods of road-blocks during the *événements*, however, prevented the undertaking of coordinated programs. Because of the destruction of the archives of the OCSTC by a fire at its offices in 1987, a large part of the results of work carried out during this violent period in the history of the country are today lost to us. A first Kanak work on the history of the country was published in 1983, with the supposed 4000-year history of the pre-contact period reduced to four dates (Collectif 1983: 5).⁸ Only the emergence of an anticolonial resistance starting from the time of French possession was seen to justify a chronological and event-based narrative.

8 - This work had drawn upon the research of progressive Caldoche historians (C. Terrier, personal communication, 2018). An almost identical text was republished in 2003 to mark the 150th anniversary of the French taking possession of the archipelago (Comité du 150ème).

In the semantic domain, this decade saw the process of adoption of the official term ‘Kanak’ in Caledonian archaeology to designate symbolically all types of pottery produced by the Pacific peoples of the archipelago, from the Lapita pots made around 3000 years ago to the pots of the ‘Oundjo Tradition’ described for the first time by James

Cook at Balade in 1774 (Galipaud 1984). The integration of archaeology as one of the components recognised by the OCSTC (Monnin 1986) demonstrated however that the need to go beyond the simple notion of ‘first inhabitants’ had been identified by Kanak leaders. This had an important consequence in taking archaeology into account (Galipaud 1990) in the introduction to the first ever international exhibition on Kanak heritage mounted at the start of the 1990s under the title *Of Jade and Mother-of-Pearl Shell* (“*De Jade et de Nacre*”, Collectif 1990).

On the non-independentist side, the decade of civil war was characterised by a continued recourse in publication to ‘proofs’ permitting the denigration of the historical rights of Kanak to claim their freedom (cf. SEH 1982, Buchalski and Petron 1988, Dubois 1983, Griscelli 1987, Paléo 1988). While in a work on the peopling of the Pacific published in 1978, New Caledonia was defined as an archaeological ‘no man’s land’ (Bellwood 1978), the first real attempt at chronological synthesis of archaeological research was published in English by two New Zealand researchers (Green and Mitchell 1983). ORSTOM, which had produced a significant number of internal archaeological reports of limited distribution since the end of the 1970s (for example Frimigacci 1981), for its part disengaged from most Caledonian archaeology from the start of the period of the *événements*. After the discovery of a Lapita site on the west coast of Wallis (Uvea) by Daniel Frimigacci’s team (published 2016), the French Overseas Minister, Bernard Pons, declared to the media in 1987 that archaeologists had proved that Wallisian-Polynesians had occupied New Caledonia before the Kanak. These semantic shortcuts where “Lapita Kanak pottery” was opposed by “Lapita, the first Polynesian inhabitants” illustrated the entrapment of archaeology in a heavily politicised approach to the past during the *événements*. This period ended with the publication of a synthetic article posing the question of whether there had been “one or more pottery-using people in New Caledonia” (Galipaud 1992).

The return of peace at the end of that decade symbolically closed a page in the history of New Caledonia, which associated with colonial processes. A survey of the major publications (reports, scientific journals and publications, without including general works) treating of the questions gaining attention in Caledonian archaeology between 1880 and 1990, can be illustrated in a graphic (Figure 1) showing the anecdotal character of archaeology during the colonial period and after the War. It shows the slow increase of works on the subject from the 1950s, with a clear rise since the creation of lasting structures in the locally-based institutions of research (Museum of New Caledonia, IFO-ORSTOM, OCSTC). On the other hand, it is necessary to note that even during the most productive years, the number of publications never exceeded one or two scientific articles and a few reports, produced at most by two or three trained archaeologists and various amateurs.

FROM ARCHAEOLOGY IN THE SERVICE OF A COMMON DESTINY TO ARCHAEOLOGY IN THE SERVICE OF PUBLIC ADMINISTRATION

At the end of the civil war of the 1980s, the political choices made by the political parties as defined in the Matignon-Oudinot Accords of 1988, followed by the Nouméa Accord of 1998, led to the division of the archipelago into three provinces, with decentralisation as an important aim. One of the devolved responsibilities was culture, including archaeology. Nevertheless, the desire to maintain a nationwide united archaeological effort led to the creation in 1991 of an embryonic Department of Archaeology (DANC) within the New Caledonia Museum, the only major cultural institution of the archipelago remaining as a Territorial responsibility. Composed of two then three employees (Christophe Sand, André-John Ouetcho and Jacques Bolé), all of New Caledonian origin, the DANC defined a certain number of rules and objectives from the beginning of its establishment, intimately linked in their development to influences on the one hand from historical processes of the evolution of archaeology in the course of the preceding decades, and on the other by perspectives immediately hoped for by New Caledonians in search of lasting peace. The central theme of study identified in 1991 concerned Kanak archaeological heritage, with the objective of linking ethnographic and archaeological findings. Fulfilled with a 'militant' approach, it has been a fixed aim for now nearly three decades that archaeological interpretations must contribute to supporting and valuing the various historical legitimacies of the Caledonian ethnic kaleidoscope (see Dahlem 1996 for an alternative approach). This has permitted an exponential growth of contributions about the archipelago's past in the course of the last 27 years, as illustrated in Figure 2.⁹

9 - Reports published by other researchers not being all available, this graphic includes only the publications on New Caledonian archaeology written by the DANC and subsequently the IANCP between 1991 and 2017.

A chronology of the 'long term'

In the course of its first decade of existence, the DANC increased fieldwork and programs, whether by 'rescue' operations after the fortuitous discovery of sites, by archaeological programs instituted for cultural resource management ahead of development projects, or by pure research projects. The overwhelming focus on Kanak archaeological sites during the first years of the DANC allowed mapping of dozens of abandoned settlements for the first time along with their associated yam mounds and irrigated taro terraces (for example, Sand 1999a, Sand et al. 1994). Excavations carried out for the first time on these traditional infrastructures so essential for ancient Kanak existence, allowed to place them in a chronological framework that until then had been missing (Sand 1997a). Survey and excavations took also place on the three largest islands of the Loyalties group, identifying a hitherto unexpected density of sites of different periods in these limestone environments (for example, Sand et al. 1995). A program of landscape archaeology was undertaken during the same period by ORSTOM in the valley of Koumac (Guillaud and Forestier 1998, Guillaud and Sémah 1997).

These various results, combined with the information published by the preceding generations of archaeologists allowed the publication in the mid-1990s of a holistic synthesis of the past of the archipelago, using an approach to archaeological analysis of the 'long term' (Sand 1995). This stressed in particular that no archaeological elements were able to demonstrate the existence of one or more episodes of population replacement over time, whether by the typology of pottery or in non-ceramic material. If significant changes in material culture and site use in the island landscape are clearly identifiable, these could be explained simply by processes of settling down and of local adaptation, causing a transformation of the natural environment and then an intensification of occupation of the landscape during the traditional Kanak period (Sand 1996). On the other hand, archaeological information does appear to question the supposed absence of massive changes in local societies following on from first Western contacts at the end of the XVIIIth century, the Kanak archaeological landscapes appearing more densely populated than had been described by anthropological research (for example, Sand 1995, Sand et al. 2000, 2007).

The chronological synthesis emanating from the first period of DANC research allowed concluding definitively that nothing demonstrates that "the Kanak are not the first inhabitants". Brought on by the calmer political atmosphere of the period of the two Accords in the last decade of the XXth century and the first of the new millennium, this question left the sphere of Caledonian discussions, apart from a few marginal publications continuing to entertain doubts (cf. Coquilhat 1989, SEH 1998, Sémah 1998). Assessing the significant imprecisions still present in the chronology, the conclusions of the synthesis underlined in particular: the need to work again on Lapita sites to make their chronology more precise; to better understand cultural dynamics and their evolution after the initial phase of human arrival; to take up again targeted research with an approach closely linking the archaeological traces to Kanak oral traditions; and framing a program on the colonial heritage of the archipelago.¹⁰ These four themes structured the majority of field operations undertaken during the subsequent decade, leading to major advances in the definition of cultural evolutions of the 'long term' (Sand et al. 2003a).

10 - This was done through excavations focused essentially on the Caledonian penal sites (for example, Sand et al. 2006).

In addition to its scientific importance, the discovery of the first complete Lapita pots in the Pacific in 1995 at the eponymous site of Lapita on the beach of Foué (Sand 1997b), brought about a collective appropriation of this symbol of 'first inhabitants' of the archipelago. For the first time a prominent Kanak politician stressed in an official setting the Austronesian and Lapita origin of the Kanak people (Roch Wamytan, personal communication, 2010). Several exhibitions on Lapita were held in New Caledonia (Sand 1999b) ahead of one in France (Sand and Bedford 2010). Customary exchanges took place between Pacific representatives in 2002 at the 50th anniversary of the excavation of the site of Lapita at Foué, the event financed from

public funds (Sand 2003). Much preparatory work has been done by the Northern Province for the creation of a 'Museum of Origins' at Koné.¹¹ A synthesis on New Caledonian petroglyphs was published, with the aim of studying these remains using a scientific approach (Monnin and Sand 2004). All these initiatives built in a period of active shaping of a 'common destiny' during the first decade of the new millennium, allowed to envisage that the question of Kanak legitimacy with the precolonial past of the archipelago was definitively solved (Sand et al. 2005). This period also allowed basic questions to be raised about the construction of narratives on the country's past (for example, Graille 1999, Pidjo 2003, Woudjo 2004) and the role of archaeology in them (Sand 2000, Sand et al. 2003b). Since the start of the 1990s an entire generation of school students have learned the 'prehistoric and traditional' cultural chronology of the archipelago (Collectif 1992), with some college students of different origins sharing the Caledonian past together in their 'heritage class' (Sand 2008).

The drift towards an exclusive focus on cultural heritage management of archaeology and its consequences

The exceptional economic boom that the Caledonian archipelago underwent after the Nouméa Accord of 1998 has brought about the development of many large-scale construction projects (nickel plants, roads, public and private infrastructure). The development of programs of cultural heritage management archaeology has become increasingly important, undertaken under the administrative banner of 'impact studies' and has been occurring in parallel with the taking in hand of the archaeological process by the administrative provincial entities, to whom responsibility for heritage continues to be devolved. The doubling of the number of local archaeologists employed full time to respond to the needs of such work, led to the setting up in 2009 of an autonomous public organisation, *L'Institut d'archéologie de la Nouvelle-Calédonie et du Pacifique* (IANCP, or Archaeological Institute of New Caledonia and the Pacific) (Sand 2016). Since its creation, the IANCP has confronted an imbalance in its programs. It found itself undertaking cultural heritage management archaeology almost exclusively. While this led to numerous discoveries (for example, Sand et al. 2013), the almost exclusive focus on 'rescue' archaeology led Caledonian archaeology into a new paradigm. In effect, from 2010 New Caledonians have progressively associated archaeology and the political provincial entities.

The hardening of attitudes in the Caledonian context with the approach of the 2018 referendum

The economic crisis that affected the archipelago starting in 2013, was associated with uncertainty over its institutional future as the referendum on self-determination approached towards the end of 2018. This degraded economic and political context fostered a revival of the binary opposition between those favouring independence and those wishing to maintain New Caledonia within the bosom of France. This political opposition saw a resurgence in debates on a question

which seemed to have been rendered meaningless only a few years before: “Were the Kanak the first inhabitants?” It is regularly nourished by privately published works (ex. Ludeau 2009) and in academic collections, asserting that “two peoples at least succeeded each other here” but that

“(t)he tyranny of political correct speech resulting from decolonisation does not allow this to be revealed... It is not allowed, it appears, to humiliate the Canaques by casting doubt upon the fact that their ancestors were the first inhabitants of the Caledonian archipelago. Once more the cowardice of current political correctness allows the worst excesses to the detriment of research on the real history” (Navis 2006: 156).

As another illustration of the return of tensions around historical legitimacy that have gripped the Caledonian population once again, the international exhibition *Kanak. Art is a Word*, (“*Kanak, l’Art est une Parole*”) displayed at the Musée de Quai Branly in Paris and subsequently in Nouméa, totally obscured the deep time history of the archipelago and the results of three decades of archaeological research in the country (Kasarhérou and Boulay 2013). The delay in the renovation program of the New Caledonia Museum begun in 2006 but which will not re-open until 2021, is explained in part by the difficulty the planners have in defining a unitary historical framework in the roll out of the displays, various approaches to the Kanak as well as for the colonial period having been proposed (Sand 2017). New publications propose ‘alternative’ ancient histories (for example, Ferdain 2012, Navis 2006). For its part, the Customary Senate, representing the different Kanak territories, decided in the middle of 2017 to forbid all genetic studies on the Kanak people for some years, in order to avoid the appearance of new tensions within the Kanak community and the risk of the use of results for political ends (Sénat Coutumier 2017).¹²

12 - These fears find a strong echo in recent genetic articles on neighbouring Vanuatu, publishing results with titles such as ‘Population turnover in Remote Oceania shortly after initial settlement’ (Lipson et al. 2018) and ‘Language continuity despite population replacement in Remote Oceania’ (Posth et al. 2018).

CONCLUSION

This article has put forward an historical analysis of the archaeological narratives produced over nearly 150 years on the ancient New Caledonian past. The interpretations put forward by amateurs as well as researchers of the information coming from archaeology, that human science studying the material traces left by ancestors in the soil, has been conditioned since the development of the discipline in the XIXth century by questions linked to its political context. As is shown in this summary, politics has been since the beginning, deliberately or as part of the context, at the heart of writings on the past of the Caledonian archipelago. During the colonial period, the dominant archaeological narrative developed the hypothesis of a ‘succession of races’, having as its principal objective to deny Indigenous legitimacy for the ancient past. Scientific research undertaken over the last half century has increasingly invalidated this interpretation, in showing through archaeological analysis the lack of major breaks in the cultural chronology over several millennia in the archipelago, while underlining the dynamics of cultural evolution over time, linked to processes of local adaptation and to regional influences caused

by the regular arrival of new canoe-loads of people. Since the 1990s the political objective supported by the structure of the history of the 'long term' was to permit the construction of a unifying Caledonian historical narrative, with the aim of creating the foundations for a 'common destiny' for the different cultural communities of the archipelago.

If at the start of the 2000s it seemed to be possible finally to banish the archaeological question of the "first inhabitants of New Caledonia", in showing that the Lapita were the oldest ancestors of the Kanak although not their only ancestors, the approach of the referendum on political self-determination, that took place in November 2018, saw the resurgence of antagonistic claims, which relied on multiple historical legitimacies amongst other things. Social networks as much as certain narratives brought back into salience the question of the 'first inhabitants'. If the previous decade had given some hope that New Caledonia had reached a new level of sufficient social cohesion among the different cultural components, permitting them to collectively value its history, it turned out to be far from being the case. This state of affairs can only lead to questions as to whether New Caledonians have the capacity to envisage together recognition of a single and shared past (Bernut-Deplanque 2002). But, as shown as much by successes as well as setbacks across the world, all national unity is constructed on a unifying 'myth of origin' (Sand et al. 2008). One must still imagine a myth linking archaeological information and the Kanak approach to the past, to allow a multicultural New Caledonia to continue to be created.

Figure 1: Summary of the major unpublished reports, papers and other works on New Caledonian archaeology between 1881 and 1990.

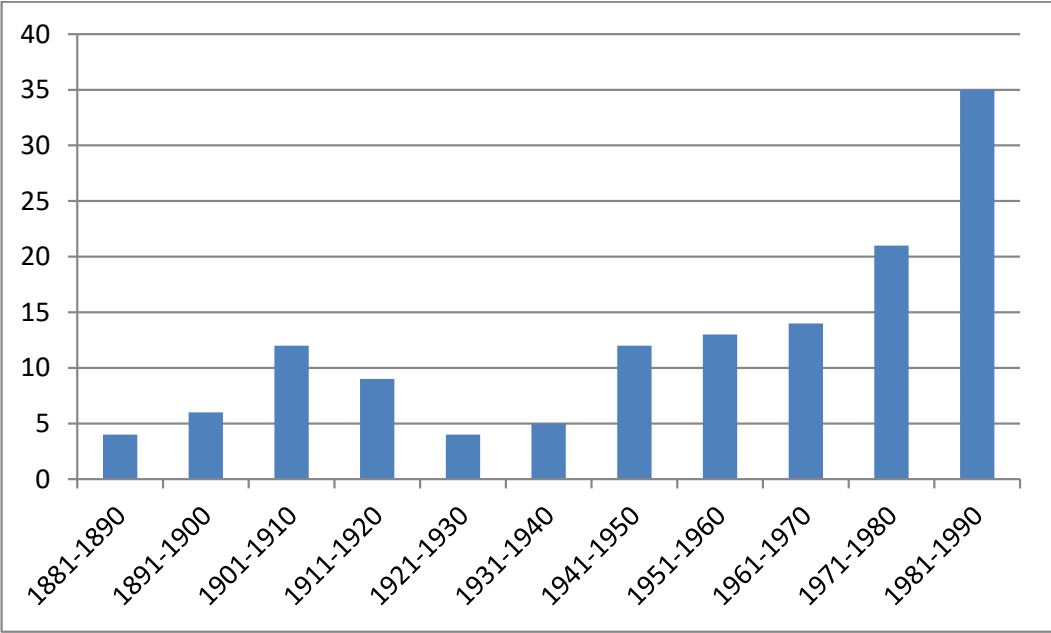
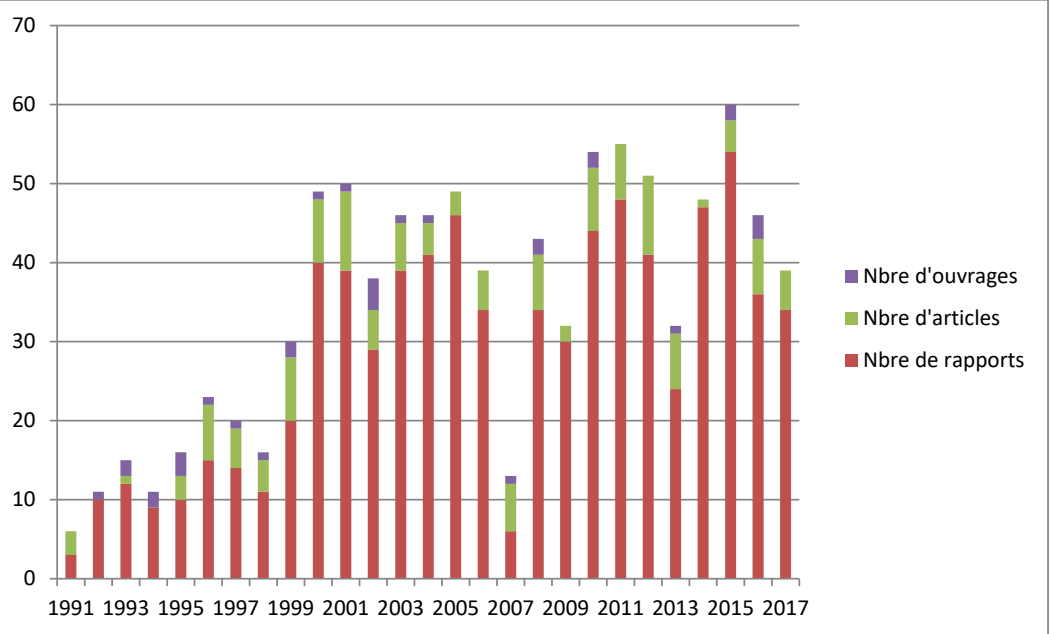


Figure 2: Scientific works on New Caledonian archaeology produced by DANC/IANCP between 1991 and 2017 (blue: number of books; green: number of papers; red: number of reports).



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**HENRI LAVACHERY,
AN AESTHETE IN EASTER ISLAND**

Thomas Lavachery

ABSTRACT

The Belgian Henri Lavachery was part of the famous 1934 Franco-Belgian expedition to Easter Island. His companion, Alfred Métraux, conducted the ethnographical investigations while he was in charge of the archaeological work. He devoted himself to describing the monuments, establishing an archaeological map and studying the rock art. Indeed, his name remains associated with the study of the petroglyphs. He left Europe with naive ideas on the origin of the monumental statues, supposedly belonging to a lost civilisation and not related to the direct ancestors of the modern Rapanui people. Métraux quickly convinced him he was wrong, and the expedition was then set to proceed on better intellectual foundations. Thanks to this enterprise, the “mysterious” island was definitively linked to the traditional Polynesian culture. Métraux, despite his brilliant mind, refused to see the present of Easter Island. The indigenous people were for him only sources – quite mediocre, he complained – of information about the past. He regretted this position, several years after the expedition. On the contrary, Lavachery developed a passion for the contemporaneous Rapanui. His aesthete’s eye, always on alert, recognised the quality of the wooden sculptures of 1934, which he collected and of which he made a subject of study. When some were talking about a decadent art, he preferred talking about a living art.

Translated from French by E. Dotte-Sarout, including all quotes within the text. For original quotes in French, refer to the French version of the text by T. Lavachery.

KEYWORDS

Rapa Nui,
Easter Island,
Rapanui people,
Polynesia,
Petroglyphs,
Moai,
Kavakava,
Kohau rongo rongo,
Alfred Métraux,
Henri Lavachery

THE CHIMU STATUE AND THE MOAI KAVAKAVA

Henri Lavachery was born in Liège, Belgium. His father, a lawyer and writer, had anarchist convictions. An admirer of Jean-Jacques Rousseau, the education he offered to his children was distinctive and liberating. Henri inherited a certain gift for happiness and great self-confidence. After studying Philosophy and Arts at the *Université Libre de Bruxelles*, he married the well-born Marguerite Grafé. He started a long industrial career. Successively senior executive in a factory of 'Ultramarine Blue' (a laundry detergent of the time), director of a ceramic factory and an employee of the Central Industrial Comity, he published *Enquête sur l'importance respective du marché intérieur et du marché extérieur pour l'industrie belge*¹ (1933). In spite of appearances, he felt he had the soul of an artist. He painted and wrote short stories and plays (figure 1).

1 - Investigation on the respective importance of interior and exterior market for Belgian industry



Figure 1: Lavachery in 1927 (private collection of the author).

Sociable, a bit of a clubman, Lavachery preferentially made friends among poets and painters. It was in this bohemian, happy, inquisitive milieu that he developed a passion for the Japanese arts and traditional arts of Africa and South America. He became a passionate collector, acquired numerous remarkable artefacts, Japanese and Congolese masks, pre-Columbian objects. He offered most of these to the American section of the *Musées Royaux d'Art et d'Histoire de Bruxelles*. One among them deserves a mention because of the special position it holds in francophone popular culture. It is the Chimu² statue that inspired Hergé for his famous

2 - Inventory number: A.A.M. 5713.

Arumbaya fetish in *L'Oreille cassée*, sixth album of the adventures of Tintin.

Henri Lavachery organised, in 1931, the first important exhibition of African art in Belgium. The event took place in the Brussels Palais des Beaux-Arts. At the same period, he took part as a volunteer in the reorganisation of the American section in the *Musées Royaux d'Art et d'Histoire*, pursuing his objective to work as a professional in the Museum as soon as possible and to leave, after 20 years, the manufacturing world. It was during this time that a small wooden statue from Easter Island, an ancient object of exceptional quality, fell into his hands³ (figure 2). And, as often with Lavachery, the aesthetic passion ignited his scientific curiosity. He wrote a 30-pages article, *Contribution à l'étude des statuettes en bois de l'île de Pâques*⁴ (1932), which led him to devour all of the existing literature on the island of giant statues, starting with the inevitable *The mystery of Easter Island*, by Katherine Routledge.

3 - This piece, a moai kavakava, is now part of the Oceania collection of the Musées royaux d'Art et d'Histoire. Inventory number : ET 48.62.

4 - *Contribution to the study of wooden statues of Easter Island*

Figure 2: *Moai kavakava*, engraving by Lavachery, 1932 (private collection of the author).



EASTER ISLAND AND THE INDUS

At the end of 1930, Guillaume de Hevesy, an amateur linguist, made the sensational proposition that there could be a link between the wooden tablets of Easter Island and some alabaster seals, 4000 years old, recently found during excavations in the Indus Valley. In both cases, the objects were covered with carved signs – writing script or not; the question, at least for Easter Island, was not settled.

Hevesy had constructed tables with two columns: in the first, signs from Easter Island; in the second, signs from the Indus each looking like their Rapanui counterpart in a troubling manner. He concluded that the tablets were probably “the remains of a very ancient writing that reached us, stranded and preserved by a random fortune on a desert island, moreover very far removed from any other by the distance of approximately Paris to Athens” (Hevesy 1932: 124). And he ended this way: “It was therefore necessary for me to agree, and this in spite of all the concern I have taken to discover circumstances which would militate in favour of the implausibility of a relation between Oceania and India, that the stranding on Easter Island of objects derived from very far away, does not appear at all to be in the realm of impossibilities” (1932: 125).

Paul Rivet was at the time an important character in French science. Director of the *Musée d’Ethnographie du Trocadéro*, soon to become the *Musée de l’Homme*, President of the *Société française des Américanistes*, his own research addressed the history of the peopling of the world. The links made by Guillaume de Hevesy interested him especially and so he travelled to the missionary museum of the

Picpus Fathers, in Braine-le-Comte, Belgium, where several tablets from Easter Island were being kept. Henri Lavachery acted as a guide for him. The two men were similar in many ways. Both socialists (Rivet was close to Léon Blum), both social men who enjoyed dining out and taking part in cultivated debates, practicing humour and anticlerical jokes, they could not fail to get along. Lavachery would later relate that it was in Braine-le-Comte, in front of the tablet's showcase, that Paul Rivet first had the idea of launching an expedition. The objective of the enterprise was to excavate Rapa Nui in order to verify the link between the Indus civilisation and Easter Island⁵. It took more than a year to gather the funds. The Franco-Belgian expedition embarked for the South Seas in the first months of 1934. Rivet, busy with other matters, did not himself take part. Lavachery was accompanied by Alfred Métraux, ethnologist, and Louis-Charles Watelin, a specialist in archaeological excavations. The latter, exhausted by a long campaign in Iraq, died of pneumonia during the voyage. Lavachery was left alone in charge of the archaeological work without having any field experience. Watelin had been supposed to be his mentor in this regard.

THE EXCAVATION FIASCO

Lavachery and Métraux landed in Hanga Roa, the single village of Easter Island, on the 28th of July, during a rainy morning. I have narrated elsewhere, at length (Lavachery 2005), the adventures of the 1934 Franco-Belgian expedition, which impacted upon the recent history of Easter Island and largely contributed to dispelling the aura of mystery surrounding this small fragment of land lost in the Pacific. Lavachery dreamed of grand discoveries. At the start, he was amongst those who refused to believe that the famous monuments of the island could be the work of the current natives. He hoped to find, within the Rapa Nui soil, the remains of ancient cities comparable to those exhumed in the Indus valley. His field notes do not record any traces of his disappointment on this topic. Yet the excavations ended in failure, leading him, in agreement with Métraux, to declare them impossible. His pick only met with hard rock everywhere. "The soil of Easter Island contains an extremely thin humus layer, upon a foundation of very dense original rock", he announced to Rivet, "and all the traces of human culture are on the surface. There is not, there will never be, any deep excavations to be made."⁶ This definitive point of view was, it goes without saying, completely erroneous.

Before he knew him, Alfred Métraux considered Lavachery with some contemptuous distance. The Belgian had made some hyperbolic comments to journalists, talking a lot about the "mysteries" of Easter Island and pretending that he would soon penetrate the "secrets of the origins of the world's civilisation"⁷. Métraux, with his unromantic Cartesian mind, did not like it one bit. Fortunately, his defences fell rapidly and the two men became friends. "Our work became a common enterprise, conducted in a good-companionship spirit that remains for me the most beautiful memory of this expedition", Métraux would confide several years later (1980: 9) (figure 3).

5 - About the link between the Indus and Easter Island, the scientific context of the time and the preparation of the Franco-Belgian expedition, see the precisions given by Christine Laurière in her contribution to the present volume.

6 - Letter to Paul Rivet, 6 Decembre 1934. Archives of the Musée de l'Homme (Ms 1/4495 d.).

7 - *L'Indépendance belge*, 28 may 1934.

Figure 3: Métraux and Lavachery sailing towards Easter Island (private collection of the author).



For three months, the members of the Franco-Belgian expedition moved around the island along the coastline, where a large majority of the sites are located. Métraux had chosen as informant Juan Tepano, a recognised specialist of the local past. The by-then old man had already worked with Katherine Routledge in 1914. The wife of Tepano as well as Nikola Pakomio, a somewhat fierce-looking personage (the story went that he had committed murder in his youth) accompanied the expedition. The first was in charge of the cooking while the second performed several tasks: erecting the tents, gathering water and food and, on occasion, helping Henri Lavachery in his archaeological work (figure 4).

Figure 4. Expedition camp at Ahu Tepeu (private collection of the author).



The fiasco of the excavations had not damaged Lavachery's bright mood and he soon conceded the Polynesian origin of the Rapa Nui monuments, thanks to Métraux. With the help of Tepano, he had to learn how to 'read' the architecture of Easter Island. Indeed, the *ahu*, open temple complexes, were only cluttered ruins. Their statue platforms were jumbled up with the surrounding rocks, and the statues themselves, overthrown and broken, added to the general chaos.

Yet, Lavachery finally managed to decipher a first site:

“After a few days spent studying and measuring the buildings of the region situated between our camp and the sea, I am able to establish a plan map and a complete description of the Ahu Tepeu, considered as a group of buildings forming a whole and established in relation to each other. This group itself exists in relation to an ancient village on the limits of which our camp is located. Between the village and the *ahu* complex lay a plaza where celebrations of religious and social character were set, and about which Métraux notes the details under Tepano’s dictation. The site of which we have the skeleton in front of our eyes becomes alive.” (1935: 83)

THE PETROGLYPHS

One evening in August, the expedition set up its camp at the northern end of the island, close to a water tank. In the morning, in biting cold weather, Juan Tepano gave a beaming smile. He took Lavachery and Métraux for a walk, until the entrance of a cave located inland was reached. Tepano squeezed into the black hole, sliding on his back. The members of the expedition followed his example – a quick slide on soft earth to arrive in a low cavity, the face covered in spiderwebs. It was very dark, and the eyes had to adjust. A reddish ceiling emerged from obscurity, then the rock face revealed its other colours: yellow, emerald green, raw purple...

“And suddenly”, Lavachery related, “we became conscious of innumerable faces looking down upon us. Faces carved in the rock, with sturdy nose, thick-lipped mouth, faces simply engraved within a circle, others dividing as two lobes from a heart.” (1935: 108-109). The cave name was Ana o Heu. According to the story current in Hanga Roa, it had recently been rediscovered by two lovers. It had been their refuge, their love-nest, for many days, before they grew tired of each other and came back to the village. Lavachery could not hide his enthusiasm in front of the stone faces, representations of the god Make Make. Tepano, delighted, announced him that he had other similar surprises. And indeed, in the following days, he disclosed numerous petroglyphs to the expedition. Carved with a quick line or patiently extracted from the stone, as true bas-reliefs, they represented fish, birds, turtles, and sea monsters. Some were huge – “the largest petroglyphs of Oceania!”, exulted Lavachery (1935: 110) – while others were tiny. They were found around the ancient villages, close to the natural water reservoirs, or again along the coastline on large slabs of dark stone. In front of vast boat engravings, Lavachery wondered: “Might the island have once been more wooded?” (1935: 148). He devoted a good part of his time to the petroglyphs, recording them via drawings or photography. In the latter case he carefully highlighted them using quicklime slaked in water, so that they would appear clearly on the images (figure 5). Lavachery, an amateur painter, profoundly enjoyed this exercise. He would even sometimes forget to take his lunch. His zeal delighted Tepano, very proud to see a foreigner devoting so much energy to locate the old drawings.

Figure 5. Petroglyphs painted in white (private collection of the author).



Figure 6. Rapanui family in front of their corrugated iron house Kohau rongo rongo (private collection of the author).



VICTORIA RAPAHANGO

The exploration of the island lasted for 100 days and ended by the Rano Raraku volcano, where Lavachery was kept busy drawing the statues for a stylistic study. Back in Hanga Roa, the expedition met with the indigenous population again. Easter Island has been a Chilean colony since 1888. In 1934 the Rapanui lived under the monitoring of a Governor, confined in a reserve encircled by barbed wire. An English company, Williamson & Balfour, rented 15,000 out of the 18,000 hectares of the territory from Chile for sheep breeding. It hardly needs be said that, following colonial tradition, the lands of the reserve were the poorest (figure 6).

The Rapanui were confined on the land of their ancestors while the sheep were romping on a vast territory and gorging in thick grass; the situation was shocking, to say the least. Between the island's whites and the natives, the relationships could only be bad. The presence of Lavachery and Métraux, Europeans with a friendly demeanour, interested by the traditional culture, was stimulating. It was,

for the Rapanui, a happy period – a break in the sad daily monotony. Lavachery, gracious, generous, joyful too (which Métraux did not like much) was given the name of *caballero bueno*: “the good sir”. He liked parties and dances, as old Rapanui still remember⁸.

8 - I am referring here to the testimonies collected in 2001, during the making of the documentary film I dedicated to my grand-father: *L'Homme de Pâques*, Y.C. Aligator Film, 2002, 56'.

Métraux and he befriended Victoria Rapahango, a woman with a languid gaze who inspired respect. “She has a lot of the grand dame she would have been in the ancient Polynesian society, even this philosophical detachment...”, Lavachery would later write (1935: 209). Métraux was much taken by her as well: “Through her distinguished manners, through her cheerful mood, through her slightly sad sweetness, this woman of the Miru royal tribe perpetuated amidst the decadent culture of her surroundings, the charm of the ancient aristocracies of Oceania” (1980:15). Victoria had lived with an Englishman, ex-administrator of the English company, who had left her with three children. He was sending her a regular pension that enabled the small family to live better than almost everybody else. Victoria was one of the rare Rapanui to be wearing shoes. She laughed often, but equally her face could take on a melancholic expression. She would remain silent for a long moment. When she started talking again, it was to pronounce a mournful sentence, such as this one: “This Easter Island where one eats sweet potatoes and where one dies” (Lavachery 1935: 95) (figure 7).



Figure 7: Ruiz Pakomio (Nikola'son), Victoria Rapahango and Lavachery (private collection of the author).



Figure 8: Ana Rapahango (private collection of the author).

Victoria had a five-year-old daughter, Ana (figure 8). The child liked Lavachery very much, and he often looked after her⁹. He took her several times to the Ana Kai Tangata cave, close to Hanga Roa, where he was recording rock art paintings. Lying down on a little sand bed, Ana would silently watch him for hours. In the evening, he would bring her back on his shoulders and tell her bedtime stories. This relationship of Lavachery with Ana and with children in general appears unremarkable today, but it wasn't so for the time. A man from his social background would certainly not look after the children. There is on this topic, in the family mythology, an eloquent anecdote: in the 1910s, Henri Lavachery enjoyed pushing my father's pram around the streets and parks of Brussels, attracting disapproving looks that left him unconcerned. Whether becoming the mistress of a foreigner or marrying with a poor Rapanui, the future was not bright as a girl

9 - According to the testimonies of Ana Rapahango collected in 2001 (see Lavachery 2005)

Hevesy as “a proof as unexpected as determining” of the Asian origin of the Polynesians (Rivet 1935: 238). Beside the similarity between the Rapanui signs and those from the Indus, dubious according to Métraux, de Hevesy had advanced a striking argument: the Rapanui signs represented some animals – monkeys and elephants – obviously not found on Easter Island. Métraux announced to Rivet that after a graphic study undertaken with Lavachery, he had reached the definitive conclusion that “all the recognisable signs represent animals and objects from the island, others are simply more or less advanced stylisations of certain drawings”.

For this study, Métraux and Lavachery had been using a plaster cast, an object they had brought with them – as there was not a single tablet left on the island: “I have here a work by Hevesy”, wrote Métraux, “and despite appearances I have been unable to accept his theory.” There remained the question of how to interpret the Rapanui signs. For Alfred Métraux, it was not a script:

“It is possible that I am mistaken, but I have the feeling I have discovered what would have actually been the *rongo-rongo*. The short poems inserted in the old Rapanui legends are recited in the same way as the ancient Polynesian hymns on a scanned rhythm. The natives declaimed these with the help of string figures. There are several of them depending on the length of the poem.”

And a certain Chari Teao, descendant of a reciter-priest, affirmed that the reading of the tablets and of the string figures was done using the same process. In both cases, the aim was to support the memory. The string figures would hence be “a popular means of mnemotechnics compared to the *kohau rongo rongo*, a scholarly means of mnemotechnics”. An idea that Teao had expressed as: “Our ancestors recited poems from tablets covered in images; us, in our ignorance, we psalmody from string figures games.” (Lavachery 1935: 164) “Naturally”, Métraux concluded, “I will only express an opinion once I have the complete elements to the problem, that is to say the knowledge of all of the Polynesian mnemotechnic methods”.

TEPANO THE SCULPTOR

The Franco-Belgian expedition, left on the island by a French vessel, was to return to Europe on board the Belgian training-ship Mercator. The arrival of the three-masted ship, traveling since July, was imminent. Henceforth Métraux intensified his activity, keen to take advantage of his stay until the very end. Lavachery continued his surveys with an almost equal zeal. He applied himself to painting watercolours of such characteristic sites as Ahu Vinapu, seeking to represent as exactly as possible the singular colours of Easter Island (figure 10). The expedition also aimed at completing the collections. What was gathered - lithic material, bone fishhooks, skulls with incised drawings, modern wooden sculptures - would be shared between France and Belgium, between the *Musée d'Ethnographie du Trocadéro* and the *Musées Royaux d'Art et d'Histoire de Bruxelles*.¹³

13 - Although the vast majority of the Belgian collections went to the *Musées royaux*, a few items were given to the *Musée d'Ethnographie d'Anvers*, including the head of a statue in grey basalt discovered on the site of Orongo. Inventory number: AE. 59.1.1.

Figure 10: A Rapanui, drawing by Henri Lavachery (private collection of the author).



The locals brought objects made of stone or bone each day; some were rudely made fakes, others, just as fake, deserved praise. For instance, some magnificent white fishhooks, of an unusually large size, that Lavachery had to reluctantly turn down, as Pakomio revealed the truth: “It is from the bones of the whale that ran aground a few years ago on the south coast, around Vahiu” (Lavachery 1935: 137). If the proposed objects appeared of good quality, the discussion started. It was often difficult. “We observe a curious phenomenon”, Lavachery recounted. “When we

ask for the price of an object, the answer is generally readily given. But, during the conversation, we can see the seller’s face darkening. He is overwhelmed by real pain when he stops talking. Then, whether we answered or not, a new price is given, higher than the first one. Sometimes, the clothes that we are wearing are requested. To defend these, one has to find a categorical reason, such as “I can’t give it, it’s a gift from my aunt” or “it’s not mine, it’s the Belgian King’s who lent it to me for the trip”. These reasons are good. Nobody insists anymore. But overbidding is nevertheless carried on. Our dignity forces us to break off the negotiations. Often, when we start over, the same object for which a complete suit was requested is given away for two soap bars and one flask of cheap perfume” (1935: 93).

Lavachery demonstrated his difference from Métraux by collecting modern wooden statues, some carved in front of his eyes. The fact deserves attention: it was not so frequent at the time for a scientist to give proper consideration to the production of an indigenous art corrupted and emptied of its religious or magical value by acculturation. Even before he set foot on Easter Island, on the deck of the French ship, Lavachery had been beset by the Rapanui sellers who had come in boats to meet the foreigners. The collector’s instincts alerted, he had contemplated the pieces handed out to him from all parts. These sculptures mainly reproduced the model of the *moai kavakava*, the statue of an emaciated character, with prominent ribs and a chin adorned with a slim beard. Unfortunately, the *kavakava* of 1934 were far from equalling the splendour of ancient pieces. “The carving is not clumsy”, Lavachery observed, “but the head too large, the legs too short, and the prominent belly are nothing but the attenuation of the ancient forms” (Lavachery 1935:30).

Disappointed, he stopped thinking about the statues. One day though, at the Ahu Tepeu camp, Tepano raised a sculptor’s adze on a piece of shrub full of branches. “I am going to carve a statue for you, Enlique!” he announced (Lavachery 1935:64) (figure 11). The character that was formed over the ensuing days was a sort of standing

man, whose head resembled a crocodile's¹⁴. The tortuous body, the legs apart, everything had been dictated by the shape of the wood. After this, encouraged by Lavachery, Tepano fashioned other sculptures. His characters represented supernatural beings, such as the *nihui*, a large fish with a seal's head and a huge mouth. Inspired by the island's old myths, they had nothing to do with known models from the ancient repertoire. Tepano created truly original forms (figure 12). Métraux judged severely the works of the old man, which he did not distinguish from the rest of the contemporaneous production, "crude and mercantile" (Métraux 1980: 123) and intended for passing customers. Lavachery, on the contrary, recognised in Tepano an authentic and gifted creator: "I can already see myself revealing to Europe the works of a great modern Rapanui artist" he exulted (1935: 84).

14 - Piece of work kept at the Musées royaux d'Art et d'Histoire. Numéro d'inventaire : ET 35.5.282



Figure 11: Juan Tepano, main informant of the expedition (private collection of the author).



A few years before, he had tried to organise a vast art competition across the Belgian Congo, envisioning six sections: "Sculptures, masks, wooden artefacts, arms, raffia mats and fabrics, baskets". The project was massive, since the idea was to initiate the creation of several thousand pieces then needing to be sent in a convoy by railway until Boma, where a panel of artists was to make a first selection, before a final decision was made in Brussels. Although retrospectively questionable – Lavachery envisaged an exclusively Belgian panel – and without doubt unrealistic, the enterprise was in pursuit of an audacious aim: to stimulate Congolese art, seen as retreating "before the colonising action of the missionaries, state agents, and European developers"¹⁵.

Figure 12: The *nihui*, sculpture by Tepano (image reproduction courtesy of Musées royaux d'Art et d'Histoire, Bruxelles).

15 - Extract from an unpublished text kept by the author. The document, entitled "*Protection des dons artistiques des Noirs du Congo*", is a seven pages tapuscrit; dated 5 September 1932.

16 - Art piece kept at the
*Musées royaux d'Art
et d'Histoire*. Numéro
d'inventaire : ET 35.5.231.

17 - Art piece kept at the
*Musées royaux d'Art
et d'Histoire*. Numéro
d'inventaire : ET 35.5.230.

18 - This is not a unique case.
In the Marquesas,
the traditional art experi-
enced a period of interruption
during the missionary period.
The current woodcarvers are
largely inspired by Karl von
den Steinen's works, using
them as references for the
traditional repertory.

19 - Katherine Routledge sent
her book to Juan Tepano, who
was also the informant of the
1914-1915 British expedition.
When a sculptor of the island
wished to see a photo for
inspiration, Tepano had him
pay this right in tangible
hard cash.

In front of Tepano's statues, Lavachery experienced an artistic emotion he was not expecting anymore. He even started to revise his judgement about the works of others among the island's sculptors; Pakomio, for instance, who offered Lavachery a curious *kavakava* with a twisted neck, topped by a cat's head¹⁶, or another called Pablo Paté, creator of an asexual character with enormous, hallucinated, eyes, the body as straight as an arrow¹⁷. He would later laud the merits of the Rapanui sculptors, devoting several papers to what he called "the living art of Easter Island". He noted an interesting fact: the arrival in the island of Katherine Routledge's book, *Mystery of Easter Island*, in which one can find photographs of ancient pieces kept at the British Museum, made it possible for the Rapanui to re-discover their wooden statuary art. It provided them with the opportunity to admire models of which they had lost the memory¹⁸. The modern sculptors, long limiting themselves to the famous *moai kavakava*, hence enlarged their repertoire. They started to create *moai papa* (a feminine figure with a flat body), *moai moko* (an anthropomorphic lizard), *ua* (sticks with a Janus head, signs of rank). Furthermore, they were able to better respect the ancient canons. Forgotten details, such as embossed features on skulls or perforated protuberances that were used to hold a suspension cord, suddenly reappeared thanks to the photos¹⁹.

"The statuary almost finds grandeur again with one", wrote Lavachery talking about Tepano; "with others, a tourist curio becomes again a proper work, well made and varied". And he continued, with a prophetic tone:

"In other places on Earth, deeply affected by contact with our Euro-American culture, some arts vegetate or regain intensity. The works they produce are the 'primitives' from which tomorrow's arts will proceed, these arts that cannot fail being born because some men are there, gifted just as were their ancestors, and searching for who they are in a period of transition".

The conclusion borders on paternalism again; still, it is beautifully expressed: "If we, as researchers, must collect their works to enlighten our successors, we have all the more the human duty to take an interest in these creators, to encourage them without imposing our views and support them in a direction where we cannot guide them, for they alone are the masters in choosing it" (1935: 170).

"THE MAN FROM EASTER"

On January 2, 1935, the Belgian training-ship Mercator had been anchored for several days in the bay of Hanga Roa (figure 13). It was about to sail. In Lavachery's cabin, a small bed had been prepared for Ana, while on the deck Victoria seemed tense. A picture exists (Lavachery T. 2005: 105), taken at the time of the farewells: on it is Victoria Rapahango, a closed expression on her face, Ana against her mother and looking carefree, and Lavachery who looks at her with his eyes filled, it seems, with premonitory fear. Incredibly, Victoria had still not said anything to her daughter: Ana was ignorant that she was

leaving for Europe. The mother could have gone down on her knees, taken the child in her arms, explained. But instead, she burst into tears. Ana did not understand anything of what was happening. She became frightened, clinging to her mother's skirt, and both got off the boat, almost running. Lavachery then understood that the child would not come. In July 2001, finding myself on Easter Island to shoot a documentary on the Rapanui adventure of my grand-father²⁰, I met Ana, who was then 72 years old. She remembered each gesture, each expression of Lavachery and Victoria on the *Mercator's* deck, the very day of the expedition's departure. "Did you ever think, after that, about the life you could have had if your mum had not taken you back at the last minute?" I asked her: "Did you yearn for this other life?" "Always, always", was the answer.

20 - *L'Homme de Pâques*, 2002. English version: *The man of Easter Island*.



Figure 13: The Belgian training ship Mercator (private collection of the author).

When the *Mercator* left Easter Island, it was loaded with important archaeological collections. We will only cite the most outstanding pieces: a statue head discovered by Lavachery in the sands of Anakena and a basalt statue of an original style coming from the bay of Hanga Roa. The first is nowadays in France and exhibited in the *Musée du Louvre*²¹. The second is in Brussels; called Pou Hakanononga²², it dwarfs by its massive presence the other treasures of the Oceania section in the *Musées Royaux d'Art et d'Histoire* (figure 14). Before returning to Europe, the *Mercator* cruised through the Pacific. Lavachery and Métraux had the opportunity to visit Pitcairn, Tahiti, the Tuamotus, the Marquesas and Hawaii. They took advantage of this to expand their collections. During archaeological visits in Mehetia (Society Islands) and Atunoa (Marquesas), they noticed how familiar the ruins seemed to them. It was not just the details that reminded

21 - Belonging to the *Musée du Quai Branly-Jacques Chirac*, it is deposited at the *Musée du Louvre, pavillon des Sessions*. Numéro d'inventaire : 71.1935.61.1.

22 - Numéro d'inventaire : ET 35.5.340.

them of the Rapanui architecture, but the overall feeling as soon as they set foot on a site. In the Marquesas, the open temples are called *mea'e*. Lavachery and Métraux learnt that the platforms on these temples have an interesting name: *ahu*.

Figure 14: The loading of Anakena's head, December 1934 (private collection of the author).



23 - 31 May 1935.

24 - *Le Soir* (Bruxelles), 17 April 1935.

rised in one sentence, the title of a newspaper article: "Easter Island has no more mystery"²⁴.

"What results are you bringing back?" asked its author to Lavachery. "Easter Island is Polynesian and has only ever been Polynesian, in its population, its language and its civilisation."

"But the famous monuments?"

"The contemporaneous Rapanui are the direct descendants of the architects and sculptors who were responsible for the monuments", Lavachery stated.

"And the transport of the statues?"

"It did not ask for a mechanical knowledge that is incompatible with what Polynesians know everywhere else."

As examples of heavy objects transported elsewhere in Polynesia, he was able to cite the stone blocks of more than ten tons that are included in the masonry of Marquesan sanctuaries, or again the famous "trilithon", Tonga's monumental portal.

"And the special script?", asked the poor journalist again, hoping to be able to insert an ounce of mystery, of the fantastic, into his article. Lavachery shrugged. Here was indeed a point not quite yet settled. But he quickly added:

"In any case we only believe in this peculiar script a little. The Rapanui tradition we collected, and the statements given to our predecessors, coincide to make us consider these [the tablets] as memory-supports for sung poems".

The return of the expedition, during the month of May, was extensively commented upon in the press. Lavachery gave one interview after another. He found himself on the cover of the Belgian weekly, *Pourquoi pas?*, caricatured by the cartoonist Ojhs, with this caption: "Henry Lavachery, the Man from Easter"²³ (figure 15). Métraux, more reserved, was not less solicited by the French press. The message hammered home by the two men was summa-



The Cartesian minds were grateful to the expedition. Such was the writer Paul Morand, who attended a conference given by Alfred Métraux at the Trocadéro. “Is Easter Island the ultimate cry, emerging on the surface, of a sunken civilization, of a Pacific Atlantis?” wrote the author of *Ouvert la nuit*. “Of what race were the men who erected these terraces without cement and carved these gods with only one tool? Was it the cursed graveyard of wrecked archipelagos? Is it unrelated to the continents of Asia and America? Let’s avoid all lyricism here; Easter Island has suffered too much because of the literary hacks; let us simply thank M. Alfred Métraux for having

Figure 15: Front page of the *Pourquoi pas ?* (private collection of the author).

scientifically examined the problems raised; congratulate him for having answered some of our questions; praise him for making at last the Polynesian sphinxes speak intelligible words, those gods from Easter for whom there will certainly never be a resurrection²⁵.”

25 - The article by Morand was found amongst my grandfather’s papers, stuck in an album. I was unable to find its origin.

TWO MEN, FOUR BOOKS

Barely back home, Lavachery devoted himself to writing a popular account of the trip. The book, entitled *Île de Pâques*, was released at the end of 1935, with Grasset Publishing. With its many dialogues, its excellent portraits, of Tepano, Victoria, Pakomio, and also Métraux, its colourful episodes, such as a ‘ghost’ scene at the Rano Raraku volcano, *Île de Pâques* can be read as a novel. Lavachery’s humorous and light-hearted style offers a realistic view of the island and its inhabitants in 1934. For the book’s readers, of whom many thought this far-off rock only harboured mysterious statues, it was a revelation. Scientific research still occupies an important place in *Île de Pâques*. The author takes care in distilling the expedition’s discoveries one by one, so as to maintain some suspense and to preserve, as he explains, “the essential quality of an account of this type: plausibility and life” (1935: 62).

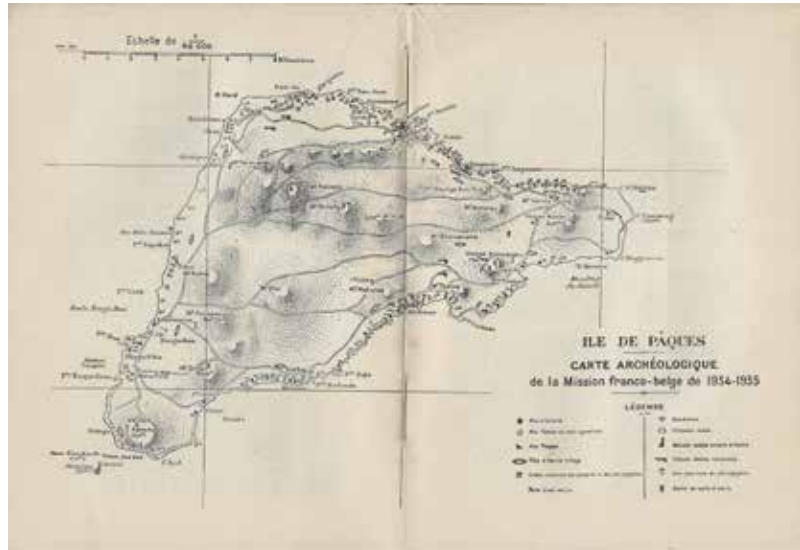
Lavachery then turned to his book on the petroglyphs. The work, in two volumes (text and illustrations), was published in 1939 under the title: *Les pétroglyphes de l’île de Pâques* (figure 16). The specialists rightly claim that this is his main contribution to Polynesian archaeology. It is indeed a pioneering study since nobody before Lavachery had paid much attention to the Rapanui rock art, whose importance he revealed. As for the lasting value of the work, it is questionable. Some legitimate reservations can be expressed regarding the detail of the recording, and the location of the discoveries particularly lacks

26 -As early as 1924, in *The Island of Lanai*, Kenneth Emory gave an example of a rigorous study of the site of Luahiwa and its petroglyphs. Lavachery knew the work before sailing for Easter Island; it is unfortunate he did not refer more to it.

27 - Famous site of Easter Island, the richer in petroglyphs and one of the two centres of the bird-man cult (the other being Motu Nui islet).

Figure 16: Archaeological map of Lavachery (image reproduction courtesy of the Musées royaux d'Art et d'Histoire, Bruxelles).

precision. In the book, the most striking patterns are most often presented out of context²⁶. Moreover, the general interpretation of the drawings appears naïve, since Lavachery only granted them secular value. Except for some rare patterns judged as the oldest, “one should not see in the Orongo²⁷ imagery anything else than the effect of the Rapanui’s leisure, killing time in waiting”, he stated. “Everywhere indeed, the petroglyph brings more petroglyphs. [...] Whether it is rock engraving or, at home, some chalk graffiti on a fence, the ‘principle’ is the same” (1939: 101). More than the period of writing, it is the training of Lavachery that explains the flaws in his work. In certain aspects, such as his interest in the living ethnic art, he was ahead of his time; in others, he resembled an amateur-scholar of the XVIIIth or XIXth centuries.



28 - Which does not exist strictly speaking. Ultimately, the work of Lavachery will lead to the publication of articles on rapanui archaeology, the main one, published in 1954, being devoted to the site of Anakena.

While he was finishing *Les pétroglyphes de l'île de Pâques*, Lavachery contacted an editor about the publication of a general volume on the archaeology of Easter Island. He worked on it with difficulty, postponing the date of manuscript submission several times²⁸ during 1939 and 1940 (figure 17). During this time, after the Germans had occupied Brussels, there arrived from very far away, from Honolulu, a book written by Alfred Métraux: *Ethnology of Easter Island*. Lavachery read it right away, with bewilderment at its 430 pages, numerous illustrations, a bibliography of 230 entries. Métraux had struck hard. Not only did he address the social and religious aspects but also the material culture of Easter Island. Petroglyphs, *ahu*, statues – nothing was left unsaid. To write his book, Métraux had spent two years at the Bishop Museum in Honolulu. *Ethnology of Easter Island* is firmly in line with the monographs published by that prestigious institution since the 1920s. When comparing the table of contents with that of, for instance, Margaret Mead’s *Social Organisation of Manua*, there are

numerous chapters and sub-chapters with the same title: “social hierarchy”, “sexual life”, “death and funerals”, and so on. Thus, Métraux had benefited from an intellectual framework to organise his Rapanui material. He had also found at the Bishop Museum high calibre interlocutors, such as Kenneth Emory and the great Maori (by his mother) Oceanist Peter Buck, who supported and advised him. As a result, he had given birth to a masterful synthesis. Lavachery applauded and, without blaming his colleague for encroaching on his domain, renounced his work on the archaeology of Easter Island.

HERBE JAUNE

Shortly after the expedition's return, Henri Lavachery acquired a position at the *Musée Royaux d'Art et d'Histoire*, where he became the principal curator in 1942. In parallel to his career at the Museum, he taught. He was in charge of the course *Institutions des peuples primitifs* (“The Institutions of Primitive Peoples”) at the *Université Libre de Bruxelles*, where he later created the first courses on non-European Art History. This was the continuation and achievement of a life. This man who was capable of getting up at night to admire a Peruvian or African statue, was linking the scientific world and that of the ‘sensual’ amateurs, artists and also - why deny it - upmarket antique dealers. As a good speaker, his lec-



Figure 17: Page from notebook «V» of Lavachery, 1934, (private collection of the author).

tures attracted a large audience. He knew how to be spectacular, such as the day he opened a coconut “the indigenous way”, in front of a delighted audience. In 1957, after his retirement from the Museum and the University, Lavachery was appointed perpetual secretary of the Royal Academy of Belgium. An institution that, he explained to Paul Rivet, “relatively speaking, corresponds to your Institute of France”²⁹.

Métraux committed suicide in 1962. Lavachery received the news as a shock, as can be expected. “Métraux probably owed to his father a partiality to the scientific method that ethnographers rarely demonstrate at the beginning of their work”, he wrote. “I had the opportunity to realise it and to admire it in this research companion, I whose training had mainly focused on classical archaeology and Greco-Latin linguistics. Watelin who was to be the leader of our expedition and was coming back from Kish, in the Middle East, was also an archaeologist with a classical training. And Easter Island did not appear to

29 - Letter dated 17 December 1955. From a copy kept in the archives of the *Musées royaux d'Art et d'Histoire*.

us otherwise than as an archaeological phenomenon. Métraux had to be there to restore the Rapanui problem in its true framework. The monuments of Easter Island cannot be studied without a complete knowledge of the ethnographic and social phenomenon that created them³⁰. It is said, 'render unto Caesar that which is Caesar's', and Lavachery never failed to do it regarding the 1934 Franco-Belgian expedition. Yet in one of his last letters to Lavachery, the author of *Ethnology of Easter Island* engaged in self-criticism:

"If I were to return to Easter Island, I would take care not to interrogate Tepano or any other old man; I would live in a much more intense and intimate way the life of the island's village. Maybe could I have learnt much more about the past by doing so rather than by trying to scrape off the brains of my informants to gather some rather inaccurate and maybe false memories. These are somewhat disillusioned reflections, but anyway, as the English say, 'It's no good crying over spilt milk'. This review³¹ still offered me a few pleasures and I owed them to you. You cannot believe how much I enjoyed the various articles you wrote about Easter Island and that I was far from knowing all. I was touched by the friendly allusions you made to my own work and I was happy to be almost always in agreement with you. Intellectually, I found again the atmosphere of our best moments, when you were teaching me how to smoke the pipe in the evenings³²..."

Was it the death of Métraux, pushing Lavachery back to the Easter Island memories, that led him to realize an old dream of writing a novel whose story is set on Easter Island? It is tempting to believe so. Completed in December 1963, the book has a beautiful title: *Herbe jaune*³³ (Yellow Grass). The action is set around 1860, a crucial moment of the Rapanui history when the ancient culture collapsed under the successive blows of the slave hunters and the missionaries. The tone is sometimes sarcastic towards the priests, revealing the author's anticlerical ideas. In *Herbe jaune*, a lively story that could have been written by a 20-year old, there are almost as many sudden deaths as love stories. It is a pure adventure novel, lighthearted and melancholic all together. Knowing the scientific past of the author, the editors consulted were surprised by this. "In the perspective that is yours, wrote one of them, it would certainly be possible to imagine the romantic transposition of Levi-Strauss' research in *Tristes Tropiques* or *Le cru et le cuit*³⁴."

Herbe jaune remained unpublished despite the best efforts of Lavachery and draws a lot from the Franco-Belgian expedition. Pakomio is there, as fierce as can be, under his own name, and under the name of Alicia is a very recognisable Victoria. Nicolas Kacholov, a Russian archaeologist, is the protagonist of the story. In the last pages of the book, Alicia-Victoria asks him to adopt her daughter. Of course, he accepts. Here is the final scene:

30 - Unpublished text. Private collection of the author.

31 - Métraux, who was then preparing an English edition of his *L'île de Pâques*, had gone back to the rapanui question without pleasure

32 - Letter dated 6 April 1956. Private collection of the author..

33 - Lavachery wrote a first draft of his novel as early as 1936: «Le berger de Rapa Nui» (The shepherd of Easter Island). Private collection of the author.

34 - Letter signed C. Reynault, from Éditions du Seuil, 21 March 1965. Private collection of the author.

“Eyes fixed on her daughter, Alicia can only see her, but she wants to be strong, stands up and wipes off her eyes.

- Come on, the time has come. Farewell Nikoa. Thank you.

For the last, and the first time, Alicia and Kacholov kiss each other; for an instant she abandons herself in his arms. She takes Ana; the kiss she gives her seems infinite to her, but suddenly, she gives away her daughter to whoever embarks, and the boat takes off. On its bench, Kacholov, the little girl pressed against him, cannot stop contemplating the land.

The image of Alicia fades away, then, on the hills, the yellow grass³⁵...” Hence, through fiction, Lavachery accomplished what he was not able to realize in real life: adopt the little Ana. When I told this to Ana Rapahango, who had become an old lady, she was astonished.

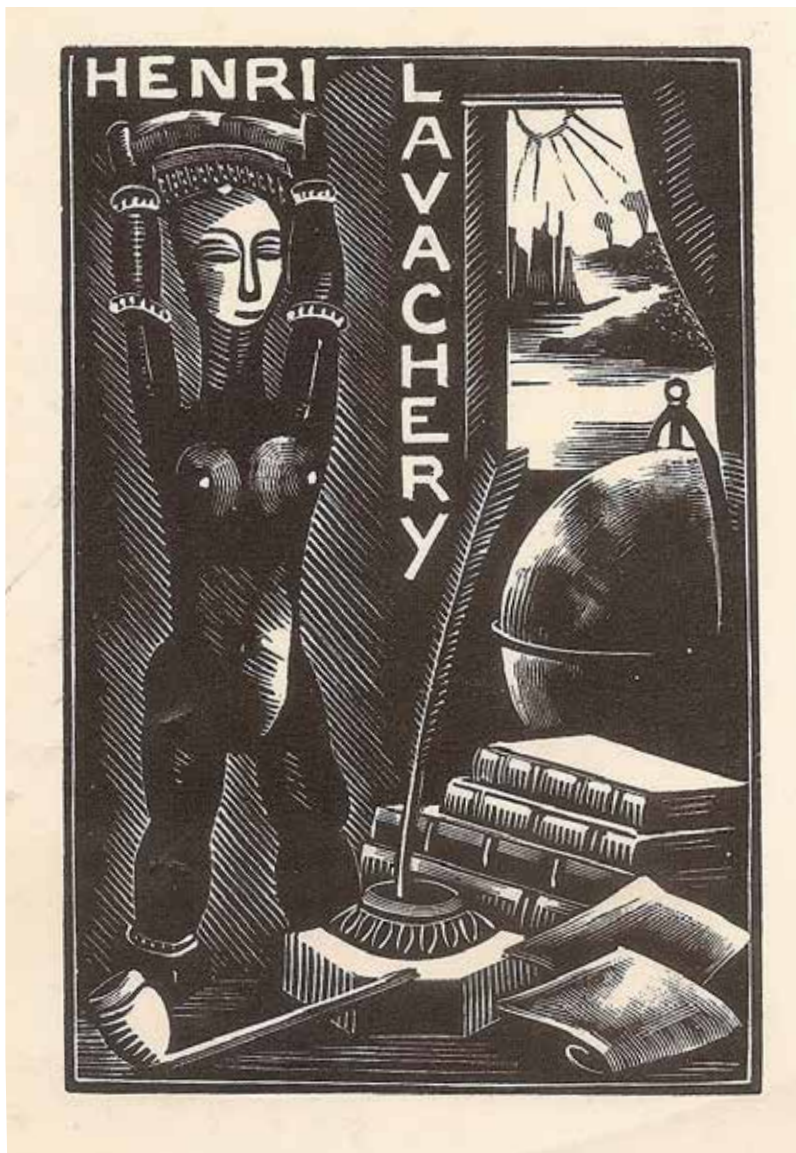
35 -Page 231 of the tapu-scrit kept by the author.



Figure 18: Lavachery and the passion for 'art premiers' (private collection of the author).

Henri Lavachery died on the 1st of December 1972, at the age of 87. He leaves a significant bibliography. His books and articles concern the arts of Oceania, Africa, America and the East. All of his texts, from *Les pétroglyphes de l'île de Pâques* until his last major work *Statuaire de l'Afrique Noire*, demonstrate an extreme sensitivity to the aesthetic of the works of art he was studying (figure 18). He was an independent, original mind. He dared to plead for the return to their country of origin of some African pieces kept in Belgium. Scholar, aesthete, humanist, Lavachery gained fame thanks to the 1934 Franco-Belgian expedition. His name remains attached to the petroglyphs, and not just for the scientific community. One day, near Hanga Roa, I met a half-drunk fisherman. When he learnt my name, he shouted: “I know Lavachery! The petroglyphs! The petroglyphs!...”

Figure 19: Lavachery's
Ex-libris, piece by Maurice
Brocas made in the 1930s
(private collection
of the author).



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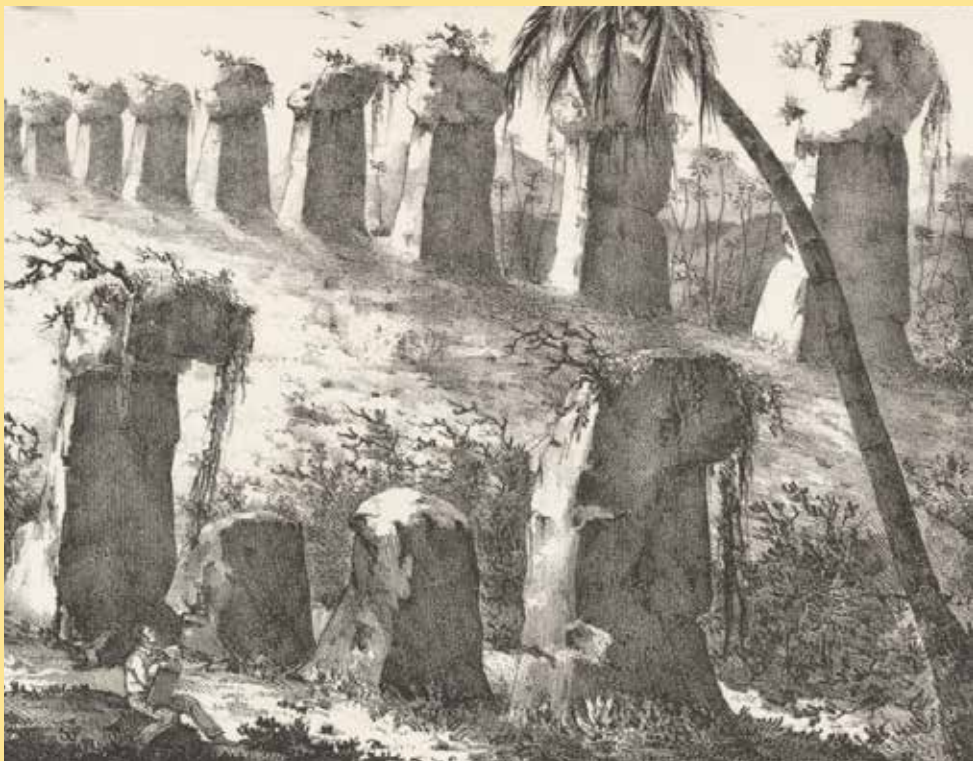
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Thomas Lavachery is a writer, art historian and filmmaker. Grandson of the Belgian archaeologist and curator Henri Lavachery, he conducted research on the history of the Franco-Belgian expedition to Easter Island in which his grandfather took part, presented in a documentary film produced in 2002 and in a book published in 2005.

Conception graphique & Design éditorial : **Sophie Bourly**
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Following the recent development of Pacific archaeology historiographies, this volume focuses on the history of francophone archaeology in the Pacific, whether French, Belgian, Swiss or relative to francophone archipelagos in Oceania. Following a workshop organised in Marseille, France, in May 2016, 13 contributions offer here the diverse perspectives of archaeologists, historians, cultural anthropologists, museum curators and writers. The authors consider the epistemology, actors, practices and institutions that contributed to open this new field of research and to position it on the French and international scientific scene.

Various themes are considered, from intellectual history and epistemology to the biographical approach; from the contextualisation and re-evaluation of ancient collections and texts to reflections on the danger of presentism and the potential of historiographic analyses in developing innovative research perspectives in archaeology. The studies that are gathered here demonstrate the interest in viewing our own disciplinary past through a critically and historically informed prism. They enable each of us to question the intellectual, socio-political and even ideological and personal 'baggage' more or less consciously hidden in our research. They also evoke the responsibility that science and scientists can assume in the diffusion and clarification of specific ideas or information.

A French version of this volume is published by the Pacific Credo publications under the title *Pour une histoire de la préhistoire océanienne : Approches historiographiques de l'archéologie francophone dans le Pacifique*.

ISBN 978-2-9534554-9-6

