



Titre de la rencontre : « *La pratique de l'espace en Océanie : découverte, appropriation et émergence des systèmes sociaux traditionnels* » / “*Spatial dynamics in Oceania: Discovery, Appropriation and the Emergence of Traditional societies*”.

Dates : 30, 31 janvier et 1 février 2014

Lieu : Institut National d'Histoire de l'Art (INHA), 2 rue Vivienne, Paris, auditorium

Organisateurs: Frédérique Valentin (CNRS, UMR 7041) et Guillaume Molle (Université Paris 1, Paris)

Comité scientifique : Eric Conte, Christophe Sand, Guillaume Molle, Frédérique Valentin

Comité d'organisation : Jeong-in Choi, Marion Boudou, Maurice Hardy, Thibault Paumier, Guillaume Molle, Frédérique Valentin

Partenariat : Equipe Ethnologie préhistorique – UMR ArScAn (7041), CNRS-Université Paris 1 Panthéon-Sorbonne et Paris 10 Ouest-La Défense et partenariat avec la Société préhistorique française (Paris), le CIRAP (Polynésie française) et l'IANCP (Nouvelle-Calédonie)

Abstract:

Aiming to explore the question of “Spatial dynamics in Oceania”, we propose to focus the discussion on three main themes related to key phases of Pacific islands prehistoric chronology: Discovery, Appropriation/Use and the Emergence of Traditional societies. Spatial dynamics can be perceived at various scales through analysis of intra-sites organisation, relationships between types of sites as well as a multitude of landscapes uses. We encourage contributions tackling a wide range of aspects relating to the spatial dimension of human activities at these three key phases of Pacific Island the societal trajectory.

Résumé :

Les îles du Pacifique sont parmi les terres les plus isolées du monde. Leur double identité, maritime et terrestre, en fait des espaces aux caractéristiques variées et apparemment contraignantes. Pourtant, les descriptions que firent les premiers explorateurs occidentaux prouvent que des sociétés surent s'y adapter et s'y maintenir. L'étude diachronique de ces sociétés est dès lors susceptible d'apporter un éclairage particulier à la question plus générale des dynamiques spatiales. « *La pratique de l'espace en Océanie* » sera abordée ici à travers trois grands thèmes correspondant à trois moments cruciaux de la chronologie préhistorique des îles : la découverte initiale des espaces insulaires, leur appropriation progressive par les groupes humains et l'émergence des sociétés traditionnelles spécifiques de chacune d'elle.



Tarodières du col des Roussettes, Nouvelle-Calédonie, photo Christophe Sand, copyright IANCP

Description et problématique:

Disséminées au milieu du vaste océan Pacifique, les îles océaniques sont parmi les terres les plus isolées du monde. Leur double identité, maritime et terrestre, en fait des milieux apparemment contraignants pour les populations qui les occupent depuis plusieurs millénaires. Pourtant, les descriptions que firent les premiers explorateurs occidentaux des sociétés qu'ils y rencontrèrent prouvent que celles-ci surent s'adapter aux multiples environnements rencontrés et s'y maintenir. Pour cette raison, la notion d'espace, dans son acception la plus étendue, a été et continue d'être largement étudiée par les archéologues engagés dans la région, ce par des raisonnements et des approches tout à la fois variés et complexes.

Dans le but d'explorer la question de « la pratique de l'espace en Océanie », nous proposons de structurer cette séance de janvier 2014 autour de trois grands thèmes correspondant à trois moments cruciaux de la chronologie préhistorique des Îles du Pacifique : la découverte initiale des espaces insulaires, leur appropriation progressive par les groupes humains et l'émergence des sociétés traditionnelles spécifiques de chacune d'elle.

Les dynamiques spatiales seront perçues à différentes échelles, que ce soit par l'analyse des organisations intra-sites, ceux-ci étant aussi bien des ensembles de structures variées que les structures elles-mêmes, ou par l'analyse des relations entre les sites, tant à l'intérieur d'une île qu'au sein d'un archipel ou d'une région. Les relations entre l'homme et son environnement insulaire, en particulier son usage et son exploitation, seront également abordées de façon à faire émerger la diversité des pratiques et des trajectoires historiques locales.

PROGRAMME

Jeudi 30 janvier 2014

8h30-10h00: accueil des participants, café

10h00-10h20: ouverture par Alain Duplouy

Présidentes de séance : Melinda Allen et Sophie Chave-Dartoen

10h20-10h40: **Implications of Late and Rapid Colonization of Eastern Polynesia** (Terry L. Hunt)

10h40-11h00: **La voile en aile de papillon: un grément singulier au cœur de la Mélanésie. Essai de reconstruction d'une pirogue ancienne** (Anne Di Piazza)

11h00-11h20: **The importance of freshwater access in successful island colonisation: new results from excavations in Palau** (Christian Reepmeyer, Geoffrey Clark, Jolie Liston & Ella Ussher)

11h20-11h40: **Colonization of Eastern Micronesia: The Place of Pohnpei** (William Ayres)

11h40-12h00: **First Lapita Settlement and the In-filling of a Contemporary Tongan Landscape** (David Burley)

12h00-12h20: **Spatial patterns at Teouma – a Neolithic kitchen midden site in Vanuatu, South Pacific - some methodological thoughts and results.** (Mads Ravn, Stuart Bedford, Matthew Spriggs, Stuart Hawkins & Frédérique Valentin)

12h20-12h40: **Determining Lapita and post-Lapita pottery provenance: Investigation of the spatial dispersion of manufacture locations in Vanuatu** (Mathieu Leclerc)

12h45-14h15 : Repas

Présidentes de séance : Helen Alderson et Anne DiPiazza

14h20-14h40: ***Banua/fenua : une conception partagée du monde socio-cosmique** (Sophie Chave-Dartoen)

14h40-15h00: **Lieux de vie et lieux sacrés à Ganaa (archipel des Tuamotu, Polynésie française)** (Tamara Maric, Frédéric Torrente, Joana Hauata, Jean-Michel Chazine)

15h00-15h20: **“Controlling the Elements” – Anthropogenic Landscape Transformation at Ava Ranga Uka A Toroke Hau, Rapa Nui (Easter Island)** (Annette Kühlem)

15h20-15h40: **L'espace insulaire en Polynésie : continuité des représentations et des pratiques entre domaines céleste et terrestre** (Hélène Guiot)

15h40-16h00 : Pause

16h00-16h20: **Structures horticoles traditionnelles en milieu ultramafique : le cas de l'île des Pins et comparaisons avec le Sud de la Grande Terre de Nouvelle-Calédonie** (Louis Lagarde)

16h20-16h40: **Production et échange des lames d'herminette en pierre en Polynésie centrale: dynamiques techno-économiques** (Aymeric Hermann)

16h40-17h00: **Developing quantitative methods for downscaling regional climate data to high resolution spatial and temporal scales: An example from Aitutaki, Cook Islands** (Alex E. Morrison, Melinda S. Allen, Andrew Lorrey, and Michael Evans)

17h00-17h50 : Discussion, modérateurs : Stuart Bedford et Geoffrey Clark

Vendredi 31 janvier 2014

9h30-10h00: accueil des participants

Présidentes de séance : Maria Codlin et Tamara Maric

10h00-10h20: **Using *Baseline Probability Analysis (BPA)* and *Social Network Analysis (SNA)* in Pacific Archaeology: Evaluating the plausibility of alternative historical claims and reconstructions** (John Edward Terrell)

10h20-10h40: **The Origins and Distribution of Oceanic Agricultural Techniques Revealed through Bayesian Phylogenetic Analysis** (Ethan E. Cochrane)

10h40-11h00: **The power and reach of the Tongan maritime chiefdom: Geochemical evidence for long-distance prehistoric interaction** (Geoffrey Clark & Christian Reepmeyer)

11h00-11h20: **Contemporary circulation of Humans and Plants in the Banks group (Vanuatu): An approach in Ethnobiology and Social Network Analysis** (Sophie Caillon & Mathieu Thomas)

11h20-11h40: Pause

11h40-12h00: **Isolation and interaction in the Eastern Papua New Guinea islands: Identifying prehistoric cultural contact, and the development of regional exchange networks in the archaeological record.** (Ben Shaw)

12h00-12h20: **Deux réseaux régionaux d'Océanie** (Denis Monnerie)

12h20-12h40: **L'île de Tanna à Vanuatu, un monde mélanésien au contact d'exclaves polynésiennes** (Marc Tabani)

12h40-13h00: **Field Mapping and Oceanic Prehistory: A Methodological History** (James L. Flexner)

13h00-14h20: Repas

Présidentes de séance : Annette Kulhem et Sophie Caillon

14h20-14h40: **The emergence of traditional societies on New Britain, Papua New Guinea: An ongoing project?** (Jim Specht)

14h40-15h00: **Investigating monumentality in Melanesia: the archaeology of ritual architecture on the islands of Malakula, Vanuatu** (Stuart Bedford)

15h00-15h20: **Traditional Kanak landscapes: intensification processes during the second millennium AD on the Grand Terre of New Caledonia (Southern Melanesia)** (Christophe Sand, André-John Ouetcho, Yves-Béalo Gony, David Baret, Jacques Bole)

15h20-15h40: **Social Landscapes and *Kapu* in the Hawaiian Islands: A case study from the Ka'ū district, Hawai'i Island** (Maria Codlin & Mark D. McCoy)

15h40-16h00: Pause

16h00-16h20: **Architectural Analysis of Mortuary Structures on Pohnpei and Implications for Interpreting Socio-Political Change** (Katherine Seikel)

16h20-16h40: **Ideology as a Source of Power: A Multi-Scalar, Spatio-Temporal Analysis of Ma'ohi Religious Practices** (Jennifer G. Kahn)

16h40-17h00: **Constructing Monumentality at Nan Madol, Pohnpei, Federated States of Micronesia: A geochemical sourcing study of architectural basalt** (Helen Alderson & Mark D. McCoy)

17h00-17h20: **An Archaeological History of Property Rights, Trade, and War in New Zealand** (Mark D. McCoy & Thegn N. Ladefoged)

17h20-17h50: Discussion, modérateurs : Atholl Anderson et David Burley

Samedi 1 février 2014

9h00-9h40 : accueil des participants

Présidentes de séance : Katherine Siekel et Hélène Guiot

9h40-10h00: **Agriculture and Cult-Platforms on Easter Island: Two Exclusive Domains?** (Cauwe Nicolas)

10h00-10h20: **Reconstruction of ancient Easter Islanders' diet: impact of gender, social status and spatial distribution** (Caroline Polet)

10h20-10h40: **Marquesan Community Structure and Socio-political Process in Late Prehistory** (Melinda S. Allen)

10h40-11h00: **Recent excavations in the Marquesas: Evidence for the East Polynesian Archaic** (Barry Rolett)

11h00-11h20: **Variabilité des espaces dunaires dans l'archipel des Marquises : étude comparative des séquences d'occupation littorale sur l'île de Ua Huka** (Guillaume Molle & Eric Conte)

11h20-11h40: **The use of water in pre-contact Polynesia and Easter Island** (Burkhard Vogt)

11h40-12h30: Discussion, modérateur : James Flexner et Christophe Sand

Communications affichées

Emergence des sociétés traditionnelles et transformation des paysages forestiers dans le Pacifique: analyse comparée d'études anthracologiques en Nouvelle-Calédonie et en Polynésie Française (Emilie Dotte-Sarout avec la collaboration de André John Ouetcho, Jacques Bolé, David Baret et Christophe Sand, Jennifer Kahn & Patrick Kirch)

Evaluating Forest Transformations and the Rise of Arboreal Subsistence Strategies in the Marquesas Islands, French Polynesia (Jennifer Huebert)

Quels sites archéologiques pour quelles identités? Les choix des populations du Pacifique insulaire (Jeong-in Choi)

CONTRIBUTIONS PREVUES

Constructing Monumentality at Nan Madol, Pohnpei, Federated States of Micronesia: A geochemical sourcing study of architectural basalt

Helen Alderson (University of Otago, New Zealand) & Mark D. McCoy (University of Otago, New Zealand)

Marquesan Community Structure and Socio-political Process in Late Prehistory

Melinda S. Allen (Department of Anthropology, University of Auckland,)

Colonization of Eastern Micronesia: The Place of Pohnpei

William Ayres (Anthropology, University of Oregon, USA)

Investigating monumentality in Melanesia: the archaeology of ritual architecture on the islands of Malakula, Vanuatu

Stuart Bedford (The Australian National University, Australia)

First Lapita Settlement and the In-filling of a Contemporary Tongan Landscape

David Burley (Department of Archaeology, Simon Fraser University, Canada)

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Sophie Caillon and Mathieu Thomas (CNRS UMR 5175 – CEFE, France)

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Cauwe Nicolas (Royal Museums of Art and History at Brussels, Belgium)

****Banua/fenua* : une conception partagée du monde socio-cosmique**

Sophie Chave-Dartoen (ADESS UMR-CNRS 5185, Université Bordeaux Segalen, France)

Quels sites archéologiques pour quelles identités? Les choix des populations du Pacifique insulaire

Jeong-in Choi (UMR 7041, Université Paris 1)

The power and reach of the Tongan maritime chiefdom: Geochemical evidence for long-distance prehistoric interaction

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Tamara Maric (Service de la culture et du patrimoine, Polynésie française), Frédéric Torrente (Université de la Polynésie française, Polynésie française), Joana Hauata (Karuru Vanaga, Académie Pa'umotu), Jean-Michel Chazine (CREDO, CNRS UMR 7308, Université Aix-Marseille, France)

Variabilité des espaces dunaires dans l'archipel des Marquises : étude comparative des séquences d'occupation littorale sur l'île de Ua Huka

Guillaume Molle (Université de Polynésie française, Tahiti) & Eric Conte (Université de Polynésie française, Tahiti)

Deux réseaux régionaux d'Océanie

Denis Monnerie (Laboratoire Cultures et Sociétés en Europe, Université de Strasbourg/CNRS)

Developing quantitative methods for downscaling regional climate data to high resolution spatial and temporal scales: An example from Aitutaki, Cook Islands

Alex E. Morrison (University of Auckland, New Zealand), Melinda S. Allen (University of Auckland, New Zealand), Andrew Lorrey, and Michael Evans

Reconstruction of ancient Easter Islanders' diet: impact of gender, social status and spatial distribution

Caroline Polet (Royal Belgian Institute of Natural Sciences, Brussels, Belgium)

Spatial patterns at Teouma – a Neolithic kitchen midden site in Vanuatu, South Pacific - some methodological thoughts and results.

Mads Ravn (Museum of Cultural History, University of Oslo, Norway), Stuart Bedford (The Australian National University, Australia), Matthew Spriggs (The Australian National University,

Australia), Stuart Hawkins (The Australian National University, Australia) & Frédérique Valentin, (UMR 7041, CNRS, Universités Paris 1 et Paris 10, France)

The importance of freshwater access in successful island colonisation: new results from excavations in Palau

Christian Reepmeyer (Archaeology and Natural History, The Australian National University, Australia), Geoffrey Clark (Archaeology and Natural History, The Australian National University, Australia), Jolie Liston (Archaeology and Natural History, The Australian National University, Australia) & Ella Ussher (Archaeology and Natural History, The Australian National University, Australia)

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Jim Specht (Australian Museum, Sydney, Australia)

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Using *Baseline Probability Analysis (BPA)* and *Social Network Analysis (SNA)* in Pacific Archaeology: Evaluating the plausibility of alternative historical claims and reconstructions

John Edward Terrell (Field Museum of Natural History, Chicago, USA)

The use of water in pre-contact Polynesia and Easter Island

Burkhard Vogt (German Archaeological Institute, Bonn, Germany)

RESUMES

Constructing Monumentality at Nan Madol, Pohnpei, Federated States of Micronesia: A geochemical sourcing study of architectural basalt

Helen Alderson (University of Otago) & Mark D. McCoy (University of Otago)

The site of Nan Madol is an 81 hectare prehistoric administrative and ritual complex built into the lagoon of the volcanic high island of Pohnpei in the Federated States of Micronesia and consists of 93 islets built from basalt columns and boulders between AD 900 and AD 1650. In this paper we present new geochemical sourcing research aimed at modelling the effort expended by ancient Pohnpeians in the building the site's monumental scaled structures. Specifically, we will present the results of our 2012 field season during which we analysed a subsection of the basalt architecture using portable XRF (pXRF). The geochemical sourcing data is used in conjunction with architectural seriation information to look at relative trends over time in islet construction and monumental architecture development. These results are then compared with several models representing expected outcomes in terms of the historical trajectory of labour mobilisation over the history of the site's construction and use.

Marquesan Community Structure and Socio-political Process in Late Prehistory

Melinda S. Allen (Department of Anthropology, University of Auckland, New Zealand)

Community structure and socio-political process are investigated on Nuku Hiva, Marquesas Islands using domestic architecture. The raised platforms and terraces which dominate late prehistoric Marquesan landscapes are well suited to this kind of analysis. Raised house foundations were used by both elites and non-elites, and there is considerable variation in structure size, construction materials, internal organisation and spatial attributes. Changes in the character and frequency of status markers (size, ornamentation, and position), and overall community organisation inform on both internal and external influences, including the effects of western contact.

Colonization of Eastern Micronesia: The Place of Pohnpei

William Ayres (Anthropology, University of Oregon, USA)

The status of the three volcanic high islands in Central-Eastern Micronesia with regard to initial colonization of the Caroline Islands has been investigated archaeologically since the 1970s. Still, the timing of the earliest settlement and the derivation of the colonizers in this area has not been resolved. There has been acceptance of the colonization process for atolls in the area as early as 2000 BP, a model that follows from comparative linguistics. A review of pottery dating to the initial period on Pohnpei, with comparisons to collections from Chuuk and Kosrae, is helpful in formulating hypotheses about early settlement of this region of the Western Pacific.

Investigating monumentality in Melanesia: the archaeology of ritual architecture on the islands of Malakula, Vanuatu

Stuart Bedford (The Australian National University)

This paper presents preliminary results of a research project focusing on defining the historical trajectory of ritual architecture across the islands of Malakula, Vanuatu, South-West Pacific. Defining the chronology of the construction and use of large stone and or coral ceremonial structures can often be very difficult but the use of U/TH dating of corals that are incorporated into these structures on Malakula is providing a series of well-defined direct dates. This direct dating has been carried out on sites on the small island of Uripiv, and in association with archaeological excavations, historical documentation and oral traditions are providing a well-defined chronology for the appearance and

period of use of these structures in the north-east of Malakula. The aim of the overall project is to contribute to the understanding of general processes of social transformation in the wider Pacific.

First Lapita Settlement and the In-filling of a Contemporary Tongan Landscape

David Burley (Department of Archaeology, Simon Fraser University, Canada)

The Kingdom of Tonga consists of 169 islands strung out over a distance of 600 km along a southwest to northeast axis. First settlement by Lapita peoples occurred 2850 BP on Fanga 'Uta Lagoon on the southern island of Tongatapu. Excavation of multiple sites throughout the length of the archipelago over the past two decades provides a series of radiocarbon and Uranium/Thorium dates, as well as other data to precisely document and characterize settlement progression, including the extreme northern and southern outlier islands of Niuatoputapu and 'Ata. It is concluded that the contemporary political boundaries of Tonga were established no later than 2700 BP. Integrated interaction within these boundaries as well as external isolation during the post-Lapita Polynesian Plainware phase were central factors in the development of ancestral Polynesian society.

Contemporary circulation of Humans and Plants in the Banks group (Vanuatu): An approach in Ethnobiology and Social Network Analysis

Sophie Caillon and Mathieu Thomas (CNRS UMR 5175 – CEFE, France)

To understand migrations since Prehistory in Oceania, we need, among others, to study small-scale spatial dynamics between close islands. In this communication, we are questioning how contemporary migrants choose, appropriate and use their new territory. In Vanuatu, we have chosen to work on the migratory experiences of inhabitants from the island of Mota Lava (26 km², 1146 inhabitants) who settled since the 1980s on the deserted east coast of Vanua Lava (332 km², 1933 inhabitants). Land on Mota Lava is scarce. As soon as Mota Lavans can identify ancestors native of Vanua Lava, they are strongly encouraged to migrate in order to “open roads” through wedding. The actual migration is thus the reciprocal of an ancient one. Migrants transport the physical materials (baskets, tools, etc.) and the plants/animals they need to assure their living on the settlement site.

Using methods in ethnobiology and social network analysis, we want to understand how migrants “transport their landscape” (Kirch 1982), in both cultural and material meanings. In particular, what plants do they bring from their island of origin? What do they exchange with the other migrants already settled or with the local population? And what do they find in the local forest (i.e. ancient gardens)?

Agriculture and Cult-Platforms on Easter Island: Two Exclusive Domains?

Cauwe Nicolas (Royal Museums of Art and History at Brussels, Belgium)

On Easter Island, fields and *ahu* do not necessarily go together. On two sites excavated some years ago we have found a succession of cult-platforms, with remains of agricultural activities only during the non-use stages of the monuments. Among other functions, had the *ahu-moai* also a role of fertilization of land fallow, unless the statues could not be seen every day? Anyway, these facts recorded at Ahu Motu Toremo Hiva (Northern coast) and Ahu te Niu (Western coast) undermine the traditional image of the installation of the Rapanui people in the landscape, according to which the villages were located between the *ahu-moai* and the cultivated land. The remains of these different activities are indeed found in that order, but they were not all necessarily functioning at the same time, and agriculture and ritual obligations may have been mutually exclusive.

***Banua/fenua : une conception partagée du monde socio-cosmique**

Sophie Chave-Dartoen (ADESS UMR-CNRS 5185, Université Bordeaux Segalen, France)

Alors que notre compréhension de la dispersion et de la différenciation des sociétés d'origine austronésienne s'améliore, que les données disponibles augmentent, je souhaite proposer une réflexion sur la conception des populations pionnières quand à l'agencement des groupes sociaux et à l'organisation du cosmos.

Parmi les différentes entrées linguistiques envisageables pour aborder la question, le terme (PMP) **banua* est bien connu et mérite un réexamen attentif. « Terre » ou « pays », le mot désigne avant tout, pour Blust (1987), une unité écologique et sociale ; pour Fox (2006) et Reuter (2006) il renvoie surtout – au moins dans le Pacifique occidental – à une unité socio-rituelle.

De telles propositions sont utiles pour penser les phénomènes de projection et d'enracinement des sociétés océaniques, anciennes et contemporaines. C'est particulièrement le cas si on croise théories de l'archéologie (Anderson par exemple), propositions d'Ingold (2000), et des acquis ethnographiques sur la dimension sociocosmique des sociétés régionales. Sur ces bases, je développerai l'hypothèse selon laquelle **banua* et ses réflexes pourraient désigner un modèle générique de *landscape*, pris comme concept opératoire intégrant écosystèmes, usages de l'espace et dimensions cosmomorphiques des groupes sociaux, ce faisant, organisant rapport au monde et développement spatio-temporel.

Quels sites archéologiques pour quelles identités? Les choix des populations du Pacifique insulaire

Jeong-in Choi (UMR 7041, Université Paris 1)

Depuis les années 1960-70, dans la région du Pacifique insulaire, nous sommes témoins de l'émergence de revendications identitaires de la part des populations autochtones face aux diverses situations politiques et sociales. Ces revendications se manifestent aussi à travers la valorisation des sites archéologiques, qui occupent une place importante pour les populations autochtones de la région : ces patrimoines archéologiques sont les héritages ancestraux *authentiques*, antérieurs à l'arrivée des influences occidentales et de la modernisation.

A travers les sites valorisés à l'échelle internationale, en prenant l'exemple des sites archéologiques inscrits soit sur la Liste du patrimoine mondial de l'UNESCO ou soit sur une liste indicative, nous présenterons les revendications identitaires de la région. Les sites archéologiques présentés appartiennent à différents pays et territoires qui ont des statuts différents: le Vanuatu, le Royaume de Tonga, la Polynésie française, Rapa Nui, Palau, et les États fédérés de Micronésie.

Selon les différents contextes politiques, sociaux et culturels du pays ou du territoire, nous verrons que différents types d'identités (nationales, culturelles et ethniques) sont revendiquées. Bien que ces revendications soient différentes dans leurs formes et dans leurs objectifs, nous verrons qu'au fond et à travers ces sites archéologiques, ces populations autochtones revendiquent aussi conjointement pour la préservation des valeurs océaniques.

The power and reach of the Tongan maritime chiefdom: Geochemical evidence for long-distance prehistoric interaction

Geoffrey Clark & Christian Reepmeyer (Archaeology and Natural History, The Australian National University, Australia)

The maritime chiefdom of Tonga is traditionally reputed to have had long-distance interactions with many neighbouring islands during the 2nd millennium AD. This paper presents the results of an extensive geochemical analysis of stone tools associated with the monumental tombs of the paramount chiefly line, which illustrates the extent of canoe voyaging and power of the Tu'i Tonga lineage in creating a central place where non-local people and materials were concentrated. In contrast, stone tools associated with older ceramic sites (2800-1700 cal. BP) in Tonga display a different geographic

focus demonstrating the Tongan maritime chiefdom represented a major socio-political development in Pacific prehistory that extended to Fiji-West Polynesia and beyond.

The Origins and Distribution of Oceanic Agricultural Techniques Revealed through Bayesian Phylogenetic Analysis

Ethan E Cochrane (Department of Anthropology, University of Auckland, New Zealand)

Agricultural innovation fuelled the development of traditional Oceanic societies. Techniques such as pond-fields, lithic mulching, and windbreak farming increased yields or made otherwise marginal landscapes habitable and are undeniably related to population increases and changes in social complexity. Unfortunately, our knowledge of the evolution of particular techniques, including ancestral states in cultural phylogenies, homologies across related lineages, and independent inventions has been largely speculative. In this paper I present a Bayesian phylogenetic analysis of ethnohistorically and archaeologically documented agricultural techniques across Oceanic societies. The analysis combines linguistic trees as models of population history with agricultural technique data to explain the evolution of techniques across Oceania. Results have implications for our understanding of prehistoric interaction, the evolution of social complexity, and the concept of Polynesia as a monophyletic or single cultural unit.

Social Landscapes and *Kapu* in the Hawaiian Islands: A case study from the Ka‘ū district, Hawai‘i Island.

Maria Codlin & Mark D McCoy (University of Otago, New Zealand)

In ancient Hawai‘i, elites employed ideology as a way of acquiring and stabilising political and economic power. Material evidence of this is found in the numerous temples throughout the islands and in the formalised rules for constructing households. Ethnohistoric literature describes Hawaiian households as a collection of buildings with specific functional purposes. By segregating these activity areas, the Hawaiians were seen to observe *kapu*, a Polynesian ideological concept which, in Hawai‘i, includes many restrictions around gender and eating practices. This was particularly vital to the elite as failure to observe *kapu* could pollute *mana*, the divine source of authority and power. This project looks at the functional and spatial attributes of a number of households from Manukā in Ka‘ū district on Hawai‘i Island. We assess these attributes at three levels of analysis: community, household and building, to build a picture about how ideology is incorporated into households in the region. Our research indicates that the concept of *kapu* is pervasive in the Hawaiian landscape and that its incorporation into households occurs regardless of rank. The social reproduction of ideology within the home suggests it could be a deciding factor in the efficacy of ideology as a political strategy.

La voile en aile de papillon: un gréement singulier au cœur de la Mélanésie. Essai de reconstruction d'une pirogue ancienne

Anne Di Piazza (CREDO, CNRS UMR 7308, Université Aix-Marseille, France)

L'examen des sources historiques et de la distribution de la voile en aile de papillon sur les seules îles centrales et septentrionales du Vanuatu la font apparaître comme un cas singulier. Il s'agit d'un type de voile à deux espars caractérisant la Polynésie (et non la Mélanésie), qui a pour caractéristique d'être utilisé pour la manœuvre amphidrome et monodrome. Comment expliquer cette exception ? Si cette voile correspond bien au modèle du gréement Lapita développé par G. Irwin et A. Anderson, nous montrerons qu'il doit beaucoup à « l'invention » de la voile à livarde et de la manœuvre monodrome. Invention qui s'est accompagnée d'un « renouveau » du savoir et savoir-faire maritimes élaborés par des locuteurs du « Polynésien nucléaire du Nord », quelques temps avant la découverte et le peuplement de la Polynésie orientale.

Emergence des sociétés traditionnelles et transformation des paysages forestiers dans le Pacifique: analyse comparée d'études anthracologiques en Nouvelle-Calédonie et en Polynésie Française.

E. Dotte-Sarout (University of Western Australia), avec la collaboration de André John Ouetcho, Jacques Bolé, David Baret et Christophe Sand (Institut d'Archéologie de Nouvelle-Calédonie et du Pacifique), Jennifer Kahn (College of William and Mary) & Patrick Kirch (University of California Berkeley)

Dans un article publié en 2009, plusieurs archéobotanistes travaillant en Océanie plaidaient pour une meilleure intégration des études archéobotaniques au sein des recherches archéologiques menées dans la région (Denham et al. 2009). Près de 5 ans plus tard, il semble que leur appel ait été entendu, puisque nous assistons à la fois à une augmentation progressive des projets archéologiques intégrant des analyses archéobotaniques dès la conception du projet et à l'arrivée d'un nouveau contingent de spécialistes formés dans les différentes disciplines archéobotaniques. Toutefois, les charbons de bois continuent de représenter un éco/artefact fortement sous-étudié malgré une quasi-ubiquité dans les niveaux archéologiques. Forte de plus de 30 ans de consolidations méthodologiques et théoriques, l'anthracologie est maintenant utilisée systématiquement en archéologie européenne et proche ou moyen-orientale mais l'application de ses standards disciplinaires reste très marginale en Asie-Pacifique. Pourtant, dans une région où la transformation anthropique de l'environnement et les pratiques d'horticulture/arboriculture sont régulièrement citées comme problématiques majeures de la recherche archéologique, la discipline a le potentiel de fournir des informations directes tant sur le plan paléo-environnemental que paléo-ethnobotanique.

Nous souhaitons présenter ici succinctement deux études anthracologiques réalisées récemment, sur la côte Nord-Est de Nouvelle-Calédonie et sur les îles de Moorea et Mangareva en Polynésie Française, qui permettent d'illustrer ce propos. Une comparaison des méthodes d'application (et des problèmes rencontrés), ainsi que des résultats obtenus sera exposée. Un certain contraste semble apparaître entre les modes de gestion de l'espace forestier et l'impact humain sur la végétation entre les deux régions, ce qui sera discuté dans le contexte archéologique océanien.

Field Mapping and Oceanic Prehistory: A Methodological History

James L. Flexner (School of Archaeology and Anthropology, The Australian National University, Australia)

Archaeologists have long acknowledged that disciplinary history is very important for understanding not only how far we have come, but also for understanding why we do things in certain ways and not others. Further, it is clear that there are different regional bents to the history of archaeology. In Oceania, and especially Polynesia, the development of the "settlement pattern approach" from the 1960s onwards has been especially influential to regional archaeological history and contemporary practice. Importantly, the settlement pattern "turn" in Oceania included a notable visual change with the integration of site plans at various scales as a way of describing archaeological landscapes. Maps obviously have a much longer history in the representation of cultures as well as archaeological sites in Oceania as well. Exploring the history of visual representations of past places, and the techniques through which these images were produced, is an important part of the history of archaeology in the Pacific and elsewhere. This is especially true in regards to training the next generation of Pacific archaeologists, and the increasing consideration of alternative (especially indigenous) epistemologies in Pacific archaeology.

L'espace insulaire en Polynésie : continuité des représentations et des pratiques entre domaines céleste et terrestre

Hélène Guiot (UMR 7041, CNRS, Universités Paris 1 et Paris 10, France)

Les récits cosmogoniques de nombreux archipels de Polynésie présentent le ciel comme une série de strates, de coupoles ou encore de plates-formes superposées, tandis qu'un système d'organisation

spatiale agence le territoire insulaire en disques concentriques. Il semble qu'un lien de continuité puisse être établi entre ces deux modes de division de l'espace. Nous tenterons de voir dans quelle mesure ce lien permet une compréhension du passé des sociétés polynésiennes tant du point de vue de leurs conceptions que de leurs pratiques de l'espace insulaire. Ces hypothèses de travail s'appuieront sur des exemples choisis en Polynésie occidentale et orientale.

Production et échange des lames d'herminette en pierre en Polynésie centrale: dynamiques techno-économiques.

Aymeric Hermann (Université de la Polynésie française, Tahiti)

Depuis l'arrivée des premiers austronésiens dans le Pacifique, les herminettes à lame de pierre représentent l'outil essentiel dans la plupart des activités artisanales impliquant le travail du bois. Certaines herminettes considérées comme des objets de prestige, avaient une fonction ostentatoire et marquaient l'accès à un statut social privilégié. Ainsi, ces objets jouaient un rôle majeur dans les sociétés océaniques, tant dans l'économie dite « de subsistance » que dans la sphère symbolique.

Nous proposons d'aborder les dynamiques techno-économiques liées à la production et à l'échange de ces objets dans les sociétés de Polynésie orientale, notamment à travers l'analyse d'une série d'assemblages archéologiques découverts sur la côte Nord de l'île de Tubuai (Archipel des Australes). L'approvisionnement en matières premières et la circulation des lames polies sont restituées grâce aux analyses chimiques des matériaux. L'observation et la comparaison des différentes chaînes opératoires de débitage et de façonnage permettent d'aborder les dynamiques de production et d'entretien des lames en pierre, depuis les sites d'extraction des roches jusqu'aux ateliers de transformation et aux habitats.

L'analyse des modalités de production et d'échange de ces artefacts permet d'approcher les dynamiques complexes liées à la transformation des matériaux lithiques et à la distribution des lames polies, à l'intérieur même des communautés ou au sein des réseaux d'échange à longue distance.

Evaluating Forest Transformations and the Rise of Arboreal Subsistence Strategies in the Marquesas Islands, French Polynesia

Jennifer Huebert (University of Auckland, New Zealand)

Polynesian settlers transformed native forests of the central Pacific islands into productive economic landscapes. In several cases, arboriculture was a key component of the subsistence economy. While many agroforests in the region continue to be useful today, some were considerably reduced or have entirely disappeared since western contact, as was the case for the Marquesas Islands. The long-term processes of anthropogenic forest transformation, from initial settlement through the historic era, are not well understood. Wood charcoal analysis is uniquely suited to provide direct information on past vegetation, and this case study utilizes archaeological charcoal assemblages from Nuku Hiva to understanding of food-production practices and human ecodynamics in the tropical Pacific Islands.

Implications of Late and Rapid Colonization of Eastern Polynesia

Terry L. Hunt (Department of Anthropology, University of Hawai'i, USA)

The archipelagos of the remote and eastern Pacific (eastern Polynesia), including Hawai'i, Rapa Nui, Marquesas, Cooks, Societies, and New Zealand were among the last human discoveries and colonization events of prehistory. Until recent advances in more precise chronological control, the timing of colonization for these islands remained poorly established. Reliable radiocarbon records now reveal later and remarkably rapid human dispersal and colonization over a vast oceanic region. In this paper I consider methodological aspects in building reliable chronologies and go on to outline many emerging implications for regional prehistory.

Ideology as a Source of Power: A Multi-Scalar, Spatio-Temporal Analysis of Ma'ohi Religious Practices

Jennifer G. Kahn (Anthropology Department, College of William & Mary, USA)

Many archaeologists consider ideology to be one of the avenues by which elites developed and maintained power in complex chiefdoms. In Polynesia, most studies of ideology have focused on the scale and temporality of monumental architecture, most notably, temple sites. However, ethnohistoric and archaeological data demonstrate that Eastern Polynesian religious practices, each of which had an ideological component, took place in a number of locales. Ritual practices were associated with a wide range of material culture and site types, including shrines with god figures, priest's houses, mortuary sites, temples, rock art, and sacred elements of the landscape. In this paper, I provide a multi-scalar analysis of religious architecture and ritualized practices in the Society Islands. Utilizing a spatio-temporal perspective, I compare and contrast evidence for public, communal religion versus more private, household rituals. The goal is to demonstrate how multi-scalar spatio-temporal analyses can be used to investigate the elaboration of religious practices through time. In addition, links between social complexity and ideology in the development of the Ma'ohi chiefdoms are explored, including how elites may have appropriated certain ritual spaces, ideas, and practices to exploit ideology as a form of socio-economic and political control.

“Controlling the Elements” – Anthropogenic Landscape Transformation at Ava Ranga Uka A Toroke Hau, Rapa Nui (Easter Island)

Annette Kühlem (German Archaeological Institute, Bonn, Germany)

The site of Ava Ranga Uka A Toroke Hau is located in the center of the island at the eastern slope of the volcano Terevaka. Its location inside a small valley of the *Quebrada Vaipú* (Vaipú Creek), two massive gravity walls, and an elaborately made water basin with petroglyphs were initially the reason to conduct an archaeological investigation which yielded most interesting information. Excavations in the center of the site have shed further light on the dimension of anthropogenic landscape transformation in pre-contact times. It turned out that cultural deposits of more than 2 m height formed an artificial plateau inside the original creek bed. Anthropogenic use surfaces were created by transporting sediment from different sources, alluvial sediment and boulders that were washed down the river during catastrophic rain events were moved and spread out to form an even surface, sediment was intensively compacted over wide areas, and elaborately laid pavements spanned great parts of the small valley.

Among those layers a number of outstanding features were found: Parallel canals to channel the flow of water, circular plating pits for palm trees, fireplaces for the production of red pigment etc., demonstrating the hitherto unknown dimension of “domestication” of the natural elements on Rapa Nui.

Structures horticoles traditionnelles en milieu ultramafique : le cas de l'Île des Pins et comparaisons avec le Sud de la Grande Terre de Nouvelle-Calédonie

Louis Lagarde (Institut d'Archéologie de Nouvelle-Calédonie et du Pacifique (IANCP), Nouvelle-Calédonie)

Si les structures horticoles kanak, caractéristiques du dernier millénaire, sont aujourd'hui mieux connues et systématiquement inventoriées, les environnements géologiques à substrat acide ont plus rarement incité les populations anciennes de l'archipel calédonien à la mise en valeur horticole. Cependant, un programme récent de recherches sur l'Île des Pins (2006-2010) a tout de même montré la présence de réseaux complexes de structures empierrées, probablement à vocation horticole, sur sols ultramafiques. Les particularités géologiques de ces derniers ont-elles conditionné les types-mêmes de ces aménagements anthropiques ?

La comparaison avec les structures déjà inventoriées des zones voisines et géologiquement proches (Yaté, Ouinné) peut amener des éléments de compréhension sur la destination de ces structures, les logiques d'adaptation ayant présidé à leur édification ainsi que leur place dans la chronologie calédonienne.

Determining Lapita and post-Lapita pottery provenance: Investigation of the spatial dispersion of manufacture locations in Vanuatu

Mathieu Leclerc (The Australian National University, Australia)

This presentation will address the results obtained from a provenance study of ceramic and soil samples from Vanuatu. Because of the archipelago's particular geographical location, it represents a crucial place for understanding population movements and interactions in the Southwest Pacific. Several analytical techniques were used (XRD, LA-ICP-MS and zircon dating) in order to identify pottery manufacture locations and thus contribute to the understanding of modes of production and to study transformation of these processes through time. The analysis of a ceramic sampling covering a wide range of decoration styles, motifs, pot shapes, temper types and time periods from Vanuatu's archaeological record combined with the results obtained from the analysis of soil samples originating from various geological regions of the archipelago provide a solid database from which relevant archaeological conclusions can be drawn. This talk will focus on these results regarding questionings related to the usage of the pottery such as: Where were these pots made? Do the manufacture locations affect the way pots are decorated? Does the production mode change through time?

An Archaeological History of Property Rights, Trade, and War in New Zealand

Mark D. McCoy (University of Otago, New Zealand) & Thegn N. Ladefoged (University of Auckland, New Zealand)

Broad patterns in archaeological evidence point to an increase in conflict over land, and decrease in mobility, among Maori in the pre-European contact era, especially: (1) the spatial correlation between hillforts (pā) and prime land for gardening; and (2) the temporal correlation between the earliest dates for the construction of hillforts around 1500 A.D. with a drop off in long-distance transport of obsidian. Unfortunately, when it comes to the era when most hillforts were constructed (1500-1840 A.D.), we have few studies that speak to people's choices regarding how they supplied themselves with obsidian. Here we argue based on new research in the Bay of Islands region that the most intense period of aggression over land occurred early in this era when there were few hillforts and a great deal of ambiguity over who held property rights. As the number of hillforts increased, property boundaries became regularized, people appear to have travelled and traded more freely, and an economy of gifting developed to mitigate conflict. In the post-contact era, the Ngāpuhi tribe's success over their rivals marks another shift in property rights that appears to have once again increased the ease with which people could travel and trade.

Lieux de vie et lieux sacrés à Ganaa (archipel des Tuamotu, Polynésie française)

Tamara Maric (Service de la culture et du patrimoine, Polynésie française), Frédéric Torrente (Université de la Polynésie française, Polynésie française), Joana Hauata (Karuru Vanaga, Académie Pa'umotu), Jean-Michel Chazine (CREDO, CNRS UMR 7308, Université Aix-Marseille, France)

Au cours de son histoire, l'atoll de Anaa a été le point d'origine de conquêtes guerrières sans précédent dans l'archipel, les guerriers « Parata » nouant des liens avec d'autres aires culturelles de l'archipel ainsi qu'avec l'île de Tahiti dont il est proche. Nous présentons ici des recherches entreprises à partir de 2009, combinant une approche étroitement croisée entre l'ethnohistoire, à travers l'étude des traditions orales et de la toponymie, et l'archéologie. Cette méthode a permis de reconstituer les anciens territoires de cet atoll à la configuration sociopolitique très complexe. L'analyse étymologique et comparative des noms de terres met en lumière une occupation de l'espace

extrêmement détaillée, avec des espaces bien différenciés. Cette présentation se focalisera sur la zone Sud de l'atoll, correspondant à l'ancien *matakeinaga* (« district ») de Tematahoa, où ont été reconstitués les espaces sacrés et religieux, fondateurs du pouvoir politique et liés à l'élite sociale, les lieux de vie communautaires des anciens *gati*, et les espaces consacrés aux ressources économiques (exploitation des milieux marins et terrestres). Ces recherches ont également démontré les liens avec les autres aires culturelles des Tuamotu, dont on retrouve les traces archéologiques à travers les formes architecturales variées des *marae*, monuments cérémoniels – dont un nouveau type de *marae* qui semble avoir été spécifique à cet atoll.

Variabilité des espaces dunaires dans l'archipel des Marquises : étude comparative des séquences d'occupation littorale sur l'île de Ua Huka

Guillaume Molle & Eric Conte (Université de Polynésie française, Polynésie française)

Les travaux archéologiques conduits sur les îles marquises s'inscrivent dans deux types d'espaces qui participent d'une dichotomie propre aux paysages de l'archipel et tendent à considérer séparément les zones intérieures des vallées et les systèmes dunaires. Véritables interfaces entre les milieux maritimes et terrestres répondant au modèle de « distribution libre idéale », ces derniers ont, depuis le début des recherches, été vus comme des secteurs privilégiés susceptibles de livrer des traces de premier peuplement, hypothèse qui, par ailleurs, a souvent été confirmée.

Pourtant, les investigations menées sur plusieurs secteurs dunaires de l'île de Ua Huka, dans le groupe Nord, ont montré que les occupations humaines anciennes qui leur sont associées variaient tant du point de vue de leur profondeur chronologique que de leur nature. L'ouverture de larges surfaces de fouilles a notamment permis de mettre en évidence des transformations successives des activités à travers le temps, allant de hameaux de pêcheurs à des cimetières ou des postes de guet, voire des sites cérémoniels *tapu*.

Nous proposons ici une approche comparative de plusieurs sites dunaires de Ua Huka dont les séquences sont documentées archéologiquement (Hane, Manihina, Hinipohue, Hatuana et Haavei) afin de mettre en évidence une variabilité chronologique et fonctionnelle de leur occupation permettant une réappréciation de ce type de paysage dans l'environnement insulaire marquisien pré-européen.

Deux réseaux régionaux d'Océanie

Denis Monnerie (Laboratoire Cultures et Sociétés en Europe, Université de Strasbourg/CNRS)

Des théories récentes évoquent la postérité de l'ancien réseau (ou civilisation ?) archéologique Lapita comme relevant de processus de fragmentation et de contraction.

En effet, ce qu'observent aux époques récentes les historiens, géographes et anthropologues sont des réseaux de relations régionales de taille beaucoup plus réduite que celle du Lapita.

Cette communication décrira d'une part le réseau de relations régionales des Salomon du Nord Ouest (ethnohistoire, entre 1850 environ et 1908) et d'autre part celui de l'extrême nord de la Grande Terre de Kanaky Nouvelle-Calédonie, nommé Hoot ma Whaap (contemporain, 1992-2012).

A partir d'études comparatives des biens, idées et personnes qui y circulent, des modalités de ces circulations et des concepts et idéologies locaux qui les sous-tendent, il apparaît que derrière la notion très large de réseau existent des modalités de relations régionales diverses. On peut ainsi contraster un réseau en patchwork et un réseau (beaucoup plus) homogène.

Developing quantitative methods for downscaling regional climate data to high resolution spatial and temporal scales: an example from Aitutaki, Cook Islands

Alex E. Morrison, Melinda S. Allen, Andrew Lorrey, and Michael Evans (University of Auckland, New Zealand)

Archaeologists are often interested in examining the influence of climate on a variety of different aspects of past life-ways associated with subsistence and settlement. However, many environmental

characteristics associated with climate vary at a multitude of spatial scales ranging from differences in island topography to regional atmospheric and oceanic circulation patterns. Furthermore, climate also fluctuates at temporal scales ranging from yearly to multi-decadal cycles. The poor resolution of many climate datasets makes it important to assess their appropriateness for resolving specific research questions and when necessary to develop techniques for improving precision and accuracy. In this presentation, we develop quantitative methods for downscaling a regional climate dataset to high resolution local spatial and temporal scales. As a case study, we reconstruct sea surface temperature (SST) in the Aitutaki Lagoon, Cook Islands, from approximately AD 2011 to AD 1000.

Reconstruction of ancient Easter Islanders' diet: impact of gender, social status and spatial distribution

Caroline Polet (Royal Belgian Institute of Natural Sciences, Brussels, Belgium)

This presentation relates to the study of the ancient Easter Islanders diet dating mainly from the 17th to the 19th century. The dietary reconstruction is based on stress indicators, dental microwear and stable carbon and nitrogen isotope analyses. The dental microwear pattern indicates a large proportion of tubers in the diet. Additionally, the stable isotopes show that, on average, more than one third of the dietary proteins were of marine origin and that children were breastfed until 3 years of age. Stress indicators suggest that infantile malnutrition was not severe. Our results also evidence gender disparities in access to food resources. Furthermore, the distribution of the isotopic signatures according to the site of origin gives some interesting results such as clusterings of individuals according to their geographic provenance. Finally, individuals from *Ahu Nau Nau* which is said to be the royal *ahu* (funerary stone platform) display the highest value of nitrogen and carbon isotopes and a lower number of microwear features. A greater consumption of marine products may explain this distinction.

Spatial patterns at Teouma – a Neolithic kitchen midden site in Vanuatu, South Pacific - some methodological thoughts and results.

Mads Ravn (University of Oslo, Norway), Stuart Bedford (The Australian National University, Australia), Matthew Spriggs (The Australian National University, Australia), Stuart Hawkins (The Australian National University, Australia) & Frederique Valentin (UMR 7041, CNRS, Universités Paris 1 et Paris 10, France)

This presentation will present the preliminary results of spatial analyses of artifact distribution from the complex Lapita site of Teouma in Vanuatu in the South Pacific. Between 2005 and 2011 extensive digital registration of the Teouma excavation were carried out. The methodology, the registration method and the preliminary results will be presented with a focus on the artifacts and their spatial distribution. Also a few challenges in the further analyses will be discussed.

The importance of freshwater access in successful island colonisation: new results from excavations in Palau

Christian Reepmeyer, Geoffrey Clark, Jolie Liston & Ella Ussher (Archaeology and Natural History, The Australian National University, Australia)

Subsistence strategies of Lapita colonisers and settlement locations of Lapita sites in close vicinity of freshwater streams have been employed to develop predictive models about potential archaeological sites. It was concluded that small islands with marginal environments might have been actively avoided by early colonisers because of lack of access to surface freshwater. This paper presents results from recent excavations on the Rock Islands of Palau where two ceramic containers with broken bottoms were found in stratigraphic levels associated with freshwater lenses in a beach setting. Radiocarbon age determinations of around 2700 cal BP place the vessels into the early colonisation phase of the Rock Islands of Palau. It is suggested that these containers might have functioned as

sumps tapping the freshwater lens, providing evidence that colonising populations were able to sustain settlements on small islands without surface freshwater. More importantly, can this evidence be interpreted as technological competence of early colonisers assessing environmental attributes of small island hydrology?

Recent excavations in the Marquesas: Evidence for the East Polynesian Archaic

Barry Rolett (University of Hawai'i, Manoa)

The Hanamiai Dune is among a number of Marquesan archaeological sites with cultural deposits representing the East Polynesian Archaic era. These Archaic deposits, dated to the time period AD 1000 – 1450, are typically marked by chronologically diagnostic artifacts such as untanged adzes and rotating one-piece pearl shell fishhooks. The currently known Hanamiai Archaic deposits were discovered in the 1980s, but early in the following decade they were inadvertently destroyed by sand mining operations to support road construction. Later excavations at Hanamiai (1997 – 2010) failed to reveal evidence of the Archaic. A breakthrough occurred during the 2012 and 2013 field seasons when rich Archaic deposits were found at depths of 2 – 3 meters below the modern ground surface. The diagnostic artifacts include rotating pearl shell fishhooks, a whale tooth pendant, and a bone tattooing needle. Our preliminary results are discussed here in the context of other early East Polynesian sites including Hane, Hanatekua, and Fa'ahia.

Traditional Kanak landscapes: intensification processes during the second millennium AD on the Grand Terre of New Caledonia (Southern Melanesia)

Christophe Sand, André-John Ouetcho, Yves-Béalo Gony, David Baret, Jacques Bole (Institut d'Archéologie de la Nouvelle-Calédonie et du Pacifique (IANCP), Nouvelle-Calédonie)

Over the past two decades, archaeological studies have started to challenge the orthodox model proposed by ethnographers for the traditional indigenous Kanak societies of the main island of New Caledonia, called Grande Terre. Contrary to a sparsely populated island described for the late 19th century, archaeological surveys have revealed a massive process of landscape use during the millennium preceding first European contact in the late 18th century, intensification being particularly observable in extended horticultural field systems and household building. Recent research projects undertaken by the IANCP have started to map the density of some of these occupations on Grande Terre on a wide scale, allowing for the first time to get a precise sense of the complexity of Kanak settlement patterns. Excavation on some of these sites allows to get a better control on the building chronology of these traditional Southern Melanesian landscapes. The paper will present these new data and tackle the topic of what the concept of “archaeology of tradition” can mean in the Western Pacific.

Architectural Analysis of Mortuary Structures on Pohnpei and Implications for Interpreting Socio-Political Change

Katherine Seikel (The Australian National University, Australia)

Architectural analysis generally provides descriptions and discussions architectural features, as well as a means to compare structures of the same type across the landscape. Identifying mechanisms of labor mobilization and inter-group trade connections is possible through examination of labor investment and materials sourcing. The analysis of mortuary structures on Pohnpei provides a test case emphasizing the value of detailed architectural analysis in discussing socio-political change. These structures date to c. AD 1150-1650 and comprise the monumental component of the major increase in stone construction on Pohnpei starting around AD 900. This case study exhibits the benefits and limitations of architectural analysis at varying scales as they apply to discussions of socio-political change and the development of traditional societies in the Pacific.

Isolation and interaction in the Eastern Papua New Guinea islands: Identifying prehistoric cultural contact, and the development of regional exchange networks in the archaeological record.

Ben Shaw (School of Archaeology and Anthropology, The Australian National University, Australia)

Archaeological research was recently undertaken for the first time on the isolated island of Rossel in the Louisiade Archipelago, Milne Bay Province, Papua New Guinea. The small population on the island today speaks a language that is unrelated to the languages spoken elsewhere in this vast island region. The complexities of their cultural traditions are also regionally unparalleled, and the people themselves are genetically distinct. Rossel Island is a unique outlier in an otherwise culturally similar region.

The major aims of the archaeological project are twofold. Firstly, to develop a chronology for human occupation on Rossel Island, and secondly, to identify changes in the archaeological record that may relate to cultural development, or cultural contact, in prehistory. To place Rossel Island in a comparative regional framework, excavation was also undertaken on Nimowa Island in the Louisiade Archipelago. Extensive AMS dating, material culture analyses, biological anthropology, ethnography and linguistics have all been applied in a multi-disciplinary approach to understanding prehistoric cultural development on Rossel Island.

The emergence of traditional societies on New Britain, Papua New Guinea: An ongoing project?

Jim Specht (Australian Museum, Sydney, Australia)

At over 36,000 km² New Britain is the roughly the same size as Taiwan, and is the largest island to the east of New Guinea. In the European terms it falls between Belgium on the one hand and the Netherlands and Switzerland on the other. It lies within one of the most earthquake prone area of the world, and with a dozen or more active volcanoes is one of the most unstable islands of the Pacific. These factors have combined with others to influence significantly the establishment and persistence of the island's human societies. The definition of 'traditional societies', however, is problematic and depends as much on the commentator's viewpoint as it does on identifying the social groups that form the societies. The archaeological evidence is minimal, and is restricted to three main areas: Watom Island, the Willaumez Peninsula and the Kandrian-Arawe Islands area of the south coast. The paper considers this limited evidence and offers several models for the persistence of these societies, which may be viewed as in a constant state of flux.

L'île de Tanna à Vanuatu, un monde mélanésien au contact d'exclaves polynésiennes

Marc Tabani (CREDO, CNRS UMR 7308, Université Aix-Marseille, France)

Les habitants de l'île de Tanna (sud de Vanuatu) se rattachent à des traditions mélanésiennes fortement exposées aux influences culturelles de deux exclaves (*outliers*) polynésiennes et réciproquement. Les îles d'Aniwa et de Futuna servirent également à l'époque coloniale de base arrière pour la christianisation des populations plus nombreuses de Tanna. Amalgamant chronologiquement ce jeu d'influences culturelles multiples, la notion intemporelle de « *kastom* » (coutume en *pidjin-english* de Vanuatu) présente un frein à l'établissement d'une périodisation plus stricte de ces contacts et brouille, par là même, notre compréhension des formes culturelles qui en sont issues. Deux institutions, qui se normalisent à l'époque historique, y apparaissent révélatrices des formes d'organisation sociale et des spécificités syncrétiques de leur complexe cérémoniel : le *nakamal*, ou place de danse, et les grandes cérémonies du *nekowiar* qui s'y déroulent. Au moyen d'une compilation d'éléments historiques, anthropologiques et linguistiques relatifs à l'organisation sociale et cérémonielle des insulaires de Tanna, nous tenterons d'esquisser de nouvelles perspectives sur les processus de syncrétisation successifs qui se sont cristallisés dans cette île, depuis une phase précoloniale tardive et jusqu'à la période coloniale d'imposition du christianisme.

Using *Baseline Probability Analysis (BPA)* and *Social Network Analysis (SNA)* in Pacific Archaeology: Evaluating the plausibility of alternative historical claims and reconstructions

John Edward Terrell (Field Museum of Natural History, Chicago, USA)

Baseline probability analysis (BPA)—the evaluation of historical, physical, biological, and social parameters having the prior probability of being relevant to many human situations, past and present—can be used in conjunction with social network analysis (SNA) to identify, explore, and evaluate the robustness, or plausibility, of alternative historical claims and reconstructions in Oceanic prehistory. Systematic consideration of differing baseline parameters leads to significantly different interpretations of Lapita archaeology and the prehistory of the Oceanic (Austronesian) languages.

The use of water in pre-contact Polynesia and Easter Island

Burkhard Vogt (German Archaeological Institute, Bonn, Germany)

Fresh water is perhaps the most valuable resource exploited by humans. It is not only used for drinking, cooking, and personal hygiene, it is also a substantial element of food production process and its intensification. Almost all pre-contact societies across the Pacific used to construct hydraulic monuments such as wells and drainage or irrigation systems. Especially the latter have been studied in Melanesia, Micronesia, and Polynesia with the most extensive and impressive ones in New Caledonia, New Zealand, and the Hawaiian islands. Irrigation technology appears to have been introduced from the west and adapted to the very specific local conditions. Basic water management techniques have reached even Easter Island, situated in the subtropical zone and allegedly lacking any perennial rivers, but here the use of water apparently received an additional ritual significance. The paper will provide a general introduction into the hydraulic architecture on Pacific islands and present first results of surface reconnaissance of hydraulic monuments and their first excavation on Easter Island.

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