



# From Southeast Asia to the Pacific

東南亞到太平洋

Archaeological Perspectives on the  
Austronesian Expansion and the  
Lapita Cultural Complex

從考古學證據看南島語族擴散  
與 Lapita 文化之間的關係

Scarlett Chiu / Christophe Sand 主編

From  
to 1

Archa  
Austral  
Lapita Cultural Complex



# 東南亞到太平洋

從考古學證據看南島語族擴散  
與 Lapita 文化之間的關係

Center for Archaeological Studies  
Research Center for Humanities and  
Social Sciences, Academia Sinica

中央研究院人文社會科學研究中心  
考古學研究專題中心

ISBN 986-00-7567-0



9 789860 075670

00800



封面設計/莊淑娟

FROM SOUTHEAST ASIA TO THE PACIFIC  
ARCHAEOLOGICAL PERSPECTIVES ON  
THE AUSTRONESIAN EXPANSION AND THE LAPITA CULTURAL COMPLEX

東南亞到太平洋

從考古學證據看  
南島語族擴散與 LAPITA 文化之間的關係

Scarlett CHIU

Academia Sinica, Taipei, Taiwan

Christophe SAND

Department of Archaeology of New Caledonia  
Nouméa, New Caledonia

---

TAIPEI

CENTER FOR ARCHAEOLOGICAL STUDIES  
RESEARCH CENTER FOR HUMANITIES AND SOCIAL SCIENCES  
ACADEMIA SINICA - 2007



FROM SOUTHEAST ASIA TO THE PACIFIC  
ARCHAEOLOGICAL PERSPECTIVES ON  
THE AUSTRONESIAN EXPANSION AND THE LAPITA CULTURAL COMPLEX



## FROM SOUTHEAST ASIA TO THE PACIFIC

### ARCHAEOLOGICAL PERSPECTIVES ON THE AUSTRONESIAN EXPANSION AND THE LAPITA CULTURAL COMPLEX

---

Editors	Scarlett CHIU	Christophe SAND		
Translators	Aggie Wen-Fen LU	Hsiuman LIN	Chihhua CHIANG	Yiling LIN
	Scarlett CHIU	okay (a) boa	Yong-Cheng LIU	I-Hsun CHEN
Translation Revisers	Scarlett CHIU	Yong-Cheng LIU	Yi-Huai CHANG	Aggie Wen-Fen LU
Assistant Editors	Aggie Wen-Fen LU	Yi-Huai CHANG	Yong-Cheng LIU	Pei-Chun CHU
Cover Designer	Shu-Chuan CHUANG			
Layout Editor	Nicolas PRINIOTAKIS			
Publisher	Center for Archaeological Studies Research Center for Humanities and Social Sciences Academia Sinica 128 Sec. 2, Academia Rd., NanKang, Taipei 115, Taiwan (R.O.C.) 886-2-2782-9555 ext. 683			
Printer	Yong-Deng Limited Company 2F-3, No.70, Jian 6th Rd., Jhonghe City, Taipei County 235, Taiwan (R.O.C.) 886-2-2940-8693			
Edition	2007, First Print			
ISBN	978-986-00-7567-0			

---





國家圖書館出版品預行編目資料

東南亞到太平洋：從考古學證據看南島語族擴散與 LAPITA 文化之間的關係  
= From Southeast Asia to the Pacific: Archaeological Perspectives on the Austronesian Expansion and the Lapita Cultural Complex / Scarlett Chiu, Christophe Sand 主編. —初版 —臺北市：中央研究院人社中心，民96  
面；公分  
中英對照  
ISBN 978-986-00-7567-0 (平裝)

1. 南島民族—論文，講詞等 2. 考古學—論文，講詞等  
536.3607 95023601

---

主編	Scarlett CHIU (邱斯嘉)	Christophe SAND
翻譯	盧文棻 林秀嫻 江芝華 林宜羚 朱黛華 劉勇成 陳憶萱	Scarlett CHIU (邱斯嘉)
校譯	Scarlett CHIU (邱斯嘉) 劉勇成 張藝懷 盧文棻	
助理編輯	盧文棻 張藝懷 劉勇成 褚珮君	
封面設計	莊淑娟	
排版設計	Nicolas PRINIOTAKIS	
出版發行	中央研究院人文社會科學研究中心考古學研究專題中心 台北市南港區研究院路二段128號 電話：02-2782-9555轉683	
印刷單位	永登有限公司 台北縣中和市建六路70號2樓之3 電話：02-2940-8693	
初版	中華民國九十六年八月	
定價	新台幣八百元	

---



# TABLE OF CONTENTS

---

Preface	15
Introduction	19
Scarlett CHIU, and Christophe SAND	
From Southeast Asia to the Pacific: Historical and Theoretical Background to Austronesian origins and to the Lapita Dispersal in Western Oceania	27
Scarlett CHIU, and Christophe SAND	
The earliest Austronesians and their movements inside Taiwan Settlement patterns and possible forcing factors	49
Yi-ch'ang LIU (Translated by Chih-hua CHIANG)	
Recent Archaeological discoveries in Taiwan and Northern Luzon: Implications for Austronesian expansion	75
Cheng-hwa TSANG	
The Neolithic and Austronesian expansion Within Island Southeast Asia and into the Pacific	104
Matthew SPRIGGS	
The rise and transformations of Lapita in the Bismarck Archipelago	141
Glenn SUMMERHAYES	
Crucial first steps into Remote Oceania: Lapita in the Vanuatu Archipelago	185
Stuart BEDFORD	
The eastern frontier: Lapita ceramics in the Fiji-West Polynesia region	214
Christophe SAND	
Lapita: A genetic perspective	243
Elizabeth (Lisa) MATISOO-SMITH	
What next? Pressing archaeological questions in Austronesian studies in Island Southeast Asia	269
Christophe SAND, Yi-ch'ang LIU, and Scarlett CHIU	
APPENDIX	292

# 目次

---

LAPITA 會議論文序	17
導論	24
邱斯嘉, CHRISTOPHE SAND (陳熹萱 盧文棻 譯)	
東南亞到太平洋: 關於南島語族起源以及西太平洋中 Lapita 文化擴散的歷史與理論背景	41
邱斯嘉, CHRISTOPHE SAND (朱黛華 劉勇成 譯)	
初期南島語族在臺灣島內的遷移活動 聚落模式以及可能的遷徙動力	65
劉益昌	
臺灣與呂宋島北岸最近的考古發現 南島語族擴散的意涵	95
臧振華 (林宜羚、盧文棻 譯)	
新石器時代南島語族: 在島嶼東南亞以及進入大洋洲的擴展	126
MATTHEW SPRIGGS (盧文棻 譯)	
Lapita 陶器在俾斯麥群島的起源和變革	170
GLENN SUMMERHAYES (盧文棻 譯)	
前進遠大洋洲重要的第一步: 萬那度群島的 Lapita 文化	206
STUART BEDFORD (盧文棻 譯)	
東部邊陲: 斐濟—西玻里尼西亞地區的 Lapita 文化陶器	235
CHRISTOPHE SAND (盧文棻 譯)	
Lapita: 從生物學的觀點來看	260
ELIZABETH (LISA) MATISOO-SMITH (林秀嫻 譯)	
下一步該往何處去? 針對島嶼東南亞的南島語族研究提出相關考古議題	283
CHRISTOPHE SAND, 劉益昌, 邱斯嘉 (邱斯嘉 譯)	
附錄	292

# LIST OF FIGURES AND TABLES

## 圖表目次

---

### Scarlett CHIU & Christophe SAND — INTRODUCTION

---

- Figure 1. *Map of the Pacific and Island Southeast Asia* 23  
大洋洲及島嶼東南亞地圖。(紅線代表遠/近大洋洲的界線，藍色地區是已知 LAPITA 分佈區域)

---

### Yi-Ch'ang LIU — THE EARLIEST AUSTRONESIANS AND THEIR MOVEMENTS INSIDE TAIWAN

---

- Figure 1. *Site distribution of the Early/Late Period of TPK Culture* 61  
大坌坑文化早期及晚期的遺址分佈圖
- Figure 2. *Site distribution of various local cultures of Fine Red Cord-Marked Pottery Period (4,500-3,400 BP) and the distribution of mountain area sites* 62  
繩紋紅陶時期各文化與丘陵山地地區遺址分佈圖
- Table 1. *Sites in the terrain region during the Cord-Marked culture period* 63  
丘陵山地地區繩紋紅陶時期遺址表

---

### Cheng-Hwa TSANG — RECENT ARCHAEOLOGICAL DISCOVERIES IN TAIWAN AND NORTHERN LUZON

---

- Table 1. *<sup>14</sup>C dates from the Nan-kwan-li and Nan-kwan-li East sites* 91  
自南關里與南關里東遺址所取得的碳十四年代
- Table 2. *<sup>14</sup>C dates from the Miguel Supnet site* 92  
自 MIGUEL SUPNET 遺址所取得的碳十四年代
- Table 3. *<sup>14</sup>C dates from the Leodivico Capiña site* 93  
自LEODIVICO CAPIÑA 遺址所取得的碳十四年代
- Table 4. *<sup>14</sup>C dates from the Nagsabaran site* 94  
自 NAGSABARAN 遺址所取得的碳十四年代
- Figure 1. *Archaeological discoveries from Nan-kwan-li and Nan-kwan-li East* 88  
在南關里遺址與南關里東遺址的考古發現
- Figure 2. *Pottery from the lower cultural layer of the Nagsabaran site* 89  
自 NAGSABARAN 遺址較低層層位出土的陶器
- Figure 3. *Pottery from the upper cultural layer of the Nagsabaran site* 90  
自 NAGSABARAN 較上層層位出土的陶器

Figure 1.	<i>Neolithic sites in Island Southeast Asia mentioned in the text</i>	125
	文中提及在島嶼東南亞地區的新石器遺址分佈圖	

Glenn R. SUMMERHAYES — THE RISE AND TRANSFORMATIONS OF LAPITA IN THE BISMARCK ARCHIPELAGO

Figure 1.	<i>Areas containing Lapita sites in the Bismarck Archipelago</i>	162
	俾斯麥群島 LAPITA 遺址的分佈圖	
Figure 2.	<i>Dentate stamped pottery from Kamgot - site code ERA</i>	163
	自 KAMGOT ERA 遺址出土的梳點壓印紋陶器	
Figure 3.	<i>Obsidian distributed from the Bismarck Archipelago at c.3,000 – 2,900 BP</i>	164
	距今兩千九百年至三千年前，俾斯麥群島地區的黑曜石分佈圖	
Table 1.	<i>Lapita pottery sites found in the Bismarck Archipelago</i>	165
	在俾斯麥群島發現的 LAPITA 陶器遺址	

Stuart BEDFORD — CRUCIAL FIRST STEPS INTO REMOTE OCEANIA: LAPITA IN THE VANUATU ARCHIPELAGO

Figure 1.	<i>Vanuatu with northeast Malekula and south Santo (Insets)</i>	197
	萬那度群島 (含 MALEKULA 島東北部及 SANTO 島南部)	
Figure 2.	<i>Vao Island, taken from Malekula. Malo Island is in the background. Arrow indicates the location of the Lapita site on Vao</i>	198
	自 MALEKULA 所拍攝到的 VAO 島。MALO 島也出現在背景中。箭頭所指的地方即便是在 VAO 島發現的 LAPITA 遺址	
Figure 3.	a. <i>Painted sherd from Vao</i>	199
	VAO 遺址出土的彩繪陶片	
	b. <i>Reconstructed dentate-stamped design and vessel form of the same Vao sherd</i>	
	VAO 遺址出土之帶梳點狀壓印紋陶罐復原圖	
	c. <i>Artist's reconstruction of original painted vessel</i>	
	VAO 遺址出土的彩繪陶片復原彩圖	
Figure 4.	a. <i>Drilled shark tooth and shark vertebrae beads, Vao Island</i>	200
	VAO 島出土的穿孔鯊魚牙及穿孔鯊魚骨珠	
	b. <i>Tridacna shell ring and associated manufacturing debris from Vao Island</i>	
	VAO 島出土的碑磔蛤科 (TRIDACNA) 貝製環及廢料	
Figure 5.	<i>Teouma Bay and river valley. Arrow indicates the approximate location of the Teouma site</i>	201
	TEOUMA 河谷。箭頭所指處為 TEOUMA 遺址所在地	
Figure 6.	a. <i>Teouma cemetery. Uprturned flat-bottom dish with a circular groove on its base and decorated with a dentate-stamped double face motif</i>	202
	TEOUMA 遺址出土之墓葬。頭骨裝在雙重人臉主題梳點壓印紋帶脊陶罐中，再用倒翻過來的平底盤將陶罐密封	

- b. *Teouma cemetery. Pieces of the upturned flat-bottom dish are removed to reveal that it had been used as a lid placed on top of the skull in a carinated vessel*  
 TEOUMA 遺址出土之墓葬。將蓋在帶脊陶罐上的倒置平底盤移除後其中一個裂片後可見頭骨裝在陶罐中
- Figure 7. a. *Teouma cemetery. Headless skeleton with bivalve and shell ring grave goods* 203  
 TEOUMA 遺址出土之無頭墓葬。雙殼貝及貝環等陪葬品
- b. *Teouma cemetery. Headless skeleton with bivalve grave goods*  
 TEOUMA 遺址出土的無頭墓葬。圖中可見雙殼貝作為陪葬品
- Figure 8. *Dentate-stamped Lapita cylinder stand from Teouma decorated with face motifs* 204  
 TEOUMA 遺址出土的 LAPITA 文化圓柱型臺座，其表面飾以各式各樣的人臉圖樣
- Figure 9. *Large dentate-stamped sherd from Teouma which ultimately led to the discovery of the site* 205  
 TEOUMA 遺址出土帶梳點壓印紋之大型陶罐。  
 當初也是因為該陶罐出土而發現 TEOUMA 遺址

Christophe SAND — THE EASTERN FRONTIER: LAPITA CERAMICS IN THE FIJI-WEST POLYNESIA REGION

- Figure 1. *Map of the Fiji/West Polynesia region locating the major Lapita sites discussed in the text* 227  
 文章中論及在斐濟—西玻里尼西亞地區主要發現的 LAPITA 遺址分佈圖
- Figure 2. *A tentative expansion scheme for the first human settlement of the Eastern Lapita Province between 1,000 BC and 800 BC* 228  
 人類在西元前一千年至八百年前首次登陸東部 LAPITA 省區島嶼聚居的大略區域範圍
- Figure 3. *Reconstruction of the location of the seashores of the island of Tongatapu 3000 years ago, when the first Lapita canoes landed at Nukuleka (from Dickinson)* 229  
 三千年前乘獨木舟的 LAPITA 人首度於東加塔布群島的 NUKULEKA 地區登陸時之島嶼海岸線登陸點重建圖
- Figure 4. *Example of a flat bottom dish from Natunuku, bearing distinctive “zone markers” of Western-Central Lapita tradition (col. Fiji Museum)* 230  
 NATUNUKU 遺址中發現帶有著西邊中西部 LAPITA 陶器傳統特有之「繁複邊界裝飾帶」的平底陶盤樣式
- Figure 5. *Example of a carinated pot of Early Eastern Lapita tradition, decorated over the full body (col. Fiji Museum)* 231  
 滿佈早期的東部 LAPITA 陶器傳統裝飾紋的帶肩陶壺樣式
- Figure 6. *Sherds from (a-b) Lolokoka in Niuatoputapu, (c-d) Mulifanua in Upolu, (e-j) Utuleve in ‘Uvea (Wallis), (k-n) Asipani in Futuna, bearing open dentate-stamped motifs of Middle Eastern Lapita tradition (after Kirch 1988; Green 1974; Frimigacci et al. 1984; Sand 1993).* 232  
 中期東部 LAPITA 陶器傳統帶簡單梳點紋裝飾的陶片，於 (a-b) 努奧圖布達布 (NIUATOPUTAPU) 的 LOLOKOKA, (c-d) UPOLU 的 MULIFANUA, (e-j) 屋維阿 (‘UVEA [WALLIS]) 的 UTULEVE, 以及 (k-n) 福圖納 (FUTUNA) 的 ASIPANI 等遺址中出土
- Figure 7. *Ceramic typology of Late Eastern Lapita pottery from Futuna* 233  
 福圖納地區晚期東部 LAPITA 陶器傳統的陶器類型

- Figure 8. *Presentation of a Tongan tapa cloth with patterns of Lapita ancestry on the eponymous site at Foué (New Caledonia) in August 2002* 234  
 2002年八月在 Foué 遺址 (新喀里多尼亞) 所展示有著 LAPITA 傳統圖案的樹皮布

ELIZABETH (LISA) MATISOO-SMITH — LAPITA : A GENETIC PERSPECTIVE

- Figure 1. *World-wide Mitochondrial DNA phylogeny of major haplogroups. Note haplogroups L1, L2 and L3 are only found in Africa. Lineages P and Q are only found in Oceania. Haplogroup B is the primary lineage found in Polynesian populations* 256  
 全球人類族群的粒線體DNA種系圖譜。其中單倍群L1、L2以及L3群僅見於非洲。世系P與Q只在大洋洲出現。而單倍群B則為玻里尼西亞人群中的主要表型
- Figure 2. *The circular mitochondrial genome. The locations of the coding regions for the two ribosomal RNA genes, 16S and 12S, are shown with solid black, the 22 tRNA coding regions with black circles, and the 13 protein coding regions in white outline. The d-loop portion of the control region is at top near the origin of the heavy strand ( $O_H$ ) replication* 257  
 人類粒線體DNA的環狀結構。其中16S和12S兩個核醣體RNA基因區段以黑色實心呈現，22個轉移性核醣核酸基因密碼區段以黑色圓圈呈現，13個蛋白質密碼基因則以白底黑線呈現。調控區中的D環 (D-LOOP) 部份則位於重鍊 (HEAVY STRAND,  $O_H$ ) 複製起始區附近
- Figure 3. *Evolution from Haplogroup B of the “Polynesian Motif ” (Haplotype B4a1a1) as defined by Trejaut et al. 2005. Estimated coalescence dates for the haplogroups, where calculated by Trejaut et al. 2005, are shown next to the defining mutations* 258  
 粒線體B群漸次演化成玻里尼西亞主體的過程 (TREJAUT et al. 2005)。單倍群聚結時間則以各突變來估計
- Figure 4. *World-wide Y-chromosome phylogeny (YCC nomenclature). Oceanic Y chromosomes belong primarily to haplogroups C, K and M* 259  
 Y染色體的演化關係 (根據Y染色體聯盟的命名系統)。大洋洲的Y染色體是屬於C、K, 以及M型



# PREFACE

The Center of Archaeological Studies (CAS), previously a sub-center of the Tsai Yuan-Pei Research Center for Humanities and Social Sciences, was formally established by the Academia Sinica in 2003. In 2005, the Tsai Yuan-Pei Research Center for Humanities and Social Sciences and the Sun Yat-Sen Institute for Social Science and Philosophy merged and became the Research Center for Humanities and Social Sciences (RCHSS). The Center of Archaeological Studies has been affiliated with the RCHSS since then. Although the CAS and the archaeological research group of the Institute of History and Philology (IHP) at Academia Sinica are closely related in terms of research interests, they are currently under a different constituting system. The establishment of the CAS was a response to the IHP's decision to end the archaeological research group established since 1928 that has largely limited research fellows to expand their research interests, as research fellows are no longer independent in terms of administrative decision making. Therefore, the CAS was established to maintain its mission and focus on regions such as Island Southeast Asia, the Pacific and the Southeast Asian Peninsula. In doing so, the CAS is able to distinguish itself from the IHP (which is well-known for its contribution in archaeological research in Taiwan) by emphasizing research projects carried out in Southeast Asia and the Pacific, forming a new regional research theme that centered on Taiwan. This idea corresponds to what the late Professor Kwang-Chih Chang had stressed in the mid 1980s, that Taiwanese archaeologists need to expand their research area from Taiwan to coastal mainland China and Southeast Asian countries, and to build up strong relationships with scholars from these regions. Progress towards this goal already started in the mid 1990s when IHP researchers started to participate in the regional research project of Southeast Asia, such as those conducted in the Philippines, Vietnam, and Thailand. These early tasks are now carried out by the CAS. At the same time, the CAS has recruited Dr. Scarlett Chiu from the University of California at Berkeley, whose area of expertise is the Lapita culture, located between the islands of Southeast Asia and Polynesia. As a consequence, this conference was established at the Academia Sinica in Taipei in the year 2005. By providing a chance to introduce scholars from different regions to local archaeologists, this meeting, small, but nevertheless productive, has fostered friendships among researchers that is expected to built into academic affiliation later on.

Although Taiwan might be considered as far away from the region in which the Lapita culture was found, if we consider the sailing patterns of the Austronesians, Taiwan is, in fact, not that far away. For seafaring people, the ocean is not a barrier but a route that leads forward. In terms of possible Austronesian migration routes, Taiwan is considered as a possible homeland or the first stopover of the Austronesian expansion. In fact, in terms of Southeast Asia, prehistoric cultures in Taiwan are recognized as the oldest, representing the ancestors of existing Austronesian populations in the entire Pacific. Moreover, the region where the Lapita culture developed is not only the starting point of the