

Identities, territories and agricultural practices: Some landmarks for the preservation of local communities' Heritage in East Timor

Jean-Christophe Galipaud, Archaeologist;
Dominique Guillaud, Geographer; Anne Casile, Archaeologist¹

East Timor lies at the threshold between insular Southeast Asia and Oceania. At the easternmost tip of the Sunda chain of islands, West of Papua and off Australia's North coast, it presents an original combination between Austronesian and Non-Austronesian (or Papuan) worlds, and both linguistic groups coexist within the country.

The antiquity of the settlement and the diversity of cultural interactions offered in Timor presents an interesting ground to address and discuss the models of cultural evolutions or cultural transformations through time and, in particular, to evaluate the chronology and impact of the Austronesian contact in the island.

This paper introduces the research we are just beginning in Timor-Leste. It combines the approaches of Archaeology, Anthropology, Geography, Ethnoecology in order to study the evolution of society, of environment and of subsistence systems through time, and to record knowledge on places or "geosymbols" invested with history, myth, magic or power.

Such an approach aims at understanding the long-term dynamics sustaining today's cultures. With this research we hope to get an environmentally sound vision of the expending repertoire of plant exploitation through time and its associated agricultural practices, in order to characterise, at a local or regional level, the dynamics of cultural changes and to highlight major natural or external cultural events in the process.

By focusing on plant exploitation and agricultural practices, land use and cultural landscape, in addition to the more classical approach of archaeology (chronologies and typologies), we hope to raise new issues regarding the so-called « Neolithic revolution » and in particular highlight, as in PNG (Denham et al. 2004, 2009; Denham 2011), the complexity of cultural interactions before Austronesian contact some 3500 years ago. Finally we wish also to address the relevance of linguistic as a marker of specific cultural practices. Plant exploitation and ancient agricultural practices have already been well studied in some area of Timor-Leste and the present research will build upon them (see for instance, for the latest publications Oliveira 2008, 2010, 2012).

To achieve these goals, we have selected an area west of the country, along the road from Maubara to Suai, with several linguistic groups: the Austronesian-speaking Kemak and Tetun and Bekais groups, and the Non-Austronesian-speaking Bunak. The results from this area will be in a second stage compared with similar research in different environments: the South-East coast and the Atauro Island.

In 2012, a large survey has allowed us to select the region of Balibó as a suitable area to begin this research. Balibó, located at the central western end of the country, displays a karstic environment of plateaus and hills dissected by small valley systems, which offer an ideal environment for cultivation and living. Rock-shelters and caves, with evidence on the surface of a lithic industry and of stone features, suggested a rich and long history of the place. Furthermore, Balibó lies at a medium altitude (around 500 meters) not very far from, and connected to the sea by several large river systems.

This region of Timor-Leste is poorly documented by archaeology and our research will also add up to the archaeological knowledge already gathered in the East (Lospalos) and Centre-East (Baucau) of the country (O'Connor 2007; O'Connor et al. 2007, 2010).

A 3 weeks field trip in June and July 2013 allowed us to:

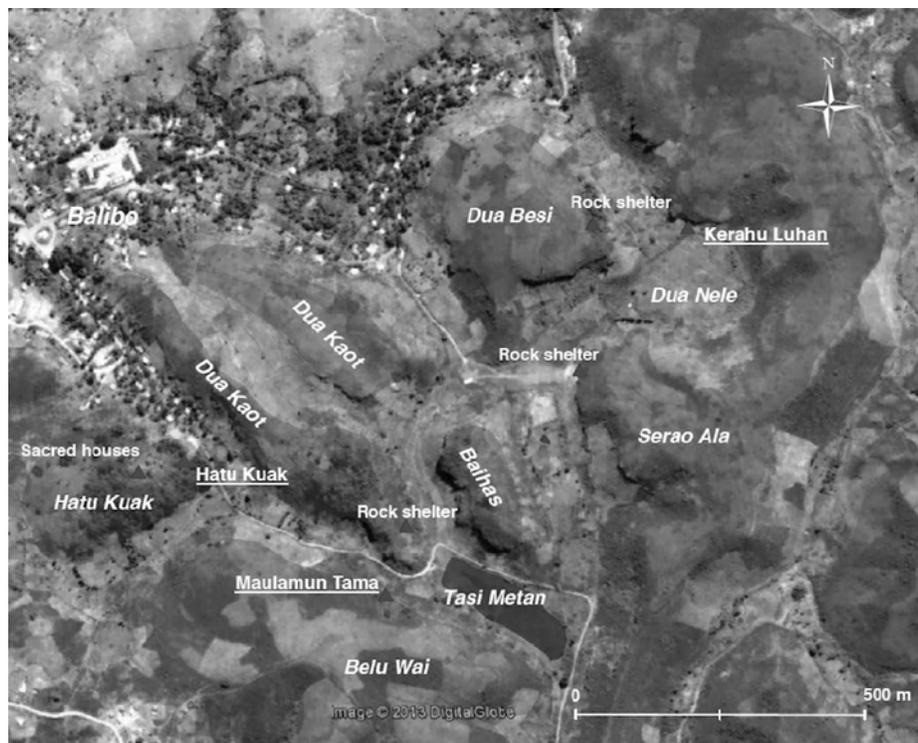
¹ UMR Paloc, Research Institute for Development / National Museum of Natural History, France

- Identify suitable archaeological sites to document a long term history of the area and to test the potential of some of these places.
- Map the most prominent features of the cultural landscape and collect information on its use.
- Record the local usages of wild and cultivated plants and crops.

Preliminary archaeological survey achievements

The immediate surroundings of the village of Balibó are set in a landscape of narrow and fertile valleys, bordered by low calcareous cliffs which display many rock shelters and dissolution caves (Figure). Many offer good shelter and a few of them seemed to have had enough sedimentation for the preservation of ancient traces of occupation. Two one-meter test excavations in suitable rock shelters and a deep test-pit in the gardens below have been made. They will be described now.

Figure 1. The Balibo karst complex with indication of archaeological sites visited or excavated (triangles)



Kerahu Luhan (Duan Nele)

This is a large and mostly vertical calcareous cliff around 18 meters high with several small shelters at the end of a narrow valley occupied by local fields.

The place occupies a strategic position, overlooking a vast area of gardens and its orientation to the North-East make it a shaded area during most of the day. A small open cave at one end offers a dry shelter for the night. Cassava gardens extending almost inside the sheltered area have disturbed the soil and lithic flakes are now abundant on the surface.

Our first excavation was set outside one of the shelters, in a gently sloping area where flakes were abundant.

The stratigraphy revealed a homogenous deposition of clayish soil associated with calcareous stones and a large amount of flakes. Only one stone tool was excavated here. The calcareous floor of the shelter was hit at about 50cm under the surface of the soil.

Kerahu Luhan, with its large amount of flakes and raw material, might have been a working place for stone tools, rather than an occasional or permanent living place. The range of flakes sizes, the presence of used raw material (nucleus) as well as small flakes and chips indicate that the flaking occurred on the spot. Most of the flakes were made in locally available red or yellow jasper of medium to poor quality. One retouched tool only, a point, was found in the excavated testpit (Figure 1). This point, known from elsewhere in Timor, always found in small quantity, is a rare example of the knowledge and technology at this time. Other artefacts include mainly flakes in large quantity. Faunal and flora remains, mainly bones and charcoal were only met in small quantity.

At this stage, it proves difficult to evaluate the antiquity of the use of this place. Pottery is very rare and only found on the surface. This could indicate that the place was used more than 2000 years ago. Further research in the near future will be organised in a more protected small area of the same complex.

A test excavation was set in the gardens below the shelter, halfway between two lines of calcareous stones set there to prevent erosion. It was hoped that this test pit could reveal further ancient deposits, as in the Kerahu Luhan shelter which is only 40 meters away.

The stratigraphy revealed a deep natural deposition of clay and silt without any trace of human activity. Soil samples will help determine the nature and length of cultivation in these gardens as well, we hope, as its vegetational history through pollen and phytoliths determination.

Maulamun Tama

This is a rock shelter of around 9 meters high and 25 meters in its widest part, whose outermost part is occupied by a large banyan tree.

The shelter is located at the exit of a valley, 50 m from a semi-permanent, 300 meters long pond, and overlooks the valleys nearby. It is a well-oriented (NE) and large shelter. The excavated area (1x1m) revealed 60 cm of largely silty brown sediment and ashes with again large calcareous stones which have fallen from the walls before reaching what seems to be a natural cave floor.

Remains of human activity were found up to the bottom in limited quantity. The preservation is much better here than in the previous test-pit of Kerahu Luhan, and many bones, some burnt, as well as flakes were excavated. Marine shells and even a shell bead and large rat bones from an unknown, now extinct, giant rat genus suggest here that the human occupation of the shelter also predates 2000 BP.

Conclusions which can be drawn from this initial research in Balibó are obviously limited as the fieldwork has just ended and analysis and dating results are not yet available. A very preliminary understanding of the chronology and landscape use emerges from this survey and in the light of previous research in other area of Timor-Leste (O'Connor et al. 2002, 2007, 2012; O'Connor 2006; Lape 2006; Lape et al. 2008; Veith et al. 2004; Spriggs et al. 2003). Human presence in the area is ancient. The excavated shelters indicate a certain antiquity of their use. It is difficult at this stage to give an accurate date but the scarcity of pottery and the importance of lithic industry, especially in Kerahu Luhan, suggest an age older than 1500 years. Remains of large rats found at the base of the excavation in the shelter of Maulamun Tama further indicate an occupation prior to 2000 BP (Aplin 2010 and Aplin pers. com.), some direct dating of these bones will be performed.

The lithic industry in both excavated areas is quite similar to the one described further East and in the wider region of insular Southeast Asia at the same time. A large part of the assemblage is made of simple flakes of various shapes and poor quality which could belong to the "strike-a-light" type of artefacts. Among the numerous single flakes emerge a few retouched artefacts which again elsewhere in Timor point to a late neolithic occupation (Glover 1986). Most of the raw material is available locally but the diversity of the stones used for flaking could imply some import.

Figure 2. Balibo, tanged point (a) and scraper (b)
Figure 2 (a) Balibo. Kerahu Luhan. Tanged point (scale is 1cm)



Figure 2 (b) Balibo, Dua Nelle surface find. Scraper (scale is 1 cm)



Local information indicates that traditional villages were on the karst hilltops before the arrival of Europeans and the resettlement along the road. Several fortified sites have been located (but not surveyed due to time constraint and the necessity to obtain customary authorization), above the actual village of Balibó and in the nearby areas. In Balibó, most hilltop sites are still used for sacred ceremonies linked with the re-enactment of social ties. The knowledge of their previous occupation is still strong and oral traditions suggest that most fortified sites were abandoned “when muskets replaced bows and arrows”. Similar fortified sites are well described in the East of Timore-Leste where their use has been dated back to between 1100 and around 1700 AD (Lape 2006; Lape et al. 2008; O'Connor et al. 2012). Fortified sites appear at similar times from Eastern Indonesia to Eastern Polynesia, and from Okinawa to New Zealand (Field et al. 2010).

Karst landscapes offer fertile soils, water, shelter and vegetation and also material for large buildings or retaining walls, all of which concur to make these environments particularly suitable for human occupation. Our preliminary observations indicate that the Balibó area has a broadly similar history to the one highlighted by the research of our colleagues further East in similar environments. This history is based on the specific resources of the karsts but is not disconnected from other environments. In the Maulamun Tama shelter, fishbone and shellfish indicate the past use of marine resources, another ecological zone complementary to the karst.

There is no doubt that these landscapes were appreciated during most of the history of human presence in Timor-Leste and that these environments favoured the development or the persistence of a specific identity linked with place, in other words a specific territoriality, and highlighted by the re-use of older culturally important places such as fortified sites, rock shelters or remarkable natural places. A tendency probably amplified in Balibó by the limited size of the karst area. Other similar limited karst landscapes, in Ilimanu, Baucau, Atauro Island or elsewhere might offer good comparisons in the future.

While there is obvious evidence of a long use of the karst area, there is no evident continuity of occupation, especially in recent times with evidences of conflicts and migrations, as described in oral traditions and as visible in the remains of fortified villages. Obviously, the language change within a group is also something that can occur quite rapidly, as informants confirmed. This first field experience in Balibó leads us to consider that languages are probably not a efficient criteria to differentiate cultural areas.

Bibliography

- Aplin, K.P. and K.M. Helgen, 2010, ‘Quaternary murid rodents of Timor, Part I: New material of *Coryphomys Buehleri* Schaub, 1937, and description of a second species of the genus.’ *Bulletin of the American Museum of Natural History* 341: 1-80.
- Denham, T. et al., 2004, ‘New evidence and revised interpretations of early agriculture in Highland New Guinea’, *Antiquity* 78(302): 839–57.
- Denham, T. et al. 2009, ‘Archaeobotany in Australia and New Guinea: Practice, potential and prospects’, *Australian Archaeology* 68: 1–10.
- Denham, T. 2011, ‘Early agriculture and plant domestication in New Guinea and Island Southeast Asia’, *Current Anthropology* 52(S4): S379–S395.
- Field, J.S. and P.V. Lape, 2010, ‘Paleoclimates and the emergence of fortifications in the tropical Pacific islands’, *Journal of Anthropological Archaeology* 29: 113–124.
- Glover Ian C. 1986, ‘Archaeology in Eastem Timor, 1966-67’, *Terra Australis* 11. Canberra: Australian National University, Research School of Pacific Studies.
- Lape, P. V. and C. Chao. 2008, ‘Fortification as a human response to late Holocene climate change in East Timor’, *Archaeology in Oceania* 43: 11–21.
- Lape, P. V. 2006, ‘Chronology of fortified settlements in East Timor’, *Journal of Island & Coastal Archaeology* 1: 285-97.
- Oliveira, N.V. 2012, ‘Recovering, analysing and identifying *Colocasia esculenta* and Dioscoreaceae from archaeological contexts in Timor-Leste’, in Spriggs, M., D. Addison and P.J. Matthews (eds) , *Irrigated Taro (*Colocasia esculenta*) in the Indo-Pacific. Biological, social and historical Perspectives*. Senri Ethnological Studies 78, National Museum of Ethnology, Osaka, pp. 265-84.

- 2010, 'From Bui Ceri Uato to Bui Ceri Uato Mane: A new archaeobotanical assemblage from East Timor', in Bellina, B., L. Bacus, T.O. Pryce and J. Wisseman Christie (eds). *50 years of Archaeology in Southeast Asia: Essays in honour of Ian Glover*, Bangkok and London, River Books, pp. 78-91.
- 2008, 'Subsistence archaeobotany: Food production and the agricultural transition in East Timor', PhD thesis, Department of Archaeology and Natural History, Australia National University. Available at <http://palaeoworks.anu.edu.au/Nuno.html>
- O'Connor S. 2006, 'Unpacking the island Southeast Asian neolithic cultural package, and finding local complexity', in Bacus, E.A., I. C. Glover and V. C. Pigott (eds) *Uncovering Southeast Asia's past: Selected papers from the 10th International Conference of the European Association of Southeast Asian Archaeologists*, The British Museum, London 14th- 17th September 2004. Singapore: National University of Singapore, pp.74-87.
- 2007, 'New evidence from East Timor contributes to our understanding of earliest modern human colonisation east of the Sunda Shelf', *Antiquity* 81: 523-35.
- O'Connor, S. et al., 2012, 'Examining the origin of fortifications in East Timor: Social and environmental factors', *The Journal of Island and Coastal Archaeology* 7(2): 200-218.
- O'Connor, S. et al., 2010, 'Faces of the ancestors revealed: Discovery and dating of a Pleistocene-age petroglyph in Lene Hara Cave, East Timor', *Antiquity* 84(325): 649-65.
- O'Connor, S. and N.V. Oliveira, 2007, 'Inter- and intraregional variation in the Austronesian painting tradition: A view from East Timor', *Asian Perspectives* 46(2): 389-403.
- O'Connor S. and K. Aplin. 2007, 'A matter of balance: An overview of Pleistocene occupation history and the impact of the last glacial phase in East Timor and the Aru Islands, eastern Indonesia', *Archaeology in Oceania* 42: 82-90.
- O'Connor S, M. Spriggs, and P. Veth. 2002, 'Excavation at Lene Hara Cave establishes occupation in East Timor at least 30,000-35,000 years ago', *Antiquity* 76: 45-50.
- Spriggs M., S. O'Connor, and P. Veth. 2003, 'Vestiges of early pre-agricultural economy in the landscape of East Timor: Recent research', in Karlström, A. and A. Källén (eds) *Fishbones and glittering emblems*. Southeast Asian Archaeology 2002. Stockholm: Museum of Far Eastern Antiquities - Östasiatiska Museet, pp.49-58.
- Veth P., S. O'Connor and M. Spriggs. 2004, 'Changing research perspectives from Australia's doorstep: The Joint Australian-Indonesian Aru Islands Initiative and the Archaeology of East Timor Project', in Murray, T. (ed) *Archaeology from Australia*. Melbourne: Australian Scholarly Publishing, pp.209-230.