

## **Leverhulme Trust Emeritus Fellowship - Final Report 2021**

### **EM-2018-057: Nuaulu ethnobotanical cognition and knowledge (Seram, eastern Indonesia)**

#### **1. Summary of research**

The objective of the fellowship was to complete and submit for publication a major piece of work on Nuaulu ethnobotanical classification that at the same time evaluated the current state of our knowledge on how the folk classification of plants works cross-culturally. In support of this I indicated that I would also be updating the main database for this project (the NED: Nuaulu Ethnobotanical Database) using new and revised identifications and data associated with the preparation of Nuaulu plant specimens housed in the University of Kent Ethnobiology Laboratory.

The full manuscript of *The Nuaulu World of Plants: Ethnobotanical Cognition, Knowledge and Practice Among a People of Seram, Eastern Indonesia* was submitted during September 2019 to the Royal Anthropological Institute Publications Committee, with a view to it appearing in the RAI monograph series published by Sean Kingston. The manuscript was accepted by the Committee during the Autumn of 2019 after review, and a contract signed with Sean Kingston on 11 November 2019. Between December 2019 and April 2020 the manuscript was revised in conjunction with feedback from Sean Kingston and submitted for production on 1 May 2020. Copyediting and proofing was completed during the Autumn, and the monograph published at the end of September, with a view to publication by the end of 2020 so that the volume can be included as part of the University of Kent REF submission in Anthropology.

As I have noted in the previous two Annual Reports, *The Nuaulu World of Plants* builds upon anthropological fieldwork spread over a period of 50 years, as well as theoretical enquiries around the fundamental bases of human classificatory activity through the study of ethnobiological knowledge more generally. The book assesses the current state of classification theory, particularly the relationship between so-called 'natural' (general-purpose) classifications and use-based (special-purpose) schemes, and the social distribution of knowledge in relation to sharing and specialisation. I argue that recent work looking at ontologies and epistemologies for studying ethnobiological knowledge systems, specifically those focussing on 'convergence metaphysics', while compliant with the critique of the 'new normal' advocated in my earlier work, present new challenges that must be addressed.

In support of the monograph, work on Nuaulu plant specimens lodged in the Ethnobiology Laboratory at Kent (administered through the Centre of Biocultural Diversity within the School of Anthropology and Conservation) has continued. Between August 2019 and March 2020 the work on mounting specimens on herbarium sheets or placing them in spirit jars or carpological boxes with temporary printed labels was completed. This has enabled the updating of identifications and quantitative data contained in the manuscript. The original plan was that during this period also the final labels for the Nuaulu collection would be completed and the sheets, spirit jars and carpological boxes prepared to archive standard. Unfortunately, the Covid-19 lockdown prevented access to the collection between March and August 2020. Ms Mercy Morris has been able to undertake some work on the labels from home, and with the opening of labs from August 2020 work on the labels and herbarium

sheets has been completed. The Ethnobiology Laboratory herbarium is now listed with the *The Index Herbariorum*, along with over 3000 international herbaria dating from 1935 currently managed by New York Botanic Gardens, registered as UKC, and available for public research access.

Related to this project has been work on a collection of essays under the title *Nature Wars: Essays Around a Contested Concept*. A contract was signed on 14 January 2020 and the work published January 2021 by Berghahn. In addition, 2 other book chapters and 1 journal paper were published acknowledging Leverhulme support; 3 journal papers and 2 book chapters were published on directly-related subjects (with 2 further book chapters awaiting publication), and 1 memoir, 1 monograph, 6 encyclopaedia articles and 4 journal papers were published on subjects not directly related to the fellowship.

The Nuaulu Ethnobotanical Database (NED) has been fully re-designed, updated and checked by myself and Ms Morris. It currently has 1011 records for Nuaulu plant categories with plant identifications supplied by Kew, Bogor and Kent; linguistic and other data on fork classification and plant names, cross-references to field notes and photographs, and data on uses. This is currently available to interested researchers, and there are plans to upload it to the project website so that it can be more widely available. Related to the Database has been the digitisation of relevant photographic records. It is planned that a gallery of selected photographs will appear on the project website. The process of cataloguing all photographs is nearing completion, and catalogues will be available to other researchers, with an arrangement to deposit the collection in the archive of the Royal Anthropological Institute in due course.

The main problem has been issues relating to the Covid Pandemic: the closure of lab spaces and the unavailability of Ms Morris. This has resulted in a certain amount of financial re-organisation (discussed below), re-allocation of work between Ms Morris and myself. There have also been technical issues related to uploading the Database to the Project website, which have now been resolved.

## 2. Output

2.1 As stated above, the monograph *The Nuaulu world of plants: ethnobotanical cognition, knowledge and practice among a people of Seram, eastern Indonesia* (Royal Anthropological Institute Monograph Series 3, Canon Pyon: Sean Kingston Publishing) was published December 2020, comprising approximately 139,500 words and including 58 tables, 61 figures, of which 3 are maps, 41 line-art and 15 half-tone plates. To date, there has been one published review (R.W.Bussman, 2021, *Ethnobotany Research and Applications* 21:39: 1-2). Review copies have been submitted to about 10 journals. The book has been submitted as part of the University of Kent Anthropology REF submission. Receipt of a Leverhulme Emeritus Fellowship led to a short contract with the University which made this possible, and which thereby subsidised the fellowship costs.

2.2 The following additional outputs formally acknowledge Leverhulme support and have been uploaded to the Grants Management System:

2021. *Nature wars: essays around a contested concept*. New York, Oxford: Berghahn.

2021. Thinking through nostalgia in anthropologies of the environment and ethnographies of landscape. In *Ecological Nostalgias: Memory, Affect and Creativity in Times of Ecological Upheavals* (eds) O. Angé and D. Berliner, 17-38. Oxford: Berghahn. ISBN 978-1-78920-893-1 HB, 978-1-78920-894-8 ebook. [www.berghahnbooks.com](http://www.berghahnbooks.com)
2021. Nuaulu Use and Management of Culturally Salient Polymorphisms in *Codiaeum variegatum*: Explaining the Biocultural Dimensions of Leaf Variegation in a Southeast Asian Ornamental. *Journal of Ethnobiology* 41 (2). pp. 229-246.
2021. Seeds versus vegetative propagules as strategies for surviving the Anthropocene: social profiles and biocultural consequences. In *Seedways: The Circulation, Control and Care of Plants in a Warming World* (eds) B. Karlsson and A. Rabo. Stockholm: Kungl. Vitterhets Historie och Antikvitets Akademien, Konferenser 104.

2.3 Other outputs published during the grant period are directly related to the project objectives but were in process before receipt of the award:

2018. Comment on 'Revamping the metaphysics of ethnobiological classification' by David Ludwig. *Current Anthropology* 59 (4), 424-426.
2018. The impact of local networks on subsistence resilience and biodiversity in a low-lying Moluccan reef system between 1600 and the present. *Ambio*. (Published online 05 September 2018, DOI 10.1007/s13280-018-1091-2). Also 2019, *Ambio* (Special issue on 'Biodiversity Change and Human Adaptation') 48 (12), 1530-1542.
2019. Ritual, landscapes of exchange, and the domestication of *Canarium*: a Seram case study, *Asian Perspectives* 58 (4), 261-86.
2019. Transmitting symbolic concepts from the perspective of cultural cognition - the acquisition and transfer of folk-biological knowledge. In *Finding, inheriting or borrowing? The construction and transfer of knowledge in antiquity and the middle ages*, eds., J. Althoff, D. Berrens and T. Pommerening. [Mainz Historical Cultural Sciences, 39]. Bielefeld: Transcript Verlag, pp. 41-70.
2020. Cultivar diversity and management as traditional environmental knowledge. In *The Routledge Handbook of Indigenous Environmental Knowledge* (eds) T.F. Thornton, and S.A. Bhagwat, 46-56. Abingdon, Oxfordshire: Routledge.

2.4 The following chapters relating to the objectives of the fellowship have been commissioned and submitted, or are currently in press awaiting publication:

The category *kasituri*, Nuaulu biological nomenclature, and language contact in the Malay trading system. In M. Roue, and S. Laligant (eds), *Festschrift in Honour of Claudine Friedberg*. Paris: Museum National d'Histoire Naturelle.

Lines in a landscape: what networks of bamboo water conduits tell us about how Nuaulu conceptualise their environment. In *Collecting Human-Environment Relations An Ecological Approach to Material Culture in Oceania*, S. Belharte and C. Kocher Schmid (eds). Canberra: ANU Press, Asia-Pacific Environment Monographs Series.

2.5 In addition the following publications have appeared which, while not directly connected with the project, are indirectly supported by being completed in the context of the Leverhulme Fellowship:

2018. (with Paul Dresch). John Horsley Russell Davis, 9 September 1938 - 15 January 2017. *Biographical Memoirs of Fellows of the British Academy*, XVII, 121-143.

2018. *Kinship, population and social reproduction in the 'new Indonesia': a study of Nuaulu cultural resilience*. Abingdon UK, New York: Routledge.
2018. Cultural adaptation (v3 1282-1288), Ecological Anthropology (v4 1705-1707), Ethnobiology (v4: 1977-1980), Ethnoscience (v4: 2086-2087), Firth, Raymond (1901-2002) (v5: 2304-2307), Regional systems (v9: 5059-5061), Settlement patterns (v10: 5422-5423), *The international encyclopedia of anthropology*, ed. Hilary Callan. Oxford: Wiley Blackwell.
2019. Pottery Production and Trade in the Banda Zone, Indonesia, *Indonesia and the Malay World*, DOI: [10.1080/13639811.2019.1582862](https://doi.org/10.1080/13639811.2019.1582862)
2019. Understanding geometrical features of Nuaulu shield design. *Journal of Material Culture* 24 (2), 210-231. Published online 10 October 2018, <https://doi.org/10.1177/1359183518803393>
2019. Contrasting acoustical signatures and the power in ritual: Nuaulu spirit healing in the Moluccan islands. In *Hearing Southeast Asia: sounds of hierarchy and power in context* (ed.) N. Porath, 174-201. Copenhagen: NIAS Press.
- 2020 (with A. Muthana). The great eolith debate and the Anthropological Institute. *Belle tin of the History of Archaeology* 30(1): 4, 1–11. DOI: <https://doi.org/10.5334/bha-623>
2020. J. Koster, R. McElreath, K. Hill, D. Yu, G. Shepard Jr., N. van Vliet, M. Gurven, B. Trumble, R. B. Bird, D. Bird, B. Coddington, L. Coad, L. Pacheco-Cobos, B. Winterhalder, K. Lupo, D. Schmitt, P. Sillitoe, M. Franzen, M. Alvard, V. Venkataraman, T. Kraft, K. Endicott, S. Beckerman, S. A. Marks, T. Headland, M. Pangau-Adam, A. Siren, K. Kramer, R. Greaves, V. Reyes-Garcia, M. Guze, R. Duda, Fernandez-Llamazares, S. Gallois, L. Napitupulu, **R. Ellen**, J. Ziker, M. R. Nielsen, E. Ready, C. Healey, C. Ross. The life history of human foraging: Cross-cultural and individual variation. *Science Advances* 6 (26), eaax9070, 24 June. DOI: [10.1126/sciadv.aax9070](https://doi.org/10.1126/sciadv.aax9070).

2.6 The project website has been recently updated (<https://research.kent.ac.uk/nuaulu/>). In addition to a description of the project, it currently hosts a list of publications and reports arising from the project. Discussions have taken place with technical support staff at Kent on how best to upload and make accessible the Nuaulu Ethnobotanical Database (NED), and the photographic gallery. The NED is now available and it is hoped that the photographic gallery will be added during the course of the next 12 months.

### 3. Activities

#### 3.1 Conferences and presentations given:

- 2018 Seeds versus vegetative propagules as strategies for surviving the Anthropocene: social profiles and biocultural consequences, presentation at 'Seedways: the dispersal, evolution and commodification of seeds and plants in a warming world', a symposium held at the Royal Academy of Letters, History and Antiquities, Stockholm, November 14-15.
- 2018 Ritual, 'landscapes of exchange' and the domestication of Canarium: a Seram case study', a lecture presented at: 'L'ethnoscience aujourd'hui: colloque en l'honneur de

Claudine Friedberg', held in la Grande Galerie de l'Evolution, Museum National d'Histoire Naturelle, Paris, 16 November.

2019 The ethnobotany of culturally salient polymorphisms in *Codiaeum variegatum* and Nuaulu symbolic practices, presentation at the Society of Ethnobiology conference, University of British Columbia, Vancouver, 8-12 May.

2020, 'Ritual, 'landscapes of exchange' and the domestication of *Canarium*: a Seram case study', at the MacDonald Institute, University of Cambridge, 27 January.

The first two and the last of these were covered by grants received from the organisers of the events concerned. Attendance at the third event was made possible by the Leverhulme Fellowship.

### 3.2 Conference presentations planned or cancelled:

A paper proposal for a panel on 'orphan ethnobotanical collections' was accepted for the RAI conference to be held at the British Museum, 4-7 June 2020 (jointly sponsored with the Royal Geographical Society) on 'Anthropology and Geography: Dialogues Past, Present and Future'. With the cancellation of this event due to the Covid-19 lockdown, the submitted fees were reimbursed to the project. The RAI re-scheduled a virtual conference for September, although the organisers of the panel, after consulting with participants, decided not to re-instate it.

A paper is in preparation with Hermien Soselisa of Pattimura University (Ambon, Indonesia) entitled 'Multivocal responses to conservation issues in the Moluccas: biocultural diversity and its management in a zone of ecological transition', to be presented at a conference on 'Anthropology and Conservation' organised by the Royal Anthropological Institute, 25-29 October 2021.

3.3 There was a combined virtual book launch for *The Nuaulu World of Plants* and *Nature Wars* on 28 January 2021, hosted by the Royal Anthropological Institute, with an attendance of 32 and 123 registrations.

## 4. Research expenditure

A financial statement accompanies this report as a separate file. The pattern of expenditure is more-or-less as planned until March 2020. Most of the work bringing *The Nuaulu World of Plants* to publication has continued un-hindered by the Covid-19 Lockdown, but all work on the herbarium specimens in the Ethnobiology Lab came to a halt, as did plans for conference papers. In the circumstances I requested a grant extension until August 2021, which was approved 6 May 2020. Most of the remaining RA input fell between August 2020 and June 2021, though Ms Morris was only able to work intermittently. The herbarium and Ethnobotanical Database are complete, though work on labelling spirit specimens and carpological specimens will continue after the end of the project. The savings from the sums allocated for travel and conferences and that re-allocated but unused for RA work during the project, contributed to the costs of photo digitisation.

In retrospect, I would appear to have underestimated the RA costs, and possibly the costs associated with the publication subvention. With a view to viring additional funds from other

underspent headings I contacted Anna Grundy 10 June 2019 with a request. The proposed virement was agreed with Bridget Kerr on 12 June 2019.

The largest single payment in the course of the final year was the publication subvention of £4000 to Sean Kingston (to which the RAI contributed an additional £2000), the costs of employing Ms Mercy Morris as RA and the digitisation of photographs.

Maps have been produced by the Kent Design and Print Centre, and additional photography undertaken by the British Museum and the Linnean Society of London. As predicted in the original grant application, there were also the costs of acquiring permission to reproduce material from other copyright holders. The remaining costs were mainly herbarium supplies and computer-related expenses. Fees paid to the RAI in relation to the cancelled conference have been refunded. The costs connected with the project website and uploading the Ethnobotanical Database are being covered by the University of Kent and myself.

Roy Ellen, 27 August 2021