The ‘Aceh Method’: archiving the endangered languages of vernacular architecture

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ABSTRACT

This paper reviews the significance and practical application of the 'Aceh Method'. The Aceh Method is a multi-modal approach to the documenting and archiving of various forms of vernacular architecture. It is currently being trialled in Aceh and Bali, and has the potential for application to a broad range of built cultural heritage contexts. The paper provides a literature review to establish the background, definitions and significance of the method. It likens some of the aims and challenges of this approach to the complex activity of recording a rare local dialect or an endangered language. Through this lens, and through the contribution of notes on rewards and challenges from workers in the field, the paper outlines the application of the Method in post-disaster archiving activities in Aceh where most archives have been lost, and its application for mitigating the loss of information in the face of rapid urban development in Bali. The literature review and analysis of the pilot studies so far suggest the Aceh Method provides a conceptual as well as a practical response to post-disaster loss and the mitigation of that loss in the documentation of everyday vernacular architecture in Aceh. However, the methodology in its current form requires revision for its use in Bali. Processes of documenting vernacular architecture appear to require nuanced and ethical responsibility similar to that needed for documenting an endangered language, and the insight from this interdisciplinary review offers another means of interpreting complex vernacular environments.

Keywords

Aceh Method, vernacular architecture, collaborative archive, multi-modal, digital recording, VERNADOC, endangered architectural languages, *pusaka*, Aceh, Bali, Lambunot village, Pinggan village, Indonesia

Introduction

This paper reflects on two current pilot studies of a multi-modal approach to documenting, recording and archiving vernacular architecture, called the 'Aceh Method'. This is an approach that has been developed collaboratively since 2016 by scholars and students from the University of South Australia (UniSA), the University of Indonesia (UI) in Depok, the University of Syiah Kuala (UnSyiah) in Aceh, Udayana University in Bali (UNUD), ASA VERNADOC Bangkok, Thailand (ASA) and community members from the two pilot study sites in Lambunot Village, Aceh Besar, Aceh, and Pinggan Village, Singaraja, Bali, both sites located in Indonesia. This paper reviews the philosophical, ethical and applied underpinnings of the Aceh Method in the creation of an archive and compares these to an account of experiences from the field to provide a critical discussion of the process and the results of its application so far.

The theories that underpin the Aceh Method and the initial proposal for a pilot study in Banda Aceh were established in a conference paper by scholars of architectural urban history and theory, Dr Julie Nichols and Dr Susan Avey, and Building Information Modelling (BIM) expert, Mr Darren Fong, titled *Re-Envisioning Lost Built Cultural Heritage: Post-Tsunami Aceh*[1]. A further paper co-written by Nichols and Fong, with input from UI researcher, Mr Naufal Fadhil, for the proceedings of *AVAN 2017: International Conference on Reinvention Local Tradition & New Technology for Sustainability* in Banda Aceh, discussed the Aceh Method as a dynamic and interactive *way of seeing* both tangible and intangible vernacular knowledge[2]. It is a response to the depiction of Indonesian archives by other scholars residing remotely[3].

As noted in both conference papers, the devastation in Aceh caused by the 2004 tsunami was the primary catalyst for the development of the Aceh Method. In the context of extreme loss, displacement and devastation following from the natural disaster, Nichols et al. propose that the collaboratively developed Aceh Method has the potential to give *...real agency to local communities in both process and outcome* as they 're-envision' and create a multi-modal cultural heritage archive to represent some of the architecture that was lost[4]. After initiating a pilot study in Aceh, the

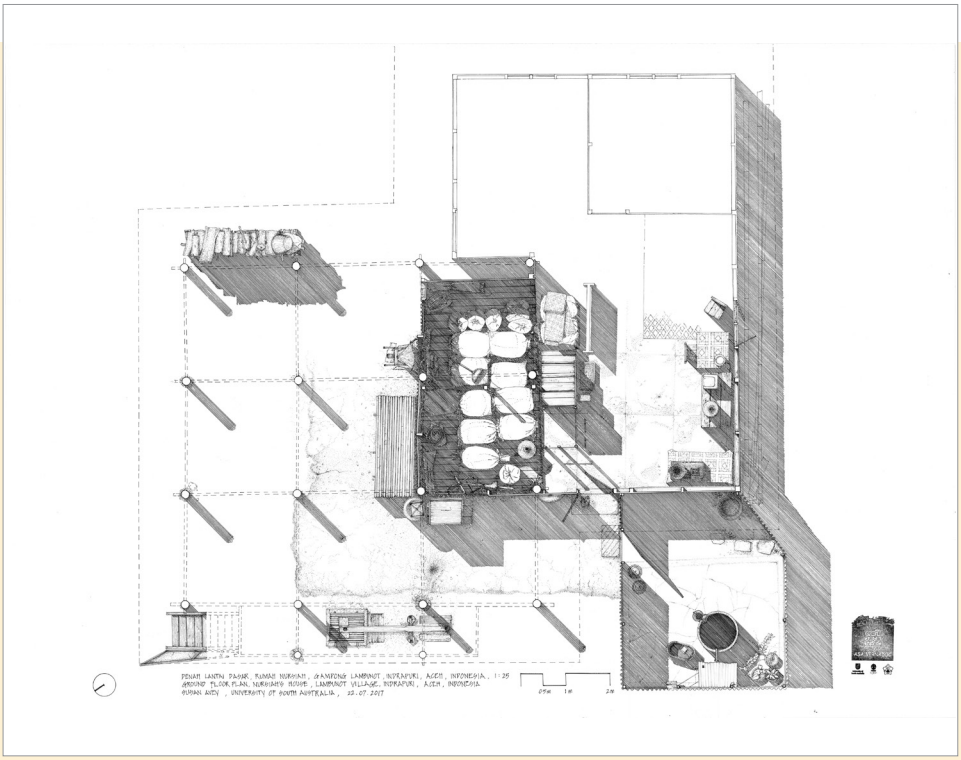


Plate 1
VERNADOC drawing of a floor plan, Nursiah's house, Banda Aceh. Note the location of personal effects and storage of items.
Source: drawn by, and courtesy of, Susan Avey, 2017.

team of collaborators were invited to extend their methodology by trialling it in a different context in Bali, working with students and scholars from UNUD. In Bali, cultural heritage and vernacular architecture are affected by high levels of tourism and rapid urban development, rather than by natural disaster. The two trials of the Aceh Method in two different contexts have so far yielded diverse results and experiences for the participants.

The paper revisits some of the philosophical foundations, background definitions and aims of the Aceh Method, through a literature review. It then provides a brief description and compares the two pilot studies of the process in Aceh and Bali, based on field notes contributed by co-author, Dr Nichols, which reveal some of the contextual and practical challenges from the field. It concludes by discussing lessons from the fieldwork so far, and suggests potential next steps for the research process and methodology.

What is the Aceh Method?

Definitions, aims, and tensions

The Aceh Method is a rich experiential, social and creative process. The creative aspects are realised in drawings, photogrammetry and then the curation of all of these for digital dissemination. It offers a practical means to document, record and communicate traditional building types, techniques and vernacular knowledge-based practices through in-the-field cultural immersion for the research team.

The approach has four core characteristics or collaborative activities; these include: VERNADOC (vernacular documentation), a method of studying and documenting vernacular architecture that involves the production of high quality measured drawings created in-the-field (See Plate 1); the digital capture of buildings using tools like Gigapan, photogrammetry and other photographic techniques enabling virtual reality 'walk throughs' (See Plate 2); the digital recreation of buildings that have been lost and exist only in memory through the collaging of archival materials sourced from global collections; and the collection of memories and oral histories through informal conversations and immersion in the social spaces of the community.[5] In their proposal for the initial pilot study, Nichols et al. state that their aim is to create *... an archive where analogue processes inform the digital and then the digital re-imagines and augments the analogue to capture, re-envision and safeguard Acehnese built heritage.*[6] The proposal was to move towards an *...integrative notion of heritage whereby people, their heirlooms and living environments are considered as an holistic narrative comprised of experience and qualities of the natural and built environment that are inseparable...* in order to *...make a small contribution to the community's sense of identity through built form...*[7] In the case of Aceh, they also aimed to return the beginnings of an archive to a region without access to its own *pusaka* (heirlooms).[8]

The Aceh Method began as a small, collaborative research initiative between scholars of architecture and urban history from UniSA and scholars of architectural history from UnSyiah. Since then it has slowly and



Plate 2
Visual comparison between the Spherical Gigapan Image (left) to a Virtual Reality Model (right) of the same [Rumbia] house in Aceh.
Photo: courtesy of Darren Fong, 2017. Digital Model: courtesy of James Wilson, 2017.

organically developed into an archival methodology, in collaboration with both international and domestic (Indonesian) student groups and communities of place, first in Aceh, and later in Bali. In essence, the primary objective of the Aceh Method is to create an easily accessible and discoverable, multi-modal, online vernacular architecture archive with, and for, a community directly affected by the loss or future endangerment of their built heritage. The four characteristic activities of the Aceh Method outlined above are not unique in themselves, or even unique to archival practice, rather it is the fundamentally collaborative nature and iterative, grassroots development of the process that makes the Aceh Method special.

The concept of the archive

In opposition to the objectives of the Aceh Method, where the archive is a type of curation of primary datasets, Dietmar Schenk [2018], Archives Director at the Berlin University of the Arts, argues for the return to a more narrow and purist understanding of the archive. Schenk asserts the concept of the archive in modern times has expanded unhelpfully.[9] In his view, it is best to return to older and narrower ideas where the definition of an archive entailed *a holding of juridicial, administrative and commercial records. This means that archival records are defined by the sphere of life from which they originate.*[10] They are also physical objects and connected to the past in such a way it leads the researcher to understandings of the past. Schenk states unequivocally that this means [a]*rchival records are in any case authentic relics.*[11] In addition, he raises the concept of 'provenance' as a fundamental idea behind archival thinking. That is, the archive *should be preserved in the order given to it by its creator; any exemptions or modifications must be justified.*[12] Whilst this may appear to be a process of limitations, it may also offer opportunities. The responsibility is with the original archivist and if they were provocatively creative in their approach to the organisation of thematic works, 'provenance' implies that strategy should continue.

Schenk believes the demise of the 'purist' archive mentioned above stemmed from French philosophy and Michel Foucault's 1969 treatise on the *Archaeology of Knowledge*. Foucault speaks of the archive as the *general system of the formation and transformation of statement.*[13] For Schenk this is too metaphorical and intangible, especially as it was Foucault's intention not *to refer to materials left over from a bygone era, and he did not distinguish between libraries and archives either.*[14] In 1995 Jacques Derrida's book *Mal d'Archive* (*Archive Fever*) rethought the distinction between memory and the archive. His interest was in psychoanalysis and he believed that when *individuals or*



Plate 3
A house owner using Google Cardboard to 'experience' a virtual version of her house.
What she is looking at can be seen in the capture on the right hand side.
Photo: courtesy of Julie Nichols, 2017. Digital Model: courtesy of James Wilson, 2017.

communities remember the past, they transform their memories in the course of time against the backdrop of a continually changing present.

The notion that the archive and memories are intrinsically connected and dynamic in their correlation with the present resonates with the approach of the Aceh Method. In this way, the archive curates and links primary artefacts and information to establish a narrative of the materials. It strives to address memory in various ways, from drawing personal items in the house as memory tools, whilst virtually recreating the Aceh house to spatially connect end-users (See Plate 3). Therefore, the selection of elements/features/ personal items to incorporate in the drawing or the virtual reality model, is a process of curation. This process also reflects the selection of what artefacts should be incorporated in the archive. To this end both processes involve curation, selection, and bias. Schenk and Derrida did not outline methods for achieving these esoteric ideas and the following discussion outlines some of this new thinking.

New thinking

Lewi et al in a recent publication [2019] have examined the field of digital heritage and different modes of archiving. They highlight the fact that their work builds upon pioneering works by other authors [Cameron and Kenderdine: 2007; Din and Hecht: 2007; Kalay, Kvan and Affleck: 2007; Marty and Burton Jones: 2007; Parry: 2010] who have sought to *connect diverse areas of thinking and practice, because it did 'not exist in one single place.'*[15] They believe data management, particularly in a born-digital age, requires what they term as *patterns of thinking and working with data, information, and digital artefacts and infrastructures, that exist in a shifting landscape.*[16]

The authors describe how it is a challenge for the GLAM sector (Galleries, Libraries, Archives, and Museums) not only to archive their extensive collections, but to continue to innovate in order to provide the public with accessible and experiential ways of engaging with their collections. Digital tools and modes of engagement cannot solve this problem, but they might be *skillfully deployed*, [as] *new digital techniques are re-casting and reconfiguring the bigger picture in subtle and potentially significant ways.*[17] Authors such as Fiona Cameron in her chapter 'Theorizing heritage collection digitizations in global computational infrastructures,' suggests the distinction between analogue and digital is not the emphasis of her approach but rather *the way we conceptualise cultural production and heritage now and into the future.*[18] Cameron opines that the ambiguities inherent in digital processes may offer opportunities in a similar way as when Derrida implied there was a need to connect archival materials to the present, to adjust to the unprecedented dynamism of contemporary modes of living.

The concept of vernacular architecture

The term 'vernacular architecture' has an embedded linguistic metaphor that helps to illustrate the significance of the Aceh Method as an archival approach. 'Vernacular' is a linguistic term used to describe a common, local dialect or informal pattern of speech that belongs specifically to a 'community of place' or common interest group.[19] A 'vernacular' or 'vernacular

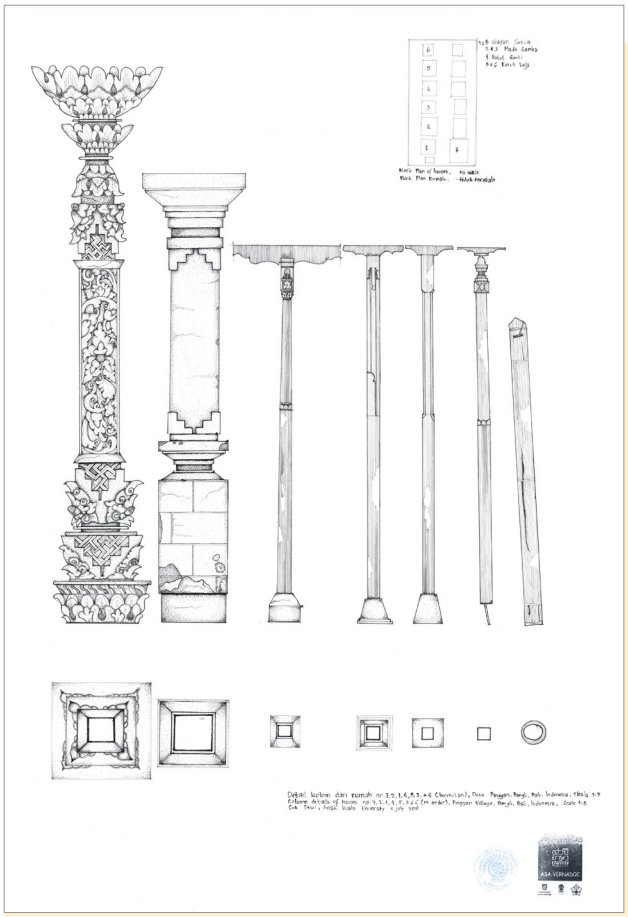


Plate 4
A study of the diverse types of columns on the front porch of houses in a family compound, demonstrating an evolving vernacular in Pinggan Village, Bali. Source: drawn by, and courtesy of Cut Dewi, 2018.

language' is a local, common form of communication that is site or community-specific (See Plate 4).[20] Vernacular architecture as defined by architect Amos Rapoport [1969; 1980], comprises commonplace, everyday buildings that have not been designed by an architect or engineer and are not 'high-style', monumental or grand.[21] Rapoport suggests that a large proportion of all built environments may be considered vernacular and that such built environments *...communicate meanings to help serve social and cultural purposes; they provide frameworks, or systems of settings, for human action and appropriate behaviour*. [22] In the introduction to a series of essays in a book titled *Common Places: Readings in American Vernacular Architecture* [1996], editors Dell Upton and John Michael Vlach discuss the sheer number of possible definitions that exist for vernacular architecture, and suggest that, *... The fact that vernacular architecture encompasses so much is both a strength and weakness of the field....*[23] They also suggest that the sheer volume of what may be considered vernacular architecture makes it hard to determine what is most valuable about it, stating that *Many can rally to the advocacy of the value of the experience of common people, but few can agree on what aspects of the common experience merit their attention*.[24]

The attribution of value to the common, everyday architectural language of a particular built environment is a fraught concept for heritage practitioners and archivists alike. Given that the encroachment of everyday architecture and urban development is often perceived as a major threat to special architectural treasures, the idea that vernacular, everyday buildings warrant a place in an architectural archive may seem paradoxical.

However, as a form of communication, a language of historical knowledge or evidence, vernacular architecture potentially provides one of the most honest and diverse representations of society. In their book, *Invitation to Vernacular Architecture: A Guide to the Study of Ordinary Buildings and Landscapes*, authors Thomas Carter and Elizabeth Collins Cromley theorise that:

> *... buildings often reveal aspects of behaviour such as the mundane or the forbidden rarely spoken of in conventional texts. Structures have a way of showing us things about ourselves that we may feel are too mundane to mention but which nevertheless articulate routines essential for our survival. And certainly there are skeletons in the closet – things we do not want to talk about – for example, slavery or the suppression of women's rights... In the way we create and use architectural space, we say things we would never say in our journals or diaries*.[25]

The idea that normal buildings can *say things* or ... *articulate routines essential for our survival*... in a way that a grand or monumental building may not be able to, implies the underlying value of a vernacular architecture archive. This is not to suggest that monuments cannot also reveal important truths, but rather that an everyday building may reveal a greater diversity of experiences and tap into narratives that cannot be found in grander typologies. Typically, as Carter and Cromley conclude, even within the realm of everyday architecture, the survival of buildings is not balanced or equal because *...smaller houses tend not to endure, so the material record may be skewed in favor of the elites...*[26]

Challenges of recording:

It is important to acknowledge that some forms of record-taking and documentation can in fact increase the risk of homogenisation, even though the aim may be to promote and protect diverse expressions of cultural output. This is a concept discussed by scholar of linguistics, Felix K. Ameka, [2015] in his chapter on the 'Unintended consequences of methodological and practical responses to language endangerment in Africa.'[27] The concept of language endangerment came about in the late 1980s, raised by Johannes Bechert, a professional linguist, at a Berlin conference. Bechert wondered if the philosophy of languages and the world views that were encoded in them were at risk of being lost to twentieth century knowledge systems.[28] This is an approach which reiterates the dilemma of vernacular architecture at risk of loss, in that the knowledge systems that shaped the worldviews of the owners/builders represent a deeper loss to community.

Ameka proposes that to counteract the risk of homogenisation in linguistic recording processes, there is a need to promote a diversity of methods and the uptake of new technologies and new media. One of the various methods of linguistic recording included 'linguistic social work', a term coined by Newman [1998] to provide activities for speakers of a language to stabilise it.[29] The idea is not to revive or renew languages, but rather to provide support through materials (audio-visuals, dictionaries) that may assist in maintaining

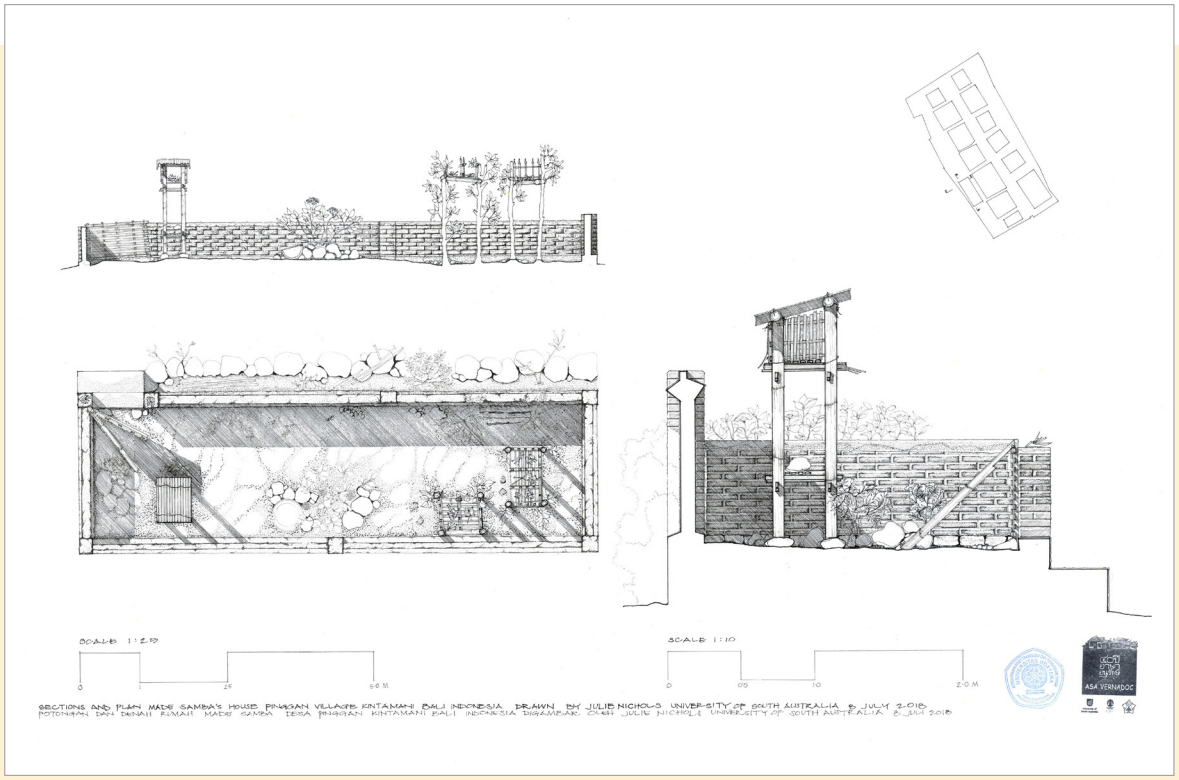


Plate 5
VERNADOC drawing of a prayer garden that forms an important termination to the spatial organisation of the Balinese house and settlement patterns in Pinggan Village, Bali.
Source: drawn by, and courtesy of Julie Nichols, 2018.

them.[30] Similarly for built environments, knowledge is hopefully maintained through the recording process, and it is only the community members who may decide whether they value the vernacular enough to safeguard it and pass on its conceptual philosophies (See Plate 5). Ameka suggests that linguistic fieldwork involves both social and political processes that are unavoidable. In Africanist linguistic research, less attention has been paid to the methods of recording, transcribing and analysing known as 'documentary linguistics'.[31] This means that the linguistic practices of a community are recorded during their use. The output should be *the creation, annotation, preservation and dissemination of transparent records of a language*.[32]

This issue of transparency is unclear in practice, as recording processes, regardless of their form, may be subjected to anomalies inherent in any human practice. Ameka suggests that *in practice this calls for a multi-modal recording of actual language use with concerns for rigor in data management*.[33] Visual methods of video-recordings have not been favoured by linguists according to Ameka, as there is a debate that communities prefer audio recordings.[34] The use of a variety of methods to record diverse vernaculars is applicable to the process of creating a holistic vernacular architecture archive. The Aceh Method aims to address the difficulties of the recording process as outlined by Ameka, through its use of multi-modal methods of hand-drawing, digital capture and storage, 3D virtual reality creation and oral history recordings. However, the transparency of the recording is attempted through an acknowledgement that this recording is momentary and part of a continuum of everyday life. Therefore, despite every effort to capture a moment, with all the complexity of the scene and its actors, it will most probably never be complete and there are always limitations. In a similar way to studying languages, the comprehension of vernacular architecture goes beyond the visual, it includes knowledge of the socio-cultural practices, oral traditions and socio-political factors that provide context to the built environment. It is useful to consider not only the similarities of the processes for recording language and built form, but also the shared

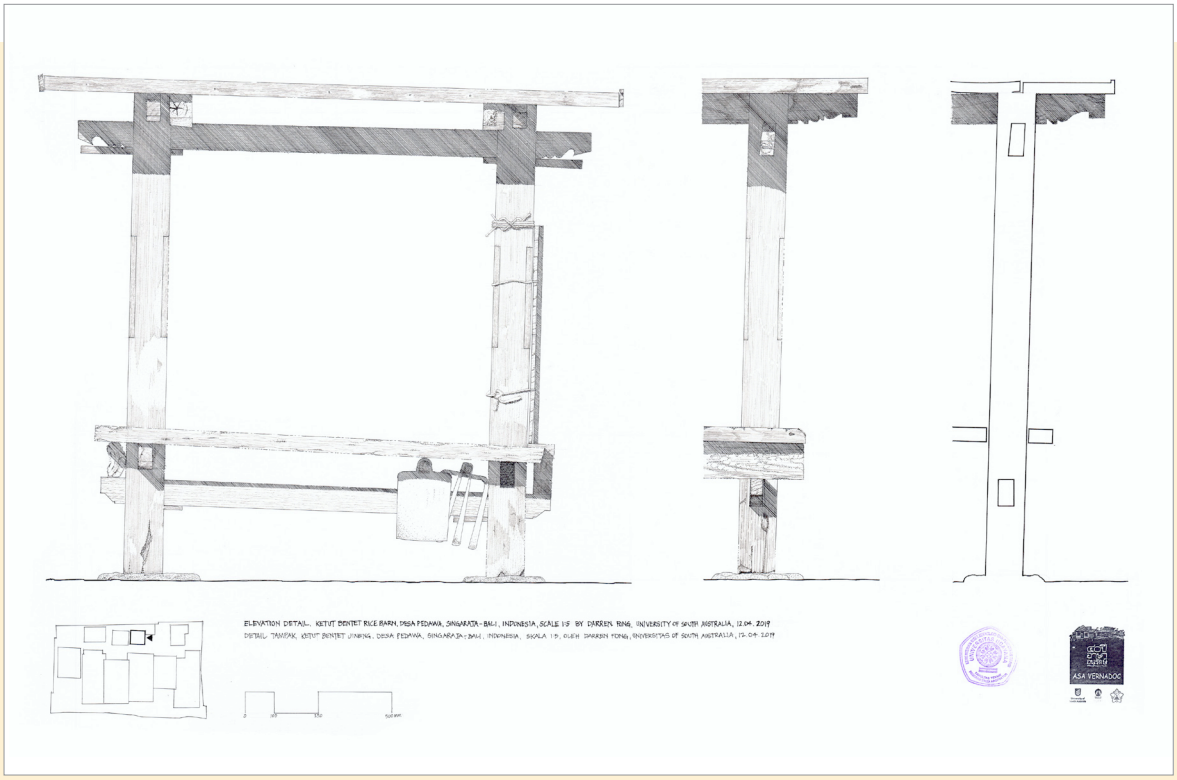


Plate 6
VERNADOC drawing of the timber structure for a rice store, detailing the design and construction method.
One of the rice stores was sold to a tourist facility to 'display' vernacular architecture. The 'value' for the villagers in the transaction was additional income for survival rather than the retention of their heritage. Pinggan Village, Bali.
Source: drawn by, and courtesy of Darren Fong, 2018.

intersections in both for communicating meaning through these media to the community.

Architect and scholar, Rosemary Latter, further emphasises how a focus on the vernacular may aid architectural 'linguistic' diversity through educative and pedagogical opportunities. From her work as a teacher of international studies in vernacular architecture at Oxford Brookes, Latter suggests that:

> *... an appreciation of the validity of cultural norms different from 'the western model' is crucial to a more sensitive approach to global architectural practice. In any future policies of a multinational scale and with an increasingly globalized and industrialized building industry, a generation of architects will be in a better position to assist with planning and housing issues, having had some education in vernacular architecture...*[35]

Latter's insistence on the need to appreciate the ... v*alidity of cultural norms* [that are] *different from 'the western model'* highlights the pedagogical advantages of building an archival record of vernacular architecture.[36] Once again, the Aceh Method responds to this need by having university students from both western and non-western backgrounds as members of its primary research team.

Attributing value to vernacular architecture because of its potential pedagogical importance and its capacity to communicate social, cultural and temporal power structures and relationships that might otherwise remain undocumented, is problematic for archivists who are already suffering from a backlog of archival records and data needing to be processed.[37] The crossover between archival and heritage conservation theory raises questions about one of the greatest theoretical and practical challenges in a traditional archival approach, that is, the act of 'appraisal', the question of value judgment, and the role of the archivist in selecting what is to be stored in an archive (See Plate 6).[38] The tendency for archivists to also act as 'preservationists' has implications for an activity that, in

principle, should be impartial or objective but which, in reality, is value-laden.[39]

Heritage conservation has often focused on items that are considered special, unique or culturally valuable to a group of people, especially when it is perceived that those items are threatened or endangered.[40] It often reifies monumental and special buildings, which may in fact have been introduced into the region by the dominant, elitist or colonial powers.[41] Conversely, according to traditional archival theory at least, archivists are presumed to adopt a stance of objectivity or neutrality in relation to the items that they process and archive.[42] In reality their role is far from neutral, because many archivists actively select items to be preserved and recorded. Archival theorist, Luciana Duranti, explores this concept in an article about the potential attribution of values to archives through appraisal and how this fits with the core, theoretical characteristics of an archive.[43] Duranti insists that the traditional core characteristics of an archive are impartiality, authenticity, naturalness and interrelationship, a direct corollary of which is uniqueness … *which derives to each archival document by the fact of its having a unique place in the structure of the group in which it belongs and in the documentary universe*….[44] She goes on to outline how any form of value-laden appraisal is in direct conflict with these characteristics, although she acknowledges that 'selection' is and has always been a necessary part of the archivist's job. Duranti also acknowledges that:

> *It is quite clear that, if what qualifies documents as archival is their nature—as Jenkinson believed—the idea of attributing values to them is in profound conflict with archival theory; while it is in complete harmony with it if the qualifying element is use—as Schellenberg pragmatically claimed.*[45]

As discussed by archivists Mark A. Greene and Dennis Meissner in an article on the need to rethink archival processing and its underlying purpose, appraisal that focuses on the archival items or records themselves over the needs of the end-user is one of the reasons for a massive backlog of archival data requiring processing, which they refer to as …*the heavy legacy of a profession rooted more in service to "the stuff" than in service to patrons, a profession that exalts the value of the physical item.*[46]

In the context of the extreme loss experienced in post-tsunami Aceh, the Aceh Method's rationale for recording vernacular architecture is quite pragmatic and by default is more about the value of the 'service to patrons' or users, than with the value of buildings or records in and of themselves. The 2004 tsunami in Aceh was indiscriminate in its total destruction of the built environment, and it was not just the monumental, architecturally-designed buildings that were gone forever; physical archives that previously existed were also lost along with the people whose knowledge, skillsets, memories and experiences had shaped that built environment and the archives. Such wholesale destruction and the subsequent need to rebuild from scratch revealed the potential value of an archive that includes a comprehensive record of common homes, local building techniques and everyday activities and narratives, alongside monumental and rare architectural treasures.[47]

The tsunami in Aceh also revealed the value of and need for electronically stored and easily accessible archival records of everyday built environments. In post-tsunami Aceh, getting access to archives that showed the built environment as it was prior to the tsunami would have been very useful for the local Acehnese as they rebuilt their city. However, archives have traditionally served a select community of interest, often researchers and other intellectual and economic elites, and getting access to them is often quite difficult and time-consuming. Greene and Meissner suggest that archival practices have traditionally …*placed preservation far ahead of access in our priorities*… meaning that while records may exist, they are not necessarily available to those who need them the most.[48] Some offshore, internationally owned archives of Acehnese cultural heritage still exist but remain difficult to access.[49] For example, the KITLV (Leiden) archive recently digitised its collection of approximately ten thousand photographs, paintings and books on Aceh, but according to their website, due to copyright restrictions, archival material that post-dates 1900 cannot be published online.[50] This means that someone wanting to access or view the archive would have to go to Leiden University, at Leiden in the Netherlands, and sit at the library computers in order to access these otherwise-restricted documents.[51]

In part, the Aceh Method aims to address this type of barrier to accessibility by generating the archive

collaboratively (See Plate 7). Collaboration between local residents, university students and international scholars makes what is generated a form of public property that can be published and freely accessed online; ownership is shared by a widespread community of interest. In the long term however, this grassroots approach will undoubtedly pose challenges. For example, it will be difficult to establish who should pay for the archive's maintenance and how it should be updated, as doing so would require negotiation with a number of otherwise disparate groups. However, it is still, perhaps, the most unique and important aspect of the Aceh Method.

Reliance on social interaction and collaboration between a community of interest and a community of place in the development of the archive might be considered a 'postmodernist' approach, according to archivist and archival theorist, Terry Cook.[52] Most traditional approaches to cultural heritage conservation and archival record collection are not intentionally creative or generative. Rather, the aim is to preserve material or image-based evidence of the past for future generations. However, according to Cook there is a paradigm shift occurring in archival practice in response to post-modernism *...away from viewing records as static physical objects, and towards understanding them as dynamic virtual concepts...*.[53] Cook proposes that this requires archivists to acknowledge and move ... *away from identifying themselves as passive guardians of an inherited legacy to celebrating their role in actively shaping collective or social memory.*[54]

In the Aceh Method, the collaborative and influential role that students and scholars play when they join a local community-of-place for the VERNADOC phase of the Aceh Method process is definitely not passive. The social processes of manually generating images and collaboratively creating 3D models of people's homes and communal spaces are potentially more important than the precision of their recollections and records. The psychological benefits of establishing collaborative, communal action in the face of instances of displacement has been documented by Lynne C. Manzo and Douglas D. Perkins, scholars of community and environmental psychology.[55]

Nichols' fieldwork notes reflect on the rewards and challenges faced in the field by the Aceh Method research teams in Aceh and Bali.

Aceh pilot study – rewards and challenges for the Aceh Method in Lambunot Village, Indrapuri, Aceh Besar

The first pilot study of the Aceh Method began in July 2017 as an organised VERNADOC-style camp for international and local university students in Lambunot Village, which lies approximately twenty kilometres outside



Plate 7
Discussions with the community about their cosmological, structural and environmental understandings of the Aceh house, were mapped out by one of the local engineers, Mr Rachmatsyahnusfi.
Photo: courtesy of Darren Fong, 2017.



Plate 8
The site of Ibu Mahyuni's house in Lambunot Village, Banda Aceh, with participants working together underneath the structure.
Photo: courtesy of Darren Fong, 2017.

of Banda Aceh. This was the first camp organised by the UniSA and UnSyiah team in Aceh, Indonesia. After previously establishing a rapport with certain community members in Lambunot via our colleague, Dr Dewi from the Department of Architecture at UnSyiah, Nichols and Dewi proposed that a research team of seventy students and scholars from UniSA, UnSyiah, UI, ASA-VERNADOC, and Finnish architect Tuomas Klaus, travel to Lambunot and begin a multi-modal process of documenting their vernacular built environment. Dewi, Nichols and their teams spent more than two years planning. Many hours and many site visits were undertaken to negotiate with the residents of the houses to be drawn, as well as with the various village leaders and Aceh government officials to gain approval for the fieldwork. In addition, Dewi sought funding through the Ministry of Culture and Tourism and the related approvals at Acehnese Government levels, and Nichols through Australian Government DFAT New Colombo Plan funding. The research team was based forty-five minutes away from Lambunot for the duration of the camp, at a hotel in Banda Aceh.

Their rapport with Ibu Mahyuni, one of the house owners, and her extended family was immediate. Her generosity and kindness in accommodating us in every way, despite our not being able to understand one other in the Acehnese language, was much appreciated. Meals for the seventy foreign people were hosted seamlessly in the undercroft of her house (See Plate 8). Equally, small comforts were taken in the shade of the house undercroft and the generous trees around Ibu Mahyuni's house. These were a welcome relief after hours of measuring and drawing out in the sun. The house and garden design impressed the students and made sense to them through their own experiences of the climate on site.

When we gathered for meals, local children laughed at us, spoke a few words in English, drew us in their notebooks and then drew their own houses, unclear as to why it was all taking so long for the foreigners to complete their drawings. The friendships grew day by day, and each morning we were warmly greeted by children and adults as we arrived in the village. Daily, the children returning from school eagerly examined the progress of the drawings and details. In the breaks they played soccer with the students despite the afternoon heat. A testament to the fostering of relationships and the growth of trust between the research team and locals, is that all were invited to participate in a local wedding party, with two visitors at a time being photographed with the bride and groom.



Plate 9
2018 Bali VERNADOC Exhibition at ODASA, Adelaide, Australia.
Photo: courtesy of Darren Fong, 2018.

The final day of drawing on site culminated in a celebration of the experience with all the dignitaries, and a feast to finish the event. Nichols was interviewed by the Department of Culture and Tourism for local television. The village heads stated that they were very grateful for our covered clothing and appropriate behaviour in observing the Islamic tradition of not working during prayer times. This acknowledgement that the visitors had made an effort to fit in was so kind, as at times it had been a challenge to ensure that the drawing team all dressed appropriately. In return, we invited the community to come to Banda Aceh to see the final inked drawings in a week's time.

We exhibited the work at the Tsunami Museum in Banda Aceh and all the house owners came to see it, travelling by bus from Lambunot, many of them unused to visiting the city. They were overwhelmed by the experience of seeing meticulous drawings of their humble dwellings exhibited in this prestigious building. Most importantly, they were so proud of their houses. The international cohort was in awe of the community's reception of the drawings, the Acehnese government's Deputy Governor's opening of the event followed by the media interest, and significantly, by the emotion brought about by memories of the 2004 tsunami, still raw amongst the local population. It was a highly evocative and memorable experience for the non-Acehnese participants to begin to appreciate the

value of their small but important contribution to a new archive on vernacular buildings in the context of post-disaster Aceh.

UniSA students fund-raised and organised another exhibition in Adelaide for their friends and families to expand on their Facebook and Instagram experiences and to show off their framed drawings in a formal environment. At the Office of Design and Architecture [ODASA] in Leigh Street, Adelaide, premises frequented by the architectural profession for design panel reviews, they were astounded at the intricacies, details and quality of the hand-drawn buildings (see Plate 9). Anecdotally, we have heard that some Adelaide architects thought such methods should be re-introduced into architectural education to teach students to observe and to learn about cultural and environmental conditions which are critical to understanding the context of design and building.

Bali pilot study – rewards and challenges for the Aceh Method in Pinggan Village, Kintamani

Unlike those in Aceh, Balinese houses were compact and small, all arranged within a small compound (see Plate 10). They were single storey dwellings which made it easier to study the details at ground level and to work out how they were constructed and what different materials were used. Each of the houses had a sacred garden space as well as a productive garden adjacent to the property. The people were all elderly and very accommodating, given there was again a large number of researchers - around sixty-five people - climbing around their houses and gardens. However, this time the drawing work was undertaken in a much more confined area compared with the expansive open spaces of Lambunot village. The textures in the buildings, the offerings, the scale, the household equipment scattered around the houses made for incredibly evocative drawings.

The challenges of the Bali camp were significant in different ways to those in Aceh. There was less integration between the Balinese university students and students from UniSA and the international participants as the group was dispersed; the Balinese students stayed in very confined conditions in the village while the international team enjoyed hotel accommodation, an unintended disparity as the result of miscommunication. The coordination of communication during the camp was also compromised because we were unable to have a large group debrief.

The tightly organised compound where we did the drawing meant that the research team seemed to almost overwhelm the local community during the visit (see Plate 10). For example, there were approximately sixty-five unfamiliar people entering the homes of quite elderly people who were unaccustomed to international



Plate 10
Aerial view taken by a drone, looking down at the arrangement of the family compound in Pinggan Village, Bali.
Photo: courtesy of Mika Photography, 2018.

visitors, whilst they were sleeping, praying, and conducting their everyday tasks. Some of the locals appeared curious and conversed with the Balinese students, however others appeared confused or remained detached and expressionless throughout the seven-day engagement process. This gave the research team the uncomfortable suspicion that there may have been some tensions in the negotiations and that the camp, which was supposed to be a collaborative, community-endorsed, grassroots process, may have been imposed or even forced on the community by those in positions of power or authority.

The international research team was intentionally not part of the negotiations around the selection of sites or families to be involved in the drawings as we did not want to assert our preferences over the locals' way of doing things, but 'consent' in this case seems to have been about internal power relations. In Aceh it was clear that the owners did consent to their active involvement in the drawing event and obviously enjoyed our stay; it was not clear that this was the case for the house owners in Bali.

Misunderstandings around the drawing process felt awkward for this reason. They were exacerbated because the villagers were unable to attend the opening of our exhibition due to distance, their physical limitations of age, and therefore the aspects of dissemination and communication between locals and the research team seemed disconnected. This account is not to apportion blame as it was no one's fault; it is simply a reflection on the challenges of working between cultures, in remote locations, and co-ordinating the planning of such a large-scale project. Each party has their own aspirations for the outcomes, and has their institution's political as well as personal objectives to meet in the process. It takes an inherently complex, time-consuming set of negotiations to deliver the on-site process and series of exhibitions and disseminations thereafter. The co-ordination of a huge team of international guests is a big task and becomes flawed when funding channels are not always realised. The transparency of objectives between institutions is also difficult if culturally transparency is not acceptable. A specific challenge, cross-institutionally, is that funding models are arranged almost in opposition. For example, the Indonesian institutions required a research component and output for what was seen by the international institutions as a teaching-only exercise. These competing interests were managed as best as possible during the programme, but placed additional pressures on a tight timeframe for the delivery of a complex number of outcomes, from teaching measuring and drawing, digital capture, exhibitions in two countries, as well as a research paper or synopsis.

The culmination of the Bali work was two exhibitions, one in Adelaide's ODASA and one in Denpasar. The Adelaide exhibition was supported by the City of Adelaide Council, the Australia Indonesia Association and the South Australian Government's Department of Environment and Water (Heritage SA) ranging from in-kind to financial, this permitted dissemination of the work and raised awareness of international heritage at-risk sites. It highlighted shared values between the local community, researchers and an audience beyond Indonesia, expressed in its presentation of, and reaction to the variety of media, including photogrammetry and 3D videos, drone birds' eye views in addition to the manual drawings.

Concluding remarks

Paradoxes, challenges and next steps

The two pilot studies of the Aceh Method in Banda Aceh and Bali reveal differences in the way the process was initiated, the contexts, and the application of the methodology, so it is unsurprising that there have also been differences in the experiences and results from the process so far.

Here is a summary of the main findings from the experiences of the two camps in terms of what recording an endangered vernacular building, and its context, entails, whilst also considering the parallels with the recording of an endangered language (Table 1).

Significantly, Nichols' reflections on student and community experiences during the two pilot studies above reveal an apparent tension between the underlying rationale for building an archive using the Aceh Method and its application in the Bali context. As discussed previously, the Aceh Method aims to record an endangered vernacular, or 'language' of architecture before a more homogenising force subsumes it, much

Table 1
A comparative analysis of the processes of recording the two case studies of vernacular built heritage sites and a case study of the process of recording an endangered language.

Recording processes	Vernacular built heritage case studies		Endangered language case studies
	Aceh vernacular house	Bali vernacular house	African languages [Ameka: 2015]
Field work [capture + selection]	Aceh Method - Analogue processes inform the digital; digital reimagines and augments the analogue. This is an integrative notion of heritage [people, heirlooms, buildings that contribute to a narrative of experience of the qualities of the natural and built environment].		Multi-modal recording of language (visual + audio) [Ameka: 2015, p.20].
Ethnography	The observation of people in their social context. Vernacular buildings communicate meaning for social and cultural purposes. They are a form of communication - a language of historical knowledge. Drawing, as a form of literacy, changes the value and way of seeing for oral cultures.		Primary method of documentation is ethnographic [Ameka: 2015, p.26]. Introduction to literacy in an oral culture enables another way of seeing the world.
Theory vs Application	What is significant in digital humanities is the way we 'conceptualise cultural production'. This is due to our contemporary and unprecedented way of living – dynamic, not static – objects waiting for discovery.		Heritage languages need context, otherwise they remain only an abstract concept or theory [Ameka: 2015, p.20].
Training of local students and academics	UnSyiah and UI, in Indonesia continued with further VERNADOC camps training the next generation of staff and students.		Allows future generations of local people (linguists) to document their language heritage before it is lost [Ameka: 2015, pp.20-21].
Language documentation practices	Vernacular elements change over time with influences that are external and internal as well as ideological and environmental (See Plate 4). These incremental changes suggest vernacular buildings are dynamic virtual concepts (actively shaping collective or social memory).		Recording observable linguistic practices and meta-linguistic knowledge of local speakers for a broader context and understanding [Ameka: 2015, p.23].
Orthography	Architectural drawing conventions are orthographic. These architectural projections include: plans, sections and details to represent the houses.		A set of conventions for writing a language.
Literacy in drawing	In drawing there is the challenge of misinterpretation of the so-called 'truths' - misunderstanding the concept of 'momentary' capture (recording the building and its context at a given moment in time).		New ways of understanding and knowing the world, in a predominantly oral culture. Safe-guarding language loss [Ameka: 2015, p.25].
Dissemination	Exhibitions, local to the country of the documentation as well as in Australia. Sets of drawings distributed to the community; academic publications on the process; social media through the local community and the participants; VERNADOC drawings + V/R model demonstrated at international conferences. Challenges shared for language and built recording – communicating meaning through these different forms of media to the community.		Multi-media, multi-modal.
Archive + artefacts	Archives are traditionally colonial taxonomies – forms of ordering artefacts/knowledge, i.e. they are constructed. Priority given to the 'stuff' rather than to the needs of the end-user. Re-envisioning + safeguarding built cultural heritage. Use of Gigapans to represent immersive environment. V/R model for immersive environment using Google cardboard.		*We should take advantage of new technologies and develop ways of communicating meanings in diverse ways…that preserve variation and reduce the gulf between spoken and written language by promoting more vernacular literacy.* [Ameka: 2015, p.32]

like a linguist carefully gathers what remains of an endangered language to protect linguistic diversity. In the context of Lambunot, where the 'homogenising force' of natural disaster is an ever-present threat, and a recent and personal memory for many of the villagers, the goal of recording and archiving the lost or

endangered 'languages' of everyday built environments was apparently perceived to be useful by the local community. In a context of extreme displacement, the Aceh Method responds directly to the stark loss of everything that is familiar by 're-envisioning' [Nichols et al.: 2017] empty places, filling them with normal buildings and everyday clutter. Simultaneously, it promotes what Perkins and Brown [1992] might call 'community place-making' and 'resilience-building' activities through the collaborative, creative and social opportunities that the process enables.[56]

However, in the Bali context, the goal of recording endangered vernacular architecture was apparently less well-received by community members. Nichols' suggestion that certain community members appeared to perceive the research team as an imposition, treating them with less enthusiasm than they had received from villagers in Lambunot, may reflect an apparent paradox in the aim to create an archive of the vernacular built environments.

As mentioned above, however, perhaps the greatest merit of this approach, particularly in a context like Bali, is not so much the record that is produced, but rather the multi-modal, open, collaborative and generative process that is employed to produce it.

The archive in this sense is therefore not simply a collation of objects, the legacy of the archivist, as Schenk proposed. It reflects a mode of thinking that moves beyond binary oppositions of analogue and digital. It is a *modus operandi* for addressing time as Witcomb suggests, in terms of the correlation of both a speeding-up of time and harnessing digital technologies as tools to mediate between material and born-digital information.[57] It is also the perception that an archive in its material form represents a slowing of time to engage with the past, and as archives are typically entrenched in historic institutions, Witcomb posits that is what we have in this rethinking of the archive,

> *is a much more sophisticated discussion that is interested not in reacting to or advocating for, the shock of the new, but in developing an engagement with the medium [digital] itself, exploring its possibilities through any number of theoretical frameworks.*[58]

However how to proceed with this new understanding of the archive is not a straightforward task. Many questions arise around digitisation and the notion of the democratisation of archives. Digitisation does not necessarily mean equal access, whereby suitable hardware for large file downloads are typically the domain of institutions and for the educated. How might the ethics of such situations be tackled? Is it possible for power relations to shift in a multimodal platform arrangement from the insitutional to open access domains? These questions are not only about the past but about how to work in the future, about the ability of the archive to work with these new agendas and challenges. It is these kinds of questions that the recording of endangered languages, and the capture of vernacular architecture, both face, with the former more problematic as the records are predominantly born-digital.

The aim of this kind of history of the everyday is the recovery of overlooked material, what Braudel calls *parahistoric languages…which are usually kept separate from each other and which develop in the margin of traditional history…*[59] As Braudel suggests, it is about establishing what is overlooked, but essentially it is an exercise in making connections to understand the past in order to inform the future. There is a need to focus on the temporal aspects of the vernacular and in turn to incorporate those ideas into the recording of digital heritage and the processes of re-presentation. It is hoped that the multi-modal platform may be accessible to more people through smartphones and other mobile devices. It will reconnect peoples to their histories which may have been subjected to catastrophic losses as in Aceh, or face destruction from unsustainable tourism as in Bali. Achieving the complexity required to represent rich and fluid human conditions is a monumental task. In a small way, the Aceh Method attempts to investigate processes around achieving this.[60]

ENDNOTES

1 Note: this conference paper was expanded on and is currently under review for publication in the *International Journal of Heritage Studies* with the title: 'Multi-Modal Archiving: Re-envisioning Acehnese Built Cultural Heritage'.
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3 Taylor, J. G., 2007. 'Aceh Histories in the KITLV Images Archive' in *First International Conference of Aceh and Indian Ocean Studies Proceedings*. Syiah Kuala University, Indonesia, 24-27 February.

4 Nichols et al., 2017 : p. 91.

5 Nichols et al., 2016 : p. 89.

6 Nichols et al., 2016 : p. 84.

7 Nichols et al., 2016: p. 89.

8 *Pusaka* are heirlooms which are stored for perpetuity to be passed on to the next generation. Here it is used to explain the fact that although Aceh has an oral tradition and not the focus the West has on record keeping in the archival sense, the physicality of something precious still needs safeguarding. This has not traditionally been architectural space but rather the sacred object. After suffering such huge losses, is it possible that memories of spaces may also be valuable?

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34 Ibid: p.19.
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