REVEALING THE RAINFOREST

DISCOVERING THE DYNAMIC INTERCHANGE BETWEEN LANDSCAPE AND CULTURE

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ABSTRACT

Landscape architecture embodies the symbiotic relationship between society and environment and this human-nature interaction is manifest at its most profound within those places that are referred to as cultural landscapes.

Within the Asia-pacific region there is considerable diversity in both the environment and culture. The region has one of the highest proportions of indigenous peoples within national populations and the highest proportion of people living within traditional governance systems in any region of the world. Together these qualities underpin the uniqueness of cultural landscapes in the Asia-pacific region.

The challenge of ensuring an appreciation and respect for these local cultural landscapes and adhering to professional ethics when working with local communities within an increasingly globalised landscape is an ongoing area of concern in the practice of landscape architecture and one that is therefore particularly relevant to landscape architecture education.

This paper considers the importance of enabling an exchange between students of landscape architecture and non-western world views set amidst a different culture and within an unfamiliar environment. The case study outlines student experiences of the cultural landscape of the Penan within the Sarawak rainforest of Malaysia. Although often viewed as wilderness, the rainforest is a place that illustrates the human-nature interaction at its most intimate and the patterns in the landscape that were and are being created as a consequence of this interaction.

"The real voyage of discovery is not in seeking new lands but in seeing with new eyes." (Proust, 1913)
The inclusion of indigenous perspectives in higher education is now considered an imperative (Konai 2003) as the need to ensure different world views are acknowledged and indigenous peoples are provided the opportunity to own and champion their own knowledge. For this paper indigenous peoples are those that exhibit and/or identify with some or all of the following characteristics based on the United Nations criteria; those that have self-identification as indigenous peoples at the individual level and are accepted by the community as their member, historical continuity with pre-colonial and/or pre-settler societies, strong link to territories and surrounding natural resources, distinct social, economic or political systems, distinct language, culture and beliefs, form non-dominant groups of society and resolve to maintain and reproduce their ancestral environments and systems as distinctive peoples and communities. ("Who are Indigenous Peoples", n.d.)

Based on these qualities there are approximately 400 million indigenous people worldwide that belong to over 5,000 distinct tribes, found in over ninety countries. Although only making up 6% of the world's population, these communities represent 90% of the cultural diversity. ("Who are Indigenous Peoples", n.d.) and therefore provide an appropriate and rich cultural resource for experiencing landscapes.

For design education, exploration of this indigenous wisdom enriches the curriculum through incorporation of different perspectives to knowledge. As further stated by Konai (2003) "Valuing indigenous ways of knowing usually results in mutually beneficial collaboration between indigenous and nonindigenous peoples, and improves their treatment of each other as equals" (p. 2). This notion of ethics and respect for other views is therefore an important aspect of the journey to becoming a landscape architect, where working with communities that represent a variety of cultures is becoming more a part of design process. But understanding culture and its immaterial (spiritual) dimensions and ethics can be a difficult concept to 'teach' due to its strong link to personal emotion. So the notion of providing an authentic emotional engagement with cultural landscapes to better understand and build our personal perspectives is indispensable.

For landscape architecture education the need to address this skillset is strengthened by the International Federation of Landscape Architects Code of Ethics requirement to ensure local culture and place are recognised so that anyone undertaking work in a foreign country will ensure collaboration with a local colleague and recognise and protect the cultural, historical and ecosystem context to which the landscape belongs when generating design, planning and management proposals ("IFLA By-Laws & Rules of Procedure" n.d.).

Globalisation today is predominantly based around the spread of Western knowledge, values and practices, rather than indigenous knowledge and wisdom (Thaman 2003) as such how, within a highly western educational structure, can authentic exploration of these issues be embedded and skillsets developed? A possible methodology to answer this question lies in immersing students within a cultural landscape and enhancing their emotional responses to both nature and culture through an intense physical and spiritual experience that utilises all the senses.

The Bachelor of Landscape Architecture programme at Unitec Institute of Technology aims to achieve this through travel to overseas locations where students live with local people to understand strategies for sustainable development. In doing so students see the place of their own island, New Zealand, within the global environment and values associated with cultural landscapes from a different world view.

SENSORY IMMERSION METHODOLOGY

"In rainforests, many of the natural wonders lie hidden from our sight. Nature is indistinct, complicated, often subdued, needing to be sought out not only through visual observation but also with a sensitivity towards its sounds, acent, textures and flavours" (Payne J., 1997).

In order to fully appreciate and even begin to understand the spiritual and material aspects of a cultural landscape it is necessary to engage in an active exchange with both people and landscape and this is best achieved by using all the senses. Students are encouraged to be both designers, anthropologists and biologists whatever cultural landscape they are experiencing – to express themselves freely, to sharpen their observational skills and get in 'tune' with their surroundings in order to understand the true essence of the place. In Sarawak this involved an exploration of tourism, forestry and dam issues and their impact on indigenous peoples and required an intimate experience of the opulent sensory palette of the rainforest environment and the lives of the Penan.

The challenge to the students, set amidst the principles of working in different cultures and within unfamiliar environments, was how to ensure (within the context of globalisation) they retained a perspective on the particularities of the region. The immersion within an ancient and very different cultural landscape enabled students to explore an indigenous world view that highlighted a
highly inclusive and holistic way of thinking about their place in the environment and community.

The concept of sensory immersion and engaging in an active exchange, enables a strong connection and appreciation of the principles of indigenous wisdom. Just like the Penan when they enter a stretch of unknown forest they mal cun uk, or follow our feelings (Davis, 1991) the students are challenged by their own need to ‘feel’ their new environment. Their senses are “assaulted by air laden with humidity and mysterious, earthy smells, a steady drone of insects punctuated by screams and songs of birds and, everywhere, a dazzling profusion of plant life” (Suzuki, 2014, p 40). The local forest trails on which the students were guided by the Penan highlighted to them the astounding ability these people had to know their environment – as the trails themselves to the students eyes were often invisible. As the Penan say: “The earthworm can go hungry and the mouse deer become lost in the forest, but never we Penan” (Davis 1991, p 3).

THE RAINFOREST AS A CULTURAL LANDSCAPE

The sensory immersion methodology is enhanced by experiences with cultures that have direct and long established relationships with the environment. The notions of exploring both physical and spiritual connections are generally heightened in these types of cultural landscapes as they are inherently about exchange “the story of the dynamic relationship of reciprocal dependence between humans, non-humans and the land itself” (Arntzen 2008, p 17).

The concept of a cultural landscape is “in a material sense seen as landscape or environment as it has been modified by humans, and in an immaterial or spiritual sense as landscape or environment with which humans with their practices, beliefs and emotions have special bonds” (Arntzen 2008, p 64).

Rainforests are often viewed as natural and pristine environments with recent influence from human interaction, but this belief belies the reality that within their long history, these tropical environments have been host to a range of human societies that have influenced, modified and interacted with the complex ecosystem in which they lived.

The European Landscape Convention goes some way to highlighting the dual spiritual and physical concept of landscape through the definition of landscape being an area, as perceived by people, whose character is the result of action and interaction of natural and/or human factors (ELC 2000, n.d.). Landscape is therefore seen as important in the Convention, not as mere scenery but because it links culture with nature, and past with present. “Landscape is not simply a collection of objects but is concerned with the intangible meanings and values people attach to their surroundings” (Menzies 2010, p 1). It is engagement with these ideas that is at the core of a sensory immersion methodology.

Recognition of how culture and world views impact on peoples use and perception of the landscape has been explored by Seddon (1998) when he highlighted the distinction in other languages between territorio (a piece of land) and paesaggio (a way of looking at that piece of land). He emphasises that our English word landscape (derived from the Dutch landskip which is a painters term) retains a sense of detachment from the landscape. To Seddon this is an important point for education of landscape professionals, because to ignore the cultural dimensions of landscape may mean unwittingly imposing our own cultural dimensions of landscape. As the artist portrays an experience they have had – in contrast the landscape architect tries to create an experience that an individual can then perceive and portray as they wish.

THE PENAN AND THEIR WORLD VIEW

“If biodiversity and ecosystem integrity are critical to salvaging some of the skin of life on earth, then every successful fight to protect the land of indigenous peoples is a victory for all of humanity and other living things” (Suzuki, 1992).

Human beings have lived in South-east Asia for a long time and there are a large variety of indigenous peoples found within the region. The Penan are one of these people who for thousands of years have lived their lives within the rainforest and until the 1950’s were a nomadic tribe that moved through their forest home following resources such as wild animals, fruits and sago palm (their main source of carbohydrate prior to settlement). Gardening now carried out by the Penan villagers is a new phenomenon as they previously never practiced agriculture, instead depending on wild populations of sago palm. “As hunters and gatherers they traditionally moved through the immense and remote forested uplands that give rise to the myriad affluents of the Baram River”. (Davis, 2001, para. 4). Despite this move to settlement they still live within the rainforest and express some of the cultural relationships between themselves and their environment.

As generations of people have lived over time in the same place, they have evolved unique world-views. Adherence to values such as stewardship and land tenure have tempered the immediacy of exploitative practices and reactionary planning (Jojola 2014). It is these values that provide the most useful wisdom for consideration of sustainable approaches to landscape change and the Penan, in particular, illustrate these values.
"for the Penan the forest is alive, pulsing, responsive in a thousand ways to their physical needs and their spiritual readiness" (Davis 1991, p 1).

For designers, exploration of an indigenous way of life helps to place ourselves as designers and build understanding of how different people view the world. Students discovered in their time with the Penan that design in their rainforest context is not a specialist skill (as it is in western society). Instead it is a major part of their way of life, embedded within the society and linked to every daily activity that they undertake. Design is a learned skill in Penan culture that is more absorbed than it is explicitly taught.

Penan utilise the products of the forest in every aspect of their lives despite their recent move from nomadic to settled. This can be seen in their placement of agricultural gardens over an hours walk from the village itself as it is seen to be vitally important to keep the integrity of the forest ecology that surrounds the village as it is utilised so significantly for their livelihood and spiritual wellbeing.

For the Penan, the products of the forest include "...roots that cleanse, leaves that cure, edible fruits and seeds, and magical plants that empower hunting dogs and dispel the forces of darkness. There are plants that yield glue to trap birds, toxic latex for poison darts, rare resins and gums for trade, twine for baskets, leaves for shelter and sandpaper, wood to make blowpipes, boats, tools, and musical instruments. For the Penan all of these plants are sacred, possessed by souls and born of the same earth that gave birth to the people" (Davis 1991, p 2).

Creativity in the rainforest is heightened due to the demands of that environment. An example being the huge array of designs that have been developed for woven baskets; hats, mats, backpacks, fish traps and personal adornments and tools. The rainforest is an abundant supplier of numerous plant species that are processed and woven into functional and beautiful objects. The Penan know of several hundred different fibre plants that they use in their woven handicrafts and the students were taught some of the craft and significance of these objects.

The skills to utilise these resources are learned from a young age, in an indirect manner and by means of doing rather than direct or explicit teaching methods (a more western approach to education). They are in essence an active aesthetic experience. In this way design is not necessarily acknowledged by the Penan as a skill but more as an inherent part of life. Design solutions are often those which have been known for many years and have become cultural understandings.

Recently Ujola (2014) emphasised the strong link between indigenous design and spiritual and cultural forces and that these forces determine the blueprint for design. Students recognised through the shared knowledge of design these notions and found that design for the Penan consisted of four main elements – functionality (response to the issue at hand), meaning and expression (higher emotional meaning/purpose to the product or design process eg. Family, religion, beliefs), craftsmanship (high level of learned, practiced and refined skill) and materiality (response to the materials a hand and their relationship to the three other elements). All four elements are intertwined deeply with the rainforest ecology. In this way design is rooted in context – a principle that is often not found in modern western design.

"Every piece of land or landscape contains as many meanings and constrictions as the people who have interacted with it" (Verily 2009, p 23).

The cultural landscape of the Penan is a source of essential knowledge about sustainable management approaches. They possess unexplored wisdom and inspiration for us as designers for making better future landscapes.

Immersion within the cultural landscape of the Penan allowed students to explore a range of issues relating to sustainability and how connections with and perceptions of the land can influence approaches and opportunities for more appropriate...
Figure 5 Diagram of Design Relationships with Forest
management of change and to explore more fully the role of landscape architects as the agents or facilitators of responsible and appropriate change.

As Davis (2009) outlines, the Penan view their forest as home and it contains a network of intricate and living places of cultural and economic significance and these places inform and provide linkages to past present and future relationships for the Penan. It is this sense of stewardship, borne from a sensitivity to the necessity for sharing their environment that emphasises their world view as one which contrasts dramatically with the world view of economic development and unsustainable resource use that currently threatens their home and our world.

The student immersion was facilitated by a community based tourism initiative called Picnic with the Penan. The exploration of concepts around authentic tourism has informed the concept of sensory immersion methodology in landscape architecture and provided links to sustainable economic development potentials.

AUTHENTIC TOURISM
Tourism is the second largest income generator for Malaysia, and this has a huge impact on the community and the environment depending on how it operates. Tourism is one of the largest growing industries in the world accounting for 9% of the Gross Domestic Product. (Mohd, 2014). Tourism has evolved in the past decades to form smaller categories, one of which is that of authentic tourism.

Malaysia has announced their goal of being a Beautiful Garden Nation by 2020, with a National Landscape Policy to create a holistic, unique identity and form of sustainable landscape towards improvement in quality of life. (Mohd, 2014).

The ideal goal therefore for any tourism operating in Sarawak and in most countries is that of sustainability, with a light touch on the environment and with minimal impact for the locals. The World Tourism Organisation envisions sustainable tourism as “leading to management of all resources in such a way that economic, social and aesthetic needs can be fulfilled while maintaining cultural integrity, essential ecological processes, biological diversity and life support systems.” (Yazid, 2014).

Sustainable development is also defined as needing to “meet the needs of the present without compromising the capability of future generations”. (Yazid, 2014). Here is where the case study of the Penan becomes all important.

Picnic with the Penan is an eco-tourism venture operated and owned by the Penan villages themselves. This means that all income from the program goes directly to the community. Indigenous communities often don’t have a steady income-generator so the revenue is able to be utilised by those communities in order to protect their environment with the money being invested into their National Parks or as in the case of the ‘Picnic’ the money is put into developing a tree nursery in an effort to replant and regenerate their degraded forest.

searching for meaning in their life. Following the theory and complexity of consumerism people are moving to seek for a deeper meaning beyond materiality (Yeoman, 2012). The first impressions of authenticity inspire ideas of unique experiences which feel original and real, ideally this occurs away from consumerism with noticeably different attributes from your home environment. It conjures imagery of a layered landscape comprised of the history, religion and primarily culture.

Authenticity is the primary driver for getting visitors to the rainforest so therefore remains an essential component of the experience. The Penan villages are heavily reliant not only on the income but on using their visitors to communicate with the outside world. Awareness over the threat to the forest can only be raised through having an unfamiliar pair of eyes go into the forest and begin to realise what has been lost and what they stand to lose through issues of palm oil plantations, forestry and hydro-electric dams.

Authentic tourism is capable of connecting culture, history with unique feature, as well as serving to be of benefit to the indigenous community, that authentic tourism is a detriment the local environment and people is a common misconception in terms of the role of the tourist. Theories suggest that by the tourist seeking an authentic experience he has already destroyed the authenticity of that place without even being aware of it. (Olsen, 2002). Experiences within the Penan however would suggest that this is not entirely precise, while it does carry a lot of weight in terms of discussing the tourist impact on the environment authentic tourism is capable of having a light touch on the land as the Penan experience highlighted.

Picnic with the Penan involves a week long immersion into the Borneo rainforest, with the Penan. The chief of Long Kapong (Joseph, personal communication, April 2014) says having visitors is beneficial for his village as it raises awareness of his people; he wants visitors as when they go home to talk of their experiences. He speaks of tourism being good for his community
because of the money tourists bring in for the local economy; this is done through the purchase of local products as souvenirs, and the hiring of the locals as guides and porters.

The Picnic with the Penan tourism operation is successful as an authentic venture because of the close contact that is maintained throughout the entirety of the trip with the communities. Tourists are staying in the locals homes, dining with the families and your guides are also the residents. The control over the operation keeping low tourist numbers keeps the program manageable for the residents to live with as it remains at an occasional moment of having visitors throughout the year and even then the residents take turns in accommodating them. An increase in tourist numbers would result in more interruptions in the communities daily life, this would also begin to lead to a lack of authenticity or even fake authenticity as accommodation blocks or dining halls would become more necessary.

Increased tourism numbers would however lead to an increased income for the village as well as increased awareness over the forest plight. A reduction in tourist numbers would result in an obvious loss in both income and village promotion but it would mean there was less interruption with the village life. The key issue raised here is in dealing with tourism management, balancing the ideal tourist authentic experience with the growing need for an increased income for the locals and the opportunity to raise awareness over local issues, forestry and dams.

Tourism is a positive thing for the Penan as long as it manageable, however in exploring tourist solutions it becomes apparent that as tourist numbers might start to increase then the level of authenticity in the experience would begin to decrease. This would not entirely be an issue for the prospect of sustainable development, however it is an aspect where attempt should be made to incorporate it into tourism projects at every opportunity.
The concept of change is one that landscape architects tackle on a daily basis and much of our work involves identifying and facilitating appropriate change within the environment. Being able to embrace this role and understand the generators of change is therefore an important component of landscape architectural education. As Davis (2009) states "Change itself does not necessarily destroy a culture. All societies are constantly evolving. Indeed a culture survives when it has enough confidence in its past and enough say in its future to maintain its spirit and essence through all the changes it will inevitably undergo".

At the village of Long Kepeng, the chief and a rainforest tourism guide, question why the country needs more dams when the existing ones already generate enough power for the whole country. They believe it is all about greed and the money that those in the Government and construction industry stand to make from these projects (Joseph and Sia, personal communication, April 2014).

The existing Sarawak dams have displaced over 12,000 people. Over 20,000 more people will be displaced if the Baram Dam is built and villagers have no faith in assurances that things will be done differently this time compared to the earlier re-settlements.

The tropical rainforests and the indigenous people who live in it are being threatened by the change associated with economic development. Forestry and dams threaten to destroy what makes that place and its people so unique. The Sarawak Government is focused on creating a modern industrialised society that will bring Sarawak up to par with the other states of Malaysia. The backbone of this industrialization is a series of 12 dams under a programme the Government calls SCORE (Sarawak Corridor of Renewable Energy) and deforestation for hardwood and for opening up land to palm oil plantations. Large infrastructure programs like this and the dilemma between opposing views on different approaches to economic development are often encountered by landscape architects in their work eg. Wind farms and roads. Balancing economic and sustainable energy with cultural values is a fraught area with no easy answers, so being able to explore the full ramifications of the impact of change in these situations becomes a great learning opportunity for students.

The Baram Dam is the most controversial of these dam projects as it involves the displacement of up to 20,000 indigenous people. The Penan are amongst those that will be affected. The already completed dams provide more than enough electricity for Sarawak's domestic demand meaning that all future dams are being constructed solely for the purposes of supplying power for industrial development rather than providing for the needs of local people. The Government maintains that the dams "will significantly improve the socio-economic well-being of the people, especially the poor" (Ritchie, 2005, p. 135), but in the Penan villages this viewpoint is disputed.
the Government makes as "the people from the Bakun Dam are still waiting for these things".

The chief at Long Kepeng believes that because the indigenous people are not happy about having to leave their land, lots of people will get sic or die because of their belief that the spirits will be angry and punish them. The Penan find themselves confused about what to believe and who to trust. On the one hand they are faced with the limited information that is leaked from the government and its promises for a better quality of life. (Joseph, personal communication, April 2014). On the other hand environmental lobby groups have them fearing the worst. The Penan want what is best for their children and their future but find it hard to know what to expect. This appears to be an issue faced by many sustainable development initiatives, particularly where they affect indigenous populations.

The President of the Sarawak Tourism Federation in Kuching says it is not so much an issue of compensation. “The issue is that the people do not want to leave their customary land - they have burial sites there and it has always been their land. They do not want to move to another area. They want their land not money because only their land can guarantee their survival” (Personal communication, April, 2014). The dams will have a massive impact on both the environment and the people. The land, rivers and forest are the people’s livelihood and dominate every aspect of their lives and way of being. The majority of the Penan people are no longer nomadic but the forest is still their home.

The forest areas provide their food, medicines, and materials. The rivers provide water, a source of food, a means of transport and communication and a place to wash. The lowland areas beside the rivers provide flat land that is good for building houses and for planting crops. The villagers will lose these areas to the dams. Deforestation is considered by the locals to be even worse than dams as the animals and birds will go with the loss of their habitat, and the water will become dirtier with greater sediment load finding its way into the streams. “We yearn for the sounds of the forest. We have always heard these sounds. In the time of our grandparents long ago we heard these sounds. That is why we still yearn to hear them. In those times long ago, our lives were satisfying, our lives were fulfilled. And now it is harder for us, because we hear the sound of bulldozers.” Lejeng Kusin, Ubong River, May 1993 in Davis 1991)

CONCLUSION

In talking with local people on their journey in the rainforests of the Penan, students learned how stories enable the knowledge of the past and present to guide and inform their understanding of the wider set of cultural meanings and values the Penan have with their environment and its implications for sustainable tourism and development within Sarawak and the appropriate management of change in such a sensitive and valuable cultural landscape.

The exchange and sharing of knowledge and different world views that occurred with the Penan is one that highlights the intricacy of the human place in this world and the importance of recognising that authentic design of landscapes no matter what the setting should recognise both the spiritual and material. Experiencing the dialogue between opposing world views of Penan and western society has enabled students to appreciate the contribution that indigenous wisdom may have to temper and guide the process of change and as a result inform a more holistic vision of landscape architecture’s place as a positive conduit for that change.

But as the results of sensory immersion methodology show, we also need to connect with individual consciousness and ethics as “world views are not only cultural and social abstractions but also the embodiment of our sense of self in the world. It is the way we think and our capacity for wisdom that ultimately produce the world we live in and shape the world of the future” (Thaman, 2003 in Teasdale and Rhea 2000, 1).

The outcomes of the exchange experienced by the students showcases the potential of sensory immersion within indigenous cultural landscapes as a methodology for embedding appreciation of non-western world views within the western landscape architecture profession. In so doing, raising the awareness of the legitimacy of not only physical but spiritual relationships to landscape and how these can positively influence the outcomes of design. All of this has the potential to guide in more meaningful and appropriate ways our ability as a discipline to influence sustainable development.

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