Renewing the Bornean Longhouse: Empowering the Rural Poor in Sabah, Malaysia, through Architectural Intervention

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I am Sabahan..!

ABSTRACT: RENEWING THE BORNEAN LONGHOUSE

Despite the fact that Malaysia has undergone independence for some 50 years, and the country as a whole has boomed economically to be one of the strongest in South-East Asia - why are there rural kampong regions particularly in Sabah still living in stagnant poverty compared to nearby urban settlements, and the growing disparity between the rich and the poor?

Sabah has and is undergoing severe forms of poverty in the various forms it comes by, in comparison with other Malaysian states. These forms of poverty include economic regional and ethnic disparities with the poorest of the poor seen especially in the rural areas; deficit in basic infrastructure and education; communities lacking the political voice within the federal government especially in the area of addressing poverty where it is needed most; and growing deforestation as detrimental to these peoples' way of life in the name of 'national progress'. This sets the tone for exploring alternative ways to develop the state's economy in a way that is sustainable and empowering. There is no denying that we live in a capitalist era where economic drivers and development are at the forefront of political affairs and is a dominant factor for getting things done. It is therefore essential that for there to be true and broad community empowerment; economically advantageous solutions need to be found to actually implement a lesser dependence on unsustainable development practices. This research also suggests in using strategic Tourism development as a political vehicle to provide impetus for such change, where particularly the Architect and architecture can play a significant role in.

It suggests architectural principles that can be applied to a given Tourism scheme - specifically in Sabah - that can help tilt this exploding sector to benefit and empower these poverty stricken communities, yet make smart business sense. Case studies are presented to illustrate how various Pro-poor Tourism initiatives in other countries have in some ways been successful, and in some ways not, and how recurring issues can be mitigated in Sabah's context through architectural intervention.

As a design proposal, this research shows how 'The Bornean Longhouse' is a perfect piece of architecture that provides the foundation for integrating all these strategies mentioned, as well as the fact that it provides a marketable Tourism niche product for potential long-stay visitors. It is a piece of architecture that embodies the deep rooted values of these fading indigenous culture that if renewed – will bring a sense of cultural empowerment and pride back to these peoples. It also acts to provide an architectural solution to reinforce and empower these communities in light of dying traditions to an individualistic global culture; potential economic benefit through a more sustainable and evenly-distributed solution to economic growth; plus having the political support through the heavily backed Malaysian Tourism industry to explore a broad and effective empowerment scheme.

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PART 1: INTRODUCTION

1.1 What this report is about

[This column is reserved mostly for Design component illustrations to compliment written research, with a few exceptions – full sized illustrations are included at end]

Despite the fact that Malaysia has undergone independence for some 50 years, and the country as a whole has boomed economically to be one of the strongest in South-East Asia. Why are there rural kampong regions still living in stagnant poverty compared to nearby urban settlements, and the growing disparity between the rich and the poor? As such this thesis will focus on investigating an architectural solution to help empower these rural communities particularly in Sabah, Malaysia.

Sabah, being a state that used to be among the richest rubber, cocoa, palm-oil, timber, and crude petroleum supplying regions in Malaysia¹ now contain some of the poorest of rural communities in the country.² This thesis points out that these communities are not just suffering from an economic form of poverty, but also other forms. Yet it is these rural communities that are incredibly rich in culture and retain much of Sabah's traditional vernacular heritage. They also employ some of the most creative and resourceful use of natural materials that we in the 'modern' world have much to learn from.

We live in a world that is inevitably governed by political forces and operate within a framework of collective decisions made by the nation-state. This happens all the way down to the communities themselves. When finding a solution to effective community empowerment, there is no point developing idealistic plans - which will somehow solve all problems – that are not founded within this collective decision-making framework to administer lasting and effective change. There is also no

¹ Sabah Electronic Government Network. "OPPS." Sabah's economic structure. 2007. 3 Oct. 2009
<<http://www.sabah.gov.my/info/opps/s2.html>>

² United Nations Country Team, Malaysia. "Localising the Millennium Development Goals." Improving Equity in Sabah Report, 2007: 4

denying that we live in a capitalist era that influences the decisions made in this way. Solutions to effective community empowerment therefore need to fit into the wider arena of Politics.

This research is based on the notion that this can be achieved by using strategic Tourism development as a political vehicle to provide impetus for such change – and as it will soon make itself evident – exploring ways in which Architecture has a part to play in it.

That being said, there is a great danger for the tourism industry to exploit and only use superficial and marketable images of the exotic in its design that may be detrimental to the cultural fabric of these communities. But instead of discarding a perfectly operable political vehicle that has in many ways been successful – the design intention of this research explores an architectural solution to these problems, with community empowerment placed at the forefront of the design process. Therefore this research looks at the marketable tourism niche of renewing the age old building traditions of Bornean longhouse architecture. This historic architecture is chosen as it embodies the deep-rooted values of these fading indigenous cultures, and so by renewing it, it acts to culturally empower these communities. Only selected tourists/visitors in this way are ‘welcomed into the longhouse family’ and are able to experience life amongst these communities through longer-stay programmes, such as 3 months to a year. This in effect challenges the notion of the traditional short-term client-supplier model of Tourism, and looks to the rapidly growing niche market of ‘cultural immersion’ through a proposed Blue Ocean strategy of ‘Responsible Tourism’. Instead they will experience immersion in the community and culture as facilitated through renewed longhouse architecture. This architecture applies the rich cultural aspects of old longhouse traditions, and designed to fit the contemporary needs of these progressive communities today. This way it serves as a form of cultural reinforcement in light of dying traditions to an individualistic global culture; potential economic benefit to these communities through a more sustainable and evenly-distributed solution to economic growth; plus having the political support through the heavily backed Tourism industry to explore a broad and effective empowerment scheme.

1.2 Definition of terms and limits of Investigation

To understand how to address the notion of community empowerment effectively – related concepts must first of all be defined and scope of investigation established.

1.2.1 Politics, Economy, and Culture -

First of all, before attempting to define empowerment, a clear understanding of how these communities or entities experiencing that empowerment perceive the world, themselves, and their identity within that word is important. The concept of identity can be perceived differently over a range of social and societal levels; from a personal to a collective and national level, or from a child's view to that of a post-war elderly baby-boomer. Choong, in his thesis on 'Multiculturalism: The Roots of Malaysian Architecture and Identity' mentions Altman's quote that 'self identity is a person's or group's cognitive, psychological and emotional definition and understanding of themselves as beings, where aspects of the physical world are parts of the self, and aspects of self are also a shared part of others. It encompasses a self understanding of one's capabilities and imitations, strengths and weakness, emotions, belief and disbeliefs.'³

'Architectural identity' on the other hand are often said to be products of political, social and cultural identity.⁴ Chang in his thesis, 'Towards a Culturally Identifiable Architecture' states that identity in architecture can be derived from social/psychological and environmental communications,

³ Choong, J. S.-V. (2003). Multiculturalism: the roots of Malaysian architecture and identity. Architecture & Design. Wellington, Victoria University.

⁴ Ibid.

because of their theoretical constructs on the built environment and personal identity.⁵ This is significant as his study suggests that the way in which we build may have a broader impact than one might think - and plays a large role in shaping our lives, culture, tradition, identity, and socio-political norms - all through the manipulation of the built environment.

Furthermore, Kellas points out in his book 'The Politics of Nationalism and Ethnicity', that national identity as having an effect on Architectural identity; and Kellas illustrates that there are three major factors which shape national identity and so to a large extent a nations 'Architecture': these being politics, economy and culture.⁶

Politics – Being an expression of the authority and influence leaders have on the people and nation state through policy development. What is significant here is that political alignment often dictates architectural direction. For example, Russian Avant-Garde emerging out of Constructivism became the architectural style adopted by China, North Korea and Vietnam during the Cold War.⁷ There are countless examples where architecture reflects political expression as especially seen in institutional, cultural or governmental buildings, since they are built to serve and symbolize the nation state as a whole. At the same time, they may also serve to reinforce the dominant political ideologies of specific political regimes. Choong in his thesis 'Multiculturalism: The Roots of Malaysian Architecture and Identity', illustrates this by explaining how Malay architecture – Malay being one of the many pre-existing indigenous races in Malaysia but who lead the political arena – dominates much of the architectural scene in Malaysia. Therefore whether indirectly or not, architecture affects and reflects the political climate of the nation-state and that architecture in many ways has always played a role in politics. When seeking to provide design solutions that have the possibility of

⁵ Chang, C.-Y. (1990). Towards a culturally identifiable architecture. Mich, University Microfilms International.

⁶ Kellas, J. G. (1991). The Politics of Nationalism and Ethnicity. Hampshire, Macmillan.

⁷ Choong, J. S.-V. (2003). Multiculturalism: the roots of Malaysian architecture and identity. Architecture & Design. Wellington, Victoria University.

culturally empowering these communities, we need to realise that the effects are not only on these communities, but also has wider implications on even things like National identity, and therefore will always be a politically loaded issue.

Economy – Also having a strong relationship to politics, economy relates to material interests of individuals or groups of people in a nation state. Kellas points out examples of where a poor economic situation may incite political restlessness and in some cases a regime change. In the case of China, for example, the poor economical situation during the rule by the Nationalist regime (1911-1949) saw support shifting towards the Communist party led by Chairman Mao and an eventual regime change.⁸ Choong adds to Kellas' point that 'the economy has a significant influence on the building industry and thus the architecture of a nation. The demand for the type of architecture often reflects the priorities of the nation. For example post-industrial rich 1st world nation's privilege 'quality of life' and economic strength allows the freedom to explore the architectural implications of what that means. Whereas in developing nations, there are different priorities and therefore is architecturally expressed or explored differently.' Malaysia is one of those developing countries that in many ways pushes and associates economic growth as 'progress'. This means that to be able to have the freedom and political support to explore effective architectural solutions to empower these communities, the scheme needs to be economically lucrative and sustainable.

Culture – This is referring to the knowledge, behavior, belief system and practice of individuals or a certain group. Of all four factors which shape national identity, Choong states that culture is probably the most important factor. If economy refers to 'class', then culture is closely related to 'status'.⁹ Significant aspects of culture that affect architecture are, as Kellas writes: Religion or Philosophy, the Arts, Science and Technology, History and Tradition. This has a significant impact on architecture in the way cultures develop their perception of space, and a preference of form as influenced by their

⁸ Ibid.

⁹ Kellas, J. G. (1991). The Politics of Nationalism and Ethnicity. Hampshire, Macmillan.

belief system. Vice-versa architecture also has a great affect on culture as well - it can either reinforce certain foreign influenced ideologies like capitalism, individualism, and consumerism; or it can facilitate an environment that embodies other values that the communities or nation-state hold dear.

It is also important that the way in which we understand culture and the methods of determining it differs from culture to culture. For example how the concept of the 'bathroom' in the United States has much to do with the body, relaxation, and privacy. It often exceeds the number of bedrooms, and is no longer related to the issue of basic needs; and how the choice between the bath-tub and shower is largely a matter of attitudes and images. 'The same fundamental problems of hygiene have always existed but the importance attached to them and the forms used, have been very different depending on beliefs, fears, and values rather than utilitarian considerations'.¹⁰ This means that before jumping to conclusions especially in regards to cultural reinforcement through community empowerment, it is important to see the situation from their cultural lens, listening clearly to their voice and not imposing an ideal from our own culture, to discern whether it really is in their best interests.

Building upon Kellas' ideas regarding politics, economy, and culture; the same can be said that to be able to have any success in community empowerment through architecture, it cannot be done in isolation of those three components either. Thus, the design solutions that this study proposes should 'contribute' to these various sectors.

So for any architectural solution to have any lasting effect on community empowerment; notions of Politics, Economy, and Culture need to be considered.

¹⁰ Rapoport, A. (1969). House form and culture. N.J., Prentice-Hall, Inc.

1.2.2 Understanding Poverty and concepts of Community Empowerment

Since the definition of the word 'poverty' covers such a wide range of meanings, the area of poverty that lies within this notion of 'community empowerment' which this essay tackles needs to be addressed, so as to establish a common foundation to build upon.

Poverty differs over time and space, meaning that our idea of what poverty is changes over time, from culture to culture, and is relative. For some

communities our tendency is to think they are living in great poverty, but for them it may be just a way of life. This raises the question of whose perspective we are looking from when evaluating poverty. It also points out that without a focus on a clear definition of the dignity of the human being we risk slipping into fatalism which results in the view that poverty is acceptable in certain circumstances and the lives of certain people are considered as cheap because we don't have a common definition of the dignity of the human being across cultures and across nations.¹¹ The priority of this essay builds on the foundation that all of human life is considered as distinct from other things. This helps set the framework for tackling issues that may or may not come in competition with the goals of this essay; like sustainability and the impact on the environment, or developing the state's economy – though this essay proposes that finding solutions to these potentially competing objectives come hand in hand and should not be isolated. This is where architectural creativity is tested to its maximum, to explore the possibility of a beautifully blended design symphony that unifies and achieves these various objectives. That being said, since the mid-1980s interest in 'green' tourism, eco-tourism and community tourism has grown rapidly among decision makers, practitioners and advocates. All of these focus on the need to ensure that Tourism does not erode the environmental and cultural base on which it depends. But these generally

¹¹ McGregor, Andrew. "Poverty in South East Asia." Victoria U. of Wellington, Wellington. 27 Aug. 2009

do not consider the full range of impacts on the livelihoods of the poor.¹² Though these are aspects that this essay seeks to address as well, the main objective will be on community empowerment in a holistic sense and the alleviation of human poverty in the various forms it may come by.

Related to Kellas' concepts on identity and the three major influencing factors being 'politics, economy and culture', these same sectors should run parallel to our understanding of poverty. The most commonly known form of poverty is Economic poverty which is not having the financial capacity (of varying thresholds) to pursue what one wants to do. But there are many other forms of poverty such as Social poverty and not having access to services such as education and health-care or Environmental poverty, where there is a lack of access to environmental services, and Political poverty where for example there is the lack of voice or participation in the political decision-making arena. There are even ideas around the notion of Cultural poverty, where for example it is said that in certain Western cultures, we suffer from it. Furthermore in certain third-world developing countries, whom we might consider as living in stagnant poverty, there may be a much greater sense of community, spiritualism, holism and a greater and richer perspective on life, one that is devoid of the lies that our capitalist and consumerist society tries so hard to persuade us; that by having more material possessions our lives are more superior.

"But for all the shifts in our understanding of what development means, there is one paradigm that suddenly persists, it is still about how we in the West can help the 'poor' in other countries; what can we give you, what can we teach you, but are we right to be so confident about what we have to offer? I know a lot of Africans, Latin Americans and Asians who are appalled about how we live in Britain. They genuinely pity our way of life, and they don't just pity the poor, but they pity society as a whole. They cannot fathom how we put our parents in old people homes made to sit in circles watching the television. They are sad that mental health is as big a concern to us in our hospitals as physical injury. They find the number of abortions carried out each year as abhorrent – just to name

¹² Ashley, Caroline, Dilys Roe, and Harold Goodwin. "Pro-Poor Tourism Strategies: Making Tourism work for the Poor." Pro-Poor Tourism Report 1 (April 2001): 1-2

three examples.”¹³

So it's interesting to see how this lens is also turned back on us, and to see how people from other parts of the world might see us in a Western society as suffering a form of Cultural poverty.

So essentially the main form of poverty and the area of community empowerment we should and try to tackle is the poverty of opportunities; where there are those lacking the capacity to pursue one's own futures. The point is to give them the access to these opportunities, and they can make the decision to pursue those opportunities if they want, depending on what is important to them and their cultural priorities.¹⁴ So the research of 'Renewing the Bornean longhouse' should run parallel with the interests of these progressive communities, and it should allow the flexibility to pursue other livelihoods - realizing that what they value also change over time.

1.2.3 Authentic Cultural Representation through Architecture

There will be instances in this report that mentions 'authentic cultural representation', which is not to be confused with a singular or utilitarian view of what culture should be in Malaysia, and stating there is one way of its representation. Instead, it comes from an understanding that Malaysia is made up of a wide variety of cultures, and as Choong puts it, may be undergoing a lop-sided expression of only one of those cultures, where clues of this are seen through the architecture of especially institutional buildings. He goes on to state that since the majority of today's nations are multiethnic, it is essential to accommodate all groups into a single nation, thus the tensions found in 'cultural pluralism'¹⁵. Malaysia herself takes pride in being multi-ethnic and that overcoming racial

¹³ McGregor, Andrew. "Poverty in South East Asia." Victoria U. of Wellington, Wellington. 27 Aug. 2009

¹⁴ McGregor, Andrew. "Poverty in South East Asia." Victoria U. of Wellington, Wellington. 27 Aug. 2009

¹⁵ Choong, J. S.-V. (2003). Multiculturalism: the roots of Malaysian architecture and identity. Architecture & Design. Wellington, Victoria University.

inequalities is a key to Malaysia's political and economic development.¹⁶ Lijphart, as referred to by Kellas, explains how a multinational state based on political accommodation and democracy (like Malaysia), is the 'ideal form' of political accommodation in multiethnic nations.¹⁷ Since architecture is a product of culture and society, politics and economy; multiculturalism in these sectors and in architecture, must take shape for there to be consistency in a national expression of democracy. This is not to say there should be necessarily a suppression of this dominant political culture, but in fact more expression over the whole spectrum of cultures in Malaysia. In my opinion, the issue is not so much the dominance of a specific political culture as Choong alludes to, but we face a bigger problem now and the main concern is the lack of cultural representation altogether. There is a steady shift towards an architectural style in Malaysia that is devoid of any form of cultural identity in this era of globalization and capitalism that privileges a superficial 'orthogonal modern aesthetic', irrelative of what foreign ideologies it resembles. The notion of 'authentic' representation builds on the belief that its architecture goes beyond just a surface aesthetic and superficial extrapolation of culture, but should apply the deeper ethos, meanings and values that the culture holds dear.

¹⁶ Klitgaard, R. and R. Katz (1983). "Overcoming Ethnic Inequalities: Lessons from Malaysia." Journal of Policy Analysis and Management 2(3): 333-349.

¹⁷ Kellas, J. G. (1991). The Politics of Nationalism and Ethnicity. Hampshire, Macmillan.

PART 2: BACKGROUND

2.1 Why Rural Sabah?

2.1.1 Economic Empowerment - Defining the 'poor' in Malaysia

Malaysia's poverty line, called Poverty Line Income (PLI), is a measurement of absolute poverty. PLI is based on the gross monthly household income required to meet basic needs, including food and non-food items. A household with the gross income below PLI is defined as absolute poor and a household with the gross income less than half of PLI is defined as hardcore poor. The National Economic Action Council and Economic Planning Unit (EPU) revise the poverty line periodically based on the information from the Household Income Survey (HIS), Household Expenditure Survey (HES) and Consumer Price Index (CPI). Additionally the average cost of living and household size vary among the three major regions of Malaysia, namely Peninsular Malaysia (west side), Sabah, and Sarawak (east side, Borneo).¹⁸

Figure 1 - Reduction in poverty in all states – but Sabah still lags distinctly behind

¹⁸ Japan Bank for International Cooperation. Poverty Profile Executive Summary Malaysia, 2001: 1-3

2.1.2 Regional and Ethnic disparities, and related Political Implications

“..this serious inequality is likely a result of rural-urban, regional and ethnic disparities.”

There has been a historical shift in the geographical distribution of the poor in Malaysia in the last 40 years, as indicated in a study on the ‘Poverty Profile of Malaysia’ done by the Japan Bank for International Cooperation in 2001. In 1976 the poverty incidence in Kelantan, which was the poorest state at the time was 67.1 percent, while in Kuala Lumpur (Malaysia’s Capital) the poverty incidence was just 9 percent. In 1997 the ranking of the poor states has changed, the poorest state at the time then became Sabah with 22.1 percent in poverty, while Kuala Lumpur had just 0.1 percent poor. As of 2001, Sabah has now officially become the poorest state, replacing Kelantan on the peninsula.¹⁹ From 1985 to 1995, both poverty incidence and the number of poor households declined in Peninsula Malaysia and Sarawak, while these indicators remained unchanged in Sabah. Moreover, the incidence of the hardcore poor in Sabah is more than double that of the other two areas. Statistics clearly show that Sabah is now the poorest of the three states.²⁰

‘The summary finding of the report and major profiles of the poor in Malaysia are as follows:

- 1) Trends found in these poor communities include the fact that they are predominantly Bumiputera (meaning the Malays and ethnic minorities like longhouse tribal groups),
- 2) The poverty incidence is higher in certain states (Kelantan, Terengganu, Kedah, Sabah, and Sarawak).
- 3) The poor are concentrated in the rural areas of these poorer states.’

¹⁹ Peninsula - meaning West Malaysia, and Sabah is located in East Malaysia, Borneo.

²⁰ Japan Bank for International Cooperation. Poverty Profile Executive Summary Malaysia, 2001: 1-2

Analysis on the Income and Employment Structure since the 90's indicates that there is a growing gap between the income growth rates of the rural Bumiputera²¹ (being lower) and the Chinese/Indian ethnic groups. The UN-Country Team, Malaysia wrote in their 'Localising the Millennium Development Goals' paper (2007): "Sabah is Malaysia's poorest state with the highest prevailing poverty rate at 23% in 2004 and much higher in the rural areas. Poverty, especially hard core poverty, (which is about 6 times the level of Sarawak) is concentrated in the northern parts of Sabah, and is particularly severe amongst the indigenous Bumiputera primarily who are engaged in agriculture.

Rates of child poverty are also extremely high in Sabah, and much higher than overall poverty levels."²² This widening gap means that the trend in income of rural Bumiputera is not adequate to catch up with the others – which therefore illustrates the real problem of the growing disparity between the rich and the poor, and has growing political implications regarding maintaining racial harmony, as Malaysia prides herself for.

Figure 2 - Employed population distribution by industry category and ethnic group, Sabah, 2000

²¹ Bumiputera - meaning indigenous people groups in Malaysia, directly translated as "sons of the soil".

²² United Nations Country Team, Malaysia. "Localising the Millennium Development Goals." Improving Equity in Sabah Report, 2007: 2

Age and community group associated with lack of education in 2000

Source of data: Computed from Department of Statistics, Education and Social Characteristics of the Population, Census 2000

Figure 3 - Age, Community group, and lack of Education

Incidence of poverty by state, 1970 to 2004

Sources of data: EPU, Malaysia Five Year Plans, Various Years; 2nd and 3rd Outline Perspective Plan.

Figure 4 - Incidence of poverty by state, 1970 to 2004

Rural sanitary latrines coverage, 1993 and 2004

Sources of data: Ministry of Health, Annual Report, 1993; Information and Documentation System Unit, Health Indicator 2004

Figure 5 - Rural sanitary latrines coverage over various states, 1993 & 2004 – Sabah as lagging significantly behind.

Educational attainment of persons aged 6 and over by level, 2000

Source of data: Computed from Department of Statistics, Education and Social Characteristics of the Population, 2000.

2.1.3 Deficit in basic Infrastructure and Education

There is also a significant deficit in basic infrastructure and education. “Although health indicators in Malaysia are relatively better than other Asian countries, percentage of population with piped water is lower in Sabah, Sarawak and Terengganu, where more poor reside, than other states. Specifically, infant mortality rates are considerably higher in Sabah and Sarawak. The inferior situation in health infrastructure, such as relatively smaller number of health professionals and number of hospital beds, is also observed in both states.”

“Major indicators for access to basic infrastructures by state show that development in Sabah and Sarawak lags behind the peninsula (West Malaysian States). The western regions in the peninsula which have played a leading role in national politics and economy for decades have been considered more significant than others. As for the peninsula, it is observed that there are disparities in those indicators between the west coast and southern states and the eastern and northern agricultural states.”²³

Figure 7 - Rural water supply coverage over various states, 1993 & 2004

²³ Japan Bank for International Cooperation. Poverty Profile Executive Summary Malaysia, 2001: 2

2.1.4 Sabah - lacking the Political voice in the Federal government for action against poverty

Just in the recently announced Malaysia 2011 budget, the two East Malaysian states (Sabah and Sarawak) are commented as being the “biggest losers”. The value of all development projects planned for the peninsular Malaysia (being West Malaysia where most of the federal political decisions are made) amount to RM109.74 billion, whereas the East Malaysian states a meager RM9.55 billion.²⁴ This decision was made despite the clear research by the EPU (economic planning unit) and World Bank studies indicating that Sabah is by far the poorest state in need of greatest help in all areas of in health, education, infrastructure, and human resource development. Furthermore, Sabah and Sarawak contributed 44.5 percent of the nation’s crude oil and 64.1 percent of natural gas outputs (combined the sectors represent about 44 percent of the federal government’s revenue),²⁵ based on 2007 data.²⁶ It is clear here that very little is being done for the marginalized communities in Sabah and that the political commitment to economic growth in Malaysia is not necessarily an inclusive or collective one. The issue of growing poverty alone is not an adequate enough political driver to promote change. This is why alternative and creative solutions with sufficient political impetus need to be found to explore a lasting and effective empowerment scheme.

²⁴ Pathmawathy, S. (2010). Budget: Paltry sum for Sabah and Sarawak. [Malaysiakini](#).

²⁵ Chin, J. (2008). Petronas posts record profit, declares RM6b dividend to govt. [The Star](#).

²⁶ Pathmawathy, S. (2010). Budget: Paltry sum for Sabah and Sarawak. [Malaysiakini](#).

2.1.5 Growing Deforestation & Worlds Demand for Bio-fuels as detrimental to these communities

During the 1980s Asia lost 11% of its tropical forest cover, more than any other region. Malaysia is one of the 14 major deforesting countries with over 250,000ha deforested annually. Malaysia contains some of the most floristically rich tropical forests in the world containing some 10% of all known plant species. Sabah itself has 265 of the 390 dipterocarp species in Southeast Asia (Whitmore, 1984; Collins et al., 1991).²⁷ We now live in a time where our ignorance of our actions against the environment has caused climate change more than ever before. Ever since the industrial revolution where society has privileged production, efficiency, and volume, without considering its impacts on the environment; other communities around the world, especially coastal ones are paying the price for those who are major contributors. Sabah is in a fortunate position to still retain a significant amount of rich tropical rainforest area, but this is rapidly declining. For many of these communities, their environment and its makeup is in-separable to who they are as a culture, their livelihood, and survival. Take the Penan tribes residing in Sabah and Sarawak for example. Their whole livelihoods - food, medicine, shelter, are fully dependant on the forests as they constantly migrate; only taking what they need and have done so sustainably for centuries. If we do not tackle the issue of the environment and rapid deforestation, we do not tackle poverty, or specifically the 'lack of opportunity to pursue ones own futures'. In the case of the Penan people, they face a form of political poverty in the way that they have little voice on how the state (being their land for centuries) is being run, and how their source of existence is being destroyed.

Therefore, an environmentally sustainable architectural agenda make up a large part of this thesis' design brief. This is in the hope that it will spark a new way in which we think about how Sabah 'densifies' its pristine forests as opposed to demolishing it for human habitation, and so acting as a

²⁷ McMorro, J. and M. A. Talip (2001). "Decline of forest area in Sabah, Malaysia: Relationship to state policies, land code and land capability." Global Environmental Change.

[Design process incorporating' Tree Mapping study' to treat the environment gently and a harmonious blend between Architecture and environment]

catalyst in preserving these peoples' source of existence. Concepts of touching the land lightly through traditional stilt pile construction have been employed in this design exploration. Also in the preliminary design process - significant tree locations are mapped out and studied before any design or placement of building structure takes place. This concept of 'privileging the tree' is consistent with Bornean Longhouse principles further explained in later chapters.

Figure 8 - Showing an increasing conversion of natural forests into cash crop mono-culture such as oil palm.

2.2 Cash-crop oil palm monoculture not a solution to economic growth

2.2.1 Sabah's dependence on agriculture and the timber industry

Until 1997 Malaysia experienced rapid GDP growth, reaching 8% per annum for the period 1990-1995, which was amongst the highest anywhere in the low latitudes (Brookfield and Byron, 1990). In Sabah, growth was achieved by developing its land resources. Agriculture and forestry have been the backbone of the State's economy (Pang, 1989; Mustapha, 1994). In 1967, those industries alone contributed to 55% of its GDP, significantly more than any other industry or services. By 1990 they had declined to 38% and were projected to decline further to about 32% by the year 2000. Nevertheless, they are still the largest sector of the economy. By the late 1980's half of Peninsular Malaysia's forests and a fifth of Borneo's had been cleared. Brookfield and Byron (1990) identify the

three proximal drivers of this land cover change in the region; 'the timber industry, shifting cultivation and agri-conversion to permanent cultivation of cash crops on private estates and government-funded land development schemes'.²⁸

2.2.2 Cash-crop monoculture as detrimental to rural folk and way of life

Agrofuels – also known as biofuels - have been heralded as a low carbon solution to Climate Change in an energy-hungry world, and palm oil (a cash crop) is one of these. 85% of all palm oil is produced in Malaysia and Indonesia.²⁹ The estimated area under palm oil cultivation in Sabah has more than doubled in 14 years from 6% of the state's land area in 1983 to 16% by 1997.³⁰ The European Union has set targets for 10 per cent of all transport fuel to come from crops by 2020, but what is not realized is that developing countries meeting this demand destroy much of their pristine environment and these indigenous landowners are the ones paying the price for those who are major contributors to climate change. A study conducted by a group of NGO's consisting of LifeMosaic, Friends of the Earth, and Sawit Watch in 2008 show that many of the indigenous communities in Borneo give up their lands for oil palm plantations; not knowing that by doing so there are detrimental consequences.³¹ The study indicates that there are countless cases where large companies persuade the privatization of indigenous land who offer broken promises of returns, and jobs – who eventually strip these communities of their own land, and several years later are told are no longer needed. They are expected to pay off their debt for these companies in 'developing' their

²⁸ Ibid.

²⁹ Marti, S. (2008). Losing Ground: The human rights impacts of oil palm plantation expansion in Indonesia, LifeMosaic.

³⁰ McMorro, J. and M. A. Talip (2001). "Decline of forest area in Sabah, Malaysia: Relationship to state policies, land code and land capability." Global Environmental Change.

³¹ Marti, S. (2008). Losing Ground: The human rights impacts of oil palm plantation expansion in Indonesia, LifeMosaic.

land and are offered little in return. They are then trapped in this cycle of trying to pay off their debt and now having to pay for commodities when the original forest would have been able to sustain those needs and way of life. The study also explains that the rampant deforestation has cut many of these communities' access to fresh clean water due to the land no longer having the same holding capacity. Contrary to existing environmental policies, huge amounts of chemical wastes are still being deposited into streams.³² This study is significant as it shows that the huge deforestation and transformation of the land to a monoculture oil palm plantation, is not a sustainable or ethical solution to economic development or price to pay for 'Progress'.

³² Ibid.

2.3 Part 2 Summary

2.3.1 Setting the tone for exploring alternative ways for developing the State's economy

The demographics presented in part 2 show how Sabah as compared to other Malaysian states lag significantly behind in terms of basic amenities and health infrastructure. It also points out how the poorest of the poor are located in the rural parts of Sabah and among the indigenous ethnic groups other than the Chinese and Malays. Additionally this chapter has explained how the rampant deforestation and conversion of pristine forests into cash-crop monoculture like oil palm is devastating to these communities' way of life and not a solution to economic growth.

In light of Sabah's declining forest make-up and marginalized indigenous landowners, this sets the tone for exploring alternative ways to develop the state's economy in a way that is sustainable and empowering. There is no denying that we live in a capitalist era where economic drivers and development are at the forefront of political affairs and is a dominant factor for getting things done. It is therefore essential that for there to be true and broad community empowerment; economically advantageous solutions need to be found to actually implement a lesser dependence on unsustainable development practices. This is where *Economy* plays a large part in effective community empowerment, of whom the Architect and Architecture can play a significant role in. Therefore, this paper also asks the question on whether architecture, or more relevantly questioning what architecture; plays a role in this and how.

Figure 9 - Graph illustrating the richest fifth of the world's population receives 82.7% of the total world's income, and remaining four-fifths of the world live on a meagre 1.4%, as of 1992.³³

³³ Serageldin, Ismail. The Architecture of Empowerment: People, Shelter and Livable Cities. Academy Editions. London: Leinster Gardens, 1997. 10-11

PART 3: WHY TOURISM?

Before embarking on any architectural scheme, a clear brief, or vision as to ‘why’ it should be built needs to be addressed. Hopefully in the last few chapters that ‘vision’ of the need to empower the rural poor in Sabah has been communicated clearly. This chapter unpacks the next step; the ‘mission’ or ‘programme’ in which this scheme uses to achieve that vision.

3.1 Tourism as a strategic development tool to address poverty

3.1.1 Tourism playing an important role in growing poor economies

We live in a time where the world is changing faster than ever before, where the rapid advances in technology mean that we can now travel faster, for cheaper, and that the distance between countries and cultures are much less of a barrier, making tourism a dynamic and growing global industry. In countries where there are high levels of poverty, tourism is a very significant growing part of the economy, contributing to over 2% of gross domestic product or 5% of exports, or have experienced a growth of over 50% between 1990 and 1997 in its sector. Twelve of these countries account for 80% of the world’s poor, and in almost all of these countries Tourism is important.³⁴

3.1.2 Tourism to diversify economies and associated social impacts

Tourism is an industry that requires a significant labour force for it to function, providing large employment opportunities for any community that it is in contact with. It is also a diverse industry

³⁴ Ashley, Caroline, Dilys Roe, and Harold Goodwin. “Pro-Poor Tourism Strategies: Making Tourism work for the Poor.” Pro-Poor Tourism Report 1 (April 2001): 1-3

that employs a wide range of sectors, including the participation of the informal or 'poor' sector of society. Therefore it serves as an important opportunity to diversify and compliment the local economies.³⁵ If channelled in the right direction, tourism can be 'tilted' to better privilege the poor economically by providing complementary jobs to the existing economic base of the communities in rural Sabah (almost always being agriculture), but as discussed later, should not be used as a substitution. Since the economic base of most of the poor communities in Sabah is agriculture, and because it is mostly subsistence in nature,³⁶ it is an industry that can be extremely labour intensive, and tourism offers an additional off-farm source of income to these families. The interviews with these communities in a 'Study on the economic, social and ecological viability of nature tourism development in the rural areas bordering the Crocker Range National Park, Sabah, Malaysia'³⁷ writes:

"Many respondents viewed scarcity of labour as constraint on further expansion of agricultural production in the area. There was also a serious lack of interest in agricultural activities among their younger generation who seemed to prefer migrating to the urban areas for job opportunities.. ..More than half of respondents derived a substantial share of their cash income from off-farm activities and remittances from family members engaged in urban employment.. ..Some perceived development of tourism as a means of reversing the migration of educated youths to urban areas.. ..The respondents generally expressed high expectation on plans to develop tourism in their midst because they often viewed tourism as a means of generating additional source of income for the community as a whole".

Diversifying the economic structure of some of these communities may have significant social impacts as well as economic gains, as illustrated by the study above. The very reason why many of the younger generation leave to find other forms of work in the urban scene is because it offers a much easier lifestyle than that of subsistence farming. Another clear historical example of this is seen

³⁵ Ashley, Caroline, Dilys Roe, and Harold Goodwin. "Pro-Poor Tourism Strategies: Making Tourism work for the Poor." Pro-Poor Tourism Report 1 (April 2001): 1

³⁶ Hjulmand, Louse Gai, et al. "Tourism as a Development Strategy in Rural Areas adjacent to the Crocker Range National Park, Sabah, Malaysia." ASEAN Review of Biodiversity and Environmental Conservation. (2003): 3-5

³⁷ Hjulmand, Louse Gai, et al. "Tourism as a Development Strategy in Rural Areas adjacent to the Crocker Range National Park, Sabah, Malaysia." ASEAN Review of Biodiversity and Environmental Conservation. (2003): 5

in the migration of youths from many of the rubber plantations in Sabah (when the economy was booming and benefiting from high rubber exports in the 1960's, but the rubber tapping process was very intensive work)³⁸. Yet the older folk 'rely on their family members engaged in urban employment for their cash income'. Tourism will offer diversity in the rural employment structure that will 'reverse the migration of educated youths to urban areas' and allow the younger folk to be closer to their parents and families, providing great social and cultural reinforcement, yet allowing them to generate a source of cash income for the family.

The interventions of Pro-poor tourism will be invaluable to these communities in the way that it will ensure that the poorer section of the community too will have their portion of the tourism economic pie, thus reducing the effects of the worsening income inequality in Malaysia and its associated political implications. It will also mean that these communities will have an improved access to information and infrastructure, as tourists come into direct contact with them.³⁹ As the tourism agenda for various communities grow, and old traditions, songs, and dances are revitalised and celebrated by others; it offers an opportunity to grow a sense of pride in their culture and a form of cultural reinforcement.

³⁸ Wong, J. K. P. (2009). Arch 489 - Architectural exploration to alleviate rural poverty in Sabah, Malaysia. Wellington, Victoria University Wellington.

³⁹ Ashley, Caroline, Dilys Roe, and Harold Goodwin. "Pro-Poor Tourism Strategies: Making Tourism work for the Poor." Pro-Poor Tourism Report 1 (April 2001): 2-5

3.1.3 Integrates women into the official employment structure

In Sabah, and a trend that is especially shared among many poor communities around the world, there are a much higher proportion of men being employed in contrast to women in the formal employment sector. This may be due to rooted gender discrimination in the workplace or a culture that regards women as the ones who stay at home to look after the family and who do not get involved in the formal employment scene. The causes of these demographics are not being discussed, but the point being is that it exists and can be perceived as a form of social poverty.

Sources of data: Department of statistics, Population Report for Administrative District, Occupation and Industry, Census 1980, 1991; Economic Characteristics of the Population, Census 2000; State/District Data Bank 2005

Figure 10 - Employed population by age group, Sabah, 2000 - Significant male dominance

In the Tourism industry, in comparison to other modern employment sectors, a higher proportion of tourism benefits such as jobs and smaller trade opportunities go to women.⁴⁰ Therefore the availability of such an industry will empower women to transition into more formal sectors of the workplace, where it acts as a social reinforcement in families, giving women the power to 'provide for the family'. Furthermore, as noted in a case study in Community-based Tourism Associations in Namibia and Uganda as carried out by NACOBTA and UCOTA incorporating Pro-poor Tourism strategies⁴¹; members have said that 'woman traditionally spend their income on their children's education, health care and clothes and some is kept for emergencies.' This supports the notion that by empowering women with higher earning power, there is a greater chance that the resources generated will trickle down and be used to further alleviate poverty in these communities.

Figure 11 - Community-based favela rehabilitation processes, Fortaleza, Brazil – Illustrating how the women have been integrated into the communal workshops producing prefabricated blocks by assembling bricks.

[Renewed Longhouse scheme facilitating the integration of women into the official employment structure by providing spaces and facilities for income generation - namely the 'Ruai'.]

⁴⁰ Hjulmand, Louse Gai, et al. "Tourism as a Development Strategy in Rural Areas adjacent to the Crocker Range National Park, Sabah, Malaysia." ASEAN Review of Biodiversity and Environmental Conservation. (2003): 2

⁴¹ Hjulmand, Louse Gai, et al. "Tourism as a Development Strategy in Rural Areas adjacent to the Crocker Range National Park, Sabah, Malaysia." ASEAN Review of Biodiversity and Environmental Conservation. (2003): 21-25

3.1.4 Offers opportunity for linkages and access to information

Furthermore, the nature of the industry allows for a considerable opportunity for linkages and connectivity with the 'outside world', for example where tourists may come into direct contact with these goods producing communities themselves, through examples like souvenir selling. These have implications and benefits that go beyond pure economic benefit, which include an increased access to education, communication and information.

3.1.5 Natural Capital as being one of the few assets the poor in Sabah have

'the extent to which tourism projects can be burdened with certain socio-economic objectives is dependent on the attractiveness of the asset'.⁴²

Figure 12 – Sabah's rich wildlife
Left: Orangutans specific only to Borneo rainforests,
Center: Green Turtle residing in the coral reefs of the
Sipadan Island, Right: Rafflesia being one of the biggest
flowers in the world.⁴³

⁴² Ashley, Caroline, Dilys Roe, and Harold Goodwin. "Pro-Poor Tourism Strategies: Making Tourism work for the Poor." Pro-Poor Tourism Report 1 (April 2001): 29

⁴³ Chang, Tommy. Sabah Malaysian Borneo People & Places, 2001: 21-28

Tourism is also highly dependent upon natural capital (e.g. wildlife, scenery) and culture. These are underutilized assets that many of the local poor communities have in Sabah (being highly renowned for its pristine and untouched forests), even if they are not financial in nature.

Sabah makes up a part of the better known 'Borneo', and is truly a place of pristine natural environments. Charles Darwin even described Borneo as 'one great wild untidy luxuriant hothouse made by nature herself'⁴⁴.

It is home to the mighty Mount Kinabalu which is the highest mountain in South East Asia (its height is between the Himalayas and Mt Victoria in Papua New Guinea), pristine coral-fringed islands and lush rainforest.

Figure 13 – Mountainous beauty
Left: Mount Kinabalu, Right: Batu Punggul Caves⁴⁵

⁴⁴ Harbutt, Nick, and J. Cede Prudente. "The wildlife and scenery of Sabah, Sarawak, Brunei, and Kalimantan." *Wild Borneo*, 2006: 10

⁴⁵ Chang, Tommy. *Sabah Malaysian Borneo People & Places*, 2001: 120-128

Today, Borneo is recognized as one of the most important centers of biodiversity in the world. Home to frogs that 'fly', the largest flower in the world, fish that 'walk on mud', the smallest elephant in the world, monkeys that 'dive and swim', plants that eat insects and many more just to name a few. Some astounding facts about Borneo which Sabah is a part of include:

- Ten hectares of rainforest in Borneo can support a greater number of tree species than occur in the whole of North America.
- There are more bird species in Borneo than the whole of Europe.
- There are as many mammals in Borneo as those living in the continent of Australia.
- The Kinabalu National Park was designated a World Heritage site by UNESCO in December 2000 for its 'outstanding universal values' as one of the most important biological sites in the world.

This is mainly due to the unique flora and fauna which are a result of the 4 different climate zones within the same area.⁴⁶

[Design proposal incorporating a Canopy walk en-route to Longhouse residents quarters from 'Entry house' along river]

Figure 14 - Rich Cultural heritage.
 Left: Murut woman making their cultural baskets,
 Center: Dusun Tindal ritual specialists in their traditional finery, Right: Longhouse traditional dances.⁴⁷

⁴⁶ S. Appanah. "Setting the Agenda for Malaysia ." Trends and Issues in Tropical Forest Management. 2003: 2-3

⁴⁷ Chang, Tommy. Sabah Malaysian Borneo People & Places, 2001: 115-127

As Wendy Hutton in 'Sabah, Malaysian Borneo People & Places' so poetically yet so truly writes:

'The dawn mist rising from the rainforest floor almost obscures an orang utan stirring in its nest of branches near the great river silently snaking towards the Sulu Sea. Across on the west coast of the awakening land, a brightly painted wooden canoe returns with the night's catch, riding the waves of the South China Sea into a sheltered lagoon backed by the simple wooden thatch homes of a remote fishing village.

In an isolated hamlet nestling in the mountainous interior, bright faced children down a bowl of noodles before slipping out into the faint light to trudge several kilometres to school, while their parents shoulder split-bamboo backpacks and head for a day in their rice fields.

Not long after the far-distant city has been awakened by the haunting call of the muezzin from a gold-domed mosque, a group of elderly Chinese perform their morning tai chi exercises in a park, moving as gracefully as the delicate white egrets picking their way through the nearby marshes. And above all this, a group of wary but triumphant climbers gaze down on the northern tip of Borneo, perched on the granite summit of Southeast Asia's highest peak, the 4,101-metre Mount Kinabalu. .. Borneo is, above all, the home of ancient rainforests filled with a bewildering diversity of plants and animals. Within Sabah's forests, orchids cascade down from massive trees festooned with lianas and bird's-nest ferns. Ungainly hornbills flap noisily above other creatures of the forest: the tiny mouse-deer with its legs as frail as toothpicks; beautifully patterned clouded leopards; furry gibbons with their distinctive early morning call and the rare Asian Two-Horned Rhinoceros.

*On Sabah's east coast, cast areas of seemingly inhospitable swamplands are, in fact, home to an exciting range of flora and fauna: estuarine crocodiles; the remarkable long-nose Proboscis monkey found only in Borneo; the intelligent and gentle orang-utan and jewel-coloured birds.'*⁴⁸

[Proposed Longhouse design aligned strategically make use of beautiful views from communal areas]

⁴⁸ Chang, Tommy. Sabah Malaysian Borneo People & Places, 2001: 23-25

Figure 15 - Map of tourism attractions in Sabah⁴⁹

⁴⁹ eBiz Travel Network. "Discover the Wonders of Sabah, Borneo." Sabah Travel Map Guide. 2009. 17 Sept. 2009 <<http://sabahtravelguide.com/home.asp?page=mapguide>>

3.1.6 Supporting State and Federal Policies

When exploring the viability of any given scheme, the architect needs to investigate present development trends, public policy, and existing bureaucracy that may or may not inhibit the project; to establish a sense of confidence that the project is workable.

Fortunately, there exists a huge drive towards tourism development in Sabah as backed up by Malaysia's Federal Government plans and strategies including the recently unveiled 'Mission 2057' and the 'Vision 2020' blueprints, as well as the National Vision Policy (NVP 2001-2010) and the Outline Perspective Plan (OPP3 at present).⁵⁰ And there are already numerous approved development projects in the pipeline that have been implemented under the present 5-year Malaysian Plan (being the current 9th Malaysian plan, 2006-2010). Additionally at the State level, the core development framework is underlined under the State's Master Plan for development and Progress (Halatuju Pembangunan dan Kemajuan Negeri Sabah). The Halatuju essentially takes into account all existing development strategies and sector-specific plans (e.g. Sabah Tourism Master Plan, Sabah Industrial Action Plan, State Agriculture Policy, Sabah Aquaculture Master Plan, etc.) to achieve 'sustainable development and economic growth'. Tourism, together with agriculture and manufacturing has been emphasized in the Halatuju as the three main economic priority sectors for the State.⁵¹ The tourism concept proposals as released by the State's November 2007 Report, 'Tourism Area Concept Plans for Keningau, Tambunan, Tenom and Nabawan' areas (just 4 towns along the west side of Sabah) estimate a RM501 million public sector investment, and the net impact once these projects are developed aim that for every RM1 invested by the Government, RM10.80

⁵⁰ The State Government of Sabah. Tourism Area Concept Plans for Keningau, Tambunan, Tenom and Nabawan, 2007: 16-17

⁵¹ The State Government of Sabah. Tourism Area Concept Plans for Keningau, Tambunan, Tenom and Nabawan. 2007: 16-17

would be generally leveraged from industry and the private sector.⁵² On a national scale 'tourism has become Malaysia's second largest and most dynamic industry and also the second biggest contributor to foreign revenue. Furthermore on a national level, Malaysia received 17.3 billion in 2000, a 40% jump from the RM12.3 billion in 1999 with corporate tax of RM2 billion in addition to RM500 million in service tax out of it, putting the real earning from tourism at RM20 billion.'⁵³

*"Sabah in specific has been targeted for regional development as outlined in the Vision 2020, Malaysia development goals. The government is trying to diversify the economy in these states by means of developing industries based on natural resources such as agro-business, timber, petrochemical, and non-metal mining, as well as by fostering the travel industry (promoting cultural heritage) and the tourism industry in general. In addition, the government is upgrading economic infrastructure, for example, constructing industrial complexes in the least developed east coast areas and Industrial Corridor, and roads in Sabah and Sarawak."*⁵⁴

⁵² The State Government of Sabah. Tourism Area Concept Plans for Keningau, Tambunan, Tenom and Nabawan. 2007: 4-6

⁵³ Peniran Bagul, A. UMS. Sabah's Spatial Asset, Tourism and its Research Needs conference. (2007): 2-4

⁵⁴ United Nations Country Team, Malaysia. "Localising the Millennium Development Goals." Improving Equity in Sabah Report, 2007: 4

The Sabah theme park will have a similar concept as the famed Disneyland.

KARAMBUNAI PITCHES FOR RM200M PROJECT

BY SHAREN KAUR
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PROPERTY developer and resorts operator Karambunai Corp Bhd wants to develop a RM200 million tourism project in Sabah, which will include a theme park.

Chief executive officer Datuk Robin Hi. Loh said the firm has submitted a comprehensive proposal to Bank Pembangunan Malaysia Bhd.

The bank manages the tourism infrastructure fund, which has been allocated RM200 million for tourism projects in Sabah and Sarawak.

Famous for its five-star Nexus Golf Resort Karambunai in Kota Kinabalu, Sabah, the company is planning to build a theme park complete with a museum, cultural villages and a cable car sprawling over 81ha.

"The theme park will have a similar concept as the famed Disneyland," Loh told Business Times.

Sabah gets three million

RIGHT TRACK: Famous for its five-star Nexus Golf Resort Karambunai in Kota Kinabalu, the firm is planning to build a theme park complete with a museum, cultural villages and a cable car sprawling over 81ha.

tourists every year and the numbers are expected to rise as expansion work for the Kota Kinabalu International Airport is done in two years.

"The implementation of new infrastructure projects will also help spur the tourism industry."

"The Government is on the right track to promote tourism in Sabah, the country's top tourism state. Sabah needs more tourism infrastructure projects due to a large number of tourists arriving here," Loh said.

Karambunai is now devel-

oping Nexus Residences Karambunai, a luxury project in Kota Kinabalu.

The project comes in four phases comprising 860 units of luxury villas and 120 commercial units. It is expected to yield a gross development value of over RM2 billion.

Figure 16 – Example projects as part of government's initiative to drive tourism in Sabah⁵⁵

⁵⁵ Kaur, Sharen. "Karambunai Pitches for RM200M Project." New Straits Times 15 Sept. 2007: 31

3.2 Part 3 Summary

Sabah is a state in Malaysia that retains a great variety of cultures residing especially in the rural interior areas – such as the Bajaus, Dusuns, and Kadazan communities, etc. These rural communities employ some of the most creative and resourceful use of natural materials. Since they depend much on their environment for their survival, they have developed over the years a great respect for the natural world and the very essence of their culture is intertwined with their environment. This is seen through their spiritual practices, and simple yet content way of life. Their skilful craftwork has always been a major form of interest by many, where each community employs unique crafting techniques for handicrafts that support their everyday life – such as Kadazan baskets for harvest collection.

Since tourism is one of Sabah's highest and growing areas of economic productivity, is high on the nations development agenda, and is an industry that already is in direct contact with many poor rural communities in Sabah; it is a perfect opportunity for architects and developers to harness this exploding economic sector to also benefit these poverty stricken communities through strategic design solutions, planning, and effective infrastructure. There is a huge potential for the industry, coupled with the facilitation of the government and very importantly the architects' influence on the development plan and direction, to embrace strategies that increase the net benefits of tourism to also privilege these marginalised communities in a sustainable way. This can be done by exploring notions of 'pro-poor tourism' and its significance on the built form, as oppose to further contributing to the widening gap between the rich and the poor.⁵⁶ Though there are many rural poverty alleviating initiatives that the government employs, there are few that already reach as deep into the interior as the tourism industry and by being able to 'tilt' the sector towards increasing net benefits for the poor. The impacts of this on the architect and planning agenda will be explored in greater depth in the following chapters.

⁵⁶ Khalifah, Zinab. Strategies to Capture Benefits of Tourism for Marginalised Communities in Melaka Historic City. International Conference on Pro Poor Tourism. 2005: 1-3

PART 4: HOW DOES ARCHITECTURE FIT IN THE PICTURE?

4.1 Architectural Implications with Pro-poor Tourism

4.1.1 Introducing Case Studies

The following selection of case studies and points are taken from 'Pro-Poor Tourism Strategies: Making Tourism Work for the Poor, by Caroline Ashley, Dilys Roe and Harold Goodwin' which essentially is a review of the practical experience gained of various pro-poor tourism initiatives around the world. They have been summarised and selected points have been chosen that are applicable. This chapter builds on these case studies in the hope to better inform the architect of the larger picture that pro-poor tourism aims to achieve, and the implication that it has on the planning and decision making process when trying to 'tilt' tourism development to better privilege the poor.

4.1.2 Facilitating Participation

Netherlands Development Organisation (SNV) case study in Nepal- *'The SNV-Nepal case study explores the approach of a development agency working with local communities through social mobilisation, participatory planning and capacity building in a very poor and remote area of Nepal. The case study provides a valuable example of the 'import substitution' process – whereby the goods and services required by the tourism industry are to be produced and supplied locally rather than from Kathmandu..'*

As seen in the SNV-Nepal case, this has great implications to architectural decision-making and the planning process. In the way that there is a higher focus on the social mobilisation and participatory planning of the community that one is working with. This is as oppose to exerting an architect's view (which is often detached and idealistic in nature) of how the scheme or project is to function, its

aesthetic preference and symbolism, and its intentions. The case study illustrates the importance on the process, as oppose to purely on the final outcome of the project when trying to improve net benefits for the poor.

Architects often decide the living and working environments of the people they design for, and can play a huge role in facilitating that mobilisation and participatory process if the architect was able to give some of those decisions back to the community through collective decision-making. Some suggested methods include:

- Facilitating participatory planning processes at the local level - In the 'Humla' case study of the report, this has begun to have a significant impact, where ideas that tourism, being integrated into district planning processes, can be one of a range of opportunities for local economic development. The result is that improvements in trails and bridges – work originally undertaken to improve agriculture and trade in the region – has subsequently been used for appropriate tourism development; which is a very applicable solution to the situation in Sabah. That being said, a critical issue that some of the case studies mentioned was the miss-management of the expectations of how the scheme was actually going to benefit the community. 'Unrealistic expectations, particularly among local people, are problems noted in the WS, Tropic, SDI/CPPP and NACOBTA case studies.'⁵⁷ To help mitigate this issue, the project team (involving the architect's expertise) should wherever possible, conduct an economic feasibility study to measure the economic costs and actual benefits for the community, so that they understand that these alleviation strategies are a slow and gradual process.⁵⁸ Failure to understand this can lead to drastic consequences such as - loss of interest in the initiative, or on the flip side, an over-reliance on the scheme as an 'easy way out' mentality for their given situation. It is to be made clear to the community that these initiatives are only to be treated as complementary alleviation strategies to work alongside the existing revenue-generating economic base structure (often being agriculture),

⁵⁷ Ashley, Caroline, Dilys Roe, and Harold Goodwin. "Pro-Poor Tourism Strategies: Making Tourism work for the Poor." Pro-Poor Tourism Report 1 (April 2001): 34-37

⁵⁸ Mehta, Hitesh, et al. International Ecolodge Guidelines, 2002: 96- 98

and not as a replacement. Other suggestions include public consultation, surveys, or brainstorming sessions during a village meeting with some of these communities. However, particularly where the 'community' is large, there has been debate on the effectiveness of this method. This is because at times it is difficult to see how participation in decisions is very meaningful (except for the few leaders actually involved in the discussions). So a level of judgement will be necessary when using various methods to encourage participation.

- Giving the poor a stake in investments, so that they can participate as stakeholders rather than passive recipients - These aim to shift the tourism sector beyond the more common 'corporate responsibility' approach of charitable support. This may suggest a different design approach to a given scheme that will allow for multiple parties owning the investment. On a design level, solutions can include - compartmentalization of spaces that are able to, in the future, act as separate entities. This would also allow for further market expansions and entrepreneurship long-term, if some of the parties would eventually like to opt out of the scheme or own a section of the enterprise. This may be achieved through means of individual M&E servicing or structure, or allowing the possibility for a much smaller and more affordable units for the poor to have a stake in (like smaller and more frequent selling stands etc.), or even allow participation in the building process to 'earn' a stake in the investment, where simple construction methods and effective management will need to be employed on site.

Figure 17 – Citra Niaga Urban Development, Samrinda, Indonesia – Example illustrating small affordable units and opportunity for street hawkers to be integrated into overall development scheme, with spaces between shops to allow for pedestrian interaction and rest.⁵⁹

⁵⁹ Serageldin, Ismail. The Architecture of Empowerment: People, Shelter and Livable Cities. Academy Editions. London: Leinster Gardens, 1997. 66-67

- Enhancing the voice of poor tourism producers at policy level through their own organization
 - These organizations, as the report puts it, appear to be quite effective in voicing the concerns of the poor, though they may at times be speaking on behalf of the poor, rather than amplifying the actual voice of the poor. This is another avenue in which the community-immersed-architect who has investigated pro-poor tourism strategies, understands the needs and concerns of the poor tourism producers, and coupled with the trust in her/his professional expertise - may have a significant influence on policy reform.

[Design incorporating spaces for residents to sell and operate stalls themselves]

Figure 18 –
Top Left: Example of weaver's workshop enterprise integrated with dwelling.
Right & Bottom: Example OPP housing project providing beneficiary's with easily operable machinery to build themselves.⁶⁰

⁶⁰ Serageldin, Ismail. The Architecture of Empowerment: People, Shelter and Livable Cities. Academy Editions. London: Leinster Gardens, 1997. 84-93

4.1.3 Expanding business opportunities

The case studies indicate that the main strategies employed (when trying to expand business opportunities) have been enterprise support and expansion of markets.

Architects when put on a job, have a large control over the schemes program, and how the spaces are to function. A possibility would be to develop spaces that encourage flexibility and a variety of complementary tourism enterprises as oppose to monotonous single-use spaces, such as a combination and range of craft initiatives, and cultural displays. That being said relatively less has been done or achieved in developing enterprises that supply the tourism industry itself (e.g. with food and materials) as the report goes on to say. This opens up opportunities for an architectural design scheme to incorporate infrastructure for manufacturing, production, processing, training facilities, and transport infrastructure, all able to be operated and managed by some of these poor communities themselves.

[Proposed design incorporating a Bamboo workshop as an additional form of income, and ways in which the community can have a stake in the development by treating and providing the construction materials themselves]

Figure 19 – Design scheme example by James Wong illustrating a sustainable and incremental approach to densification by 'Privileging the Tree'.

4.2 Designing for Collective Community benefits

‘Money distributed by the Community Trust amounts to a very small amount per person if averaged across the village population, but is used to finance community development that would not otherwise take place.’⁶¹ (WS case study, emphasis added)

This highlights the importance and value of collective community distributions on uplifting the overall poverty situation of these communities. The case studies do not indicate that any route is superior, but they do show that where community income is well-used, it can be very valuable and provide for needs that would not otherwise be met. Unfortunately, though, problems can emerge in the misuse of collective income and can also be ‘lost’ through misappropriation and poor management.

There are many different ways in which collective community income can be generated, such as equity partnerships in which the community holds a stake, but examples in which the designer has a greater control in facilitating these earnings include:

Levies on tourists and operators - A local example of how this has worked well is the ‘Tompohon’ gate that provides the main and only public entrance before tourists start the climb up the well renowned Mount Kinabalu, Sabah. At this gate, levies are applied to tourists before being allowed to pass which contributes to a fund that goes towards environmental conservation measures and is separate to that of the private operators. This type of ‘fee charging’ however should not be applied for every little activity so as to ‘purchase each experience’. This would contradict the proposed scheme of ‘cultural immersion’, to be willingly and intentionally accepted for a long-term period by the community as family, to participate in daily responsibilities like paddy planting, construction of new phases etc. Levies, at most, should only be applied at the entrance for those

⁶¹ Ashley, Caroline, Dilys Roe, and Harold Goodwin. “Pro-Poor Tourism Strategies: Making Tourism work for the Poor.” *Pro-Poor Tourism Report 1* (April 2001): 22

who are short-term visitors. The long-term visitors (who would need to serve the short-term guests as well), will settle their account and stay with the community via private means.

Lease fees paid by private operators – Also linked to the idea of allowing members of the poor communities to have a stake in the scheme - is the possibility to provide infrastructure that supports the needs of external enterprises for business, to attract and draw in private operators. Fees would then be applied to these private operators, which would contribute to a collective community fund. It is important to note that this can only be done alongside well informed research on what products the market ‘demands’, before jumping ahead to implement infrastructure that encourages the production of that ‘supply’.

Donations from tourists – This form of income generation is rarely considered by architects to be taken seriously when designing for the projects program. Applying notions of ‘denial and reward’ and ‘arrival’ to enrich passage through the built environment may be considered, since our experience of space is strongly influenced by how we arrive it.⁶² These may be concepts that can be applied to encouraging and facilitating a behavioural response by the tourists (in this case being the act of donating to the community). Or even simply providing ‘mini community museums’ in which tourists are educated about the community’s rich cultural history, the intention of the scheme to uplift the poverty situation of the area, and an avenue in which they can donate towards the cause. The proposed Canopy walk is one such avenue to implement this.

[‘Entry House’ as visitors arrive by boat and opportunity for levies on visitors to be applied at single point of entry/exit]

⁶² Frederick, Matthew. 101 Things I learned in Architecture School, 2007: 10

4.3 Addressing Social and Cultural Implications

Throughout the case studies mentioned there has been a great focus on ‘developing’ local culture for tourism as oppose to studying the cultural ‘impacts’ tourism may have on these communities. Fortunately, the report goes on to say that ‘far from causing cultural collapse, this seems to have been welcomed by local residents’. This may be partly due to a reflection of the degree of control that local residents have in these case studies, but when tested against research conducted in Sabah’s context there has been a similar response by the ‘Patau’ community in the Crocker Range National Park, as mentioned in Chapter 2 and Chapter 4.

4.3.1 Avoid superficial use of cultural symbols as core design objective

In so many instances architects extract superficial cultural symbols in the guise to express an ‘authentic representation of the culture’ as the basis of their design idea.⁶³ This illustrates the tendency that there is a detachment between the way designers or people outside the community, interprets the values and traditions of an unfamiliar culture - or the way the locals actually perceive their way of life. The result may lead to a degradation of the cultural fabric of the community over time. It is crucial that the designer does not get carried away by an abstract romanticism. For example by selecting a pattern found on some of the touristic crafts, and make the assumption that the whole culture (and therefore architecture) is to be based on that pattern. As in many cases; this can lead to an in-authentic miss-representation. My design hopes to bring much more than that - it is to embody and celebrate the deep rooted values that the culture holds dear, such as the importance on community and respect both of each other, but also that deep oneness and respect of the environment. This is achieved throughout the design process - from the conceptual design of a spatial programme that encourages the community to congregate in certain areas; an intentional overlapping of pathways at strategic locations for a greater chance for interaction; construction

[Proposed design incorporating the deeper ethos of the culture; such as community, participation, family, and the concept that all of the Longhouse is semi-private space, and everything is done for the collective benefit of the Longhouse family. Not just superficial symbols as a core design objective.]

⁶³ Brand, Diane. Supervision session. 7th Oct. 2009.

material details that are consistent with a commitment to encourage the poor to have a stake in the development themselves; and most of all, it is a design process done in partnership with the communities themselves so as to ensure that it is a direction in which they actually want to head towards.

It is also important not to develop an uninformed expectation about possible uses of cultural resources or activities to enrich the visitor experience, without first establishing clearly with the community what is and is not possible to offer.⁶⁴ This is where the multi-purpose community hall (initially to be used as a training centre) in the 1st phase plays a vital role in clarifying those expectations.

Figure 20 – Kampung Kali Cho-De example in Yogyakarta, Indonesia. Illustrates more significant cultural values: such as the main frame of structure as an expression of community identity and self-respect. As well as designing buildings wedged within a tiny enclave as a specific identity and way of life for encouraging community. This is as opposed to extracting an indigenous pattern to later paste it on a concrete grid-oriented structure and calling that a representation of culture.⁶⁵

⁶⁴ Mehta, Hitesh, et al. International Ecolodge Guidelines, 2002: 97- 99

⁶⁵ Serageldin, Ismail. The Architecture of Empowerment: People, Shelter and Livable Cities. Academy Editions. London: Leinster Gardens, 1997. 112-115

4.4 Part 4 Summary & Issues to be aware of

We have seen in this chapter how architecture can and does play a significant role in the success of Pro-poor tourism initiatives such as the ability to facilitate participation and getting the communities themselves to own and manage the development themselves, and expanding business opportunities. It also illustrates how specific case study issues that arise can actually be mitigated through creative architectural planning. On another note, this report does by no means claim that Architecture is the answer to **all** problems as explained in the following.

An important point to emphasise - as Caroline Ashley indicates in her report – is that training is the key intervention here, although a wide range of measures have been used to overcome the multiple barriers to economic participation, such as ‘lack of credit, inappropriate social organization, insecure tenure and remote location’. It is not surprising, then, that activities in this area can threaten to overwhelm the organizations involved. Willing private operators (such as the WS and Tropic case studies in the report) show that they do not have the capacity to maximise business opportunities in the community. Supportive NGO-type organizations can assist them, though even organizations such as NACOBTA and UCOTA that are dedicated to supporting small enterprises can be stretched by the magnitude of the task, and returns to these small enterprise developments have also been uneven. On the positive side, a fairly wide range of people, including women and struggling households, have benefited. But small enterprises have run into problems, such as lack of market opportunities and investment capital. The case studies highlight the need to combine supply side measures (developing products and skills directly with the poor) with measures to expand demand for the products and services of the poor amongst tourists and operators. Complementary policy support is very important in this way. Therefore gaining the support and intervention of the government is crucial here - thus the need to incorporate a politically loaded agenda such as the Tourism industry in its program.

That being said, and as mentioned in Section 4.1.2, the planning and design requirements of this scheme considers that reducing poverty does not only require broad-based growth and improved governance at the national level, but **also** a 'bottom-up' approach that acknowledges that the participation of the poor themselves in the development process is important. World Bank studies show that there is now substantial agreement that by giving the poor more freedom to make their own decisions based on their own cultural priorities enhance development effectiveness at the local level in terms of design, implementation, and outcomes. 'In many instances the top-down government transfer system was clumsy and slow to respond to the so-called bottom-up planning that was in place.'⁶⁶ A World Bank paper written on 'Empowerment and Poverty Reduction' reviews that community programs imposed from a top-down approach showed recurrent problems of elite capture and political manipulation. 'Simply building infrastructure was not enough without a more conducive environment for planning and managing it.'⁶⁷ Therefore, the design solution that this project offers cannot operate in isolation of effective bottom-up pro-poor tourism management. The intention of this project should be to develop a scheme that will include treating the poor as local partners throughout the scheme, building off information of previous consultations with them, allowing them to own it themselves, and giving these progressive communities the opportunity to pursue other means of development if they so wish.

⁶⁶ Narayan, D. (2002). Empowerment and Poverty Reduction. Washington, D.C., The World Bank.

⁶⁷ Ibid.

PART 5: BACKGROUND ON THE BORNEAN LONGHOUSE & ITS RELATION TO TOURISM

5.1 Architecture of the Bornean Longhouse – a sellable niche

Most commercial tourism enterprises require some form of sellable or marketable niche to attract visitors to purchase a given experience. It is in this niche that architecture has a significant role to play in. This is where Architecture can either destroy an authentic representation of culture through using purely superficial symbols as a facade for culture (as mentioned in the previous chapter) or add value to the experience through facilitating genuine cultural immersion through programme and space planning. The Bornean Longhouse has been carefully selected as being such a niche, as it is later explained – it embodies the significant values of integrated community, belonging, holism, and of Sabahan indigenous culture, that is sadly fading away. Its renewal and celebration through the medium of tourism and architecture will bring a sense of cultural pride, a renewed sense of history, and a broader impact to wider rural Sabahan people, who as we have seen in previous chapters have suffered from many forms of poverty. It has also been pointed that this ingenious form or indigenous architecture is also an incredibly sustainable form of construction that adapts well with its landscape and topography.

5.1.1 Introduction to the Bornean Longhouse – A Brief History

Traditionally, long before the colonial days, the indigenous peoples of Borneo lived in vernacular longhouse architecture. These structures were constructed out of readily available materials in the

Figure 21 - Progression from Longhouses to separate single housing

forest where these communities lived; such as wood, bamboo, thatch, and bark. They were rectangular in shape and of timber-frame like construction with usually gable ended, single-pitched, two-sided roofs, and non-load-bearing walls. These structures were traditionally raised above the ground on foundation piles. It was a common practice for these structures to be frequently rebuilt as compared to our 'contemporary' standards (that privileges durability) – usually less than a few decades at most. This in the past resulted from - the temporary nature of the materials used, shifting cultivation, migration to new areas, longhouse fires, or warfare.⁶⁸ They are communal structures which are built as the sum of numerous, individually maintained apartments, or bilik, joined together side by side. Individual families or members of a bilik maintain their own section of the longhouse which is a cross section of the extended whole. This single line of adjacent family apartments form a long continuous gallery area (ruai) connecting these family units. In addition to this covered continuous space, some communities have external verandas that extend along the front of each section. The overall length of a longhouse is therefore not fixed and is just a matter of how many apartments there are (bilik), which can vary from fewer than ten to nearly a hundred for much larger longhouses. That being said, examples like the Bidayuh community living on

⁶⁸ Winzeler, R. L., Ed. (1998). Indigenous Architecture in Borneo: Traditional Patterns and New Developments. Borneo Research Council Proceeding Series. Bandar Seri Begawan, Brunei Darussalam, Borneo Research Council.

Figure 22 - Pictures showing incremental Longhouse expansion as demand for space grows

rugged mountainsides and ridge tops would usually build more numerous and smaller longhouses (with less bilik apartments) rather than one or two large longhouses like the Iban tribes along the rivers. Therefore traditional longhouse architecture incrementally grows with of the community as well as adapts to varying topography. Although a longhouse structurally exists as the combination of numerous bilik built side by side, a longhouse is not, as is often mistaken for, merely a Bornean form of English terrace housing or European or American apartment living.⁶⁹ Within the longhouse, individuals are involved as bilik members in numerous and complex formal, informal, and ritual obligations. There is a rich negotiation of private, communal, and ritual space (as mentioned in the following sections), and not just simply an efficient segmentation of space.

*[Renewed Longhouse design
incorporating incremental design
principles of traditional Longhouses]*

⁶⁹ Helliwell, C. (1993). Good Walls make Bad neighbors: The Dayak Longhouse as a Community of Voices. Inside Austronesian Houses. Perspectives on Domestic Designs for Living. J. J. Fox. Canberra, Department of Anthropology, The Australian National University.

Figure 24- Typical historical Longhouse plan and section

Figure 23 – Left: Showing Iban Longhouse along rivers being longer whereas Right: Bidayuh Longhouses are shorter and more frequent, adapting to mountainous terrain.

Figure 25 - 3d-Modelled typical Longhouse section showing stepped floor system ideal for tropical climate, and raised pile construction allowing for varying topography

5.1.2 The gallery 'Ruai'

This is a continuous communal area where people freely move, informally socialize, entertain visitors, perform household tasks including weaving and rice pounding, and hold many of the important ceremonies of the village. It is like the spine that supports and holds the community together, both structurally but also socio-politically. It is also a place for longhouse families to meet and have important community meetings and discussions and is a vital part of Longhouse architecture that I believe knits the community together and symbolises the essence of rural indigenous culture.

Figure 26 - Design proposal to renew the historical communal ethos of the 'Ruai'

5.1.3 'Contemporary' construction philosophy of durability and minimal maintenance not a cultural priority for these communities

Frequency of Rebuilding

In Timothy C. Jessup's study on the Kayan tribes titled, 'House Building, Mobility, and Architectural Variation in Central Borneo', he mentions how the developed ability to frequently rebuild longhouses is an important factor in their mobility. He explains that for some communities where houses are built infrequently (say, only once a generation), the knowledge of building techniques, materials, and the significance of architectural features may be lost or altered. On the other hand the study shows that where building is more frequent there are more opportunities for intentional architectural innovations.⁷⁰ This illustrates that by exerting a 'contemporary' construction philosophy – of durability and minimal maintenance – on these communities; it leads to a steady decline in the development of skills, consistency of quality and style over time, and the ability to explore their unique architectural identities through frequent reconstruction. It is therefore an important element

⁷⁰ Winzeler, R. L., Ed. (1998). Indigenous Architecture in Borneo: Traditional Patterns and New Developments. Borneo Research Council Proceeding Series. Bandar Seri Begawan, Brunei Darussalam, Borneo Research Council.

in the design scheme to allow for that continual work on the longhouse; that encourages community and the tradition of master and apprenticeship. That being said, the contemporary needs of these progressive communities are constantly changing, and these people may have full day jobs and no longer have the same generous concept of time. This produces a design challenge of renewing the values of these communities but within today's needs.

5.1.4 Upriver-downriver pairs

A traditional orientation of longhouse placement relates strongly in terms of the sun's movement through the sky from east to west. Literally in Iban, east is called *matahaari tumboh*, 'the direction of the growing sun', and west, *matahari padam*, 'the direction of the extinguished sun'. In ritual contexts, east is associated with life, particularly its beginnings, and west with death. So far as the longhouse is concerned, the basic notion is that the east-west course of the sun, as it journeys from horizon to horizon (*tisau langit*), must never coincide with the long axis of the house, such that the sun shines into one or the other end of the structure. Otherwise one side of the community is rendered perpetually 'hot' (*angat*). This 'equal' treatment is one such important architectural gesture that is consistent with their cultural attitudes towards equality and egalitarianism. As the sun orbits the house; it should ascend the slope of the roof from the gallery side, reaching its highest point (*rabong hari*, 'zenith'), directly over the central ridge-capping (*perabong*) immediately above the *tiang pemun*, and then descend again as it follows the slope of the roof downward to the horizon, at the back of the family apartments. In other words, the east-west movement of the sun over the longhouse should cross-cut its internal upriver-downriver divisions.⁷¹

Figure 27 - Figure showing Longhouse orientation along sun-paths and this principle as translated into Design Proposal

⁷¹ Fox, J. J., Ed. (1993). *Inside Austronesian Houses*. Canberra, Comparative Austronesian Project.

5.1.5 Boundaries, Privacy, and Community

Within the anthropology of Borneo, the longhouses found throughout the island have typically been depicted as little more than a line of independent household apartments.⁷² Chistine Helliwell, an anthropologist who has worked extensively amongst the Borneo Dayak peoples explains in her paper, 'Good Walls Make Bad Neighbours: The Dayak Longhouse as a community of voices', that the suggested idea of the individual apartments as being discrete and separate entities is in fact an illusion. This idea reflects that the 'individual' apartment takes priority over community, or communal identity, which is not the case especially in Longhouse Dayak social organization and culture. The primary social entity is not even co-residential and cannot properly constitute as a 'household' either but rather it indicates a greater sense of embeddedness in the larger longhouse community of which it is a part of. Emphasis on the apartment's orientation width-wise as part of a single longhouse structure should not be taken as a denial of its lengthwise identity as a separate unit within that structure and the relationships that operate across its spatial levels that tie them together into one unit. The apartment is both of these at the same time, just as its member household is both autonomous but yet highly dependent on the longhouse community of its neighbours. A close examination of the wall separating the various household units speaks a lot about these lengthways relationships. It is normally made of flimsy pieces of bark and

⁷² Ibid.

Figure 29 - Top: Pictures taken of historical Longhouses at Kota Kinabalu Museum, Sabah, Dec 2009. Bottom: Proposed design incorporating concepts of shared boundaries, and collective living.

other materials propped up against each other in such a way as to leave gaps of varying sizes, through which dogs and cats can climb, people can hand things back and forth, and at which neighbours can stand while they chat together. But the character of the partitions between these neighbouring apartments is important not only for the relations that it promotes between apartments and for those on either side of it, but also in fostering an uninterrupted sociability from one end of the longhouse to the other. The very permeability of the partitions – their makeshift and rickety character – allows an almost unimpeded flow of both sound and light between all the apartments that together constitute a Longhouse.

5.1.6 Flow of Sound and light

This flow of sound and light is crucial as Helliwell points out, and she argues that the longhouse community as a whole is defined and encircled more by these two things than by anything else. She recalls from her time while living in a Gerai longhouse and describing it as a 'community of voices'. Where voices flow in the longhouse in a most extraordinary fashion; moving up and down its length in seeming monologue, where one would in fact be in continual dialogue with listeners who may be unseen, but are always present. As such they create, more than does any other facet of longhouse life, a sense of community. Through the sounds of their voices - neighbours two, three, four, or five apartments apart are tied into each other's world, into each other's company, as intimately as if they were in the same room.

During her first two months in the longhouse, sharing the apartment of a Dayak household, Helliwell explains how she could not understand why her hostess was constantly engaged in talk with no one. The hostess would give long descriptions of things that had happened to her during the day, of work she had to do, of the state of her feelings and so on, all the while standing or working alone in her longhouse apartment. To a Westerner, used to the idea that one's home stops at its walls, and that

interaction beyond these involves a projection of the voice or of the self, which makes impossible the continuation of normal domestic chores, Helliwell's hostess' behaviour seemed eccentric, to say the least. "It was only much later that I came to realize that the woman's apparent monologues always had an audience, and that they were a way of affirming and recreating the ties across apartments that made her a part of the longhouse as a whole rather than a member of an isolated household." In addition she recounts, 'I recognized with time that she was almost certainly responding to questions floating across apartment partitions that I, still bewildered and overwhelmed by the cacophony of sound that characterizes longhouse life, was unable to distinguish. Eventually I too came to be able to separate out the distant strands that were individual voices, which wove together magically in the air and flowed through the spaces of separated apartments.' These were never raised as the dialogue moved through four or even five partitions, but their very mutedness reinforced the sense of intimacy, of membership in a private, privileged world. Such conversations were to be taken up at will and put down again according to the demands of work or sleepiness: never forced, never demanding participation, but always gentle, generous in their reminder of a companionship constantly at hand.⁷³

Not only sound but light as well flows from one apartment to another – particularly at night, when the longhouse is demarcated against the surrounding blackness by the tiny lights glowing up and down its length. In explaining why they sow the seeds of a plant bearing red flowers serving as 'lights' or 'fires' for the growing rice, Helliwell was told that: 'Just as human beings in the longhouse at night like to see many lights around them and so know that they have many companions, in the same way rice sees the flowers at night and does not feel lonely'.⁷⁴ At night in the longhouse one is aware of the presence of companions by the glow of their lights in their hearths. If a light is not showing in any apartment, its absence is an immediate source of concern and investigation. "On at least three

⁷³ Ibid.

⁷⁴ Gerai Dayaks believe that rice shares a descent line with human beings. Because of this it must be treated as if it were human, and so a number of features of the layout of a rice field parallel human life within a longhouse.

occasions when I developed a fever in the late afternoon, and by evening was too ill to get off my mat and light my lamp, it was the darkness in my apartment that brought people anxiously to my aid. 'Why is your apartment in darkness, Tin?' was always the first query, to be taken up immediately in the conversation flowing to further parts of the longhouse. If there was no reply, within seconds neighbours would be pushing open the door."⁷⁵

A Western individual concept of 'person' and 'society' is not transferrable in understanding how these traditional longhouse communities perceive self, household and community, and to make such a link would be a great misunderstanding.⁷⁶ The nature of the relationships between the separate apartment spaces only become comprehensible when viewed in the context of the permeability of the boundaries between them. The American poet Robert Frost implicitly recognizes this point when he asserted that in his own American rural community 'good fences make good neighbours'.⁷⁷ In this respect many Western domiciliary arrangements contrast sharply with those found in Bornean longhouses. It is not the walls which make good neighbours, but the gaps and tears that occur within them. It is these that allow an easy flow of communality along the length of the longhouse. In this flow lies both the threat of community disapproval and sanctions, and the promise of resources and companionship being only but a spoken word away.⁷⁸

⁷⁵ Fox, J. J., Ed. (1993). Inside Austronesian Houses. Canberra, Comparative Austronesian Project.

⁷⁶ Ibid.

⁷⁷ Frost, Robert. *Poem titled 'Mending wall'*.

⁷⁸ Fox, J. J., Ed. (1993). Inside Austronesian Houses. Canberra, Comparative Austronesian Project.

5.2 Tourism initiatives and the Longhouse

As mentioned in the previous chapters, a large part of Sabah's economy is powered by the Tourism industry, but few longhouse renewal projects have been used as tourism niche opportunities in Sabah. That being said, its neighbouring state Sarawak has incorporated longhouses to a greater extent as part of the industries pitch to tourists. This next section looks into how longhouses has been used by the tourism industry in other parts of Borneo, in some ways successfully and in some ways not.

5.2.1 Problems with existing Longhouse Tourism

On the whole, as Kruse comments, the tourism industry ignores any detailed reference to the social organization of the indigenous communities themselves, focusing instead on superficial and marketable images of the exotic which stress a view of the longhouse as an exotic site inhabited by "primitive" jungle people. One irony is that these longhouse communities are sold as a 'primitive' remainder of a 'primitive' racial culture surviving within a new Malaysia.⁷⁹ Another major complication with this reality is that longhouses which fit the advertised "traditional" image are no longer easy to find. The rapid development of Sarawak and Sabah has allowed easy access to modern building materials such as bricks and concrete. Hardwoods, which were once the primary building material, are no longer easily found within a reasonable distance of most longhouses, and they are too expensive to buy from local saw mills.

Though older or traditional longhouses were built of wood and retained more or less the same basic building plan, there have been contemporary attempts to build longhouses built in brick, concrete,

⁷⁹ Kruse, W. (1998). Tourism, Cultural change and the Architecture of Iban Lonhouses in Sarawak. Indigenous Architecture in Borneo: Traditional Patterns and new Developments. R. L. Winzeler. Bandar Seri Begawan, Brunei Darussalam, Borneo Research Council.

and corrugated iron sheeting. But the problem of just replacing older materials with these newer ones and using them in the exact same way without adapting its construction method to complement the properties of the newer materials, can undo some of the original intentions of historic longhouse architecture. For example, exchanging the thatch roof material with corrugated iron sheeting has caused huge overheating in many contemporary longhouses today and no longer performs or fits its tropical environment, when the older historic longhouse construction did this beautifully.⁸⁰

These longhouse attempts are rarely incorporated into a tourism agenda, and if so in rare cases are not popular due to its lack of a 'rustic and primitive' aesthetic that appeals to a sense of rough adventure.⁸¹ They are unsuccessful pieces of tourism architecture because they are neither here nor there. They neither fit the 'primitive rustic' look nor a 'five-star boutique hotel', built for comfort and service.

*"Longhouse communities which have been unable to totally rebuild, make use of whatever material they can afford, so that one bilik may have the look of a modern apartment and another may have been left largely un-renovated for thirty years, therefore retaining a more 'traditional look'. For these reasons most longhouses no longer have what tourists seek in terms of the architecturally pure or 'authentic' longhouse. This is a major issue for the tourist industry and the individual tourist."*⁸²

⁸⁰ Ibid.

⁸¹ Harkin, M. (1995). "Modernist Anthropology and Tourism of the Authentic." Annals of Tourism Research **22**(1).

⁸² Kruse, W. (1998). Tourism, Cultural change and the Architecture of Iban Longhouses in Sarawak. Indigenous Architecture in Borneo: Traditional Patterns and new Developments. R. L. Winzeler. Bandar Seri Begawan, Brunei Darussalam, Borneo Research Council.

Furthermore, Kruse during his field work recounted his experience of Tourists standing by the river bank, having just stepped from their longboat and gazing at the sight of a four-hundred foot long wooden longhouse built on stilts, only to say, “this is not a ‘real’ longhouse, it has a tin roof.” Here the entire local industry hinges on the availability of “traditional” longhouses, within easy reach of Kuching – complete with ‘appropriate residents’.⁸³ The architecture of tourist longhouses has always been a constant point of discussion. Tourism longhouses are therefore sites of constant cultural exchange and reconstruction, and an architectural battle grounds where elements are removed, faked, rebuilt, or added to suit the needs of an industry reflecting the tourist mythology of a timeless “jungle people” and jungle sites. The choices that tourists make and the paradoxical demand for authenticity of the mythological site are serious issues to tackle when providing architecture for a service industry like Tourism. Furthermore, many of these communities that have embraced Tourism as their primary or sole source of income find themselves in a trapped situation of trying to satisfy the needs of the tourism industry, yet explore their right to develop as a progressing community.⁸⁴ That is why it is absolutely vital for any pro-poor Longhouse Tourism scheme to allow and incorporate – in the programme - other means of income generation like existing paddy field farming or other forms of agriculture, so that they can explore their sense of what ‘progress’ means to them and other ways of life if they so wish.

Sadly to say, the Tourism industry in Sabah has mostly taken either of the two following routes. One is to embrace this notion of the touristic ideology of ‘authenticity’ and rebuild identically historic longhouses like in the past, and employ these modern indigenous communities to ‘pretend’ a ‘staged authenticity’, not really being authenticity at all. Or the other route has been to build new five-star hotels incorporating a superficial extrapolation of a longhouse aesthetic, with massage parlours, swimming pools, beautiful ladies to serve, and services that treat the tourists as the pinnacle being of the programme which is devoid of any form of true cultural exchange. These two routes are no help

⁸³ Ibid.

⁸⁴ Ibid.

to these communities anymore than some opportunity for employment. But even in an economic sense, the bulk of the economic pie goes to these large commercial tourism companies where elite capture and market monopoly is not uncommon. But this thesis explores the possibility of another option. One that asks the question – is it possible to build to the contemporary needs of these progressive communities – modern longhouses - that authentically suit the cultural programme of these progressive communities today? Can this type of approach cater to a niche ‘responsible tourism’ market - offering a truly authentic experience of cultural immersion and participation in community - with an attitude of supporting and empowering these communities through celebrating their qualities and values through the medium of Tourism? Finding that architectural blend of authentically representing culture through programme, having the best interests of community empowerment in mind through making smart business sense, and offering all that through an ecologically sustainable solution – should be the central aim of this thesis’ design answer.

A good example of how we should be exploring the notion of pro-poor or eco-tourism in Sabah’s context can be seen in Craig T. Latrell’s account of the Bavanggazo Longhouse in his paper ‘Exotic Dancing – Performing Tribal and Regional Identities in East Malaysia’s Cultural Villages. In his paper he contrasts the Sarawakian Cultural Village (SCV) incorporating a superficial ‘staged authenticity’ against the bare -yet-modern but inconsistent and confusing approach of the Monsopiad Cultural Village (MCV) in Sabah.⁸⁵ Where the SCV has choreographed cultural dances of ‘headhunters’ in spandex (tailored and ‘spiced up’ to fit a Western audience), yet in the MCV you are greeted by a woman in jeans and t-shirt showing you through - yet again – a staged museum of ‘authentically traditionally dressed’ actors (staff) by day, and by night they resume daily modern life in the city. The SCV, and to a lesser extent, Monsopiad still strive to give the impression of an unmediated encounter with natives while still maintaining control over the experience, but the third site, the Bavanggazo Longhouse, comes closest to eliminating mediating tactics altogether he explains. For instance, the Bavanggazo’s cultural show ends with a simple yet touching performance by an older woman on the

⁸⁵ Latrell, C. T. (2008). "Exotic Dancing: Performing Tribal and Regional Identities in East Malaysia's Cultural Villages." *The Drama Review* 52(4).

nose flute (mongurali), in which the unpretentious performer is no further than three feet from onlookers. The physical proximity, coupled with the presentation's simplicity and the soft warbling of the music, imparts an intimacy so palpable that it leaves the impression that one has been a guest of honour at a village gathering rather than a paying customer at a tourist show. This is rightly so because the Bavanggazo community, despite hosting a steady stream of tourists is in fact an actual working village – and not just a large group of staged actors on show. The Bavanggazo inhabitants work as farmers and fishermen while occasionally hosting tourists for extra income, embodying the concept of the value-added attraction. Of the three sites, it is the least separated from daily village life: showcased and everyday activities intermingle. It is a local enterprise, owned by members of the Rungus sub-tribe of the Kadazan peoples themselves. The compound comprises only a longhouse in which villagers live – on a full-time basis, carry out daily life chores, and community traditions. It prides itself on exemplifying tourism as sustainable development, where tourists support and contribute to the overall health of the village; resulting in a balanced and harmonious partnership. I hope to show to you that what makes the previous two examples so different from the last is to a large extent – Architecture. The design of what existing activities are kept or discarded so as to prevent a situation of economic dependence on the tourist; the design of spaces that allows for visitor participation and equal treatment or respect, as opposed to putting the tourist on the 'receiving' end with an expected 'return' at the end. Hopefully this shows us how Architecture can facilitate a programme for people to function in, through the built form, to either encourage the overlapping of showcased and everyday life activities; or it can create barriers through setting up an actor-viewer staged environment of separation as opposed to one of unforced yet intimate participation.

5.2.2 Enterprises to be economically sustainable

William Kruse, in his paper on Tourism, Cultural Change and the Architecture of Iban Longhouses in Sarawak, explains how the Sarawak Tourism Board has recently been pushing longhouse tours aggressively on the international market. The result has been that visitor numbers have swelled and major developments (such as the Batang Ai Hilton Longhouse Resort and the Pelagus Rapids Resort) and the ever increasing number of five star hotels in and outside Kuching (the capital of Sarawak) force operators to find new longhouses or increase the number of visitors to areas already overrun by tourists. Tour operators in Kuching, Singapore and Kuala Lumpur have turned from talking amongst themselves of Sarawakian longhouses as Conradsque destinations for the brave hearted (although this is still the marketing ploy) to a hybrid industry talk of “carrying capacity” and “visitor amenities” along with a sales pitch of “jungle adventure-longhouse tour, one night/two days.”⁸⁶

To be able to develop an effective empowerment scheme driven by the tourism industry, it is therefore vital to acknowledge the times and solve the current needs of the tourism programme, and for it to make business sense.

⁸⁶ Winzeler, R. L., Ed. (1998). Indigenous Architecture in Borneo: Traditional Patterns and New Developments. Borneo Research Council Proceeding Series. Bandar Seri Begawan, Brunei Darussalam, Borneo Research Council.

5.3 Chapter 5 Summary

We have seen in chapter 5 how the Bornean Longhouse embodies the significant values of integrated community, belonging, holism, and of Sabahan indigenous culture, that is sadly fading away. Additionally they employ construction techniques that work in harmony with their environment, as exemplified through the indigenous longhouses throughout Borneo, where the stilts supporting the building can adapt to varying topography, which allows for plant growth and rearing chickens for example in the open sub-floor open cavity. This is as opposed to present concrete slab techniques that cut into the ground and destroying anything in its way. We in the 'modern' world quite sadly and naively privilege the building footprint or location ahead of the elements of the natural environment, or even design in isolation of it altogether. There are fundamental architectural attributes these communities employ that we - in the 'modern' world - have much to learn from. Yet it is precisely these traditions that are fading away. The good news is that its renewal and celebration through the medium of tourism and architecture will bring a sense of cultural pride, a renewed sense of history, and a broader impact to wider rural Sabahan people, who as we have seen in previous chapters have suffered from many forms of poverty. But unfortunately several examples show how the Tourism industry also comes with various dangers - such as an inauthentic cultural representation, and the community being over dependent on the sector as their sole source of income. This chapter has offered helpful design suggestions to help mitigate these issues.

Also a clear understanding on current matters of how the industry is progressing as a whole is crucial to be able to explore possible opportunities, and to have any success in effective community empowerment through it. The reality of an exploding tourism industry in Sabah means that solutions to accommodation, infrastructure, and amenities for this large influx of tourists need to be found. There is no point developing idealistic small-time huts thinking there will be a significant enough volume to bring communities out of their poverty cycle on a broad scale when there are in fact far larger enterprises competing for the same ecological/cultural assets. These larger enterprises will eventually just oust the smaller ones because it makes far better economic sense and return. It is not necessarily all about volume, economic gain, and a massive production line either; but the fine

balance between responsibly considering the needs of empowering these communities and a firm grasp on satisfying the current tourism need for 'carrying capacity' and smart business sense is a must. This is where I seek to apply a 'blue ocean' business strategy coupled with the commitment of alleviating poverty - where a niche tourism product (such as the 'Bornean Longhouse') is made to cater for a generated and specific responsible pro-poor tourist market.

This fine balance between the non-economic community requirements and economic factors such as business profitability needs to be considered throughout the scheme if it is to work at all, let alone work for the poor. Of course there are obvious issues for the poor if these large enterprises are not managed with community empowerment in the forefront of our minds, and the possibility of 'elite capture' by large tourism enterprises and possible 'market monopoly' are not uncommon. This essay does not try to attempt to manage this pro-poor tourism agenda itself, but rather (and as suggested in the past chapter on 'Related Architectural Implications') Architecture can and does play a large role in assisting it. Similar new, locally found, and growing 'blue ocean' yet pro-poor enterprises like these are starting to emerge. Enterprises such as Ecoteer, Responsibletravel.com, Raleigh, CulturalSurvival, Green Selipar, Pro-poor Tourism, Green Empowerment, are all such organizations that this proposal can be effectively managed and marketed by, just to name a few.

PART 6: DESIGN PROPOSAL

6.1 Introducing the Design

Given the fact that Sabah in particular contains some of the most poverty stricken communities residing especially in the interior (economic, political, and environmental forms of poverty); its Tourism industry is one that is heavily backed by the government, reaches far into the interior where these communities reside, and is growing tremendously; notions of Pro-poor tourism being proven to work in Sabah, especially with the fact that Tourism products are one of the few assets these poor communities have; the Bornean Longhouse as being a piece of architecture that embodies the deep rooted values of these communities and its renewal will bring great empowerment to them, plus offering a perfect Tourism niche product that will make economic sense; the following is therefore a design proposal that embodies all the research findings in the previous chapters through a local, deliverable, and workable example located in the famous Crocker Ranges in Sabah.

6.2 Crocker Range Kionop Community chosen as proposed location with Tourism Potential

Specifically, the rural Kionop community located in the Crocker ranges has been chosen as an exploratory design case study to employ pro-poor tourism initiatives as a first step to help empower that community. The Design scheme involves embracing the Tourism industry as a complementary source of income that brings far greater and diverse benefits to these communities at grassroots level rather than the ever growing cash crop oil palm mono-culture as explained in previous sections. It has been chosen as a prime location as it has not converted its land to cash-crop mono-culture like oil palm as it is in a Crocker Range 'protected zone'. The Crocker Range has specifically been targeted

by the government as a prime site for Tourism development, especially zones around the historical Salt Trail where many tourists hike.⁸⁷ (See Section 3.1.6)

Figure 30 - Map showing Kionop village as ideal case study location to implement Pro-poor tourism Bornean longhouse renewal scheme, as it intersects the famous salt trail, and only an hour away from Kota Kinabalu (Sabah's capital city).

⁸⁷ Sabah, I. f. D. S. (2007). Tourism Area Concept Plans for Keningau, Tambunan, Tenom and Nabawan. T. S. G. o. Sabah, Ministry of Tourism, Culture and Environment, Sabah.

6.3 Preliminary Research Study on area

A geographical and zoning study on the surrounding area has helped to identify areas in the protected zone that is actually buildable. This combined with information on villages in the area, sufficient access from both roads, and rivers that were not too far away from the main cities, contributed to the decision on choosing the Kionop Village as a prime Design Case Study example.

Crocker Range GIS Study

- National Park Zoning boundaries
- Significant townships and Tourism attractions
- Adequate infrastructure to service development

Figure 33 - GIS map studies provided by the Bornean Biodiversity & Ecosystem Conservation Programme (BBEC)

Topography and Physical Features

Mapping out significant trees, to 'touch the land lightly'

Figure 32 - Design process incorporating 'tree mapping' so as to minimise disruption to the environment

Kionop Village Proposal Site plan

6.4 'Rumah Sungai' - River Entry House

Kionop Village

6.4.1 Heightening Tourist Experience through Celebrating Passage and Reward

- Visitors experience a slow traditional approach to the Entry House by boat, building a sense of anticipation

'Rumah Sungai' – River Entry House front perspective view

6.4.2 'Rumah Sungai' Orthographic Drawings

Other than an beautiful piece of renewed indigenous Sabahan architecture, the 'Rumah Sungai' River entry house takes advantage of the natural capital of Sabah (*see section 3.1.2*) such as the pristine forests and beautiful journey along the river. It also allows for any administration or levies to take place at a single point of entry (*see Section 4.2*) and not to be dealt with again throughout the stay there, so as to prevent a pay-per-every-experience type situation.

'Rumah Sungai' Top and Front Elevation View

It is the first part of the journey where the visitors are given the opportunity to meet and get to know the community, and for the community to decide whether they wants to host and take them into their Longhouse family.

Entertaining and showing good hospitality is a big part of their culture, and so the 'Rumah Sungai' offers a setting for good first-impressions, but not necessarily inviting them into the private Longhouse family just yet.

'Rumah Sungai' Upper Sectional Plan View and Construction Details

'Rumah Sungai' Lower Sectional Plan View and Construction Details

6.4.3 Adapting Tropical System from Traditional Longhouse Construction techniques

Sabah's tropical environment is one that is extremely hot and humid most of the time, which is why construction techniques that create lots of shade and facilitate high cross-ventilation is a must for creating comfortable spaces.

Here you see over the food serving areas – a triple-roof membrane structure to deal with the direct sunlight and secondary radiant heat as adapted from traditional Longhouse construction (*see Section 5.1.1*).

'Rumah Sungai' – Front Sectional View

Highly breathable Tropical design
adapted from Longhouse Architecture

6.4.4 Entry House also used as a place to sell local Crafts to Visiting Tourists

6.4.5 Multi-purpose Communal spaces to eat and get to know the community

6.4.6 Outdoor Recreation platform as a gesture to 'reach out' and blend with surrounding Rainforest

6.5 Canopy Walk

The canopy walk is the next part of the journey after being welcomed and accepted into the community as long-stay visitors. Here a sense of anticipation is built before reaching the magnificent Longhouse Residence Quarters.

Other than a beautiful wildlife and scenic route, it is also an avenue for learning about the history of the people shown on plaques along the way, learn about what the alleviation scheme is trying to do, and offers an opportunity to donate (*see Section 4.2 and 3.1.5*).

Canopy Walk Plan and Elevation

Canopy Walk exterior and interior perspective

6.6 Longhouse Residence Quarters (overleaf)

After a sense of anticipation is built up, the final reward comes as you arrive at the Longhouse Residence Quarters with a sense of awe – an emotional response not achievable if given all to the viewer at once.

As a Long-stay visitor (staying 3 months to a year) you very gradually transition into the communities' way of life very similar to 'cultural immersion'. You are taught to work the fields together, hunt, collect materials for construction on the phased development (explained later), work in the bamboo workshop, eat together, participate in cultural dances/ ceremonies together; you will also take care and welcome short term visitors at the 'Rumah Sungai' Entry house. You are then part of the Longhouse family. There is little tolerance or concept of individual living once you are here - everybody shares and works for the collective benefit of the community, they are light-hearted and full of life, despite the rough circumstances. It will be a tough initial transition for you as a Long-stay visitor (which you are well aware of and prepared for). You will have to give up your concept of individual

autonomy, independence, and privacy (see Section 5.1.5 and 5.1.6). But the reward at the end of this will bring the 'by-the-end-Longhouse-family-member' never wanting to leave, and will have an incredibly rewarding experience by the end of the stay. You will miss the people who you slogged hard with on the fields and in the jungle collecting materials, shared life with, laughed at simple things till it hurt with, had disagreements with, who took care of you when you were sick, and the children who you taught English and life skills to. You will miss the stories and wisdom the grandparents told (through your now-best-friend-translator), the women in the 'Ruai' teaching you how to sew, and their consistent jest in pairing you up with a soul mate from within the Longhouse family (if you weren't already married)! You will miss waking up at 5am watching as dawn arrives, with the song birds chirping, the refreshing baths in the river and the bamboo slats beneath providing you with good sleep after a hard days work. They will also miss you dearly, and will remember you a long while off.

6.6.1 'Ruai' Longhouse Communal Corridor:

- 'Ruai' area for telling of stories, receiving wisdom from elders, additional source of income generation (see Section 3.1.3), and avenue to be deeply connected with community.

Women weaving in 'Ruai' with views onto outdoor communal area and Central Meeting Hall

6.6.2 Sleeping Quarters:

- Visitors are invited to stay in same longhouse and become part of the community

6.6.3 Residence Longhouse Orthographic Drawings

Longhouse Quarters Top View

Longhouse Residence Quarters North Elevation

Longhouse Residence Quarters East Elevation

Longhouse Residence Quarters Sectional Plan

6.6.4 Structural system & Sustainable Design revealed

- Recycled Water collection system from roof run-off into tanks next to kitchen.
- Structural design to integrate surrounding trees and 'touch the land lightly'.

6.6.5 View Shafts

- Central Communal Hall for dances and cultural exchange viewable from interior 'Ruai' corridor area
- Ventilation system adapted from traditional Longhouses keeping interior cool during hot climate

Open air-setting where the whole of the Longhouse family is semi-private space, as consistent with the communal values of these communities. Challenging the whole concept of private space - being a very western-individualistic one

6.6.6 Central Meeting Hall: Community, Culture, and Fun!

- Outdoor stage platform strategically placed to be viewable from all angles and areas of scheme
- Dances, communal relaxation, interaction, and cultural exchange

6.6.7 Multi-purpose Communal spaces

6.6.8 Traditional Architectural Features:

- Renewing the dying art of Gable Horns to adorn Longhouses
- Carvings once more bring a renewed sense of master-apprenticeship and traditional values

6.6.9 Tropical Design:

- Roof ventilation system as integrated into Architectural aesthetic
- Sun shade louvers overhanging over outdoor communal areas
- Communal areas strategically design with beautiful views

6.6.10 Poetic celebration of light and darkness

6.7 Training Hall

6.7.1 Training Hall at initial stage of development

- Educating community on best tourism practices and effective 'hosting' of visitors
- Project coordination and keeping track on scheme, and community decision making

6.9 Phased Development

6.9.1 Design that incrementally and organically grows with market demand

This design proposal acknowledges the fact that any intervention scheme like this takes time to achieve the sensitive balance between supply and demand as well as market momentum. Therefore, developments like these cannot and should not be designed in a one-off full scale form of construction. A gradual expansion to build up market momentum needs to first take place. As illustrated below, it may mean the architect will need to design for flexible planning, an organic form of expansion, or creative ways of construction that will allow for an incremental assembly of spaces for these enterprises to allow to 'grow as needed'.

Figure 36 - Phase 1 - Community hall & Bamboo workshop

I propose a series of phases that work with this concept of building market momentum and an avenue for training, as Ashley writes (refer to Chapter 4). Here in **Phase 1** – the Multi-purpose Community hall acts as that first step in providing a training facility to educate the community on best practices in responsible tourism, participation and creating a sense of ownership, which will build the momentum necessary for the scheme to be successful.

Figure 37 - Phase 2 - Longhouse Commencement

Once the bamboo workshop is successfully generating a consistent cash-flow and the community has thought it through amongst themselves and are ready to undergo this project, **Phase 2** can then commence. The post and beam construction system adapted from longhouse techniques allows for development in phases, yet the completed sections are fully useable by residents, for Responsible-

tourism initiatives, and for community activities. The Longhouse length can grow incrementally to accommodate residents and visitors as the scheme expands.

We need to realize that with any scheme like this, it takes time to build momentum and sometimes success is not necessarily seen for a few years. That is why it is vital that other community activities and livelihoods are maintained, such as rice paddy farming, fishing, hunter-gathering, community activities and the like. This is why a phased form of development is so important, to allow the infrastructure that we design - to incrementally expand alongside the growing capacity in which the community is able to maintain and operate it. After a few years of operation and the longhouse residents have successfully been able to accept and welcome long-term 'visitors' to participate in life and be immersed in their culture, the community may then want to think of expansion as illustrated in **Phase 3**, and **Phase 4** – being the final completed stage as seen in the beginning of this section.

Figure 38 - Phase 3 - First Longhouse completion & Central Community hall

6.10 Design response – History, religion, and the abandonment of Longhouses

There are several reasons why there was a gradual shift from Longhouse living to separate houses, such as declining access to forest resources like ‘iron wood’ (belian timber) to maintain the larger belian longhouses, the reduced threat of attack by other tribes when Colonialism set in, influence of Malay separate house architecture along the coastal regions, but also to a large extent by religious conversion.⁸⁸ Christian converts for example among the Bidayuh were often against longhouses as they assumed that they were the main basis of the traditional ways of pagan life, including the practice of many ceremonies, the observation of taboos, and the consumption of large quantities of alcohol during festivals. In some instances they also supposed that longhouse life was immoral because premarital sexual activity was often a normal part of courtship and marriage and because sleeping arrangements of traditional longhouse apartments did not allow for marital activities to be carried out in much privacy from others, including children. As a result of disputes, a village often divides, with the Christians leaving the longhouse, separating themselves from the community and building individual houses, either in the same vicinity or in a new location. In some instances the remaining non-Christians also convert and move into individual houses. But In some cases, such as the Mualang, and Ibanic group in West Kalimantan, Christian converts built separate longhouses before moving into single houses⁸⁹ illustrating the fact that it was not the architecture of the Longhouse that was rejected as such, but the practices that went on within it that they could not agree on.

⁸⁸ Winzeler, R. L. (2004). The Architecture of Life and Death in Borneo. Honolulu, University of Hawai'i Press.

⁸⁹ Fox, J. J., Ed. (1993). Inside Austronesian Houses. Canberra, Comparative Austronesian Project.

I do not attempt to debate in great length or judge whether what the, religious leaders of the time, did was right or wrong; but for me to be able to focus on the implications this has on its architecture, I need to establish my position on the subject so as to respond coherently in through design.

I do question whether the act of full separation and isolation is consistent with a biblical understanding of their faith. It is my position that Christians must be so cautious not to confuse a biblical concept of Sin (wrong-doings considered by the teachings in the Bible) with rejection of the sinner, isolation, and Monasticism, which I fear the progression from Longhouses to isolated 'Christian' houses suffer from these false teachings of. Christians should mingle and participate in community with the world, as they must do as good ambassadors for Christ, without compromising their separation from sinful activities.⁹⁰ How does the concept of isolating oneself from community or the world reconcile itself with biblical teachings of Jesus on 'being salt, light, witness, and testimony for the Lord'?⁹¹ What place does it have within the consistent theme throughout the Bible of an all-encompassing, loving God, reconciling all of Humanity back to Himself in its rightful relationship, through the sacrifice of His son as a payment for all sin; and the calling for **all** Christians to tell the world of this good news? Jesus ate dinner with sinners in public settings, but he did not get drunk with them or participate in any 'sinful' activities⁹². He mingled with the prostitutes, lepers, tax collectors, all of which were considered wrong to associate with by the Jewish Pharisees and 'religious' sects.⁹³ Just because a public restaurant serves liquor does not mean Christians have to drink it or make a scene of themselves in front of those that do. Christianity is not a Religion, as Religion isolates⁹⁴ - but Christianity is a relationship with a God interested about bringing those in the world who don't know Him back into a rightful relationship and communion with Him only achieved by accepting Jesus as Lord for dying on the Cross as payment for our sins. It is an outward reaching, inclusive, participating faith, not an isolated, inaccessible one. Therefore Christianity should never be

⁹⁰ 2 Corinthians 5:20, New International Version

⁹¹ Matthew 5:13-16, 28:18-20, New International Version

⁹² Luke 19:7, John 4:9, New International Version

⁹³ Luke 7:34, New International Version

⁹⁴ Matthew 21:31, New International Version

the basis or grounds for rejecting community altogether which the specific move towards separate housing signifies.

Therefore, my design decision to bring both the up-river-down-river Longhouse pairs (often distinctly and distantly separated as Christian and non-Christian communities) together, is an architectural gesture to bring these potentially conflicting lifestyles to a closer acceptance of - but not necessarily compromising - relationship with each other. The shared spaces and strategic merging of access routes signify a deeper meaning of co-existence, respect, and harmony, with each other within its architecture. Of course there may not be an actual separation of Christians and non-Christians within this pro-poor alleviation scheme itself (or even if it may very well be), but this renewed piece of architecture also speaks, has an opinion of its own, and says something about the need to bring a historical misunderstanding right – for these communities to move ahead through respecting differences.

Figure 39 - Reconciling the historic shift to separate-housing that the church has applied - back to a renewed integration of the church into Longhouse living

PART 7: CONCLUSION

7.1 A Brief Summary

As early chapters have revealed, Sabah has and is undergoing severe forms of poverty in the various forms it comes by, in comparison with other Malaysian states. These forms of poverty include economic, regional, and ethnic disparities with the poorest of the poor seen especially in the rural areas; deficit in basic infrastructure and education; communities lacking the political voice within the federal government especially in the area of addressing poverty where it is needed most; and growing deforestation as detrimental to these peoples' way of life in the name of 'national progress' (*See Part 2*). This sets the tone for exploring alternative ways to develop the state's economy in a way that is sustainable and empowering. There is no denying that we live in a capitalist era where economic drivers and development are at the forefront of political affairs and is a dominant factor for getting things done. It is therefore essential that for there to be true and broad community empowerment; economically advantageous solutions need to be found to actually implement a lesser dependence on unsustainable development practices (*see Section 2.3.1*). This is where this piece of research suggests that the Tourism industry and particularly the Architect and architecture can play a role in.

Development research case studies show that Tourism can play an important role in growing poor economies; is able to integrate women into the official employment structure; offer opportunities and access to education; and is one of the few assets that poor communities usually have. It also shows that Sabah is being targeted as a potential hub for Tourism and has the political backing of the government to expand the industry (*see Section Part 3*). In my proposed design scheme Long-stay tourists are welcomed to stay in the Longhouse at an initial fee, to be culturally immersed, teach English, given lodging, and support the scheme by also helping carry out the work. These concepts are also incorporated through the use of the 'Ruai' space for women to carry out their sewing and

crafts making close to resident quarters and children while still being able to view community grounds down below (*see Section 6.6.1*).

How does Architecture fit into the picture one might say? In Part 4 the case studies show how - in the whole building delivery process - effective planning can either, facilitate a participatory process at the local level, or be done in isolation of these communities and miss the mark of truly addressing the right issues (*see Section 4.1.2*). An example of the latter is where there results a superficial use of cultural symbols as a core design objective – which is often unknowingly the default approach for many Architects embarking on such schemes in Malaysia. My proposed scheme suggests that the deeper ethos of the culture (such as community, collective living, and deep respect for the environment) needs to be celebrated as opposed to the assumption that the whole culture is based on a pattern (*see section 4.4.1, 6.6.1, and 6.10*). This research suggests design ideas that encourage the poor to have a stake in the investment, so that they can participate as stakeholders rather than passive recipients; as well as ways of expanding business opportunities for these communities through effective programme design and spatial planning. In my proposed scheme, one such example is the suggestion to incorporate a bamboo workshop as a business enterprise opportunity that also feeds back into the scheme (*see Section 4.1.3 and 6.8*). There are also architectural decisions made - such as the use of materiality that can build off the existing skills and practices of these communities for them to be able to further partake as stakeholders in the development. In my proposed design this is shown through the use of bamboo and Longhouse construction techniques that these communities are very familiar with so that they can own it themselves. Phased and incremental design construction has also been suggested and can be applied to allow the infrastructure to be built to incrementally expand alongside the growing demand for space when the community needs it (*see Section 6.9*). Also it is vital that other community activities and livelihoods are maintained, so as to avoid an over dependence on Tourism as the only source of income (*see Section 5.2.1*). In the design, this is seen through the intentional use of existing paddy fields nearby, rivers for fishing, and thick rainforest for hunter-gathering, as an additional source of income.

The proposed renewal of the Bornean Longhouse is a perfect piece of architecture that provides the foundation for integrating all these strategies mentioned, as well as the fact that it provides a marketable Tourism niche product for potential long-stay visitors. It is a piece of architecture that embodies the deep rooted values of these fading indigenous culture that if renewed – will bring a sense of cultural empowerment and pride back to these peoples (*see Part 5*). It has therefore been my attempt to harness this exploding industry to better benefit the poor by renewing the Bornean Longhouse as an architectural solution to reinforce and empower these communities in light of dying traditions to an individualistic global culture; potential economic benefit through a more sustainable and evenly-distributed solution to economic growth; plus having this political support through the heavily backed Malaysian Tourism industry to explore a broad and effective empowerment scheme.

7.1 Final Remarks - Sabah's declining cultural identity and its replacement with capitalist ideals.

As with many developing societies seeking to fast track their economic development and competitiveness in the global arena, Sabah in doing so, is also losing aspects of its traditional indigenous heritage and culture. This is being attributed to by the widespread capitalist influence that perceives economic gain as 'progress' and so the building industry in particular tends to privilege financial profitability ahead of everything else - not considering the repercussions it may have on culture, tradition, and heritage.

Despite such unique cultures existing in Sabah, there is unfortunately a steady decline in the use of these traditional crafting skills and construction techniques originally employed, as they are being replaced with the products of the modern world. There is now no need to go through the long process of weaving flax to create large baskets for harvesting crops, when there are plastic mass produced buckets for sale. What is not realized is that the process of weaving, working together in collecting materials, regularly maintaining and repairing, has played a significant part in sustaining the essence of these cultures – which all used to take place in the Bornean Longhouse. The process of families coming together to weave and mentor the younger generations in the art has great socio-cultural significance. They are activities that pass on and build upon the values and priorities that are dear and unique to these cultures, such as respect, community, interaction and communication that encourage unity, oneness, and ownership. In my interview with Jenifer P. Linggi who is of native decent and who has lived amongst and speak the language of these communities, she tries to explain how the individuals of these communities hold a great deal of personal ownership and mutual responsibility to the rest of the community. 'If a family head commits to be responsible for a certain task - collectively by the whole family - it will get done. If the women are responsible for getting food ready for the men who hunt, gather materials, or heavy work in the fields - rain or shine, tired, or half sick - they will get up at 5:30am to prepare the food, and vice versa with the men and boys carrying out their tasks in working the fields, construction, and hunter-gathering.' These tasks are often administered through little resistance or through large meetings or debate, but done willingly

and communally, a culture that is very rare in our individualistically oriented urban societies. 'If there is a need to be done, there is a mutual responsibility, community spirit, and everybody pulls their weight to get it done', she explains as one of the examples.⁹⁵ It is in these values and the heritage of our fading rural communities that Sabah should identify and pride itself in. We are accepting unknowingly the individualistic and self focused culture that our 'modern and contemporary architectural program' encourages. We now build where everybody has their own autonomous boundaries of space, their own toilets, kitchens, bedrooms, and their own living areas, all singular, self-contained and without any form of shared space - and we wonder why we are producing such an individualistic self-centered society that does not know community or what collective living means. In Sabah, this has not always been the case. The post-industrial movement, consumerist, and individualistic way we build are ousting these community values of indigenous Sabahan culture, seen only in the remnants of our fading rural community. In the name of 'progress' – whereby privileging financial gain and facilitating a culture that aspires for economic accumulation - we are building in a way that does not allow for community altogether. This thesis does not propose that we (in the urban capitalist way of life) give up all aspects of modern technology and revert back to historic times using palm-leaved baskets instead of plastic buckets. But more than an alleviation scheme in itself this thesis hopes to also show the world, through the lens of responsible tourism, how we have much to learn from these age old building traditions of communal and ecologically sustainable Longhouse architecture.

Hearing about these distinct and unique ways of life that contrasts so sharply with our Western individualistic existence, is in many ways very refreshing. It pulls on the deep profound needs in our lives for intimacy, community, and a sense of belonging - and in my opinion which exists in all human beings. Understanding the way and values in which these Sabahan traditional folk live by, both helps us realize how we are to design with these values in mind (as opposed to a superficial extrapolation of culture from a pattern). It also helps us see how this Longhouse renewal is much more than just a

⁹⁵ Wong, J. K. P. (2009). Arch 489 - Architectural exploration to alleviate rural poverty in Sabah, Malaysia. Wellington, Victoria University Wellington.

tourism enterprise that is economically profitable for the benefit of these communities, but it points us back to the introductory chapter of this paper on how the lens of poverty should also be turned back on us in the Western world. That this false perception of having more possessions or economic wealth makes us more superior as beings, when in fact we face such a putrid form of cultural poverty; which many in the non-Western world in fact pity. So it is not just about how we in the Western world or more relevantly how the Capitalist or Consumerist world can help the 'poor' suffering communities; but a dualism exists in that - those whom we seem to be 'helping', are in fact helping us and enriching our own perception of life. These communities should never be the ones to pay for the greed of those of us who are already rich, be it through raping their land of resources for our personal gain, or withholding the necessary health infrastructure and education that they desperately need while we continue to invest the money from 'their' land into things like 'twin skyscrapers' and further support the lifestyle of the rich in some urban settlements in Malaysia. They are not the ones to pay for it; and we have a great responsibility to making things right, be through architecture, politics, economy, or culture.

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Appendix 1 - Bamboo as a more suitable material for tropical conditions

Bamboo as a sustainable material replacement for corrugated iron sheeting - One of the main reasons why traditional longhouse architecture started fading away was the fact that other durable - though unsustainable - materials like concrete and corrugated iron sheeting became more accessible. This is as compared with Belian timber or 'iron wood' that was becoming very rare, and that was predominantly used for longhouse structural members. The problem with corrugated iron sheeting is that its thermal insulation against heat is very poor, and so we find many longhouses with replaced corrugated sheet roofs overheating under the tropical sun. Bamboo on the other hand is a very versatile and sustainable material that almost all Sabahan indigenous communities are experienced in using. But most of these communities still employ ineffective methods of treatment, which is why bamboo is looked upon as a 'weak' or 'short lived' material. The fact is that bamboo, if treated and used right, can be perfectly sound even after 40 years.⁹⁶ Above in figure, shows how my design scheme incorporates a bamboo treatment and manufacturing facility in the first phase of the development. Wild bamboo is found nearby all along the river edges, which allows for manufacturing to start straight away while new bamboo is being planted.

4.2.2 Bamboo preparation methods

Selection Process of the Bamboo - Selecting bamboo culms for harvest is a very important part of proper bamboo plantation management and will influence to a large extent the future

⁹⁶ Kumar, S., K. Shukla, et al. (1994). "Bamboo Preservation Techniques: A Review." Retrieved 9/12/10, from http://www.inbar.int/publication/txt/INBAR_Technical_Report_No03.htm.

durability and quality of the bamboo poles. Knowing which bamboo culms to cut will contribute to the bamboos resistance against insect attacks, fungus and microorganisms.⁹⁷

Harvesting Bamboo - Timing plays a crucial role when harvesting bamboo. Knowing when and how to harvest bamboo has been one of the most important and traditional bamboo preservation methods in areas with smaller resources. It is a local belief that it is important to harvest bamboo according to seasons and cycles of the moon. But this belief is not completely wrong and to a certain extent has scientific backing. On the basis of photosynthesis, in the course of the morning, bamboo starts transporting starch from the roots into the leaves. During the height of the day this process is at its peak making this the least ideal time of day to harvest. Therefore the best time to harvest bamboo, is before sunrise (between 12pm and 6am), when most of the starch is still in the roots. Also the susceptibility of bamboo to deterioration is affected by seasons, as Sugar content in almost all plants varies with seasons. Dry season is the period of dormancy. During this period, the bamboo

⁹⁷ Shroder, S. and J. V. Bilsen (2007). "Selecting Bamboo for harvest." Retrieved 20/12/10, 2010, from <http://www.guaduabamboo.com/>.

plant is acquiring and conserving nutrients for the next season of growth. Starch content and moisture content is lower, which reduces the chances of borer attacks, and the possibility of subsequent splitting and cracking.

During rainy season, starch and moisture content in the bamboo culms is higher. This is also the period when new shoots emerge and felling operations could damage or destroy the shoots. That's why it is not recommended to harvest bamboo during rainy season.⁹⁸ Bamboo harvested in this manner has 3 advantages: they are less attractive to insects, are less heavy to transport and will dry faster. The transportation of these bamboo poles are of a significant importance especially if they are to be conducted by these communities by hand and without heavy machinery, most likely by boat.

Curing Bamboo and the Boron Treatment - Immediately after harvesting, a mixture of water and non-toxic chemicals, such as borax and boric acid are introduced into the bamboo.

⁹⁸ Ibid.

With the boron soaking / diffusion treatment, round bamboo, splits and slivers are treated by keeping them submerged in large tanks containing a water-borne preservative solution for 5 days. The preservative moves into the bamboo due to concentration gradient and the cell sap moves out due to osmotic pressure.

Figure 40 - Bamboo easily harvested and transported without the need for large machinery.

The method of diffusion uses salts to increase fixation and filling the lacuna of the culm with solution. The soaking method is ideal when bamboo poles are used for construction or further industrial processing. This treatment allows the bamboo poles to dry faster (compared to the Boucherie Method) but requires perforation of the internodes.

This form of Bamboo preservation is necessary to replace the natural sugar content in the bamboo walls with salts, which makes the bamboo un-attractive to insects.⁹⁹

Bourcherie Method – This is where chemical preservatives are made to displace the sap in the bamboo through an easily operable pressurized hand-pump system. Because pests feed on the stored starch in the bamboo, it is necessary to make sure all of the sap is displaced right down its length.¹⁰⁰

Here the Bourcherie method is better than the Boron treatment as it does not only rely on osmotic pressure to displace the starch. As well as that the Boron treatment requires the internodes to be perforated whereby reducing the shear strength of the bamboo.¹⁰¹ But the downside is that more expensive and unsustainable chemical preservatives are used in the Bourcherie method, so in my design a combination of stronger Bourcherie treatment is used for the structural members (higher contact with the soil which causes most degradation) and lesser boron treatment for interior and other members. This is just like we see with varying timber treatment according to its use and placement, for contemporary timber construction like in New Zealand.

⁹⁹ Grace, K., D.M. Ewart, and C.H.M. Tome. (1996). "Termite Resistance of Wood Species Grown in Hawaii." *Forest Products Journal* **46**(10): 57-60.

¹⁰⁰ Pelton, L. (2004). "Bamboo Applications - Bamboo as a construction material." Retrieved 17/12/10, 2010, from <http://www.bamboovillagehawaii.org/report.htm>.

¹⁰¹ Adhikary, N. (2008). "Bamboo Treatment Process." Retrieved 17/12/10, 2010, from <http://abari.org/treatment>.

Figure 42 - Illustrations showing treatment methods easily operable by communities themselves.

(Retrieved from <http://abari.org/treatment> on the 26/7/10)

Appendix 2 - Bamboo applications and precedence

Figure 43 - Bamboo Precedence – Pictures of Bali Green School showing the capacity for bamboo to create beautiful design, large spanning structures, and highly detailed craftwork. It is a material that these communities have been using for centuries.

(Retrieved from <http://freshpics.blogspot.com/2010/12/green-school-in-bali.html>, 18/4/10)