

## **Culture Climate Place A Cultural Perspective of Sustainable Architecture**

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### **Abstract**

Much of the body of analysis and synthesis within the realm of sustainable architecture has focussed upon the physicality of the built environment, leaving the complex relationship between culture, climate and place largely undisturbed. The hypothesis that underpins this paper is that for an architectural proposition to represent a truly sustainable design solution, reference to the cultural domain must be implicit. Examination of ancient cultures has shown that this complex matrix has been fully accounted for in determining an appropriate synthesis in the formation of *place*. Indeed, climatic and cultural dimensions were traditionally central in informing the making of that which we now call architecture. With the rise of international modernism and the seemingly endless expansion of globalism, the particularities that cultural dimensions overlay in the design process have been largely left behind. Yet, in a complex and dichotomous world which simultaneously strives towards globalism whilst pleading for ethnic, social and political diversity it is the cultural dimension, implicit within the many ancient cultures that may provide the key to unlock the paradox. The Malaysian Longhouse represents an ancient typology that is culturally and climatically appropriate. Indeed, it could be argued that the typology is born of culture, climate and place. The Longhouse represents an archetypal dwelling in the Heideggerian sense – here man can poetically dwell in an appropriately modified climate. This paper argues that this paradigm has been seized upon and developed by Ken Yeang in his work in Malaysia. Contemporary demands of an emerging nation are reconciled within the climatic conditions and cultural traditions that define place. Yeang's towers could be considered as verticised Longhouses, which facilitate social interaction, responding both to climate and the demands of the global economy.

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## Introduction

In a world dominated by the culturally decontextualized homogeneity demanded by globalisation, many contemporary architectural design propositions that purport to be *Sustainable*, ignore the specificity of the cultural dimension. Through the consideration of an ancient typology – the traditional Malaysian dwelling, this paper explores the potential held by ancient culture to inform an inclusive paradigm of sustainable architecture that engages with the complex inter-relationship of culture, climate and place.

The hypothesis of this paper is that for an architectural proposition to represent a truly sustainable design solution, reference to the specific cultural domain must be implicit.

## Globarchation

*Of the world's 100 largest economies, 51 are now corporations, only 49 are nation-states. The sales of General Motors and Ford are greater than the GDP of the whole of sub-Saharan Africa, and Wal-Mart, the US supermarket retailer, now has a turnover higher than the revenues of most of the states of Eastern Europe. (Hertz, 2001)*

This provides a context for our contemporary world. Global corporations have overtaken the nation-state in economic power. The implicit imperialism that economic power represents, invades the specific nature of cultures throughout the world, striving for an instantly recognisable *sameness* given expression throughout the world by the McDonalds logo. The demise in the power of the nation-state has produced a condition whereby the economic power of Trans-national Corporations (TNCs) is essentially beyond governance. In a world in which the role of the nation-state is essentially to facilitate external investment, globalisation is incapable of coherent governance.

The consequences of this condition do not rest merely within the economic domain. McDonalds (as merely one example) is purposely socially decontextualized. The yellow M logo is the same in Tokyo as in New York. The food essentially the same. Little or no account is taken of the specific nature of local culture. In Paris, *The Big Mac* simply transposes as *Le Big Mac*. Yet, paradoxically, that yellow M represents a cultural imperialism that is an anathema to certain groups. In his book *Jihad v McWorld*, Benjamin Barber argues that the opposing movements

we could define as *globalisation* and *retribalisation* require each other as iconographic oppositions. The further paradox here of course is that each reinforces the other. The very existence of the phrase *Le Big Mac* fuels the fire of French cultural purists who complain of the rise of the sixth Republic *La Republique Americane*. Thus we may ascribe an emerging political dimension to globalisation.

Indeed, the *actuality* of world politics further exposes this paradox. The nation-state must believe in its own potency to ensure the survival of an apparent status quo yet must also acknowledge its own impotency by attempting to seduce global capital. The irony of course is that global capital behaves coquettishly as it awaits the seduction it actually desires – providing its terms and conditions are met. As those terms and conditions become clear, the nation-state realises the roles have reversed, the whore becomes the client, the client – the whore.

*In its engagement with modernity and globalisation, Malaysia exhibits striking features of ambivalence bordering on contradiction. Expression of globalisation and modernism in monuments like the Menara Kuala Lumpur, Petronas Towers, and Kuala Lumpur International Airport contrast sharply with warnings against far-reaching cultural change. Such cultural change is seen to be rooted in a mimicking of the West and reflected, for instance, in the dissolution of traditional bonds within the family.* (Korff, 2001).

This further paradox is given collective expression in Malaysian in the concept *Wawasan 2020*.

*It stood for the shared vision of what Malaysia intended to become; a self-sufficient industrialised nation, with an economy that will grow eight times larger by 2020, with a people who will be, as Prime Minister Mahathir Mohamad often emphasised, emotionally subservient to none.* (Greider, 1997).

This is the ultimate contradiction; a vision of a nation-state fully engaged with the globalised world yet retaining a distinctive sense of a particular cultural heritage and diversity. History has shown that cultural distinction becomes subsumed by homogeneity as globalisation advances.

Nowhere is this more evident than in the architectural iconography that modern Malaysia has chosen to represent itself by. It is clear that globalisation is not only an economic condition but holds (anti) cultural

aspirations deep within. In that sense, International Modernism provides a paradigm for globalisation. Furthermore, International Modernism provides an iconography that *represents* globalisation. The glass and steel tower – so beloved by modernism – has become the symbol of economic success, both at a corporate and nation-state scale. The Petronas Towers not only represent the corporate power of the Petronas Oil Company but also symbolise a new Malaysia – a Malaysia imbued with the symbolism that *Wawasan 2020* strives for. It can be argued that the International Modern Movement in Architecture gave permission for the cultural imperialism we now describe as globalisation.

At its root, it is clear that International Modernism had very clear cultural aspirations. The magazine *L'Esprit Nouveau*, edited by Le Corbusier and the painter Ozenfant held a purist (in the Platonic sense) agenda. Implicit within that purism was the dissolution of cultural barriers in favour of the Universal.

Ozenfant and Le Corbusier were cosmopolitans who sought a Universal, not specifically French art. Ozenfant later asked: *Can we really believe any longer in the existence of frontiers as regards ideas? Can we really go on working only for a chapel, a school, a clan, a group, a province, a nation? And not for all races, for mankind in fact?... Such an art is possible, because all men react unanimously to broad daylight, or full night, or red or black, or love and death.* (Weston, 1996).

We see at this juncture in history, the conscious rejection of the *culture specific* in favour of the *universal*. The ambition was to seek that which lies beyond the boundaries previously defined by cultural specificity, a drive towards a new architecture expressing a new world order – devoid of barriers.

It is to lay paradox upon paradox to observe, that as International Modernism nears the celebration of its centenary, its contemporary power-base remains within the expression given by emerging nations, whilst within the cultures of its genesis, it is seen largely as a historical condition.

Yet, throughout the world there is resistance to the homogeneity demanded by globalisation. Perhaps, as Barber argues, each part of the dichotomy needs the other to form an opposition. The question of course is that if rich and distinct cultural specificity is lost, what do we become?

What do we offer to the world? How do we define ourselves, outside ourselves?

*Globalisation has nothing to do with pluralism. Its culture is a monoculture...* (Seabrook, 2002).

### **In Search of Cultural Specificity**

*The traditional Malay house is one of the richest components of Malaysian cultural heritage.* (Yuan, 1987).

Perhaps the clues for the development of a more sustainable order lay in the examination of *what* was. It is self evident that many ancient cultures necessarily held a symbiotic relationship with their environment. Indeed, it is argued that the demise of some ancient cultures may have been exacerbated by a loss of such attitudes over time. In contrast, Western civilisation has, through the mechanisms of rational philosophy and Christian orthodoxy set Man at centre stage. The western world increasingly revolves around the apparent needs and aspirations of the human condition.

The tradition of non-western culture is very different. If we consider the diverse multi-cultural condition that we now define as Malaysia, such differences are evident, and perhaps nowhere more evident than in the traditions of *making place*. This paper provides the opportunity to discuss these traditions from a generic perspective with reference to a limited number of particular examples.

The concept of the traditional Malaysian House starts beyond the house itself.

*The form of dwelling cannot be understood only by a consideration of the technique and Material used. It is first of all necessary to be aware of how the principles of the local group are applied, and what kinds of work are performed by this group, and in which roles.* (Izikowitz and Sorensen, 1982).

Immediately it is evident that social and cultural imperatives are implicit within design of the traditional settlement – the *Kampong*. The *Kampong* may, to outsiders, appear haphazard in layout but in actuality, the placement of individual dwellings is precise and determined by social relationships, and the culture and lifestyles of the particular village. The positioning of dwellings also allows for future expansion and simultaneously permits shade and privacy. Services and infrastructure

play little part in determining layout of the *Kampong*. Often, sewage and water supplies are added after the dwellings are built.

The intermediate scale of habitation; between the public domain of the *Kampong* and the private domain of the dwelling, is evidenced by the *compound*, a semi-private space. This space allows social interaction; children's play and work all to occur within a defined area linked to individual dwellings. Existing trees within the compound are often left to provide shade or, if such trees are not present, tree planting is undertaken to afford shade. The *compound* thus provides a social and climatic interstitial condition.

If we turn now to the archetypal dwelling itself, we find that the imperatives that govern the design of the *Kampong* and the *compound* are further developed within the design of the dwelling. The diverse range of building typologies that Malay culture has given us, invites exploration of one such typology, the *Bumbung Panjang*, which provides an archetype.

The *Bumbung Panjang* is characterised by a dominant long low gable roof. These houses are the oldest identified houses in peninsular Malaysia and are distributed widely. Particular variations of the archetype exist which respond to particular regional imperatives.

*Besides being the most traditional and commonest, the Bumbung Panjang is also the most highly developed, with a sophisticated building and addition system.* (Yuan, 1987).

The traditional form of this building is a timber framed construction with lightweight screen walls, which provide low thermal mass and facilitate ventilation. The long overhanging roof also provides ventilation through the gable end grills and is traditionally clad in *attap*, (a thatch made of palm trees). The long roof overhang covers external terraces and provides a shaded inside/outside space for family interaction. The buildings are raised upon stilts to encourage airflow under the floor and also provide external space for storage.

The floor plans of such dwellings are simple and practical, many spaces being multifunctional. The use of internal partitions is minimal which responds to the cultural and social demands of the occupiers whilst also encouraging effective cross ventilation.

These dwellings also attend to the particular demands of the traditions of Malaysian culture. The functions of everyday living from

weddings and festivals through to issues such as children's play, the patriarchal nature of much of Malaysian society and the extended family are all embodied within the design.

It is argued, by commentators such as Rudofsky, that such indigenous dwellings were designed and built without the *a priori* attitude to aesthetics found within the work of contemporary architects. The typologies, as diverse and particular as the cultures that they represent, were developed over time.

*There is much to learn from Architecture before it became an expert's art. The untutored builders in space and time demonstrate an admirable talent for fitting their buildings into their natural surroundings. Instead of trying to conquer nature, as we do, they welcome the vagaries of climate and the challenge of topography.* (Rudofsky, 1981).

This brief description of the Malaysian indigenous archetype has illustrated the *appropriate* nature of this way of making place. A way which does not attempt to confront the particularity of the place in which it sits, but rather to work with all that presents itself to us.

Yet our paradox returns... Even with this deeply rooted way of making place, the thatch has largely given way to the zinc roof – due mainly to the high status given to such a material in contemporary Malaysian culture. The zinc roof is perhaps one of the most unsuitable materials to use for roofing in such a climate but, perhaps it represents a culture that increasingly aspires to the value system of the large yellow M?

### **Resolution of Paradox?**

How does an *emerging* nation seek to reconcile this paradox? If indeed it should strive for such reconciliation. One model for reconciliation is seen in the work of the contemporary Malaysian architect Ken Yeang.

Through a process of Research, Design and Development enlightened by a deep-rooted knowledge of the particularity of cultural demands of traditional and contemporary Malaysian culture, Yeang designs buildings that are clearly recognisable as the iconographic tower so beloved of modernism, yet, the towers respond culturally and climatically to the particularity of Malaysia today.

*In tropical climate zones, transitional spaces are already evident in much traditional architecture (for example as verandahways and*

terraces); these spaces are a crucial part of the local lifestyle at ground level. Incorporation of sky courts in tall buildings enables us to recreate existing ground-level conditions in the spaces in the sky. (Yeang, 1994).

Yeang's housing towers could be thought of as a verticised *Bumbung Panjang*; an architectural proposition which embraces the climatic and cultural challenges that contemporary Malaysia represents, yet, in terms of the global mindset are considered representative of the safety of homogeneity.

Naturally ventilated and shaded, appropriately orientated, these towers provide spaces that encourage the sort of social interaction evidenced within the *Kampong*. These towers cannot however be the *Bumbung Panjang*; the demands placed upon structure and enclosure by high rise construction rather excludes the lightness of touch evident in the structure and construction of traditional housing typologies.

It is evident however that the process of Research, Design and Development that is central to Yeang's work does not preclude this area from development in the future. Indeed, Yeang's later towers have become lighter and lighter, increasing dispensing with thermal mass and the gravitas of cultural imperialism that represents.

In a world represented by the ascent of globalised capitalism, resisted by regionalist and indigenous forces, these Malaysian paradigms, both ancient and modern represent – at least in part – a reconciliation of apparently irreconcilable forces. A fascinating paradigm.

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