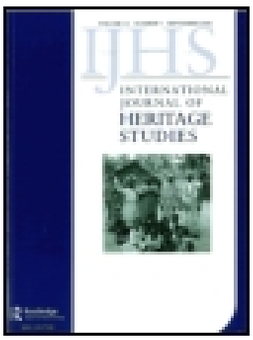

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Integrating Natural and Cultural Heritage: the advantage of *feng shui* landscape resources

Lawal M. Marafa

Abstract

Human activities interact with natural processes to produce landscapes. Cultural and natural phenomena sit side by side in the feng shui *woods beside villages in the New Territories, but their continued existence is threatened by urbanisation. To highlight the value of these natural resources, three* feng shui *woods and villages located in the New Territories of Hong Kong were selected for investigation. The study examined their socio-cultural, ecological and botanical characteristics. Investigations and interviews with local residents confirmed that the* feng shui *woods are: (1) regarded as cultural heritage because they bear testimony to a cultural tradition being revered by local people along the principles of geomancy; (2) an example of traditional human settlement that dates back several hundred years; and (3) characterised by historical continuity devoid of accelerated development. Similarly, they represent a natural heritage as they: (1) represent ongoing ecological processes in the evolution and development of terrestrial ecosystem communities; and (2) contain important and significant natural habitats that can be used for education, environmental awareness, conservation of biological diversity as well as serve as destinations for ecotourists and nature appreciation.*

Key Words: Conservation; Ancient Woodlands; *Feng Shui*; Hong Kong; Landscape; Natural Heritage; Sacred Groves

Cultural Landscape Resources

In contemporary discussions concerning development, tourism, conservation and even sustainable development, questions of heritage are being asked around the world. With the growing importance of heritage resources (as evidenced by the citations of the World Heritage Convention[1]) to various communities, scholars and stakeholders have emphasised management, interpretation and conservation.[2] Indeed, Peter

1. The UNESCO World Heritage Centre, 'Defining our heritage', <http://www.unesco.org/whc/intro-en.htm>, accessed 15 April 2003.

2. R.V. Bianchi, 'The contested landscapes of World Heritage on a tourist island: the case of Garajonay National Park, La Gomera', *International Journal of Heritage Studies*, Vol. 8, No. 2, 2002, pp. 81–97.

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Howard[3] and others have indicated that a group of scholars, policy makers and lay people see heritage as largely a tourist enterprise and part of tourism studies.

No matter how it is viewed, there are certain issues that connect aspects of heritage together. As a result of perceptions, values and philosophies, people are committed and prepared to preserve and conserve, manage and interpret heritage for the common good. Heritage is indeed important and can represent a holistic view of the physical and cultural environment of a society or community.

Generally divided into cultural and natural aspects, what is included as heritage (particularly natural) is often contested[4] by various groups of people. With an evolving understanding of heritage studies, and some degree of fluidity in perceptions, there is a need for integration and to some extent a multidisciplinary approach to facilitate further understanding—a theme akin to the discussions that characterised the sustainable development debate.

While heritage studies have historically been the terrain of a few scholars with backgrounds in the arts and social sciences (an issue tersely indicated by scholars like Peter Howard[5] and John Porter[6]), it is now becoming evident that heritage—both natural and cultural—can also be studied by natural scientists. Indeed, scholars have earlier advocated the need for integrating natural and social sciences in order to comprehend and appreciate contemporary resource management issues[7] and environmental impacts.[8] As a testimony to this need, Coccossis & Nijkamp[9] have similarly argued that the separation of landscape into natural and cultural heritage has hampered interdisciplinary syntheses and understandings of complex ecological relationships. These relationships and processes have modified landscapes, making some natural landscapes important heritage resources as a result of unique and ongoing ecological processes.

While accepting that heritage is simply linked to values bequeathed to us by past civilisations, it is crucial to reiterate the impossibility, in most cases, of separating natural heritage from cultural heritage. Quite often, the concept of natural heritage cannot be separated from community beliefs and perceptions about a particular landscape.

In most cases natural and cultural heritage focuses on landscapes where relationships with the natural environment over time define their essential

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3. P. Howard, Editorial: 'New moves in Britain', *International Journal of Heritage Studies*, Vol. 6, No. 3, 2000, pp. 199–200.

4. Bianchi, op. cit. (note 2).

5. P. Howard, *Heritage: management, interpretation, identity*, London: Continuum, 2003, p. 14ff.

6. J.F. Porter, 'World Heritage Sites—what are they?', *The Environmentalist*, Vol. 23, 2003, pp. 7–8.

7. B. Mitchell, *Resource and environmental management*, Malaysia: Longman, 1997.

8. L.M. Marafa, 'Socio-ecological impact and risk assessments in the urban environment: a multidisciplinary concept from Hong Kong', *The Environmentalist*, Vol. 22, 2002, pp. 373–381.

9. H. Coccossis & P. Nijkamp, *Planning for our cultural heritage*, Aldershot: Avebury, 1995.

character.[10] While the emphasis in cultural landscapes has been on human history, continuity of cultural traditions, and social values and aspirations, some rural areas of outstanding beauty, unique geomorphology, or great diversity of plant and animal species have also become part of our cultural heritage.

Despite their apparent juxtaposition and strong dichotomous tradition, recent experience has demonstrated that in many landscapes the natural heritage and cultural heritage are inextricably bound together and that the conservation approach could benefit from integration[11] in order to interpret, understand and manage them for the community. The lack of understanding of landscape as a holistic term that encompasses both types of heritage has hindered sustainable solutions of conservation, interpretation and overall environmental management of a given landscape. Scholars have reported that cultural landscapes are created through the interrelationship of culture and nature.[12] Cultural landscapes often reflect specific techniques of sustainable land use. As a result, protection of such landscapes can contribute to modern techniques of sustainable land use and can also maintain or enhance natural values in the landscape, with due consideration for the characteristics and limitations of the natural environment they are established in, and a specific spiritual relation to nature.

However, dichotomies are evident between different ways of thought and scientific backgrounds, and between the socio-cultural and nature protection aspects of landscapes. Natural scientists now increasingly recognise the immense cultural influences on nature. The interaction between humans and their environment spans centuries, and continues to shape the earth's surface. Where such interactions are unique and constitute a way of life, they become treasures and heritage worthy of understanding, interpretation, preservation and conservation. It is not clear whether the *feng shui* woodlands—patches of native forests in the New Territories of Hong Kong—will provide such opportunities. The importance of these landscapes as heritage and the need to maintain the heritage resource for future generations calls for a refocusing of conservation thinking.

Some of these settlements are located near natural landscapes characterised by different natural and ecological processes. As they are also home to human settlement and activities, the key factors that continue to modify these landscapes include economic conditions, culture, society, and—recently—land-use planning. Although people were attracted to the natural landscapes in the first place, the discernible spatial variability has been enhanced by people themselves. The natural and cultural landscape has been modified by new structures and related vegetation

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10. N. Mitchell & S. Buggey, 'Protected landscapes and cultural landscapes: taking advantage of diverse approaches', *The George Wright Forum*, Vol. 17, No. 1, 2000, pp. 35–46.

11. D.A. Posey, 'Introduction: culture and nature—the inextricable link', in D.A. Posey (ed.) *Cultural and spiritual values of biodiversity*, London: Intermediate Technology for the United Nations Environment Programme, 1999.

12. Mitchell & Buggey, op. cit. (note 10).

types. One of the major components of a spatial *feng shui* layout is the availability of dense vegetation at the back and a water body in the front of the settlement. These forests are important and can be examples of successful *in situ* conservation of otherwise locally extinct tree species.

As a background to this study, I have highlighted a general perspective of cultural and natural landscapes as they constitute heritage. This background has formed an important base for the understanding of the intricate nature of cultural and natural heritage. Studying *feng shui* from the ecological perspective, and indeed from the point of view of natural sciences, depicts it as an ecosystem-management science. The objective is not to portray *feng shui* as a cultural phenomenon but to use the *feng shui* backdrop as a placement science, to signify the seemingly important natural vegetation planted on these landscapes as an ecological concept. Furthermore, in the course of this research, emphasis was laid on the ecological aspects of these resources as their unique and spectacular landscape stems from centuries of interaction between geology, climatic conditions and the extent of human activity as it affects, in particular, the forests adjacent to these human settlements.

Having said that, the conservation and interpretation of heritage cannot be undertaken by looking at culture and nature in isolation, particularly where they are juxtaposed. It is with this perspective, rather than that of sociology or cultural studies, that this paper is conceived. In this regard, the present work investigates and reports the viability of the *feng shui* phenomenon as a cultural way of life that has continued to shape the physical environment of South Chinese settlements. Finally, it is the significance of the forest patches and their importance to biodiversity conservation, cultural beliefs and the tendency to preserve what is inherited that initiated this study.

The *Feng Shui* Grove as a Sacred Forest

Globally, the practice of nature conservation goes back in human experience beyond historical horizons. The historical transformation of the forest has been historically defined by the struggle over competing uses and contrasting discourse of place, through which its geographical and cultural features have been shaped. As the Chinese civilisation grew, *feng shui* developed into an environmental system that was both an art and a science.[13] The fact that it is still practised now in the same vein constitutes a heritage that should be treasured and preserved.

As civilisation evolved, *feng shui* grew to meet new concerns and the concept was translated into smaller places both outdoors and indoors. *Feng shui* experts were then seen as specialists who became landscape designers seeking to enhance nature and not disturb it. These concerns are now in tandem and have metamorphosed into contemporary environmental awareness campaigns seeking to maintain these resources as heritage. Consequently, the local inhabitants have made a significant historic contribution to forest and landscape preservation.

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13. S. Rossbach & L. Yun, *Feng shui design: from history and landscape to modern gardens and interiors*, London: Viking, 1998.

Feng shui has endured as an art of site selection in East Asia for more than 3,000 years and still remains popular in Chinese society.[14] Although it may have positive values for human welfare, Han argues that *feng shui* has evolutionary and ecological values for selecting optimal human habitations. The importance of this phenomenon as an ecological value and the need to conserve and interpret the *feng shui* resources as a heritage further reflects the significance of this discourse.

Forests and culture have intertwined throughout human history. Forest landscapes are formed and are strongly characterised by cultural belief and management systems, and cultures are materially and spiritually built upon the physical world of the natural environment. Just as people have acted upon and altered forests throughout history, so too have forests profoundly influenced human consciousness and culture.[15] In landscapes, nature and culture are complementary, and cultural identity is strongly related to the natural environment in which it undoubtedly develops.[16]

In South China, numerous natural landscapes and vegetation communities, formed as a result of *feng shui* beliefs, simultaneously represent habitations depicting past civilisations, some of which have since been abandoned. These cultural and natural sites constitute a common heritage to be treasured as unique testimonies to an enduring past. The cultural and natural landscape in South China has been modified as a result of the adherence to *feng shui* belief in spatial placement and geomancy.

Feng shui is often referred to as geomancy—more popularly known in the West as 'earth magic'—but *feng shui* in fact embraces more than Western geomancy. As indicated by Man-ho and O'Brien, *feng shui* is now becoming increasingly popular, even in the West, as a development of traditional Western geomantic practices; and is considered to add a more sympathetic dimension to the relationship between people, structures and their environment.[17]

In the principle of geomancy and placement science, *feng shui* location is a closed space surrounded by mountainous areas with a clearly defined spatial configuration.[18] Han further asserts that *feng shui* locations represent a semi-enclosed space surrounded by mountains at the back, on the left, and on the right, and open at the front (see figure 1). Since this description can easily fit into the description of most native village settlements of the New Territories of Hong Kong (see figure 2), the vegetation groves that surround such villages, in the form of crescent, can be referred to as *feng shui* woodlands.

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14. K.T. Han, 'Traditional Chinese site selection—*feng shui*: an evolutionary/ecological perspective', *Journal of Cultural Geography*, Vol. 19, No. 1, 2001, pp. 75–96.

15. Posey, op. cit. (note 11).

16. O. Bruun, 'Fengshui and the Chinese perception of nature', in O. Bruun & A. Kalland (eds) *Asian perceptions of nature: a critical approach*, London: Curzon Press, 1995, pp. 173–188.

17. K. Man-ho & J. O'Brien, *The elements of feng shui.* Shaftesbury: Elements, 1991, p. 3.

18. K.T. Han, op. cit. (note 14).

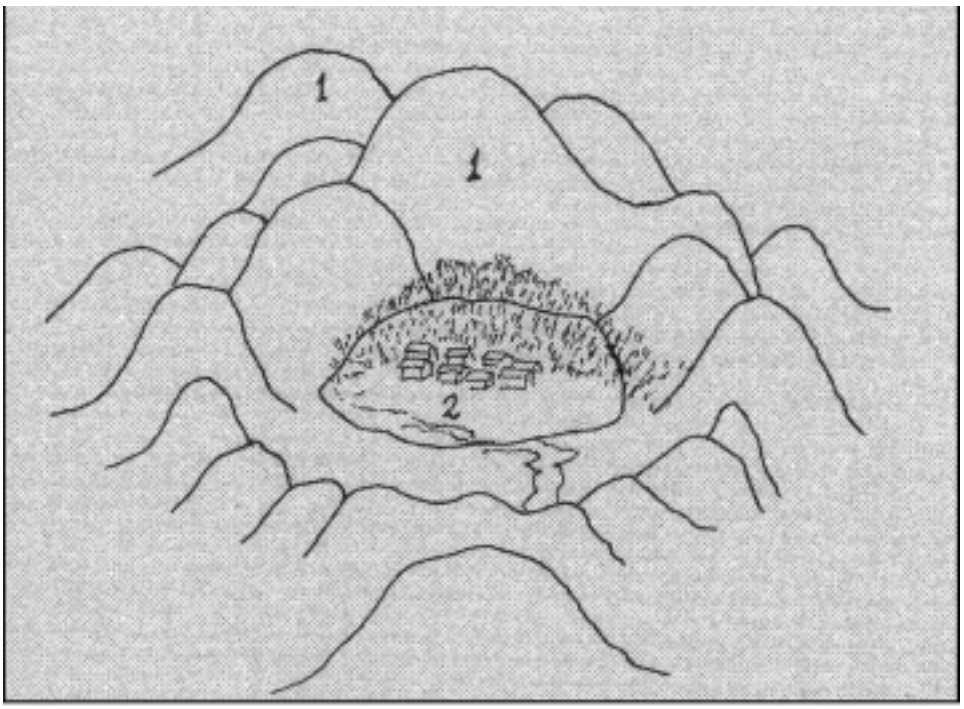

Figure 1. Schematic expression of a feng shui *landscape depicting mountains, vegetation and settlements (modified from Han, 2001).*

Figure 2. An example of a feng shui *landscape, analogous to figure 1. The village of Luk Keng.*

Figure 1 is a modification of what Han reported in 2001; it is a schematic representation of an ideal *feng shui* landscape location. This is characterised by a high mountain labelled (1) in the background and a plethora of lower mountains on both sides of the axis. The position identified as (2) is the relatively flat area at the edge of which (towards the hills) human settlements are located. To many masters knowledgeable in the texts of *feng shui* philosophy, the various hills are identified by function. However, identifying the various functions of such features is beyond the scope of this study.

When figure 1 is compared with figure 2, by analogy, the background high mountain is clearly identified. In this case, the lower mountains are covered by (*feng shui*) forests, which can range from 0.1 ha to a little more than 4 ha. Such forests can be rich in biodiversity. While the houses are clearly shown located in the foothills of the mountain range, the flat land in front of the village represents patches of abandoned farmland, bodies of water and perennial grassland fields, used for grazing. Currently, feral cattle can still be seen roaming and grazing in the vicinity.

Although the *feng shui* woodlands are an integral part of most native settlements in the New Territories of Hong Kong and South China, there has been a dearth of information on the significance of these rural settlements and cultural relics as valuable resources. In Chinese philosophy, *feng shui* operates on the borderline between society and nature. The ancient *feng shui* masters of China understood that human destiny is enhanced if we live in harmony with nature, thereby tapping into its auspicious influences.[19] Bruun, in a thesis of *feng shui* and the Chinese perception of nature, observed that human and landscape are linked together in a system of imminent order, according to *feng shui* belief. Nature, consisting of balanced forces, reacts to any interference imposed on it, and this reaction immediately resounds in humans.

Indeed, *feng shui* has shaped much of the human landscape of the New Territories of Hong Kong to the extent that an understanding of its aspects is essential to the interpretation of the local landscape (cultural or natural), particularly in the countryside environment. Elsewhere, Laird has observed that forests are home to ancestors, the origins of life, threatening and powerful, but living and sacred.[20] There is no attempt here to provide a definition of sacred groves or cultural landscapes, as these are defined through reflexive practice. Rather, this work sets out to underline their importance and attempts to justify the significance of their conservation for a myriad of uses. Laird further asserts that sacred groves are one of the most common types of cultural landscape. Because sacred woods are culturally distinct landscape features, they must be imbued with a type of symbolic form in order to ensure their continued survival. Moreover, it appears that, in the past, the assignation of sacred values to natural objects, particularly to trees and groves, was

19. L. Too, *The complete guide to Feng Shui*. Shaftesbury: Elements, 1998.

20. S.A. Laird, 'Forest, culture and conservation', in Posey, op. cit. (note 11).

common to most cultures.[21] As a result, certain forest communities became culturally protected. Indeed, in Hong Kong, for example, certain tree species such as *Ficus* spp. have become culturally revered (see figure 3) where people visit annually, preferably at the start of the Chinese New Year, to make a wish.

Culturally protected forests are those that have been traditionally protected by the belief system of the local people, rather than by a decree or law imposed by a higher secular authority. Culturally protected forests may be remnant woods of great antiquity, such as those of India, Kenya, Nepal, Japan, China and even Hong Kong.[22] Culturally protected forests or sacred groves share one or all of the following common features: (1) they are mostly protected by local tradition or beliefs and are replete with oral traditions; (2) they contain large trees, temples and shrines; (3) they may have species that are uncommon in the surrounding area; (4) they may have distinctive boundaries; and (5) they may have restriction on the cutting and felling of trees and vegetation.[23] Sacred forests and trees, in particular, are important symbols. They express life in the vicinity of a settlement. In some societies they can symbolise historical continuity, replete with folklore tales.

However, the tradition in forest conservation of late has been one that discounts culture and marginalises values.[24] According to Laird, integral to traditional forest management is the use of elaborate taboos, myths, folklore and other culturally controlled systems that bring coherence and shared community values to resource use and management. Today, under pressure from urbanisation, cash economies and other socio-economic, political and cultural changes, many of these systems are breaking down, to the immediate detriment of forests and valuable species, some of which are culturally significant landscapes. In addition, as cultures become polarised, the importance of sacred native vegetation becomes increasingly apocryphal. As a result, the conservation and preservation of both cultural and natural landscapes of heritage value are being threatened. But in many areas these forms of management and control remain strong, even without official legislation.

Traditional management and knowledge of sacred groves and cultural landscapes often help conserve, and in some cases enhance, biodiversity protection as well as prudent management of natural resources. These natural resources and relics of cultural heritage are, therefore, valuable to the community as they provide good resources for environmental and ethical education while simultaneously promoting the virtues of conservation. Communities that are closely entwined with forests tend to regard them with a healthy respect and awe at their splendour and majesty, sometimes dread and fear of the powerful spirits that lurk within them.[25]

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21. D. Sopher, *Geography of religions*, Foundations of Cultural Geography Series, Englewood Cliffs: Prentice Hall, 1967.

22. P.S. Sochaczewski, 'Pieces of paradise', *Discovery*, Vol. 21, No. 6, 1993, pp. 44–54.

23. Laird, op. cit. (note 20).

24. Posey, op. cit. (note 11).

25. Laird, op. cit. (note 20).

In whatever form, the patches that remain often constitute a heritage, a destination for nature lovers and even a rallying point for environmentalists and conservationists.

Sacred groves have survived in many regions despite tremendous economic pressure on forest resources. Although such groves undoubtedly contribute to the conservation of biodiversity, it is questionable whether the complex history and traditions that have created and maintained these areas can be operationalised as a tool or model for further conservation efforts. As trees can symbolise historical continuity and human society, in forest culture we find common threads of human experience. Throughout the world we see a shared focus on the origin, force and power of life expressed in sacred groves and in forests.

Figure 3. The wish tree along Lam Kan Road in Tai Po (Ficus spp.).

The Nature of *Feng Shui* Wood Landscape as a 'Heritage'

Although Sochaczewski has indicated the common factors of culturally protected forest groves, not all the factors are relevant and applicable to the *feng shui* woodland community. However, the circumstances relating to the *feng shui* vegetation justify its being classified as both a cultural and natural heritage phenomenon. To many people in Hong Kong the crescent-shaped forest patches surrounding some of the native rural settlements, referred to as *feng shui*, provide the aura of a bucolic salubrious environment.

The crescent-shaped *feng shui* woods represent a cultural heritage because they: (1) bear unique testimony to a cultural tradition, as they are revered by local people along the principles of geomancy; and (2) are an outstanding example of traditional human settlement representative of a culture that dates back several hundred years. Furthermore, I refer to the *feng shui* woods of the New Territories as part of the cultural heritage because they are characterised by historical continuity devoid of the accelerated development seen in other areas of Hong Kong, and in most cases also occupy ancestral lands.[26] They acquire sacred status because of these factors. These forest groves represent natural heritage because they: (1) represent ongoing ecological and biological processes in the evolution and development of terrestrial ecosystem communities; and (2) contain important significant natural habitats that are useful for *in situ* conservation of biological diversity in this ecological region, as will be discussed in more detail below.

Due to the scope of the study, and in an effort to point out the ecological significance of these landscapes, many approaches have been employed including some tangible resource investigations. Initial investigation methods included preliminary surveys of some selected *feng shui* villages where *feng shui* woods were observed by studying topographic maps (1:20,000), aerial photographs and recent satellite images. Further work on the selected sites included intensive fieldwork to investigate ecological and botanical aspects of the *feng shui* woods and their floral values. In addition, interviews were simultaneously carried out to gain information on the socio-cultural aspects of the *feng shui* groves. The results of this and further work along these lines is being collated for subsequent publication. In the initial stage of the study it was found that about 335 traditional villages have a recognisable *feng shui* wood grove. Examples of such groves can be seen in figures 2 and 4. Of the over 300 locations of *feng shui* woods about 209 are located in the New Territories of Hong Kong, representing more than 60% of the total *feng shui* groves found in the Hong Kong Special Administrative Region (SAR).[27]

From the location of the villages and the position of the *feng shui* woods, the *feng shui* woods are concentrated in those areas most favourable to farming activities in

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26. S.C.H. Cheung, 'Land use and fung-shui: negotiation in the New Territories, Hong Kong', *Cultural Survival Quarterly*, Summer 2001, pp. 70–17.

27. R. Webb, 'The fung shui woods of Hong Kong: a study of culturally protected woodlands in the New Territories of Hong Kong', unpublished PhD thesis, University of Wales, 1996.

Figure 4. The Tai Om village partially crescented by feng shui *woodland.*

the past, a phenomenon mentioned by Han and represented by the flat land depicted in figure 1. However, the position of the *feng shui* groves is also determined largely by local topography and environmental factors. Observations in this study have corresponded with those in Slikkerveer's[28] study, who observed that many culturally protected groves are intertwined with the environment, often reflect some similarity in settings, and are sometimes related to the agrarian vocation of the indigenous population. As these (consumptive) activities are no longer actively pursued, these resources, which constitute a heritage, can be managed, conserved and interpreted for the understanding of the general public.

There are many reasons why those villages located mostly in the foothills are surrounded by these crescent-shaped *feng shui* groves. *Feng shui* has been defined by Skinner & Lambert[29] as 'the art of living in harmony with the land and deriving the greatest benefit, peace, and prosperity from being in the right place at the right time'. As *feng shui* similarly represents an ecological system of site planning,[30] the villages in the foothills are protected from landslides because landslides are a frequent natural disaster that often occurs in some parts of Hong Kong, particularly in the summer when heavy monsoon rainfall is abundant. The *feng shui* woods similarly protect the settlements from hill fires that devastate the countryside of

28. L.J. Slikkerveer, 'Ethonoscience, "TEK" and its application to conservation', in Posey op. cit. (note 11).

29. Slikkerveer, op. cit. (note 28).

30. Man-ho & O'Brien, op. cit. (note 17).

Hong Kong for six months in a normal fire season.[31] The dense vegetation often serves as a firebreak.

In addition to the ecological benefit derived from the *feng shui* woods, a generation of village inhabitants still believes that the protected groves influence the geomancy of the village. They further believe that the woodlands bring prosperity and good health to the village. This cultural benefit, however, was not accepted by one interviewee in the village of Tai Om (see figure 4). While acknowledging the existence of historical and cultural ideals of the *feng shui* principle of geomancy, the sceptical interviewee expressed reservations about the actual spiritual functions of the *feng shui* wood. The respondent, however, lamented the fact that the economic opportunities attracting youngsters away from the villages are thwarting the belief in the *feng shui* principle, thus making it more difficult to justify any attempt at conservation as a heritage resource.

For the purpose of in-depth investigations, three native villages surrounded by *feng shui* woods were selected. The locations selected were Luk Keng (see figure 2), Mui Tsz Lam and Tai Om (see figure 4). The extent of the villages includes the area covered by the *feng shui* wood groves. The village elders of Tai Om claim that the age of the village is about 350 years. They consider the vegetation to represent *feng shui* woodland based on the protective beliefs relating to the principles of geomancy, which include the elemental forces that shape a landscape and possess the hidden power affecting human fortune. However, one of the interviewees belonging to the younger generation was dismissive about one principle of *feng shui*, which likens the position of the mountains, vegetation and villages to the continuous prosperity of the residents. This was an indication that the traditional beliefs of the *feng shui* are actually waning with the younger generation. In contrast, in Luk Keng, they revere and respect the *feng shui* tradition. Although the cutting and felling of trees is at odds with the tenets of these forest groves, some do cut down the trees closer to their homes to avoid possible damage from strong winds or a typhoon.

In Tai Om, Mui Tsz Lam and Luk Keng the *feng shui* wood has no clear boundaries with regard to the village settlements. Indeed, the discernible boundaries are natural, often geomorphological. However, boundaries resulting from human impact similarly also exist in the form of planted vegetation. At the boundaries or places where the grove has been exposed to disturbance, numerous fern and bamboo species (e.g. *Dicronapteris linearis* and *Bambusa vulgaris*) are common. Although the bamboo plants were not observed within the *feng shui* groves, they are located mostly at the edges of the woodland having been planted by the inhabitants for agricultural purposes.

The Vegetation and Ecological Structure in the *Feng Shui* Woods

As the oldest forests in Hong Kong, the *feng shui* woods act as the main natural habitat for biodiversity and, therefore, they are important in terms of environmental

31. Hong Kong Government Information Services Publication, 1993–1996, *Country Parks*, Hong Kong: Government Printer.

Table 1. Some selected villages surrounded by crescent-shaped *feng shui* woods

Village	Area of village (ha)	Location grid	Aspect	Age (years)
Luk Keng	> 10	KV134034	SW	> 1,000
Mui Tsz Lam	5	KV158788	SW	> 300
Tai Om	8	KV052838	SW	> 300

and biodiversity conservation. In a society where the populace is highly urbanised and conscious of the natural environment, these semi-natural patches of vegetation, having partially been modified by past civilisations, can constitute a backdrop for investigating natural heritage. They are indeed an outdoor environmental laboratory representing the unique features of the South China ecological region and they maintain a floral richness and maturity that is unmatched by any of the secondary woodlands.[32] In a survey conducted by Chu & Xing,[33] they estimated that the *feng shui* woods contain some 600 species representing one-fifth of the total species listed in the Hong Kong SAR. They also contain large numbers of faunal species that come to the *feng shui* woods in search of species that are fruit producing and hence attractive to birds and other wildlife. As a result of this species richness and diversity, the *feng shui* wood is also endowed with frugivorous opportunities in the landscape and the vicinity of village settlements. These activities can continue to support the landscape and its natural ecological processes.

In terms of ecology, the *feng shui* groves are unique in the community in that they are the only woodlands that date back more than 100 years. In addition to the different facets of the landscape, within the *feng shui* environment there are different strata of vegetation that reflect the age of the grove. The canopies of most of the *feng shui* woods are often dominated by large tree species comprising *Cinnamomum camphora, Ficus microcarpa, Bischofia javanica*, and *Givonniera nitida* among others. These species are the oldest species in this ecological region (see table 1). Within such communities, shade-tolerant species such as *Sarcosperma laurinum* and *Aquilaria sinensis* are now commonly found.

Because of the accessibility of some of the *feng shui* woodlands, some of them were cut during the Japanese occupation in the Second World War. Over the past fifty years, however, some tree species have regenerated and are once again revered as culturally protected forests. The canopy of such groves is dominated by *Persea*

32. D. Dudgeon & R.T. Corlett, *Hills and streams: an ecology of Hong Kong*, Hong Kong: Hong Kong University Press, 1994.

33. W.H. Chu & F.W. Xing, 'A checklist of vascular plants found in feng shui woods in Hong Kong', in I.J. Hodgkiss (ed.) *Memoirs of the Hong Kong Natural History Society*, Hong Kong: The Hong Kong Natural Society, 1997, pp. 151–172.

Table 2. The general botanical strata of the *feng shui* woods

Status	Age (years)	Dominant species	Remarks
1st Generation	~300	*Cinnamomun camphora*, *Bischofia javanica*, *Ficus microcarpa*, *Gironniera nitida*, etc.	Early succession stage Culturally revered species
2nd Generation	~50	*Persea thumbergii*, *Psychotria rubra*, *Sarcosperma laurinum*, *Aquilaria sinensis*, *Ardisia quinquegona*, etc.	Rejuvenated after the Japanese invasion
3rd Generation	< 50	*Prunus arborea*, *Schima superba*, *Endospermum chinensis*, *Persea oreophila*, etc.	Late-succession stage

thumbergii, Psychotria rubra, and *Ardisia quinquegon* among others. The last group of tree species is dominated by the canopy of *Endospermum chinensis, Prunus arborea, Persea oreophila, Schima superba*, etc. These species represent the late-succession woods that were similarly identified by Zhuang.[34]

Furthermore, the crown of the *feng shui* wood is usually dominated by large old trees, some of which are believed to date back to ancestral times. These are the species (e.g. *Cinnamomum camphora, Ficus microcarpa*, etc.) that are significant in relation to *feng shui* beliefs, as they serve as locations for some of the annual rituals at specific times of the year as depicted in figure 1. In addition to vegetation structure, initial vegetation species investigations have shown a common set of vegetation species often found within the borders of the studied *feng shui* woods. The list presented in table 2 is significant and highlights a set of vegetation that is capable of helping to maintain a healthy community of biodiversity and provide frugivorous opportunities, a situation and process that can continue to enhance this type of ecosystem as a natural heritage at the fringes of the urban environment.

In the *feng shui* woods that were investigated there is a relatively high number of tree species per unit area. This frequency of species is indicative of high biodiversity. While high biodiversity can result in efficient nutrient cycling in this humid subtropical ecosystem, some of the tree species identified and commonly found in sites are fruit bearing, as indicated in table 3. Corlett[35] had earlier observed that the

34. X. Zhuang, 'Forest succession in Hong Kong', unpublished PhD thesis, Hong Kong: Department of Ecology and Biodiversity, University of Hong Kong, 1993.

35. R.T. Corlett, 'Frugivory and seed dispersal by birds in Hong Kong shrubland', *Forktail*, Vol. 13, 1998, pp. 23–27.

Table 3. Some vegetation species common in all the sites with known cultural and ecological significance

Species	Family name	Common name	Possible use[a]
Cleistocalyx operculatus	Myrtaceae	Water banyan	Landscape gardening, juicy edible fruit, medicinal use
Hibiscus tiliaceus	Malvaceae	Cuban bast	Medicinal, ropes, shade
Itea chinensis	Escalloniaceae	Itea	Juicy edible fruit
Elaeocarpus chinensis	Tiliaceae	Elaocarpus	Juicy edible fruit
Mallotus paniculatus	Euphorbiaceae	Turn-in-the-wind	Juicy edible fruit
Pyrus calleryana	Rosaceae	Wild pear	Juicy edible fruit
Scolopia chinensis	Flacourtiaceae	Chinese scolopia	
Diospyras morrisiana	Ebenaceae	Morris's persimmon	Juicy edible fruit
Reevesia thyrsoidea	Sterculiaceae	Reevesia	Juicy edible fruit
Scolopia saeva	Flacourtisceae	Scolopia	Juicy edible fruit
Zanthoxylum avicennae	Rutaceae	Prickly ash	Juicy edible fruit
Ligustrum sinense	Oleaceae	Chinese privet	Juicy edible fruit
Bischoflia trifoliata	Euphorbiaceae		Juicy edible fruit
Machilus grijsii	Lauraceae	Machilus	Juicy edible fruit

Note:
[a]These are fruits that attract faunal biodiversity.

woody component of secondary forests consists of around 200 widespread species, of which 86% have fleshy fruits known to attract wildlife. This situation can similarly attract visitors and ecotourists.

Conclusions: alternative contemporary uses

At the periphery of the Hong Kong urban area, the *feng shui* wood locations are unique natural resource areas that also accommodate cultural heritage and relics bequeathed by past generations. The landscape pattern is unique and suggests geomorphological, hydrological, forestry and settlement patterns in harmony with the overall environment. Because of environmental and conservation concerns, the vegetation and ecological components of the land use of these *feng shui* woodlands deserve further attention. Given contemporary trends in heritage preservation, ecotourism and nature-appreciation, they constitute natural resources worthy of conservation and interpretation. As an example of a natural heritage, they must be maintained if future generations are to thrive spiritually, culturally and with environmental appreciation and awareness—a view partially echoed by Conservation International, a global non-profit organisation.

This study has attempted to investigate and unravel the importance of these landscapes that are often juxtaposed behind some native villages located at the periphery of urban Hong Kong. I have also attempted to interpret them as sacred, cultural and natural heritage landscapes. The results of this investigation suggest that *feng shui* is still revered, especially by the older villagers who would be upset by any intentional cutting of the trees. Some of the villagers questioned in this study believed that by protecting the *feng shui* wood around the village area the woodland gave prosperity and stability to the whole village—a cultural belief characteristic of most sacred groves. Their answers and attitude mean that the *feng shui* woodlands in Hong Kong, as with other sacred woods or culturally protected forests elsewhere in the world, are still cherished as cultural phenomena. However, if younger people do not share these *feng shui* principles of living in harmony with nature, the future of this cultural phenomenon may not be good. However, efforts in further interpretation can help alleviate this fear.

In an effort to unravel the importance of these sites, the techniques of observation, inventory and integrative study at this stage largely quantify and qualitatively describe the resources as natural and cultural heritage. Cultural and natural heritage are intricate aspects of the tourism business from which a society stands to benefit, when appropriately and adequately managed and marketed. With the preponderance of ecotourism and the advent of sustainable tourism, cultural and natural heritage has assumed particular importance in complementing alternative and growing forms of tourism. Indeed, there is a potential for transforming these natural and cultural resources as alternative tourism destinations. It is generally accepted that tourism activities can be dependent on natural and cultural resources. Concurrently, eco-museums (a concept largely developed in France) can be established to stabilise the culture of a remote rural area, as put succinctly by Howard.[36] When well implemented, they can attract visitors to the area by way of outdoor exhibitions of relics, nature and landscape trails, appropriate events depicting the cultural history of the area; even bird-watching may flourish in such areas.

For these resources (natural and cultural) to be relevant and used as ecotourism resources, there is a need to apply methodologies that will seek and derive perceived values and create indices of importance and significance. Carter & Bramley[37] have indicated that heritage resources can be divided into categories such as biological, cultural, aesthetic, etc. Not only do these categories resonate with this study but the resources in the New Territories and the categorisation in the outline zoning plans by the Hong Kong SAR Planning Department also do so. When this classification is completed and indices have been created, the interaction of tourism and resources

36. P. Howard, 'The eco-museum: innovation that risks the future', *International Journal of Heritage Studies*, Vol. 8, No. 1, 2002, pp. 63–72.

37. R.W. Carter & R. Bramley, 'Defining heritage values and significance for improved resource management: an application to Australian tourism', *International Journal of Heritage Studies*, Vol. 8, No. 3, 2002, pp. 175–199.

will vary according to choice and values. This variation will be based on the relative significance of each valued element of the resource perceived as heritage.

Lastly, this study has shown that there is a need to devise better ways of determining what (cultural and or natural heritage) is significant, why it is significant and to whom. In a society where living conditions are changing at an accelerated pace, it is essential for people to remain in contact with nature and the evidence of civilisation bequeathed by past generations. To this end, it is appropriate to give the cultural and natural heritage an active function in community life and to integrate into policy the achievements of our time, the values of the past and the beauty of nature. This will enhance environmental awareness, promote environmental ethics and accelerate the promotion of ecotourism.

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