

Purchasing Family Homes: Feng Shui versus Sustainability

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Abstract

Feng Shui is an important element to be considered for purchasing real estate property for many Chinese families. The concepts of Feng Shui has been gradually adopted and accepted in the western world. It has been found that, in many perspectives, there are similarities between the concepts of traditional Chinese Feng Shui where harmony between environment, buildings and people are created; and western style of sustainability that focuses the harmonious relationship between human and nature. This paper reviews the Feng Shui elements considered by Chinese families and explores the main features considered by the Western families when purchasing a home. The results will be used as criteria for developing significant factors in future empirical study. Through case studies in Sydney, the findings will be compared and the elements that are similar or different will be discussed. The implications of the research will also be investigated.

Keywords: Feng Shui, Sustainability, Home purchase, Sydney

1. Introduction

The purchase of real property for most families is a big decision because of the large amount of capital investment and commitments to a mortgage. In addition to the finance, Feng Shui is an important element to be considered for purchasing real property for many Chinese families. Many Chinese families may be willing to spend a little bit more on a property if the property has *good Feng Shui*. On the other hand, if a property is cheap and affordable but may have *bad Feng Shui* elements, many Chinese families may decide not to buy the property. Why Feng Shui matters?

The term Feng Shui is an ancient art and science for harmonious of the built and natural environment developed over 3,000 years ago in China. The word Feng Shui can be translated literally as “wind-water” in English. Wind and Water are associated with good environment and health in Chinese culture (Lip, 1979). It was first taught in the classic text *The Book of Burial* published in the Jin Dynasty (276 - 420), some 1,700 years ago (Mak and So, 2011). Feng Shui is a complex body of knowledge that reveals how to balance the

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energies of any given space to assure the health and good fortune for people inhabiting it (Tchi, 2012).

In many perspectives, there are similarities between the concepts of traditional Chinese Feng Shui where a harmony between environment, buildings and people are created; and western style of sustainability that focuses the harmonious relationship between human and nature (Dong and Zuehl, 2009). In the Western culture, families tend to buy houses that contain features such as close to water, quieter street, nice neighbourhood, bright rooms and so on. In Australia, north facing houses seem much in favour by the buyers. Air circulation, energy efficiency and safety are the main concerns implied at building design process in the Western world (Mak and Ge, 2010).

This paper studies the Feng Shui considered by Chinese families and explores the main features considered by the Western families when purchasing a home. The study is considered significant as the findings can be a guide for designing the exteriors and interiors when developing properties. It can be also serve as a reference for town planning in the built environment contexts. The paper is first to review the Feng Shui concepts and the Form School of Feng Shui. The concept of Feng Shui design criteria and their implications on property purchases will also be discussed. Second, a desktop survey on features expected by the Westerners in their home purchases will be reviewed. The Feng Shui concepts and Western family's views and expectation in purchasing a property will be compared through a case study. Conclusion and implications will be drawn last.

2. Feng Shui Concepts

Feng Shui is about the interaction of humans and their environments, i.e., creates harmony between heaven, earth and human (Mak and So, 2011). One of the most basic principles is unity between heaven and human, i.e., brings harmony between the universe, earth and human energy. The energy is valued in both the physical and the invisible form known as "Qi" (or "Chi", natural energy or breath of life) in the traditional Chinese Feng Shui culture. Skinner (1982) suggested that Feng Shui designs aim at a balance and harmonious environments that can produce an ample amount of good Qi (positive energy) and filter out the bad Qi (negative energy). This is one of the reasons why Chinese families look for good Feng Shui properties to attract "positive energy".

The second concept is the Five Elements Cycles, which are fire, water, metal, wood and earth. Its theory is that everything in the universe has an attribute according to these five elemental groups of substances. The relationships of the five elements consist of productive and destructive cycles (Walters, 1989).

Yin and Yang harmony is the third Feng Shui principle. Yin represents the passive principles in nature exhibited as darkness, cold and wetness. Also the moon, femininity and passive, the realm of the dead and tombs are represented Yin. Yang represents the active principles in nature exhibited by light, heat and dryness. Also sun, masculinity and active, the realm of the living, building, towns, and cities are symbolized Yang. Yin and Yang are the two opposing parts but have a complementary relationship. A good Feng Shui means that Yin

and Yang are balanced and harmonious within a space, designed to create balance in the users' life when engaging in the space (Feuchtwang, 1974).

The *Form School* relates to physical configurations of landscape design and urban planning, and the *Compass School* focus to time, space and orientation are the two main Feng Shui Schools (Xu, 2003). The most prominent approach to the built environment and building design follows the principles and practice of the Form School (Lip, 1986; Xu, 1990; and Too, 1996), which is primarily based on the verification of the physical configuration of mountains and watercourses surrounding sites and buildings (Mak and So, 2011). The Form School consists of "Five Geographical Secrets", namely dragon, sand, water, cave and direction (Lip, 1979). The combination of these five Feng Shui geographical elements and the four emblems (green dragon, white tiger, black tortoise and red phoenix as the four cardinal directions) produced the classic Feng Shui model. Figure 1 shows the Form School model that examines shapes and symbolism in the environment which can be applied to a property.

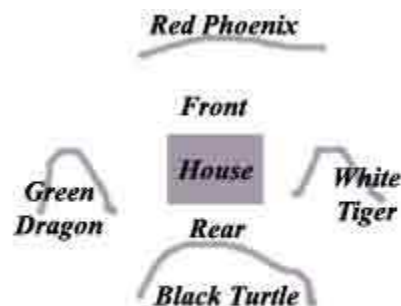


Figure 1: Form School model (Feng Shui Store, 2012)

The *Red Phoenix* is associated with the front of a property. The perfect scenario would be a meandering river to the front. The river can be replaced by a meandering road, or a circular flowerbed, or a low hedge/fence can be a replacement. The *Green Dragon* is associated to the left of the property. This feature can make up of either a building, tree or neighbours house. The *White Tiger* is associated with the right. It can be a building, a fence line or a tree. The *Black Turtle* is associated to the rear of the property. It can be a mountain behind, a row of trees, a building or a fence line to the rear.

A principle of balance between interior and exterior spaces is an important principle that describes the site conditions and the design of buildings. The location of the site, conditions that surround the site, topographical conditions and the shape of the site are called the Outer Form. The Inner Form consists of the layout of the building, elevations of the building, and elements of building (Lee, 1986). Cheng and Kong (1993) provided a further classification of space into four design modules: surrounding environment, external layout, internal layout and interior arrangement.

3. Feng Shui Design Criteria

Many scholars have developed their own design criteria based on the Feng Shui principles discussed above. Lee (1986) outlined three basic criteria for architectural design. Xu (1990)

derived four-step landscape model to deal with land formations. Han (1995) used 24 major criteria for selection of the best location. Lip (1979, 1986) listed a set of standard rules of thumb for assessment of architectural design. Choy (1999) suggested a ten-point design criteria checklist for property selection and Rossbach (1984, 1987) provided a set of interior design diagrams for furniture placement. A set of “standard rules-of-thumb” was developed by Lip (1979) in accordance with the Form School of principles. These rules-of-thumb include:

- A building should be constructed on high ground instead of in a valley.
- A house standing on the triangular lot at a “Y” junction will suffer.
- Trees on the northwest side of the site protect the house.
- A big tree planted in front of the main door is unfavourable.
- A building located at the end of a narrow street will be an “unfortunate” dwelling.
- A desirable position will be obtained if the main road is on the west side of the building.
- An open field or garden to the south of the building is ideal. Windows and doors facing the north and south sides are desirable.
- The most important area of a building should be centrally located to reduce circulation space.
- Bedrooms located next to the kitchen are polluted and unfavourable.
- A house or a building must have a back door, which is not in line with the front door.

The rule-of-thumb was expanded to the application of interior elements include location and direction of doors and windows; shape and structure of rooms; building components such as walls, ceiling, structural beams and columns, staircases, etc.; room arrangement includes the position of the bed in the master bedroom; the placing of the stove; refrigerator and sink in the kitchen; lounge seats in the living room; layout in the bathroom and similar criteria.

The principles of *Form School* Feng Shui can be applied to houses that are located in cities or suburban areas in term of surrounding environment, external layout, internal layout and interior arrangement. Table 1 shows the key elements of *Form School* Feng Shui for a building.

Table 1: Key Elements of Form School Feng Shui (Mak and So, 2011)

Surrounding Environment	External Layout	Internal Layout	Interior Arrangement
Topography	Shape of Site	Layout	Door Openings
Front of Site	Entrance	Doors	Bedroom
Rear of Site	Shape of Building	Windows	Kitchen
Sides of Site	Orientation	Shape of Rooms	Living Room
Street Location	Trees	Staircase	Bathroom
Water View	Pond	Ceiling	
Wind Direction			

4. Contemporary Design Principles

Traditional Chinese Feng Shui are well known by the western world. In recent times, the combinations of traditional Feng Shui and western approaches have become more apparent. For example, contemporary architects in New York and Washington DC have consulted Feng Shui experts for their input on architectural and interior designs (Xu, 2003). Bioclimatic design approach is the common approach applied in the Western design world. The approach applies a logical sequence of analysis and constructs appropriate strategies to minimise the external impacts and rational use of resources (Olgyay, 1963). The bioclimatic design strategies aim to take advantage of the favourable environmental aspects, while avoiding or moderating the unfavourable impacts through appropriate design decisions. Axarli and Teli (2008) implemented of bioclimatic principles in the design of urban open spaces to improve human comfort which includes thermal comfort, visual comfort, acoustic comfort and improvement of building's energy behaviour and air quality. The Comfort Triangles was an innovative concept to emphasise the periodic thermal behaviour of a space during a 24 hours interval or the average values of a series of days, rather than the conventional bioclimatic method that focus the conditions of temperature and humidity at a specific moment of time (Evens, 2007).

More recently, the concept of sustainability has brought into the design principles in the built environment contexts. The elements of sustainable design includes many areas such as waste and recycling, energy, water, building design, emission, indoor environmental quality (IEQ), alternative transport, landscaping, and about everything that do affects everything around human, aims to eliminate negative environmental impact and maintain ecologically sustainable completely through skilful and sensitive design (McLennan, 2004). Dong and Zuehl (2009) recognized that there is a set of five fundamental concepts for sustainable development. They are constructivism, circular design, energy efficiency, balance between natural and the built environment, and thinking global and buying local.

Constructivism based on human interactions with their environment to enhance the environment to make the space more enjoyable for the people using it (Dong and Zuehl, 2009). The *circular design* concept is a new design paradigm of "reduce, reuse, recycle" through the intelligence of natural systems, i.e., the effectiveness of nutrient cycling, and the abundance of the sun's energy, etc. (McDonough and Braungart, 2002). *Energy efficiency* can be achieved by site planning and building design in accordance to sunlight and the use of various building materials and technology.

The concept of '*Balance*' is one of the main principles of western design which aligns with the Feng Shui concepts. Widener (2009) advised to *balance between natural and the built environment* in designed to bring natural elements (such as sunlight, plants, water features, etc.) into a person's environment that will change the behaviour of the user in the environment to a more harmonious and enjoyable space. *Thinking global and buying local* in the design principle means to reduce energy costs and wasted materials and increase the environments overall wellbeing (Dong and Zuehl, 2009).

Chinese Feng Shui and the Western design principles are similarities in term of that both systems target human wellbeing. The concept of constructivism translates well into the principles of harmony between universe, earth and human in Feng Shui. The ideal

environment for Feng Shui when is these three aspects intersect and overlap. These three circles can be found in sustainable design as social contexts, environment and human as shown in Figure 2.

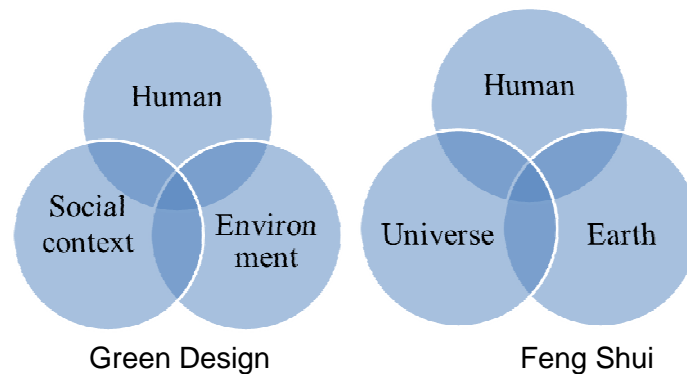


Figure 2: Comparison between Constructivism and Feng Shui concepts (Dong and Zuehl, 2009)

The principle of Feng Shui is the productive and destructive cycles of five elements, which is similar to the circular design concept. The concept is the balance and harmony between Yin and Yang, which also matches with the concept of sustainable design of balancing between natural environment and the built environment. The Feng Shui concept of balance between interior and exterior spaces focuses on the physical form and spatial arrangement of the built environment coincides with the energy efficiency and buying local concepts that explicitly emphasise on the sources and consumptions of natural resources.

The difference between Feng Shui and the Contemporary models can be identified in term of research and analysis methods, analysis structure and criteria. Xu (2003) summarized their differences presented in the Table 2.

Table 2: Comparisons of Feng Shui and the Contemporary Models (Xu, 2003)




Model	Research Methods	Analysis Methods	Analysis Structure	Analysis Criteria
Bioclimatic Model	Climatic factors: temperature, humidity, wind, etc.	Individual analysis and their correlation effects psychometric chart, and comfort zone	Frame structure	Human comfort
Sustainable Design Model	Nature process: geology, physiography, hydrology, climate, vegetation, energy efficiency etc.	Identify values for different categories and select a better fit environment and adaption	Layer structure	Fitting environment for development
Feng Shui	<i>Qi</i> and its relation with environment	Survey the mountain and water, find suitable area and arrange <i>Qi</i>	From big system to small sub-system	Living <i>Qi</i> should be abundant and harmonious with the surrounding

5. Case Study and Discussions

Two major applications of Feng Shui are site selection of buildings and sites for human settlement (Xu, 2003). Elements such as rivers, mountains, sun, soil, underground water, and the surrounding environment of the site are important factors for selecting sites though the rules and methods for selecting a housing site emerged over the years. The ancient Chinese believed that these major elements could influence the formation and circulation of *Qi*. The ultimate goal of Feng Shui is to find a place where *Qi* is abundant, so that the site can maximize its benefits for those who live there (Xu, 2003).

Three residential units are selected as case studies for analysis different views in home purchase decisions using the Fend Shui concepts and the contemporary models. The cases are located at Chatswood New South Wales Australia. Most of the information and photos provided by the real estate agents and recorded in the RP Data database contain positive perspectives of the properties. However, when each unit was investigated in details, negative elements were found in all three case studies. The key positive and negative elements of these three case studies are analysed and compared with the bioclimatic model, sustainable design model and the Feng Shui model. The addresses of the three selected units are listed in Table 3.

Table 3: Brief description of the three selected case studies in Chatswood

A three bedrooms and two bathrooms unit at 15-floor, 2A Help Street, Chatswood - Regency Tower.		The unit faces the South East and revels in breathtaking panoramic views stretching all the way to the Pacific Ocean and taking in glimpses of the city skyline. Total 178 square meters.
A two bedrooms and two bathrooms unit at level 8, 11 Railway Street, Chatswood – Altura Tower.		The unit is located on the North West corner of the building with 119 square meters including balcony, the bedrooms are separated by the living area which creates excellent space and privacy within the unit.
A three bedrooms and two bathrooms unit at 21-floor, 1 Cambridge Lane Chatswood – Cambridge Tower.		North-west facing, 3 bedrooms with ensuite with panoramic distance views, capturing the northern sunlight.

5.1 The External Environment

Chatswood is a suburb in the state of New South Wales, Australia, 10 kilometres north of the Sydney central business district. It is a major commercial and retail districts in the North Shore. In the 2011 Australian census, the total population of Chatswood was 21,194 people. There are two main shopping centres (Westfield and Chatswood Chase) and retail shops are nearby. The Chatswood railway station is on the North Shore Line and the Northern Line of the Cityrail network. The three selected units are located around 200 – 450 meters from the Chatswood railway station. The Altura Tower is located at the western side of the rail, while

Cambridge Tower and Regency Tower are located at the eastern side of the rail. The Altura Tower is near the Pacific Highway. Figure 3 depicts the relationship of these three buildings and their environment.

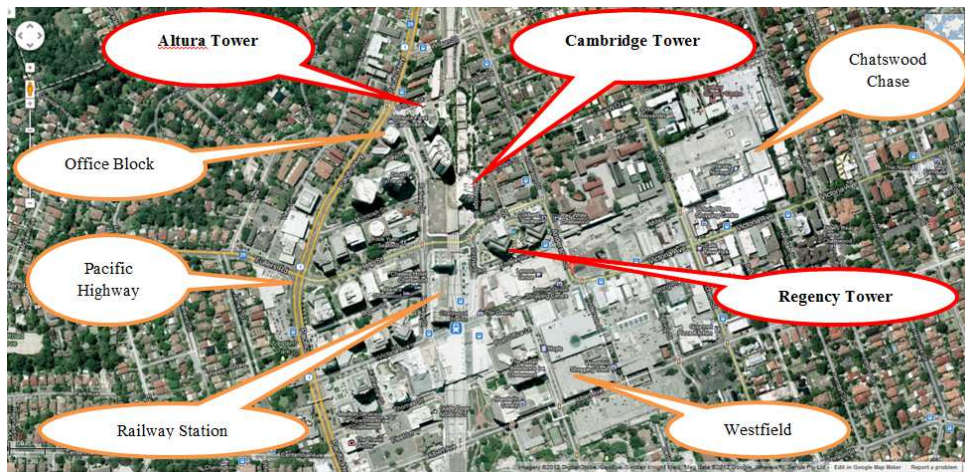


Figure 3: The Chatswood Built Environment (Google Maps, 2012)

There is a high-rise building at the southern side of the Altura Tower and low-rise units and houses are located at the northern and eastern side of the Tower. An office Tower building is located opposite. With regards to the Cambridge Tower, there are some high-rise buildings next to its northern side. A new construction is underway at its south-eastern corner. The southern side of Tower is facing the Chatswood rail station. The Regency Towers consist of Tower A and B both side by side. The water features and court yard are built between the two Towers.

5.2 The Internal Environment

All three selected units have open-plan layouts. Bedrooms are separated from the living areas to maintain a level of privacy. All rooms are bright with a lot of natural light. Positive and negative elements with three models are identified for each of the selected units.

The positive elements of the Regency unit are (Figure 4):

- Distance panoramic views to Pacific Ocean (**Bioclimatic model**) that brings positive energy (**Good Feng Shui**) and summer breeze from the ocean (**Sustainable Design model**)
- Open-plan floor layout and bright rooms with a lot of natural light (**Sustainable Design model**)



Figure 4: Positive elements of the Regency unit (RP Data, 2012)

The negative elements of the Regency unit are (Figure 5):

- South-East facing (**Bioclimatic model**) will result hot in summer morning and no Northern sunshine in winter (**Sustainable model**)
- Overlook the Tower B of Regency and distance view blocked (**Bad Feng Shui**)
- Overlook the roof of Westfield shopping centre and constant noise from cooling towers of Westfield shopping centre that brings negative energy (**Bad Feng Shui**)
- Irregular shape of bedrooms (**Bad Feng Shui**)



Figure 5: Negative elements of the Regency unit (Source: the Authors)

The positive elements of the Altura unit are (Figure 6):

- Balcony with distance views from North-East side (**Bioclimatic model**) that brings morning sun and summer breeze (**Sustainable Design model**), as well as street view (**Good Feng Shui**)
- Open-plan layout, bright kitchen and breakfast area with a lot of natural light (**Sustainable Design model**)



Figure 6: Positive elements of the Altura unit (RP Data, 2012)

The negative elements of the Altura unit are (Figure 7):

- The windows and balcony face a high-rise office building tower with large signage/logo on the opposite side thus Northern views are blocked (**Bioclimatic model**) that creates negative energy (**Bad Feng Shui**)
- Constant noise from the main road Pacific Highway (**Sustainable Design model**)
- The unit's main entrance facing the building's lift door opening (**Bad Feng Shui**) that brings negative energy (**Bad Feng Shui**)

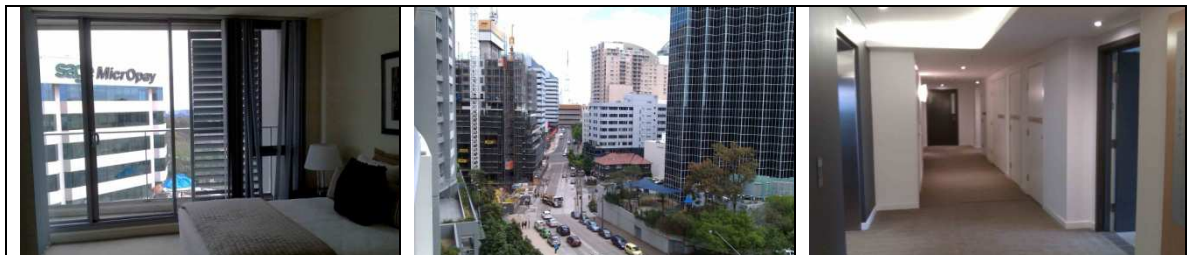


Figure 7: Negative elements of the Altura unit (Source: the Authors)

The positive elements of the Cambridge unit are (Figure 8):

- Panoramic views to North direction (**Bioclimatic model**) that brings positive energy (**Good Feng Shui**) and large open-plan space with north facing balcony bring Northern sunshine in winter (**Sustainable Design model**)
- Separate kitchen and breakfast area (**Sustainable Design model**)
- The bedrooms are separated from the living room (**Good Feng Shui**)



Figure 8: Positive elements of the Cambridge unit (RP Data, 2012)

The negative elements of the Cambridge unit are (Figure 9):

- Construction site outside Western windows (**Bioclimatic model**)
- Direct line of sight incoming and outgoing trains to railway station from the balcony (**Sustainable Design model**) that brings negative energy (**Bad Feng Shui**)
- Mirrors on both opposite sides of wall create “ghost” effect of multiple reflections (**Bad Feng Shui**)

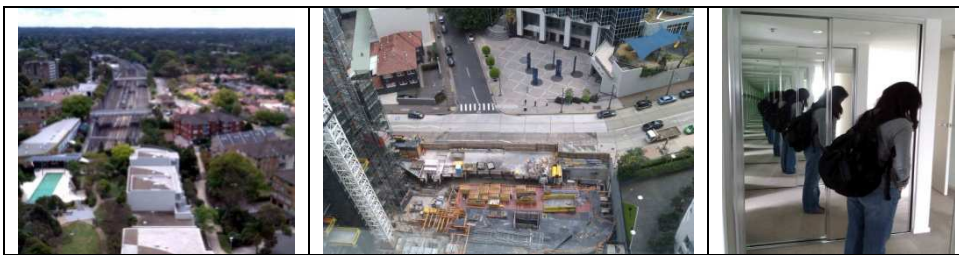


Figure 9: Negative elements of the Cambridge unit (Source: the Authors)

Based on the bioclimatic model, the three case studies are first compared according to the climatic factors, mainly directions and orientations in urban context. Secondary, based on the sustainable design model, three case studies are then analysed on the interaction with the natural environment, such as sunshine, wind direction, noise, etc. Finally, based on the Feng Shui model, these three case studies were analysed incorporating the holistic view of invisible energy between the built and natural environment. This process of analysis from bioclimatic model, sustainable design model to Feng Shui model is transited from tangible factors to intangible factors.

6. Conclusion

Traditional Chinese Feng Shui has been adopted, accepted and applied by the Western world in the built environment contexts. The principles of both the Feng Shui and the Contemporary models are similar in term of targeting human wellbeing and study the relationships between human and the built environment, though the analysis method, structure and criteria of the western and eastern principles are different. The distinct feature of western sustainable design has more emphasis on measurement of physical attributes such as efficiency of water and energy consumptions; whereas Feng Shui emphases are on

balance of Yin and Yang, exterior and interior, the relationship between human and surrounding environment. The interpreting Feng Shui knowledge has embraced the western concept of sustainability. The Feng Shui concept should be used more and worked together with the Contemporary models in building designing and the built environment contexts.

References

Axarli, K and Teli, D (2008) "Implementation of bioclimatic principles in the design of urban open spaces: microclimatic improvement for the cooling period of an open space adjacent to the sea", *25th Conference on Passive and Low Energy Architecture*, 22nd to 24th October 2008 Dublin.

Cheng, J J and Kong, S P (1993) *Feng Shui and Architecture*. Nanchang, Jiangxi Science and Technology Press [Chinese].

Choy, H (1999) "Go with the flow" *Property Council of Australia*, Residential Property Investors Guide p. 19.

Dong, W and Zuehl, R (2009) "The Comparison and Contract Between Green Design and Feng Shui". IN: Mak, M.Y. and So, A.T.P. (eds) *Research in Scientific Feng Shui and the Built Environment*. Hong Kong, City University of Hong Kong Press, pp. 201-222.

Evens, J M (2007) *The comfort triangles: a new tool for bioclimatic design*, PhD thesis, Delft University of Technology, Delft, The Netherlands.

Feng Shui Store (2012), *Form school Feng Shui*, (available online <http://www.fengshuiweb.co.uk/advice/formschool.htm> [accessed on 17/10/2012]).

Feuchtwang, S D R (1974) *An Anthropological Analysis of Chinese Geomancy*. Vientiane, Laos, Vithagna.

Google (2012) *Google Maps*, (available online <https://maps.google.com.au> [accessed 27 Oct 2012])

Guo, P (276-324) *The Zangshu, or Book of Burial*, translated by Field, S.L. (2009).

Han, K (1995) *Basic Theory of Landscape Feng Shui*. Taipei, Lamper Enterprises [Chinese].

Lee, S H (1986) *Feng Shui: Its Context and Meaning*. Unpublished PhD Thesis, Cornell University.

Lip, E (1979) *Chinese Geomancy*. Singapore: Times Books International.

Lip, E. (1986) *Feng Shui for the home*. Singapore: Heian International.

McDonough, W and Braungart, M (2002) *Cradle to Cradle: Remaking the way we make things*. New York, North Point Press.

McLennan, J.F. (2004) *The Philosophy of Sustainable Design*. Kansas City, Missouri, Ecotone Publishing.

Mak, M Y and Ge, J X (2010) "Sustainable Design and Feng Shui: A Case Study of an Office Building in Sydney". IN: Barrett, P., Amaratunga, D., Haigh, R., Keraminiyage, K., Pathirage, C. (eds) *Building a Better World, Proceedings of CIB World Congress 2010*, The University of Salford, Salford, UK. (available online <http://www.cib2010.org/post/files/papers/1197.pdf> [accessed 18/05/2010])

Mak, M Y and So, A T P (2011) *Scientific Feng Shui for the Built Environment: Fundamentals and Case Studies*. City University of Hong Kong Press, Hong Kong.

Olgay, V (1963) *Design with Climate, bioclimatic approach to architectural regionalism*, Princeton University Press, Princeton, N.J.

Rossbach, S (1984) *Feng Shui*. London: Rider.

Rossbach, S (1987) *Interior design with Feng Shui*, London: Rider.

RP Data (2012) RP Professional Property Details, (available online <https://rpp.rpdata.com>. [accessed on 12/11/2012]).

Skinner, S (1982) *The Living Earth Manual of Feng Shui Chinese Geomancy*. London, Arkana.

Tchi, R (2012) *What is Feng Shui?* (available online <http://fengshui.about.com/od/thebasics/qt/fengshui.htm>. [accessed on 17/10/2012]).

Too, L (1996) *The complete illustrated guide to Feng Shui*, London: Element.

Walters, D (1989) *Chinese Geomancy*, Longmead, Element Books.

Widener, D (2009) *Regional Green Building Case Study Project: A post occupancy study of LEED projects in Illinois*, Chicago, U.S. Green Building Council – Chicago Chapter.

Xu, J (2003) *A framework for site analysis with emphasis on Feng Shui and contemporary environmental design principles*, PhD Thesis in Environmental Design and Planning, Virginia Polytechnic and State, Blacksburg, VA, USA.

Xu, P (1990) *Feng Shui: a model for landscape analysis*, Doctoral Thesis, Harvard University.



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Welcome from the Chair



Responding to extremes and creating resilience is a major global concern, whether in relation to financial crises, weather disasters, or other high impact events. Construction is the foundation of modern society and provides the transport networks we travel on, the facilities for health and education of families, shelter for communities and the foundation of our economy. This infrastructure is impacted by extreme events.

Innovation around the built environment is essential for responding to these challenges, as well as driving economic growth, and enhancing social outcomes. Therefore how we structure and manage our research and development system in construction, especially for built asset resilience, is of critical import.

For researchers, this compels us to focus on how people interact with the built environment because this interaction fundamentally impacts on quality of life and economic growth. In a global context of challenged financial environments we need to carefully consider the ways in which we invest in construction research, remembering the importance of the user experience.

The CIB World Building Congress provides a unique opportunity for attendees across all built environment areas to witness and participate in the globally-leading activities and outcomes that will impact on our industry and society in the future. It is the central gathering of global research in building and construction, and the only event which collectively brings together all CIB working commissions and task groups.

I've been involved in the CIB for nine years and it's clear to me that the opportunities to grow ideas and professional networks through the CIB World Building Congress are unequalled across the building and construction research fields.

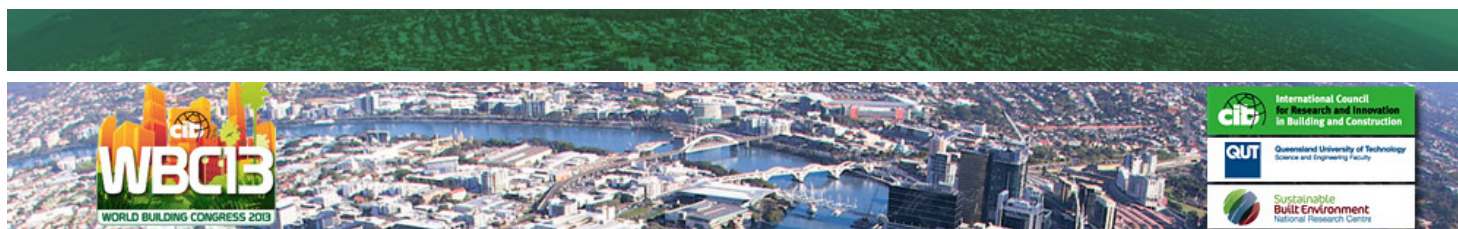
On its 60th anniversary, the CIB brought together its R&D at the Brisbane Convention and Exhibition Centre in Brisbane, Australia – which was created by the construction industry and is a testament to the value of pursuing community goals through the built environment. I want to thank Queensland University of Technology (QUT) for hosting the CIB World Congress in conjunction with the Sustainable Built Environment National Research Centre (SBEncr).

John V McCarthy AO
President
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Preface from the Editors

The 19th Triennial CIB World Building Congress, 5th – 9th May, 2013 was organised by the International Council for Research and Innovation in Building and Construction (CIB), and hosted by the Queensland University of Technology (QUT) in conjunction with the Sustainable Built Environment National Research Centre (SBENRC).

The theme of this year's Congress was 'Construction and Society', and it showcased some of the world's best research and development in the built environment and construction sectors, focusing in particular on how research helps to optimise the contribution of constructed assets to social objectives. The Congress captured research from a global network of over 5000 CIB members and more than 50 CIB Working Commissions and Task Groups. In celebration of the CIB's 60th anniversary, this Congress underscored the CIB's continuing role as a world leader in innovative building and construction research.

A broad range of papers was presented in oral and poster format, with representation from both academics and practitioners across a range of sub-themes. Submitted papers were subject to blind peer review by members of the International Technical Committee, which was comprehensively represented by academics from the CIB Working Commissions and Task Groups. 396 papers were accepted during this process. The papers presented at the Congress are published in full in these Proceedings of the Congress. The full papers have been subject to a blind academic review process by international experts, except for those denoted as 'Industry Papers', which were subject to editorial review.

We would like to take this opportunity to thank our sponsor organisations for their invaluable contribution to the Congress. We would also like to acknowledge the role of the International Scientific Committee in providing oversight for the review of papers, and the International Technical Committee for undertaking the reviews. The wonderful efforts of the Organising Committee, the Event Organiser and QUT helpers were also much appreciated in preparing and facilitating this event. Finally, we would like to thank all paper authors and delegates for your participation in the Congress. This has been a fantastic opportunity to collaborate with the global community of researchers and practitioners in building and construction, and has helped shape the future of construction in society.



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Title: [Purchasing Family Homes: Feng Shui versus Sustainability](#)
Author/s: [Janet Ge and Michael Mak](#)



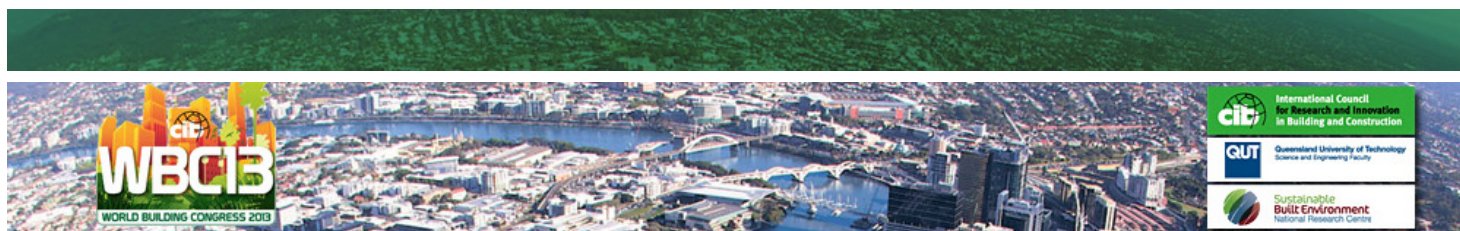
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We wish you a happy festive season and look forward to seeing you at the Congress.

Kind regards

CIB World Building Congress Organisers

----- REVIEW 1 -----

PAPER: 61
TITLE: Purchasing Family Homes: Feng Shui versus Sustainability
AUTHORS: Janet Ge and Michael Mak

OVERALL EVALUATION: 4 (Accept with minor revision (please provide information below))
Is this paper appropriate for the nominated track?: 3 (Yes)

----- REVIEW -----

1) This is a very interesting paper that I enjoyed reading. It fits in well with the aim of the conference and indicates that there are many perspectives in design. The paper succeeds in providing other views to the Western concept of "Green" or "Sustainability".

2) This paper will benefit greatly from a thorough language edit to correct bad sentence construction and sometimes the wrong choice of words. At the moment this is distracting somewhat from an otherwise well-written and interesting paper.

3) Rethink the purpose of Table 4 as it repeats some of the statements already made in relationship to Figures 7 to 12.

4) A bolder closing remark in the "Conclusion" might be helpful to indicate if the author(s) are of the opinion that Feng Shui should be used more or integrated with "Western Thinking" or whether it is as indicated in the title of the paper a "versus" approach.