



## Resolving the conflicts of sustainable world heritage landscapes in cities: Fully open or limited access for visitors?



Xiaoling Zhang<sup>a</sup>, Ling Zhou<sup>b</sup>, Yuzhe Wu<sup>b,\*</sup>, Martin Skitmore<sup>c</sup>, Zhiping Deng<sup>b</sup>

<sup>a</sup> Department of Public Policy, City University of Hong Kong, Hong Kong, China

<sup>b</sup> Department of Land Management, Zhejiang University, Hangzhou 310058, China

<sup>c</sup> Faculty of Science and Engineering, Civil Engineering and the Built Environment, Queensland University of Technology, Brisbane, Australia

### ARTICLE INFO

#### Article history:

Available online 28 November 2014

#### Keywords:

World heritage landscapes  
City  
Sustainable development  
Conflicts  
Game theory

### ABSTRACT

World Heritage Landscapes (WHLs) are receiving increased attention from researchers, urban planners, managers, and policy makers and many heritage values and resources are becoming irreversibly lost. This phenomenon is especially prominent for WHLs located in cities, where greater development opportunities are involved. Decision making for sustainable urban landscape planning, conservation and management of WHLs often takes place from an economic perspective, especially in developing countries. This, together with the uncertain source of funding to cover WHL operating and maintenance costs, has resulted in many urban managers seeking private sector funding either in the form of visitor access fees or leasing part of the site for high-rental facilities such as five star hotels, clubs and expensive restaurants. For the former, this can result in low-income urban citizens being unable to afford the access fees and hence contradicting the principle of *equal* access for all; while, for the latter, the principle of *open* access for all is equally violated. To resolve this conflict, a game model is developed to determine how urban managers should allocate WHL spaces to maximize the combination of economic, social and ecological benefits and cultural values. A case study is provided of the Hangzhou's West Lake Scenic Area, a WHL located at the centre of Hangzhou city, in which several high-rental facilities have recently been closed down by the local authorities due to charges of elitism and misuse of public funds by government officials. The result shows that the best solution is to lease a small space with high rents and leave the remainder of the site to the public. This solution is likely to be applicable only in cities with a strong economy.

© 2014 Published by Elsevier Ltd.

### Introduction

At the present time, the UNESCO World Heritage List comprises 1007 properties forming part of the world's cultural and natural heritage (UNESCO, 2014) and considered by The World Heritage Committee to be of outstanding universal value. However, WHLs are faced with a variety of threats, such as urbanization, industrialization, wars and social chaos. Currently, there are 44 WHLs **in danger of deterioration or loss, making their sustainable development extremely urgent.**

The management and protection of WHLs involves multiple parties, such as government bodies, political groups, local communities and associated business enterprises (Friedman & Miles,

2002). As stakeholder theory recognizes, these parties usually have **conflicting interests**, which, in this case, can hinder sustainable WHL development. **For example**, The World Heritage Committee decided to remove the Arabian Oryx Sanctuary from the World Heritage List in 2007 due to poaching and environmental deterioration. Then in 2009, Germany's Dresden Elbe Valley was delisted due to the introduction of a four-lane bridge in the heart of the cultural landscape. As these two cases both illustrate, the priority need for regional development over the protection of WHLs can lead to their undue damage in the absence of any consultation process.

The situation is even more intense for WHLs in cities, where more threats and temptations exist. For example, WHLs in cities can be threatened by urban growth and urban sprawl (Al-hagla, 2010; Monteiro, Painho, & Vaz, 2015; de Noronha Vaz, Cabral, Caetano, Nijkamp, & Painho, 2012) as well as the presence of many highly profitable business opportunities. In addition, city WHLs also play

\* Corresponding author. Tel.: +86 571 56662128; fax: +86 571 56662012.  
E-mail address: [wuyuzhe@zju.edu.cn](mailto:wuyuzhe@zju.edu.cn) (Y. Wu).

multiple roles, such as in supporting economic development, serving taxpayers and performing an ecological function. It is crucial, therefore, that conflicts arising among city WHL stakeholders be resolved in advance of any development work taking place.

Conflicts also exist in space allocation within WHLs. Managers can receive considerable economic benefits by leasing these spaces to high rental private sector facilities such as five-star hotels and expensive restaurants, but at the expense of reduced benefits for ordinary tourists and the social inequity that entails. As this situation and ensuing conflicts continues to grow, the need to find equitable solutions becomes increasingly necessary. With approximately 32% of WHLs in China located in cities, suggesting over 300 such WHLs worldwide, this is an important issue in need of serious research attention. One approach to this is to use game theory to analyse how managers should allocate space within WHLs. This is developed here in the form of a game model based on the analysis of the conflicts in different space allocation regimes and with different financial supports.

The paper is structured as follows. Section 2 reviews related literature concerning conflicts in the sustainable development of WHLs, the application of game theory and the innovative aspects of the paper. This is followed with a brief introduction to game theory in Section 3 and a theoretical framework in Section 4. Section 5 provides the main content of the paper in developing the game model. Section 6 contains a case study validation of Hangzhou's West Lake, located at the centre of the city, where the situation is further complicated by the government's current crack down on the misuse of high-end facilities. Section 7 provides a discussion concerning sustainable landscape development and policies, while some final remarks of the study's limitations and implications are presented in Section 8.

## Literature review

The sustainable landscape of tourist cities has gained increasing attention from international organizations, governments and academics since the late 1980s. Sustainability in this context can be interpreted as the conservation of particular landscape types or values and implicitly the continuation of practices concerning their maintenance and organization (Antrop, 2006). The sustainable landscape concept has encountered several problems, disagreements and multidimensionality issues between sustainability and landscape, leading to the lack of a commonly regarded definition.

Musacchio (2009, 2013) introduced a conceptual framework comprising the six Es of landscape sustainability for designed landscapes, namely, environment, economy, ethics, experience, equity and aesthetics (Fig. 1). Recently, Musacchio (2013) envisions that "landscape sustainability ... a key concept and research priority ... will play an important role in helping to redefine the debate about relationships among landscapes, ecosystem services and human well-being". Nassauer and Opdam (2008) assert that landscape design acts as a bridge between science and society. From an environmental protection perspective, Turner (2010) and Wu (2013) incorporate the importance of resilience and vulnerability as essential perspectives. Through the lens of economics, landscapes are experiencing considerable changes that are greatly driven by the globalizing economy and urbanization process. This is particularly the case with the geographical situation and accessibility of places in the global networks of megacities (Sassen, 2000). In view of their special historic value, scientific, vulnerability and aesthetic qualities, WHLs play a vital role in the landscape literature. The unprecedented changes in landscapes raises concerns over the environmental and cultural integrity of WHLs and has also

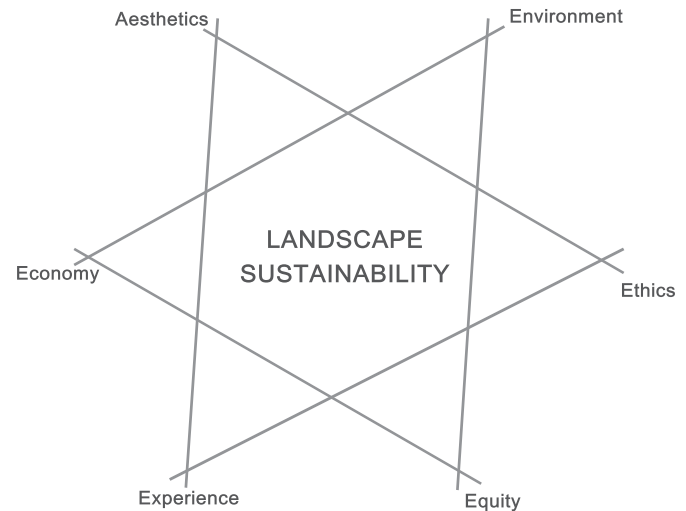


Fig. 1. The six Es of landscape sustainability: environment, economics, equity, aesthetics, experience, and ethics (Musacchio, 2009, 2013).

led to a re-examination of tourism growth in the light of sustainable development (Drost, 1996).

In this context, sustainable development and sustainable landscapes are mainly considered the theoretical basis of sustainable WHLs. In addition, theories of sustainable tourism, including carrying capacity, lifecycle and community participation also provide the basis for research on resource-, activity-, and community-based traditions of sustainability (Saarinen, 2006). The topic of sustainable WHLs encompasses a variety of aspects, such as sustainability assessment (Ko, 2005), legal study (Boer & Wiffen, 2006), policy research (Maikhuri, Nautiyal, Rao, & Saxena, 2001) and conflict analysis (Maharjan, 2013). A conflict between authentic conservation and commodification is usually involved, particularly for WHLs in cities (Lee, 1996; Pendlebury, Short, & While, 2009). The conflicts between stakeholders and the issue of resource equity often have a direct effect on sustainable WHLs, and is therefore one of the key features to be investigated. However, notwithstanding an extensive literature, there is often limited success in implementing sustainable WHLs. The root of this problem appears to lie in the lack of equitable solutions between stakeholders in resolving their conflicts.

A WHL is an interdependent system closely involving multiple stakeholders with a range of socioeconomic interests. With the advent of the World Heritage List in 1975, the high popularity (Shackley, 1998) and huge tourism demand (Wu, Li, & Huang, 2002) of WHLs has resulted in increasing conflict between stakeholders with opposing interests in the development and conservation of these areas. Conflicts over *sustainable development* (which aims to provide new development without jeopardizing the legacy of WHLs) can be classified into those between economic benefit and protection, social benefit and protection, and social and economic benefit (Table 1).

Firstly, undoubtedly the most intensive conflict is that between the need for protection and desire for economic benefit. Because of 'backward conception' (Wu, 2006) and 'unreasonable appraisal of government performance' (Zhao, 2006), there is a tendency for entrepreneurs to exaggeratedly pursue economic benefits, especially in cities (Zhao, 2013) due to the high potential profits involved. Secondly, the conflict between protection and social benefit includes that between residents' living and production activities, as well as infrastructure construction, regional conflict and international war. The involvement of residents presents critical

Download English Version:

<https://daneshyari.com/en/article/1047925>

Download Persian Version:

<https://daneshyari.com/article/1047925>

[Daneshyari.com](https://daneshyari.com)