

People's Impressions of a Tourist-Historic District

Jenny Ernawati, University of
Brawijaya, Indonesia

Abstract

The combination of tourism industry and historic district is a complicated phenomenon. Many built heritage, particularly in developing countries, are found in the middle of living communities. Uncontrolled development of residential settlements in historic districts can destroy a city's heritage assets and its tourist potential, while turning historic precincts into 'urban museums' can destroy a city's living social fabric. So, for these countries, this kind of situation often fundamentally becomes one of the problems of development. However, historic area, as a tourist destination and people's settlement, should evoke a sense of delight and pleasure for residents as well as visitors. From a practical standpoint, knowledge gained from visitor impressions can assist local bodies involved in management of these sites to convey a favorable impression to visitors. Meanwhile an understanding of resident impressions is important to provide a good living environment for the local community that is also conducive to tourism. This paper addresses these issues. It will assist environmental designers and policy makers to develop historic districts that are beneficial for local people as well as for tourists.

Kampong Taman Sari, Yogyakarta, Indonesia that faces those problems was considered as appropriate to be selected as a case study site. The case study was done as preparatory to the main body of the research. The study purposed to identify salient dimensions of people's impressions of historic districts.

This research used a multiple-method survey research design, included participant photography and survey questionnaire involving the semantic differential method.

A total of 306 people rated nine consensus photographs, which were gained from the participant photography. Factor analysis was employed to answer the research questions.

Introduction

An increased concern for local identity has influence a historical change from modernism to postmodernism in urban design and planning ((Tiesdell, Oc & Heath, 1996). While modernist planning tended towards the universal, postmodernism and contemporary urban design and planning draws more upon the sense of place, the significance of the local and particular (Robins, 1991).

A notion of 'the past' as an important element of local identification has been referred to by many authors (e.g. Harvey, 2000; Herbert, 1995; Hewison, 1987; Lowenthal, 1985). Since built heritage has a potential for enabling people to make 'a journey to the past', historic sites usually attract many tourists. With such economic potential, historic sites linked to urban policies as a product to generate tourist activities is a worthwhile contribution to urban economic development.

These situations raise the notion of urban redevelopment of the sites in order to attract visitors, both domestic and international. Unfortunately, in developing countries, where the majority of people living in these areas are middle to low income people due to a tendency for historic complexes being surrounded by dense residential settlements (kampong), urban redevelopment of the areas leads to the possibility of community relocation. Relocating people to other places may destroy the living social fabric of the local community.

An historic district, without a doubt, if it is to be successful as a tourism site, requires great care in planning, development and management. In the conservation and development process, not only historic environments need to be safeguarded, but also the communities that inhabit them (Orbasli, 2000).

In response to this, questions now arise in tourism literature about how to achieve a balance between the expectations of tourists in respect of the totality of the tourist experience and those of the community (Trotter, 2001). A review of the literature also reveals that historic conservation may become a pressure on the local community, especially if it is treated as a product of tourism. Local people, who live in an historic area, interact with these structures directly in their everyday lives. Therefore, there is a need to understand the interdependencies that exist between the community and the historic structure. Such understanding will point to the possibility of using the positive efforts of local people as an

integral part of the 'historic locus', to contribute vitality to the site and thereby assist in the maintenance of an atmosphere conducive to tourism (Ashworth & Turnbridge, 1990; Schulz, 1980).

Therefore, local people as well as tourists play important roles in the development and maintenance of historic remains. Urban management of the historic environment should be based on a thorough understanding of the place and the evaluation of the local people (Orbasli, 2000). The perceived quality of tourist-historic districts depends on the evaluation of the tourists and host community.

However, this has not been a focus of previous studies. Although some researchers have looked at the host community to have a more balanced study, most of them deal with the tourism impact on those communities. The importance of the local people's points of view as a valuable resource in the process of planning and management of urban historic districts is still neglected.

The aim of this research was, therefore, to identify factors that underlie people's impressions of tourist-historic districts and to examine the visual quality of the district. It is assumed that an understanding of people's impressions is important to maintain a quality living environment for the local community while knowledge gained from tourist impressions can assist management of these sites to convey a favorable impression to visitors.

A Tourist-Historic District: Kampong Taman Sari, Yogyakarta, Indonesia

Every city consists of a series of parts such as districts. These parts of a city have different attributes and dominant characteristics that make them able to be distinguished from each other (Spreiregen, 1965). These districts vary considerably in their strength of character. One of these kinds of districts is the urban historic environment. Such districts have historical value and meaning that may be able to communicate to people something about the history of the city. Architects, urban planners and designers can recognize those qualities to improve appearance and urban quality of cities.

The phenomenon in which the cultural, historical and ethnic components of a society or place are harnessed as resources to attract tourist, as well as to develop a

leisure and tourism industry is defined as heritage tourism (Hewison, 1987). It is identified, in industry terms, as a subset of cultural tourism (Trotter, 2001). One main form of heritage tourism is historical tourism, which maintains historically accurate places and objects as evidence of cultural, social and historical characteristics of a place or its people, such as historic precincts and sites. Historic district as a tourism object is known as tourist-historic districts.

The term "historic district" employed here, therefore, is understood to be a cluster of historical buildings where not only the individual units themselves but also their concentrated continuity as heritage (Naoi et al., 2006). It focuses on areas which retain their historic integrity and cohesion as districts, rather than being determined by size. This kind of historic districts could be regarded as the object of the collective gaze, in which the presence of other people is necessary to give atmosphere to the experience of a place (Naoi et al., 2006).

The aim of urban design, particularly for historic environments, should be to create experiential and enjoyable places for the public. As nowadays historic sites and historic precincts are becoming increasingly popular as tourist destinations (Trotter, 2001), these places have become a product that can be marketed, sold and re-created (Orbasli, 2000). They are seen as assets, readily transformed into products that are sold to consumers seeking an "experience". Therefore, knowing about user reactions to the quality of this historic built environment allows the planning and design of responsive environments. By shaping the physical and spatial form of these tourist-historic environments, urban design, in turn, affects the experience of many observers.

Kampong Taman Sari, Yogyakarta, Indonesia is a prime example of a tourist-historic district that faces the problem of development. Yogyakarta is a well-known tourist destination city that is located in the centre of the Island of Java, the most densely populated island in Indonesia. It is one of the most densely populated cities in the world (Dahles, 2001). Many people live in high density, unplanned housing areas that are called "*kampong*" (Devas, 1981). On the other hand, Yogyakarta was the centre of the Mataram Kingdom. The first king, Sultan Hamengku Buwono I, began the building of Kraton Yogyakarta, the Yogyakarta Palace, which was to occupy the extensive 140 hectare site (Kedaulatan Rakyat, 1996),

in 1756 (Brongtodingrat, 1978) and completed it in 1757 (Dahles, 2001). The Kraton was surrounded by walls of around 1-1.3 kilometers in length on each side, which were in turn protected by a moat (Brongtodingrat, 1978). In the inner city of Yogyakarta, the Kraton area is the most important tourist attraction (Dahles, 2001).

Taman Sari is a group of buildings that occupy 12.66 hectares of land in the inner southwest part of the old walled city. It originally consisted of 57 buildings and 18 fruit and flower gardens with water as the dominant feature, such as a large artificial lake, a series of sunken bathing pools and a network of underground and underwater passageways. It was built in 1758, two years after the construction of the Kraton was commenced. The area was originally designed not only as a pleasure garden and rest houses of the Sultan of Yogyakarta's family but as a defensive complex as well (Dahles, 2001). Taman Sari continued to function as The Royal Pleasure Garden until 1867, when an earthquake caused the draining of the artificial lake and damaged its buildings and infrastructure.

There are 20 major buildings or portions of buildings of architectural and archaeological interest still existing. These remnants still carry with them a sense of the luxury and romance of the original Taman Sari. However, the historic precinct is now occupied by a very dense *kampung*. Historical buildings and people's houses are juxtaposed and there is almost no space between the buildings. Thus old and new are quite literally united.

Studies of People's Impressions

The study of people's impressions of particular environments such as historic districts is based on the assumption that we can better understand people's actions and desires with regard to the environment if we know how they conceive of it. The environment, in essence, is what people think it is, and how citizens or users and decision makers respond to it and deal with it as they conceive it to be (Moore & Golledge, 1976).

Many theorists have also pointed out that what we do in the world is related to how we perceive and how we think about the world (Proshansky, Ittelson & Rivlin, 1976). The environment is experienced the way it is because one chooses to think of it that way (Ittelson, 1973). Urban planners and designers are concerned with

'manner in which the products of their efforts are perceived by the public' (Ittelson, 1973, p. 162) since perceived environment has critical influences on people's choice and behavior.

The study of environmental impressions is part of the study of environmental cognition. As Moore & Golledge (1976) noted, '*Environmental cognition* is the study of the subjective information, images, impressions, and beliefs that people have of the environment, the ways in which these conceptions arise from experience, and the ways in which they affect subsequent behavior with respect to the environment' (p. 3). In this regard, what people know and understand about their surroundings influences their impressions of the physical environment (Gärling & Evans, 1991).

The physical environment provides information to observers through the various sensory modalities (Altman & Chatters, 1980), especially vision, which accounts for more than 80% of sensory input (Porteous, 1996). The visual aspect of historic districts is therefore of importance to the management of these places. People's impressions of these environments are primarily influenced by the look of the surroundings. Berlyne (1971) has demonstrated that the visual character of stimuli influences behavior such as attention, looking time, or forced choice. Urban design in these particular areas should therefore attempt to maintain and control the visual character for the public good (Nasar, 1994).

Environmental impression results from the interaction between observers, i.e. tourists and local people, and their environment, the historic districts. An historic district has many attributes. Part of this environmental character, according to Nasar (1998), engages the attention of immediate users, visitors and locals, who evaluate the environment based on both internal and external factors. This indicated impressions may be influenced by the experiences and backgrounds of the people (Altman & Chatters, 1980; Nasar, 1988, 1994). This means a tourist-historic district may mean different things to different people who view it, experience it, or use it. However, there may be communality in people impressions.

Method

Respondents

Two hundred and six tourists, consisted of 100 international and 106 domestic tourists, participated on the research. They were selected randomly. The researcher went to the gates to the district at a variety of random times. At the time of each visit the first person of each group of international or domestic tourists in view was invited to be a participant.

One hundred and two local people participated on the research. They were selected randomly based on the map of the Taman Sari complex. When the interviewer approaching the house, the first adult resident found by the interviewer was chosen as the participant.

Stimuli

To select pictures as stimuli that was meaningful to participants rather than meaningful to the researcher, a participant photography method (see Chenoweth, 1984; Hull & Revell, 1989) was employed. Sixty people, consisted of tourists and local people, were given inexpensive cameras and asked to photograph the most "impressive" scenes to them in the area. The consensus scenes taken by at least 10% of the participants of each group were then re-photographed by the researcher using a high-quality camera and were used as stimuli.

Nine stimuli were produced by this process. The nine stimuli were then divided into two questionnaires, which each questionnaire contained the three most preferred scenes plus three of the remaining six photos. This arrangement was based on the pilot study, which found that six pictures was the most reasonable number of stimuli that met respondent's time limitation.

Instrument

The semantic differential method was used to measure people's impressions. Based on the literature and previous research in the field, this study employed a 25-item scale to investigate the underlying dimensions of people's impressions of the tourist-historic district.

Table 1: "Semantic differential scale items"

Adjective pairs	Source
unattractive-attractive	Franke (1969) and Franke & Bortz (1972); both in German; cited in Krampen (1979)
subdued-colorful	
strange-familiar	
restricted-free space	
ugly-beautiful	
dull-varied	
unpleasant-pleasant	
monotonous-diverse	
interesting-uninteresting	Bortz (1972); in German; cited in Krampen (1979)
like-dislike	Nasar (1998)
complex-simple	Stamps (2004); Gifford (2002)
incoherent-coherent	
orderly-chaotic	Hershberger & Cass (1988)
exciting-calming	
disorganized-organized	Kasmar (1988)
impressive-unimpressive	
neat-messy	
ordinary-distinctive	Green (1999) and Kasmar (1988)
desirable-undesirable	
common-unique	Hershberger & Cass (1988)

	and Kasmar (1988)
meaningless-meaningful	Ertel (1964)
forgettable-memorable	Prentice (1993)
disturbing-restful	Invented by the researcher
worthless-valuable	
expected-unexpected	

Using those descriptors, a seven-point bipolar semantic differential scale was used to measure people's impressions of the tourist-historic district. Each item had seven points ranging from one adjective (e.g. very unattractive=1) to its opposite (e.g. very attractive=7) with number four as the neutral point.

Procedure

Each tourist respondent was asked to fill out the questionnaire at the rest area near the exit gate of Taman Sari historic precinct after they completed their visit, while local people respondent participated on the research at their homes. Each participant received an album of six photographs of the Taman Sari historic area along with the semantic-differential questionnaire. Respondents were asked to rate each picture on each of the 25 scale items by circling the number that best described their impressions of each scene.

Data Analysis

Principal factor analysis was applied to the 25 semantic differential items to identify the dimensions underlying tourists' and residents' impressions of the tourist-historic district. After preliminary tests, three variables – strange, complex, and coherent – were dropped from further analysis (see Field, 2009). Factor analysis was then conducted on the remaining 22 variables with oblique rotation (direct Oblimin).

Results and Discussions

Results indicated there are three principle dimensions underlying people's impressions of the tourist-historic district. These are Attractiveness (that consists of nine variables), Organization (that consists of five variables) and Novelty (that consists of eight variables). These three factors explained 87.9% of the total variance.

The reliability test that was conducted on the three factors extracted from the factor analysis yielded a Cronbach's alpha of .89 for Attractiveness, .88 for Organization, and .85 for Novelty. These test indicated that all three factors were internally consistent.

The research found that Attractiveness that consists of the variables interestingness, pleasantness, beauty, attractiveness, variety, diversity, impressiveness, liking, and colorfulness is a major common dimension in people's impressions of this tourist-historic district. This factor seems to be primarily an affective reaction to the Taman Sari complex. Russell et al. (1981) listed adjectives such as beautiful and interesting as descriptors of affective qualities of environments. This finding is also consonant with other research on environmental aesthetics. Pleasant, beautiful and likeable were described as general themes of aesthetic appreciation. Diversity has also been repeatedly found to be an important influence on aesthetic response (Berlyne, 1974; Wohlwill, 1976). From the visitor's viewpoint, tourists feel the need to seek out diversity within a tourist-historic setting that they experience. To the extent that such diversity is absent, an historic complex can lose its fascination for tourists. The qualities of diversity of the scenes do not apply only to the tourists, but also to the local inhabitants. These are evident in the physical design qualities of communities at all levels of scale (Altman & Chemers, 1980).

In sum, the attractive quality of a tourist-historic district epitomizes the overall feelings about how far towards the ideal the place lays. This implies how good or bad the historic precinct is in people's minds. Tourist-historic district should, therefore, aim to generate positive impressions of Attractiveness to provide a good living environment as well as a tourist destination.

Organization that consists of the variables orderly, neat, organized, restful, and free is found as another common dimension of impressions of the tourist-

historic district. This dimension seems concerned with the formal quality of the site. Organizedness or coherence has been found to be one of predictors of environmental preference (Kaplan & Kaplan, 1982). This study shows that people also tend to prefer historic environment that are well organized, orderly, and neat.

Novelty dimension that consists of the variables uniqueness, distinctiveness, unexpectedness, meaningfulness, valuableness, memorability, desirability, and excitingness is also found as a significant factor in people's impressions of an historic district. The power of historic places lays in their value as heritage and their distinctive quality and uniqueness. These qualities make these historic places desirable or undesirable for visitors, while the loss of meaningful environmental features in the district may also lose a community's sense of attachment and continuity (Brown & Perkins, 1992). Fundamentally, what a visitor seeks in an historic site is a quality of difference from that which constitutes everyday life.

Historic places which people evaluates as unique and distinctive can produce strong mental images of a remembered or imagined character. People attach values to those places. These values then manifest themselves in the expression of the historic complex and create a desire to visit or return to it. Memories of local people, who have shared a common past, were triggered by those places. At the same time the historic places can represent shared pasts to visitors who might be interested in knowing about them in the present (Hayden, 1995). This research finding is in line with the heritage literature that stresses the importance of the Novelty quality of historic sites (e.g. Boniface, 1995; Orbasli, 2000; Tiesdell *et al.*, 1996).

Concerning the relationship among those three factors, this study found a high correlation existing between Attractiveness and Organization of the historic district ($r=.627$). Although the historic precinct may have an outstanding aesthetic quality despite its organization, the correlation that exists between these two factors suggests that a better Organization should improve people's impressions of its Attractiveness.

Result also indicated that the Attractiveness and Novelty of the historic site are moderately inter-correlated ($r = .480$). The finding suggests that to be highly attractive in a competitive market, a tourist-historic district should have a strong distinctive quality. As Boniface (1995) suggested,

the ideal in developing an appealing attraction would be to reveal the unique aspect of a place. The Attractiveness dimension, the affective quality attributed to a place, is evident as a key component of the full meaning attributed to that place, the Novelty of the place. In a series of studies on the meaning of large-scale environments, affective quality was repeatedly found to be a salient and important way in which environments are interpreted and compared with one another (Russell & Ward, 1981; Russell *et al.* 1981).

Looking at the relationship between the Organisation and Novelty of the tourist-historic district, the results indicated that although the Organization of the site correlated relatively highly with Attractiveness ($r = .627$), it had relatively low correlation with the Novelty dimension ($r = .340$). This finding suggests that the Novelty of the precinct seems unlikely to be affected by the Organization of the district. This indicates that although some urban tourism destinations in developing countries may not be well-organized, global tourists may still find them unique, distinctive, and desirable. In this sense, the Novelty dimension of impressions was possibly affected by the special meaning that attaches to historic district and the sense of place rather than by the Organization factor.

Implications of the Findings for the Development of Tourist-Historic Districts

The research findings suggest people's impression is a key component in the planning, design and management of an historic district, as a tourist destination as well as a living environment. The findings further suggest that the most dominant factors that evoke impressions are the Attractiveness, Organization and Novelty quality of the historic precinct complex. This stresses the need for environmental planning and design that accommodates these qualities.

The major fault of many comprehensive planning efforts is that they fail to recognize and reflect the special qualities of a place (Garnham, 1985). The research findings indicate the importance of conferring a sense of place as the special qualities of the historic precinct complex. This suggests a need for creative thinking by urban designers to produce a Novelty quality within these

particular settings. This situation further suggests the possibility of creating a “spirit of place”, which according to Harison (1990) has general appeal. The nature of the relationships among the three factors of impressions contributes to an understanding of how to deal with the juxtaposition between historic precinct and urban living environments. In this sense, the idea of relocating local people to other places should be put aside. This is in line with what Orbasli (2000) suggests, ‘city authorities have to work towards enhancing the values of the place and the live-in environment through the resource best available to them, the local community’ (p. 187).

In general, the management and development of urban historic sites should take a highly consideration in managing the visual quality of the environments. The appearance of a tourist-historic district is obviously crucial to the aesthetic experience. Tourist-historic districts appearance must satisfy tourists and local residents who experience it. A good environment provides satisfaction for both groups.

Future Research Directions

Although this research found three principal dimensions underlying people's impressions of tourist-historic districts, it did not reveal the specific environmental cues that provide such impressions. Further study is necessary to explore the environmental features of tourist-historic districts from which such impressions emerge.

This study employed only international tourists that speak English as participants. To make wider generalizations from the research findings, It is necessary for future research to employ wider participants.

Bibliography

- Altman, I., & Chemers, M. (1980). *Culture and environment*. Monterey, CA: Brooks/Cole.
- Berlyne, D. E. (Ed.) (1974). *Studies in the new experimental aesthetics: Steps toward an objective psychology of aesthetic appreciation*. Washington, DC: Hemisphere Pub. Corp.
- Boniface, P. (1995). *Managing quality cultural tourism*. London: Routledge.
- Brower, S. (1988). *Design in familiar places: What makes home environments look good*. New York: Praeger.
- Chenoweth, R. (1984). Visitor employed photography: A potential tool for landscape architecture. *Landscape Journal*, 3(2), 136-143.
- Dahles, H. (2001). *Tourism, heritage and national culture in Java: Dilemmas of a local community*. Richmond, Surrey: Curzon.
- Devas, N. (1981). Indonesia's Kampong Improvement Program: An Evaluative Case Study. *Ekistics*, 286, 19-36.
- Dogan, H. Z. (1989). Form of adjustment: Socio cultural impacts of tourism. *Annals of Tourism Research*, 15, 216-236.
- Field, A. (2009). *Discovering statistics using SPSS for Windows* (3rd Ed.). London: Sage Publications.
- Gärting, T., & G. W. Evans. (Eds.). (1991.). *Environment, cognition, and action: An integrated approach*. New York: Oxford University Press.
- Garnham, H. L. (1985). *Maintaining the spirit of place: A process for the preservation of town character*. Mesa, AZ: PDA Publishers.
- Gifford, R. (2002). *Environmental psychology: Principles and practice*. Colville, WA: Optimal Books.
- Golledge, R. G. (1991). Cognition of physical and built environments. In T. Garling & G. W. Evans (Eds.), *Environment, cognition, and action: An integrated approach*. New York: Oxford University Press.
- Green, R. (1999). Meaning and form in community perception of town character. *Journal of Environmental Psychology*, 19, 311-329.
- Hair, J. F., Jr., Anderson, R. E., Tatham, R. L., & Blau, N. (1998). *Multivariate data analysis* (5th Ed.). Upper Saddle River, NJ: Prentice Hall.
- Hayden, D. (1995). *The power of place: Urban landscape as public history*. Cambridge, MA: MIT Press.
- Hershberger, R.G., & Cass, R. (1988). Predicting user to buildings. In J. L. Nasar (Ed.), *Environmental aesthetics: Theory, research, and applications*. Cambridge: Cambridge University Press.
- Hewison, R. (1987). *The heritage industry: Britain in a climate of decline*. London: Methuen.
- Hull, R. B., & Revel, G. R. (1989). Cross-cultural comparisons of landscape scenic beauty evaluations: A case study in Bali. *Journal of Environmental Psychology*, 9(3), 177-191.
- Kaplan, S., & Kaplan, R. (1982). *Humanscape: Environments for people*. Ann Arbor, MI: Ulrich's Books.
- Krampen, M. (1979). *Meaning in the urban environment*. London: Pion limited.
- Moore, G. T., & Golledge, R. G. (1976). Environmental knowing: Concepts and theories. In G. T. Moore & R. G. Golledge (Eds.), *Environmental knowing*. New York: Van Nostrand Reinhold.
- Naai, T., Airey, D., Iijima, S., & Niininen, O. (2006). Visitors' evaluation of an historical district: Repertory grid

- analysis and laddering analysis with photographs. *Tourism Management*, 27, 420-436.
- Nasar, J. L. (1988). Perception and evaluation of residential street scenes. In J. L. Nasar (Ed.), *Environmental aesthetics: Theory, research, and applications*. New York: Cambridge University Press.
- Nasar, J. L. (1994). Urban design aesthetics: The evaluative qualities of building exteriors. *Environment and Behavior*, 26(3), 377-401.
- Nasar, J. L. (1998). *The evaluative image of the city*. Thousand Oaks, CA: Sage Publications.
- Orbasli, A. (2000). *Tourists in historic towns: Urban conservation and heritage management*. London: E & FN Spon.
- Porteous, J. D. (1996). *Environmental aesthetics: Ideas, politics and planning*. London: Routledge.
- Prentice, R. (1993). *Tourism and heritage attraction*. London: Routledge.
- Spreiregen, P. D. (1965). *Urban design: The architecture of towns and cities*. New York: McGraw-Hill Book Company.
- Russell, J. A., & Ward, L. M. (1981). On the psychological reality of environmental meaning: Reply to Daniel and Ittelson. *Journal of Experimental Psychology: General*, 110(2), 163-168.
- Russell, J. A., Ward, L. M., & Pratt, G. (1981). Affective quality attributed to environments: A factor analytic study. *Environment and Behavior*, 13(3), 259-288.
- Stamps, A. E. (2004). Mystery, complexity, legibility and coherence: A meta-analysis. *Journal of Environmental Psychology*, 24, 1-16.
- Tiesdell, S., Oc, T., & Heath, T. (1996). *Revitalizing historic urban quarters*. Oxford: Architectural Press.
- Trotter, R. (2001). Heritage tourism. In N. Douglas, N. Douglas & R. Derrett (Eds.), *Special interest tourism: Context and cases*. Milton, Qld: John Wiley & Sons.
- Wohlwill, J. F. (1976). Environmental aesthetics: The environment as a source of affect. In I. Altman & J. F. Wohlwill (Eds.), *Human behaviour and environment: Advances in theory and research: Vol. 1*. New York: Plenum Press.
- Zube, E. H., & Pitt, D. G. (1981). Cross-cultural perceptions of scenic and heritage landscape. *Landscape Planning*, 8, 69-87.