Re-invigorating the Spirit of Place of Kandy: Urban Design and City Planning Strategies

Janaka Wijesundara
Department of Architecture,
University of Moratuwa, Sri Lanka
jwijesundara@uom.lk

Abstract

Kandy – the royal capital established in the 14th Century AD is a city that has undergone constant physical and socio-economic changes while continuing to have unique cultural traditions and rituals over six centuries. As the capital of the central province of Sri Lanka, it embodies a great degree of meaningful conceptions and symbolic representations associated with Buddhist rituals and cultural life. It is a city in Sri Lanka that has a unique spirit of place.

However, regardless of all the heritage conservation efforts, with the rapid socio-economic and ad-hoc urban structural changes, the spirit of place of the city is being disturbed, thus losing its unique experiential qualities. Recently, the city had begun to lose the essence, meaning and the sense due to the physical alterations and modifications. Hence it is necessary to understand what is to be retained in a historic place and how the issue of reinstating the spirit of the place can be managed in Kandy. This paper intends to reveal how the wide-ranging traditional urban design principles and built form strategies have contributed to generate the spirit of place of Kandy and re-evaluate them in the present context. It proposes a set of key determinant factors that should be considered in decision making processes of its future planning and urban development.

Keywords: Spirit of place, Kandy, City Planning, Urban design.

Introduction

Many towns and cities in Asia have grown organically over many centuries. The origin, settlement forms and the development patterns of such towns have distinct meanings. They are the embodiments of distinct socio-cultural and religious as well as economic and political powers of different eras with rich heritage values. Many studies on traditional architecture and urban planning practices have indicated that most traditional architecture and urban forms have a cultural base (Grabar, 1976; Norberg-schulz, 1985; Rapoport, 1989; Mitchell, 1990; Seidel, 1994). They represent the accumulated experience of generations which were modified due to historical and geographical influence (Daifuku, 1975). Therefore in a city, time becomes visible.

In the process of evolution of cities, it is important to understand the meanings of their traditional built forms and to know what attributes in them are generally intact and how these cities can be sustained with the changing lifestyles of the present inhabitants. Theoretical discussions of ‘adaptability’ in urban design have been in planning and architecture discourses for decades (Lynch, K., 1958, Smithson, A.M. and Team 10., 1966) and are expected to influence their practices. However, the need for establishing inventive and efficient relationships between infrastructure, built forms, activities and sense of place at the scale of the city has become most urgent with the the more recent rapid expansions of cities; especially in Asia.
The objective of this paper is to understand the spirit of the place in Kandy and explore the key planning and urban design principles and architectural strategies that have contributed to its ritual paradigms and re-assess them in the present city context. It performs an evaluation of the outcome of the study and offers practical recommendations for sustaining the spirit of place of the contemporary city.

While it is agreed that other factors such as people, social activities, and intangibles such as traditions, values, rituals, customs and beliefs are also involved in generating the spirit of place, this study is limited to and specifically focuses on the physical factors of urban design, urban form and city planning which had been consistent through the time. The re-assessment of the spirit of place of Kandy is done mainly by analyzing the physical factors derived from ancient city planning treaties.

It adopts a qualitative approach conducted through empirical methods integrating research and practice while responding to dynamics of situations yet respecting contextual/time differences. It employs examination of literature, historic records, study of ancient city planning treaties, review of outcomes of other related studies and analysis and appraisals of observation studies as the methods to unravel the meanings and understandings of place.

A Theoretical Basis: City as a ‘Ruling Device’

The interpretation of the city as a ‘ruling device’ is common to many cultures and its manifestations are different and unique from culture to culture, region to region and era to era. Throughout history, the royal palace is described as a device to emphasize the King’s power and to rationalize his rule by creating a feeling of awe in people’s minds through a series of architectural illusions (Duncun J.S, 1990; Charles Segal, 1999). The creation of the feeling of subservience is much theatrical and accomplished through reinforcing various means to set up a spatial framework of a field of kingship within which ruler appears as a sacred or liminal figure. This liminality, the state of being in-between the human world and worlds of gods, has become the legitimacy for ruling. The city planning and urban design of Kandy city is also a fine case for this interpretation though it has its own modifications and corrections (Duncun, 1990). Duncan analyzes the dialectic relationship between urban landscape and the pursuit of power in the royal capital of Kandy during the early years of the nineteenth century and demonstrates how the Kandyan city planning and landscape were consciously designed to foster power, benevolence and legitimacy of the kings in their capital.

Ancient concepts of city planning and design in South Asia

The origin of the city plan in the primitive cultures is the notion of universe and the reconciliation to people’s fate through ritual (Rykwert, J. 1976). In these cultures the prototypes for the urban grid were sacred geometric figures as seen as ‘Templum’ in Roman’s grid cities and ‘Mandala’ in South Asian towns. The ancient treaties such as Manasara and Vastushathra describe on the built form and urban character of the city detailing planning and urban design principles and functional and environmental relationships (Mahendra Sharma, 2010). Sthapathy Veda, Smrithi Sastra and Vaasthu Sastra deal with aspects of layout of the city, street layout and architectural design, planning and construction of buildings respectively, whereas Artha Sastra deals with the aspects of environmental management. Most south Asian cities follow Mandala principles of which the central point, the focus of creative force was the place where the communication between the cosmic plains, between earth and heaven is achieved (Wheatly, 1969). More specifically the significance of the nature and environment as the most essential components for the sustenance of eco system, impacting upon the social ecology was the prime concern.

The ancient treaties of planning and design such as Vastu Shasthra, Manasara
Kaitilya explains many planning principles (Shamasstry, 1915; Scribd);

- The grid is the most important principle and therefore boundaries and plots are rectangular in shape.
- Landscape and garden planning is a key feature as Aryans were nature worshippers and water and trees had unique importance in their life
- The demarcation of the ground inside the fort shall be made by opening three royal roads from West to East and three from South to North.
- Quarters of various classes to be situated towards various cardinal directions
- Kings quarters to be located in the centre of the city slightly towards North and occupied 1/9 of the total site inside the fort and palace to be faced east or north.
- Shrines of guardian deities to be built in the centre of the city and in every other quarter.

- The burial or cremation grounds shall be situated either to the west or to the north.
- The people of the highest class to be resided towards the south of the city and the lowest class shall reside beyond the burial grounds.

Historic records and ancient chronicles as well as archaeological remains explain (Cooray, N.2012) the character of Sri Lankan ancient cities;

- Cities were well planned with tree lined broad streets and gleaming palaces and public buildings
- Serene parks with monasteries and sparkling ponds were key features
- City is formed with number of streets running to north south and east west directions into a grid form having four gates at four cardinal directions
- The location of the city is at a close proximity to the river or a large water body.

The present cities which are resulted through the transformation process taken place for several centuries accommodating the social, cultural, functional and economic needs of previous generations may be totally different to the life styles of their origin. Though these cities now serve the functions of the present day such as administration, trade, defense, commerce etc., the spirit of the place of some cities is being prevailed throughout.

Understanding Spirit of Place

We realize that the built environment influences on the natural environment, our health, how we think, feel and behave both individually and socially. Unlike the term ‘Space’ that has no meaning, until we give it a meaning, a ‘place’ attains a meaning, if there are associations, which are important to us. For instance, College has a meaning as it is associated with persons, fellows, great teachers, students. The past principal’s portraits and the pictures of various college teams are displayed on the wall. Also the City Hall is meant for the people, a people’s place that represents their power, and a place where people yet
continue celebrating their victories of many battles they won in the past.

‘Spirit of the place’ manifests how to work towards a sustainable environment through socially inclusive process of place making, and how to create places that are nourishing psychologically and physically, the soul and the spirit as well as the body (Christopher Day, 2002). The ‘spirit of place’ refers to the unique, distinctive and cherished aspects of a place; those cherished in legends, folk tales, festivals and celebrations (Surhone Lambert M., Timpledon Miriam T., Marseken Susan F., 2010). Thus it is much in the invisible weaves of culture; as it is the tangible physical aspects of a place such as monuments, pathways, rivers, woods, architectural styles, art and craft styles or its interpersonal aspects such as relatives, kinship, affiliations and likeness. The spirit of the place is the experiential quality which is a combination of tangible attributes (buildings, streets, landscape, activities) and intangible attributes (symbolic meanings of the place, memories, emotions, preferences, etc) of that place.

Urban design and Planning
Principles of Kandy City and Spirit of Place

Kandy, the last capital of Sri Lankan ancient dynasties and the royal residence, is a testimony for the process of urban transformation from Sri Lankan ancient to contemporary periods. The spirit of place mainly prevails not only due to the existence of city’s physical components (built form, planning and design), but also due to the authentic socio-cultural and religious activities happening in the city while the tangible and intangible components merging into its unique environmental setting. The place spirit of Kandy is a result of a juxtaposition of several core-dimensions (Silva, 2008), which include the senses of sacrality (due to presence of sacred tooth relics), historic solemnity (being the last capital of Sinhalese monarchy), scenic serenity (city form derived by dominant natural setting), and well-being (sense of attachment, sense of community, pride and dignity) all complimentary to each other. Yet this finding does not specifically mention on the physical dimension that is built form planning and urban design component which makes a significant contribution to spirit of the place being a consistent element.

The focus here are the physical factors, mainly planning and urban design elements that contribute to the creation of spirit of place in Kandy. The following key elements which have been derived from the traditional urban design and planning practices using ancient treaties as discussed above are recognized and re-assessed.

<table>
<thead>
<tr>
<th>Element</th>
<th>Original status/information/scenario</th>
<th>Current status/re-assessment</th>
</tr>
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<tbody>
<tr>
<td>1. Grid city and orientation</td>
<td>a) General planning of the grid follows the form of cosmic cross placing principle streets along east west and north south axis. One of the early records on the character of Kandy city from Robert Knox in 1681 (Knox, Robert, 1958) describes that the city is formed as “three square”, in a triangular shape owing to hills that hemmed it in. A long bank of earth across the valley from one hill to another is on the south side. b) The earliest recorded map of Kandy of 1602 shows the royal quarter of the city contains two square enclosures located on the east of the city and one on the</td>
<td>a) The present historic city still maintains this grid though the newly expanded areas are not conforming to the idea of grid city. b) Royal quarter is still intact except some British period interventions. c) Within the grid city, almost all buildings follow orientation responding to streets d) Street Hierarchy is still</td>
</tr>
</tbody>
</table>
| 2. Axial Planning | a) The planning of the city follows the form of a cosmic cross because of the North South and East West Street axis.  
    b) East west axis ensures the purification of the street by allowing morning through afternoon sunrays and north-south street axis provides optimum air circulation with the cool breeze coming over originally the open fields and lately the lake.  
    c) The enclosed gardens are planned symmetrically along the east west axis. The principle of axial focus is seen as the central path along the east west axis is focused on the temple complex and palace which is the nucleus of the city.  
    d) It is seen that the city grid is an ideal grid where there is no a sacred centre point as defined in Mandala principles. | a) However many of the streets on the south side have been obstructed its connections to lake and open areas as these areas have been already built.  
    b) The central axis along east-west in the grid city is blocked by structures constructed during British period. |
|---|---|---|
| 3. Entrance articulation and circulation | a) The city entrance were placed from North, East and West sides, however city may have another entrance as there were four ferries to connect the city across the river. The east west pathway located centrally leading up to the foot of Udawaththa hill is an imposing central approach.  
    b) A visitor to the city in 1803 (Cordiner, 1807) describes, “The entrance to Kandy from road is through a rude attempt of a barrier gate, you ascend by a number of steps; and advancing a few hundred yards, you come to another of the same kind; you may then be said to be at the entrance of the town, which consists of one broad street, about two miles length, from the second barrier to the palace, which is at the upper end, but in an open space, a little to the left of the street. From the main street a number of smaller ones branch off in various directions”. | a) The early entry points into city now have been shifted far away locations with its expansions.  
    b) None of these barriers are in existence at present.  
    c) Entry into grid city is yet confused due to recent built form changes |
4. Plot subdivision

| a) | Generally the city was divided into four quarters by two major streets running north-south and east-west and one running east-west was divided into two administrative units. Western rectangle was the location of both the residences of nobles and houses and shops of the common people. |
| b) | Until the reign of last king, the four quarters were further subdivided by streets into sixteen squares. Two new streets were added and three others were extended by the last king increasing number of plots to 21 and the west part of the city got formed in to a perfectly shaped rectangle. |
| c) | These works have been interpreted as city beatification works initiated by the king. The eastern rectangle, called sacred rectangle was the real focus of the ritual power in the kingdom where temples and palace were located. |

| a) | The plot sub-divisions within the grid city still existing. |
| b) | Its use is only for commercial, institutional and office other than religious activity centres. |
| c) | The eastern triangle with palace and temple remains mostly in original status other than British period and few recent interventions (refer Plate 3) |

5. Natural Landscape and setting

| a) | Kandy city conforms to the locational requirements of Sukracharya and Manasara as discussed above and ancient four defense strategies, barriers of mountains, water, forest, and marshes are considered by selecting the location. Surrounded by the river Mahaweli from three sides and three forest hills, Hanthana, Udawaththa and Bahirawakanda, Kandy was a heavenly city in its natural setting. |
| b) | The royal gardens were placed up in the sacred forest of Udawaththakele and the separation between the sacred and profane was achieved by using landscape methods. The entire setting is reflected on the lake, Kiri Muhuda with the pleasure pavilion at the middle of the lake. |

| a) | The mashes do not exist anymore |
| b) | Except Uadawaththa forest, all other hill areas have been heavily built during the past. |
| c) | There is no much separation between contemporary city quarters and old city. |
| d) | Built form and size of recent commercial complex does not follow existing form. |

6. Urban Design and landscape Elements

| a) | The Cloud (walakulu) wall around the Lake is a significant element viewable from all sides of the city. During historic times, this wall had been decorated with oil lamps and had been a stunning view at night. |
| b) | The existence of island in the lake make the place more three dimensional |
| c) | The series of decorative sold wall facades of the palace premises also make a strong contribution to the spirit of the place |

| a) | The cloud wall is still remaining and maintained and plays a strong visual role. |
| b) | Island still seen, but the new landscaping to be relooked at. |
| c) | Walls of the palace premises is well maintained |

7. Views

| a) | Originally city was maintained with |

| a) | Many places and street |
8. The spirit of the place of Kandy

<table>
<thead>
<tr>
<th>a)</th>
<th>During the reign of last king, the city got transformed into a remarkable divine place of power, with a holy notion. This is mainly expressed with the tooth relic as the centre of the political and religious power and two great monasteries representing the power centre of the Buddhist monks as well as four main god’s temples.</th>
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<tr>
<td>b)</td>
<td>Analyzing the key built form and natural elements that formed the city, with a great extent of cosmological symbolism, one could observe that the king who had a god king mentality may have attempted to create a place like the abode of Sakra there.</td>
</tr>
<tr>
<td>c)</td>
<td>The reflections of the palace complex, temples, landscaped terraces and the walls of clouds in foreground with the wooded mountain, called Udawaththekele in the background made on the artificially built lake in the city, called Kirimuhuda would ideally create such imageries in viewer’s mind dramatically. Calmness and sereneness of the city that blend with the wooded backgrounds which is disturbed only by the sounds of drums and trumpets played during the religious performances of the day perfectly create divinity as a holy place in a subtle way.</td>
</tr>
<tr>
<td>a)</td>
<td>The spirit of place is mainly contributed by street grid, built edges of the streets, Udawaththa Forest, Lake, existence of unique buildings such as palace, temples, and the religious activities taken place.</td>
</tr>
<tr>
<td>b)</td>
<td>The views and experiential qualities specially from the other side of the lake still prevail.</td>
</tr>
<tr>
<td>c)</td>
<td>Recent large scale developments with massive foot prints dominate the place and disturb the spirit of the place of city.</td>
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**Present City and Conflicting Interests**

Present Kandy City consisted with different layers of urban forms has undergone with a changing process in which many of the inherited values have been continued and reinterpreted in different forms. However current development activities are happening in a haphazard, abrupt or non-regulated manner impacting negatively. It is doubtful whether they contribute to the sustainability of the city. The damage to the urban character, the architectural uniqueness of the town and the setting, thereby loosing the town’s identity is apparent (The Kandy News). Further the increase of temperatures in the city during past years also is a result of the developments clearing woods in hills. Today there is considerable pressure for the growth of the city and maintaining suitable balance between conflicting
interests of conservation and development has become vitally important. The expansion of city population both residential and commuter is a serious issue threatening to the image of the city and spirit of the place. Like in many other towns in Sri Lanka, our observations show that the physical development of Kandy is being occurred as a linear built wall along streets and trunk roads. Although city is currently identified into different zones, many uses are incompatible to those zones. The wholesale functions of the grid city began century ago, has become major threat to the city character. Specially the architectural design styles of contemporary buildings do not contribute to enhance the spirit of the place. The vendor’s activities in pedestrian spaces of the streets largely impact negatively to the city character and comfort of the pedestrians (The Nation, January 16, 2013). The traffic and parking is a serious issue creating a chaotic situation.

Some Recommendations

As discussed above, the ‘spirit of the place’ of Kandy city, as a remarkable place of divine power with majestic appearance is mainly prevalent due to the continuance of intimate connections between the city’s form and function with its natural features and scenic environmental setting. The tangible built form elements such as finely articulated street grid strengthened by views and vistas, use of elegant architectural features and styles, excellent landscape design attributes as well as intangible aspects of cultural traditions, social dignity and ritual performances contribute to the city character. The live cultural performances such as Kandy possession and sounds of drums and trumpet make the city a holy place.

Considering the universal situations both in terms of ancient and contemporary cities and the unique design principles of Kandy City as identified and re-assessed as above, the key planning and urban design criteria on reinstating the spirit of the place of Kandy is proposed under following key aspects.

1. Preserve the natural setting and the wooded hills restricting further subdivision and constructions. Further any legal development in the hills should be thoroughly regulated that site specific landscape screening strategies would minimize the visual clutter. Maintain the illumination levels in hills so that light would not negatively impact on the ambiance of the city.

2. Consider the relocating of non-conforming uses out of the vicinity of grid city and sacred city area and replace them with more conforming activities that contribute to the character rebuilding. Promote urban Intensification appropriately.

3. Restrict the liner developments along the trunk roads and streets around the lake and the grid city. Kandy should think of new town development areas by introducing new traffic routes, services and infrastructure to cope up with the future demands of residential, commercial and service activities.

4. Execute the planning regulations and heritage conservation guidelines. Prepare urban design implementation guidelines that can assist managing the urban transformation in sustainable manner by retaining the spirit of the place in the town. In this different districts of the town would be identified with built form and public realm guidelines. Current emphasis mainly given for the sacred zone only is not adequate. The developments in the areas next to grid city and surrounding hills also should be identified and guided.

5. The urban architectural and urban landscaping approaches would be key aspects. Places to be remembered with reference to
their purposes. Rename the streets and places with their original names such as Kavikara Veediya, Swarnakalyana Veediya, Palledeniya Veediya. Implement street character improvement programs which are to be prepared considering character and identity. Reinstate the historically important places and nodes at old entry ways, pathways, urban landscape elements etc. The places and views blocked due to holdings should be removed.

6. Identify all urban elements as different layers and explore the hierarchical relationships with contextual settings. Make landmarks and nodes clearly identifiable. Kandy city should not have any other or different centres, overriding the royal esplanade, temple premises and grid city surroundings which should be the most remembered place. Rather, the places/nodes of services and commerce can be established appropriately in suitable locations.

7. Improve the permeability and make the city a pedestrian friendly place. Restrict unnecessary vehicles within the grid city and promote public city transit. Create a pedestrian pathway system that runs separately from the main traffic routes within the city. Maintain the hierarchical character of new and existing public places and connect them through a pathway system.

8. Improve the city entry transition. Historically Kandy city is planned innovatively using existing site environmental features. Instead of constructing defense elements such as moats and fortifications as seen in other Sri Lankan cities, Kandy has greatly used its natural features such as river, marshes, water bodies and mountains. The entrance transition to the city can be created with the natural elements such as rivers and mountains with scenic views and physical developments in such places are to be restricted.

In achieving above, the city’s governance resources in local authority must be improved and all levels of development activities are to be backed by sensitive urban planning and urban design approaches with effective implementation mechanisms.

Conclusions

Cities, streets and buildings communicate messages and the efforts and resources were managed in the coordination and standardization of urban built forms to communicate various kinds of messages in three varying levels in ancient cities (Rapoport cited in Smith, Michael E. 2007). ‘High-level’ meaning describes cosmological and supernatural symbolism that may be encoded in buildings and city layouts, ‘middle-level’ meaning refers to deliberate messages about identity and status communicated by the designers and constructors of buildings and cities, and ‘low-level’ meaning describes the ways in which the built environment channels and interacts constantly with behavior and movement. It can be difficult today to determine the relative importance of various levels of meaning of present day cities. The qualitative aspects like socio-cultural cohesiveness, character, and spirit of the place of cities seem greatly missing at present. As discussed Kandy City exemplifies how urban built environment can be carefully designed to achieve communications through varying levels identified as above.

Urban design can offer enormous potentials for the meaningful enhancement of city’s built form and public realm, enrichment of socio-cultural values and improvement of economic environment giving physical design direction to urban growth, conservation and change (Barnett, 1982). The pattern of urban infrastructure, two and three-dimensional geometry of
built form, environmental and Landscaping elements, circulation routes, the shape of public spaces and paths that connect them are key variables deployed by the urban designer to configure the change and growth of the city. Kevin Lynch searched for plausible propositions that would link physical configuration with the qualities of cities (Lynch, K., 1984). The urban designer’s intention, through the exploration of different configurations and their probable consequences, is to discover the means whereby each part and the whole of the city becomes a better host for the activities of its users. Preserving the spirit of the place of Kandy is largely based on the maintaining the city form guided through its original urban design and planning principles and elements.

It is crucial to engage in such a dialogue to ensure that future decisions on town’s development are taken appropriately and prudently. Currently Urban Development Authority of Sri Lanka has taken initiatives to implement an extensive urban revitalization project for Kandy City through a funding mechanism through World Bank under the motto – “Creating more Connected, Livable, and Inclusive Cities” (World Bank). However it is observed that for successful implementation of such potential programs, the urban planning, design and development quality control and professional input mechanisms seen in the current urban planning and development control system must be improved. Qualified staff resource capacity building is a must at the national and local level planning authorities to deal with all aspects in built form control. Many municipalities in Sri Lanka including Kandy do not employ required qualified staff and resources for this. For instance none of the Municipalities in Sri Lanka currently employ urban design professionals and specially city like Kandy as a cultural and sacred city that has to be dealt with high degree of sensitive aspects in terms of the urban environment, the valid professional urban development and planning input are not optimally utilized. Also, the lack of urban governance indicators of the city as identified by UN-Habitat (Taylor Paul and Halfani Mohamed, 2004) would largely impact on this type of interventions. Moreover, it would be critical to regard whether the city, in this case, Kandy has got established a real political will and power to engage in this.

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Plates:

**Figure 1:** Creating a sacred place using water, wooded mountain and urban design and landscape elements and architectural devices
Source: Author

**Figure 2:** Kandy historic city in 1900 showing the street grid pattern
Source: Lankapura.com