CHAPTER I
INTRODUCTION

1.1 General

A heritage building is a structure that has survived the hazards of time and provides a tangible link between the past and present giving us a continuous cultural identity (Kathpalia and Lambah, 2002). Although the importance, need and responsibility of heritage preservation are recognised all over the world for a long time, awareness about these aspects has been gaining momentum only of late, particularly in developing countries like India. This situation calls for immediate interventions in the existing legal frameworks and conception of full-proof management plans that help pave the way smooth for forging ahead in matters of attribution of longevity to the prestigious heritage possessions in the country.

This Chapter presents the definition of heritage, its classification, heritage typologies and resources in the following sections from 1.2 to 1.5. Further, it elaborates threats to the heritages in section 1.6, need and planning for conservation in sections 1.9 and 1.10 respectively, paving way for the identification of the problem for the present thesis work as discussed in section 1.11. Finally, it closes with the scope of study in section 1.12.

1.2 Heritage

Heritage, as is generally known, means inheritance of things (usually ‘concrete’) from ancestors. Nevertheless, customs, conventions, practices, traditions and the like passed on from one generation to the other also form heritage (normally ‘abstract’). Depending upon the context, the noun (heritage) is prefixed or suffixed to an adjective or another noun to convey specific facets of the subject, viz., cultural heritage, natural heritage, movable heritage, immovable heritage, heritage villages, heritage routes, heritage canals, underwater heritage, virtual heritage and so on. Thus, heritage is a broad concept that encompasses all aesthetic, architectural, cultural, historical, spiritual, indigenous and natural inheritances, etc.

Many of these inheritances, particularly that of ‘concrete’ category are cared as archaeological subjects (artifacts, buildings, cities, precincts, sites, etc.) for long
around the world. In contrast, recognition of other categories, specifically ‘abstract’ and natural inheritances as heritages is relatively an younger offshoot. World over, it is customary to distinguish archaeological possessions from heritage subjects based on age as the fundamental criterion. The thumb rule for delineating the two groups varies from country to country and in India, the criterion is set at 100 years. That means all assets having equal or more than 100 years of existence in India fall into archaeological arena and the ones less than 100 years into heritage spectrum (Anonymous, 2011a).

1.3 Heritage Classification

United Nations Educational, Scientific and Cultural Organisation (UNESCO) in its World Heritage Convention in 1972 have classified heritages as cultural and natural (Anonymous, 1972) as explained in the following sub-sections 1.2.1 and 1.2.2 (Table 1.1).

1.3.1 Cultural Heritage

Cultural heritage in turn is distinguished into tangible and intangible sub-categories.

Table 1.1: UNESCO’ Classification of Heritages

<table>
<thead>
<tr>
<th>1. Cultural Heritage</th>
<th>1.2 Intangible Heritage</th>
<th>2. Natural Heritage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.1 Tangible Heritage</td>
<td>1.2 Intangible Heritage</td>
<td>2.1 Tangible and Immovable Heritage</td>
</tr>
<tr>
<td>Immovable</td>
<td>Movable</td>
<td>a) Music</td>
</tr>
<tr>
<td>i) Monuments: Archaeological sites Industrial archaeology</td>
<td>i) Archives</td>
<td>b) Dance</td>
</tr>
<tr>
<td>ii) Buildings: Architectural works Historic centres Groups of buildings</td>
<td>ii) Museum collections</td>
<td>c) Literature</td>
</tr>
<tr>
<td>iii) Sites: Cultural landscapes Historical parks, gardens and Botanical gardens</td>
<td>iii) Libraries</td>
<td>d) Theatre</td>
</tr>
<tr>
<td></td>
<td></td>
<td>e) Oral traditions</td>
</tr>
<tr>
<td></td>
<td></td>
<td>f) Traditional performances</td>
</tr>
<tr>
<td></td>
<td></td>
<td>g) Social practices</td>
</tr>
<tr>
<td></td>
<td></td>
<td>h) Know-how</td>
</tr>
<tr>
<td></td>
<td></td>
<td>i) Crafts</td>
</tr>
<tr>
<td></td>
<td></td>
<td>j) Cultural spaces</td>
</tr>
<tr>
<td></td>
<td></td>
<td>k) Religious ceremonies</td>
</tr>
</tbody>
</table>
1.4 Heritage Typologies

Of the various categories of heritages mentioned in the above sub-sections, the first one (tangible immovable cultural category) is widely dealt with and usually comprises of common assets (of mankind) with distinct identity and unique character that can be differentiated into various types depending upon their significance or utility as under (Gupta, 2007).

i) Residential heritage Bungalows, Forts, Havelis, Palaces, Shikargarhs, Town Houses, etc.

ii) Commercial heritage Bazaars, Factories, Garages, Sea ports, Shops, Warehouses, etc.

iii) Community heritage Air ports, Colleges, Courts, Hospitals, Libraries, Police stations, Post offices, Railway Stations, Schools, etc.

iv) Religious heritage Churches, Dargahs, Gurudwaras, Mosques, Shrines, Temples, etc.

v) Memorials heritage Chatri, Head stones, Historic inscriptions, Samadhis, Tombs, etc.

vi) Heritage precincts Historical and traditional places such as heritage villages; craft centres; urban precincts and streetscapes; historic and trade routes; academic, scientific, technological and industrial establishments and transportation sites, etc.

vii) Heritage landscapes Landscapes (gardens, open areas, parks, etc.); scenic sites (hills, hillocks, sacred grooves, valleys, wooded areas, etc.) and water bodies (rivers, streams, reservoirs, tank, wells, etc.), etc.

The present work is confined to this category and hereafter referred to as built heritage or cultural heritage or heritage depending upon the context.

1.5 Heritage Resources

Any heritage as such should be treated as an unexhaustive “resource” or “treasure” because of the precious information contained in it and that each one is a non-renewable entity. The significance of each of these resources depends upon its identity based on specific characteristics that delineate it from other similar resources (Fielden, 2003). These resources constitute more or less unique and extremely
valuable possessions of a particular place, area or region (Gupta, 2007) and may at times carry outstanding universal value.

1.5.1 International Heritage Resources

In all the nations together on the globe, UNESCO in 2012 have declared 962 properties of outstanding universal value as “World Heritage” (Anonymous, 2012a). Of these, 188 are natural, 745 cultural and 29 mixed (tangible cultural immovable) properties spread over 158 countries, of which India is a party though contributing a meager share of around 3% (Table 1.2).

A few examples of the world famous heritages listed under various categories by different agencies including UNESCO are Christ The Redeemer in Brazil, Colosseum in Italy, Eiffel Tower in Paris, Empire State Building in United States of America, Golden Gate Bridge in London, Great Pyramid of Giza in Egypt, Great Wall of China, Leaning Tower of Pisa in Italy, Stonehenge in United Kingdom, Sydney Opera House in Australia and Taj Mahal in India.

Table 1.2: UNESCO’s World Heritage Properties-2012

<table>
<thead>
<tr>
<th>Zone</th>
<th>Natural</th>
<th>Cultural</th>
<th>Mixed</th>
<th>Total</th>
<th>%</th>
<th>Countries represented</th>
</tr>
</thead>
<tbody>
<tr>
<td>Africa</td>
<td>35</td>
<td>47</td>
<td>4</td>
<td>86</td>
<td>9</td>
<td>31</td>
</tr>
<tr>
<td>Arab States</td>
<td>4</td>
<td>67</td>
<td>2</td>
<td>73</td>
<td>8</td>
<td>18</td>
</tr>
<tr>
<td>Europe and North America</td>
<td>59</td>
<td>393</td>
<td>10</td>
<td>462</td>
<td>48</td>
<td>50</td>
</tr>
<tr>
<td>Latin America and Caribbean</td>
<td>35</td>
<td>90</td>
<td>3</td>
<td>128</td>
<td>13</td>
<td>26</td>
</tr>
<tr>
<td>Total</td>
<td>188</td>
<td>745</td>
<td>29</td>
<td>962</td>
<td>100</td>
<td>158</td>
</tr>
</tbody>
</table>

1.5.2 National Heritage Resources

Indian history dates back to several centuries and as such the country is a land of deep-rooted heritage. Cultural heritages in the country could be traced to Paleolithic age as evidenced from around 30000 years old Bhimbetka Rock Shelters near Bhopal in Madhya Pradesh. As aptly pointed out by Poonacha (2007), “Since ancient times, India has been well-known for her exhaustive architectural manifestations in different
media of expressions of socio-religious nature”. Thus, the country is resplendent with ancient forts, monuments, palaces and so on and so forth that stand as testimony to the long, rich and varied heritage of the nation. Some of these marvelous old cultural monuments of universal acclaim are listed among World Heritages by UNESCO (Table 1.3).

Table 1.3: UNESCO’s World Heritages in India

<table>
<thead>
<tr>
<th>Sl. No.</th>
<th>Heritage property</th>
<th>Latitude</th>
<th>Longitude</th>
<th>Area (ha)</th>
<th>Unique number</th>
<th>Date inscribed</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Natural Heritage</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>Kaziranga National Park, Assam</td>
<td>26.67</td>
<td>93.42</td>
<td>42996</td>
<td>384</td>
<td>1985</td>
</tr>
<tr>
<td>2</td>
<td>Manas Wildlife Sanctuary, Assam</td>
<td>26.73</td>
<td>91.03</td>
<td>39100</td>
<td>385</td>
<td>1985</td>
</tr>
<tr>
<td>3</td>
<td>Keoladeo National Park, Rajasthan</td>
<td>27.16</td>
<td>77.51</td>
<td>2873</td>
<td>387</td>
<td>1985</td>
</tr>
<tr>
<td>4</td>
<td>Nanda Devi and Valley of Flowers National Parks, Uttarakhand</td>
<td>30.72</td>
<td>79.67</td>
<td>71783</td>
<td>382</td>
<td>1988</td>
</tr>
<tr>
<td>5</td>
<td>Western Ghats, Southern India</td>
<td>8.53</td>
<td>77.25</td>
<td>795315</td>
<td>1921</td>
<td>2012</td>
</tr>
<tr>
<td><strong>Cultural Heritage</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>Ajanta Caves, Aurangabad, Maharashtra</td>
<td>20.55</td>
<td>75.70</td>
<td>8242</td>
<td>269</td>
<td>1983</td>
</tr>
<tr>
<td>7</td>
<td>Ellora Caves, Aurangabad, Maharashtra</td>
<td>20.03</td>
<td>75.18</td>
<td>--</td>
<td>270</td>
<td>1983</td>
</tr>
<tr>
<td>8</td>
<td>Agra Fort, Agra, Uttar Pradesh</td>
<td>27.18</td>
<td>78.03</td>
<td>--</td>
<td>281</td>
<td>1983</td>
</tr>
<tr>
<td>9</td>
<td>Taj Mahal, Agra, Uttar Pradesh</td>
<td>27.17</td>
<td>78.04</td>
<td>--</td>
<td>282</td>
<td>1983</td>
</tr>
<tr>
<td>10</td>
<td>Sun Temple, Konarak, Odisha</td>
<td>19.89</td>
<td>86.09</td>
<td>11</td>
<td>274</td>
<td>1984</td>
</tr>
<tr>
<td>11</td>
<td>Group of Monuments at Mahabalipuram, Tamil Nadu</td>
<td>12.62</td>
<td>80.19</td>
<td>--</td>
<td>277</td>
<td>1984</td>
</tr>
<tr>
<td>12</td>
<td>Churches and Convents of Goa</td>
<td>15.50</td>
<td>73.91</td>
<td>--</td>
<td>260</td>
<td>1986</td>
</tr>
<tr>
<td>13</td>
<td>Khajuraho Group of Monuments, Madhya Pradesh</td>
<td>24.85</td>
<td>79.92</td>
<td>--</td>
<td>267</td>
<td>1986</td>
</tr>
<tr>
<td>14</td>
<td>Group of Monuments at Hampi, Karnataka</td>
<td>15.31</td>
<td>76.47</td>
<td>4187</td>
<td>1932</td>
<td>1986</td>
</tr>
<tr>
<td>15</td>
<td>Fatehpur Sikri, Agra, Uttar Pradesh</td>
<td>27.09</td>
<td>77.66</td>
<td>--</td>
<td>285</td>
<td>1986</td>
</tr>
<tr>
<td>16</td>
<td>Group of Monuments at Pattadakal, Karnataka</td>
<td>15.95</td>
<td>75.82</td>
<td>6</td>
<td>266</td>
<td>1987</td>
</tr>
<tr>
<td>17</td>
<td>Elephant Caves, Off Mumbai, Maharashtra</td>
<td>18.97</td>
<td>72.94</td>
<td>--</td>
<td>272</td>
<td>1987</td>
</tr>
<tr>
<td>18</td>
<td>Great Living Chola Temples, Gangaikondar, Ariratheswarar and Brihadeshvara, Tamil Nadu</td>
<td>10.78</td>
<td>79.13</td>
<td>22</td>
<td>280</td>
<td>1987</td>
</tr>
<tr>
<td>19</td>
<td>Buddhist Monuments at Sanchi, MP</td>
<td>23.48</td>
<td>77.74</td>
<td>--</td>
<td>613</td>
<td>1989</td>
</tr>
<tr>
<td>20</td>
<td>Humayun’s Tomb, Delhi</td>
<td>28.59</td>
<td>77.25</td>
<td>--</td>
<td>258</td>
<td>1993</td>
</tr>
<tr>
<td>21</td>
<td>Qutb Minar and Its Monuments, Delhi</td>
<td>28.53</td>
<td>77.19</td>
<td>--</td>
<td>259</td>
<td>1993</td>
</tr>
<tr>
<td>22</td>
<td>Mountain Railways of India</td>
<td>11.51</td>
<td>76.94</td>
<td>89</td>
<td>1540</td>
<td>1999</td>
</tr>
<tr>
<td>23</td>
<td>Mahabodhi Temple Complex at Bodh Gaya, Bihar</td>
<td>24.70</td>
<td>84.99</td>
<td>5</td>
<td>1231</td>
<td>2002</td>
</tr>
<tr>
<td>24</td>
<td>Rock Shelters of Bhimbetka, Bhopal, MP</td>
<td>22.93</td>
<td>77.58</td>
<td>1893</td>
<td>1079</td>
<td>2003</td>
</tr>
<tr>
<td>25</td>
<td>Chhatrapati Shivaji Terminus, Mumbai, Maharashtra</td>
<td>18.94</td>
<td>72.84</td>
<td>3</td>
<td>1105</td>
<td>2004</td>
</tr>
<tr>
<td>26</td>
<td>Champaner-Pavagadh Archaeological Park, Gujarat</td>
<td>22.48</td>
<td>73.53</td>
<td>1329</td>
<td>1279</td>
<td>2004</td>
</tr>
<tr>
<td>27</td>
<td>Red Fort Complex, Delhi</td>
<td>28.66</td>
<td>77.24</td>
<td>49</td>
<td>1460</td>
<td>2007</td>
</tr>
<tr>
<td>28</td>
<td>The Jantar Mantar, Jaipur, Rajasthan</td>
<td>26.92</td>
<td>75.83</td>
<td>2</td>
<td>1677</td>
<td>2010</td>
</tr>
</tbody>
</table>
These world heritages are Buddhist monuments at Sanchi in Madhya Pradesh and Ajanta caves at Aurangabad in Maharashtra of 3rd century BC under Mauryan and Sathavahana empires, respectively. Mahabodhi temple complex of the late-Gupta period (5th-6th century AD) at Bodh Gaya in Bihar, Rock-cut Elephanta caves (5th-8th century AD) off Mumbai, Ellora caves (6th-12th century AD) of Rastrakuta era at Aurangabad in Maharashtra, Mahabalipuram, Pattadakal monuments of Pallava and Chola dynasties (7th-8th century AD) in south India are some more examples of early human accomplishments.

Next in the line are Khajuraho monuments of Chandelas period (10th-12th century AD) in Madhya Pradesh, Agra Fort of Hindu Sikhwar Rajput rule (11th century AD) and Gangaikonda, Airateshvara, Brihadeshvara living temples of Chola dynasty (11th-12th century AD) in Tamilnadu, Qutb Minar complex of early Islamic period (12th-14th century AD) in Delhi and Sun Temple of Eastern Ganga dynasty (13th century AD) at Konark in Odisha.

Further, chief reflections of heritages are found in Hampi whole site of Vijayanagara empire (14th-16th century AD) in Karnataka, Red Fort complex and Humayun’s Tomb at Delhi, Fatehpur Sikri of Mughal period (16th century AD) at Fatehpur in Uttar Pradesh, Champanier-Pavagadh archaeological park of early Islamic period (16th-17th century AD) in Gujarat, Churches and convents of Goa of Portuguese (16th-18th century AD), Taj Mahal of Mughal period (17th century AD) at Agra in Uttar Pradesh, Jantar Mantar of Rajput rule (18th century AD) at Jaipur in Rajasthan and Chhatrapati Shivaji Terminus of British Colonial period (19th century AD) at Mumbai in Maharashtra.

Foundations for modern architecture were laid during the late old cultural period (early 16th century AD) by the Portuguese in the country thereby ushering in the era of Colonial architecture. The trend was continued during subsequent centuries till independence by the succeeding British and French powers. Portuguese Empire in the East made Goa as their capital and at the helm of their rule had constructed several churches and convents in Manueline, Gothic, Renaissance and mixed architectural styles that culminated in the origin of a new Portuguese Baroque style in the country.
i) Tangible Cultural Heritage

Tangible cultural heritage is further classified into ‘tangible cultural immovable’ and ‘tangible cultural movable’. Tangible cultural immovables compose of i) monuments pertaining to archaeological sites and industrial archaeology, ii) buildings with architectural works of historical centres and groups of buildings that are also combinedly termed in most texts as ‘built heritage’ and iii) sites such as cultural landscapes, historical parks, gardens and botanical gardens. Tangible cultural movables encompass i) archives, ii) museum collections and iii) libraries. These heritages are of outstanding universal value from the point of view of aesthetic, anthropological, ethnological perspectives, art, history or science.

ii) Intangible Cultural Heritage

Intangible cultural heritage is recognised into music, dance, literature, theatre, oral traditions, traditional performances, social practices, know-how, crafts, cultural spaces and religious ceremonies that are either artifacts, cultural spaces, expressions, instruments, knowledge, objects, practices, representations or skills that provide a sense of identity and continuity to the communities, groups or individuals concerned (Anonymous, 2006a). Thus, intangible heritage is mostly abstract (without any physical form). United Nations Educational, Scientific and Cultural Organisation defined intangible category as heritage, “embracing all forms of traditional and popular or folk culture, i.e. collective works originating in a given community and based on tradition. These creations are transmitted orally or by gesture and are modified over a period of time through a process of collective recreation” (Anonymous, 1972).

1.3.2 Natural Heritage

All natural heritages are treated as tangible and immovable based on several themes such as a) natural and maritime parks of ecological interest, b) geological and physical formations, c) landscapes of outstanding natural beauty and d) allied natural themes.
Subsequently, with the change of power to the British in 17th century, architectural style of Georgian Neo-Classicism was introduced into the country followed by Gothic Revival and High Victorian movements. These movements in due course of time gave rise to hybrid forms of Italianate and Indo-Saracenic buildings. A large number of administrative, institutional, educational, irrigational, bridging, military, religious and residential structures were erected almost throughout the country very modestly by the Danish, Dutch, French and Swedish merchants; but predominantly by the British rulers. Thus, Colonial architecture in India became dominant and diversified during the past couple of centuries adding umpteen prestigious and prideful built cultural entities that copiously enrich a variety of heritages in the land at present (loc. cit.).

All these and more heritages of India’s glorious past stand as symbols of cultural lineage, self-identity and collective memories of the nation to be proud of by the present as well as future generations.

In India, Archaeological Survey of India (ASI) is the prime organisation responsible for the protection, conservation and preservation of archaeological monuments. This Government of India (GoI) organ has declared 3675 structures spread over 28 States and 7 Union Territories in the country as centrally protected monuments. But, there is no such dedicated GoI establishment to serve the cause of heritages of the land. Rather, agencies such as Indian Heritage Society (HIS), International Council on Monuments and Sites (ICOMOS) (India) and UNESCO-lead Indian Heritage Cities Network (IHCN), Central Public Works Department (CPWD), Public Works Department (PWD) of state governments and Urban Local Bodies (ULBs) either independently or combinedly act in the interest of heritages existing in various provinces in the country. Government of India, however, have declared 150 places as National Heritage Sites based on certain criteria adopted by ASI in this context (Singh, 2010).

1.5.3 State Heritage Resources

Andhra Pradesh being the fourth largest state (275,069 km²) and fifth populous (84.66 million) place is one of the important states of India lying to the mid-east of the peninsula on the western edge of Bay of Bengal. The state is celebrated for its profuse cultural ancestry, excellent architectural marvels and vivifying natural
landscapes that all form splendid heritages of the land. Yet, there is no specific federal setup to cater to the needs of heritage sector as in the case of centre and other agencies do fulfill the requirement mostly. Among monuments in the state, the ASI Hyderabad Circle is protecting 137 precincts and the State Government another 500 through its Department of Archaeology and Museums (AP Archaeology and Museums website).

The most renowned cultural heritages among them are Bull Temple in Lepakshi (Anantapur District), Charminar and Golkonda Fort in Hyderabad, Church in Medak (Medak District), Thousand Pillars Temple in Hanumakonda (Warangal District), Fort in Warangal, Victoria Museum in Vijayawada (Krishna District) and Fort in Kondapalli (Krishna District) and several Buddhist Complexes (e.g. Amaravathi, Bojjannakonda, Salihundam) and Hindu Temples (e.g. Bhadrachalam, Simhachalam, Tirupathi) throughout the state. Of these, a majority of heritages are present in Hyderabad followed by Chittoor, Visakhapatnam, East Godavari and West Godavari Districts.

Aspiring to become a leading tourism destination, the Government of Andhra Pradesh (GoAP) in its Vision-2020 have identified a wide array of tourism places ranging from historical and religious sites to mixed and natural locations that included a good number of heritages too. A Buddhist religious circuit involving heritages at Hyderabad, Nagarjuna Konda, Tirupathi and Visakhapatnam is also contemplated.

1.5.4 Regional Heritage Resources

Three major historical agglomerations, namely, Visakhapatnam, the second largest city in Andhra Pradesh; Bheemunipatnam, the second oldest municipality of India and Vizianagaram, an erstwhile princely town; all lying in the northeastern strip of the state together were demarcated by the GoAP as Visakhapatnam Metropolitan Region (VMR) (Anonymous, 2007a) (Fig. 1.1). Each of these historical centres of attraction is characterised by centuries of old arts, buildings, crafts, fairs, festivals, urban fabric and so on coupled with strongly interwoven cultural practices, customs, social activities and traditions. Five precincts, viz., (1) Item no. 124: Ancient Buddhist Mounds of Dhandibbalu at Kotturu, (2) Item no. 125: the Buddhist relics of Bojjannakonda cum Lingalakonda at Sankaram, both near Anakapalle (3) Item no.
126: Durga monument on Durgabhairavakonda near Nila Vati, (4) Item no. 127: Ruined Buddhist Monastery at Gurubhaktulakonda near Ramatirtham and (5) Item no. 128: Dibbesvarasvamivari temple in Sarapalli village in Vizianagaram District falling into VMR come under the purview of Archaeological Survey of India (ASI) Hyderabad Circle. Other noteworthy heritages of this region are briefly dealt with in Chapter IV.

Fig. 1.1: Major Historical Agglomerations in Visakhapatnam Metropolitan Region
1.6 Building Materials Used in Heritage Structures

Gigantic natural rock formations, boulders, rocks, stones (including marble, granite, sandstone, terracotta, laterite, oxidized and weathered ferruginous sandstone, Italian marble and local stone), precious and semi-precious stones (Jasper, Jade, Crystal, Turquoise, Lapis lazuli, Sapphire and Carnelian), bricks, clay and ceramic tiles, lime plaster, stucco, lime, wood, metal, glass, natural colours and dyes are the chief materials made use of in translating the creative genius of human brain into a wide array of cultural manifestations in India.

1.7 Construction Methods Employed in Heritage Structures

Technologies adopted in shaping out the desired structural forms out of various materials and material combinations mentioned above ranged right from primitive tools such as chisels (perhaps stone and metal) to onsite fabrication methods to utilisation of prefabricated simple and complex units. Foundation techniques include arch shaped and well type methods, superstructure construction skills include random ruble, coursed ruble, ashlar, brick masonry with or without mortar with incorporation of different kinds of openings for human movement, ventilation and air circulation and roof covering systems include stone slabs, brick tiled terraces, jack arches, vaulted and barrel types, gables, hips, pyramids, cones and domes.

1.8 Threats to Heritage Properties

A cultural or natural heritage is of remarkable significance to the entire world or a nation or a place and as such be preserved as a part of heritage of the mankind. In recent years, heritages are increasingly threatened due to rapid development pressures and redevelopment activities in several areas including urban historical sites all over the world (Nayak and Iyer, 2008). In this context, UNESCO Convention-1972 had observed that cultural and natural heritage are increasingly threatened with destruction not only by traditional causes, but also by formidable socio-economic phenomena.

India bestowed with amazingly diverse built environments such as aesthetic, cultural, historic, religious precincts; artifacts; heritage structures; parks; settlements; streets; villages and water bodies is no exception to this. Unfortunately, the treasure of this traditional urbanism has been trampled upon in a zeal to develop modern cities
together with ‘property’ oriented approach (Jain, 2007). Borrowed concepts of urban aesthetics have been overlooking the historic, cultural and symbolic contents of traditional urbanism leading to overall deterioration of the latter. Population growth, changing life styles, urbanisation and economic advancement are all culminating in lack of awareness, sensitivity and concern of the government as well as public for traditional values. As a result, many heritage resources in the country have been badly damaged or seriously affected particularly due to repairs, renovations, replacements carried out using inappropriate materials, irreversible works or actions, unsuitable interventions, poor maintenance and so on.

Insufficiency in institutional framework; organisational apathy; flawed planning, design, development and control followed by legal and enforcement deficiencies and lacunae in their implementation are the important causes adding up to the damage of Indian heritage across board (Jain, 2007).

In view of the magnitude and gravity of these threats, it is incumbent on the international community as a whole to take part in conserving and protecting the heritages of extraordinary nature and outstanding value to the mankind.

Due to rapid urbanisation and development of Visakhapatnam for the last three decades, the existing heritages are under constant threat in terms of both anthropogenic causes as well as natural reasons, especially in the absence of any care, repair or maintenance. As a result, a good number of heritages have been fast deteriorating and their historical identity being lost. During the course of modern developmental activities, the spirit of urban form as well as local characteristics of the city falling within and outside the old fabric are neglected, overlooked or conveniently forgotten. The proposed expansion activities of the Visakhapatnam Port Trust (VPT) also cause a serious threat in the coming years to the Colonial Heritages present in ‘One Town’ area that forms the heart and core of the city representing concentrated historical activities of the British. Therefore, conservation of all these heritages assumes greater significance now and the following sections throw more light on this aspect.
1.9 Conservation of Heritage Structures and Sites

Heritage conservation is an endeavour to preserve and protect artifacts, buildings, areas, precincts, streets of aesthetic, architectural, cultural and historic importance, structures and natural features such as bridle paths, hills, hillocks, open areas, points, rides, sacred grooves, scenic spots, water bodies and wooded areas of environmental significance at any place. The same may yet times include rural or urban areas with glorious cultures, traditions and the like.

The UNESCO had adopted ‘World Heritage Convention’ in 1972 and India ratified the same in 1977. This convention puts an obligation on each signatory State in the world to take appropriate legal, institutional, financial and other necessary measures for the “identification, protection, conservation, presentation and rehabilitation of the cultural and natural heritage sites” situated in its territory. According to ICOMOS, “conservation means all the processes of looking after a place so as to retain its cultural significance” (Anonymous, 1999).

During yore, conservation of religious structures and monuments were part of the socio-religious responsibility of the people in the country. Trusts were formed for continual maintenance of the monuments under the control of local kings or landlords. Such trusts taking care of heritage buildings have almost disappeared now and their key role in conservation processes has more or less waned out totally.

Therefore, to be in tune with the above mentioned binding, GoI had brought out National Heritage Sites Bill-2009. The proposed institutional mechanisms are expected to take a holistic view of protection and preservation of heritage sites in the broadest possible conceptual framework and to provide for uniform legislative framework and conservation practices in the country (Sanyal, 2009).

The state government organs, viz., “Ministry of Tourism and Culture, Archaeology and Museums, Archives and Youth Services and Sport, NCC” (NCC-National Cadet Corps) and “Ministry of Endowments” are responsible for the conservation and preservation of heritages. Presently, all Hindu religious heritages in the state are under the control of Ministry of Endowments. This ministry is vested
with the powers of demolishing age-old structures or renovating them with modern
designs and materials or by taking up new constructions least caring for the aesthetic
beauty, historical value, people's sentiments, sensitivity of the heritage and expert
advice on any matter of relevance.

The “Revised Master Plan of Visakhapatnam Metropolitan Region-2021” has
recognised Colonial architecture as an integral part of the region's history
(Anonymous, 2007a). But, preparation of specific conservation plans and formulation
of guidelines for developing infrastructure at various heritages in the region did not
yet receive the due attention desired; let alone the physical efforts of upkeep and
preservation; resulting in the loss and deterioration of quite a good number of
heritages. Most of these physical entities, at present, chiefly reflect lack of proper
attention towards them in terms of conservation of their physical glory and
environmental compatibility.

The responsibility of protecting a myriad of monuments and heritages not
protected either by the central or state governments lies with the urban local bodies. All
urban local bodies and Town Planning Authorities in the country such as VUDA
and GVMC as in the present instance are delegated with the duty of conservation and
vested with the responsibility of development of heritages within their fold according
to 12th Schedule of 74th Constitutional Amendment Act of 1992 (Tiwari, 2002;
Jayakumar, 2011). The administrative mechanism for which, however, is yet to be
worked out.

1.9.1 Need for Conservation

All cultural heritages with distinctive character, cultural identity and technological
innovations together with abundant natural heritages in the form of unique beaches,
geo-parks, nature parks and ecological entities inclusive of constituent flora and fauna
in Visakhapatnam city stand as connecting elements among the three phases of ‘time’.
These important avenues of legacy of the coming generations warrant the need and
urgency of their conservation in all sincerity and humbleness, especially in the wake
of various threats narrated in one of the sub-sections above.
International Charter for the Conservation and Restoration of Monuments and Sites (The Venice Charter 1964) recognises the need to safeguard heritage and acknowledges it as our duty to hand them over in the richness of their authenticity to future generations (Anonymous, 1964). Article 3 of the Charter specifically states, “... the intention in conserving and restoring monuments is to safeguard them no less as works of art than as historical evidence”.

1.9.2 Conservation Practices

Universal methods are not available for heritage conservation as each historic town or urban district is unique in terms of its geographic, meteorological, demographic, socio-cultural, urban and economic systems. The legal, administrative and institutional mechanisms also differ from country to country and region to region within a country. However, the general procedure to be followed for the best conservation of heritage resources around the world does have some steps in common.

The Venice Charter codifies internationally accepted standards of conservation practices relating to architecture and sites. The document also sets forth principles of conservation based on the concept of authenticity and the importance of maintaining the historical and physical context of a site or building. The Charter continues to be the most influential international conservation document to date that also laid down the principles of preservation related to the restoration of buildings belonging to different periods.

In most cases, tangible and intangible heritages exist together in a symbiotic relationship and therefore require a holistic approach for their protection. “The main goal of heritage conservation is to protect the significance of a place through expression of the existing physical embodiments” (Anonymous, 1999). Cohen (2001) suggested that the aim of conservation should be to promote life characterised by a strong sense of continuity and aesthetic qualities alone are not enough to achieve this. The focus should not always be on the monuments, but also on everyday urban activities so that the ultimate aim of conservation is not confined just to the material but as well extends to the values embodied in a heritage so as to avoid unwarranted
emphasis on any particular value at the expense of others. All this precisely means that several criteria as listed in Table 1.4 shall be considered while aiming at heritage conservation of any particular built (Anonymous, 1999).

**Table 1.4: Criteria Used in Heritage Conservation**

<table>
<thead>
<tr>
<th>Sl.</th>
<th>Criteria</th>
<th>Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Cultural prominence</td>
<td>Cultural fabric of a society, its identity and continuity</td>
</tr>
<tr>
<td>2</td>
<td>Functional peculiarity</td>
<td>Integral relation between a building (physical landmark, directional object or symbolic representation) and the landscape around (non-built environment)</td>
</tr>
<tr>
<td>3</td>
<td>Social relevance</td>
<td>Impact of societal growth, hindrance to comprehensive development, nuisance to old neighbourhood and safeguarding of cultural values during tourism</td>
</tr>
<tr>
<td>4</td>
<td>Architectural significance</td>
<td>Architectural style, specialty and uniqueness of the building</td>
</tr>
<tr>
<td>5</td>
<td>Aesthetic value</td>
<td>Visual appeal, condition and quality of the building</td>
</tr>
<tr>
<td>6</td>
<td>Historical importance</td>
<td>Historical phenomena, processes having chronological as well as geographical affinity</td>
</tr>
<tr>
<td>7</td>
<td>Economic potential</td>
<td>Revenue generation possible to the government or a heritage owner through toll, taxes and tourism</td>
</tr>
</tbody>
</table>

*Source: Modified after Fielden (1982)*

1.10 Conservation Planning

In order to achieve this herculean task of conservation, establishment of a permanent effective system of collective protection on modern techno-scientific lines is highly essential and this can be achieved through a good ‘Management Plan’. In order to formulate such a comprehensive strategy, the futuristic plans of a region that take care of a city’s or town’s growth trends involving community needs, financial position, geophysical conditions, infrastructural requirements, stakeholders aspirations, etc. shall be identified. Ample provisions for their genuine implementation shall be created. A ‘Management Plan’ is broader and goes beyond the conservation plan by including government policies, political decisions, transportation facilities, tourism avenues, etc. In addition, laws and legislations shall be modified or amended time and again according to the context of the changing times, society and their character. Land use pattern and development plans shall also incorporate all precautions to protect the traditional environment in all its truth and
spirit. In each of these steps, qualitative judgments are most important and inputs from the community are also equally essential.

In the light of these facts, the ‘RMPVMR-2021’ advocates conduct of inventory of heritages, preparation of plans for the conservation of archaeological sites and development of new guidelines for the improvement of tourism infrastructure as all these steps would enable appreciation of the heritage value of V M R to a great extent.

1.10.1 Inventory of Heritages

Heritage conservation programmes start with the inventory of all heritage resources in a region. After the inventory of various heritages, the administrative agency concerned shall declare them as “heritage property” through public notification, official gazettes, web sites and other means of publicity and fulfill the process of listing either in *toto* at one stretch or in phases during different periods. The inventory may be supplemented time and again by the government on receipt of proposals from the agencies concerned or by the government *suo moto* after public re-hearing. Once a heritage is included in inventory, all artifacts, boundary, compound, subsidiary structures, etc. of the heritage are deemed to have been included in the inventory unless otherwise specifically indicated (Anonymous, 2011a). During these processes, both tangible and intangible heritage aspects needs to be taken into account while considering, at the same time, the importance of each element in the total entity. These listed heritages shall distinctly be demarcated and identified for strict consideration in all relevant plans (Master, Zonal, City, etc.).

1.10.2 Designation of Heritages

Designation is a process of ascertaining the general condition a heritage and placing it in an appropriate category for conservation. Designation of a heritage changes from time to time depending upon the renovation works undertaken.

Visakhapatnam Urban Development Authority have framed comprehensive policies and legislations for the conservation and development of the heritages included in RMPVMR-2021, but not taken providence of their implementation till now.
1.10.3 Condition Assessment of Heritages

Securing detailed information together with any defects in the built heritage is fundamental to understand their condition to suggest exact conservation methods required. This process of orderly documentation of information and systematic data collection on heritage structures is usually referred to as “Condition Assessment Survey” (CAS) or “Dilapidation Survey” (DIS) (Ahmad, 2004a) or “Historic Structure Assessment” (HAS) (Anonymous, 2011a). Orderly documentation of information involves detailed photographic capture, computer based digitisation and preparation of thorough architectural drawings. Systematic data collection involves detailed examination of the entire building for the structural fitness of all the components in contributing to the integrity and longevity of a heritage through visual (qualitative) assessment coupled with in-situ and ex-situ tests (quantitative estimation) (Vatan, 2011; Molongoski, 2012; Hu et al., 2012). As most of the works involved in this assessment are highly specialised in nature, a technical committee consisting of different experts from all the relevant fields shall be constituted to derive an effective output.

Cooperation among government departments, community representatives, politicians and different subject experts is very much desired to attain the goal of effective heritage conservation. This mechanism shall involve at least three activities, viz., project implementation, monitoring the effectiveness of conservation measures and reviewing the processes within the prevailing policy framework.

Work related to the restoration of built heritages in most of the states like Jammu-Kashmir and Kerala is a joint effort of the Indian National Trust for Art and Cultural Heritage (INTACH) that prepares detailed project reports, the ASI that heads conservation works and the PWDs that looks after maintenance and protection jobs.

i) Finances for Heritage Conservation

Due to lack of public awareness and increasing maintenance costs, many heritage owners (both public and private) are forced to look for some means of income through diversion of vacant vicinities for other uses and letting out of the premises to the
public or trade or fairs etc. that largely acts against the interests of heritage conservation.

As the accelerated growth of VMR has been gradually transforming virgin landscapes, orthodox communities and traditional folks of the region into complex townships, ultra modern groups and urban populace, respectively and that creation of good infrastructural facilities (international airport, seaports, rail and road networks, star and budget hotels, communication facilities, skilled human resources, etc.) keep the doors of the region wide open to the international, national and regional communities at large; heritages in the region shall be glorified properly to give popularity to the region. This process helps in augmenting financial resources required to implement best conservation practices desired to ensure the perpetuity of heritages in the region.

ii) Publicity on Heritage Conservation

Generation of awareness among students, tourists and public about the significance of heritages through photo exhibitions, competitions, model making, gift tokens and audiovisual media is key to achieve their successful perpetuation in a place for long time to come. In order to realise this concept, campaigns shall be organised in all places of interest among the said groups involving local politicians, social workers and other professional elite on the lines of that done in the case of World Heritages in the country.

iii) Role of Locals in Heritage Conservation

Local communities or individuals must be entrusted with responsibilities to conserve heritages in their vicinities. Even when outside expertise is necessary, local stakeholders must be made active participants at all stages of the conservation processes. All decisions regarding conservation and management of heritages must be taken in consultation with local communities in consonance with the 73rd and 74th Amendments to the Constitution of India (Jayakumar, 2011).
iv) Role of National and International Agencies in Heritage Conservation

Various heritages existing in the form of historical monuments in India are taken care by the ASI, while other agencies such as INTACH, HIS, Endowment and Tourism Departments, CPWD, certain NGO’s and individual institutions, societies, trusts and missions proactive in the protection and conservation of heritage properties of the land (Singh, 2010).

Gaur (2008) after conducting two case studies on the conservation of heritage buildings carried out through the National Cultural Fund (NCF) in Delhi found that the work done by charity organisations is appreciable, whereas that of the companies reflected promotion of their own interests rather than yielding any expected results.

A number of international agencies, namely, International Council of Museums (ICOM), International Council of Monuments and Sites (ICOMOS), International Centre for the Study of the Preservation and Restoration of Cultural Property (ICCROM), International Institute for Conservation of Historic and Architectural Works (IIC-HAW), World Heritage Centre (WHC) of the UNESCO and Sacred Sites International Foundation (SSIF) attest the global character of the tangible heritage in the world and expresses their concern for its preservation.

1.1 Formulation of Heritage Management Plans

The crux of perpetuating available heritages in all their pomp, glory and value in a place rests with the management plan. Hence, formulation of scientifically sound, technically feasible, economically viable and administratively dexterous plans occupy front place in the management of heritages at any given locality. Quite often rules, regulations, guidelines, byelaws, etc. laid down by the governing bodies at various provincial levels are treated synonymous to management plans. However, these two aspects, i.e., legal framework and management tools should clearly be distinguished as two faces of a coin that are inseparable aiming at the single objective of keeping the heritages at the zenith of their beauty.
1.12 Benefits of Heritage Conservation

Several unique benefits could be augmented from cultural heritages kept in their authentic glory through good conservation practices at any place. Heritage structures

i) Serve as historical landmarks,
ii) Act as sources of aesthetic beauty,
iii) Reveal great architectural values and practices,
iv) Unravel the underlying and/or contemporary scientific thinking,
v) Disclose any innovations in adept utilisation of materials available around,
vi) Reflect the weather and local conditions prevailing during the remote past,
vii) Generate awareness about the eco-benign aspects followed,
viii) Display the socio-cultural and/or religious orientation of the people of yore,
ix) Sub-serve as centres of tourist attraction and education and
x) Remain as pride possessions of the land and people.

Thus, heritage offers both tangible and intangible advantages of history to the present as well as future generations.

1.13 Problem Identification

Visakhapatnam Metropolitan Region as well as the city proper offers great potential for conducting studies on various aspects of built heritages belonging to different periods from Buddhist period (200 BC) to the end of British rule (1947 AD). Nevertheless, no effort of this kind has ever been made by any quarter in the region so far and hence the present work stands as a maiden attempt. Since VMR is very extensive in area encompassing Visakhapatnam and Vizianagaram Districts of the northern coastal Andhra Pradesh, only inventory and brief description of heritages was taken up for the entire region. This was followed by detailed description of fifteen randomly selected heritages built exclusively during the British Colonial period starting from 1801 to 1947 in Visakhapatnam city. Similarly, conservation status and designation process of heritages were restricted to the city. Likewise, case studies for condition assessment were selected from Visakhapatnam city not only due to logistic convenience, but also because the region experiences comparatively higher degree of threat from various developmental activities coupled with quicker pace of urbanisation and population explosion as explained above. Elaborate exemplified
condition assessments as done during the present work are also first of their kind in the country.

In order to reap the said benefits from built heritage in any region, a heritage management plan needs to be developed, approved, adopted and implemented. Keeping this in view, formulation of a ‘Heritage Management Plan’ for Visakhapatnam city was taken up as the target of the present study through inventory, architectural characterisation, present conservation scenario, designation and condition assessment survey of built heritage pertaining to the British Colonial period so that interest in safeguarding them for posterity is rejuvenated among the local administrators as well as the public of the city.

1.13.1 Hypothesis

\( H_0 \): A Heritage Management Plan aiming at best conservation of the British Colonial built heritage in Visakhapatnam City is essential to ensure their integrity as well as aesthetics for the appreciation of connoisseurs of the present and future generations.

1.13.2 Aim, Objectives and Activities

The present attempt probes into the subject matter of British Colonial heritages in the context of Visakhapatnam city that harbours a number of cultural and natural heritages since they trace the history of the place, serve as scientific source material, unravel the knowledge base of yore, uphold cultural linkages of the people and reflect the fascinating bio-geographical significance of the land thereby giving lot of rejoice to the younger generations of the prideful legacy for their self awareness, enjoyment and activities on an enduring basis.

i) Aim

The aim of the present study is to develop “Management Planning Tools” that aid the local administrators in taking up the task of safeguarding heritages existing in Visakhapatnam city through due appreciation of their plenitude, historical importance, architectural significance, socio-cultural relevance and heritage value.
ii) Objectives

In order to achieve the said aim of the present study, the following objectives are set forth.

1) To explore built heritages of the Visakhapatnam Metropolitan Region,
2) To characterise all possible built heritages in terms of architecture,
3) To analyse present scenario of heritage conservation,
4) To assign appropriate designation to each heritage,
5) To undertake conditional assessment through case studies and
6) To develop planning tools that aid in heritage management.

iii) Activities

The following activities were taken up to realise the objectives as set forth above.

1) Survey and physical identification of built heritages in Visakhapatnam Metropolitan Region and preparation of inventory followed by concise description.
2) Highlighting the character of randomly selected British Colonial heritages in Visakhapatnam city through salient historical and architectural features.
3) Evaluation of the status of built heritages in the city in terms of planning and provisions at various organisational levels.
4) Designation of different built heritages through an understanding of their cultural, architectural, environmental values and soundness.
5) Taking up in-depth condition assessment of built heritages through a couple of examples.
6) Development of management tools to aid in the conservation of various built heritages in the city.

1.14 Scope

The present study is limited to British Colonial heritages in Visakhapatnam Metropolitan Region.
1.5.5 City Heritage Resources

Visakhapatnam, the second largest city in Andhra Pradesh, with an area of 520 km² with a population of 17,30,320 is an industrial hub, major harbour city, fishing centre and economic nucleus occupying tenth position in the country in terms of Gross Domestic Product (GDP) generation worth Rs.1385 billion.

The city, formerly known as Vizagapatam and usually referred now in short as ‘Vizag’, was a sleepy fishing village in the Kalinga Empire that later went under Emperor Asoka (273-232 BC). According to folklore, the place was given its present name by one of the Andhra Kings of Vengi between 9th and 11th centuries. Later Pallava, Chola and Ganga dynasties succeeded in power in the region. Other dynasties that ruled over Visakhapatnam include Kalingas, Chankyas, Reddys (of Rajahmundry) and Golkonda Nawabs (Nizams). In 15th century, Visakhapatnam became a part of the Vijayanagar Empire.

In 17th century, the East India Company entered the country and gradually spread its tentacles over administration of the land thereby slowly consolidating its governing powers. In the process, Visakhapatnam, forming a part of Northern Circars was also ceded to the British rule by mid 18th century and went into the Madras Presidency. However, the peak period of British administration from 1801 to 1947 AD is considered as the British Colonial period, especially in the context of Visakhapatnam. During this one and half-a-century, Visakhapatnam witnessed rise of a number of significant urban development projects in various parts of the town attributing it unique identity, distinct form and conspicuous character.

With the passage of time, all these administrative, institutional, educational, religious, social and spiritual constructions existing in the city turned into legacy from the British to the locals. Because of their age, distinct architectural styles, ingenious building techniques, exclusive construction materials and cultural relevance, these enchanting British Colonial reminiscences currently assume the status of boastful Colonial cultural heritage of Visakhapatnam city, which is the topic of interest of the present study.