HERITAGE SITES IN VISAKHAPATNAM CITY: TYPOLOGIES, ARCHITECTURAL STYLES AND **STATUS**

Viswanadha Kumar Giduthuri, M. Arch.
Associate Professor, Department of Architecture,
Andhra University College of Engineering (A), Visakhapatnam, India

Abstract

Abstract

Heritage on mother earth was recognized as one of the important fields of human endeavor. Many nations around the world have been pursuing the subject for the benefit of present and future generations. In the process, several first order cities around the world have geared up to meet the requirement. However, second order cities in many nations, especially in developing countries like India did not yet raise to the occasion. Therefore, a comprehensive study on heritage and its preservation was taken up in Visakhapatnam, India and the present communication dealing with heritage sites in Visakhapatnam Metropolitan Region forms a part of it. During this attempt, a total of 44 cultural heritage sites were identified from the city and their architectural styles, typologies and status analyzed.

Keywords: Heritage sites, Historic affiliation, Heritage typologies, Architectural styles

Introduction

Heritage, both of tangible and intangible nature on mother earth was recognised as one of the important fields of human endeavor for over eight decades now (Larkham, 2010). 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, 2011). As a sequel, many nations around the world have been pursuing the subject for the benefit of the present and future generations while synthesizing cultural heritage with urban landscape. In the process, several first order cities around the world have geared up to meet the requirements right from identification of heritages to their conservation

utilizing state-of-the-art technologies. However, second order cities and towns in many nations, especially in developing countries like India did not yet raise to the occasion. Given this scenario, a comprehensive study on heritage sites and their preservation was taken up in Visakhapatnam city lying along the east coast of Andhra Pradesh in India as no such effort has ever been made so far.

A number of works of recent origin in the line include inventory and description of several heritages from many geographical entities around the world. For example, while assessing the effect of tourism on culture and environment in Luang Prabang in Bangkok, UNESCO (2004) described three cultural, two built and one natural heritages. UNESCO (2005) stated that thirty-five out of a total of 788 world heritage properties were in danger as of 2004 and illustrated seven cases from among them. Buckley (2007) gave an account of twenty-five built heritages during an inventory meant for the preservation of historical places in Lethbridge City of Canada. The City of Hamilton, Canada possesses to 241 individual designated heritage properties in addition to seven heritage conservation districts (Anonymous, 2008a). Textual and photographic records of important built properties were produced by Stewart *et al.* (2008) during heritage resources inventory in the Caledon town of Canada. The Welsh Historic Environment Position Statement 2007 referred to the presence of 29894 listed buildings, 3994 scheduled ancient monuments, six designated historical wrecks and 482 conservation areas in Wales of United Kingdom (Anonymous, 2008b). Twenty built heritage features and three cultural landscapes were identified from the 'Area of Continued Analysis' in Canada as a part of impact assessment of the Detroit River International Crossing (Anonymous, 2008c). Guidelines on inventory and documentation of cultural heritage were prepared by Bold and Kovace (2009).

A list of six built heritage and two cultural landscapes was prepared divise and accountered and two cultural landscapes was prepared

A list of six built heritages and two cultural landscapes was prepared during an assessment report for Light Rail Vehicle Fleet Maintenance and Storage Facility for Toronto city in Canada (Anonymous, 2010a). Anonymous (2010b) described twenty-six built and fifteen landscape resources from seven townships during the preparation of an assessment report for GO Service Extension to the Niagara Peninsula in Canada. Bailey (2011) reiterated that generating new knowledge about built heritage through survey and recording is one of the key factors in developing "Research Strategy 2010 to 2015" for Royal Commission on Ancient and Historical Monuments of Scotland. While updating the status of built heritage inventory in Whitchurch-Stouffville Town, Kerr (2011) made a mention of 370 properties. Harun (2011) reported that as on 2009, Malaysia has listed 173 cultural heritages under section sixty-seven of the National Heritage Act 2005. Forty-four cultural and ten natural heritages from six regions were

documented from the City of Kawartha Lakes in Canada during the preparation of a policy paper (Dillion, 2012).

Hyderabad Metropolitan Development Authority in Andhra Pradesh

Hyderabad Metropolitan Development Authority in Andhra Pradesh State has notified 151 buildings and 30 precincts as the chief heritages as on 2010 in Hyderabad (Rajamani, 2010). Ravindran (2010) reported that 174 monuments in Delhi are being taken care by Archaeological Survey of India (ASI), 254 by State Department of Archaeology while Indian National Trust for Art and Cultural Heritage (INTACH) listed 1204 monuments. The last category of heritages are attended to by New Delhi Municipal Council, Municipal Council of Delhi, National Capital Territory, Cantonment Board and Delhi Development Authority (Mishra, 2009).

Andhra Pradesh is fourth largest (275,069 km²) and fifth populous (84.66 million) state in India. The state has second longest (972 km) coastline and possesses half a dozen gateways of international trade. National metropolises, Delhi, Mumbai, Kolkata, Chennai and Bengaluru are well within the reach of the state. The state has a few emerging economic centers of national importance, one of them being Visakhapatnam city in Visakhapatnam Metropolitan Region (VMR) under the jurisdiction of Visakhapatnam Urban Development Authority (VUDA).

Visakhapatnam Metropolitan Region

Visakhapatnam Metropolitan Region (VMR), represented mostly by coastal plains within 75m of altitude between 17°30′15″ to 18°11′15″ N and 83°28′12″ to 82°57′37″ E, is situated midway between Kolkata in the north and Chennai in the south on the east coast of India. The region encompasses 292 settlements and 4 major urban centers, namely, Visakhapatnam (the principal city), Anakapalle and Bheemunipatnam in Visakhapatnam District and the District Headquarters Vizianagaram in the District by the same name (VUDA, 2007). The total geographical area of VMR is 1721 km², of which 1418 km² falls into Visakhapatnam District and 303 km² into Vizianagaram District (Fig. 1).

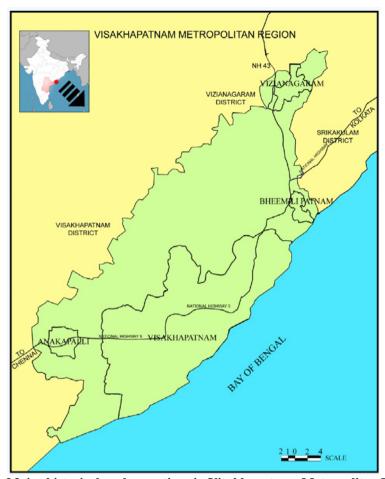


Fig. 1: Major historical agglomerations in Visakhapatnam Metropolitan Region

Visakhapatnam City

Visakhapatnam (17°41′N and 83°13′E), usually referred to as the 'City of destiny' or 'Goa of the East Coast', is situated midway between Kolkata (879 km) in the north and Chennai (762 km) in the south (*loc. cit.*) (Fig. 4). The city with an undulating terrain culminating here and there into hillocks/ hills was a small fishing village shortly referred to as 'Vizag' that started gaining prominence since British era as an alternative port town to Bheemunipatnam. Now well developed, this is the only natural harbor on the east coast of India (2688 km) (Srinath *et al.*, 2006). Of late, Visakhapatnam port is emerging as one of the largest ports in the country accounting for 67.41 million tons of cargo movement during 2011-12 (Businessline, 2012) besides being one of the Asia's promising major ports. The city has a coastline of 12 km with the seafront providing a number of recreational areas besides vivid built environment. The city well connected by road, rail and airways with all national metropolises and several A-Class cities in the

country is a good industrial hub, 710 km away from the state capital Hyderabad.

Prof. Patrick Geddes (1854-1932), a Scottish biologist known for his innovative urban planning and education, during his visit to the place in the early 20th century observed that general town plan of 'Old Vizagapatam' strikingly resembles that of New Amsterdam (the present New York) (Rao, 1925).

Master Plan (s)

Master Plan (s)

Between 1986-1989, VUDA have for the first time envisaged a Master Plan for 15 years from 1986 to 2001 for VMR although, no attention had been paid to the heritage sites in the region.

This plan, however, had turned defunct by 2001 without much achievement of the perceived objectives. Further, as the VMR had been experiencing tremendous development due to mega projects such as Gangavaram Port, Industrial Park, Simhadri Power Plant, Information Technology Park, Apparel Park, National Highway widening, Tourism Development, Visakhapatnam-Kakinada Petro Chemicals and Petroleum Corridor; VUDA had prepared a Revised Master Plan for Visakhapatnam Metropolitan Region-2021 (RMPVMR-2021) (VUDA, 2007).

The new plan mapped a reasonable number of heritages in Visakhapatnam city further to the preparation of an exclusive map depicting ancient Hindu and Buddhist precincts. The plan also laid down regulations for the effective conservation of all nominated heritages and suggested VUDA to constitute a heritage conservation committee to take care of heritage programmes in the region.

heritage programmes in the region.

Methodology

As the map of heritage sites of Visakhapatnam city contained in RMPVMR-2021 is not full-fledged and did not indicate any detail of the sites, physical surveys were conducted in and around the city and important resources identified based on the following methodologies.

Identification of historical structures

Extensive information was collected from diverse sources such as ASI, Department of Archaeology and Museums of Government of Andhra Pradesh (GoAP), Master Plans of the study area, Documents of history and Andhra Pradesh Tourism Development Corporation's tourist guide to identify various historical structures pertaining to the period 200BC-1947AD in Visakhapatnam city (Rao, 1925; VUDA, 1996, 2007; http://asi.nic.in/asi_monu_alphalist_andhra.asp; http://aparchaeologymuseum.com/wp-content/

uploads/2012/06/VISAKHAPATNAM.pdf; http://aptdc.in/vizag/sight_see. php).

Surveys for inventory of heritages

Based on the information so collected, inventory of historical structures was conducted between 2008 and 2011 through field visits in the city. At the outset, geo-referencing of each structure was carried out with the aid of a hand held Global Positioning System (GPS) of Magellan make and Triton model and suitable map were prepared. This was followed by recording of ownership, location, address, recognition, status and utility of each historical structure. A historical structure was qualified as a heritage site based on its cultural history, architectural character and environmental features. In the case of cultural history, details of built, age, inscription, heritage category, affiliation and association were considered as prime parameters. In the instance of architectural character, footprint, storeys, roof type, material used, style, uniqueness and authenticity formed the important characteristics. As regards environmental features, building status, its compatibility, community context and landmark status were chosen as salient qualities. qualities.

Analysis of information on heritage sites

The inventory thus obtained was analysed in the light of their historic affiliations, typologies and architectural styles. Historical affiliation of a heritage site was decided on the basis of a particular ruling regime during which it was erected. Ruling regimes in the region broadly fall into Hindu-Buddhist dynasties from 200BC to 1500AD, Mughal period from 1501 to 1700 AD, Native-Colonial rule from 1701 to 1900 AD and British era from 1901 to 1947 AD (Rao, 1925). In order to categorise various builts listed in the inventory into different heritage typologies, seventeen relevant nomenclatures from among the many themes adopted by UNESCO for assigning outstanding universal value to cultural heritages were adopted. These nomenclatures are Commemorative architecture. Cultural associations These nomenclatures are Commemorative architecture, Cultural associations, These nomenclatures are Commemorative architecture, Cultural associations, Developing knowledge, Developing technologies, Domestic habitat, Educational institutions, Gardens, Military architecture, Palaces, Public buildings, Public-cum-recreational buildings, Recreational architecture, Religious architecture, Religious-cum-commemorative architecture, Residences, Trade and Transport systems (UNESCO, 2012). In order to identify various architectural styles among the heritage sites in the inventory, seven relevant architectural styles, *viz.*, British Colonial, Buddhist, Hindu, Indo-Saracenic, Islamic, Lighthouses, and Scientific categories were adopted from among the many common styles prevalent in India (Gupta, 2007).

Results

As a result of the inventory, a total of forty-four significant heritage sites could be located from Visakhapatnam city area (Fig. 2) and their salient features are as follows.

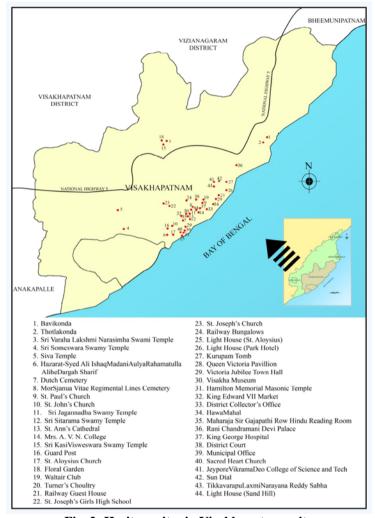


Fig. 2: Heritage sites in Visakhapatnam city

1) Bavikonda (17°49' N, 83°23'E)

Bavikonda is a hilltop Buddhist site of 3rd century BC-3rd century AD situated on the beach road connecting Visakhapatnam and Bheemunipatnam. Remains of a Buddhist complex comprising of several structures pertaining to Hinayana, Mahayana and Vajrayana exist in this place. A piece of bone believed to be a mortal remain of Lord Buddha was recovered from an urn unearthed here. The site is famous for the presence of rock-cut wells for rainwater harvesting.

2) *Thotlakonda* (17° 15'N, 83° 23'E)

Thotlakonda is a hilltop Buddhist site of 3rd century BC-3rd century AD situated adjacent to Bavikonda site on the beach road between Visakhapatnam and Bheemunipatnam. Spread over 48 ha, the site contains remains of Buddha paadaas, chaityagruhas, pillared congregation halls, finials, maha stupa, refectory, viharas, votive stupas, rock-cut cisterns and troughs. The GoAP declared the site as a protected monument in 1978.

3) Sri Varaha Lakshmi Narasimha Swami Temple (17°45'58"N,

83°15'02"E)

A huge temple was constructed in 1087 AD to Lord Varaha Lakshmi Narasimhaswami atop 'Simhachalam' (literally meaning 'Lion's Hill') hill near Visakhapatnam by the Chola King Kulothunga in Nagara style. The temple renovated in 11th century by Vengi Chalukya kings of Andhra Pradesh and in 13th century by Kalinga king Narasimha Deva consists of four dexterously designed stone units, *viz.*, central shrine (Garbhagriha) housing assembly hall the deity, a hall (Mukhamandapa) to its front, an (Asthanamandapa) preceding it and raised circumambulatory a (Tiruchuttumala) all round.

4) Sri Someswara Swamy Temple (17°34'35"N, 83°10'23"E)

A 12th century AD temple of Sri Somalingeswara Swamy constructed in Chalukyan architectural style is present in Appikonda village on the shores of Bay of Bengal to the southwest of Visakhapatnam. The temple composed of Sanctum Santorum housing the main deity was preceded by a small 'mandapam' in front of which a life-size bull carved out of black stone was installed.

5) Siva (Dharmalinga) Temple (17°32'17"N, 82°55'31"E)

A stone masonry temple complex to Lord Siva was developed on the foothills and hillock top together at Panchadarla in Dharapalem village near Anakapalle. The complex on hillock top was elaborate consisting of an Anakapalle. The complex on hillock top was elaborate consisting of an entrance with mandapam, main temple, kitchen, kalyanamandapam, yagamandapam and an exit (with mandapam). Some rock pillars of these mandapams contained genealogical inscriptions of the Eastern Chalukyas of the early 15th century. In the temple to the left of the steps, water from a natural perennial spring is tapped through five water jets because of which the place derived its name 'Panchadarla'. The temple to the right of the steps hosts a lingam upon the lower portion of which 1001 small lingams (85 each in 11 rows and 66 in the 12th row) were carved out.

6) Hazarat-Syed Ali Ishaq Madani Aulya Rahamatulla Alihe Dargah Sharif (17°41'25"N, 83°17'27"E)

An elaborate Muslim religious complex known as Hazarat-Syed Ali Ishaq Madani Aulya Rahamatulla Alihe Dargah Sharif was put up in 1650 atop a hill overlooking the bay in One Town area. The complex accessible

through a flight of steps consists of five independent main units, *viz.*, domed Darwaj, congregation hall, intricately designed tomb of the saint, an open arched cubicle and a triangular call-tower constructed chiefly of brick following Islamic architectural style.

7) *Dutch Cemetery* (17°41'49.54"N, 83°17'42"E)

A cemetery in exclusive memory of the Dutch soldiers' sacrifice during French war was laid out in 1661 near King Edward VII Market in One Town area, although a tomb dating back to 1659 could be located within the same precinct. Architecturally, this cemetery is a fascinating repository of neo-classical funerary of pyramids, obelisk and pavilions.

8) *Mor Sjanua Vitae Regimental Lines Cemetery* (17°42'46"N, 83°18' 19"E)

19"E)

A Regimental Lines Cemetery named after Mor Sjanua dating back to 1823 catered to the needs of the British Military personnel. The cemetery is symbolic of traditional spiritual architecture of native British. This wall-bounded commemorative is architecturally an alluring funerary of pyramids, gateways, obelisk, Bengal roofed structures and pavilions constructed in brick.

9) St. Paul's Church (17°43'13"N, 83°18'55"E)

A second church in Visakhapatnam was built in 1838 in Waltair area exclusively for the British army officers who contributed the entire cost including that of the furniture and bell. The church was consecrated by Bishop Spencer in honour of St. Paul. Building design, interiors and exteriors carry lot of aesthetic significance.

10) St. John's Church (17°41'40"N, 83°17'29"E)

10) St. John's Church (17°41'40"N, 83°17'29"E)

A church was erected and consecrated in 1844 in One Town area by Bishop Spencer, in honour of the Evangelist St. John. Overall setting of the church depicts appreciable aesthetic significance and offers good residential cum institutional ambience. The congregation hall is accessible through an arched opening in a cylindrical shaft of double-height terminating as an Anglican dome bearing a large cross.

11) Jagannadha Swamy Temple (17°42'08"N, 83°17'48"E)

A temple to Sri Jagannadha Swamy was built along the main road of during 1844-48AD by a merchant Sri Garuda Jagannayakulu. The structure built in stone masonry to Chalukyan style houses the main deity in Sanctum Sanctorum bearing an ornate tower (Vimana) preceded by flat roofed closed 'mandapam' having an entry in the front and an exit in the left.

12) Sri Sitarama Swamy Temple (17°41'57"N, 83°17'50"E)

A temple to Sri Kodandaramaswamy (popularly known as Sitaramaswamy Kovil) was constructed in a road corner in One Town area during 1844-48AD by Sri Gode Jagappa. Original built was a small masonry structure consisting of Sanctum Sanctorum preceded by a mandapam within

a large rectangular walled site having front entry through galigopuram. A larger new mandapam was appended in front of the old unit and a 'Ramakoti' depositary to a side of the main entry.

13) St. Ann's Cathedral (17°41'58"N, 83°17'46"E)

Named as St. Ann's Cathedral, an impressive Catholicon facility first of its kind in the Coromandal coast of India was built by Bishop Neyret in 1850 AD. This gothic structure was built of stone masonry as a double-height congregation hall with lateral verandahs and cuboid belfries over either rear corner. either rear corner.

either rear corner.

14) Mrs. A. V. N. College (17°42'14"N, 83°18'03"E)

An Anglo-Vernacular school for modern teaching was initiated in 1860 and subsequently elevated into a college that was named later as Mrs. A.V.N. College due to huge endowment received from Mr. Ankitam Venkata Narsinga Row in honour of his spouse. The institution is situated on a hillock having excellent view of seascape. The building constructed in stone masonry is a two-storeyed structure comprising of a series of rooms, continuous verandahs, central entrance and an open courtyard.

15) Sri Kasi Visweswara Swamy Temple (17°41'58"N, 83°17'50"E)

A small temple to Lord Kasi Visweswara Swamy was built in early 1870's by Vizianagaram Rajahs in front of Simhachalam temple. The entity consists of a larger middle cubicle and four corner cubicles housing main and presiding deities, respectively. Each cubicle was covered by a 'Sikaram' adorned by 'Kalasam'. The Sanctum was provided with entrances on all sides, and corner cubicles interconnected by verandahs were furnished with single entries.

single entries.

16) Guard Post (17°41'37"N, 83°17'31"E)

In order to keep vigilance over people's movement to and fro 'Soldierpet' residential colony of the British military, a simple structure was put up in main road at the head end of the colony. The structure was built in stone masonry as a single floor octagonal unit having gothic arches all around with tiled roof.

A church was built over St. Aloysius High School existing as a single floor in rectangular plan in One Town area. The structure constructed in rough ashlar stone masonry supported by buttresses during 1877 was harmonized in design and elevation with the existing school. The double-height nave of the church is flanked by single-height aisles with a central bay at the extreme end.

18) Floral Garden (17°46'14"N, 83°14'38"E)

A civil engineer and architect Mr. William Jodson Addis developed a floral garden during 1877 in 2ha of area at the foothills of Simhachalam temple to ensure availability of flowers for Lord Varaha Lakshminarasimha

Swamy's worship. Taking advantage of the natural contour to harvest water from a hill top natural spring, 'Gangadhara', the garden was laid out as a rectangular plot running into four terraces with a central pathway flanked on either side by six square units. Twelve beautiful fountains made in brick and lime to six distinct designs were erected in the six paired units of the garden in a matching fashion.

in a matching fashion.

19) Waltair Club (17°43'14"N, 83°18'59"E)

Waltair Club established during 1883 by officers of the erstwhile East Coast Railway, East Coast Battalion and Civilian departments was expanded subsequently. Rectangular in plan, the two storey main structure is accessible through a central staircase. The ground floor consists of large central banquet halls flanked by colonnaded verandahs and the first floor a number of rooms.

20) Turner's Choultry (17°42'31"N, 83°18'04"E)

A choultry in One Town area mainly to accommodate attendants of King George Hospital patients followed by merchants and travelers was built by 1892 in a site donated by Maharajah Gode Narayana Gajapati Rao with funds from the rulers of Bobbili, Vizianagaram, Jeypore and Cheedikada. The building was constructed on a raised plinth in 'U' plan as a single floor facility with central courtyard surrounded by a series of rooms flanked by

The building was constructed on a raised plinth in 'U' plan as a single floor facility with central courtyard surrounded by a series of rooms flanked by open verandah on courtyard side.

21) Railway Guest House (17°43'21"N, 83°20'08"E)

A colossal rectangular guesthouse overlooking the bay was constructed in 1892 in East Point area. The building laid out as a two-storeyed structure in stone masonry fortified with buttresses consists of a number of suits fronted by colonnaded/semicircular arched verandahs in the two floors with an appurtenant arched portico and a congruent gable over it.

22) St. Joseph's Girls High School (17°43'07"N, 83°17'13"E)

A missionary school to cater to the higher education needs of girl students was constructed in Gnanapuram area by 1893. The building was laid out in 'U' plan to two-storeyes comprising of a series of rooms flanked by verandahs on either side in stone masonry fortified by buttresses and given gorgeous painting. A projected corridor, flanked by one side room each; fronted by two triple-height circular towers was designed at the middle of the building to serve as main entry. In union with this building, an 'L' shaped assembly block and a cross shaped church block were erected on either side.

23) St. Joseph's Church (17°43'07"N, 83°17'14"E)

A church 'Latin Cross' like in plan and intricate in design was built to double-height in stone masonry fortified with buttresses in fusion with a girls high school building in Gnanapuram area during 1893. The structure accommodated a central nave, two lateral aisles with one wing each, an altar bay, a portico and a large belfry. A number of small octagonal cones adorned with Greek Crosses were put up around the top of the structure.

24) Railway Bungalows (17°43'16"N, 83°17'32"E)

Massive buildings of different dimensions '+' shaped in plan were constructed in well landscaped yards in railway lands at the time of execution of rail tracks between Kolkata and Chennai during the late 19th century. These officers accommodations in general were constructed in guarded compounds to double-height in stone masonry with single-height lean-to-roof verandahs supported by square stone columns.

25) Light House (St. Aloysius) (17°41'34"N, 83°17'38"E)

A lighthouse originally erected in 1847 at Chintapalle was dismantled and reconstructed in 1902 by the bay side near St. Aloysius School in One Town area. This relocated landmark was built of stone masonry followed by brick at places to a towering shape. A glass paneled cylindrical metallic encasing with dome housing a white dioptic light was installed over the structure.

structure.

26) Light House (Park Hotel) (17°43'14"N, 83°20'16"E)

A lighthouse was established in 1903 on the shores of Bay of Bengal near East Point area in a walled compound. This cylindrical structure was constructed of stone masonry as a multi-storey tower guarded by railing atop and painted on the exteriors in alternate red and white bands. During recent years, the lantern atop was replaced with a telescope and made accessible to the public.

27) Kurupam Tomb (17°43'44"N, 83°20'22"E)

The tomb situated on the beach road was built in 1904 by Rajah Vyricherla Veerabhadra Raju Bahadur, Zamindar of Kurupam in memory of his wife Rani Lakshmi Narasayamma Pattamahadevi. The structure was put up in sandstone with intricate carvings integrating pyramidal roof and dome

concepts.

28) Queen Victoria Pavillion (17°41'44"N, 83°17'34"E)

The pavilion was built in One Town area and a bronze statue of Her Majesty Queen Victoria of England donated by Sri Ankitam Venkata Jagga Row, Zamindar of Sher Mohamudpuram and Yambarum estates erected in it in 1904. This edifice is square in plan with pointed arches on all the four sides supporting a hemispherical dome surrounded by parapet with small octagonal minarets bearing Greek Crosses.

29) Victoria Jubilee Town Hall (17°41'50"N, 83°17'44"E)

Maharaja of Bobbili during his Legislative Assembly Membership in Madras Presidency had brought out a twin facility in 1904 in One Town area. The rectangular construction consists of two storeys, the ground meant for Vizagapatam Club and first for Town hall. The building plotted on an elevated plateau facing the Bay was made in course square rubble masonry with the two floors having open galleries on three sides and two circular turrets on either edge of the front façade.

30) Visakha Museum (17°43'14"N, 83°20'01"E)

A residential building typical of 'garden bungalow' was constructed during the early 20th century in the Dutch layout on the beach road. This single-storey structure famous as Mukherjee house was built of stone masonry as consisting of a number of central living units surrounded by open verandahs. During 1991, this building was put to adoptive reuse as Visakha Museum to preserve and exhibit artifacts and collections of yore.

31) Hamilton Memorial Masonic Temple (17°41'47"N, 83°17'51"E)

A lodge for freemasons was constructed for the British Coast Artillery on the seashore in One Town area in 1912 by the Madras Presidency and named after one of the illustrious freemason masters. The two-floor structure with a number of rooms built of ashlar stone masonry to rectangular plan contributes a great deal to the streetscape.

two-floor structure with a number of rooms built of ashlar stone masonry to rectangular plan contributes a great deal to the streetscape.

32) King Edward VII Market (17°41′55″N, 83°17′39″E)

Rajah of Kurupam, Sri Vyricherla Veerabhadra Raju planned a market in One Town area in 1914, named it as King Edward VII Market and donated it to the then municipality. The market, alternatively known as Kurupam market, was enclosed in stone walled rectangular yard with four double-height entrance gateways at the middle of each side with the eastern one furnished with a clock and elaborately decorated with 'pointed horseshoe arches' 'youssoirs' octagonal turrets 'sateri' roof and 'kalasas' shoe arches', 'voussoirs', octagonal turrets, 'sateri' roof and 'kalasas'.

33) District Collector's Office (17°42'34"N, 83°18'31"E)

A massive building to host Visakhapatnam District Collector's Office was constructed in a strategic location between 1865-1914. The building overlooking the bay was designed like an 'E' shaped castle. The two-storeyed structure consists of central halls flanked by verandahs on either side in the two floors and steady square-base pavilions on either edge of the front façade.

34) Hawa Mahal (17°42'27"N, 83°18'42"E)

A palatial two-storey stone masonry rectangular building with a central courtyard was constructed in 1917 on a hillock top on the beach road by Jeypore kings. Named as 'Hawa Mahal' because of copious wind flow to the site, the built consists of a series of rooms with open inner verandahs and colonnaded front verandahs in the two floors, projected semi-hexagonal corner facades in the fore and a single-storey arched central portico. The bungalow was graciously enriched with detailing in stone/ wooden railings, Italian marble flooring, embossed tiles, monkey tops, carved bargeboards, etc.

35) Maharaja Sir Gajapathi Row Hindu Reading Room (17°42'N, 83°17'E)

In order to encourage and support the habit of reading Hindu scriptures, mythology and allied literature, Her highness Seethabai Rani

Sahiba of Wadhwan had put up a building in memory of her revered father Maharajah Sir Gode Narayana Gajapathi Row in One Town area during 1917. The two-storeyed building was made in stone and mortar piling comprising of a hall in ground floor earmarked for book reading and another hall in first floor for conducting religious events and discourses.

36) Rani Chandramani Devi Palace (17°43′44″N, 83°20′12″E)

A two-storey palatial structure was built in 1919 at an elevated plinth in ashlar stone masonry in an extensively landscaped site for Rani Chandramani Devi of Chemudu estate. Each storey consists of three parallel rectangular halls preceded by a verandah flanked by rooms on both sides, the foremost housing the stairs and a large single-storey portico supported by Doric columns. A children's hospital cum rehabilitation centre for handicapped children was established by GoAP in the palace during 1965.

37) King George Hospital (17°42′31″N, 83°18′22″E)

A civil dispensary was started in 1845 in the heart of Visakhapatnam city and the same was later upgraded into a bigger hospital named in honour of the then reigning British Monarch, King George in 1923. The building designed to three-storeys is symmetrical in plan with a central corridor having main entrance and two adjacent corridors. The entire construction was made of dressed stone masonry with addition of a tower bearing a clock over the porch.

over the porch.

As the city needed a good facility to host the Municipal Council a

As the city needed a good facility to host the Municipal Council, a nice building was constructed in 1931 in the Fort ward of One Town. The building offering an excellent view of the harbor is located between Victoria Jubilee Town Hall and Hamilton Memorial Masonic Temple on a widely spread hillock. The facility was constructed in stone to a rectangular cum symmetrical plan with two-storeys, projected corners and a lap sided rear extension.

40) Sacred Heart Church (17°41'39"N, 83°17'39"E)

The church was constructed in 1932 in One Town area for the benefit of Anglo-Indian families in the British army. The building with semicircular openings was made of rough ashlar stone masonry supported by buttresses. The church was designed as consisting of a central double-storey nave and single-storey side aisles with elevated sections in the fore and rear to twostoreys. A three-tier recessing bell tower was erected over the porch of the main façade.

41) Jeypore Vikrama Deo College of Science and Technology (17°43'26"N, 83°19'38"E)

A large building named after Vikrama Deo, the Maharajah of Jeypore to serve as College of Science and Technology was built by 1932 in Andhra University campus. The plan of the building is a symmetrical 'U' shape with ground/ first floors accommodating a series of rooms flanked by verandahs on the courtyard side with a staircase block bearing clock in the fourth floor.

42) Sun Dial (17°43'27"N, 83°19'38"E)

A sundial was built of dressed stone on slant top of enablement amidst a garden behind Jeypore Vikrama Deo College of Science and Technology of the Andhra University campus during 1932 to demonstrate the technical prowess of the times.

43) Tikkavarapu Laxmi Narayana Reddy Sabha (17°43'21"N,

83°19'42"E)

A grand building named after the donor Sri Tikkavarapu Lakshminarayana Reddy, a philanthropist and educationist constructed by 1939 in the Andhra University campus. The facility is a large rectangular lecture hall fronted by a semi-decagonal open central foyer consisting of one room each on either side.

room each on either side.

44) Light House (Sand Hill) (17°42'14"N, 83°18'04"E)

A lighthouse was erected during Second World War period on the sandy crest of a hilltop in Andhra Medical College campus by the Royal Navy. The facility built of stone as a multi-storey cylindrical structure with a capital guarded by railing was given an outer spiraling staircase. A glass paneled cylindrical metallic encasing with dome housing a white dioptic light was installed over the structure.

Discussion

As mentioned under methodology, the inventory of heritage resources was analysed in the light of their historical affiliation, typology and architectural styles.

Analysis of heritage sites in terms of historical affiliation

The inventory of heritage resources in Visakhapatnam revealed the presence of a wide range of structures that derived their origin during four periods of different major rules in the country or region. Of these, five heritage sites pertain to Hindu-Buddhist dynasties, two to Mughal period, sixteen to Native-Colonial rule and twenty-one to British era (Table 1). Most of the surviving heritages were put to certain degree of adoptive reuse that

may not be fully justified in every instance, especially from the viewpoint of heritage conservation principles.

Table 1: Historical affiliation, typology and architectural style of heritage sites in Visakhapatnam

visaknapatnam		
Heritage sites	Heritage typology	Architectural style
Hindu-Buddhist dynasties: 200BC-1500AD		
Bavikonda Siva Temple Sri Someswara Swami Temple	Religious architecture " "	Buddhist Hindu "
Sri Varaha Lakshmi Narasimha Swami Temple	"	,,
Thotlakonda	,,	Buddhist
Mughal period: 1501-1700AD		
Dutch Cemetery Hazarat Syed Ali Ishak Madani Dargah Native-Colonial rule: 1701-1900AD	Religious-cum-commemorative architecture "	British Colonial Islamic
District Collector's Office Floral Garden Guard Post	Public buildings Gardens Military architecture	"," Indo-Saracenic
Jagannadha Swamy Temple M.S.V. Regimental Lines Cemetery Mrs. A.V.N. College Railway Bungalows Railway Guest House	Religious architecture Religious-cum-commemorative architecture Educational institutions Residences	Hindu British Colonial Indo-Saracenic British Colonial "
Sri Kasi Visweswara Swamy Temple	Religious architecture	Hindu
Sri Sitarama Swamy Temple St. Ann's Cathedral St. John's Church	" "	British Colonial
St. Joseph's Church	,,	,,
St. Joseph's Girls High School	Educational institutions	,,
St. Paul's Church	Religious architecture	"
Visakha Museum	Residences	***
British era: 1901-1947AD		
District Court Hamilton Memorial Masonic Temple Hawa Mahal	Public buildings Cultural associations Residences	British Colonial British Colonial
J.V.D. College of Science and Technology	Educational institutions	,,
King Edward VII Market	Trade	"
King George Hospital Kurupam Tomb	Public buildings Commemorative architecture	Indo-Saracenic
Light House (Park Hotel)	Transport systems	Lighthouses
Light House (Sand Hill)	"	"
Light House (St. Aloysius)	"	"
M.S.G. Row Hindu Reading Room	Developing knowledge	Indo-Saracenic
Municipal Office	Public buildings	British Colonial
Queen Victoria Pavilion	Commemorative architecture	Indo-Saracenic
Rani Chandramani Devi Palace Sacred Heart Church	Palaces Religious architecture	British Colonial
St. Aloysius Church	Rengious architecture	,,
Sun Dial (Andhra University)	Developing technologies	Scientific
T.L.N. Reddy Sabha	Developing knowledge	British Colonial
Turner's Choultry	Domestic habitat	Indo-Saracenic
Victoria Jubilee Town Hall Waltair Club	Public-cum-Recreational buildings Recreational architecture	British Colonial

Thus, the total heritage sites in Visakhapatnam ranged from a minimum of two during Mughal period to a maximum of twenty-one during British era with the total reaching forty-four (Fig. 3).

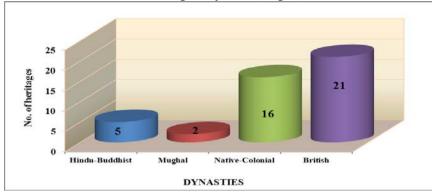


Fig. 3: Heritage sites in Visakhapatnam city during different dynasties

Analysis of heritage sites in terms of heritage typologies

On grouping the 44 heritage sites into different typologies under the seventeen nomenclatures adopted, fourteen sites fell into the category of Religious architecture; four structures each into Public buildings and Residences and three buildings each into Educational institutions, Religious-cum-commemorative architecture and Transport systems. Of the remaining thirteen sites, while two structures each belonged to Commemorative architecture and Developing knowledge; one each turned out to be Cultural associations, Developing technologies, Domestic habitat, Gardens, Military architecture, Palaces, Public-cum-recreational buildings; Recreational architecture and Trade (Fig. 4). Thus, Religious architectural typology is found to be the most dominant in the city whereas the rest are mostly representative.

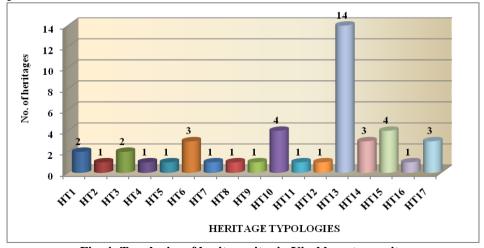


Fig. 4: Typologies of heritage sites in Visakhapatnam city

(HT1 - Commemorative Architecture, HT2 - Cultural Associations, HT3 - Developing Knowledge, HT4 - Developing Technologies, HT5 - Domestic Habitat, HT6 - Educational Institutions, HT7 - Gardens, HT8 - Military Architecture, HT9 - Palaces, HT10 - Public Buildings, HT11 - Public-cum-Recreational buildings, HT12 - Recreational Buildings, HT13 - Religious Buildings, HT14 - Religious-cum-Commemorative Architecture, HT15 - Residences, HT16 - Trade, HT17 - Transport Systems)

Analysis of heritage sites in terms of architectural styles

Among the forty-four heritage sites identified in the study area, twenty three sites belonged to British Colonial architectural style; six each to Hindu and Indo-Saracenic styles; three each to Islamic and Light houses while two belonged to Buddhist style and one to Scientific category. Thus, British Colonial architectural style was predominant in the city whereas the rest are moderately or marginally represented. (Fig. 5).

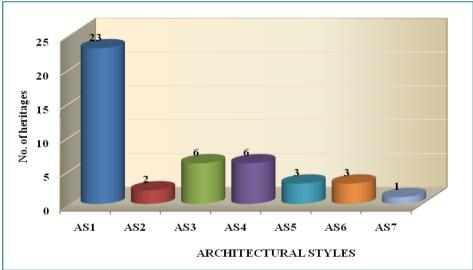


Fig. 5: Architectural styles of heritage sites in Visakhapatnam city

(AS1 - British Colonial, AS2 - Buddhist, AS3 - Hindu, AS4 - Indo-Saracenic, AS5 - Islamic, AS6 - Lighthouses, AS7 - Scientific)

Status of Heritage sites

Of the total heritage sites, six sites, namely, Bavikonda, Thotlakonda, Sri Varaha Lakshmi Narasimha Swami Temple, Sri Someswara Swamy Temple and Dharmalinga (Siva) Temple are under the protection of Department of Archaeology and Museums of GoAP and were also listed by RMPVMR-2021.

Among the rest, thirty heritage sites, *viz.*, Hazarat-Syed Ali Ishaq Madani Aulya Rahamatulla Alihe Dargah Sharif, Dutch Cemetery, Mor Sjanua Vitae Regimental Lines Cemetery, St. Paul's Church, St. John's Church, Jagannadha Swamy Temple, Sri Sitarama Swamy Temple, St.

Ann's Cathedral, Mrs. A. V. N. College, St. Aloysius Church, Turner's Choultry, Railway Guest House, St. Joseph's Girls High School, St. Joseph's Church, Light House (St. Aloysius), Kurupam Tomb, Queen Victoria Pavillion, Victoria Jubilee Town Hall, Visakha Museum, Hamilton Memorial Masonic Temple, King Edward VII Market, District Collector's Office, Hawa Mahal, Maharaja Sir Gajapathi Row Hindu Reading Room, Rani Chandramani Devi Palace, King George Hospital, District Court, Municipal Office, Sacred Heart Church and Jeypore Vikrama Deo College of Science and Technology were listed by RMPVMR-2021, but remain without protection by any authority.

In fact, a list of these sites was formally submitted by VUDA to the Ministry of Municipal Administration and Urban Development of GoAP without following any codal formalities required to seek statutory backup to them from the government. However, in the absence of any further explicit efforts in the matter, good heritage sites such as the residence of the second Indian President and legendary Dr. Sarve-palli Radhakrishnan (once Vice-Chancellor of the Andhra University too), St. Peter's church, Fort Catholic Girls High School were demolished.

Girls High School were demolished.

Further, the Simhachalam Temple precincts have been continuously meddled with to promote tourism ignoring the architectural, aesthetic, cultural, historical, religious and heritage values attached to the famous pilgrim centre (Giduturi and Mahammood, 2011). Several churches and temples within the VMR have been altered according to property owners whims and fancies with least respect to the heritage values being carried by them. Several institutional buildings have also been facing a pathetic treatment towards their heritage significance due to sheer negligence besides vested interests. Many heritage buildings are suffering from fastening of pamphlets and wall posters, installation of hoardings, erection of statues of political interest, construction of bus shelters and public toilets and establishment of kiosks, etc. in and around their vicinities. The proposed extension activities of the Visakhapatnam Port Trust in the historical core of 'One Town' are threatening the very existence of at least 16 heritage buildings and sites constructed between 1801-1947AD during the British Colonial period.

This appalling state of affairs is mainly due to lack of a persuasive conservation policy, which should take care of inter departmental coordination, surmount piecemeal approaches, favour property owners and developers, generate public awareness and summon local involvement. A timely response in this line followed by a suitable action course would save several heritage structures at least for renovation and adaptive reuse without disturbing the innate heritage values like that of the Dutch Bungalow in Visakhapatnam housing Visakha Museum now.

Conclusions

All the forty-four heritage sites in Visakhapatnam are significant structures not only from the state and local heritage perspectives but also from the viewpoint of their unique architectural typologies and styles. Further, these architectural legacies and contextures spanning over twenty centuries from Buddhist period to British era of the region still remain as a missing link in urban planning although they enormously contribute in augmenting cultural, historical, religious, social and technological knowledge base of the region. Therefore, they deserve extra-regional importance and need to be preserved and protected for posterity.

Acknowledgments

The authors acknowledge sincere thanks to Prof. Ch. V. Ramachandra Murthy, Principal and Prof. S.V. Naidu, Department of Chemical Engineering Andhra University College of Engineering, Visakhapatnam for continuous encouragement and to Mr. M. V. Rao, Scientist, Wood Biodegradation centre (Marine), Institute of Wood Science and Technology, Visakhapatnam for help in the preparation of manuscript.

References:

Anonymous, *Heritage designation process in the City of Hamilton*. Ontario, Canada: Planning Division, Planning and Economic Development Department, 2008a, 5.

Anonymous, *The Welsh Historic Environment Position Statement* 2007. Caerdydd: Historical Building Advisory Council for Wales. Hawlfrainty Goron, 2008b, 72.

Anonymous, Practical alternatives evaluation working paper cultural heritage Canada-US-Ontario-Michigan boarder transportation partnership (Draft), Canada: Archaeological Services Inc., 2008c, 26.

Anonymous, Cultural heritage assessment report: Built heritage resources and cultural heritage landscapes, light rail vehicle fleet maintenance and storage facility Canada: Archaeological services Inc., 2010a, 15.

Anonymous, Cultural heritage assessment report: Built heritage resources and cultural heritage landscapes, go service extension to the Niagara Peninsula environment assessment, Ontario. Canada: Archaeological Services Inc., 2010b, 67.

Anonymous, *Model heritage regulations*. Town and Country Planning Organization, Ministry of Urban Development, Government of India, New Delhi, 2011, 24 pp.

Bailey, R. M, *Research strategy 2010 to 201.5* Scotland: Royal Commission on Ancient and Historical Monuments of Scotland, 2011, 5.

Bold, J. and K. Kovacec, *Guidance on Inventory on Documentation of Cultural Heritage*. Strasbourg Cedex: Counsel of Europe, 2009, 137.

Buckley, R, City of Lethbridge inventory of historical places. Calgary: Heritage Collaborative Inc., 2007, 139.

Businessline. "Visakhapatnam port in troubled waters" The Hindu, September 30, 2012, accessed on 26 Dec 2012. http://www.thehindubusinessline.com/industry-and economy/logistics/visakhapatnam-port-in-troubled-waters/article3951761.ece

Chun H K, Hasan A S, and Noordin N M. "An influence of Colonial architecture to building styles and motifs in Colonial cities in Malaysia". *Proceedings of the 8th International Conference of the Asian Planning Schools Association, School of Housing, Building and Planning,* University Sains. *Penang Malaysia:* University Sains, 11-14th Sep 2005, 14.

Dillion. City of Kawartha Lakes: Natural heritage and cultural Heritage policy paper for Kawartha Lakes community based secondary plans. Canada: Dillion Consulting, 2012a, 22.

Giduturi V K and V Mahammood. "Guidelines for development of tourism infrastructure at heritage sites: A case study of Simhachalam temple, Visakhapatnam, India", *International Journal of the Constructed Environment* Volume 1, Issue 3 (2011): 37-54.

Gupta, D. *Identification and documentation of built heritage in India: Process for identification and documentation of cultural heritage.* INTACH, New Delhi. 2007, 53 pp.

Harun, S N. Heritage building conservation in Malaysia: Experience and challenges. Procedia Engineering, (20), 2011, 41-53.

Kerr C. Update on the status of the built heritage inventory Review in the community of Stouffville, Report # 2, Town of Whitchurch- Stouffville, 2011, 7.

Larkham, Peter J. "A consolidated conservation/ heritage bibliography for the built environment". England: University of Central England, 2010. http://www.rudi.net/node/7349, accessed on 22 October 2012.

Mishra C. "Delhi Citizen Handbook 2009." Delhi: Department of Art, Culture, and Department of Archaeology, 2009: 237-248.

Rao K S N. "Report on Civic Survey of the Vizagapatam Municipality." Madras: Government Press, 1925, 99.

Rajamani R. "Heritage conservation in Hyderabad." *Proceedings of the Seminar on conservation of heritage buildings/ precincts in the Chennai Metropolitan Area*, Chennai, October 8, 2010.

Ravindran, K T. "Heritage conservation in Delhi." *Paper presented in the Seminar for the conservation of heritage buildings/ precincts in the Chennai Metropolitan Area*, Chennai, October 8, 2010.

Srinath M, Kuriakose S, Ammini P L, Prasad C J, Ramani K., and Beena M R., *Marine Fish Landings in India 1985-2004, Estimates and Trends*. Central Marine Fisheries Research Institute, Cochin (CMFRI) Special Publication No.89 (2006): 161.

Stewart P, Robb G., and Dilse P. *Town of Caledon built heritage resources inventory-Report of findings*. Canada: Heritages Resources Officer, Ontario, Celadon, 2008, 46.

UNESCO. IMPACT: The effects of tourism on culture and the environment in Asia and Pacific: tourism and heritage site management in Luang Prabang (Bangkok: Lao PDR, UNESCO, 2004.), 130.

UNESCO. World heritage information Kit. World Heritage Centre Paris: UNESCO, 2005, 28.

UNESCO. Operational guidelines for the implementation of the World Heritage Convention. Paris: UNESCO World Heritage Centre, 2012, 165.

VUDA. Master Plan-Visakhapatnam Development Area and it's vicinity (Visakhapatnam Metropolitan Region). Visakhapatnam: Visakhapatnam Urban Development Authority, 1996, 124.

VUDA. *Revised Master Plan of Visakhapatnam Metropolitan Region-2021*. Visakhapatnam: Visakhapatnam Urban Development Authority, 2007, 302.