St.ANGELO AND BEKAL FORTRESSES – A COMPARATIVE STUDY

(Abstract)

The Ph.D. thesis entitled St.Angelo and Bekal Fortresses - A Comparative Study has been carried out by me as a research scholar during the period of 2006-10 for Ph.D. degree of the Kannur University under the supervision of Dr.Prof. K.S. Mathew, at the Institute for Research in Social sciences and Humanities, affiliated to the Kannur University. When I was a student in the Institute of Archaeology, Archaeological Survey of India New Delhi, I had an opportunity to participate in the excavation training camp at Dholavira (famous Harappan site), during 1993-94. The well built Indus Valley citadel with ramparts of the northern and the eastern gateways attracted me very much. Since then I started having interest in fortification. After my posting as Dy.Superintending Archaeologist, Thrissur circle of Archaeological survey of India, Kerala till my promotion to the post of Superintending Archaeologist, I was fascinated by these two fortresses. They are protected by the Archaeological Survey of India, and I was personally
associated with various works carried out on exploration, excavation, clearance of scientific debris and conservation and preservation of these fortresses.

**Location of St. Angelo fortress (lat 11°52’ N Long 75°27’E)**

St. Angelo fortress is the earliest surviving European or rather Portuguese fortress in India. It was built in 1505 by Dom Francisco de Almeida, the first viceroy of Portuguese India and is on the Arabian Sea about 3km from Kannur town. Thomas Fernandes was the architect of Cannanore St. Angelo fortress. The fort changed hands several times. In 1663 the Dutch captured it and later sold it to the Arakkal royal family in 1772. The British captured it in 1790 and transformed it into one of their major military stations on the Malabar coast. It is fairly well preserved as a protected monument under the Archaeological Survey of India. A painting of this fort and the fishing harbor behind it can be seen in the Rajksmuseum in Amsterdam. The fort is a magnificent structure with massive walls and a deep moat. A mesmerizing view of the Moppila bay never fails to enthrall visitors. The fort is situated very close to the sea is separated from the sea by a strong sea wall. One can also get a fascinating view of the Dharmadam Island that is located at a distance of one hundred meters from the shore. The port of Cannanore carried on brisk trade with Bengal, Sumatra, Surat, Arabia, and several countries of the world from where horses, almonds, piece goods, sugar, Opium, silk, benozin, camphor, were imported.

The main item of export was pepper. The port of Cannanore is situated on the seashore of Cannanore, a town of great historical and cultural importance like Muziris and Quilon. It was one of the premier port of ancient Kerala. Cannanore, being the junction point for various sorts of commodities of Indian Ocean region
strengthened by Atlantic links, was developed by the Portuguese as the third biggest maritime trade centre in India (the other two being Goa and Cochin).

Location of Bekal fortress (12° 23’ N Lat; 75° 02’ E Long)

It is situated on the sea shore of Pallikare village in Housdurg taluk, Kasaragod district. It lies about 17 km South-East of Kasaragod town, the northern most district of Kerala. It is bound by Dakshin Kannad district (bordering Kasaragod taluk) in the north and east. Kodagu district is bordering on Housdurg taluk, south – east of Karnataka state, Cannanore (Kannur) district in the south and Arabian Sea in western side. The nearest railway station is Kanhangad on the Thiruvananthapuram- Mangalore line. There is a new railway station Bekal at Pallikare. During the Sangam period Kasaragod district formed part of Ezhimale kingdom with its capital at Ezhimale. Sangam literature like Agananuru, Purananuru, and Nattinai mention Ezhimale kingdom. During the Perumal Age, Bekal was a part of Mahodayapuram. The Kidavalam inscription (Pullur, 7KM from Kanhangad) of Bhaskara Ravi II (the king of Mahodayapuram) illustrates the undisputed political sway of Mahodayapuram over this region. Following the political decline of Mahodayapuram Perumals by the 12th century AD, North Kerala including Bekal came under the sovereigns of Kolathunadu. The maritime importance of Bekal increased much under Kolathiries and it became an important port town of Thulunadu. Etymologically, the word ‘Bekal’ comes from ‘Be’ which means burning and ‘kallu’ means stone. Another view ascribes the origin of the name of the place to local Krishna temple, which is said to have given the word of Devakulam, which means abode of the Deva. Bekal must be a corruption of Dekal.
According to another opinion Bekal is derived from Balikulam, it means big palace. The place is said to have housed a big palace in the past. The term Balikulam was occupied as Bekulam and later was called as Bekal by the local people. It is also pointed out that in addition to the Balikulam, there was also a Kuttikullam, meaning small palace in the area. Bekal fort is the biggest fort in Kerala, spreading over almost forty acres, built with large number of tanks with its flight of steps, the tunnel opening towards the south, and the magazine for keeping ammunition. The fort appears to have been built up from the sea since almost three fourth of its exteriors is drenched and the waves stroke the citadel. The Bekal fortress built by Sivappa Nayaka during 1645-1660 AD is the only indigenous surviving coastal fortress. The Nayakas realized the political and economic importance of Tulunadu (Kasaragod District) and attacked and annexed this part of the country. Bekal served as a nucleus in establishing the domination of Nayakas by fortifying Bekal subsequently. Hiriya Venkatappa Nayaka initiated the construction of the fort and it was aimed at defending the fort from overseas attack and to strengthen their attack on Malabar. Chandragiri fort near Kasaragod was also constructed during this period.

The Malanad region especially the country of Bidnur, where the monarchs of Keladi ruled, was fertile and rich in natural resources. The immense quantity of rice, pepper, cinnamon, cardamom, coral, sandalwood, and Ivory, which abounded in this kingdom, have caused it to be called the granary of all India. It is also rich in minerals and precious stones. The Rivers were navigable and coastland had landing facilities for ships. Consequently, there were many flourishing ports on the seacoast and trading cities were inland. The temples, forts, palaces and also Lakes constructed by the Keladi - Ikkeri kings bear witness to their religious fervor and love of art and architecture. These rulers possessed qualities of leadership in abundant measure and
exhibited unparalleled courage in the face of personal danger. They were true Virasaivites, and faithfully followed the teachings of Basava. They did not hate other religions, respected the leaders of the Dvaita, Advaita, and Visistadvaita and made magnificent grants to all religious institutions including mosques and churches. The important literary works on Ikkeri the *Keladinripavijayam*, written by Lingannakavi or poet Linganna and *Sivatattavartnakara* compiled by Basavappanayaka I (also called Basavaraja) of Keladi. These works seem to have been written between 1763 AD and 1804 AD.

**Review of Previous works:**

No scientific studies relating to the fortresses of St. Angelo at Cannanore and Bekal located in Kasaragod district on the western coast of India have not been done so far. A.P. Singh in his ‘Forts and Fortifications in India’ has not covered the fortresses mentioned above; hence I have taken up research on these two fortresses. Further Cannanore St. Angelo is the only fortress of the Portuguese, which still survives. The Bekal fortress at Kasaragod at the northern end of Malabar Coast is having some similarity as well as dissimilarity. Since Archaeological Survey of India, Thrissur Circle recently conducted small scale excavation and scientific debris clearance on these two fortresses and I myself was associated with various types of works on these fortresses, I am well aware of the archaeological material sources such as ceramics, coins, copper objects, stone objects, beads, drainage systems, and other monumental discoveries.

**Survey of Sources:**

The primary source used in this research is archaeological materials supported by secondary sources. Detailed studies on both the fortresses, like architectures gateways, rampart walls, bastions, inner fortifications, citadel areas, important
structures located inside the fortresses, church, temples, durbar hall, captains house, magazine house, secret cells, wells and tanks, drainages, moats, drawbridges, passages, loopholes, gunpoint, other findings, from chance discovery and from archaeological excavation like potteries, coins, terracotta objects, stone objects, bronze, copper, silver, gold, and iron objects are thoroughly studied by their measurements, photographs, and drawings.

**Methodology:**

The methodology used in the research includes the collection of various details regarding materials found inside these two fortresses, and architecture along with the structural details through field studies. The methodology also includes collection, and tabulation of the data regarding the comparative studies of the fortresses. Personal field studies verifying the data collected and discussions with the Portuguese Archaeologists, and historians who are competent authorities on these subjects like Vitor Luis Gasper Rodrigues, Adel Yusef Sidarus, Timothy Walker, and Paulo Lopes Matos were done. Similarly, comparative studies of the various fortresses located on the western coast like Anjengo, Thangassery, Tellicherry, Madayi, Housdurg, and mount Eli, were also conducted.

The PhD. thesis consists of seven chapters. **Chapter** one contains Introduction, Etymology, Classification of fortresses based on location, and material used historical development of fortresses, evolution of factory and fortress, previous works, methodology, and survey of sources.

**Chapter two**
It deals with settings of the Fortresses like Physiographic, Geology, location, rivers and backwaters of Cannanore and Kasaragod, districts with map showing the interior waterways and the history of Kolathunad and Portuguese. Ali raja of Cannanore, the Dutch and the British and Keladi rulers of Ikkeri Nayakas, their historical backgrounds are thoroughly described.

Chapter three

Defensive Mechanism of the fortresses like the methods of architectural details which protected the inmates of the fortress from outside dangers is discussed here. Architectural styles like entrance gateways, bastions, ramparts, merlons, loopholes, gunpoint’s, secret cells, passages, horse stables, moat, magazine room, water management system, cannons, etc, of St. Angelo and Bekal fortresses are described with their shape and size, along with plates in colour.

While describing the rampart walls of the fortress, a detailed study was carried out for each bastion of the fortress, method of construction, use of laterite stones, their sizes, use of binding and plastering material are thoroughly described. In Bekal fortress the bastions are of drum shape with slight tapering towards the top just below the merlons and built with massive chiseled and well dressed laterite stone masonry in mud mortar binding. Large numbers of loopholes for pouring hot water through these holes on enemies pierce the walls and bastions. Through these loopholes small cannons or arrows were discharged. While peeping through the perforation to aim at the enemy, like the holes at the top were meant for aiming at the farthest points. The holes below are meant for hitting when the enemy was nearer and the holes underneath facilitate attacking when the enemy is very near to the fort. These are very remarkable evidence of medieval technology in defense strategy.
The walk wall provided all along the rampart wall of inside the fortress and to reach the bastion a flight of steps are provided. Whereas at St. Angelo fortress the Portuguese not given much importance to these kind of loopholes instead they gave importance to big guns mounted on the top of the bastions and ramparts which are built in double wall system with inner core packed with straw and earth and along the inner side of the fortification wall raised steps are provided wherever necessary to reach the bastion, the soldiers can patrol on the top of the rampart wall easily and the watch and ward security became easy and no enemy can approach near the fort. They did not depend upon small weapons like bow and arrow. Both the fortresses are located in a very strategic topography surrounding sea, on three sides. The incoming enemy could be shot by the cannons mounted on bastion. Bastions are the integral parts of the fortification and they functioned in two ways, as buttress in the form of bastion and to withstand the lateral thrust and as watchtower.

Chapter four

The residential and service sectors of the fortification have been described in detail. Here mainly the structures presently existing and structures found through archaeological excavation and scientific debris clearance are dealt with. In St.Angelo fortress the structures like ancient Portuguese drainages, Captain’s bungalow, Chapel, warehouse, newly discovered ancient triangle fortress with dry moat, and other ceramics details are dealt with. Similarly the structures found at Bekal fortress through excavation in three sectors namely BKL I, BKL II, BKLIII, among them structures like houses with courtyard in Nalukettu pattern, with toilet block, drains, temple, Durbar hall, and mint house, secret tunnel, are noteworthy. Apart from them ceramics and gold, silver, copper ornaments, and large number of
coins of Ikkeri Nayakas, and Tippu Sultan, are thoroughly described. The above mentioned structures and objects with colour plates are not known to many and they have been documented systematically and in future this will be a valuable reference to these fortresses.

Chapter five

The Maritime trade and the fortresses have been described. The trade conducted by Kolathunad on the Malabar coast prior to the Portuguese has been dealt with. St. Angelo fortress served as an international trade centre. It functioned also as factory. When the Portuguese reached Cannanore they negotiated with local king, the Kolathiri raja in order to obtain a piece of land where they could build a factory. The king granted a site on the western extremity of the bay of Cannanore called Moppila bay, a small piece of land housing only a few fishermen’s huts, which were soon destroyed for the construction of Portuguese settlements. This was the earliest European bridgehead in Cannanore. Simultaneously the factory soon developed into a fortified settlement of commercial and political significance. The port town of Cannanore was divided into two power zones; one was fort St. Angelo representing the European economic interest in the port. The other was Cannanore (now known as ‘Mappila Bay’) which provided anchorage for ships and boats.

Cannanore was a port town that established a link between hinterland and overseas countries. St. Angelo fortress was to guard the port and commercial activities. Kolathiri and the Portuguese wanted to maintain Cannanore as the centre of the trade. The oldest port of international trade in north Malabar was the port of Eli or Ezhimala, (also known as Pazahayangadi) and Valapattanam became major port of international stature in the region in the subsequent periods. Cannanore,
Dharmadam, Valapattanam, Puttuppanam, Palantallayini, Kumbala, Kallukulam, and Nileswaram emerged as new ports on the coastal area of the kingdom of Kolathunad. Among these ports it was only Cannanore fortress that remained as the main port accessible to big vessels. Portugal was the chief destination of export trade with Persian Gulf and Red sea regions of West Asia, Egypt, Lakshadweep Maldives, Ceylon, South East Asian Countries and different parts of India.

Chapter six

The present condition of the fortresses and their impact on society are studied in detail. How the Archaeological Survey of India has taken up and when these fortresses are declared as nationally protected monuments in Kerala and their importance, what are the conservation and preservation carried out on these fortresses and the impact of the Portuguese fortress on society like religious changes, secular education, conversion, social services carried out by the Portuguese like hospital, house of mercy, churches, schools, and finally a structural analysis of St.Angelo and Bekal fortresses have been analysed in vertical columns for a ready reference on merits and their demerits.

Chapter seven is conclusion. How these tow fortresses are built and their purpose, merits and demerits on structural aspects are described here. In Bekal fortress, structures like watch tower, magazine houses are military in nature while the durbar hall, mint house and other structures show the royal affinity. The identification of mint house as of Tippu Sultans at Bekal excavation is the most important contribution. Large number of coins, residential houses, number of excavated tanks, and wells for water supply shows that the fortress must have been occupied by kings and many other high level military officers of Nayakas of Ikkeri and Tippu Sultan and finally went into the hands of British. The Portuguese though adopted
local medium as materials for constructing their fortress in India at the same time for the technique they used their own ideas mixed with Indian style. Hence the style of architecture is Indo-European. St. Angelo fortress started as a factory and gradually developed into a fortress where the captain who was appointed by the king of Portugal resided along with priests, Portuguese soldiers. Hospital, convent, chapel, etc., functioned inside the fortress. The warehouse also was situated inside the fortress and it was an international port centre in Portuguese period. The fort commanded the coastal sea-routes of the Arabian Sea and it played a prominent role in the Portuguese colonial expansion and from here the *Cartazes* were issued by the captain for the ships.

Thus the study concludes that the two fortresses witnessed important historical developments in the south west coast of India. St. Angelo fortress of Cannanore saw the rise and fall of the Portuguese power in India, the Dutch, the Ali Raja of Cannanore finally the rise and fulfillment of the British power and the establishment of an Empire. The Bekal fortress also witnessed the rise and fall of the Nayakas of Ikkeri, Tippu Sultan, and finally the rise of British colonial power. On the whole these fortresses played significant role in trade and defense.

The thesis contains drawings, photographs, and maps and is supplemented with bibliography, and glossary of selected terms. The colour photographs of all plates are meticulously done with the help of digital camera; each page contains two plates along with labels indicating the place and the name of the objects. The plates of coins, terracotta objects, bronze, copper, silver, and gold objects are noteworthy to be seen in details, which are not seen by scholars so far.

**CHAPTER I**