CONCLUSIONS

The Forts at Aihole, Badami and Pattadakal along with Mahakuta and Alampur are best examples of the changing patterns in fort architecture as well as technology. A study of the defence architecture of the above places has hardly received the required scholarly attention. If brief studies on Aihole and Badami have been undertaken by a few scholars, Pattadakal, Mahakuta and Alampur find passing references. Hence, it was found compelling to undertake an extensive research on the area.

Some of the Archaeologists, epigraphists and historians who have worked extensively on the early Chalukyan period were also consulted prior to undertaking research on the area chosen for study. Some of them have extended valuable suggestions even in identifying the areas that had remained unexamined.

Aihole, Badami, Pattadakal, more so, the former two places had emerged as important economic zones since 2nd century A.D. As discussed in Chapter –I and III, Ptolemy makes a mention of Badami as well as Pattadakal. From the time of the Chalukyas of Badami all the three places became important power centers, especially Badami as it became the second capital of the Chalukyas, from the reign of Pulakeshi – I till the eclipse of the Chalukyan dynasty.

Post Chalukyan period also Badami continued to be important politically and militarily till the end of 18th century. Moreover, Aihole, Badami, Pattadakal and Mahakuta were also important cultural centers from the Pre-Chalukyan period and into the later times.

It is truism that structures erected for purpose of defence are in a state of ruination. Yet they throw interesting light on the patterns of architecture from 6th to
18th century A.D. Of the early Chalukyan defence architecture Aihole and Alampur which are Neladurgas are very similar in the structural pattern and layout, including the shape of the bastions which are rectangular in shape, a feature of the early Chalukyan fort architecture. The fort of Badami on the Northern hill built by Pulakeshi-I is the earliest fort at Badami and is distinct in its plan, as it is a Giridurga.

An intelligent use of the naturally available rocks and of the cliff of the hill has been made. At the base level the gaps in between the boulders have been filled with just stones and gateways provided along with roughly cut steps, it is at the cliff of the hill that a strong fortified wall was raised. So, the entire stretch of the fortified wall may have been close two kilometers, however, the ruined walls now measure only 937.50 meters. At the eastern side of the Northern Hill, beside the water pond are a few brick remains which may be of Pre-Chalukyan period which needs to be investigated.

Fig 7.1 Earliest pottery of 6th to 7th century A.D found on the surface of Northern Hill during field study.
Pattadakal and Mahakuta again have certain similarities. Without any bastions
the fortified wall at both the places are in a straight line and rectangular shape. The
Pattadakal wall encompasses the civic area including the temple complex, though today
traces of only the base of the wall may be identified. At Mahakuta the wall is
rectangular in shape and encloses only the temples, which are about eighteen in number.

As the surrounding region is covered with by a forest it many have necessitated
covering the temple complex with a fortified wall to protect the temples, treasury as
well as provide protection to the people within the complex even from wild animals.

![Diagram of forts at Badami](image)

**Fig. 7.2 : Forts of Pulakeshi, Rastrakuta, Vijaynagara and Tipu at Badami**

The succeeding dynasties also chose Badami alone for its strategic location. It
was convenient politically, economically and militarily. The Rastrakutas who
succeeded the Badami Chalukyas constructed a Neladurga here. Compared to the
Chalukyas, the Rastrakutas brought in several changes in the building technology.
The height of the fort wall was raised, and large bastions rectangular in shape were introduced. The size of the gateways and the thickness of the walls were also increased. There may have been a moat but as the area surrounding the fortification and within the fort has been encroached by the locals and converted into dwelling places, no trace of the moat is available.

Fig. 7.3 : Encroachment of Rastrakuta Fort at Badami

The remains of the Vijayanagara Neladurga as well as the renovation and reconstruction of the old forts undertaken by the Rayas shows that for the first time Circular bastions were introduced for the first time.
The shift from square to circular shape of the bastion was for purpose of cannons. In the forts reconstructed by Vijayanagara at Badami, also circular bastions were built. Mortar was used for the first time under Vijayanagara as a binding material.

This may be seen in the exterior walls of the Vijayanagara fort as well as those that got reconstructed. Very wide moats were also brought in as an additional feature in defence architecture at Badami. The length of the fort compared with the earlier forts is very extensive measuring 1175 meters. The moat is today covered up
with dwellings, and parts of the moat have become drainage, by which the entire moat is destroyed. The stone blocks used in the construction of the fort walls are smaller and symmetrical as well as closely arranged.

Fig. 7.5: The Ruined Wall of Vijayanagara Fort, Badami

Further under Tipu Sultan Badami became an important province in the northern part of Karnataka. The Nizam as well as the Mahrattas had also been vying to occupy the region. It was essential for him to thwart the allied forces of his adversaries especially the Marattas who were attempting an incursion in the region. These compulsions made Hyder and later Tipu to strengthen Badami by constructing a new fort on the Southern Hill and he took to renovating the old forts on the Northern hill. Advanced armaments large sized cannons, guns; mortars necessitated building magazines for storage.

The walls constructed during his period were stronger and compared to Vijayanagara the arrangement of the stone blocks is finer. The bastions were circular in
shape and stronger. Significant is the provision made for the first time to place cannons at the bastions. Moreover, the walk path built along the parapet wall in the fort was feature introduced for the first time. Loopholes cut into the parapet were essential for shooting and observing the movement of the enemy army was another important advancement made in the defence technology at Badami.

Such of the technological advancements from 6th to 18th century itself speaks of the relevance especially Badami held down the centuries. The four phases of development of fort architecture is an attestation of the advantages it held out politically and economically as it was lying to the south of river Krishna and north of Tungabhadra.