

INTRODUCTION

The present study is an in depth approach to unravel the development of temple architecture in the region of Bangalore and Kolar districts of southern Karnataka. The area selected for this study comprises of the present Bangalore and Kolar districts, which historically and culturally was a meeting place of the Kannada, Tamil and Telugu cultures.

Bangalore rural district is situated between $12^{\circ} 15' N$ and $13^{\circ} 35' N$ on the one hand and the longitudinal meridians of $77^{\circ} 05' E$ and $78^{\circ} E$ on the other. Bangalore urban district is situated between $12^{\circ} 39' N$ and $13^{\circ} 18' N$ on the one hand and the longitudinal meridians of $77^{\circ} 22' E$ and $77^{\circ} 52' E$ on the other. Kolar district is situated between $12^{\circ} 46' N$ and $13^{\circ} 58' N$ latitude and $77^{\circ} 21' E$ and $78^{\circ} 35' E$ longitude. These districts are on the plateau with an average elevation of 600 to 1350 meters from mean sea level. The districts have ranges of hills which are actually spurs of the eastern ghats, stretching northwards with peaks like Banantimari betta, Mudawadi betta, Bilikal betta, Siddadevarabetta, etc. The Savanadurga and Shivagange peaks are another row of hill ranges spreading up to the Nandi hills, running across the Bangalore district.

The principal chain of hills is the Nandidurga range which runs north from Nandi as far as Penukonda and Dharmaravam in the Anantapur district. Nandi durga is (4,851 feet above sea level) in Chikkaballapura Taluk, 31 miles north of Bangalore, Chennakeshavabetta or Chennarayanabetta (4,762ft) is five miles south west of Chikkaballapur, Kalavarabetta or Skandagiri (4,749ft) is five miles to the north of Nandidurga.

Three important rivers, the Palar, north Pinakini or north Pennar and south Pinakini or south Pennar and several of their tributaries take birth in this region

and flow in different directions. Papaghni, also called Vappillivanka, is a major tributary of north Pinakini. Chitravathi, another tributary of north Pinakini, flows north east between Woralakinda hill and Bagepalli. Nangini hole is a tributary river, an effluent of Kurudumale hills near Mulabagilu. The Kundar river is a tributary of north Pinakini. It originates on Ujanibetta, west of Mahakalidurga in Bangalore district.

Arkavati river, a tributary of the Cauvery river, originates in a well on the Nandi hills and soon after, enters Doddaballapura taluk of Bangalore district. This river flows for a short length of one mile only in the Kolar district.

The region of our study forms a part of the Deccan plateau and the rock formations belong to the category of peninsular gneisses. The granite gneisses that abound in Kanakapura, Nelamangala, Devanahalli and Ramanagaram taluks of Bangalore district have created captivating landscapes all over the district. Kolar, Chikkaballapura, Gowribidanur and Chintamani taluks also abound with granite gneisses.

Cultivable lands are mainly rain-fed, and dry farming is a characteristic feature of both these districts. The climate of Bangalore and Kolar is salubrious and very agreeable. It is devoid of extremes. But rainfall is meagre. As no major river flows in these districts, irrigation facilities are also limited. Kolar often suffers from deficit and capricious rainfall conditions.

The north and eastern parts of Bangalore are adjacent to Kolar and Kolar is adjacent to Andrapradesh and Tamilnadu. To the south of Bangalore is Mandya and Tamilnadu. To the west of Bangalore is Tumkur District. The Total area of Bangalore district is 8,005 sq kms, (rural 5,814 sq kms and urban 2,191 sq kms) and that of Kolar district is 6,275 sq kms. As said earlier, historically and culturally, this region is a meeting place of Kannada, Tamil and Telugu cultures.

This is a region often referred to in this work as “buffer region”, because, it is the meeting place of the people, language, culture and the politics of southern states.

During the period extending from about 500 A.D to the end of 1700 A.D, in spite of political fluctuations that existed in this region, uninterrupted temple building activity prevailed in the region. This artistic tradition imbibed the characteristic features of the Karnataka and Tamil idioms as practiced by the Rastrakutas and the Gangas on the one side and the Pallavas and the Cholas on the other. The location of this area was a buffer region politically and culturally also. Moreover, Kolar region was the connecting link for all the cultural, commercial and political activities between Karnataka and Tamilnadu. Therefore, the artistic style that prevailed in this region was continuously influenced by the traditions of two distinctly different cultures. Because of the combination of the two distinct cultural traditions, the artistic style that is found here reflects sometimes the Tamil tradition and sometimes the Kannada tradition and sometimes a blend of both the traditions.

The Bangalore and Kolar regions, as stated above, was a buffer state throughout the different periods of its history. The political powers of Karnataka and Tamilnadu tried to establish their supremacy over this region. It is a fact that general architectural pattern of South-India was basically dravidian in character. However, the influence of the local tradition, beliefs, customs and manners played an important role in the formation of local traits of the dravidian style. This trend is very clearly noticed in the temples of this region. To explain this trend, examples from other regions of southern Karnataka and occasionally of other parts of Karnataka are also taken into account.

The beginnings of temple architecture in the region of our study are traced back to about 6th century A.D. Buddhist architectural remains found in the

excavations at Rajaghatta are the earliest existing remains of brick architecture of the region.

Contemporary to the Buddhist architecture of Rajaghatta, Jains also constructed *Basadis* at various places of southern Karnataka. Excavations conducted at Talakadu have revealed the foundation of a brick *basadi* dated to about 500 A.D. Likewise, the agricultural activity at Nonamangala also brought to light the traces of a Jaina temple dated to about 5th century A.D.

Epigraphical sources of this period provide information regarding the existence of many temples and *basadis* during early Ganga period. Though these structures are not available to us in their original form, it is certain that they influenced, to a great extent, the succeeding stone architecture of the region. It is interesting to note that the plan of the *chaitya* and *vihāra* complex, excavated at Rajaghatta, is still being used for the construction of religious edifices. The *khandaharmyas* built against the *prākāra* of the Rajaghatta *chaityālaya* are definitely the prototypes of similar *parivārālayas* found at the Badami Chalukya and Pallava stone temples. The *trikūṭa* plan of the *basadi* excavated at Talakadu, served as model for the Chandragupta *basadi* built in stone atop Chandragiri at Shravanabelagola. From these evidences it becomes clear that the later stone temples of Karnataka are nothing but the translation in stone of their brick prototypes.

Stone architecture in southern Karnataka and in the region of our study begins to appear from the early part of the 9th century A.D. During this period, the Gangas, as the feudatories/allies of the Badami Chalukyas, were ruling southern part of Karnataka. Under the patronage of the Gangas or their subordinates, the earliest stone temples of the region were built. The Bhoganandishwara temple at Nandi, datable prior to 806 A.D., consists of well-developed architectural and sculptural patterns. These features are so beautiful, attractive and developed that it proves for certain that this temple is a creation of an artist well versed in the field

of stone temple architecture. It is unfortunate that no architectural precursor for this temple is available in the region of our study. All of a sudden, this developed form of a temple appears out of vacuum in this region. Therefore it is surmised that the architects who built this temple must have come from either the Chalukyan or the Pallava heartland.

The temples of Nandi and Begur mark the earliest specimens of developed dravidian stone architecture in the region of our study. From this time onwards there was a steady progress in the field of stone temple architecture. Besides these beautifully built temples, there are also a few temples of the Gangas which are low roofed, dwarf buildings, with meagre ornamentation. These temples were also built side by side in Ganga kingdom. The reason for the execution of simple, small and non-ornate structures may be ascribed to lack of royal patronage or may be even to the non-availability of skilled architects and artisans. During the second half of the 9th century and the first half of the 10th century, temple building activity in the region appears to be on a low profile, as evidenced by the non-availability of temples datable to this period. However, an explanation is given to this factor in the chapter on the constructional activity in this region. From the period of second half of 10th century, temples in good numbers begin to appear. Temple building activity was brisk in this period, due to the patronage of Nolamba rulers. Till 980 A.D., a number of temples were constructed at Avani.

By the end of 10th century, Nolambavadi was occupied by Raja Raja Chola and the Chola occupation of this land continued up to about 1130 A.D. During this period, under the patronage of the Cholas, hundreds of temples were constructed in south eastern Karnataka, of which, eighty temples are from the region of our study.

Temple building activity in the region of our study again slowed down for nearly one hundred years. The Hoysalas expelled the Cholas from Karnataka and

established their power over the region. During the Hoysala period, temple building activity was less, probably due to the lack of attention given by the Hoysala rulers towards this aspect of religious life in the region.

It is only after about 1230 A.D. that one can see brisk temple building activity in the region. The Hoysala feudatories of Tamil origin patronized construction of temples. The same trend continued during the Vijayanagara period as Kolar and its adjacent parts were ruled directly by the royal princes of the Vijayanagara dynasty for a long time.

Now it is necessary to have a glimpse of the temples built during different periods of history. The different periods of Indian art history, as is well known, are associated with the names of the royal dynasties that ruled in that particular period, and the region in which that art form flourished. (For more details see chapter on constructional activity). As per this classification, the characteristic features of different schools of architecture are given here chronologically.

The region of our study has witnessed the construction of temples starting from 6th century onwards. Though definite inscriptional evidence for the construction of temples and other religious edifices in the region are not available, paleographical evidence and other contents of the available inscriptions indicate that brisk constructional activity existed in the region. Recent archaeological excavation conducted at Rajaghatta in Doddaballapur taluk of Bangalore Dist., has provided definite evidence for the construction of *chaityas* and *vihāras* in brick in the region. The construction of *chaitya* and *vihāra* complex, very neatly planned and executed, dated to 6th century A.D., proved beyond doubt that a systematic, scientific method of planning and building, based on long experience was known to the people of this region. Also there appears to have been a school of architects traditionally trained in the field of building construction as evidenced by the brick building activity that was going on in early Karnataka, Andhra and Maharashtra. It

is also evident that these brick architectural models served as prototypes for the building in stone that were erected after 6th century onwards. Once the constructional medium was changed over to an almost permanent medium like stone, standardization of architectural forms, plans, elevations, designs and decorations, terminology also came into being. Based on the traditions developed and models created, it appears that different *vāsthū* texts were composed having these models as basis.

The region of our study is an arid area mainly depending on rainfall. Though the climate of this region is salubrious, the small rivers and rivulets that flow here are not perennial in nature therefore no seats of imperial kingdoms were founded in this region. All the towns and cities built here were only headquarters of provinces and never the big capital seats of any kingdom. Yet this region was politically active because it happened to be a buffer zone between the Kannada and Tamil kingdoms. Many feudatory families ruled over this region the chief among whom were the Gangas of Talakad, the Nolambas of Hemavathi, the Banas, the Vaidumbas, the Telugu Chodas, Ilavanji Rayas, the Prabhus of Yalahanka, Nayaks of Vijayanagar, Palegars of post-Vijayanagar period. The historicity of these chiefs has been very well established by many scholars, hence no attempt has been made to bring in the political aspect of their legacy in this work.

The region of our study, as mentioned already, is rich in architectural remains that were built in a long span of about 1200 years, i.e., from circa A.D. 500 to circa A.D. 1700. In this period, about 320 temples are known to have been constructed. Of these temples, majority are built in granite medium, a few temples in mixed medium and a couple in brick medium. All the temples are in the dravidian style of architecture. No rock-cut temple is noticed in the region of our study. However, a few huge rock shelters converted into temples through structural additions are found. Of the temples that are recorded in the region about

320 temples exist at present. Of these around 70 temples have been repaired and renovated so much that they have lost their original appearance. About 76 more temples are in total disrepair. About 174 temples are in different stages of preservation and they have been considered for study. These temples are distributed all over this region. The map and the list given below provide a clear picture of the distribution of temples in different areas. A list of these sites and their monuments are prepared and provided in this work.(See Appendix-I and Appendix-II)

The present day region of Bangalore and Kolar districts is often referred to in this work through expressions such as ‘the region’ ‘the area’, “the region of our study” and “the area of our study” and “the area under study” only for the convenience of expression. Hence, all these expressions in this work applies to only Bangalore and Kolar districts of the present day Karnataka state.

This area has been selected for certain specific reasons. As stated earlier, this region is politically a buffer region and was also a meeting place of three languages and cultures. This was politically a buffer region for the fact that it was ruled by feudatory families of both Karnataka and Tamil imperial powers. These feudatory families often changed their political loyalty from time to time depending upon the political vicissitudes of their masters. Therefore, the region of our study is justified as the buffer region.

Geographically, the area of our study was on the main trade and military route between Karnataka and Tamilnadu. All the political invasions of Karnataka powers such as those of Badami Chalukyas, Rastrakutas, over and against Tamilnadu was through Bangalore, Kolar regions. Therefore the eastern end of Kolar district opening to Tamilnadu and the town situated there was called by the name *Mudalabagilu* which literally means the ‘eastern doorway’. The same now is called by the name Mulabagilu.

The strategic location of the region of our study in the geography of south India made the political powers of Karnataka and Tamilnadu to vie for the ownership of this land, and that is the reason why the Karnataka powers, throughout, entrusted the administration of this land always to their powerful feudatories. As the connecting route between Karnataka and Tamilnadu passed through this region culturally and commercially also, the region was quite prosperous. Political and economic prosperity led to the growth of fertile cultural activity, which is well reflected in the construction of hundreds of religious edifices.

As the region is a buffer state, there was a continuous impact on the cultural activity of this region from both the sides. This led to the mingling of the cultural traits and also to a certain extent hybridization of the cultural idioms in the region of our study.

Such a cultural milieu found in this region is nowhere to be found at any other part either in Karnataka or in Tamilnadu. Therefore this region holds a unique position in the socio-cultural geography of south India. The temples of this region reflect the traditions of Karnataka and Tamil cultures, individually and also in hybridised forms.

The facts explained above are responsible for the selection of this buffer land for an in-depth study for understanding the development of temple architecture. That is the reason temples here begin to appear from 6th century onwards. There are specimens of both brick architecture and stone architecture in this land. The religious edifices belonging to Jainism, Buddhism, Shaivism and Vaishnavism are found here. Temples of different periods like that of the Gangas, the Nolambas, the Cholas, the Hoysalas, the Vijayanagara dynasty and onwards are all to be seen here. Architecturally also this land is very potent.

Before going into the scope of study of the subject, it is necessary here to give a brief account of the attempts made by different scholars in the field, for the study of temple architecture of the region. The first and the foremost attempt to be mentioned is by Dr. M.H. Krishna who, as Director of Archaeology, Mysore state, has surveyed almost all the important temples of Kolar and Bangalore districts. Dr. Krishna has given a fairly good description of many temples with illustrations, which serve as an important source material for the study.

Encyclopedia of Indian Temple Architecture gives an account of over sixty temples of the region with illustrations. It also gives the description of architectural members itemwise, found in the region.

“The temples of the Gangas of Talakad” by I.K. Sharma is another good work for the study of Ganga monuments of Bangalore and Kolar districts. This work gives descriptive accounts of the Ganga temples of the districts with illustrations and line drawings.

The Kannada work entitled, “Talakadina Gangara Devalayagalu” by Devarakonda Reddy (Ph.D. Thesis) gives a descriptive account several of the Ganga temples of Bangalore and Kolar districts.

“The Early, Middle and Later Chola temples” in three volumes written by S. Balasubramanyam gives an exhaustive account of about one thousand Chola temples. About eighty Chola temples of the region of our study find mention in them. Some of these are described with illustrations also.

“The Nolambas, a Political and cultural study” by M.S.Krishnamurthy for the first time gives an account of the characteristic features of Nolamba temples of the region. Andrew L. Cohen, following the footsteps of M.S.Krishnamurthy, gives a detailed account of Nolamba temples of the region.

Besides these attempts made above, several scholars have worked on the architecture of the region, while attempting to survey or study the monuments of Karnataka or the monuments of a particular historical period, the temples found in the region of our study are mentioned or described. Noteworthy among these are the studies made by

George Michell - The architecture and art of southern India.

George Michell - Vijayanagara and Successor states.

Shivarudraswamy S.N. - The Vijayanagara temples of Karnataka.

In the present study, while explaining the features of different architectural and sculptural traits, expressions like Ganga period, Hoysala period, Chola period are used liberally. The period in this context means the characteristic features and traits associated with the art forms produced by the artisans of that society of that particular region and under the rule of that dynasty.

GANGA PERIOD :

The Ganga temples were the earliest temples of the region. The temples constructed by the Gangas are small, simple structures. On plan, they possess a small square sanctum, a vestibule and an assembly hall having four or six pillars. The temples of the Gangas found so far are all Shaiva or Jaina in creed. All the temples have square *garbhagrāhas*. The *garbhagrāha* may be one or two or three in number. If there are two *garbhagrhas* they are placed facing each other with a central *navaranāga*. If there are three, they may be in one line or they may be in three cardinal directions facing a common centre. All the *garbhagrāhas* are *nirandhara* on plan.

The temples are generally low roofed, therefore contain shorter pillars. The reason for this are:-

1 It requires a superior technical knowledge, to erect lofty temples with high walls and probably during early period this was scarce, if not absent.

2. The second advantage of building low roofed structures is that they are more stable and strong.

On elevation, the temples possess simple, moulded *adhisṭhāna*, *bhitti*, *kapōta*, *prastara* and a *prāsāda*. The *adhisṭhānas* are generally simple without *upānṅas*. Generally *pādabanda*, *pratibandha* and *kapōtabanda* *adhisṭhānas* are found. They are non-ornate in character. The *bhitti* normally contains *bhittipādas* of *brahmakānta* type. The *kōsṭas* are found on the three open sides of the *garbhagrāha* and the two sides of the *śukanāsa* and on the open sides of the *navaranṅga* wall. The *kōsṭas* of *śukanāsa* and of the *navaranṅga* may have a *jālaka* inside. The doorway of *navaranṅga* and also those of *śukanāsa* and *garbhagrāhas* are generally simple with limited decorative designs. The central part of the roof of the ceiling of the *navaranṅga* often contains relieve panel of *astadikpālakas* surrounding the relief of Nataraja or Umamaheshwara.

The *prastara* of the temple may have a *valabi* with row of *vyālas*, *hamsas* or may even have a mythological frieze. The *kapōta* is generally of the quadrant shape, the soffit of which is generally solid. Hollow ones are also noticed. *Kopōta* is punctuated by *kūdṅus* at regular intervals. The *hāra* in most of the Ganga temples is destroyed. But instances of *hāra* having miniature *śāla*, *kūtṅa*, *pañjara* pavilions are also noticed.

The tower above the sanctum in most of the Ganga temples are destroyed or repaired and have lost their original form. Occasionally one can see one or two or three tiers for the temple towers.

The Gangas, it appears, had no tradition of building *parivārālayas* and *prākāras* to the temples. Exceptions found may be even additions of a later period.

The pillars of the Ganga temples, as said earlier, are short in their form. Generally they possess a simple dadoed pedestal. The shaft above contains a cubical base. Above this, the shaft generally gets cylindrical with a *laśuna* moulding at the top. The same *laśuna* moulding during the Chola period takes the elegant shape of a vase. The cylindrical portion at regular intervals contains thin cable mouldings, flat horizontal bands and shallow concave grooves. Pillars having octagonal shafts above the cubical base are also found. In the region of our study, pillars having upper cubical parts are also noticed. This is due to the influence of Badami Chalukyan art. This type later led to the design of the Nolamba order of pillars.

Above the shaft of the pillars, *kumbha* or cushion capital, *manḍi* and *phalaka* are also noticed. *Manḍi* and *phalaka* are sometimes absent. The *pōtika* above may be of *taranḍga* type or the simple *adharāpōtikas*.

NOLAMBA PERIOD :

Temples of the Nolambas, on plan, possess a square *garbhagrāha*, a square *ardhamanḍapa* or *śukanāsa*, a square *navaranḍga* and a detached *vāhanamanḍapa* in front. All the *garbhagrāhas* found are square on plan. The *ardhamanḍapa* may have two pillars in front. *Navaranḍga* generally possesses a group of four pillars.

Nolambas had a unique practice of using a fine grained material for the carving of sculptures and certain parts of the temple which required special artistic attention. The commonly used stone for this purpose was the greenish/blackish basalt. This stone is formed of fine grains. It is harder than granite and its colour also is pleasing to the eye. The art forms carved in this medium are the sculptured ceiling panels, doorframes, perforated windows and pillars. It is note worthy that

Nolambas also used this stone for a particular course of the masonry of the outer layer of the wall of the temple, where the upper part of the pilasters like *kumbha*, *man□di*, *phalaka* and *pōtikas* are carved.

The *adhis□t□hānas* of all the Nolamba temples found in the region are *pratibandha adhis□t□hānas* or its variants. But alternative use of *pādabandha*, *kapōtabandha adhis□t□hānas* in the same plinth is also noticed at a Nolamba temple at Dharmapuri, Tamilnadu.

The *bhitti* is decorated by the *bhittipādas* and *kōs□t□as*. *Kōs□t□as* may have *jālavatayana* and also relieve sculptures. The entablature is also, sometimes, carved in an ornate manner. The *valabi* may have the frieze of *gan□as*, *vyālas*, *hamsas*, etc. The *kapōta* is generally of quadrant type. The *kapōta* as usual, is punctuated with *nāsis*. The *vājana* again contains a frieze of *vyālas*. No tower definitely datable to be of the Nolamba workmanship is found in the region. However, based on the specimens found at Nandi and Begur, it is presumed that they built dravidian *hāra* and stepped pyramidal towers. The doorways of the Nolambas are known for their exquisite carvings. In the carvings of the doorways, the Nolambas used basalt as it is a stone of different colour and fine texture. In the mode of carving doorframes, the Nolambas followed the tradition of the Badami Chalukyas. The door-jambs and the lintel were carved elaborately with architectural and sculptural motifs and designs of vivid nature. Instead of the *dwārapālakas* at the bottom of the jambs, *śāñkha* and *padmanidhis* often mounted on elephants were preferred. The face of the door jambs were provided with multiple *śāñkhas* having the decoration of bands of creeper scrolls, geometric and non geometric motifs, sculptured friezes along with the main motif of a pilaster supporting an ornate *prastara*. The lintel is carved with suitable *lalātabimba*. It is super-imposed by delicately designed *kapōta* with *kūd□us*. The upper part of the *kapōta* is carved with the *as□taman□gala* symbols or a frieze of mythological reliefs. Instances of thresholds having, on its face, the *as□taman□gala* signs are

also noticed. Ornate and less ornate varieties, and also simpler variants of these types are also found.

The perforated windows of the Nolambas are known for high quality workmanship and skill. The Chalukyan mode of carving was carried forward and taken to its zenith of perfection by the Nolamba artists. For the carving of the perforated window also, the Nolambas used basalt. These windows may have a simple frame or a frame with all the details of an architectural niche. The central part of the window often possesses a skillfully carved sculptural motif of a divine or a semi-divine or a secular or a decorative theme.

The windows having the design of vibrantly grown creeper scrolls was one of the favourite motifs depicted by the Nolamba artists. Inside the loops of the creepers, playing, frisking, frolicking *ganāpas*, dancing males and females, men and women playing on musical instruments, *mithunas* and other popular themes are found carved.

The pillars of the Nolamba order are of different types. They are described in the chapter on pillars. However, it is to be stated that they are no doubt superior creations of the Nolamba artists. Nolambas used basalt for the carving of pillars also. The Nolamba pillars are designed in such a way that they contain faunal, floral, mythological and socio-religious themes. The central part of the shaft contains reliefs carved with great precision and delicacy. Basalt was an ideal medium for this work because of its fine grains hardness and colour. Best of the Nolamba pillars are found in their capital Hemavati, some of the pillars found there have even a lustrous polished surface. But, unfortunately, those that were once present in the region of our study were carried away by the Chola emperor Rajendra I as war trophies.

The central part of the ceiling of the *navaranāga* was decorated with panels containing the relief sculptures of *ashtādīkṣālakas* surrounding Shiva as

Natarāja or *Umāsahitha*. The Nolamba artists again excelled all the others in the carving of such panels. The best of the specimens of this panel are found at Aralaguppe in Tumkur district and at Hemavati.

CHOLA PERIOD :

The occupation of Nolambavadi by the Chola king Raja Raja I in about 980 A.D. marks an epoch in the history of the temple architecture of the region. After the occupation of Nolambavadi, Kolar district became an important province of the Chola kingdom. As has been already said, Kolar district was the entry point from Tamilnadu to Karnataka, therefore it was considered a militarily strategic point by the Cholas, hence the area was governed with special attention. The Chola occupation of Kolar district resulted in the free transformation of the region into a Tamil zone. Tamil traditions, Tamil culture were imposed on the Kolar region. This resulted in the construction of hundreds of temples by the Tamil patrons in Tamil architectural idiom. The local architectural style that already had the influence of Tamil art tradition to a certain extent, was thoroughly Tamilised during this period. Chola mode of temple plan, elevation, pillar carving and also sculpturing became the norm of the day.

It is noteworthy that the imperial style of architecture, as found in the temples of Cholas in the heart-land, was not applied in the Kolar region for temple construction. Instead, a variant of the same, to suit the requirements of the smaller towns and cities were designed and executed. These temples are small or moderate in their size and proportions. They generally contain a sanctum and a *ardhamanāntapa*. The *ardhamanāntapa* is not the type of *ardhamanāntapa* noticed in the Nolamba temples, instead they are small size oblong cellas built on the axis of the main shrine. Because of their small size they required no pillars in the interior. They themselves, in many cases, served as assembly halls. Instances

of providing a vestibule between the sanctum and the *ardhamanṭapa* are also noticed.

Some of the Chola temples of this type were annexed with a *gūḍhamanṭapa* in front. The *gūḍhamanṭapa* of the Chola idiom is different from the *gūḍhamanṭapa* of the Ganga-Nolamba idiom. In the former, *gūḍhamanṭapa* is an oblong pillared hall built perpendicularly to the axis of the temple, covered by walls on its two sides and in the front. The rear side, that is the side towards the shrine is open. The two end aisles of this *gūḍhamanṭapa* are continued to form a *mālika* around the temple to serve as a circumambulatory passage also. The distance between the *mālika* and the shrine proper generally is so less that the plinths of these are built almost adjacent with a gap of two to three feet. The side walls of the *gūḍhamanṭapa* are continued all-round the temple as *prākāra* wall. This *prākāra* wall also serves as the back wall for the *mālika* around.

The *adhisṭhāna* of the temple is generally *pādabhandha* though occasionally *pratibhandha* and *pratikrama* types are also noticed. The walls are decorated with *bhittipādas*, *kōsṭas*, *tōranas*, etc. In the later Chola temples, *kumbhapañjaras* also come into being. As the shrine itself was small, no provision for *jālakas* was made on the wall. Only *kōsṭas* and *tōranas* were carved on the surface of the wall surface for the sake of decoration. These *kōsṭas* were also carved with relief sculptures inside. As the temples built in the region were very ordinary in nature, no special decorations were made for *prastara*. The *valabhi* contains reliefs of *vyālas* and other motifs. *Kapōta* is of quadrant shape. Original stone *hāras* are not commonly seen. *Vājana* with *vyāla* frieze is noticed.

Majority of the Chola temples, as said earlier, are small in nature. Hence they possess *ekatalavimāna* only. In this, immediately above the roof of the sanctum

vēdi, *grīva*, *śikara* and *stūpi* are built. Hence there was no necessity of constructing a *hāra* to the shrine.

The Cholas started a new tradition of building the *prāsāda* over the sanctum in brick and mortar. Several examples of towers of this media are noticed. Unfortunately they are all in bad state of preservation or reconstructed in recent years. Stone *vimānas* noticed are only of *ekatala* type. It appears that the Cholas used this medium, if the *talas* above the sanctum were two or more in number. Only one instance of a dilapidated *dwitalavimāna* of stone is noticed in the region.

Doorways of the Chola temples are very simple and non ornate in character. They used the same medium as that used in the main structure for the carving of the doorways also.

The pillars of the Chola temples of the region carved in the Chola order are not available. Their forms can be noticed only in the pilasters on the wall. The reason for this is that the halls of the temples were so small that they required no pillars inside. The pillars found in the *gūdhamanāpa*, and in the *mālikas* are not carved in the true order of the Chola pillars. They are just functional with minimum decorative work. They generally contain a cubical base above which the shaft is cylindrical or octagonal. Non ornate *adharapōtikās* are placed above them.

The prototype of the *chitrakhanda* variety of pillars begins to appear as early as 11th century in the region. They contain three cubical parts interspersed by octagonal parts. The ceilings of the temples are plain and non ornate.

HOYSALA PERIOD:

Hoysala rule in the region of our study may be said to have effectively begun by about 1140 A.D. Though Hoysala Vishnuvardana expelled the Cholas from Karnataka as early as 1114 A.D., the rule of the Hoysalas, did not make any impact on the existing Chola art tradition in the Kolar region. However, in the

beginning of the 13th century the influence of Hoysala art is noticed in a few temples built by their Tamil feudatories at Kurudumale and other places. During the early part of the Hoysala rule, in the Kolar region, the same artistic tradition that was practiced by the Cholas continued to be in use. Only the western most parts of the region of our study, particularly a few temples found at Shivagange, exhibit some noticeable Hoysala features in them, in the form of lathe-turned pillars.

The Hoysala features noticed in the temples of Kolar region are in the form of delicate carvings on pillars, *dwārabandhas*, ornate balustrades and carving of sculptures on the wall. A few temples of the region have the decoration of divine sculptures in high relief on the walls. This practice, though not a true depiction of the Hoysala tradition, may just be taken as a pale form of Hoysala workmanship.

Non availability of the Hoysala architectural medium, i.e. The chloritic schist (soap stone) in the region of our study was perhaps the main reason for the absence of true Hoysala art tradition in this region. The area of our study being a rich granite zone, the locally available medium (granite) was used for construction of temples. In the later part of the Hoysala rule, pale imitations of Hoysala art forms is observed.

In this period, in certain temples, instead of granite, dolerite is used. Dolerite, as is known, is fine grained dark coloured, hard and in nature. It can also take good polish and is suitable for intricate carvings.

The temples at Kurudumale, Kaivara, etc., places have some good specimens of delicate art forms such as pillars, doorways *kapotas*, niches, *somasutras* etc., The workmanship of which is perhaps, due to the impact of Hoysala school of art.

VIJAYANAGARA PERIOD :

The rule of Vijayanagara dynasty marks a jubilant period in the architectural history of the region. Hundreds of temples were constructed in the area of our study. Almost every important town of the period was bestowed with a temple. Temples of Vaishnava and Shaiva creed were erected in almost equal numbers. Independent small temples, temple complexes, structural additions to the existing temples were all built during this period. Temples having all the different architectural adjuncts of a developed temple complex of the period are found in the region. They are about twenty in number in the area of our study alone. Kolar district was a province directly governed by the royal prince, hence temple building activity received special attention in this region. It is to be noted here for that all the twenty temple complexes found in the region of our study are located in Kolar district only.

The Vijayanagar period witnessed a renaissance of Hindu religious life. The Hindu society, threatened by Islamic invasions, was rejuvenated by the rulers of the Vijayanagar dynasty. To establish Hindu religious supremacy and also to proclaim to the world the prowess of the Hindu religious solidarity, huge Hindu temples were built in each and every place of importance of the empire. By this time the Hindu religious practices were also elaborated to a great extent due to the influence the *bhakti* cult. All the pleasures enjoyed by the king were offered to the gods also, as a means of worship and service. To facilitate the conduct of such ceremonies and festivals the plans of the temples were also suitably designed, modified and enlarged. The shrine proper, where, the god was installed, was no doubt the most important part of the temple. But other architectural adjuncts constructed for various other forms of worship received more attention by the architects. Elaborately embellished halls and *manṭṭapas* were added to the existing main shrines. These halls and *manṭṭapas* are differently named like *kalyāṇamanṭṭapa*, *dwāramanṭṭapa*, *vasanthamanṭṭapa*, *mahāmanṭṭapa*, *raṅgamānṭṭapa*, *dōlōtsava manṭṭapa*,

śayanamanṭapa, *chaitrōtsavamanaṭapa*, etc, to conduct specific types of ceremonies to the god during different periods of the year.

Elaboration of Hindu form of worship also necessitated the construction of buildings for the convenience of the visiting pilgrims in large numbers. Large open courtyards, long corridors, *āvratamanṭapas*, huge pillared pavilions, sometimes even called by the name *ayirakambamanaṭapas*, (thousand pillared halls) *puskaranṭis*, *prākāras* were all constructed for the use of the different types of the ceremonies, as well as for the utility of devotees/pilgrims. Though the region of our study does not possess temple complexes having all these architectural components in them, at least some of them are found in the existing temples. The temples of the Vijayanagara period, as usual, contain a sanctum, vestibule, *ardhamanaṭapa*, and *navaranṭga*. This is a common type of plan found for the temples. Variations in the planning of the temples are also noticed.

To the *navaranṭga* on the main axis of the temple, a large pavilion called by the name *mahāmanaṭapa* was added. In front of the *mahāmanaṭapa*, slightly towards the right side another independent open pavilion for conducting the marriage ceremonies (*kalyānanaṭapa*) was constructed. The pavilion for the vehicle (*vāhananaṭapa*) was also constructed in front of the *mahāmanaṭapa* on the main axis of the temple. All these buildings were enclosed by a huge *prākāra*, often provided with a *mālika* on its inner side.

The *prākāras* were provided with gateways at the centre of the required sides. The gateways were also provided with towers. The *prākāras* may be more than one in number. Inside the *prākāra*, shrines for the goddess and for the *parivāradēvatas* were constructed. There is no specific rule for the construction of any of the architectural adjuncts of the temple, except the shrine and its associated parts like the vestibule and the *navaranṭga*. The construction of all other parts, were left to the requirements of the builder and the society. Therefore, variations

in their location, size, design are noticed in the temples of the Vijayanagara period. With regard to the elevation of the temples it may be said that the temples were built according to the existing norms of the dravidian style of architecture. However, it is to be mentioned that more varieties come into being, particularly with regard to the construction of the *adhis*□*t*□*hānas*. This was no doubt due to the liberal patronage and due to the changed values and tastes of the society and the artist. Ornate *adhis*□*t*□*hānas* come in to being. *Śrībandha*, *śrībhōga*, *padmapus*□*kala*, *padmakēsara*, *padmabandha*, *pus*□*hpabandha*, types of *adhis*□*t*□*hāna* and lofty *adhis*□*t*□*hānas* with *upapīt*□*has*, come into being during this period. These *adhis*□*t*□*hānas* are very rich in their architectural and decorative designs and are very pleasing to the eye. On such *adhis*□*t*□*hānas*, shrines, *kalyānaman*□*t*□*apas*, *ran*□□*gaman*□*t*□*apas*, etc. were built making the temples grand in their appearance.

The *bhitti* of the temple also is carved many a time in very ornate manner. *Bhittipāda*, *kōs*□*t*□*as*, *kumbhapañjaras*, *tōran*□*as*, sculptures are found on the walls. The *kapōta* is carved regularly in two types. One that is found above the wall surface, is of the quadrant type, while the other found on the open *man*□*t*□*apas* are of broad of double flexure type. The *hāra* for the entire temple was generally built out of brick and mortar and decorated with lime stucco sculptures. The tower above the sanctum was also constructed out of brick and mortar. The trend of the Vijayanagara period was that the tower above the sanctum was given less importance and was built on a small scale. In contrast to it, the tower above the gateway also built out of brick and mortar was constructed very tall and impressive with all architectural and sculptural grandeur.

The doorways of the Vijayanagara temples are not known for their ornate quality, but in the region of our study it is heartening to note that ornate doorways are also noticed. These doorways remind us of the ornate Chalukya and Nolamba workmanship.

The pillars of the Vijayanagara period are of many types. Simple, slender, square shafts of the *chitrakhandā* variety to massive pier like pillars (*samyuktastambas*) having multiple pillarets and massive sculptural motifs are noticed. These pillars are not only huge in their form but also attractive, for their wealthy designs and decorations.

Vijayanagara architecture is also famous for its lofty gateway tower called by the name *rāyagōpuras*. These *gōpuras* are nothing but dravidian stepped pyramidal towers in their technique of construction and in their form. These towers are always rectangular on plan, because they are constructed above broad entrances of the courtyards. The tall tapering towers of the *gōpuras* are built in multiple tiers in brick and mortar and wood, finally finished in lime stucco. The inner part of the tower is always hollow and contains a floor for each of the tiers. The tower is finally covered by an oblong wagon vaulted coping. The two semicircular ends of the coping are finished by huge *kūdās*, with a *kīrtimukha* at its apex. Adjacent to the apex are placed two cow-horn-like semicircular crestings. The inter space of the two cow-horns on the ridge of the coping, row of finials are placed. The entire body of the tower on its outer surface is decorated, tier-wise with architectural and sculptural decorations made of lime stucco. These towers were built to proclaim the superiority of the Hindu religion, the political solidarity of Hindus against the expanding powers of Islam over south India. As these towers were constructed by the Vijayanagara kings, who had the suffix *rāya* to their names, the towers built by them are called by the name *rāyagōpuras*.

During the course of study the ground plans of different temples are prepared and studied. Ground plans for most of the important and intact temples are provided in this work. Likewise line drawings of the *adhishāhānas*, pillars, Pilasters, *Kumbhapañjaras*, *jālas*, *kōśās*, were prepared and only those which are important from the point of view of development of features and for the study

of typology are illustrated. Thousands of photographs were taken during the course of study and a select few (about 400) have been illustrated here.

The intention of the present work is to trace the origin and development of different facets of temples architecture such as the plan, elevation and other members of the building like the pillars, doorways, towers, gateways etc. All these members of the temple building did not appear on the scene at the same time and in the same form, in which they are found. Each member of the building, whether it is the shape of the plan or the architectural member in the elevation or decoration or even the constructional technique has a history and the development of its own. An attempt has been made here, to trace its development from its earliest form to the latest one. Not only they are studied technically, morphologically and aesthetically but their textual forms, their equivalents are also studied. Differences between Texts to Texts specimens to specimen are also studied, compared and analysed. Identification of existing architectural members with those mentioned in the Texts has been made.

For the identification of some of the architectural members morphological analysis is made and their form is compared with the etymology of the terms. In all these efforts the utility of that architectural member, its appearance and more than all the common sense are the governing factors. Also to a certain extent the technology and the skill available is taken into account. While studying these factors, the identification of the architectural member mentioned in the Texts with the living examples, has hardly been made by the scholars so far and even that identification is not systematically done for each and every part of the temple building. Stray references of such identifications, concerned with a few *adhis*□*t*□*hānas* and a few *prāsādas* are occasionally found. But in the present study all the different types of *adhis*□*t*□*hānas*, *upapū*□*has* available in the area of our study are identified with their corresponding names given in the Texts. Likewise all the types of pillars, all the types of *jālavātāyanas*, almost all the types

of *vimānas*, have been identified. Besides these, the *pranālas* and *sōpānas* have also been identified with their textual counterparts.

Regarding the constructional methodology the procedure to be followed in the construction of building are studied and applied with those of the living examples. For this textual prescription are helpful to describe the preliminary work to be done in the erection of buildings. The dilapidated temples, have helped us to understand the methodology of construction of the building. The details obtained from such ruined buildings have been carefully studied and the utility, function, and technical advantages of such members are analysed and described.

In the identification of the names of the *vimānas* mentioned in the Texts with the living examples, author has consulted many eminent *sthapatis* and engineers in the field of architecture. Their opinions have been honoured and incorporated in the present work. The opinion expressed on such occasions may not be purely of author alone.

As said above, comprehensive study of the development of the temples of the region is yet to be done. Most of the published works are limited in their scope. But this work tries to bring out the salient architectural features of the temples of this region, based on scientific analyses of the different architectural forms, adjuncts and members of the temple. Their canonical affinity, their origin, emergence, growth, regional styles and cultural variation, deviations from the canonical prescriptions, artistic talents and vibrant depiction of these talents and an overall scientific approach and analysis of the development of temple architecture of the region are also done in this work. Therefore, this work is first of its kind, which brings out the salient features of the architecture of this region.

The terminology used in all these Texts for the different architectural parts and forms are strikingly similar. The reason for this is that early Texts are all composed in one common language that is the Sanskrit. This is deliberately made,

to make the science of architecture even and common throughout India. Therefore one can see the technology, terminology and the nomenclature described in different Texts are almost one and same or synonymous.

A thorough study of *vāstu* Texts and *Āgamas* is made to understand the name, nature, function and significance of the different architectural members.

Vāstu Texts available for the study of south Indian temple architecture are, mainly, the Mayamata, the Mānasāra, the Kāśyapaśilpa, the Śilparatna, the Īśānaśivagurudēvapaddhati and the Tantrasamucchaya.

Āgamas like Kāmikāgama, Ajitāgama, Vimānārcanakalpa, Pādmasamhita, Rauravāgama, Kāranāgama, Suprabhēdāgama, etc., also deal with aspects of temple architecture, to a certain extent.

Purānās like Agnipurāna, and Viṣṇuudharmōttarapurāna also furnish details regarding the temple architecture and sculpture.

Samhitas like Brāhatsamhita, Īśvarasamhitha, Puruṣōttamasamhita, etc., contain a few references regarding temple architecture.

Apart from these, a vague idea of the terminology and application of certain architectural principles are to be seen in Kautilya's Arthaśāstra and the Amarakōśa.

In the present study, the Texts referred to are mainly, Mayamata, Mānasāra, Kāśyapaśilpa, Śilparatna, Īśānaśivagurudēvapaddhati and Kāmikāgama, as the prescriptions found in these Texts can be easily applied for the temples of our region. Therefore, the term 'Texts' in the body of this work implies to these Texts only. Of these Texts Mayamata is very clear in its description and maintains consistency in its presentation. These Texts agree regarding the description and prescription, with few exceptions. A feature invariably noticed in these Texts is the use of synonym for the same architectural member mentioned in the other Texts.

There are more than three hundred temples in the region of our study. These temples exhibit chronological development and also possess stylistic feature of a particular style, time and region. Therefore this study, for the description of different architectural members, and for the easy identification of their time/period, broad chronological divisions are made. They are,

- 1 The early period - (From about 600 to 1000 A.D.)
- 2 Middle period - (From C 1000 to c 1250 A.D.)
- 3 Later period - (Circa – 1250 to 1600)
- 4 Post Vijayanagara period - (1600 to 1750)