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A Journey of Rocks: From the Hills to Temples of Karnataka

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13. Surekha. A.E.C.S. 2nd stage, 1st cross. (Near ISRO, HO). Sanjay Nagar. Bangalore

Abstract: The art and architecture of monuments in Karnataka state in Southern part of India has heralded the glory of Karnataka showing varied experimentation in temple architecture through the ages. The evolution in art forms can be seen from two dimensional figures to three dimensional ones, further progressing to huge monolithic structures through the ages.

This is because land of present Karnataka is blessed with geo diversity with varieties of stone belts all formed several millions of years ago. A long tradition of royal patronage sponsoring generously for promotion of temple art and architecture experimented understanding the science of geology and contributed towards the evolution of temple architecture and sculptural art forms in the state of Karnataka. The aim of this paper is to explore how the type of naturally occurring stone belts, its qualities like hardness, texture and colors were understood by the ancient dynasties and accordingly experimented with stone blocks to create innovative art. The geo morphs of Karnataka can be divided into three distinct zones of North, central and South zones. Each of these zones has different type of stone belts that are datable to millions of years when they got formed are described in the article. The three examples of popular temples built in different stone type with illustration and a brief note on it are presented in the article.

Keywords: Geology, UNESCO World Heritage Site, Temple Sculptures, Indian Heritage Art, Hampi, Hoysala

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Introduction

One may wonder how such a long tradition of art and architecture was fostered in Karnataka. The reason is not far to seek. This land of present Karnataka is blessed with different types of stone belts that were formed millions of years ago. The region of Karnataka enjoyed a long tradition of royal patronage for promotion of art and architecture and shared the common heritage of monumental culture of the Indian subcontinent. Rulers were well versed in the literature related to art, science of geology and sponsored

generously for the promotion of temple architecture. The monuments thus created by ancient dynasties are now heritage monuments reflecting the glory and knowledge of the past.

It is heartening to note that the state of Karnataka in South India, is now renowned internationally, has to her glory three sites of UNESCO world heritage site namely the Pattadakal group of monuments, the Heritage of Hampi and the Western ghats and one under nomination. The state of Karnataka is bestowed with mainly three types of temple architecture that is distributed in the North, central and south zones. Further, the diversity of art form including the local material used and architecture followed makes an interesting flow of art forms over a period of ten centuries.

The theme of this paper is about the journey of rocks from hills to temples, exploring the "Evolution of Architecture and sculptural art forms in the state of Karnataka". The aim is to explore how the type of naturally occurring stone belts, its qualities like hardness, texture and colours were understood by the ancient dynasties and accordingly experimented with stone blocks to create innovative art. The evolution in art forms can be seen from two dimensional figures to three dimensional ones, further progressing to huge monolithic structures through the ages. The outcome can also be seen in the making the different styles of temple architecture that has heralded the glory of Karnataka. The geo morphs of Karnataka can be divided into three distinct zones of North, central and South zones. Each of these zones has different type of stone belts that are datable to millions of years when they got formed are described in the article. The three examples of popular temples built in different stone type with illustration and a brief note on it are listed below:

- 1. Northern Karnataka, Bagalkot District: Badami, Aihole Pattadakal.
- 2. Central Karnataka, Bellary district: Hampi Virupaksha Temple, Vittala Temple, Hazara Rama Temple.
- 3. Southern Karnataka, Hassan district: Somanathpur Temple, Halebid Temple, Belur Temple.

It is essential to know how the architecture differed from place to place depending on the availability of type of rocks. The article gives a brief account of the stone type that influenced the architecture in Karnataka.

Each division has indigenous and special rock belts. This variation in varieties of stone belt was understood by the ancient dynasties which enabled them to construct the best suited architectural monuments. The outcome was different types of monuments adorned with exquisite sculptural embellishments. This article explores on the topic how 'Apara jnana', the various types of scientific knowledge inclusive of geology and availability of natural resources was combined with the knowledge of spirituality, the 'Para jnana' and presented in the construction of many types of temples. The heritage monuments of all three divisions that are discussed here are provided with a brief account of location, period, geological information of the distinct stone bed and some noteworthy monuments constructed in the North, southern and central zones of the state of Karnataka.

3. Temples of Northern Karnataka

3.1. Location and Period of Monuments

Regarding north Karnataka, the eponymous district of Bagalkot surrounded by farmlands and sandstone hills is the valley of red soil and sandstone beds. The hills are with highly visible cliffs and other topographical features. This part of Karnataka is a major archaeological site celebrated for the magnificent rock cut shrines which the early Chalukyas constructed during 6-8th centuries. They are the best-preserved vestiges of temple art in Karnataka. The district of Bagalkot is rich in temple architecture at three places namely:

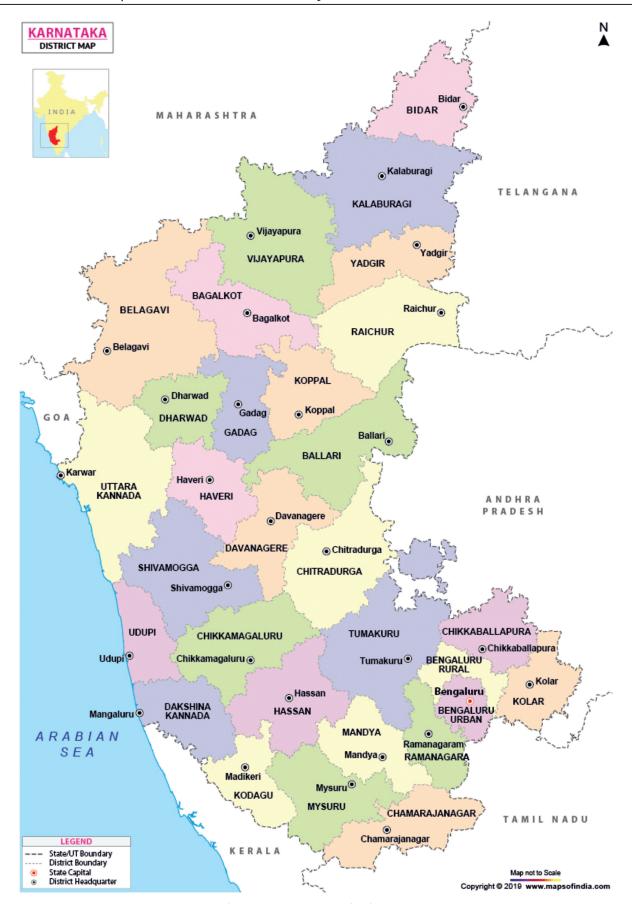


Figure 1: Karnataka District Map

- 1. Pattadakal
- 2. Aihole
- 3. Badami

All the three are major centers of historically important Early Chalukyan monuments. The archaeological heritage site Pattadakal in Bagalkot district situated on the banks of the river Malaprabha is the UNESCO world heritage monument. Another site Aihole is 9.7 KM away from Pattadakal and 35 KM from Badami. All are noteworthy and famous for Temple architecture as well as rock cut caves. The documented history of Aihole is traceable to the rise of the Early Chalukyan dynasty in 6th -8th century who were very prosperous with political stability and hence the cultural activities were at its best. The religious tolerance of early Chalukyas facilitated in adopting innovative methods of architecture and assimilating diverse cultural and religious aspects in art and architecture. They sponsored artisans and built many types of temples in this region by drawing the patronage of all quarters of society. Badami saw refinement in 6th and 7th centuries. The experimentations culminated in Pattadakal in the 7th and 8th centuries becoming a cradle of fusion of ideas from South India and North India. The temples at Aihole, Badami and Pattadakal are the largest and earliest group of monuments which comprehensively demonstrate the different experiments that were tried in temple architecture. It is hence recognized as an era of evolution in the Hindu rock-cut and temple architecture in India. The variation in temple architecture can be attributed to the different variety of sandstone beds the state of Bagalkot is blessed with. The prototypes of 24 types of free-standing temples and 4 types of rock-cut shrines were developed in Badami and Aihole, which reached its most matured form in Pattadakal group making the area a cradle of Temple architecture.

3.2. Geology of Sandstones in Bagalkot

Bagalkot district is beautiful place with the natural topographic features of red soil, visible sedimentary beds of red sandstone and breath-taking views red sandstone hills, the cliffs of which in the place Badami appear in the horizon. These sedimentary sequences occupy an area of 8300 sq.km with total aggregate thickness measure around 4500 m as confirmed by Geological Survey of India that got formed in Proterozoic period. (Proterozoic means the early eon during which different events related to formation of earth occurred 2500 million years ago and the earth cooled from molten lava giving rise to single celled organisms).

Characteristics of Sandstone are they are best known sedimentary rock consisting of sheets of sand, mineral particles, and binding matrix deposited one atop, both in water environments and desert formations. They are mostly porous allowing easy water penetration. Brown, red, purple, and pink shades of sandstones are commonly seen but generally they are called brownstone. The brown / red colour of rocks is due to the presence of Iron oxides or hematite, manganese oxides and other impurities can cause bright and contrasting colours in the sand sandstones. Exposure to the elements of nature causes iron minerals to oxidize or "rust," resulting in red, orange, and brown-coloured rocks. These colours are what gives sandstone its unique character and ornamental desirability. Sandstones are made of sand grains that have been cemented together like sandpaper and usually have a rough, granular texture.

Based on their morphological characters, Bagalkot Group of sediments have undergone two sets of folding deformation which are classified as subgroups.

1. Accompanied by low grade metamorphic effects leading to recrystallisation of limestone and carbonates.

2. Development of argillites, a compact fine-grained argillaceous rock cemented by silica and having no slaty cleavage and lesser quantity of arenaceous units.

Badami Group of sediments are found as a vast expanse of horizontally bedded ferruginous arenites. They are formed from cemented grains that may either be fragments of a pre-existing rock or be hard quartz like mono-minerallic crystals in red colours. Clay and gypsum cements, which are soft minerals, tend to produce much softer sandstone and in some stones the sand can sometimes be rubbed off with hands. The cements binding these grains together are typically calcite, clays and silica. Silica cemented sandstone is very durable and hard which are used to make sculptures.

The Badami sandstones were chosen by the early Chalukyas for their architectural work because of the fine-grained, compact yet soft nature of stone which facilitated excavation of these sandstone hills. This natural stone formation enabled them to build 4 cave-temples, as well as carve out rock-cut sculptures in them. Sandstone can't match a slate or granite for durability, but it is strong enough to last for decades if properly cared for. The uniqueness of sandstone is formed from nature itself, the colors, patterns, and hues found in any individual piece are completely unique and different that has enhanced the beauty of sculptures.

3.3. Badami Rock-Cut Caves

Period: The figures illustrated above are from Badami, a panchayat town in Bagalkot district. The place Badami was formerly called as Vatapi was the legal capital of the early Chalukyas under the rule of Pulikeshi- I, in 535 – 566 A.D. His sons Kirtiverman (567 – 598 A.D) and Mangalesha (598 – 610 A.D) constructed the complex of 4 cave temples, where 3 of them were man made caves and the one natural, all in close proximity to each other and situated right next to the town of Badami. The credit of scooping and completing the cave temples goes to the Chalukyan king Mangalesha. The exact dating of 6th century is known through an inscription carved in old Kannada language in Cave 3, which is dedicated to Lord Vishnu.

The rock cut caves in Badami are carved out of the red soft sandstone on a cliff in the late 6th century. Each cave consists of a simple veranda with stone columns and brackets, leading to a columned mandapam and then to a shrine cut deep into the cave. All the caves bear exquisite carvings, sculptures and beautiful murals. Out of the four caves, Cave 1 is dedicated to lord Shiva, Cave 2 to lord Vishnu, Cave 3 which is the largest and the best, has carvings depicting both Shaivite and Vaishnavite themes and Cave 4 is dedicated to the Jain Tirthankaras. In each cave the pillar structure is solid in rectangular or octagonal base and exhibits the grandeur of the layers of the red sedimentary rock. The sculptures of deities are bold and big exhibiting the strength of masculine force in a graceful manner.

Over one hundred Aihole temples are Hindu, Jain and Buddhist temples. These innumerable temples were built and coexisted in close proximity. The Hindu temples are dedicated to Shiva, Vishnu, Durga, Surya and other Hindu deities. The Jain Basadi temples are dedicated to Mahavira, and other Jain Tirthankaras. The Buddhist monument is a temple and small monastery. Both Hindu and Jain monuments include monasteries, as well as social utilities such as stepwell water tanks with artistic carvings near major temples. (3)

Aihole prospered from the mid-6th century CE under the regional rule of the Early Western Chalukyas as one of the most important Deccan dynasties. Aihole provides a valuable record of Indian temple architecture before it fully evolved into a canonical style. Though there are some early Buddhist rock cut caves and Jain monuments, most of the temples at Aiholi are Hindu, which are embellished with architectural and sculptural grandeur made of sandstone slabs. The temples have stone slab roofing, many have stone lattice windows, an entrance hall and porch accessed via a short

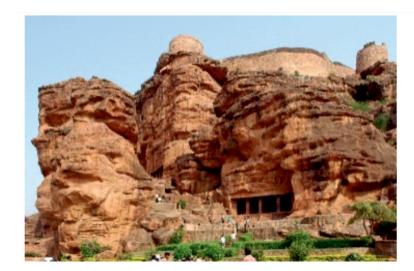






Figure 2: Badami Rock Cut Caves. Top Left: Badami rock cut cave general view of sandstone cliff.

Top Right and Bottom: Sculptured panel in the cave revealing the layers of sandstone in

pillars and the majestic figure of Shiva and Vishnu

flight of steps. These were the typical feature of Early Western Chalukya architecture. A good example incorporating all of these features is the 8th-century CE temple of Durga called Durgi gudi(Ref. picture 5) was commissioned by a private citizen Komarasengama. This structure is also unusual as the plan of the temple is oblong and apsidal. It has columns with sculptures running around the building to form a peristyle. The sculpted panels such as those depicting Durga in her battle with the buffalo demon, and Shiva alongside the bull Nandi are amongst the finest examples of all ancient Indian sculpture.

3.4. Pattadkal

Pattadakal is located along the Malaprabha river where it turns north. Its red colour soil and stone mountains nearby attracted the dynastic rulers to build temples according to the stone texture. There



Figure 3: Durgi Gudi of Aihole in apsidal form made of sandstone

are ten major temples at Pattadakal built by the early Chalukya dynasty in 7th and 8th centuries. Nine of them are Hindu and one Jain temple that are clustered together along with numerous small shrines. The Pattadakal monuments reflect a fusion of two major Indian architectural styles, one from north India (Rekha-Nagara-Prasada) and the other from south India (Dravida-Vimana) which are with different types of shikhara. Four temples were built in the Chalukya Dravida style, four in the North Indian style called Nagara style, while one temple the Papanatha temple is a fusion of the two styles. It is considered by UNESCO as the masterpiece of architectural forms from northern and southern India, that made the town and nearby region as the cradle of temple architecture and arts. (2)

Pattadakal is a testament to the architectural prowess of the Early Chalukya dynasty. It emerged from the 6th century as the cradle of experimentation with temple architecture, stone artwork, and construction techniques. The city was earlier called Pattada Kisuvolal, which translates to "City of Crown Rubies". As its name implies, it was used during the Chalukya dynasty for coronation ceremonies, such as that of Vinayaditya in the 7th century CE. Other names of this place were Kisuvolal meaning "valley of red soil", Raktapura meaning "city of red", and Pattada-Kisuvolal meaning "red soil valley for coronation".



Figure 4: Pattadakal group of temples with both the north Indian and South Indian types of temple architecture

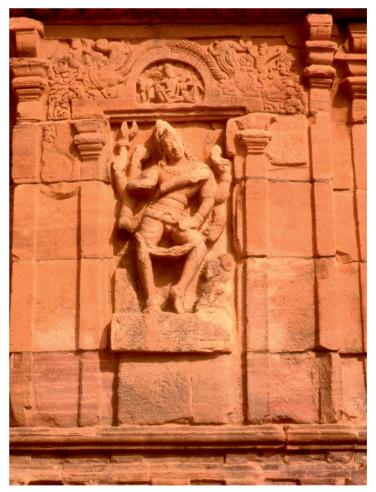


Figure 5: Figure of Shiva in red sandstone at the Pattadakal Mallikarjuna temple

4. Temples of Central Karnataka

4.1. Location and Historical Background

Hampi, in the Karnataka district of south-west India was situated on the southern bank of the river Tungabhadra in Bellary district Located near the modern-era city of Hosapete. Once it was the central

city and the seat of the mighty Vijayanagara empire, was the last capital (The city of victory as the name suggests) of the great Hindu kingdom of Vijayanagar. Many royal buildings and temples were raised by the king Krishnadeva Raya (AD 1509-30), the greatest ruler of the dynasty. Native art, craft, and culture flourished during the fourteenth century during the reign of the dynasty. The temples of Hampi, its monolithic sculptures and monuments, attract the travellers from far and wide because of their excellent workmanship as well as the for the social life of Vijayanagara dynasty that are depicted through monuments.

Hampi, also referred to as the Group of Monuments is a UNESCO World Heritage Site located in east-central Karnataka. The site is significant historically and archaeologically, for the Vijayanagara period. Hampi was a prosperous, wealthy and grand city near the Tungabhadra river, with numerous temples, farms and trading markets. Hampi was the world's second-largest medieval-era city in the world and one of India's richest city in 1500 A.D. The site was multi-religious and multi-ethnic; it included Hindu and Jain monuments next to each other. The buildings predominantly followed South Indian Hindu arts and architecture dating to the Aihole-Pattadakal styles, but the Hampi builders also used elements of Indo-Islamic architecture in the Lotus Mahal, the public bath and the elephant stables (4). The fabulous Dravidian temples like the Virupaksha temple, Vittala temple, palaces, and galleries of the markets that attract travelers to the region. The Vijayanagara empire was defeated by a coalition of Muslim sultanates; its capital was conquered, pillaged and destroyed by sultanate armies in 1565, after which Hampi remained in ruins (5).

4.2. Geological Rock Boulder Beds of Hampi

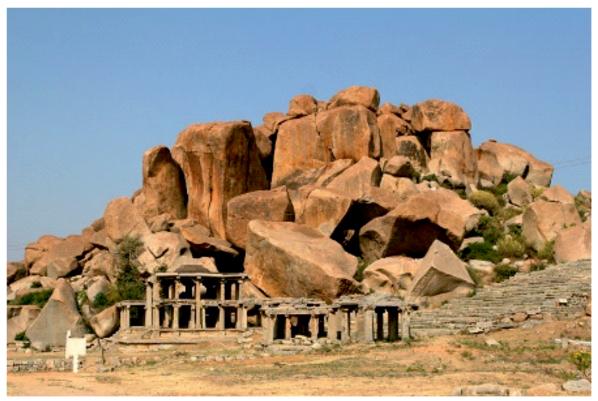


Figure 6: Rock formations around Hampi

The Middle part of Karnataka with huge boulders have the composition of granite, relatively stable geologic terrain was formed between 3.6 and 2.5 billion years ago. The monolithic block

split due to varied natural forces making cracks in it and eventually metamorphosed into its present balancing form of rocks. The rock belt is now called the Eastern Dharwar Craton (EDC) owing to their charactars in lithologies and ages is dominantly granitic. EDC rocks, predominant around Hampi are called younger granites, a supracrustal belts of sedimentary rocks in origin. They turned to smaller boulders in size spreading over a 500 KM long and 20 KM belt running north to south from the edge of Deccan trap. They got metamorphosed developing horizontal and vertical cracks, resulting in the bizarre formations and rounding of the stones placed in gigantic row that look mesmerizing by balancing rocks as well as gigantic out crops. The rocks of this age show extremely complex nature with clastic and chemically precipitated sediments of Volcanic plutonic rocks - all of which show varying degrees of metamorphism.

4.3. Hampi's Archeological Grandeur

Temples of this city are noted for their large dimensions, florid ornamentation, bold and delicate carvings, stately pillars, magnificent pavilions and a great wealth of iconographic and traditional depictions which include subjects from the Ramayana and the Mahabharata. The luxurious availability of rocks in close proximity was a boon for the sculptors who could make the innumerable temples, many adorned with monolithic sculptured panels and huge pillars. Some of the beautiful and famous temples are illustrated below.

4.4. Virupaksha Temple

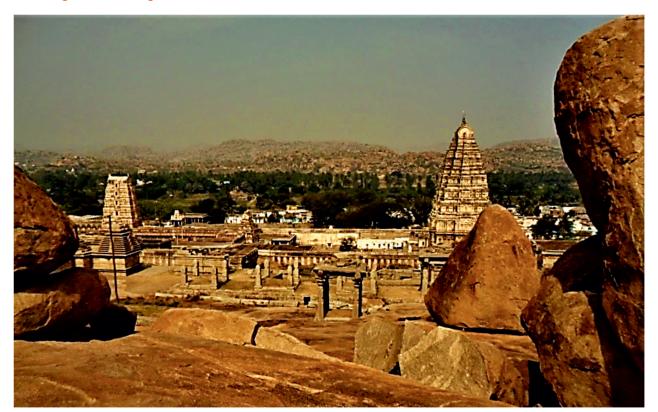


Figure 7: Virupaksha temple with majestic tower amidst the rock boulders at Hampi

Virupaksha Temple is dedicated to lord Shiva. This temple was constructed under Lakkana Dandesha's assistance who was a commander under King Deva Raya II (6). Virupaksha temple at Hampi started off as a little shrine and later developed into a huge complex during the Vijayanagara

rule. It believed that this temple has been functioning uninterruptedly ever since its inception that makes this one of the oldest functioning temples in India. This east facing giant tower (Gopura) of nine stories with a pair of cow horn like projections on top (Shringa) is the most prominent landmark in Hampi. It is the large tower, 50 meters in height, is well-proportioned and incorporates some earlier structures. The temple top has the patterns of the shikhara which repeat themselves with the usage of mathematical concepts and fractals as one of the most striking features. The gopura leads to the outer court of the temple complex which contains many sub-shrines. The most beautiful part of this temple complex is the central pillared hall known as the Ranga Mandapa which was added in 1510 AD by Krishadeva Raya. The stone slab beside the hall has an inscription that explain his offerings for the temple. The sanctum contains the idol of lord Virupaksha in the form of a Linga (A phallus image). A corridor surrounds the sanctum.

Surrounding the Virupaksha temple are plenty of dilapidated mandapams. There was an ancient shopping center interlined with mandapams in front of this temple. The ruins of it stand today.

4.5. Hampi: Vitthala Temple

The Vitthala temple and market complex is over 3 kilometres north-east of the Virupaksha temple near the banks of the Tungabhadra River. It is the most artistically sophisticated Hindu temple in Hampi and is part of the sacred centre of Vijayanagara.



Figure 8: Monolithic stone chariot of Vittala temple and the adjoining the musical pillared hall of Hampi amidst the bizarre rocks.

The Vitthala temple has a Garuda shrine in the form of a monolithic stone chariot in the courtyard which is often pictured as the symbol of Hampi. The wheels of the chariot were designed with engineering skills that it could be rotated by hands. Above the chariot is a tower, which was removed during the late 19th-century restorations. In the front of the stone chariot is a large, square, open-pillared, axial sabha mandapa, or community hall. The mandapa has four sections, two of which are aligned with the temple sanctum. The mandapa has 56 carved stone beams of different diameters, shape, length and surface finish that produces musical sounds when struck; according to local traditional belief, this hall was used for public celebrations of music and dancing.

4.6. Hampi: Hazara Rama Temple



Figure 9: Hazara Rama temple depicting the Procession scene of Dasara festival

The Hazara Rama temple, of the early 15th century and is attributed to Devaraya as the ceremonial temple for the royal family with a private chapel of hundred elaborately sculptured columned hall. It is referred to as the Ramachandra temple in inscriptions, dedicated to Sri Rama of the epic Ramayana. The temple's outer walls in lower bands shows marching elephants, above it is horses led by horsemen, then soldiers celebrated by the public. The Hindu festivals of Dasara and Holi in the procession and celebrations with dancers and musicians are in top layers depicting a boisterous procession of the general public in parallel bands of artwork. The Pattabhirama temple complex is another noteworthy temple in the southern suburban center.

Vijayanagara's destroyers, the sultans of the Deccan, chose to live further north as the abandoned Hampi's destruction was ensured. Frozen in time as a ruined Medieval city of astounding sophistication, set in its barren rosy-hued granite boulder-strewn landscape is still the most wanted destination for tourists.

5. Temples of Southern India

The southern zone of Karnataka is famous for a different style of architecture in which intricately carved sculptural art played as important role as architecture itself. Southern Karnataka has beds of schist rock in grey green colour in regions across Tungabhadra valley. The Chalukyas of Kalyani used coarse variety of schist around the districts of Davanagere and Shimoga while Hoysala rulers started using fine grained schist found around Hassan (called Bababudan group of rocks, occupying an area of 2,650 sq.km spread in parts of Hassan, Shimoga, Dharwar, Chikmagalur,). It evolved from Chalukya style adding new technologies in style and presentation of temple architecture. Hoysalas built innumerable temples in which sculptural art of higher intricacies played an important role because of the abundant availability and softer nature of stone called schist. Belur and Halebid temples in Hassan district are built in chloritic schist which is popularly called as soap stone. These temples known for its panels of intricate carvings are now being proposed as UNESCO World Heritage Sites.

5.1. The Geology of Schist Stone Bed

The most striking feature of the stone used in Hoysala architecture is predominantly a green schist quarried from greenstone-granite terrain. Schist (pronounced shist) is a medium- grade metamorphic rock formed from fine grained mudstone or sedimentary rock quarried from greenstone-granite terrain belt that is located in southwest India. Schist has medium to large, flat, sheet-like grains in a preferred orientation (nearby grains are roughly parallel). This belt of green schist was named by the geological survey of India in 1978, as Western Dharwar craton (WDC) of Karnataka. It is one of the best-studied terrains of Peninsular India that covers an area of about 500 KM long and 200KM wide, estimated to be 6 to 7 km in total thickness. Western Dharwar Craton is occupied by vast areas of Peninsular Gneiss along with two prominent super belts of Bababudan - Western Ghats - Shimoga and Chitradurga - Gadag, all belonging to the Dharwar Super Group.



Figure 10: Bababudan hills of Western ghats looks different from the red sandstone rocks of Badami or the granite hills of Hampi

The available geochronological ages of accumulation spanning between 2900-2600 million years. The Paleozoic period was a time of dramatic geological, climatic, and evolutionary changes. Metamorphic rock forms are that which changed by intense heat or pressure conditions deep inside the Earth's crust. Both sedimentary and igneous rocks under heat and pressure got changed into huge scale metamorphic rock of schist and a higher form called gneiss. Dharwar craton in green or grey colour has types of rocks called Slate, shale, schist and gneiss. Slate, a hard, fine-grained rock that fragments easily because of a well-developed rock cleavage or slaty cleavage formed during the heat and pressure of metamorphism. Shale is characterized as a fine-grained, compact clastic sedimentary rock that easily fragments from the older piece into thin slabs along thin laminae or parallel layering or bedding.

Schist is a coarse-green grained rock (green colour due to mineral facies) consisting of alternating layers of different minerals, such as feldspar, quartz, mica, and hornblende. They have banded appearance and fragments from the older piece breaking into thin layers because of the parallel orientation of clay mineral flakes. Schist when exposed to an increase and continuation in metamorphism turns into coarse grained and irregularly banded layers of sheet in planar foliate structured rocks called Gneiss. Gneiss rock is identified by its bands and lenses of varying composition with an interlocking texture with colours. This can be seen as the colour variation in some of the Hoysala sculptures. The soft nature of schist stone/ soap stone when freshly cut was used by Hoysalas to make intricate carvings in sculptures.

The easily fragmentable slabs were used to make the five or six layered stone platform called Jagati in star shape that added a new dimension to the Hoysala style of temple architecture. These sheets of sedimentary rocks adorn the lower platform of all Hoysala temples.

5.2. Architecture

The Hoysala rulers evolved from the late Chalukya style introducing a new style of temple architecture by building extremely ornate temples in which sculptural art played as important a role as architecture itself. In plan and elevation, the Hoysala temples are in stellate ground plan called Jagati with a series of points to produce a star shape. The high plinth is ornamented with successive horizontal bands of 10-11 parallel bands of floral, animal designs and figures of sculptures running around the temple. The horizontal bands are made of stone slabs which naturally occurred in the western Dharwar craton, which was shrewdly made use of to create a different style of Hoysala art. The highly intricate work was possible because the schist stone was softer when newly cut and hardened with time. The pillars were lathe turned and were with high polish comparable to mirror reflection all because of the quality of stone and workmanship.

Belur (Commissioned by king Vishnuvardhana in 1117A D) Halebidu (completed in 1160 A D) (and Somanathpur temples (consecrated in 1258 A D by Somanatha Dandanayaka, a general of the Hoysala King Narasimha III) are the best known classic examples of the temples of Hoysala architecture that gives a glimpse of Hindu temple art at its glorious best between 11th to 13th centuries.

6. Conclusion

The temples are the physical manifestation of the spiritual connect with cosmos and the endeavor of human intellectual & physical efforts. The very creative idea of selecting rocks bestowed by nature, establishing harmony with it and constructing temples with sculptures have withstood the test time over centuries, expressing limitless and timeless capabilities of human mind.



Platform made of thin stone slabs

Figure 10A: Hoysala temple at Somanathapura in schist stone



Figure 10B: The highly ornate lathe turned pillars of Belur Chennakeshava temple



Figure 10C: Hoysala style of wall decoration in parallel layers



Figure 10D: The layered nature of Gneiss stone with colour variations



Figure 10E: Dancing Shiva sculpture with intricate carvings in the schist stone at the Halebid temple



Figure 10F: The very beautiful sculpture of Shilabalika at Belur Chennakeshava temple in schist stone

The art and architecture of monuments in Karnataka shows varied experimentation through the ages because of the geo diversity with varieties of stone belts all formed several millions of years ago. The early chalukya phase in Bagalkot district between 6th -8th centuries are the critical formative phase. The techniques of architectural skills changed with the usage of schist stone during the later Chalukyas and Hoysalas of 10th to 13th centuries. It is important to note that around this time Karnataka was blessed with the best sculptors who gave timeless life to the rocks and stones. The use of soft green schist stone contributed profoundly in giving rise to a totally different style of temple architecture in embellishing the temples with very intricate carvings, sculptures and highly polished lathe turned pillars. This change of techniques in temple art got marked as an unparalleled era in the history of temple construction. The art of Hampi from 14th -16th centuries with all its, royal and sacred complexes, temples, shrines, pillared halls / mandapas, forts and memorial structures have truly heralded the glorious heritage of Karnataka.

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