ABSTRACT

The present study is primarily devoted to the building activities in the region of Bundelkhand under the Chandela and the Bundela rulers whose rule spanned between c.900 and c.1750. Both have left innumerable edifices which are standing to offer witness about their grandeur in the field of building sector. The Chandela rulers earned reputation as one of great builders in early medieval India. They took exemplary interest in the construction of temples, forts and waterbodies such as dams and tanks. The most precious testimony of their existence which they have handed down posterity is the amazing collection of architectural works in Khajuraho. Besides, the shrines constructed by them survived in Mahoba, Kalinjar, Ajaigarh and other places. They also patronised the people of other faiths to construct religious establishments. Consequently, large numbers of Jain Temples came into existence.

In addition to shrine constructions, they built innumerable forts in their long span of rule over the region. The centres of their power were generally fortified towns constructed on rocky mounds, which were considered impregnable. Kalinjar was one of the strongest bastions in existence.

Similarly, they took keen interest in the erection of waterbodies. The region of Bundelkhand had been water deficit zone because of rocky terrain therefore; they had developed a network of rainwater harvesting structures to tap every drop of water such as dams, tanks and stepwells. Thus, they had transformed the area into water sufficient zone. Hence, they had earned the designation of the ‘tank builders’. On this basis we may call them a great ‘hydraulic rulers.’

The tradition in the building construction sector established by the Chandelas was continued by their successors the Bundelas. The construction work was initiated after shifting of capital form Garhkundar to Orchha in 1531 by Rudra Pratap (1501-39). The foundation of palace at Orchha was laid down in the same year by him. But his sudden demise in a tragic incident brought a temporary halt to the construction but restarted by his son Bharti Chand (1531- 54) and completed the palace in 1539. Besides this, Raj Mahal and Rani Mahal came into existence. Then his successor Madhukar Shah (1554-92) built the Chaturbhuj temple, Jugal Kishor temple,
Chandrasakchhi temple and Chitrakut temple. Besides these religious structures, he laid down numerous secular buildings such as gardens and a ghat on the river Betwa. After his death, his second son Bir Singh Dev brought laureate to Orchha in politics as well as in the construction sector. He was the greatest builder in the Bundela dynasty. He is said to have initiated construction of 52 buildings on the occasion of his 52nd birthday. He erected both religious as well as secular edifices. The prominent among religious shrines were Lakshmi Narayan temple, Dhum Shivalaya at Orchha, Vishweswar at Kashi, Bankhandi Mahadev, Madan Bihari temple (Brindawan) and Keshav Dev temple at Mathura. Secular buildings include forts, palaces, havelis, tanks, dams stepwells, bridges gardens and others. The palaces and forts include Jahagir Mahal, Phool Bagh, Birsingh Dev Mahal or Satkhanda Mahal at Datia and forts at Jhansi, Dinara, Dhamoni, Karera and Garhmou. Bir Sagar, Dev Sagar, Nandanwara and Vir Sarovar can be counted among dams. He also took keen interest in laying down of gardens at Orchha and other places. The demise of Bir Singh Dev brought halt in the building activities. His successors could not concentrate in this sector because of their unfriendly relations with the Mughals. Fresh spate of building activities were started after the establishment of rule at Panna under Maharaja Chhatrasal. Large number of forts, palaces, cenotaphs, temples and waterbodies came into existence.

The purpose of my study is to highlight the building activities under the Chandelas and the Bundelas. An attempt has been made to cover major edifices came into existence between c.900 and c.1750. The task is accomplished in the following chapters.

First chapter deals with the nomenclature of the region prior to Bundelkhand. Then the geography of the area which was ruled both by the Chandelas and the Bundelas. A brief history of the Chandelas on the basis of contemporary inscriptions is traced from the earliest period. The contribution of individual Chandela ruler from its first ruler Nanuka (first quarter of the 9th century) upto Vir Varaman (c.1250-86) is briefly sketched.

The emergence of the Bundelas coincides with the establishment of the capital of Orchha in 1531. Rudra Pratap laid the foundation of the capital. But he could not
live to see the emergence of the place. Bharti Chandra (1531-54) succeeded him and led victorious campaigns against adversaries and expanded his territory and occupied the area between Dhasan and Sindh. Further territorial expansion was carried out by Madhukar Shah (1554-92). His military campaigns brought him in conflict with the Mughal emperor Akbar but subsequently he accepted the Mughal suzerainty in 1577. His policy of maintaining intimate relations was followed by his son Ram Shah but his younger brother Bir Singh Dev, then Jagirdar of Baroni, became a great headache for him. Not only this, Bir Singh Dev used to attack Mughal territories and consequently, he had incurred anger of the Mughal emperor Akbar. But he befriended the Mughal prince Jahangir and on his advice he murdered Abul Fazl in 1602. Though this crime further angered Akbar but he earned the confidence of the Mughal prince.

The accession of Jahangir brought good fortunes for Bir Singh Dev. He was given the gaddi of Orchha by dethroning his elder brother Ram Shah. The latter was given Chanderi instead.

The Bundela chief with the tacit support of the mughal emperor expands territory and consolidated his position by suppressing his adversaries in the state.

He undertook construction work after the consolidation of his position. His building activities were highlighted. His period could be characterized as the golden period in the field of construction sector.

Then the history of the region is described under his successors Jujhar Singh (1627-35) Pahar Singh (161-53), Sujan Singh (1653-72) Indramani (1662-75), Jaswant Singh (1673-84) and Udot Singh (1689-1736). The demise of Bir Singh Dev, in real terms sealed the fate of the Bundelas at Orchha. No significant work was done in the field of construction sector. Then the emergence of another branch of the Bundelas at Panna under Chhatarsal is described briefly.

The chapter second is partitioned in two sections. In the first part forts find place while palaces are discussed in the second. Both the buildings were meant for members of the royal family. Generally, the characteristics of both the edifices are combined in one.
The medieval rulers of India constructed innumerable forts and fortress palaces to defend their territorial possessions from their adversaries and to demonstrate their sovereignty. These structures were built keeping the contemporary war technology and tactics in mind. The rulers made efforts to build impregnable and inaccessible forts to secure their sovereignty and territorial possessions. In fact, the forts had virtually became a symbol of prestige and the royal propotence.

In the second chapter, The forts built by the Chandelas and the Bundelas are taken up in this section. The former constructed large number of bastions in their empire but here we have given the profile of three namely Kalinjar, Ajaigarh and Maniyagarh. All the three are strong and impregnable.

The celebrated hill fort Kalinjar is located in tehsil Badausa, 56 km south-east of the district Banda, Uttar Pradesh. It is located on an isolated flat-topped hill of the Vindhya range which rises above 800-900 feet high above the plain. It is fortified by rampart nearly four miles in circuit and constructed of large blocks of stones. The height of the fort is quite inordinary and its access was always difficult to the adversaries.

It possesses two entrance gates and followed by another six gates. Latter entrances were planned in such a way that at every point the advancing of the enemy’s army could be checked or repulsed. The planning of the gates was according to the military tactics.

After describing its defense mechanism, waterbodies which are also important part of the bastion. They determine its strength in time of war and onslaught by the enemy. Thus the invasions faced by it are described.

Ajaigarh is another fort which occupies important place in Bundelkhand located 35 km from the district Panna and 33 km to the south-west of Kalinjar. The fort crowns on a flat spur of the Vindhya range. It height is equal to that of Kalinjar. It is said to have been erected by the Chandela ruler Raja Jaishakti in 830. The builders raised this citadel on a very high hill and built very strong walls to withstand the onslaughts of the enemies and to use it as an important stronghold in the region.
From the strategic point it is one of the well-fortified citadel. Its fortification wall is equipped with sixteen bastions, which are located at strategic positions. Then the waterbodies within the fort is described which are the lifeline of any fort.

Next in importance is Maniyagarh located on the left side of the River Ken in the modern city Rajgarh. It receives its name from the hill ‘Maniya’ on which it perches. It was built by the Chandela ruler Yasho Varma (AD 925-40). It is 1200 above the sea level and 15 km in circumference. Cunningham considers it older as well as stronger than Kalinjar and Ajaigarh. Besides the structures, the Chandela rulers built more forts which are mentioned in table.

The Bundela rulers also erected numerous fort-palaces in different parts of Bundelkhand. Prominent among them are Orchha fort or Jahangir Mahal, Datia fort or Bir Singh Dev Mahal, Barauni fort and many others. In this section the architecture of the Orchha fort, Bir Singh Dev palace and Barauni forts are discussed. Besides, the fort-palaces built in later period such as Kul Pahar, Prithvipur and Rajnagar also find place.

The temples constructed by the Chandelas and the Bundelas are discussed in the chapter fifth. The former had established a strong tradition in the field of temple construction. Their construction is highlighted. No doubt the group of temples at Khajarah made them immortal but there are others too which were erected by them at various places such as Mahoba, Makarbai and Ajaigarh. Hence, after a brief sketch of the former shrines, lesser known temples are assigned more space. Their location and architectural features are underlined. Some temples are discussed and photographed first time namely, Makarbai, Ratneshwar (in village Urwara), Sijahari, temples at village Dauni and many more. From our survey we have attempted to show that the temple activities of the Chandelas were widespread.

The Bundela rulers followed their predecessor Chandelas. The temples constructed by them are catalogued here. Numerous shrines were erected by them at Orchha and elsewhere namely, Ram Raja temple, Chaturbhuj temple and Laxmi temple. The major architectural features of these shrines are underlined. They are quite magnificent but they could not surpass in numbers as well as from the architectural point of view.
The chapter six, deals with the cenotaphs of the rulers of Bundelkhand. The basic idea behind the construction of the chhatris in the memory of the deceased is to provide permanence to his name. It appears that the erection of the memorial of the deceased assumed the status of those of the successors or his nears and dears. This is the reason that we find the cenotaph of every deceased ruler raised by his successor. The purpose behind the raising the funeral monument appears to have create an aura around both the deceased as well as the living ruler.

In fact, these monuments were raised to cherish the memory of the rulers and their deed so as to remind their successors and future generations of their glorious acts. The tradition of commemoration has produced a variety of monuments of architecture in different periods. Moreover, its appears that during the 16th - 18th centuries, the construction of cenotaphs became the part and parcel of the building activities of the state.

No traces of the memorials of the Chandela rulers are found. But these structures of their successor rulers, the Bundelas are available in Orchha, Chanderi, Datia, Panna and Chhatarpur.

This chapter incorporates the chattris at Orchha, Datia and Panna. The architectural styles and their decoration in the form of sculptures and paintings are highlighted. Ground plan of each monument with measurement is given at the end of each structure.

The houses of nobles, courtiers and the rich people are discussed in chapter third. These were known as the havelis and the kothis. The study of these dwellings is divided under two headings: one, mansions within the fort complex and two, havelis outside the fort complex. It is believed that these elegant and marvelous edifices were erected under the rulers patronage particularly located in the premises of the fort.

The fashion of construction of havelis/kothis in Bundelkhand was started in the sixteenth century by the members of the aristocracy. Their intention behind the erection of those palatial buildings was two pronged: one, to differentiate from the houses of common man and two, to demonstrate their life style and their association with royal family.
In this chapter the Dauji-ki-kothi, Bakas Rai-ki kothi, Himma Hamir-ki-kothi, Narayan Das Khare-ki kothi, Kirpa Ram gaur-ki-haveli, and Noneju-ki-haveli are discussed. Their architectural characteristics under the headings façade, entrance gate and courtyard, are described. Besides this, measurement of each part is recorded and given in the table. Documentation in the form of photographs of important parts of the structures is made. Ground plan of these mansions are prepared and put at proper place.

In the chapter eight, on dams, it is emphasized that the tradition of conservation, storage and harvesting of water is as ancient as human civilization. A wide variety of engineering and water related systems were developed at different geographical locations over different periods. The ‘great Bath’ built during the circa 3rd to 2nd millennia BC at Mohanjodaro demonstrates a high degree of hydraulic engineering skills. Similarly, the people at Dholavira (Gujrat) developed a unique and complex system for collecting and storing rain-water within several reservoirs. Through these examples an attempt has been made to highlight the techniques of water harvesting and conservation in pre-historical period.

Kautilya offers information about harvesting systems prevalent during his times. The Mauryan emperors took keen interest in the harvesting of rain-water. The Sudarshan lake in Girnar in Gujrat was the result of their efforts. My intention to cite these examples is to demonstrate that the people had knowledge about harvesting of rain water which passed through generation to generation.

The credit goes to Raja Bhoj of Dhar who constructed largest known artificial lake of India in the middle of the 11th century at Bhojpur near Bhopal. This lake was created by raising a vast embankment across two hill. In true sense it was a dam.

The inscriptions, literary sources and the archaeological data emphasize India’s rich, technological excellent and varied hydraulic tradition. The Gond rulers of central India developed a complex network of irrigation and water management systems.

This strong tradition of water harvesting and management had greatly influenced the rulers of Bundelkhand. Their efforts in creating lakes are highlighted in
this chapter. The rulers faced difficulties in this hilly and rocky region. Rainwater flows very quickly therefore percolation was quite low. Above all poor rainfall further multiplied problems.

The Chandela rulers earned name and fame in the field of harvesting and conservation of rain water. They were considered as the great dam builders. They built dams at their capital city Mahoba such as, Kirat Sagar, Rahila Sagar, Vijay Sagar, Madan Sagar and Kalyan Sagar. The names of their builders along with their measurement and ground plan are given. Vast agricultural fields were irrigated by these waterbodies.

The construction of hydraulic work was continued under the Bundelas. Among them Bir Singh Dev earned name as the greatest dam builder. He built three big dams namely, Bir Sagar, Singh Sagar and Dev Sagar. The Bir Sagar is located in village Prithvipur in district Tikamgarh. Formerly, it was in pargana Orchha itself. It was 82 mts in length while 11.50 mts in width. This gets appreciation from the Mughal emperor Shah Jahan. Singh Sagar is located in the vicinity of Garh Kundar, the former capital of the Bundelas. Three motives behind its construction are underlined one, protection of fact from the flooding two, the conservation of water for irrigation and domestics purposes and last raising of water table of surrounding areas. Dev Sagar is in the district Shivpuri. It became popular as the Surai Ghat in the area. The embankment wall of this structure is “L” shape which is quite unique. Besides, this it is the longest of all and has a support of 70.50 mts retaining wall. Detailed measurement of each section with ground plan is given at the end of each water monument.

The dams constructed during the time of Bir Singh Dev were gigantic in size and majestic in beauty. They were also adavanced from the point of view of technology.

As it is said about the geography and topography of the region in the chapter eight, on Dams. It is true that both the Chandelas and the Bundelas accepted the challenge thrown by the geography. No doubt, that the region was enormously hilly and rocky with a deep land gradient hence water flows quickly. The rate of absorption
is quite low. Therefore, there was the deep water table and low water resource. The less rainfall further multiplied the woes of the region.

The answer of these combined problems was appropriately given by the Chandelas and Bundelas by excavating tanks almost in every locality which is witnessed by the extant structures.

Mostly, three terms were employed for the tank namely tadag, pushkarni and talab. The talab is combination of two words that is tal and aab. The farmer means depression in plain while the latter stands for water. The space for the inlet was left open through which water comes and collected in the excavated site.

Further the difference between the dam and tank is made. In the former body the passage between two hills was blocked by erecting embankment wall while the tank was in a natural depression.

In chapter nine, The characteristics of the tanks of Datia, Khajuraho, Panna and Charkhari are underlined. The beauty of these tanks was their interlinking with each other. In this description the planning and lay out of these waterbodies is highlighted. This is shown that these waterbodies were dug in descending order. First tank was excavated at comparatively higher plain and then others dug out in succession in lower sites. This interlinking was called as the chain (sankal) of tanks. This was certainly an ingenious engineering skill which was adopted by hydraulic engineers of the region.

Besides tanks, a different kind of waterbody was detected known as the chaupras. The water monument is square in shape therefore designated so. Five such water structures at Khajuraho, Mahoba, Akauna, Panna and Orchha are described.

The construction of stepwell was an important part of the building activities. In chapter ten the stepwells raised both by the Chnadelas and the Bundelas are discussed. This kind of water structure was constructed to tap underground as well as rain-water. The waterbodies found in our survey are divided into seven categories. This categorization is made on the basis of their location: one, connected to shrine two, located in garden and orchard three, within or at the edge of a village four, on the highway and caravan routes five, in the middle of an agricultural field or on the fringe
of inhabited areas and agricultural field six, as part of residential complex of a noble and last, within the fort and royal palace.

The position of the stepwells itself determine the purpose of its construction. Therefore, extant structures are studied from this perspective. We have taken up stepwells individually and discussed it from architectural as well as its functional point of view. Following stepwells are discussed in detail: Dhabe wali bawri, Chhardwari-ki-baoli, Gundrai ki booli, baoli in front of Laxami Mandir, baoli in front of Noneju-ki-Haveli, Lotan baoli and baoli at Datia.

The point of priority for the Bundela rulers is brought out in this chapter. One important point is also underlined here about the concern of the Bundela rulers for the people of the capital city Orchha. They undertook the project of construction of water structures in and around the newly founded capital Orchha. This is confirmed from the extant water structures in vicinity of Orchha. Thus the Bundela rulers made sufficient provisions of water supply both for drinking as well as irrigating vast agricultural fields.

Bundelkhand contains rivers, numerous rivulets and nallahs originating from hills and rocks. The need of bridges arose when rivers and streams immobilized marching armies or movements of the royal entourage or to approach forts and palaces built on inlands created by rivers. There is a possibility that some bridges were built on rivers or streams to develop state highways for the use of trading caravans or pedestrians.

In the chapter 9th an attempt has been made to describe the three bridges built in and around Orchha besides one in the Kalinjar fort and another in the Bir Singh Dev Mahal at Datia.

All the three bridges in Orchha are of stone. These are: One, on Betwa connecting the fort built by Bir Singh Dev (1605-27) two, second is also on the same river and the third is located on the Jamni river. It is on the Orchha –Prithipur road.

In addition to these bridges, we chanced to see two more structures –one in the fort of Kalinjar and another in the Bir Sigh Dev at Datia. The former is in the form of the inlet connected to a tank. While the bridge in the palace is for connecting two
rooms. The most important point that we noticed from the survey of these bridges in the technical proficiency in the bridge construction.

The gardens were an integral part of the building activities. In the last Chapter the gardens developed during the time of Chandelas and the Bundelas are catalogued. This study is primarily based on the inscriptions and literary compositions supplemented by the physical survey of the remains of gardens. We have discussed gardens of different categories such as independent, part of house and religious establishment.

During the early medieval times the term vatika was employed for a garden. A follower of Jain religion presented seven gardens (vatikas) to the temple of Jinanth at Khajuraho in A.D. 954. Apart from the solitary evidence we could not obtained evidence of the Chandela period.

The efforts of the Bundela rulers in laying out gardens is highlighted particularly after the establishment of capital at Orchha in 1531. There appears to have been sudden rise in making of gardens. The reason lies behind the establishment of the Mughal empire. Babur introduced well-planned layouts of gardens. The relations of the Bundela rulers with the Mughals played a significant role in this sector. The result can be seen in the increasing number of gardens at Orchha during the term of Madhukar Shah.

The accession of Bir Singh Dev at Orchha marks a now beginning in the history of Bundelkhand. His period is considered as the golden period in the field of construction sector. He laid out Phool Bagh which still exists whose ground plan with running water system is given here in detail. Besides this, the evidence on gardens offered by Keshav Das is compiled which shows that many more gardens were developed during the time of Bir Singh Dev. In addition to these, Rai Praveen Palace garden and the garden in the chhatri-complex are discussed.

On the basis of our survey, we have studied the gardens under these headings-one, pleasure gardens of the rulers, two, house- gardens of senior nobility and the rich and third cenotaph gardens. Special description of Rai Praveen Palace garden, Phool bagh, garden of the residence of Bakas Rai, garden in the Datia Fort, and chhatri
garden is given in this chapter. The documentation is made in the form of the ground plan and photographs. Moreover, the relation between the gardens and environment is also examined though briefly.

In the end an attempt has been made to highlight the major characteristics of the building technology as well as hydraulic technology adopted by the Chandelas and the Bundelas. Moreover, the changes came about in the last seven centuries are broadly outlined.