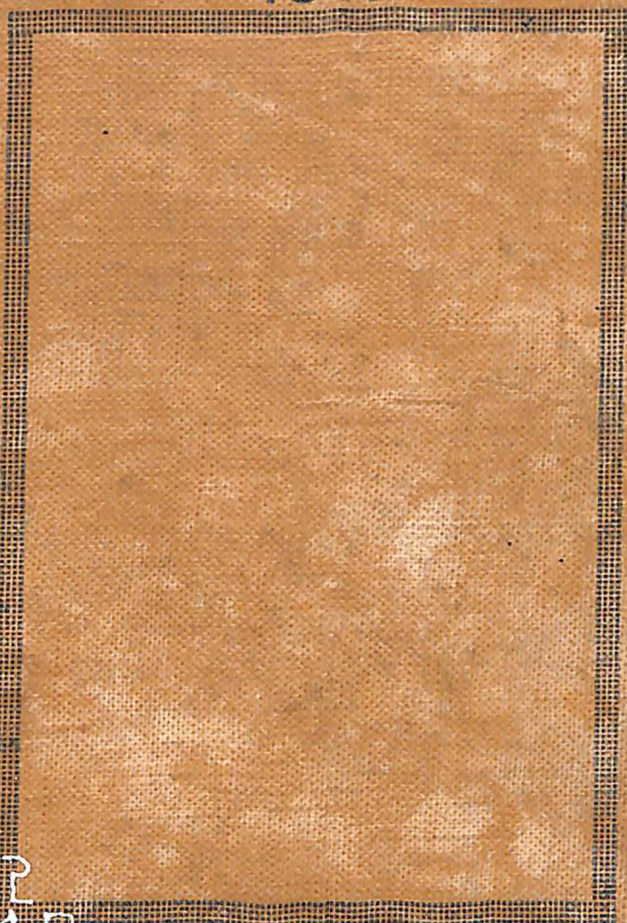


# BENARES

HAND-BOOK

Twenty-Eighth Indian Science Congress

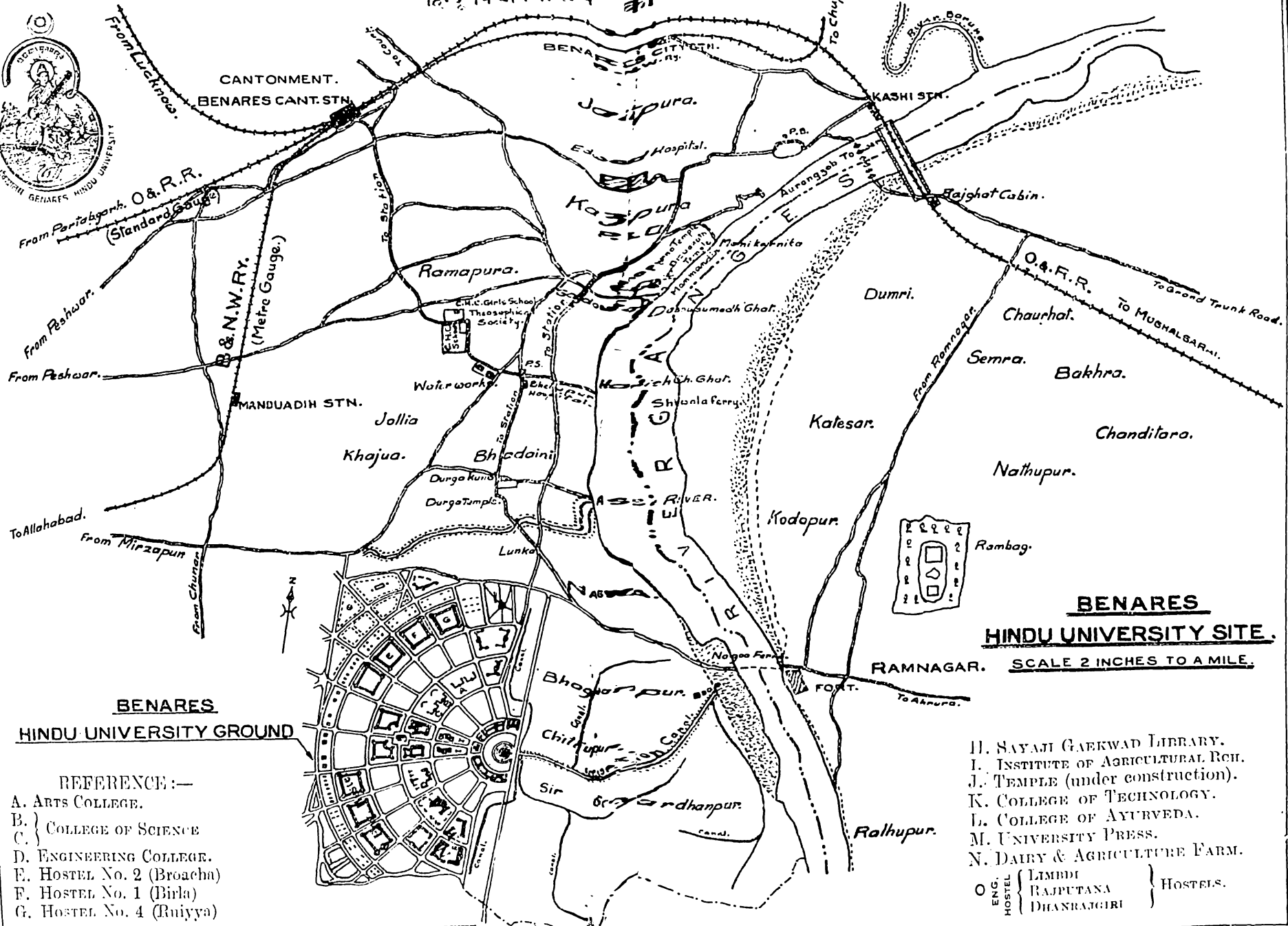
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BENARES  
HAND-BOOK  
OF THE  
INDIAN SCIENCE CONGRESS  
BENARES SESSION  
1941

*A Guide to Benares for use by Members of the  
28th Session of the Indian Science Congress*

BY  
VARIOUS AUTHORS

*Edited By*  
BHOLANATH SINGH

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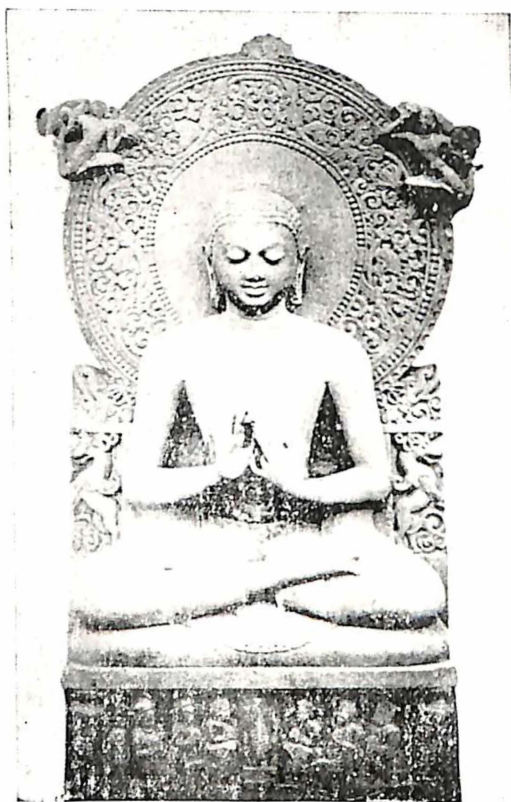
## FOREWORD

IT is with much pleasure that this HANDBOOK is offered to the Delegates of the Twenty Eighth Indian Science Congress, Benares Session. It is hoped that it will prove of some use to them in appreciating the ideas and beliefs which millions of our countrymen associate with Benares, the most sacred city of the East. We are conscious of the limitations of this Handbook which has been prepared in very limited time. We are thankful to the contributors of the several chapters in this book without whose cooperation it would not have been possible to bring out this publication in its present form. There is an Introductory chapter which though not strictly a summary of the subsequent chapters, should serve as one in some measure. Topics as varied as History of Benares, Education in Benares, Municipal life of Benares, Flora of Benares, Agriculture of Benares, Industries of Benares, Places of Interest in Benares, Sarnath, and the Benares Hindu University have been dealt with in separate sections.

The illustrations included in this Handbook are meant to illustrate the text, and will, it is hoped, give some idea of the immense artistic wealth in the life of Benares. We acknowledge with thanks the loan of some of the blocks by the authorities of the Benares Hindu University and by the Kashi Tirth Sudhar Trust. The ready cooperation of the Benares Hindu University Press in bringing out this volume in a fortnight's time is much appreciated.

BENARES HINDU UNIVERSITY  
January 1, 1941

BHOLANATH SINGH  
PHULDEO SAHAY VARMA  
*Honorary, Local Secretaries  
Indian Science Congress  
Benares Session 1941.*



Lord Buddha

## INTRODUCTION

By

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**B**ENARES is a city of great antiquity with memories stretching back to far off pre-historic periods. It has been a centre of Hindu learning, culture and civilization for thousands of years. The traditions connected with Kashi are embodied in works of the Puranic period which assign to *Varanasi* (Benares) a position between Varuna and Assi, two tributary streams of the Ganges, which form the northern and southern boundaries of the city. It is now accepted on all hands that even about 500 B.C. Benares was a celebrated centre of Brahmanical Hinduism. In the sixth and seventh centuries B.C. among the political divisions of Northern India, Benares occupied an important position as an independent kingdom of a circuit of 2000 miles peopled by the Kasis. However for a long period the neighbouring kingdoms of Kosalas (Nepal and Oudh) and Magadha (Behar) contended for supremacy over it and the Kosala king, Kamsa, ultimately conquered it. Later on the Kosala kingdom was itself absorbed by the Magadha Empire. The political vicissitudes which the kingdom of Benares suffered however left unaffected the supremacy of Kashi as a centre of Hindu religion and tradition. Gautama Buddha for that reason probably selected Sarnath near Benares for preaching his first sermon explaining the way to the perfect life. He severely denounced the



complicated ceremonials and the then current Brahmanical scheme of life. The tender plant sown by Buddha had to face many a storm of opposition, and it was only in the time of Asoka that Buddhism was made a state religion and Sarnath developed into splendour. Almost a new city sprang up there with majestic stupas and extensive monasteries. The depredations of time have reduced that once flourishing city to mere relics, but the excavations of the Archaeological Department have disclosed relics which are grand even in the ruins that they represent to-day.

When the Chinese traveller Hieun Tsang visited Benares Buddhism had considerably declined and Hinduism had been reinstated in the estimation of the population. All the same even in the period of Buddhist ascendancy the high philosophy of the *Upanishads* claimed its votaries here and was never rooted out.

The Hindu reaction against Buddhism had gained strength by the 8th century in Southern India under Kumarila Bhatta. About a century later the great teacher, Shri Shankaracharya (788-820), brought about a complete upheaval of thought in favour of Vedanta philosophy. To make his message effective he travelled all the way from the south to Kashi, the centre of Hinduism.

The political history of Benares during the period 800-1800 A.D. was a chequered one. According to tradition one Raja Banar ruled over the Kashi territories and had built the famous Rajghat fort over the plateau extending to the confluence of Varuna and the Ganges. This Raja Banar was killed in one of the invasions of Mahmud of Ghazni early in the 11th century. Since that time Benares remained

under the direct or indirect rule of the Muslim power in India till it passed into the hands of the British. Under the tolerant policy of Akbar, many Hindu Princes came forward to beautify the sacred city once more with temples like Man Mandir. In Aurangzeb's time the liberal policy of Akbar gave place to the bigoted policy of Aurangzeb and hundreds of temples were demolished and mosques built out of their materials. Even under such unpropitious circumstances the pandits of Benares kept the torch of Hindu learning and religion alight.

Not only Hindu religion has been cradled and nourished in Benares inspite of all the political turmoils through which the city has passed through the ages, but a number of social and religious reformers have from time to time thought it worthy of concentrating their activities here. The great pioneer of the Bhakti movement, Ramanand, received his education in Benares in the 14th century A.D. and established his Mutt in Benares.

Kabir Sahab (1440-1518) the great saint of Northern India was born at Benares, and brought up by a muslim weaver. People gathered round him in large numbers to listen to his divine discourses. The orthodox sections of the Hindus and the Muslims alike opposed him because of his uncompromising denunciation of castes, creeds, and rituals. In his later years Kabir Sahab left Benares and moved about among various cities of Northern India. Kabir Sahab's songs and writings carry a very wide appeal and Kabir Sahab was worshipped both by Hindus and Mohammedans. "Kabir Chaura" and Kabir Sahab Ki Bathak are the physical memorials of this great saint at Benares. The picture of

Raidas, another saint, who was a humble cobbler and tanner, is kept in Kabir Sahab's temple in Benares.

Guru Nanak (1469-1538) the honoured founder of Sikhism also paid a visit to Benares to give his divine message of peace and love, service and fraternity. Guru Ka Bagh at Kamachha is a memorial to his visit.

Chaitanya (1485-1527) the apostle of the Bhakti Movement in Bengal came to Benares preaching his message of love and devotion.

Tulsi Das (1532-1623) the great poet-saint, the celebrated author of the Ramayan, lived at Assi for many years in a simple and unpretentious building overlooking the river, and passed his last days also at Benares. A dilapidated ghat on the Ganges bearing his name still survives as a poor memorial of this gifted poet. The Kashi Tirth Sudhar Trust has prepared a plan of an imposing structure on the present site of the Tulsi Ghat which will serve as a fitting memorial to the sweet Bard of Benares.

Vallabhacharya the famous Vaishnavite teacher of the South in the 16th Century came to Benares to proclaim his gospel of love. He lived at Benares for some time at Hanuman Ghat where he breathed his last.

Coming to recent times, Benares was the head-quarters for some years of Maharaj Sahab, the third spiritual leader of the Radhasoami faith. Maharaj Sahab came of a distinguished Brahmin family and dictated in English during the closing years of his life an important work, "Discourses on the Radhasoami Faith," which is a scientific exposition of religion and which was published as a posthumous work. Maharaj Sahab's Mausoleum is in Kabir Chaura ward adjacent to the King Edward Hospital.

On the other hand, Benares has the honour of being associated, in far off pre-historic times, with the name of the great martyr to truth, Raja Harish Chandra, whose story of suffering and sacrifice thrills the heart of India. It is said that there was a famine in his kingdom and he spent all his riches in relieving the distress of his people. The sage Viswamitra then decided to test the mettle of the great king. The sage visited the king and represented to him that he was in great distress and asked for help. The charitable king having emptied his treasury, tried to meet the insatiable demands of the *Rishi* by selling all his remaining property, and later on himself and his family even to an outcaste *dom* who supplied him with the money. The duty assigned to the Raja in his bondage was to keep watch at the burning ghat, make arrangements for cremating the dead bodies after realising the requisite fees from the relatives of the deceased. Fate so decreed that he had to face the inexpressible anguish of demanding the usual fee from his distressed queen who was a slave and came to the burning ghat to do the last rites to her dead child. He had to choose between his emotions and his sense of duty and it must be said to his eternal credit that in his hour of severest trial he chose the latter and demanded with remarkable composure the usual fees from his queen in her adversity and poverty. The queen, not to be outdone by her husband in her high sense of duty, offered to tear a portion of the garment with which she had managed to cover her body and which was her only possession. Just when the heroic queen was going to tear her *sari*, the angels appeared on the scene, restored to life the dead child, and transported the intensely truth-loving and heroic parents with their child to heaven.

The incidents connected with the life of Raja Harish Chandra which emphasise unparalleled fidelity to truth and unflinching adherence to duty touch the heart of every Hindu. A monument to the great king survives to-day in the ghat bearing his name which is still used as a crematorium.

Benares was also the scene of the labours of the great Hindī scholar and poet, Bhartendu Harish Chandra who was born in Benares in 1850. The Harish Chandra Intermediate College which was started as a school by Bhartenduji is a monument to the philanthropy of this scholar of repute.

Among living scholars of international fame Acharya Bhagwan Das's name cannot be omitted in any annals of Benares. The name of Pujya Pandit Madan Mohan Malaviyaji will rank high among the educational statesmen of the world for having created the Benares Hindu University.

The religious character of the city of Benares is best summed up in its picturesque river front, which constitutes an abiding attraction of Benares. The beautiful bend of the river for a distance of about four miles from the outskirts of the Benares Hindu University in the south to the Dufferin bridge near Rajghat in the north, the majestic flow of the waters of the Ganges, the piles of buildings on the top of a long flight of steps, the spires of temples and the minarets of Aurangzeb's mosque glittering in the morning air or bathed in the golden glow of sunset, the numerous temple bells ringing in a unison of their own, present a wonderful picture of indescribable charm. In the mornings and evenings the ghats are thronged with devotees chanting sacred hymns and taking dips in the holy river.

The total number of ghats built on the curve of the river



border on eighty. The Panch Tirths of Benares are the Assi, Dasaswamedh, Manikarnika, Panchganga, and Vārūna Sangam ghats.

The antiquity of the Ganges on whose bank Benares is located is strikingly revealed in geological studies. The Indo-Gangetic plain in which Benares is situated was originally a deep depression or furrow lying between the Peninsula and the mountain region. There is a body of evidence to show that the principal rivers of the area were of an age anterior to the Himalayan mountains as they stand to-day. During the slow process of mountain formation the old rivers kept very much to their own channels although certainly working at an accelerated rate by the uplift of the region near their source.

Many and great have been the changes in the chief drainage lines since late tertiary times—changes in fact which have produced a complete reversal of the direction of flow of the chief rivers of North India. The formation of the long thin belt of Siwalik deposits along the foot of the Himalayas is now ascribed to the flood plain deposits of a great north-western flowing river lying south of and parallel with the Himalayan chain. The river has been named the 'Siwalik river' and is believed to be the successor of the narrow strip of the sea as the latter gradually withdrew through the encroachment of the delta of the replacing river. It is held that the severed upper part of the Siwalik river became the modern Ganges, it having in course of time captured the transversely running Jamuna and converted it into its own affluent.

Benares is studded with temples some of which speak of its hoary antiquity.

The story of the civic development of Benares is told in

detail in one of the chapters that follow. The flora of Benares includes all the plants from the highest Angiosperms to the lowest Algae and Fungi as detailed elsewhere. The style of husbandry in the district is not particularly high as mixed and inferior crops, leaving aside the few improved varieties of cane and wheat, occupy a fairly large proportion of the land.

The principal manufactures of Benares come under the comprehensive categories of textile fabrics and work in metals. Of far greater importance, though employing fewer workers, are the manufacture of silken fabrics of every description. The gold and silver thread supports an industry of its own. There is a certain amount of export trade in huqqas, chilams, tikli, choti etc.

Benares has continued to be one of the great centres of the intellectual life of India, held in veneration by all Hindus. Benares was made the headquarters of the Indian Organisation of the Theosophical Society by Mrs. Annie Besant. Her greatest service, however, was the establishment of the Central Hindu College at Benares. The Central Hindu College which she reared up with such tender care and affection has now developed into the Benares Hindu University under the fostering care and guidance of the venerable Pandit Madan Mohan Malaviya. Mr. Patrick Lacey in the Manchester Guardian rightly says, "There must be few men in the world who can boast the courage, vision, and persuasive enterprise that enabled Pandit Madan Mohan Malaviya to dream of planting a great university comparable in purpose and administration to the best in Europe...." Benares also shelters the ancient Sanskrit College whose contribution to the cultivation of oriental studies has been no mean one.

# HISTORY OF BENARES

(From prehistoric times to the present day)

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**B**ENARES is undoubtedly one of the most ancient cities of the world, if not the most ancient living city. We get sufficiently reliable material for the reconstruction of its history from about the end of second millennium B.C. For the earlier period, we have to rely on legend and tradition.

As may be expected, the earliest dynasty of Benares traces its descent direct from father Manu. Kāśī is said to have derived its name from king Kāśa, who was the 7th king of this dynasty. A few generations later flourished king Dhanvantari, who is the traditional founder of the science of medicine in this country. During the reign of king Divodāsa I, the great grand-son of king Dhanvantari, a long drawn war broke out between the kingdom of Benares and that of the Haihayas, who were ruling near Jubblepore. The war lasted for many generations, during the course of which several kings on either side lost their lives on the battle-field. The Haihayas were, however, eventually reduced to such a strait

by their Benares opponents, that they could escape utter annihilation only by changing their caste into the Brāhmaṇa one, and invoking the protection of their priest, the sage Bhṛigu. These events happened 'once upon a time,'; the historian cannot yet give them a definite chronology. He can only say that they happened some centuries before the Bhārata war (c. 1400 B.C.).

About a century before the Bhārata war, Benares succumbed to the imperial ambitions of king Jarāsandha of Magadha. With the fall of that emperor, Benares raised its head and began to be ruled by its own kings. In the conflict between the Kauravas and the Pāṇḍavas, Benares sided with the latter. The king of Benares figures as an ally of the Pāṇḍavas and laid down his life while fighting for the righteous side.

During the early centuries of the first millennium B.C., Benares was being ruled by the Brahmadatta dynasty. Contemporaneously with it were flourishing the kingdoms of Magadha in Bihar, Vatsa in central U.P., Kośala in Oudh and Uttara-Panchāla in northern U.P. This would show that the kingdom of Kāśī extended about 100 miles to the east and 150 to the west of its capital. The term Kāśī used to denote the kingdom and the term Vārāṇasī or Benares, its capital city.

The people of the Kāśī kingdom were well known in India at this time for their bravery and their kings were naturally entertaining imperial ambitions. From the Jātakas, we learn that the Kāśī forces used to penetrate sometimes as far as Taxila in the N.W.F.P. ; the trans-Vindhyan kingdom of Berar

was often a vassal of Benares. The imperial career of Benares however did not last long; eventually she became involved in a long-drawn war with her northern neighbour, the kingdom of Kośala or Oudh, which proved fatal even to her independence. For a time Benares got the upper hand in this struggle. But the resources of Oudh were much greater, and eventually it succeeded in annexing Benares to its dominion. This happened in c. 650 B.C. Benares was not destined to become the capital of an independent kingdom for 1600 years.

Soon after its annexation to Kośala, a princess of that kingdom was married to king Bimbisāra of Magadha, and the revenues of Benares were assigned to her as her pin-money. Benares thus passed under the suzerainty of Magadha. King Bimbisāra had however the misfortune of having a long life, and his son Ajātaśatru, (who was born of a Videhan princess and not of the Kośalan one,) had not patience enough to wait for the day when he would become a king in due course. He is said to have starved his father to death in order to hasten the day of his own coronation. His step-mother, the Kośalan princess, died of grief soon after this tragic event. At this time the father of the Kośalan princess had died and was succeeded by her brother, king Pasenadi. He was wild with rage to hear of the murder of his brother-in-law and decided to resume the revenues of Benares, as he did not like the idea that they should be enjoyed by one, who had ruined the life and hastened the death of his sister. Ajātaśatru, however, was not disposed to relinquish Benares and a war ensued between Magadha and Kośala for the possession of the city. It lasted for a long time and victory would



sometimes favour the paricide and sometimes his opponent. Eventually Ajātaśatru was taken prisoner in an ambush and carried to the Kōśalan capital. Pasenadi however decided to give his own daughter in marriage to the august prisoner and assign to her the revenues of the disputed city as pin-money. Benares thus again passed under the rule of the Magadhan state and remained its vassal for more than five hundred years. The Nandas, the Mauryas, and the Śungas, who were all Magadhan powers, were ruling over Benares during the heyday of their power and glory.

It was during the last quarter of the 1st century A.D. that Benares first fell under the rule of a foreigner. Inscriptions have been found at Sarnath,—and they can still be seen in its museum,—which show that Kanishka, the great Kushāna emperor, had succeeded in conquering the whole of U.P. right up to and including Benares, sometime before the third year of his reign, i.e. before 81 A.D. In that year Kshatrap Vanashpara was the governor over Benares and Kharapallāṇa was the viceroy over the province. Both these officers were foreigners, as their names clearly show.

The Kushāna rule over Benares does not seem to have lasted for more than a century; for, towards end of the 2nd century A.D. the Kushānas lost their control over all the territories outside the Punjab. Nothing definite is known about the political history of Benares during the 3rd century A.D. In the 4th century A.D. it formed part of the Gupta empire. The Gupta rule lasted for about two centuries and was followed by that of the Maukharis, who ruled over the city from Kanauj for about a century. During the first half

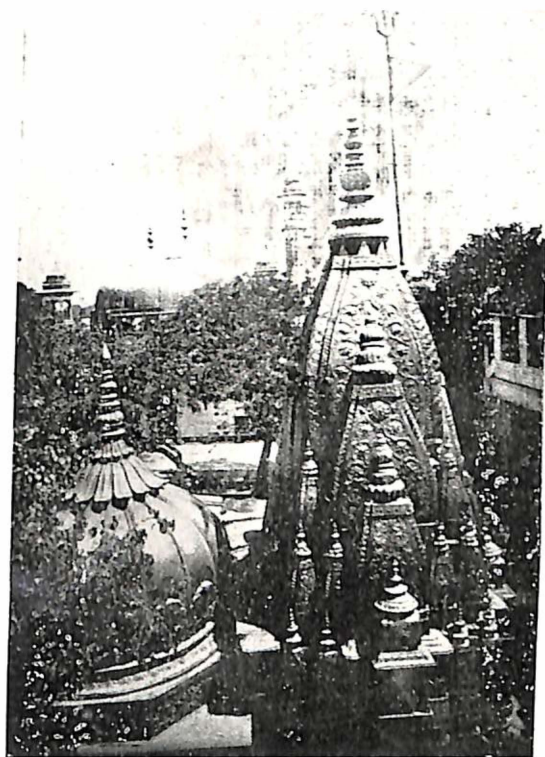
of the 7th century A.D. Benares was included in the kingdom of the famous king Harsha.

With the disappearance of Harsha from the political scene, the history of U.P. and Benares becomes obscure. Yaśovarman of Kanauj seems to have ruled over Benares for some time towards the middle of the 8th century. A few years later the Pālas of Bengal became a formidable power under Dharmapāla, whose kingdom undoubtedly extended much further to the west than Benares. From c. 770 A.D. to c. 820 A.D. the Pālas of Bengal, the Rāshtrakūṭas of the Deccan and the Pratihāras of Rajputana were contending for supremacy in the Gangetic plain. The armies of these powers were operating in the Gangetic valley when they were fighting against one another, and it is likely that Benares must have frequently changed hands during this struggle. Eventually however, the Pratihāras succeeded in annexing it to their empire and it continued to form its part down to the end of the 10th century A.D. When the Pratihāra power declined in the 11th century, Benares was annexed by the Chedis of Jubbulpore, who ruled over the city for a few decades.

It was during the rule of the Chedi king Gāngeyadeva, (1015-1041) that Benares first suffered from Muslim invasion. Mahmud of Ghazni could not penetrate as far as Benares, but Ahmad Nialtagin, a general of his son and successor Masud, managed to launch a surprise attack on the city in 1033 A.D. Nialtagin was sailing down the Ganges, when he unexpectedly sighted the city. Nialtagin promptly landed his forces and plundered the drapers, perfumers and jewellers of Benares till the noon. The statement of the Muslim historians, that it

was not possible to do more, would show that the defenders of Benares, who were confounded for a time, eventually drove back the raiders by the midday. This incident will show that the administration of Gāngeyadeva was far from vigilant and efficient.

The disappearance of the Chedi power at about 1060 A.D. led to an anarchy in the United Provinces for nearly a quarter of a century. It was put an end to by king Chandradeva, the founder of the Gahadwal dynasty, in about 1080 A.D. In the beginning Benares was his headquarters. Later on when he captured Kanauj, he transferred his capital to that city on account of its imperial associations. Benares however continued to be the secondary capital of the Gahadwālas throughout their rule; majority of the grants made by the rulers of this dynasty are seen to be issued when they were living in Benares. Being the favourite place of its rulers, Benares prospered immensely during the 12th century. The area of the Benares Fort to the north of the Kāśī station was the centre of administration at this time. During the diggings recently carried out by the E. I. Railway for the purpose of getting earth to fill new station platforms, a number of the antiquities of the Gahadwal period were found near Rajghat. Had the excavation work been scientifically carried out, it would have thrown much light over the history of Benares during the 11th and the 12th centuries A.D. The Archaeological Department took charge of the site only when earth to the depth of 18 feet was already removed by the Railway over an area of about eight acres. Excavations carried by it in October and November 1940 have unearthed a number of structures



Shri Vishwanath Temple  
(Golden Temple)





of the Gupta and the Kushana periods, and a large number of seals of kings, ministers, district officers and temples.

The prosperity of Benares came to an end with the Gahadwal rule. The last king of this dynasty, Jayachandra, was overthrown by Mahmud of Ghor in 1193 and one of his generals, Kutub-ud-din Aibak attacked and plundered Benares in 1194. Muslim historians tell us that a thousand temples of Benares were razed to the ground and mosques built in their places. 1400 camels were required to carry away the plunder taken from the city.

Before proceeding with the political history of Benares in the medieval period, let us cast a glance at its religious and cultural condition during the Hindu period, which is even more important than its political vicissitudes.

Like early political history, ancient cultural and religious history also has to be gathered from legends and traditions, which are to some extent discordant with one another. According to one tradition it would appear that Benares was a flourishing centre of Aryan religion and culture as early as the Vedic period. We are told that Gr̥tsamada, the founder of one of the most ancient R̥shi families of the *R̥gveda*, was a younger brother of an ancient king of Benares. This would tend to show that Vedic religion had already penetrated to Benares at about 2,700 B.C. Other traditions however raise some doubts about the reliability of this account. In the *Atharvaveda*, we find a magician driving away the fever of his patient to the country of Benares, and there are a number of stories told in the Brāhmaṇa literature showing how the people

of Kāśī, Anga, Vanga and Videha were for a long time very imperfectly Aryanised and how the sacred sacrificial fire was but rarely kindled among them. The Smṛitis also lay down a penance for a person visiting these eastern lands. Mahādeva, the patron deity of Benares, had for a long time no share in the Vedic sacrifice, and on one occasion felt no compunction in destroying it. All these indications would tend to show that Benares came under the influence of the Vedic religion at a somewhat later period of its history. Perhaps it had a few followers of that religion like the sage Gṛtsamada even in the Vedic period, but its population as a whole seems to have accepted the Vedic sacrificial cult at a later stage of its history. This was inevitable; the Punjab was the centre of the Aryan culture and it must naturally have taken some centuries for it to spread eastward as far as Benares. It is however interesting to note that the extant Aryan literature has nothing but admiration for the earlier pre-Aryan religion of Benares; it admits that though the Vedic gods were not worshipped, morality was nevertheless reigning supreme among its followers.

The Vedic sacrifices, which involved killing of animals, do not appear to have appealed to the people of Benares. The Upanishadic philosophy, however, excited their admiration. Ajātaśatru, one of the Benares kings in the Upanishadic period, had succeeded in making his capital an important centre of the contemporary intellectual and philosophical activities. Benares under him used to vie with Mithilā under king Janaka as a great centre of learning and philosophy. Such continued to be the case from about 1400 B.C.

When Benares became a centre of philosophical activity and research, it naturally began to develop as a centre of education also. Taxila was its great rival for several centuries. We learn from the Jātakas how the princes of Rājagṛiha, Kośala, and nay, even of Benares used to be sent to that far off University in Gāndhāra for their higher education. Many teachers of Benares itself, who subsequently rose to fame, were the alumni of Taxila. Taxila, however, began to lose its educational importance from about the 6th century B.C., when it fell under the Persian rule. The fame of Benares began to rise higher and higher. It was probably owing to its pre-eminence as a centre of education and philosophy that the Buddha decided to begin to preach his religion in a hermitage on its outskirts. During the next 1500 years Benares continued to be a great centre of Hindu and Buddhist learning and philosophy. It was one of the four great *Tīrthas* for the Buddhists also on account of the first sermon of the Buddha being delivered at Sarnath on its precincts. Aśoka naturally extended his patronage to Sarnath, which contributed to the increase of the importance of the place. Sarnath was an important centre of Hīnayāna Buddhism during the early centuries of the Christian era. When Yuan Chwang visited the monastery in the 7th century A.D., 3,500 monk-pupils were residing and studying in its monasteries. The excavations at the place show clearly that down to the 12th century A.D. Sarnath was an important centre of Buddhist religion, learning and scholarship.\* There were many Buddhist monasteries and colleges in the city of Benares also.

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\*A fuller information on Sarnath is presented in a separate Chapter [Ed.]

The unquestioned pre-eminence which Benares obtained at about 500 B.C. as the greatest centre of Hindu learning has continued to be enjoyed by it throughout its history. Yuan Chwang was a Buddhist, but he was struck by the devotion to learning of the Hindus of the city. The great Śāṅkarāchārya felt it necessary to travel all the way from Malabar to Benares in order to get the approval of Benares for his new philosophy. The annexation of the Punjab by the Muslims in c. 1025 A.D. led to the exodus of scholars of that province to the religious capital of India, and still further enhanced its educational importance.

Buddhist centres of learning like Nālandā and Valabhi bore a great resemblance to modern Universities. They were organised corporate bodies, following definite courses of education and being governed and managed by executive committees presided over by distinguished monk-scholars. Hindu Benares was not such a centre of learning. There were no organised colleges there, which were governed by a central executive, and used to teach courses that were approved by any central body like Senate or Board of Studies. It was a centre of learning, simply because there were among its residents a large number of famous scholars who were giving free tuition as a matter of sacred duty, to such earnest students, as might come to them. Normally speaking each teacher did not take more than a dozen students. He made no contract with his students about the payment of tuition fees; he used to accept whatever his students could afford to pay him, usually at the end of the course. There was no definite curriculum to be followed, but the teacher usually did not care to

accept students who were not serious and enthusiastic enough to finish the whole course. There was no examination at the end of the course ; but the student had to work much harder to get his *guru's* permission to return home than the modern student has to do in order to get a First Division in a reputed University. The reputation of Benares as the foremost centre of Sanskrit learning continued undiminished during the Muslim rule also. In the provinces, no Pandit was heard with respect, who had not spent a dozen years at Benares.

In ancient times, religion and learning went hand in hand ; Benares became a great centre of learning primarily because it was a great centre of religion. We have seen already how it was a notable centre of religion and philosophy in the Upanishadic period. Its Mahādeva worship goes back to even a greater antiquity. Its Viśvanātha probably represents a happy synthesis of the Mahādeva of the Vedic times and the presiding deity of Benares of the pre-Vedic religion. As the earlier works on Hindu religion do not say much about its *Tīrthas*, we do not find references to Benares and its sanctity there. There can however be no doubt that Benares was a great *Tīrtha* since prehistoric times. It is however only in the Purāṇas that we get a description of Benares as a holy placo. Had earlier works been preserved which dealt with the same topics, Benares would surely have figured in them.

The main temple of Benares has been referred to by the Chinese traveller Yuan Chwang, who had visited the city in c. 640 A.D. It was a grand structure, with a spire of more than 100 feet height. There seems to have been an image of Śiva in the human form in the temple, perhaps in addition to the

*linga*. Benares as the holiest place is referred to in hundreds of inscriptions from South India belonging to the first millennium A.D. It must have been visited by thousands of pilgrims in those days as it is to-day.

Benares however owed its importance not only to its being a centre of religion and learning; it was also a great commercial and industrial city. Even in pre-Buddhist times Benares was famous for its soft and thin muslins, bewitching perfumes and excellent scented oils. Throughout the length and the breadth of the country, the Benares silks were then, as now, famous for their texture, colour and intrinsic merit, and were used by the fashionable circles of Sindh as well as Bengal, Kashmir as well as Madras. A lady, anxious to dissuade her husband from his resolution to renounce the world is seen promising to him,—

‘I’ll wear finest Benares robes for thee  
With crimsoned sandalwood perfumed’

Benares used to export huge quantities of silks, perfumes and scented oils to all the provinces of the country. Caravans carrying on this trade were always to be seen encamped on its outskirts. In these days Benares was famous for its ivory work as well. Later on from about the 3rd century A.D. it developed an important school of sculpture. Benares images were well known for their beauty and excellence, and were exported to distant cities. The image industry still exists in the modern city, but its workers have now lost the old skill and tradition.

Let us now pass on to consider the political history of the city during the middle ages. The importance and pros-

perity of the city declined during the Muslim rule. Partly because it was the centre of idolatry, and partly because it lay off the then recognised road to the east which passed through Kanauj, Ayodhya, Jaunpur and Ghazipur, Benares did not remain the headquarters of a provincial government during the Muslim rule. It was the headquarters of merely a district and was soon eclipsed in importance by Jaunpur and Ghazipur. During the 13th and 14th centuries, it was ruled by the Pathan Sultans from Delhi; during the 15th century, it formed part of the Sharqui kingdom, whose capital was Jaunpur. When the power of this kingdom was shattered by the Lodis in 1492 A.D., Benares passed under their control. During the struggle for supremacy between the Surs and the Moguls, Benares frequently changed hands during the years 1527 to 1559. In the last mentioned year it was conquered for Akbar by his general Zaman Shah. But this general himself rebelled against his master and the latter had to march against the city himself. He captured the city in 1567 and ordered it to be plundered because its gates were closed against him. From 1567 to 1725 Benares remained under the Mogul rule. For sometime it was a mint city, but it never became the headquarters of a Subhā or province.

Let us now survey the religious and cultural history of Benares during the Muslim rule. The Muslim rule with its alien culture and iconoclastic attitude naturally caused a great shock to the city. During the 13th century there seems to have been an exodus of the Pandits from the city to the Deccan, but this soon came to an end, for the Deccan itself passed under the Muslim rule in a short time. The Pandits seem to

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have very soon made up their minds to remain in the city and keep the lamp of Hindu learning and religion burning there in spite of the Muslim rule and its persecution. And they did succeed in this difficult task.

During the Muslim rule, the temples of Benares were demolished several times. We have seen how Kutub-ud-din razed to the ground a thousand temples in the city. There is reason to believe that a similar course was followed by Ala-ud-din Khilji and Ibrahim Lodi. During the Sharqui rule, temples in the city were once more pulled down in order to supply building material for the beautiful mosques that were being built at Jaunpur. There is still an inscribed stone in the north-western corner of the Lal Darwaza mosque at Jaunpur, which shows that it originally belonged to the Padmeśvara temple of Benares, which was built near the temple of Viśvanātha in 1296 A.D.

With the advent of Akbar, things changed for the better. This emperor had decided to follow a policy of toleration towards his non-Muslim subjects, and it now became possible for the Hindus to openly build new and grand temples and Ghats in the city. It was during Akbar's rule, that Raja Man Singh of Amber built Mānmandir and Mānsarovara. The temple of Viśvanātha was also rebuilt on a grand scale in c. 1580 by Raja Todar Mall, the finance minister of Akbar, at the instance of Nārāyaṇa Bhaṭṭa, who was the *agrapaṇḍita* of the city. During the reign of Shah Jahan, the imperial policy changed and the rebuilding of temples was prohibited. 76 temples that were under construction in Benares were destroyed. Aurangzeb's iconoclastic zeal was greater than that of his



father. He issued a special and specific order that the great temple of Viśvanātha, which was the holiest object to the Hindus, should be demolished and a mosque built in its place. The order was executed during the monsoon of 1669 A.D. The Gyan Vapi mosque to the north of the present Viśvanātha temple was the site of the older temple. A glance at its backside wall will show how the structure was originally a Hindu temple. The old walls have been kept in tact to a considerable height and have been surmounted by the Muslim domes. The doors of the old temple can also be clearly seen in the back wall, filled up with stones.

The fate of the Viśvanātha temple was shared by almost all the shrines in the city. It is a significant fact that modern Benares has no temple which can be definitely assigned to the pre-Aurangzeb period.

Though the days of royal patronage, which naturally offered a great incentive, were gone for ever, the Benares Pandits kept the lamp of learning and religion burning steadily in Benares. They soon adjusted themselves to the new situation, and Benares continued to be the centre of Sanskrit learning and Hindu religion even during the Muslim rule. Its attraction to the Hindu mind continued to be as powerful as ever, and we find that several families of the Deccanese Pandits came and settled down there during the 16th century A.D. These families were occupying a very prominent place in the intellectual life of Benares for more than three centuries. A very large number of Sanskrit works were written in Benares during the period 1500 to 1800, dealing with Dharmaśāstra, logic and Vedānta. The contribution of Benares to Sanskrit

scholarship and literature was greater than that of the whole of the rest of India. And all this was achieved without government help. Benares was fortunate to receive royal patronage from the Muslims only for a short time. This was during the time when Dara Shikoh was the governor of Allahabad. This prince had a fascination for Hindu philosophy and engaged 150 Benares Pandits to translate the Upanishads into Persian. It was the Latin rendering of this Persian translation that first acquainted the western scholars with the philosophy of India.

The contribution of Benares to the development of the medieval Bhakti school is also great. Rāmānanda, one of the earliest Vaishṇava reformers, flourished in Benares during the 14th century; he used to live near the Panchagangā Ghat. During the next century lived his two disciples Kabir and Raidas; of these the former was born on the precincts of Benares and his *samādhi* has given the name to the Kabir Choura Mohalla of the city. Kabir was followed by Tulsidās, the famous author of the *Rāmacharitamānasa*, who carried on his literary and religious activities in Benares till his death in 1623. Benares may well be proud of these four saint poets, who made the city a centre of the medieval Bhakti movement. Both Guru Nanak and Chaitanya, the leaders of the Bhakti schools of the Punjab and Bengal respectively, visited Benares in order to expound their gospel in this famous centre of Hindu religion and culture.

Benares practically passed under Hindu rule, when Mansaram, the founder of the present ruling family of Benares, got the management of its Zemindari from the Nabob of Oudh in c. 1725. Mansaram died in 1738 and was succeeded by his

son Balwant Singh, who had the ambition of becoming an independent ruler. He therefore built several forts, including the fort of Ramnagar, and openly defied the authority of the Oudh Nabob. This led to a war, but Balwant Singh managed to hold his own, though he was often very hard pressed. Eventually however Benares passed under the British sphere of influence in 1765 and East India Company used to support Balwant Singh in his struggles against the Nabobs.

Balwant Singh died in 1770 and there arose a dispute about succession between Mahip Narain Singh, his daughter's son and heir, and Chet Singh his illegitimate son. The former was a minor and so Chet Singh could manage to get his claim recognised both by the British and the Nabob. Soon however there arose the well known dispute between Chet Singh and Warren Hastings and the latter came to Benares to settle it in July 1781. Hastings' headquarters were in Madhudas' Garden in Kabir Choura ward, which still exists.

Chet Singh became very nervous when the Governor-General himself came down to Benares. He proceeded to explain his position. He offered Hastings a personal bribe of Rs. 2½ lakhs and the company a fine of Rs. 20 lakhs. But Hastings was relentless. He demanded 50 lakhs, which Chet Singh could not pay. He was therefore put under arrest in the Sivala fort, where he was staying in the city. Two companies were sent to guard him there.

When the news of Chet Singh's arrest reached his troops across the river at Ramnagar, they came to Benares and besieged the English troops. The English were so confident of the prestige of their arms that they had not taken the

ordinary precaution of supplying their sepoys with ammunition. The Ramnagar army was able to kill all the British officers and most of their sepoys before Major Popham could reach them with reinforcement. Flushed with their earlier success, Chet Singh's soldiers drove back Major Popham also. While these skirmishes were going on outside the Sivala fort, Chet Singh managed to descend down to the river through one of the windows of the fort by means of turbans tied together; he then crossed over to Ramnagar. The place from where Chet Singh effected his escape is still known as Chet Singh Ghat, and is pointed out to the visitor by the boatmen, when they take him to show the Ghats.

When Major Popham was defeated by Chet Singh's troops, Hastings's position became very precarious in Benares. On one dark night he stealthily left the city and managed to reach the fort of Chunar by a forced march. From there he made better arrangements to reduce Chet Singh and was eventually successful in his mission. Chet Singh fled away to Mahadji Scindia and Hastings put Mahip Narain Singh, the minor grandson of Balwant Singh, on the Benares throne. The young and inexperienced ruler was cleverly induced to surrender his ruling powers in 1794 and Benares thus became a mere Zemindari and passed under British administration.

Mahip Narain Singh and his descendants continued to be real Zemindars and nominal Rajas for more than a century. In 1910 Lord Minto's Government took the unusual step of creating a new Indian state by investing Maharaja Prabhu Narain Singh, the then Maharaja of Benares, with full ruling powers over his Zemindari. The new Benares state, that

was thus created, was not however given jurisdiction over the city of Benares, which continues to be under British administration. Its capital is at Ramnagar, which is opposite to Benares on the other bank of the Ganges. H. H. Maharaja Prabhu Narain Singh died in 1932 and was succeeded by his son H. H. Maharaja Aditya Narain Singh. The latter died after a short reign of seven years in 1939 and has been succeeded by his adopted son, H. H. Maharaja Vibhuti Narain Singh, who is at present a minor.

The Marathas were never able to rule over Benares. It was the ambition of several Peshwas and their generals to conquer Benares and rebuild the Viśvanātha temple on its old site. When the Marathas decided to help the Nabob of Oudh against the Rohilas, one of the conditions on which the help was given was that the Nabob would surrender the holy places of Mathura, Prayag, Kashi and Gaya to the Marathas. The Marathas were able to defeat the Rohilas for the Nabob, but their engagements elsewhere left them no time to compel their ally to cede to them the above cities as was agreed upon. In the meanwhile Benares passed under the British suzerainty, and so the Maratha plan failed. Nana Fadnis, the famous prime-minister of the Peshvas, tried to induce the English to allow the Peshvas to rebuild the Viśvanātha temple on its old site after paying compensation to the Muslims, but the English would not agree. The local Brahmins also were not favourable to the proposal. The old site of the temple was polluted by the presence of the mosque on it for several decades ; how could it be reused by the Hindus for enshrining the *linga* of Viśvanātha ?

Though the Marathas could not rescue Benares from the Muslim rule, their rise to political power and importance contributed very largely to the prosperity of the city during the 18th century. Modern Benares is largely a creation of the Marathas. Its present Viśvanātha temple has been built by Rani Ahilyabai of Indore in 1777. The present temples of Annapurnā, Kālabhairava, Śākshivināyaka, and Trilochaneśvara have also been built by the Maratha chiefs and generals. A large number of the Ghats, e.g. Amritrao Ghat, Ahilya Ghat, Scindia Ghat, Bhonsla Ghat etc. have also been built by the Marathas.

Only a few incidents worth noting here have occurred in the history of the city during the British period. A deposed Nabob of Oudh, Wazir Ali by name, was staying in the city ; he raised an insurrection in 1797 when the English tried to remove him to Calcutta. During this trouble, the resident of Benares was killed by Wazir Ali. The latter was however soon overpowered and deported to Vellore.

A terrible Hindu Muslim riot broke out in the city in October 1809 when a temple of Hanuman was sought to be built on the ground between the temple of Viśvanātha and the mosque of Aurangzeb. Law and order could be restored only after several days. The tactlessness of the British officers drove the Indian regiments in Benares to rebellion in 1857 ; but the sepoys were unable to capture the city. The city remained quiet, but punitive expeditions had to be sent to some of the neighbouring villages. Permanent gallows were erected in the city to overawe the population. Benares authorities were mainly concerned in guarding the

Grand Trunk Road and hurrying reinforcements to the north and the west. The city had assumed the appearance of a vast military camp.

A number of educational institutions were founded in the city during the 19th century, but their account will be given in a later chapter. The Carmichael library of the city was founded in 1872 mainly owing to the exertions of Rao Bahadur Sankata Prasad. The library was named after the then commissioner of Benares. The King Edward Memorial Hospital was started in 1877. Its foundation stone was laid down by prince Edward, who was then on a visit to India as the Prince of Wales. The Ishvari Memorial Hospital for lady patients was added to it in 1890 as a memorial to the memory of Raja Ishvari Narain Singh of Benares. The Dufferin Railway Bridge was constructed in 1887 at the cost of about 47 lakhs of rupees. A session of the Indian National Congress was held in Benares in 1904 under the presidency of the Hon. Gopal Krishna Gokhale. The site of the Congress session was the Rajghat plateau, where the Rishi Valley Trust has recently started a number of its educational institutions. Benares was the venue of the first All Asia Educational Conference, which was held on the grounds of the Central Hindu High School in 1932. It also enjoys the peculiar distinction of being the only place where a M.C.C. team was defeated by an Indian team. This happened in 1932, when the team of Maharajkumar of Vijayanagar defeated the M.C.C. team led by Jardine. Its unique Bharata-Mata Mandir, built by Babu Shiv Prasad Gupta, was opened by Mahatma Gandhi in 1935.

# THE FLORA OF BENARES

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LIKE every other place, the flora of Benares includes all the plants from the highest Angiosperms to the lowest Algae and Fungi. But it is the former that everywhere constitute the dominant vegetation and determine the floristic character of the region. The following brief sketch will, therefore, be mostly confined to that group. References, however, will be made to the other groups also, as and when necessary.

It must be mentioned at the very outset that as in every other highly cultivated agricultural area, especially the fertile Gangetic Alluvium, which has been peopled for over twenty centuries, by a dense agricultural population, no trace of the natural vegetation, such as may have clothed it at one time, exists in Benares. Of such a vegetation there is, of course no record, and its nature can only be conjectured. Accounts left by various travellers, however, show that not long ago, extensive tracts in the United Provinces were covered by dense forests, such as are still to be seen on the northern borders of the Upper Gangetic Plain and in the more inaccessible parts of the Vindhias to the south. These succumbed to the onslaughts of the axe only during the last three or four centuries. Within living memory, too, one can recall localities which were, until recently, fairly wooded, but have since become denuded due to the expansion of human



activities. Moreover, deductions based on general climatic and ecological considerations, as well as actual observations, make it amply clear that, potentially, this area is capable of supporting a much higher type of vegetation than is actually the case. A reconstruction, on the basis of these, of the climax type of vegetation, purely hypothetical of course, postulates that "It would be a typical deciduous monsoon forest, decidedly tropophytic, leafless during some portion of the hot season." In Benares, therefore, such a vegetation may have once existed.\*

As it is, the existing vegetation is of a highly retrograde type, modified out of all recognition, by the activities of man and his domesticated animals. These obtain all their food, and the human beings a major part of their other requirements also, ultimately from the vegetable kingdom. The immense destruction of plants caused thereby can hardly be imagined. However, some idea of this can be formed by noting the pressure of dense population of this area based on actual census returns of the not very distant past, with its immense destructive potentiality. According to these, every square mile of land in the eastern districts of the United Provinces. was peopled by a total of 1,000 animal and human lives, Since then this figure must have certainly gone up. Literally, *every inch* of ground is either cultivated, cut or grazed. Under such severe pressure, plants, apart from those which are favoured by man or avoided by the grazing animals, exist only by sheer chance.

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\*"A glimpse of such a Vegetation can be had in the Chakia Reserve Forest."

Apart from the buildings and the area under water, the whole country-side is an unending maze of fields, stretching in an almost unbroken monotony, as far as the eye can scan. Almost the whole of this is cultivated, while the land in and about the town is appropriated by orchards, and public and private gardens, and parks. Only a very small percentage of the land, about 2%, is uncultivated, either because it is uncultivable, being highly alkaline 'reh' or 'usar' land, or because it is situated in less accessible parts. It is here that the remnant of a very retrograde vegetation manages to eke out a very uncertain existence.

Under these circumstances the prevailing flora is one characteristic of a dry country, a thorn-scrub or savannah, in spite of the fact that Benares is situated in the more humid part of the Upper Gangetic Plain, and can support a rich mesophytic vegetation. Apart from what is artificially maintained or which fringes the margins of rivers and other bodies of water, it is only during the rains that an ephemeral luxuriant herbage springs up.

The following trees and shrubs may be mentioned as typical of the present *induced* habitat :—

*Acacia arabica*, *A. leucophloea*, *Alangium Lamackii*,  
*Alhagi camelorum*, *Anogeissus latifolia*, *Balanites*  
*Aegyptiaca*, *Butea frondosa*, *Calotropis gigantea*, *C.*  
*procera*, *Capparis aphylla*, *C. sepiaria*, *C. horrida*,  
*Fagonia cretica*, *Flacourtia sepiaria*, *Jatropha gossy-*  
*pifolia*, *Justicia adhatoda*, *Peganum Harmala*, *Prosopis*  
*spicigera*, *Salvadora persica*,\* *Streblus asper*, *Zizyphus*  
*jujuba*, *Z. oenophia*, *Z. rotundifolia* etc.

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\*This is the only tree which can grow on alkaline 'usar' lands.

Almost all these are the typical constituents of the Tropical-and North-African-Indian desert flora, denizens of the dry regions characteristically developed in the bordering Rajputana, Sind and the Punjab plains. The migration and establishment of these arid region plants into humid parts of the U.P., is solely due to the highly artificial, desert-like conditions created by man through systematic and selective destruction of plants.

The existing vegetation of Benares, apart from the fruit trees and ornamental plants in which the indigenous and the introduced species are inextricably mixed up, and the cultivated crops, contains an admixture of the floras of the adjoining tracts of the province. In it, in addition to a number of cosmopolitan plants, and the African types already mentioned, various floral elements are represented in varying proportions. As in the whole of India, the Indo-Malayan Element is the most dominant constituent, and is largely represented by trees and shrubs. The African Element comes next, and includes many herbaceous plants also. The European Element is predominantly represented in the winter annuals. A few Chinese and Japanese representatives also occur. In addition, there is a sprinkling of the Australian Element in the form of several cultivated plants e.g. *Callistemon*, *Casuarina*, *Eucalyptus*, *Grevillea* etc.

Benares, like other regions with a continental climate, exhibits strongly contrasted seasonal changes. In the flora these are reflected exclusively in the changing phases of the herbaceous vegetation. The woody types respond but little to the seasonal rhythm. This is restricted to their flowering

and leafing activities only. Most of the trees, both deciduous and evergreen, begin to cast off their old garment of foliage at the beginning of the hot season. Some, however, like *Melia azadirachta*, *Holoptelea integrifolia*, and a certain number of individuals of *Ficus religiosa*, begin to defoliate as early as February, before the cold season has run through its course. During this phase the defoliated individuals with their rugged, uncouth and weird appearance present a striking contrast. To all appearances they look lifeless, and serve to emphasise the desolation of the hot season.

As already pointed out, summer is also the season when the arboreous vegetation bursts into reproductive exuberance. Week by week, month by month, some species or the other starts displaying its gorgeous bouquets. The height of blooming coincides with the peak of summer, though some species extend their reproductive activity into the rainy season also. During the extremely inhospitable and trying weather, and in the otherwise sullen and forbidding countryside, this tremendous display of blossoms, in which form and colour and delicate perfumes mingle with pleasing effects and contrasts, is the only redeeming feature.

The herbaceous vegetation, on the other hand, responds most readily and fully to the seasonal rhythm. From the point of view of the vegetation the rainy season, with its maximum humidity, high temperature, low insolation and evaporation, offers the optimum conditions for growth and development. This season is ushered in with the break of the monsoon about the middle of June, and continues till about the middle of September. Shortly after the first showers

of rain, the ground, hitherto baked and burnt, and rendered barren by the severe summer heat, begins to put on a gay mantle of green. Within a few weeks the entire countryside is bedecked, as if by magic, with a thick carpet of luxuriant verdure, developed from the seeds and underground parts which had been lying all through the intervening months in a state of suspended animation. The different species of plants soon invade and occupy every nook and corner, and develop into a tangled mass. It really becomes a problem to keep even a small patch of ground clear of the hydra-headed vegetation just for a few days.

The vegetation of this season is made up of hygrophilous, thin-leaved and tender-stemmed plants with a relatively large percentage of climbers. The majority of the constituent species is drawn from the Tropical Element, represented by the following, among others :—

*Abutilon indicum*, *Abrus precatorius*, *Acalypha indica*, *Achyranthes aspera*, *Aeschynomene indica*, species of *Amarantus*, *Ammania baccifera*, *Anisomeles ovata*, Balsams, species of *Blumea*, *Boerhaavia*, *Bonnaya veronocifolia*, *Capsicum annuum*, species of *Cassia*, *Clitoria ternata*, Commelinaceae, species of *Corchorus*, *Crotalaria medicaginnæa*, Cucurbitaceae, *Datura alba*, *Dolichos Lablab*, *Eclipta erecta*, *Enicostema littorale*, species of *Euphorbia*, *Evolvulus nummularis*, *Gynandropsis pentaphylla*, *Hediotys hispida*, *Heliotropium strigosum*, species of *Indigofera* & *Ipomoea*, *Malvastrum*, *tricuspidatum*, *Martynia diandra*, *Melochia corchorifolia*, *Merremia emarginata*, *Mimosa pudica*, *Mucuna*

*pruriens*, *Oldenlandia corymbosa*, *Peperomia pellucida*, *Phaseolus radiatus*, species of *Phyllanthus*, *Physalis minima*, species of *Polygala*, *Rhynchosia minima*, *Ruellia prostrata*, *R. tuberosa*, *Sida veronicaefolia*, *Siegesbeckia orientalis*, *Solanum nigrum*, *Spermacoce hispida*, *Tephrosia purpurea*, *Torenia cordifolia*, *Tribulus terrestris*, *Tridax procumbens*, *Triumphetta neglecta*, *Urena lobata*, *Vandellia nummularifolia*, *Vernonia cinerea*.

With the approach of winter the climatic and edaphic conditions progressively deteriorate for vegetation as a whole, particularly for the hygrophilous individuals of the rainy season, owing to the continued decrease in humidity and temperature, (though during nights there is copious deposition of dew), gradual increase of insolation and the beginning of a cold desiccating wind from the north-west, whose severity and velocity increase along with the deterioration of other conditions as the season advances. The plant life begins rapidly to ebb under the stress of this unfavourable combination.

Simultaneously, another factor, equally if not more fatal, comes into operation. The biotic activities of the grazing animals, and the cutting for fodder, fuel and fire by man, begin to increase in intensity, which follows closely the rising curve of the adverse physical factors already mentioned, and levy a toll in the shape of a wholesale destruction and disappearance of plants. Under the onslaught of such combined pressure the rich hygrophilous vegetation rapidly disappears, though a few stragglers still manage to linger in shady, humid

and remote situations, and becomes replaced by the hardier winter annuals so characteristic of the season. These are less hygrophilous, on an average smaller, with smaller and thicker leaves, relatively more hairy and fewer in number. The most tomentose types, indeed, are to be met with now. Also an increasingly large proportion of creeping, prostrate as well as spiny forms begins to appear as the season advances, until only these predominate in the following hot season.

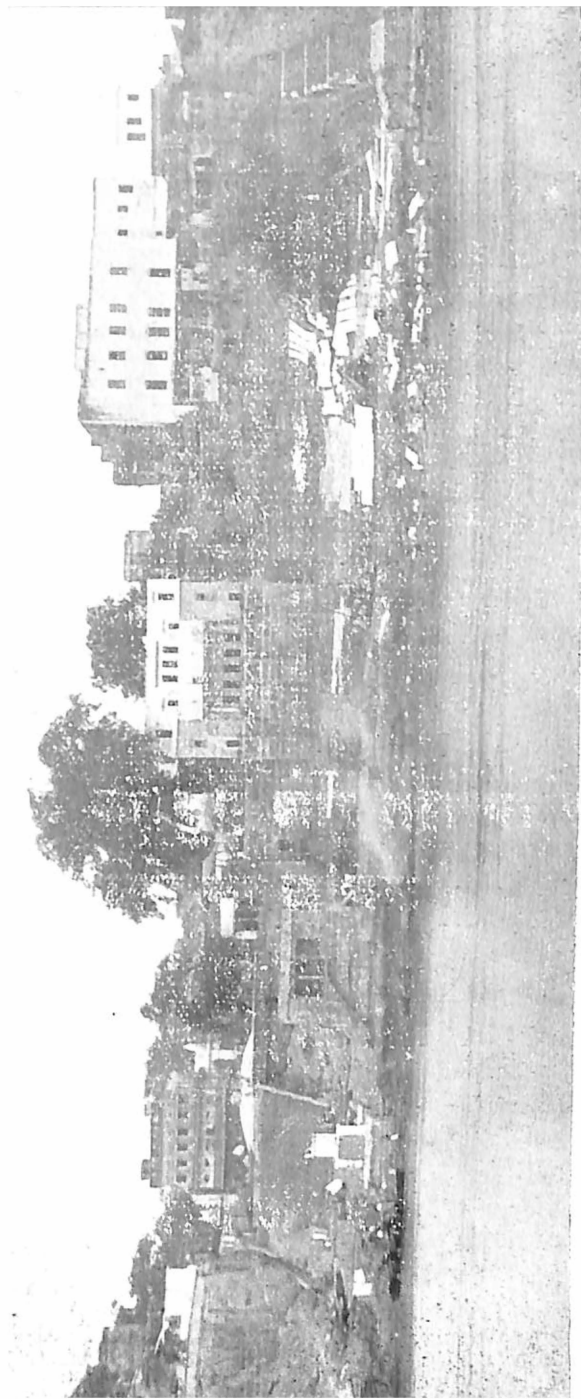
The average aspect of the cold season vegetation is mesophytic. It is also on the whole the most representative phase, those of the rainy and the hot seasons being of extreme types. The most predominant constituent, as already stated before, are the plants belonging to the Temperate European Element, as will be evident from the following list:—

*Allium cepa*, *Argemone mexicana*, *Asparagus racemosus*, *A. tenuifolius*, *Basella rubra*, *Biophytum sensitivum*, *Boerhaavia diffusa*, *B. rependa*, *Calotropis gigantea*, *C. procera*, *Capparis horrida*, *Chenopodium album*, *Cannabis sativa*, *Chrozophora rotleri*, *Cleome viscosa*, *Cocclus villosus*, several Cucurbitaceae, species of *Euphorbia*, *Fumaria parviflora*, *Hoppea dichotoma*, several Leguminosae e.g. species of *Crotolaria*, *Indigofera*, *Lathyrus*, *Lens*, *Medicago*, *Mellilotus*, *Pisum*, *Trigonella*, *Vicia*, &c., *Orobanche aegyptiaca*, *Oxalis corniculata*, *Papaver Rhoeas*, *Plumbago arvensis*, *Potentilla supina*, *Ranunculus scleratus* ( and other cultivated Ranunculaceae); *Rauwolfia serpentina*, *Reseda odorata*, *Rumex dentatus*, *Spergula arvensis*; species of

*Barleria*, *Justicia* and *Rungia*; *Aerua tomentosa*, *Celosia argentea*, *Digera arvensis* among *Amarantaceae*; many *Compositae* viz. *Ageratum conyzoides*, *Bidens pilosa*, *Centipeda orbicularia*, *Cnicus arvensis*, species of *Gnaphalium* & *Launea*, *Sonchus arvensis*, *Xanthium strumarium*; *Brassica* species, *Eruca sativa* and *Mathiola* species among *Cruciferae*. Of *Convolvulaceae*: *Convolvulus pluricaulis*, *Cuscuta reflexa*, *Evolvulus alsinoides*, and several species of *Ipomoea*. Several *Labiatae*, e.g. *Leucas aspera*, *Nepeta ruderalis*, and species of *Ocimum*; many *Scrophulariaceae* and *Solanaceae*: *Celsia coromandelina*, *Scoparia dulcis*, *Striga lutea* & *densiflora*, *Lindenbergia urticaefolia*, *Veronica anagallis*; *Nicotiana plumbaginifolia*, *Petunia nyctaginifolia* and others. *Trichodesma indicum*, *Linum usitatissimum*, several *Malvaceae* and *Tiliaceae*, and the following among *Umbelliferae*: *Coriandrum sativum*, *Daucus carota*, *Peucedanum graveolens*; Species of *Trianthema* and *Mollugo*.

The summer season, beginning in March and ending with the break of the monsoon in June, is, as already noted, the most exacting and inhospitable for all kind of life. But its severity is most felt by the plants, specially the herbs, many of which perennate now in the form of seeds or subterranean organs, and the life of the rest flows at a very low ebb. The only plants which seem to defy this savage weather are some extremely xerophytic herbs, but mostly trees and shrubs, whose leafing and flowering, as already noted, is mostly confined to this season. Even among these many go under.





Harish Chandra Ghat



This season is characterised by the progressive deterioration of the adverse conditions ushered in during the preceding winter, and the prevalence of pronounced xerophytic conditions. The temperature and aridity reach their zenith. Their severity is further reinforced by the hot scorching *loo* which continues to blow with a high and unabated velocity from early morning to the close of the day. Besides dust, it leaves in its wake wreck and ruin of plants. With the sun beating mercilessly from above, the overheated soil and buildings radiating fire and the *loo* lashing and ripping violently, the entire countryside is transformed into a barren, glowing furnace. The soil becomes baked and hard, the water-table recedes deeper and deeper, and the problem of water absorption reaches a critical phase. Under such inclement conditions most of the herbaceous vegetation, including the aerial parts of the perennials, gets burnt up. The increased onslaughts of man and grazing animals, already referred to, make their own contribution, not a whit less than all the other factors combined, in completing the vast-scale destruction of vegetation. Under such conditions only the plants with strongly developed deep tap roots, or herbs which are able to wrest water from the arid soil and conserve it, and, moreover, are able otherwise to withstand the fiery ordeal, and escape the attentions of man and animals, can survive. The herbaceous survivors are reduced to miserable-looking plants, cringing and creeping, and just managing to eke out a bare existence. Patches of these plants, with comparatively thick, small and often densely hairy leaves, and sclerotic stems, grow here and there in low-growing mats. Many possess thick cell sap. These form the characteristic

feature of the landscape. The perennials discard their aerial parts and withdraw themselves into the security of the soil where they hibernate until the next rains. In more favourable situations, though, less xerophytic plants still exist.

The representative plants of this season are :—

*Aerua tomentosa*, *Argemone mexicana*, *Arnebia hispidissima*, *Calotropis gigantea* and *procera*, *Cnicus arvensis*, *Convolvulus pluricaulis*, *Corchorus antichorus*, *Chrozophora rottleri*, *Echinops echinatus*, *Euphorbia dracunculoides*, *E. hypericifolia*, *E. neriifolia*, *E. thymifolia*, *Evolvulus nummularis*, species of *Hibiscus*, *Leucas aspera*, *Malvastrum tricuspidatum*, *Mollugo hirta*, *Pilea mucosa*, *Pluchea lanceolata*, *Polycarpaea corymbosa*, *Portulaca oleracea* and other species, *Polygonum plebejum*, *Pulicaria crispa*, *Scoparia dulcis*, *Solanum xanthocarpum*, *Trianthema monogyna*, *Trichodesma indicum*, *Xanthium strumarium*.

In all the above lists the Gramineae and the Cyperaceae have not been included. These are most plentiful during the rainy season, and their numerical strength gradually dwindles through winter to summer.

The contrast, particularly in the herbaceous vegetation and in the physiognomy of the place, is so great that if one was not aware of it, a description of the vegetation of the different seasons would appear to relate to three distinct and widely separated areas, governed by entirely different climatic conditions.

Finally, it remains to mention the most characteristic water plants and ornamental fruit trees and shrubs of the

gardens, the avenues, the roadsides, and those frequently seen dotted here and there in the fields and seen in the villages. Mention will also be made of some representatives of the other groups of plants as well.

AQUATIC AND MARSH PLANTS :—(Marsh plants starred)

\**Alternanthera sessilis*, \**Ammania baccifera*, *Aponogeton crispum*, *A. monostachyon*, *Azolla pinnata*, \**Bergia ammannioides*, \**Butomopsis lanceolata*, \**Caesulia axillaris*, *Ceratophyllum demersum*, *Cryptocoryne retrospiralis*, \**Cynodon dactylon*, \**Cyperus deformis*, *Eichornia crassipes*, *Elaeocharis plantaginea*, *Eragrostis tenella*, \**Fimbristylis diphylla*, \**Glossostigma spathulatum*, \**Gnaphalium indicum*, \**Grangea maderaspatana*, *Hydrilla verticillata*, \**Hydrolea zeylanica*, *Ipomoea reptans*, *Juncellus pygmaeus*, *Jussieuia repens*, *Lagerosiphon Rozburghii*, *Lemna minor*, *Limnanthemum cristatum* & *indicum*, \**Lippia nodiflora*, \**Moniera cuneifolia*, *Marsilia* sp., *Monochorea hastaeifolia* & \**vaginalis*, *Myriophyllum* sp., *Nais graminea*, *Neptunia oleracea*, *Nymphaea lotus*, *Ottelia alismoides*, *Panicum paspaloides* & *punctatum*, *Phragmites* sp., *Pistia stratiotes*, \**Polygonum glabrum*, \**Polygonum plebejum*, \**Potentilla supina*, \**Ranunculus scleratus*, \**Rumex crispus*, *Scirpus maritimus*, \**S. michelianus*, \**S. quinquefarious*, *Sagittaria sagittifolia*, *Trapa bispinosa*, \**Typha elephantina* & *angustata*, *Utricularia flexuosa*, *Vallisneria spiralis*, *Wolffia arrhiza*, *Zannichellia palustris*.

## TREES &amp; SHRUBS :—

*Aegle Marmelos*, *Agave Americana*, *Anona squamosa*,  
*Anthocephalus cadamba*, *Artocarpus integrifolia* &  
*lakoocha*, *Averrhoa carambola* *Bauhinia variegata*,  
*Carica papaya*, *Cassia fistula*, *Casuarina equisetifolia*,  
*Callistemon lanceolatum*, *Cereus nocturnus*, *Duranta*.  
*Plumeri*, *Eucalyptuses*, *Eugenia jambolana*, *Grevillia*.  
*robusta*, several species of *Hibiscus* & *Ixora*, *Kigelia*  
*pinnata*, species of *Lagerstroemia*, *Lantana Camara*,  
*Lawsonia alba*, *Michelia champaca*, *Mimusops elengi* &  
*hexandra*, *Moringa oleifera*, *Murraya exotica* & *Koenigi*,  
*Musa sapientum*, *Nerium odorum*, *Nyctanthes arbor*  
*tristis*, *Pandanus odoritissimus*, *Phyllanthus emblica*,  
*Plumeria acutifolia*, *Poinciana regia*, *Poinsettia pulcher-*  
*rina*, *Polyalthia longifolia*, *Punica granatum*, *Psidium*  
*guyava*, *Saraca indica*, *Tabernaemontana coronaria*,  
*Tecoma grandiflora*, *Thevetia neriifolia*, *Yucca gloriosa*.  
*Adansonia digitata*, *Ailanthus excelsa*, *Albizia lebbek*.  
*Bassia Latifolia*, *Bombax malabaricum*, *Cordia myxa*.  
*Dalbergia sissoo*, *Erythrina indica*, *Feronia elephantum*.  
*Ficus bengalensis*, *F. infectoria*, *F. religiosa*, *Furcraea*.  
*gigantea*, *Holoptelea integrifolia*, *Mangifera indica*.  
*Melia azadirachta*, *M. azadirach*, *Millingtonia hortensis*,  
*Opuntia Delenii*, *Pongamia glabra*, *Pithecolobium dulce*.  
*Ricinus communis*. *Spondias mangifera*, *Tamarindus*.  
*indica*, *Tectona grandis*, *Terminalia belerica*, *T. chebula*

## CLIMBERS :—

*Abrus precatorius*, *Antigonon leptopus*, *Artabotrys*.  
*odoritissimus*, *Argyreia speciosa*, *Aristolochia bracteata*.

& *indica*, *Beaumontia grandiflora*, *Bignonia venusta* species of *Bougainvillea*, *Capparis horrida*, *Cocculus villosus*, *Hiptage madhablota*, species of *Ipomaea*, *Jasminum* sp., *Passiflora* sp., *Porana paniculata*, *Quisqualis indica*, *Thunbergia fragrans*, *Th. grandiflora*, *Tecoma radicans*, *Tinospora cordifolia*, *Vallaris Heynei*, *Vitis quadrangularis*, *V. trifolia*

#### PALMS :—

*Phoenix sylvestris* is the only wild palm, but *Borassus flabellifer* is widely cultivated. In addition, many species are cultivated in the gardens of which the following may be mentioned :—*Areca* sp., *Arenga saccharifera*, *Caryota urens*, *Livistona Mauritiana*, *Oreodoxa regia*, *Raphis* sp., and *Sabal* sp.,

#### BAMBOOS :—

*Bamboosa vulgaris* and *Dendrocalamus gigantea* are the only two bamboos found growing in clumps, particularly in the villages.

#### GYMNOSPERMS :—

The following are found in the gardens :—*Araucaria Bidweli*, *Cupressus sempervirens*, *Cycas revoluta*, *Juniperus chinensis*, *Pinus longifolia*, *Thuja occidentalis*

#### PTERIDOPHYTA :—

In addition to *Azolla* and *Marsilea* already noted, a species of *Adiantum*—*A. lunulatum* grows wild here in the crevices of bricks on old walls. A species of *Sellaginella* and a *Lygodium* have been collected from the Chakia Forest Reserve of the Maharaja of Benares, a few miles distant. A notable find, some years ago,

was *Isoetes coromandalina* from a pool about two miles south of the University site. *Ophioglossum fibrosum* and *Equisetum* sp., have been collected in Allahabad and Lucknow respectively, and in all probability will be found in Benares, too. Besides these many species of introduced ferns, commonly cultivated as ornamental plants everywhere, are also found here in the gardens.

#### BRYOPHYTA :—

During the rainy season particularly, a luxuriant growth of the Bryophytes, especially of the Mosses, rich in the number of individuals but poor in genera and species, springs up and persists in moist places and on damp walls. The Moss flora has been little investigated, but *Physcomitrellopsis indica*, a new species, is quite common. Some years ago quite a big colony of *Funaria hygrometrica* sprang up in the Chemistry department quadrangle of the University, but has not been seen since. The Liverworts so far found in Benares are: *Cyathodium penicillatum*, *Notothylus indica*, *Riccia himalayense* and *R. Sanguinea*.

Before concluding mention should be made of an accidental, but extremely interesting, experiment at colonisation, now in progress, in the compound of the writer. Some years ago a lot of seeds of *Ipomaea biloba*, a sea-shore plant, was brought with a view to studying their germination and to see if the seedlings could be acclimatised here. The seedlings then secured, although growing vigorously, were accidentally killed. Recently, however, some seeds seem to have escaped into the



compound, and a plant developed from one of these is, at the time of writing (October), three months old and going strong. It remains to be seen what result this experiment would yield.

# AGRICULTURE OF BENARES AND DISTRICT

By

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## *I. Topography and soil:*

THE district of Benares comprises a tract of country lying on either side of the river Ganges between the parallels of 25°8' and 25°35' north latitude and 78°52' east longitude. The entire area is irregular in shape 54 miles east to west and about 28 miles north to south, the circuit of the whole being about 200 miles. The whole district forms part of the Gangetic plain its geology exposing nothing beyond the ordinary alluvium. The depth of the alluvium has been shown to consist of 35 feet of loam or clay mixed with sand in varying proportions, 30 feet of blue silt, 20 ft. of strong clay and below that a water bearing stratum of reddish sand. Topographically the district may be divided into two main tracts one being the level upland plain known as the *uparwar* and the other the *tari* or the moist low lands in the basin of the Ganges. In the western half the level country possesses for the most part a good and fertile loam soil of fair consistency varied on the subordinate water sheds by a lighter variety known locally as *blur sawai*, while on the Ganges bank and

at other elevated spots it degenerates into *bhur* or almost pure sand. In the depressions on the other hand the soil stiffens into a heavy clay known as *matiyar* mainly confined to certain clearly marked tracts which are characterised by inadequate drainage resulting in the formation of numerous lakes and jhils. The chief clay tracts are found in the valley of the Nand and in the western half of Pargana Sultanipur and in the north of Pandrah near Kathiraon. A defined belt of clay is also found in the centre and north of pargana Athganwan and in the south east of Kol Aslah.

In the Chandauli tahsil loam is again the predominating soil but the proportion of *bhur sawai* and *bhur* is much less, and that of clay very much greater than in the western half of the district. The southern tracts are wholly clay. Further north there is another well defined depression of heavy rice land extending through the east of Mahwari and north and east of Barhwal. In Narwan the most easterly pargana the soil is principally *karail* along the edge of the Ganges. It is dark in colour and closely resembles the *mar* or black cotton soil of Bundelkhand containing much alumina and splitting into cracks or fissures when dry. Mention may also be made of the barren stretches of *usar* land which are to be seen here and there throughout the district specially in Chandauli. The soil is highly impregnated with saline matter making its appearance in the form of *reh*. The proportion of *usar* however is really small.

Coming to the area available for cultivation the returns for 1938-39 show that of the total cultivable area of 6,99,749 acres, 72,635 acres were not available for cultivation, 74,393

acres included other cultivated land excluding current fallows, 18,604 acres were utilised as current fallows thus leaving a net sown area of 5,34,117 acres as against the normal of 4,73,000 acres. There has thus been a percentage increase of +12.9 over the normal. Of the area not available for cultivation covering 72,635 acres, 29,760 acres were covered with water, 26,009 under sites, roads and buildings leaving 16,866 acres of barren land in the whole of the district.

## II. *The Climate :*

The climate of Benares resembles that of the eastern districts being moist and relaxing in character except in the cold weather. Winter is shorter than in the western districts of the U.P. but is of the same nature being cool dry, and bracing. Frosts are occasionally registered but seldom do much damage. December and January are the coldest months. Even in February the air is still keen though one is conscious now of the growing power of the sun. April is warm and dry and by the middle of it the hot weather may be said fairly to begin. May and June are hottest months when the year reaches its period of maximum sunshine. The moisture in the air renders the heat more trying specially due to the prevalence of easterly winds. After the close of the rains, however, the wind usually changes to the west and maintains this direction during the cold weather followed by breezes from north and north east which sometimes bring rain. The mean annual temperature is about 77.4°F. and the mean barometric pressure of 29.52 inches. The mean rainfall approximates 40 inches. There is very little difference in precipitation in the various tahsils, Chandauli having 40.4 inches, Benares 40.23 and

Gangapur 37.09 inches. In certain years of heavy rainfall however, the records reach as high as 65" for the year while in dry years the records have reached as low a figure as 21". July is the wettest month of the year, next in order being August. April, November and December are the driest months. January and February invariably show some rain but the total rainfall does not exceed one inch. The close of the monsoon is ordinarily witnessed in the beginning of October.

### *III. Rivers and drainage system :*

The physical characters of the soil are greatly moulded by the most prominent feature of the district viz. by the river Ganges. The course of the Ganges is a succession of bold and almost semicircular curves on the outside of which the banks are usually high and abrupt while on the inside there is often a shelving stretch of sand generally sterile or producing nothing beyond thatching grass but occasionally covered by a rich and fertile deposit left behind by annual floods.

Apart from the stream Subha which joins the Ganges in the Gangapur tahsil and the Assi Nala joining the Ganges in Benares city (Assi Ghat) and certain other drainage channels, the only affluent of the Ganges are the Barna and the Gaumti. The Gaumti is a river of considerable dimension and just before reaching this district its volume is swelled by the waters of the Sai. Like those of the Ganges the banks of Gaumti are usually abrupt and sloping.

There are many ravines cutting through the high banks of the Gaumti but the only affluent of importance is the Nand.

rising on the borders of the Jaunpur district. The Hati rises on the borders of Sultanipur and Katihar in a series of swamps, and joins Nand at Hariharpur about two miles from its confluence with Gaumti. The other rivers comprise the Karmanasa and its tributaries—Garai, Chandrabha etc.

The rivers complete the drainage system of the district. It will be obvious that while the Benares and Gangapur tahsils to the west of the Ganges are well supplied with streams and natural water courses, there is a considerable area in Chandauli which is not directly served by rivers. The area of defective drainage in Chandauli comprises practically all the clay lands, and the same may be said of the Benares tahsil, though here the only tracts of any importance in this connection are the central and northern portions of pargana Athganwan and a few villages on the Mirzapur border. The same areas are also the first to suffer in years of drought.

In every part of the district small lakes and jhils are numerous but few of them attain large proportions and the great majority are nearly or wholly dry in hot weather. In the Benares Tahsil the principal sheets of water are to be found in the clay tracts of Athganwan and Kol Ashlah notably the *Aundi tal* in the former and *Kawar jhil* in the latter near Baragaon. There are several large depressions in the north of Pandrah in the low grounds of Chandauli, in the south of Dhus where large number of lakes are found.

#### IV. Irrigation :

On the whole the district is well supplied with means of irrigation and few tracts suffer constantly from a deficiency

of water. Many parts of the district, however, depend principally on the rainfall and have no other means of supplementing natural sources, except by wells, tanks, jhils &c. The thus irrigated area constitute about 40% the cultivated area in the Benares and Gangapur Tahsils. On the whole reports indicate that when required at least two thirds of the *rabi* can obtain irrigation so that this harvest at any rate is satisfactorily secured against the effects of drought. The proportion of course varies widely in the different parganas of the district, in the locality west of the Ganges it being 50% while in the sandy tracts of Jalhupur and Dehat Amanat it averages about 20 and 35 per cent respectively. The figures for Chandauli Tahsil are generally lower the proportion dropping from 15% in Barah to 8% in Narwan where prevalence of *karāil* renders irrigation impossible.

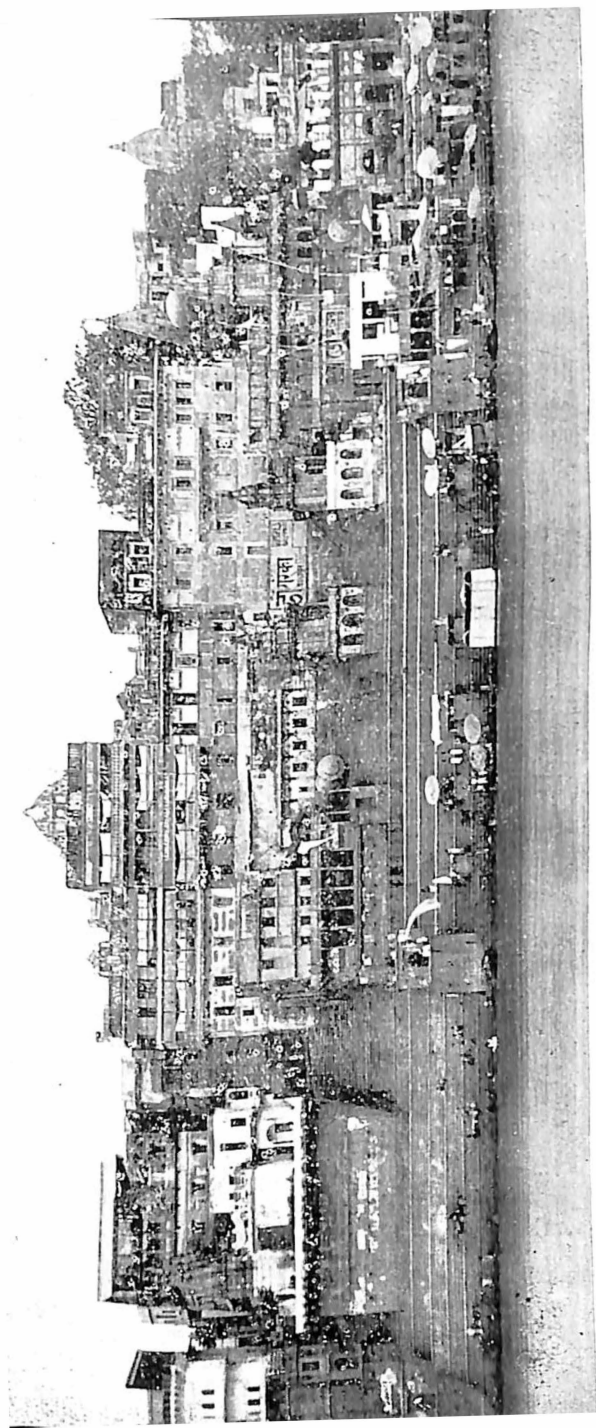
Statistics of irrigated area for the year 1938-39 show that 1,71,506 acres were irrigated by wells, 26,254 acres by other sources including tanks, lakes, jhils &c. thus making a total of 1,97,760 acres of irrigated area. It would be interesting to note that the percentage of irrigated area under wells has been gradually increasing from 79.6 per cent, some forty years ago to about 85% during recent years, the remainder being derived from tanks, jhils and streams. This is fully substantiated by the fact that as many as 24,329 masonry wells were available for irrigation of which 22,350 have actually been used during 1938-39 besides the non-masonry wells 1562 in number of which 1392 were used. The number of new wells built for irrigation were 390. In the Benares and the Gangapur Tahsils wells constitute almost the sole source of water supply

and the tanks are only utilised to a noticeable extent in Sheopur and Dehat Amanat parganas. In the Chandauli Tahsil the ratio varies ; in Barh Majhwar and Narwan over 80% of irrigation is obtained from wells ; in Ralhupur, Mawai and Mahwari wells predominate but to no marked degree ; while in Barhwal and Dhus wells are comparatively scarce and two-third of the area irrigated is watered from tanks.

The depth of water varies from place to place but the general average is between 35 to 45 feet. All along the Ganges on either bank the depth is much greater and water is seldom found at less than 60 ft., while as a rule the sub-soil in these parts is of a sandy nature rendering the work of construction of well tedious. Owing to the loose and friable nature of the underlying strata in most parts the wells in this district are mainly of the masonry type and there is a constant tendency to substitute wells for the unprotected shafts. Wells are ordinarily worked by bullocks, the water being brought up in the large leather buckets known as the *pur* and *charas*.

The other sources of irrigation call for no special attention. Occasionally water is stored by means of dams and thus passed directly into the field along small excavated channels but more frequently it is raised by swing baskets, the number of lifts depending upon the height of the field above the water surface. The larger rivers are not utilised for irrigation to any appreciable extent but small areas are watered by the minor streams such as the Nand, Garai, Chandraprabha and the like.





Dadasaheb Phalke Ghat



*V. Waste and cultivated area :*

The district is so highly cultivated and thickly populated that the area of waste land is necessarily small averaging about 11% of the entire area. The proportion of waste land varies in different parganas, the highest being 21.3 per cent in Jalhupur and lowest 5.4% in Narwan. In several other parganas the area coming under this head is quite insignificant. In some instances such barren land takes the form of *usar* in the ill drained portions of the upland especially in the Chandauli tahsil.

*Forest :* There are no forests in the district but in several places are to be seen stretches of *dhak* and scrub jungles though none of these is sufficiently large to deserve separate description. Two fairly extensive patches one at Pipri near the junction of Nand and Gumti and the other near Cholapur in the Katehar pargana are found. In Pandrah the jungle land is to be found along the Bisuhi and Burna rivers the most extensive stretch being at Akorha. In Jalhu also there is a certain amount of jungle. East of the Ganges there are no jungles of importance though small patches are to be seen in the south east of Rahlupur and in Dighwat near the Rahi Tal in Pargana Barhwal.

*Orchards :* On the other hand the district is well provided with artificial grooves specially in Benares and Gangapur Tahsils. The area under grooves approximates 4.5% of the entire area. The Barah and Majhwarai parganas have a fair proportion of grooves but elsewhere the average is much below. The best wooded tracts are the suburbs of the city, specially

Pargana Sheopur but all the upland area has an abundance of grooves. The southern tract of Majhwar and Dhus are singularly devoid of tree growth. The commonest tree is the mango of which the Langra variety does exceedingly well. A number of orchards with improved grafts of mango, lemons, guavas and other fruit trees have also sprung up during recent years. The important gardens include among others, Palace gardens of H. H. the Maharaja Benares, Moti Jhil of Late Sir Moti Chand, Rai Govind Chandra Garden and the Garden of B. Sheo Prasad Gupta ; Chirai bagh near Sarnath is famous as a horticultural garden. The Rural development centre at Shahababad, the Govt. Agricultural Farm, Manduadih, the Agricultural Farm, Benares Hindu University, are of agricultural interest.

*Cultivated area :* The area under cultivation approximates 75% of the total district area, the percentage varying according to the physical characteristics of the soil. The lower percentage about 60% is found in Ralhupur, Dehat Amanat, Sultanipur, Pandrah and Jalhupur etc. while the upper extremity of 80% and over is reached in Kaswar Sarkar, Majhwar and Narwan. The earlier returns relating to the crops afford indication that in former days (19th century) two harvests were very seldom raised on the same field in one year. Gradually the area under double crop increased to more than 30% of the land under the plough. Double cropping is more usual in the clay tracts where invariably a light *rabi* crop of gram or pea after rice is sown. The percentage of double cropped area is least in Jalhupur and maximum in Dhus, the latter depending mainly on rice in the *kharif* harvest.

The style of husbandry in the district is not particularly high as mixed and inferior crops, leaving aside the few improved varieties of cane and wheat, still occupy a fairly large proportion of the land. The implements of agriculture are of ordinary kind. Two sorts of indigenous ploughs *Khuthara* for light lands and *Nauhara* with a much heavier share for the stiff clayey soils are used. Recently due to propaganda by the Agriculture department some of the improved ploughs, e.g., Meston plough has also been introduced but their use is only restricted to the few enlightened cultivators. Other implements include *pharsa* and *kodari*, *khurpa* and *khurpi* for cutting grass and weeds, *hansia* or sickle for reaping, the *gharansa* or chopper for sugarcane and straw fodder. The chaff-cutter is also popular with some of the wealthier tenants.

#### *The Harvests and crops :*

The relative proportions of the two main harvests vary to a considerable extent in different parts of the district. Taking an average, however, the differences in area till recently under *kharif* and *rabi* crops in Benares and Chandauli tahsils were almost insignificant ; in Gangapur tahsil, however, the area under *kharif* was decidedly higher than that under *rabi*. The *kharif* exceeds the *rabi* in point of area in majority of the parganas of the Benares tahsil except Jalhupur and Katehir, the differences being most marked in the Kol Aslah and Athganwan which contain the largest proportion of paddy lands. In Chandauli the *rabi* preponderates, this being principally due to the extraordinary difference between the two harvests in pargana Narwan. The position is reversed in Barhwal

with its clayey soil and extensive rice fields ; elsewhere the disparity is not so striking. In every caso the relation of *rabi* and *kharif* depend primarily upon the nature of the soil.

The returns for 1938-39 indicate that 74,029 acres were covered by non-food crops of which only 30,279 were irrigated. The total cropped area was 682,932 acres of which 363,088 acres were under *kharif*, 317,071 acres under *rabi*, and 2,773 acres under *zaid* ; as against the total for these harvests only 30,065 acres of *kharif*, 168,159 acres of *rabi*, and 1,778 acres of *zaid* crops were irrigated. The area cropped more than once covered 148,815 acres of which only 2,242 acres were irrigated. Taking all these into consideration the net area cropped during the year covered 534,117 acres of which only 1,97,760 were irrigated and the rest grown without irrigation. The statistics of the area sown under different crops is given in Table I.

The principal *kharif* staple is rice. Both early and late varieties of paddy are sown, the area for the whole district being about 166,689. Two-fifths of this area are to be found in Majhwar and Barhwal alone. Paddy occupies a total area of approximately 45% of the district, the proportion being less in Benares and Gangapur Tahsils and high in Chandauli. In several parganas such as Dhus more than 80% of the *Kharif* consists of paddy alone. The other extreme is represented by Barah where the area is only about 10%. The great bulk of paddy grown in the district is of the late or transplanted variety known as *Jarhan*. This covers approximately 50% of the *kharif* in Chandauli as against about 10%

of the early rice, while in Benares the corresponding amounts are approximately 20 and 7%. In Gangapur the two varieties are not well distinguished but *Jarhan* largely preponderates.

TABLE I  
*Statistics for Cropped area\* for 1938-39*

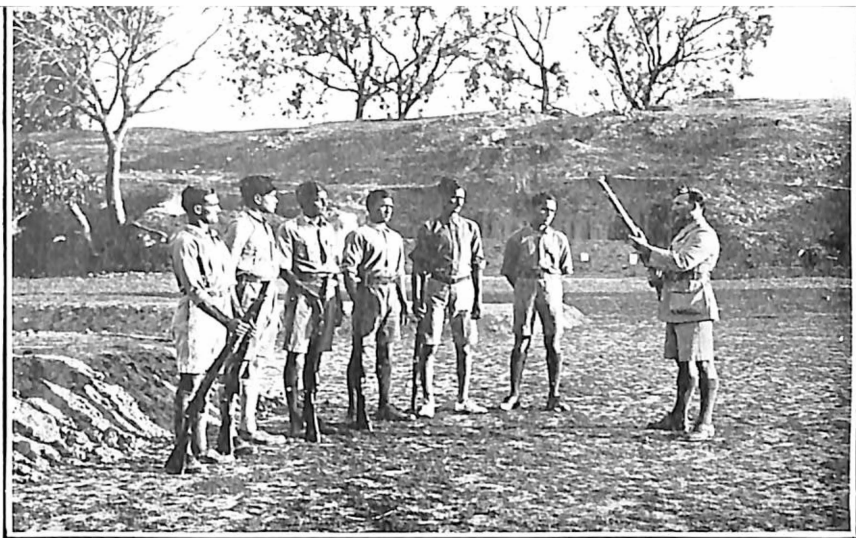
Particulars	Total	Irrigated
Paddy { Early	41,846	Nil
{ Late	124,848	1
{ Total	166,689	1
Wheat	49,198	38,469
Barley	93,074	73,120
Jwar	17,755	..
Bajra	18,576	..
Mandua	208	..
Kodon	716	..
Sawan	25,567	..
Maize	17,406	32
Gram	82,944	8,368
Potato	4,369	4,366
Fruits and vegetables & other than potato	11,347	4,847
Other food crops	121,064	40,519
Total for food crops	608,903	169,723

\*Season and crop Report of U. P. 1938—39.

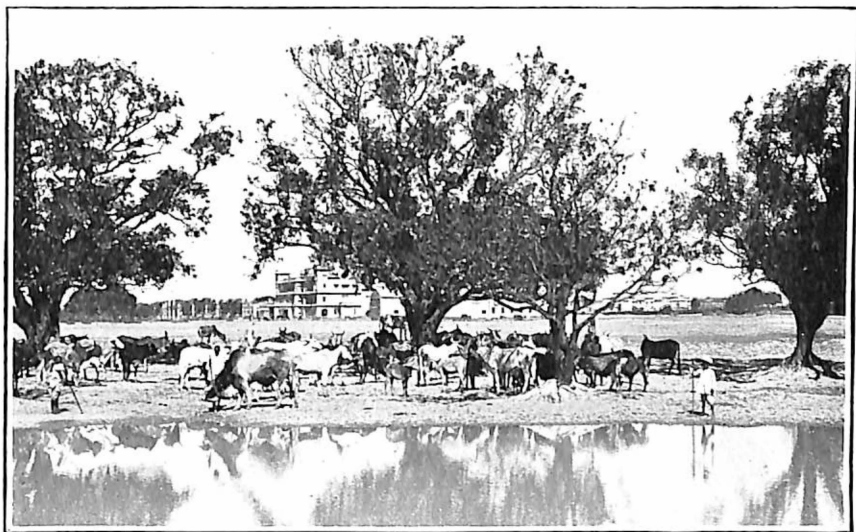
Particulars	Total	Irrigated
Linseed	2,823	46
Rapeseed including toria	48	3
Other oil seeds including ground nut and castor	13	..
Sugarcane	31,706	29,108
Cotton	20,844	..
Hemp	20,844	..
Tobacco	90	88
Fodder crops	14,535	8
Other non-food crops	3,923	1,075
Total non-food crop	74,029	30,279
Total cropped area		
Kharif	363,088	30,065
Rabi	317,071	168,159
Zaid	2,773	1,778
Total	682,932	200,002
Area cropped more than once	148,815	2,242
Net area cropped during the year	534,117	197,760

The dependance of the low lying tracts on rice renders these parts precarious in as much as the crop is only secured in the event of adequate and well distributed rainfall and a premature cessation of the monsoon reduces the out-turn to an alarming extent. In some cases security is provided by





University Training Corps.



University Dairy.



irrigation and in several places the jhils are dammed so as to hold up the water and ensure a regulated supply for the rice fields; in dry years recourse is frequently had to wells. Another very common practice is that of surrounding the paddy tract with bundis or field embankments so as to hold up the rain water.

Next to rice comes Juar. This crop is commonly grown in the form of *chari* when it is cut while green and used as fodder. It is often sown mixed with *arhar* which remains on the ground throughout the winter and is harvested along with *rabi* crops. Alone and in combination it covers an area of about 15% of the *kharif* area; the proportion for the different tahsils being 20% in Benares, 18% in Gangapur and 6% in Chandauli. There is a fair amount of *arhar* grown independently. While *arhar* flourishes in almost any description of the soil excepting the heavy clay and the *karail*, *juar* is mainly confined to the botter soils, its place being often taken by *bajra* in light and sandy areas. On an average *bajra* covers about 10% of the *kharif*. In pargana Barah it, however, reaches as high a figure as 50% while in Jalhupur it constitutes about 50% of the whole *kharif* area.

Maize also constitutes about 5% of the total area under *kharif*. This along with the other crops comprises altogether about 80% the entire *kharif* area. The remainder consists principally of the coarser food grain such as *Kondo*, *Mandua*, *Sanwan*, *Kakun* and pulses such as *urd mung*, and *moth*. Garden crops and vegetables are common on the outskirts of the city of Benares. Sanai is also another crop sown mostly for fibre and occasionally for green manuring.

So far as sugarcane is concerned there has not been an extensive cultivation of this crop since the very beginning. During recent years due to their heavy demand by the sugar mills, the area has increased but the average on the whole does not exceed 15% of the entire area under *Kharif*. The greater part of the sugarcane growing area exists in the Benares Tahsil. A certain amount of sugarcane is produced in the *tari* tracts along the Ganges and other rivers. Here it is planted in February and although it becomes completely inundated it does not suffer from this cause so long as the tips of the leaves remain above water. The cane grows with vigour but it does not yield so much juice as that grown on the higher and artificially watered land. The improved varieties of cane constitute only a limited area the popular varieties being Co. 331, Co. 312, Co. 213, the latter being rejected now in favour of Co. 331.

The chief features of the *rabi* crops is their general inferiority. The bulk of the *rabi* harvest consists of barley gram and peas either sown alone or in combination. The practice of mixing crops has always prevailed in Benares and betokens a poor standard of husbandry. It apparently owes its origin to the idea that if one crop fails the other may succeed. Throughout the district barley is the chief staple *rabi* crop covering about 30% the entire *rabi* area. The area under Benares and Gangapur Tahsils is decidedly higher than that in Chandauli. Barley is but seldom mixed with wheat. Wheat and barley are frequently mixed with gram which alone and in combination covers about 25% of the *rabi*. The

proportion is highest in Chandauli. Gram is frequently sown in succession to rice and is therefore common in clay tracts.

Peas constitute another important crop of the district representing about 20% of the *rabi* area. The crop is generally sown in dofasli land after rice harvest. Other crops include, linseed, *masur kesari*, besides such other garden crops and vegetables which are grown all over for local consumption.

The *zaid* or intermediate harvest is of little importance in this district; they constitute either vegetables or melons the latter being grown in the sandy beds of the Ganges.

The incidence of the land revenue assessment on the area and population of Benares district for the year 1936-37 is shown below :

1.	Nature of tenure—Zamindari (permanently settled).	
2.	Total area by village papers	699,715
3.	Area not fully assessed	11,976
4.	Fully assessed area total	687,739
	Fully assessed area cultivated	581,193
5.	Total revenue from land (excluding cesses)	947,632
6.	Population	1,016,378
7.	Total revenue from land per head of the population	Rs. 0 14 11
8.	Incidence per acre of land revenue on fully assessed area total	Re. 1 6 1
	Total cultivated	Re. 1 12 7
10.	Population of fully assessed area	976,295
11.	Land revenue assessment per head of population of fully assessed area	Re. 0 15 6
12.	Towns of over inhabitants (10,000)	1
	Aggregate population	201,037

So far as plant pests and diseases are concerned, there has been no systematic attempt to classify them in the various parganas of the district. Among the common diseases noted in the localities surveyed mention may be made of rust and smuts in cereals, mildews in peas, red-rot pyrilla and smut on sugarcane, blight disease in potato, green ear disease of *bajra*, citrus canker on lemons, etc. Premature shedding of mango fruits and flowers is also commonly noted.

#### VII. *Live stock and Fisheries :*

There are no local breeds of cattle and no attempts have been made to improve the indigenous strains which are of a very inferior description. Selection is not well known. Reproduction takes place through Brahmani bulls. As a matter of fact only a few cattle are bred in the district. All the better animals are imported either from the hill country of Mirzapur or else from distant places. Bullocks are occasionally obtained from Makanpur fair in Cawnpore district, the Harihar Chatra fair at Sonapur, and the fair at Barhampur in Shahabad district. The price of an imported bullock varies between 50/- to 60/- per pair while common bullocks fetch about 30/- to 35/- per pair. Buffaloes too are imported from Jaunpur or Gorakhpur or from Bundelkhand ; the latter are considered by far the best and go by the name of *Jamunapari*. The number of cows and buffaloes amounts to 226,506 and 136,454 approximately. Sheep and goat are abundant but their number has decreased due to the increasing area brought under cultivation and the consequent limitations in grazing areas. There are two recognised strains of goat comprising

those locally bred and the *Jamunapari* animals imported from Bundelkhand. The statistics of live stock in the district is given in Table II.

TABLE II.

*Statistics of Live stock, ploughs and carts in Benares district  
(1934-1935)*

Bulls and bullocks	..	..	..	540,124
Cows	..	..	..	226,506
Young stock (calves)	..	..	..	241,049
Male buffaloes	..	..	..	8,450
Cow buffaloes	..	..	..	136,454
Young stock (buffaloes calves)	..	..	..	119,746
Sheep	..	..	..	38,385
Goats	..	..	..	201,024
Horses	..	..	..	6,664
Mares	..	..	..	3,342
Young stock (colts and fillies)	..	..	..	1,481
Mules	..	..	..	97
Donkey	..	..	..	7,582
Camels	..	..	..	54
Ploughs	..	..	..	272,703
Carts	..	..	..	41,358

The other animals include horses, ponies, donkeys, camels the latter being more common in the adjoining district of Jaunpur. These local animals are generally of an inferior strain, no attempt being made at breeding of improved stock. Transport is usually affected by means of pack bullocks and carts.

Cattle diseases of various kinds are mostly prevalent in the low lying tracts. The principal diseases are foot and mouth disease, rinderpest, haemorrhagic septicaemia and anthrax. The first is the most common but the last usually fatal. Rinderpest is common at all the seasons of the year and carries off hundreds of the cattle annually.

The fisheries of the district are of some importance and there is a strong demand for fish of all ordinary species in the markets of Benares. The supply is derived partly from the few permanent lakes but principally from the Ganges. The chief season for fishery is the hot weather when the water is low and clear and little is done during the rains.

#### *VIII. Agricultural education :*

There being no college or school imparting agricultural education, the standard of education has been rather poor till recently when agriculture was introduced as an optional subject in the various schools of the district and in the University. The year 1927 marks the laying down of the foundation of the College of Agriculture under the auspices of the Benares Hindu University which in the year 1931 started the M.Sc. courses in Agricultural Botany for the first time in India, and established the Institute of Agricultural Research to impart training in agriculture and the cognate sciences. During ten years quite a large number of students from all parts of India including the states have been trained, the total number of such trained M.Sc.'s till the present year reaching 87, of which 16 were from states and 71 from various parts of British India. There is a heavy demand for M.Sc.'s



in Agricultural Botany by both the Agricultural Department and the Universities. Some of the students are occupying good position both in the Universities and in various Agricultural Research stations in India. The starting of the degree courses in Agriculture is yet under the consideration of the Benares Hindu University and it is hoped that in no distant future, Benares will have a full-fledged College of Agriculture.

The ancient city of Benares has already revived its position as the most important educational centre in India and it is hoped that before long it will also attain an equally good position in the matter of agricultural education. The development of agricultural education at the University may, in the words of Sir John E. Russell, F.R.S., be summed up as follows :

“The Benares Hindu University has started its agricultural education along right lines and has laid a strong foundation by starting with the fundamental science of plant physiology. The Institute of Agricultural Research is doing valuable work in the field of plant physiology and the more it develops the more would it make a mark in the history of modern agriculture.”

## INDUSTRIES OF BENARES

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*Narendara Shah Tehri Garhwal Professor and Head*

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**B**ENARES, "Die heiligste Staat am Ganges," the holiest city on the Ganges has been for centuries past a centre of attraction for the Hindu mind. From Katmandu to Kanyakumari and from Karachi to Calcutta and the extremity of Assam, the pious-minded Hindu rushes to the sacred city to have a dip in the Ganges and wash off his sins and have a "Darshan" of the Ascetic God mighty Vishwanath and His Sister Annapurna, the deity of food and plenty. A bath in the Manikarnika ghat is considered so sacred that the tangle of the "Transmigration of the soul"—"Punarjanma" is solved once for all and after the holy dip in the Ganges, the religious soul attains "Mukti" and the pious pilgrim secures to himself an internal joy which no amount of worldly wealth could ever command. The perpetual sacred fire of the burning "Chita" on the Manikarnika ghat is an awful sight and a symbol of the mystery of the philosophy of life and from miles around, dead bodies are brought to feed this sacred fire of the "Yagya"—so that the mortal bodies are emancipated from the peril of re-birth.

To the foreign tourist and the casual visitor, the mighty Ganges—with her attractive moon-shaped curve in her current from Ramnagar to Rajghat and the vast expanse of the crystal blue sheet of water and with the vast bed of sand on one side and the mighty and rising stone ghats on the other, is an imposing sight with no other parallel in the whole world. There is no river in the world—which presents such a perplexing attraction to the human mind. Indeed, the contentment and the peace of mind seen on the face of the bathing pilgrims is a mystery to the materialistic visitor of the west.

Being such an important centre for visitors from all over the world, Benares has naturally enjoyed for centuries a reputation for some of its industries and curios. A pilgrim who visits this holy city is expected to take back with him some “Prasad” to distribute among his friends and relatives. It is this holy idea that is largely responsible for the time honoured industries of Benares.

Benares enjoys a reputation for having a large collection of old manuscripts of ancient books of learning and literature. Books hand-written or printed in the old style in the form of “Pothies”—loose pages are stocked by many firms and there is a great business in such books for the use of those who are in search of antiquities. Benares has been famous for its long lineage of scholars of ancient learning and philosophy and though, due to changed world conditions, the number of scholars is decreasing, yet, it must be said that as a seat of learning, Benares holds its own. Therefore, this business of organising the publication and sale of old manuscripts needs special attention and encouragement.

Coming now to industries proper, one of the most important industries for which Benares is known all over India is the silk and brocade industry. Benares is catering to all the markets of the different provinces in India. It is remarkable that a good amount of the silk goods is sent out of Benares even by post and railway parcels. It is extraordinary that the silk industry of Benares is dependent entirely upon imported Japanese silk and the term "Benares silk" is a contradiction of terms. Japanese silk as sold in the Benares market is cheaper than the same yarn sold in Japan proper where higher prices are charged locally to enable goods to sell at competitive prices in foreign markets. The so-called gold thread which is gold-electroplated silver thread is locally produced in Benares at very competitive prices. The history of this industry is very interesting and is one of those examples where a non-scientific set of industrialists have developed an industry entirely on their own initiative. One of the members of a Lele family of Benares, by profession a priest family started experiments as early as 1908 and after years of private experimentation started a small unit in Benares. In course of time, the industry became so very common-place in Benares that at one time nearly 200 small and large electro-plating units were working in Benares and were selling their products at cut-throat competition. To-day, the best few have survived and are producing their own gold (plated) thread which was imported mostly from France. At the present moment, owing to the China-incident, imported Japanese yarn is getting to be more and more expensive besides being more difficult to obtain. We have in India three Indian Silks—(1) Kashmir

(2) Mysore and (3) Assam. Some attempts are being made to replace the Japanese silk by Indian. The main grievance is that the Indian silks are dearer than the Japanese silks. If, therefore, the Indian silk industry gets protection by levying a protective tariff on the Japanese silk yarn (which in turn as stated above is sold in the Indian market at manipulated prices), Benares silk industry will soon be an Indian industry. To-day, over 50% of the cost of the article is exported to foreign countries—mostly to Japan.

The silver wire drawing industry is an important subsidiary industry of Benares. The drawing of the finest wire for electro-plating is an important operation and for this, fine dies of microscopic dimensions are required. These dies are ruby and small diamond pieces fixed in discs of brass. As the wires are drawn through these ruby discs, after a certain amount of use these holes become larger and therefore once again new dies are required. These were mostly imported from France and were selling at prices ranging from about Rs. 18/-per dozen to Rs.8/-per piece depending on whether they were made of ruby or of diamond. The Govt. of U.P. deserves congratulations for its having sent out a young engineering graduate Mr. Lele of the Benares Hindu University with a short term scholarship who after a brief stay of about 6-8 months in Germany and France has successfully started the manufacture of these in Benares. For the last three years, Mr. Lele has been successfully manufacturing these ruby dies and the import of these will be soon stopped if it is not already done. Artificial rubies made in Germany were found to be less resistant than the natural rubies of

Siam which are now being used in Benares. This industry of making dies of very fine bores has got a great potentiality because it will be extremely useful for our electric bulb industry where fine filaments are required for being fixed in the vacuum bulbs. To-day some of the French dies are selling at eight times the old price at which they were being sold before the war. But thanks to the subsidy given by the U. P. Govt. this industry is fully established in Benares.

In the Benares market, an imitation gold thread is being largely imported and sold for the cheaper class of borders etc. It is necessary to experiment with this imitation product also and to find out how this could be done in India. If therefore the Indian Government helps in encouraging the use of Indian silk by taking proper protective measures, Benares will get the credit for a cent per cent Indian industry. The saris, brocades etc. used all over India will then be genuine Indian.

The making of borders to be attached to saris is also a subsidiary industry in Benares because the necessary gold thread is so easily available locally. In making these, of late, artificial silk is largely being used. A new factory, the Benares Lace and Ribbon Works has been started in Benares for the last few years where most modern looms of foreign make particularly, German, French and Czecho-Slovakian are being used. Borders of attractive designs and of a rich variety are being manufactured.

Madura, Surat and Benares are three big cities famous for their silk and gold border products but of all these, Benares is famous for its costly and artistic products like Saris, Brocades, Dupattas, Covers etc. Most of the workers in Benares

are Muhammedans and the sales organisation is in the hands of Hindu mahajans. It is expected that over five hundred families are engaged in the Benares silk industry. The articles produced enjoy a reputation not only over the whole of India but over the whole world.

The Benares brassware is famous all the world over for the various types of articles which are used for decoration purposes and as curios. Flower pots, vases, toys, trays, brass-made Indian Gods and Goddesses, "raised work" "repose work" etc. are known all the world over. In the exhibitions held in London, New York, Berlin, etc., the brass curios of Benares and Moradabad have always found a prominent place. The carving and repose work is done by trained artists who can be watched doing their work reproducing various designs and images of Gods merely from their memory. Beginning from small ash trays right upto chairs and "Simhasans" (Thrones) decorated by silver and gold for Rajas and Maharajas, the Benares brass industry is an excellent evolution of the Indian talent. Excepting one school at Benares, supported by the U. P. Govt., hardly any educational institutions exist, to teach this art scientifically. If a proper training institution on up-to-date lines were started in a place like Benares where both the science and art of this industry are taught, Benares promises to have an excellent future in this industry. The best day to see the exhibits of Benares brassware is the "Dhanteras" day in Diwali when thousands of visitors crowd the narrow "Thatteri Bazar" hardly six feet wide and when as the superstitious belief goes, every visitor is expected to buy at least one article.

For some years past, Benares has begun to produce decorated ware formerly made in Moradabad known as "Kaccha Mina." The engravings on the brass articles such as trays vases etc. are decorated with shellac and very bright and attractive colour effects are produced. This decoration work gives rise to very beautiful results and excellent reproductions of animals like the peacock and various Gods etc. give nice scenic effects. This is decidedly an improvement and an advance over the old Benares brassware where the etching work is brightened by the beautiful colour effect of the Kaccha Mina whereas the hollows of the etchings in the old brassware get soiled by the accumulation of dirt and cleaning is made difficult.

The Benares brassware has one more potentiality which is being tackled and that is the introduction of what is known as "Pucca Mina." This pucca mina is an enamel—a molten frit of a compound silicate and borate which is coated on brass (silver) at a high temperature of nearly 600°-800°. This naturally gives very bright effects and is certainly more durable than the kaccha mina which cannot stand either rough handling or washing. At present, the enamels used for the pucca mina are imported from outside India and if this industry is to prosper, these enamels must be both cheap and Indian made. Efforts in this direction are already being successfully made in the metal enamelling department of the Benares Hindu University and already some successful trials have been achieved. These low melting enamels will not only help the brass industry but will also be helpful in the industry of making cheap jewellery, buttons, ornaments etc. on silver and gold. It is very interesting to note in this connection



that even now in Benares, there are a few old families who know and preserve to themselves the secret of making these pucca minas by old methods. It is estimated that over three hundred families are working in the brass industry.

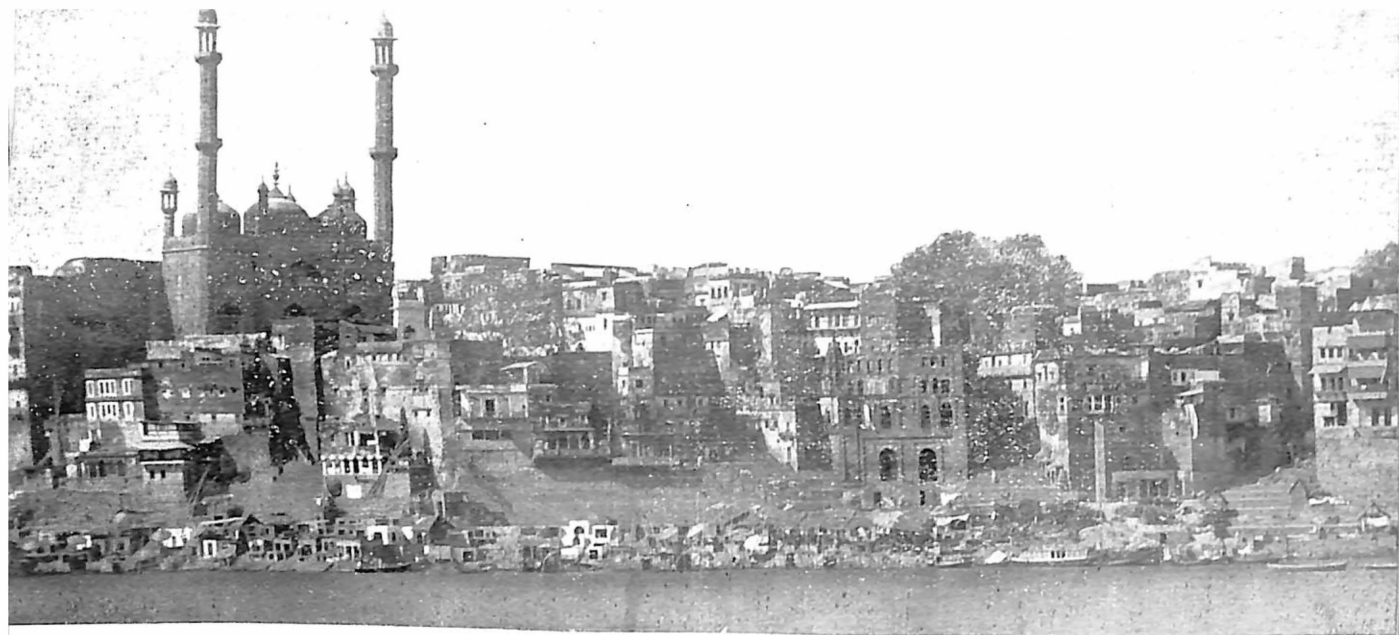
The wooden toys of Benares have been enjoying a reputation for centuries. It is remarkable how cheaply some of these toys are made costing anything from half-a-pice onwards and also how they are cheaply and gorgeously decorated with oil colours. They are made to resemble all sorts of animals like the horse, elephant, camel etc. and the models although far from perfect are extremely cheap for their value. This is all handicraft work carried on in small houses with the help of crude wooden hand lathes. It would be impossible to expect anything better with such crude appliances. This industry needs definite and systematic encouragement. Lakhs of pilgrims crowd to Benares every year and there is hardly a pilgrim that does not purchase a few annas' worth of these toys to be taken back as "Prasad" of this sacred city for purposes of distribution to children.

Benares bangles, in which on metal rings shellac work is done, also form an important industry in Benares. The shellac of Mirzapur and its bye-products are used for this purpose and these bangles are preferred by many to glass-bangles because of their being non-breakable. These are also taken away by pilgrims all over India for distribution of "Prasad" of this holy city.

Talking of modern industries, Benares has very few new industries in the modern sense of the term. There are two

or three ice-factories, one or two modern oil and flour mills, a small crude sulphuric acid factory, an aluminium pressing factory, one or two modern foundries and well-equipped machine shops where new types of machines are being manufactured. One of these well-equipped concerns is started by Prof. Bhim Chandra Chatterjee where new machines can be made to order. The Balance Works of Benares and the G. M. C. of Benares both deserve mention. The former of these makes very accurate balances and the speciality of this concern is that it makes the agate prisms also in Benares, thanks to the subsidy given by the U. P. Govt.

The departments of oils & soaps, pottery, porcelain and metal enamelling and glass technology of the Benares Hindu University may also be mentioned as being new centres where work on a semi-large manufacturing scale is being carried on successfully. The work of enamelling on metal plates, small and large, is taken up on a manufacturing scale in addition to the teaching of the subject. Sanitary ware, insulators and salt-glazed articles are also being manufactured. The U. P. Govt. has established the office of their glass expert under whose supervision a good deal of useful work is being done. The manufacture of glass beads—an industry which has been the sole monopoly of Czecho-Slovakia all these years, has also been taken up for the first time outside Czecho-Slovakia—in Benares, due to the exertions and patronage of the U. P. Govt. under the supervision of their glass-expert. The success of this bead manufacturing will undoubtedly be an achievement of the U. P. Govt.



Panchaganga Ghat



# **BENARES IN RELATION TO ITS MUNICIPAL. ACTIVITIES**

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## *Introductory :*

**B**ENARES or Baranasi, the garden of happiness and the eternal crematorium is sung by sages and sought after by gods and men alike. It is the oldest city on the earth, older than Jerusalem, and is destined to continue till the very end of the world, even after the so-called eternal city of Rome has been lost in antiquity.

The original site of the city is said by antiquarians to be a few miles north-east of the present city where relics of the past can still be discovered, but it has existed on the present site for at least the last 1000 years. It has passed through many vicissitudes along with the country and although there are old mosques, for example, the one near Telianala built in the time of the Tughlak dynasty, no private building of over 400 years is now in existence.

There are signs of the area North-East of Rajghat having been inhabited at one time, but it has been in ruins for a long time now. It is again coming to life with the construction of the railway siding in the fort area and the school buildings, hostels and residential quarters of the Rishi Valley Trust,

giving it the appearance of a fairy land. A large number of terracotta, seals and other material have been unearthed from the excavations recently made for the railway goods shed beyond the railway line which will add to the knowledge of Indian life two thousand years ago. Most of these articles are exhibited in the Bharat Kala-Bhavan. The place was till recently within the military zone as it is in the form of a plateau overlooking the surrounding area and is of strategic importance. The final battle between Prince Shuja and Aurangzeb was fought at Bahadurpur on the other side of the river opposite the plateau and resulted in complete rout of Shuja's forces.

### *Housing and Population :*

The main town extends from Assi on the South to Rajghat on the North with the magnificent river-front as the eastern boundary. The real city is along the river in what is called the *pucca mahals*, the areas to the West of the Chauk road being of comparatively recent growth. It is expanding rapidly on the western side towards Maduadih, Lahartara and Shivapur. The Kashi Khand speaks of the now thickly populated quarter of Agastkunda near Dasaswamedhghat as a forest in which the Sage Agastya had his abode.

The area at present within the municipal limits comprises 7427 acres or 11.6 sq. miles, and the population according to the last census is 2,01,037 excluding the Cantonments. There is a good deal of evidence to show that it has always been a populous city. According to an estimate framed in the year 1826, the population consisted of 1,53,000 souls. In

1881 it was 2,22,000 and in 1901—2,09,000, out of which 5,000 should be taken to be the population of the Cantonments. It is, however, by no means a decadent city. The sluggishness of growth and the apparent decline are due to the fact that a large number of people come to reside in Benares in their old age in order to be able to breath their last on the sacred soil as according to the Hindu belief a death in Benares leads to the salvation of the soul. The reverence of the Budhists for Benares and Sarnath is well-known. The Jains also hold the place sacred in memory of their Tirthankaras some of whom were born here and some gave their teachings to the world at this place.

About one-fourth of the population is Muslim and a little less Bengali Hindu. The city has a cosmopolitan appearance, more than any other in the province, representing people of every province of the country who have their permanent homes here inhabiting in some cases whole separate muhallas. With its three or four-storeyed sand-stone buildings standing along the labyrinth of narrow lanes and its ringing bells of the temples which can be counted by dozens in any lane and its picturesque population, the town presents a peculiar appearance of its own and it can be truly said to be the religious metropolis of India.

It has now been completely established that the Hindus had a system of corporate government in their cities and major towns in the Budhistic and the pre-Budhistic times. The details varied in accordance with the time and the place, but the central idea of government officials administering with

the consent, co-operation and advice of a body of selected and sometimes elected representatives existed under all administrations.

It is not clear how long the system of self-government continued, but it declined definitely during the Muslim rule. The rulers continued nevertheless to pay attention to sanitation and other necessities of the town. The supreme administrator of the city was the Kotwal who combined a variety of functions in himself, while the Qazi dispensed justice. The stone pavement in the lanes was originally laid during Muslim rule and the underground drainage system known as the Badshahi or Nawabi drain was also consolidated in the Muslim times.

The zamindari of Benares including the city proper was transferred to the East India Company by Raja Mahip Narain Singh of Benares in 1794. In accordance with the terms of the agreement between the Raja and the Governor-General in Council, the surplus remaining after the payment of a sum of Rs. 41,00,000 to the Maharaja and Rs. 40,00,000 to the East India Company, was to be "annually expended in this district, and applied, under the authority of the Company's Government, towards the charges of the civil and judicial establishment in the support of the new and old courts, and for the maintenance of the Pathshalas or Hindoo Colleges, and for repairing the roads and constructing bridges and promoting the cultivation, etc." But no separate account of the zamindari and the expenditure as stipulated in the agreement was ever kept. When it was thought necessary



to engage a number of chaukidars in 1795, a local chaukidari tax was levied to defray the expenditure. A form of house tax was attempted to be introduced in 1810, but had to be abandoned on account of the stout opposition of the inhabitants. The chaukidari tax, however, continued and to it was added the income from markets. The new Chauk bazar was built in 1808 and Bishesharganj in 1830. The management of the local affairs was conducted by a committee consisting of officials and non-officials with the District Magistrate as their head. The conservancy arrangements were paid for out of the local income while the roads remained under the direct supervision of the District Magistrate. It was not till the year 1850 that they were transferred to the Local Agents as the committee was then called.

The foundations of the present Municipal system were laid here in 1867 when the provisions of the Municipalities Act of 1850 were applied to Benares for the purposes of providing a police force and making a better provision for conservancy and general improvement of the place. The District Magistrate remained the President of the Committee. The constitution of the Committee was much the same as at present. The octroi system was introduced in 1867 and yielded about half the total income of the Committee. It continues to be the backbone of the municipal income upto the present day.

The city is now divided into eight wards which elect 23 members while five members are nominated. One of these represents the interests of the Benares Hindu University and another of the Kashi Tirth Sudhar Trust.

*Income and Expenditure :*

The principal sources of revenue are as already stated octroi, house and water taxes, visitors' tax, rents of lands and buildings and markets. The average annual income of the Board is about Rs. 15,00,000 and the incidence of taxation is between Rs. 6 and Rs. 7 per head. The following statement gives an idea of how the money realised from the public was spent by the Board in the financial year 1939-40 :—

## TOTAL RECEIPTS excluding

opening balance	..	Rs. 14,79,828
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*Items of Income*

Rates and Taxes	..	Rs. 12,30,038
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Realisation under Special Acts	..	Rs. 6,417
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Municipal property and power	..	Rs. 1,85,172
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Grants and contributions	..	Rs. 24,472
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Miscellaneous	..	Rs. 23,005
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Deposits	..	Rs. 10,724
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TOTAL DISBURSEMENT	..	Rs. 14,91,464
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*Items of Expenditure*

## 1. General Administration and

## Collection Charges

Office establishment including gratuities and refunds

other than Octroi	Rs. 1,34,216	9.0%
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## 2. Public safety

Fire Brigade, Lighting and

other measures of public

safety	Rs. 1,25,241	8.4%
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3.	Water supply		
	Capital outley, establishment and repairs etc.	Rs. 3,05,701	20·6%
4.	Drainage		
	Capital outley, establishment and repairs etc.	Rs. 98,736	6·6%
5.	Conservancy and Public Health		
	Subordinate establishment, livestock, plants and contingencies, road watering, establishment of Medical Officer of Health and Sanitary Inspectors, Hospitals and dispensaries, Plague charges, vaccination, registration of births and deaths etc.	Rs. 2,94,621	19·8%
6.	Arboriculture and Pounds	Rs. 13,145	0·8%
7.	Buildings and Roads		
	Public Works establishment and expenditure on buildings, roads and stores	Rs. 97,360	6·5%
8.	Public Instruction		
	Boys' and girls' education, establishment of high school, contribution for educational purposes, construction and repair of school buildings	Rs. 1,75,689	11·8%

9. Contributions			
Grants to hospitals and dispensaries and for other purposes			
	Rs.	41,583	2·8%
10. Debts			
Repayment of Government Loans			
	Rs.	1,09,468	7·3%
11. Miscellaneous			
Public services, printing, law charges, provident fund, Govt. share of Nazul, fairs, refund of deposits etc.			
	Rs.	95,704	6·4%
Incidence of taxation per head of population			
	Rs.	6	4
Incidence of income per head of population			
	Rs.	7	2

### *Water Supply :*

A project for the erection of water works was prepared in the year 1889. There were to be two systems of mains, one of which was to supply 17,50,000 gallons per day to a population of 1,07,000 while the other was to deliver 22,50,000 gallons per day to the population of 75,000 living in the sewered area. The total expenditure was estimated to cost Rs. 24,00,000. A loan of Rs. 19,58,226 was obtained from the Government for the purpose which was repayable in 60 annual instalments. The Board has made a total payment of Rs. 38,54,795 upto the end of March 1940 and a balance

of Rs. 7,32,682 still remains to be paid. The civil law has not prevented the Government from realising more than double the amount of the original loan. Other loans were subsequently obtained and the total expenditure on water works so far comes to about Rs. 40,00,000. The work was started in 1891 and the project came into being in the following year. It consists of a pumping station at Bhadaini where water is raised from the river Ganges and is pumped through the rising main into the settling tank at the other station at Bhelupura. It is passed through slow sand filters and disinfected. There were originally seven filters, one was added in 1911 and two more constructed in 1925. The system of sand filters has very successfully been employed here and the proposal of the Public Health Department for adopting a system of mechanical filters was rejected by the Board in 1925. Four new filters have recently been added making a total of 14 filters. We have now a filtered water supply line of 71·53 miles and 18,334 private water connections which is the largest number in the province. There are 1,215 connections for urinals, stand-posts, latrines and pail depots etc. The average consumption of water per day was 88,55,980 gallons in the year 1939-40. It will thus be seen that the consumption now is more than double of what was originally anticipated. The average consumption per head works out at 38·5 gallons per day. It is also the highest of all the cities in the United Provinces with the exception of Cawnpore where it is 41·78 due to the existence of a large number of mills in the city. The consumption in Calcutta is 56 gallons for the same reason. The daily average supply is 14 hours

and the Board is endeavouring for a 24 hour supply. This would have been possible by now had not the purchase of certain additional pumps been hampered by the outbreak of the war. There was a serious riot in 1890-91 when the construction of the pumping station at Bhadaini started, but the times have now changed and the demand for fresh connections is increasing day by day. The city is divided into two zones, the high and the low, and the difference in the levels is at places as much as 68 feet. The inhabitants of the high zone feel in some cases a scarcity of water during the hours of combined supply. This could be removed if the Board could find money for the purchase of booster pumps to be fixed at suitable places to increase the pressure.

#### *Drainage and Sewerage :*

A project for drainage and sewerage of the city on modern lines was also prepared with that of the Water Works in the year 1889 by the Superintending Engineer, Public Health Department. The work was estimated to cost Rs. 19,12,218, but had to be cut down to Rs. 13,00,000, out of which a sum of Rs. 10,00,00 was taken as loan from the Government. The history of this loan is also the same as that of the one for the Water Works, the Board having paid Rs. 18,08,483 upto the end of March 1940, still remains indebted to the tune of Rs. 6,79,489. Dr. Bhagavan Das had, when he was Chairman, certain correspondence with the Local Government on the question of the reduction in the number of instalments of the loans which would have given some advantages to the Board in the matter of interest, but could not achieve his-

end. The matter was again raised in the Provincial Assembly in the form of interpellations during the Congress regime, but the Government expressed their inability to make the loans sit easier on the Board in view of the fact that they had themselves fixed instalments to pay to the Government of India calculated at a rate of interest which could not be revised. If the surplus revenues could be utilised for the benefit of the city and the district as per agreement of Raja Mahip Narain Singh, it is believed that the loans on the Board could be wiped out several times over and the condition of the roads and bridges etc. in Benares would be totally different.

Benares has now approximately 280 miles of sewer line and 13,984 private connections. The Nawabi drains are masonry works in brick, stone and lime and are still working. They are at places deep and wide enough for an elephant to pass through. The shape is generally oval, the Trilochan drain being rectangular. There is a system of silt-trapping at Trilochan where the shape becomes oval. The old engineers had thus an idea of trapping the silt before the sewage discharged into the river. There is a ghat intercepting sewer of 12' C.I. pipe running from Mirghat upto Trilochan. It was designated with a view to intercept the discharge from the houses and drains along the ghats. The new drains are stone-ware pipes with flushing tank arrangements at the head of the line. They are made in brick-work when a larger size is required. The main sewer constructed by Messrs. Martin & Co. has a length of about six miles and discharges untreated sullage into the river beyond Rajghat. There are branch sewers connecting the city with the two bigger sewers by a

net-work of the new system. There is a number of old outlets into the river meant for the discharge of sullage much of which was afterwards intercepted and connected into the improved sewers. But the outlets remained for the discharge of storm water during the rainy season. Other sewers were subsequently connected with these outlet lines by mistake leading to foul discharges into the river. Most of this has been prevented by making the drain connections with the Luxa brick sewer. A survey of the sewer system was also made in 1934 and it was discovered that some of the sewers had choked up with silt and some of the sullage was passing into the Ghoraghat storm-water drain. The Board decided to have these cleared and also undertook a systematic cleaning of the drainage system. The result has been very satisfactory, the discharge from many of the outlets having ceased altogether while the Ghoraghat sewer which used to discharge sullage at one of the most important ghats of the city at the rate of 500 gallons per minute now passes only from 20 to 25 gallons per minute and the discharge consists of sewage only. The Board spends a sum of from Rs. 50,000 to Rs. 1,00,000 annually on the extension of sewers and has the largest sewerage mileage in the province. The Board engages a staff of 1878 people consisting of sweepers, coolies, cart-drivers, mistries, boatmen, bhishtis, caretakers and jamadars etc. for its conservancy services.

Benares is a city of tanks which formed in fact a part of the rainy season drainage of the city. Many of them have silted up and many dumped up indiscriminately. The result is that the existing drainage system finds it beyond its capa-



city to carry away the rain water during heavy rains. Some of it finds its way back on the road through the manholes on account of the force of impact. This difficulty is accentuated at the time of the rise in the level of the Ganges making it difficult for the sewers to draw the water speedily. The remedy for this is the replacement of some of the present sewers by those of larger capacity after a comprehensive survey. There have no doubt been difficulties with certain branch sewers on account of the work having been undertaken without a proper plan for the whole city. But the Board thinks it cannot wait till such a scheme is completed as the demand from the public for the extension of the sewer line is always loud and pressing. In most of the European countries the municipal committee while extending a sewer imposes a charge upon the house-owners in proportion to their frontage in the lane in which the line is taken while connections from the houses have, of course, to be made at the expense of the house-owner. In the United Provinces the line is taken free, but people having houses within 100 yards of a sewer are forced under the law to have their houses connected with them. In addition to this the Benares Board sets apart a large sum annually for free connections to the houses of the poor residents.

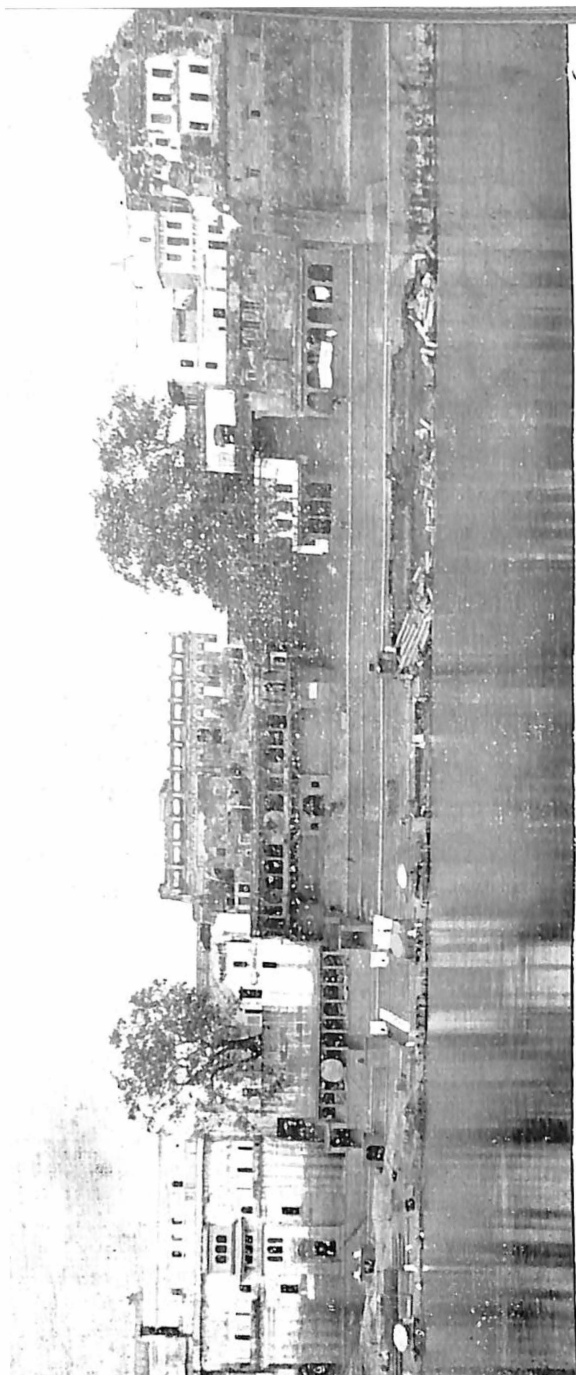
#### *Roads:*

The roads of Benares are often a subject of adverse comment. We have 55·48 miles of roads out of which 5·7 miles are cement concrete and 2·77 kutchha. As has already been observed, the main city is within its lanes whose length is estimated at over 300 miles. The Board spends annually a

sum of from one to one and a half lac of rupees on the construction and maintenance of its roads. The demand from the rate-payers is mainly for the improvement of byelanes and minor roads near which they live and the Board has spent a considerable sum of money in consolidating and improving them. Some of the main roads had unavoidably to be left over in order to find provision for these improvements and a visitor who comes from outside and passes through the main roads forms an opinion not complimentary to the Municipal Board. As a matter of fact the inner roads and lanes are in a much better condition here than what one would expect to find in any other town of equal size. Apart from this, we have no Improvement Trust and have received no grants from the Government for the improvement of roads like other cities of equal importance in the province. Due to a comparatively steeper gradient the rain water passes through the roads with some force, damaging the roads to a great extent. It is also generally forgotten that Benares was the first city to have a cement road and that like its sewerage system it has also the largest mileage of cement concrete road of any city of equal area or population in British India. The Board is also thinking of renewing all the main roads within a space of two years. It has constructed a cement pavement in the Kachaurigali for the convenience of the pilgrims and has paved certain footpaths also with cement concrete.

#### *Lighting:*

Benares had 3000 kerosine oil street lamps when electric light was installed in 1928. The lighting of the city has progressed rapidly during these years and we have now 3400



Tulsidas Ghat



electric lamps in addition to 2,400 kerosine oil lamps. The Board spends a sum of rupees one lac and a quarter on lighting every year. There are also 12 flood lights along the ghats.

The number of lamps in some other municipalities in 1937 is given below:

Allahabad	Cawnpore	Lucknow	Agra
1,687	3,602	2,239	1,375

The agreement with Messrs. Martin and Company for the supply of electrical energy for street lighting and water pumping stations was revised in 1938 and there was a tough fight over the rates with the general concurrence of the public. The Board was ultimately in a position not only to effect a saving in the rate for the supply of energy, the total of which works at about Rs. 57,000 a year, but in having the net rate to the general consumer reduced from the heavy figure of -/5/6 to -/4/- per unit. The amount saved by the Board will be utilised in using more energy for the Water Works and thus increasing the supply hours to the city. The rates for energy for the Water Works now obtaining have been found on comparison to be the lowest in India with the exception perhaps of Ahmedabad.

### *Education .*

Benares has been a centre of learning for ages past and is still maintaining its reputation in this line. Students from all parts of India and sometimes even from abroad repair to the city for the acquisition of knowledge of our ancient lore. It has a system of free education not to be found elsewhere. Apart from its numerous Sanskrit colleges and path-

shalas, every pundits of any importance considers it a part of his duty to maintain a free school for teaching his special subject, and candidates conforming to the ancient rules of studentship are welcome to these places. All doubts and difficulties on the questions of philosophy and religious principles and procedure are referred to Benares and the *Vyavasthas* or rulings of the scholars of this place command recognition throughout the land. The Government Sanskrit College which has had a number of renowned scholars as its successive principals has a high position in education in the country and holds examinations at which thousands of students throughout the country appear for their diplomas. Not only the Hindus, but the Jains, the Budhists and the Arya-samajists also have their centres and educational institutions in Benares and help in maintaining the name of the place as the religious metropolis of India.

In the matter of modern education also Benares is not lagging behind. I will not speak here of the glorious Benares Hindu University, a monument to the grand conception and indefatigable zeal of Pandit Madanmohan Malaviya, the greatest Hindu of the modern times. Apart from it, Benares has 15 High Schools and Intermediate Colleges for boys and girls including the Municipal High School and a residential Montessory School for children. The Municipal Board has four Vernacular Middle Schools for boys and five for girls, 43 primary and preparatory schools for boys and 14 primary schools for girls and engages 312 teachers for imparting education. The Board spends a sum of Rs. 1,60,000 annually on education and has compulsory education

for boys in one ward. The scheme for compulsory education could not be extended to other wards on account of difficulty in obtaining the usual grant from the local government. The Board makes no distinction of cast and creed amongst its students and the boys of the untouchable classes are allowed to sit freely and receive education with the boys of the so-called higher classes. The Board contributes a sum of Rs. 18,000 annually to other educational institutions as grant-in-aid and runs five night schools for adult education.

*Public Safety Measures :*

The city has its daily intercourse of pilgrims from all parts of India and the Board endeavours to give them as much convenience as possible. The dharamshalas and lodging houses are examined and licensed and the ghats are cleaned and washed. Free dispensaries are run by the Board and grants are given to local institutions to provide free treatment to pilgrims in times of need. At the time of a lunar eclipse the whole river front is illuminated from one end to the other with electric lights and boats run to and fro in the river to see that no bather comes to harm. A number of schools and other public institutions come forward in aid of the Municipal Board and the Government departments provide for the control of traffic and make necessary arrangements for the safety of visitors. Arrangements are made with the co-operation of the police and the district authorities with such thoroughness that despite the narrowness of the lanes and the congestion at the ghats there are generally no casualties and measures are undertaken to see that no epidemic spreads in the city as a result of the pilgrim traffic.

The limits of Kashi are given in the *puranas* and the religious-minded people want to remain within them in order to be sure of the spiritual advantages. This has led to so much congestion in the *pucca mahals* that the average population in this part is more than 57,000 per sq. mile. It is stated to be one of the most densely populated areas in Asia equalled only by Jehol in China which was bombarded by the Japanese a few years back. No Improvement Trust can remove this congestion on account of the religious complications, but it can provide healthy places outside. The space is limited by the Baruna on the one side, the Assi nala on the other and the holy Ganges towards the East. As has already been stated, the city is expanding towards the West which is the only direction in which it can extend. Even the holy temples of Sri Bishwanathji and Annapurna are situated in a lane through which even four persons can hardly pass abreast. The necessity for the widening of the area around and for opening a couple of roads, if not more, from Chetganj and Chauk direct upto the ghats is apparent. Numerous shrines will obstruct the way, but they can be allowed to stand as islands in the roads. The scheme requires a good deal of money and is beyond the present resources of the Municipal Board. The Board has been averse to taking a loan, however urgent its necessity.

#### *Markets :*

There are two principal vegetable markets one at Dasaswamedh and the other at Kamachcha, where vegetables, fruits, fish and eggs are sold. The important grain markets are those of Bishesharganj and Khojwa.



*Parks and open spaces :*

Besides the two principal parks at Maidagin and Chetganj, the Company Garden and the Victoria park as they are called a number of small parks have of late been added. There is the Jubilee park at Shivala built in 1936 to commemorate the silver jubilee of the reign of King George V, the Panna Lal park at the back of the Courts, the park at Machodri, the park at Godowlia. The small park at Godowlia is meant for the use of ladies and children only.

*Public Libraries : .*

The Carmichael Library is the oldest public library at Benares. The Nagri Pracharni Sabha has a valuable library of books in Hindi. The Malti Sarda Sadan is another library. The Benares Hindu University library is the biggest library in the city possessing 101,588 books and a large number of journals. The Government Sanskrit College has an important collection of Sanskrit books.

*Museums :*

The Nagri Pracharni Sabha has an art museum attached to it. The Ramnagar Fort of His Highness the Maharaja of Benares has a private museum in which the exhibits are mostly Shikar trophies. The Benares Hindu University has a number of sectional museums in the various colleges.

*Hospitals*

The King Edward VII Hospital, the Ishwari Memorial Lady Dufferin Hospital (for ladies only), the Bhelupore Hospital, the Marwari Hospital Godowlia, the Ramkrishna Mission

Hospital, the Maternity and Child Welfare Hospital are the principal Hospitals of the city. There is also a leper asylum and a lunatic asylum in Chaukaghat. At Sarnath there is a Tuberculosis Sanatorium run on both allopathic and ayurvedic lines.

The Sir Sundar Lal Hospital attached to the Ayurvedic College of the Benares Hindu University caters to the needs of not only the Benares public but also the public from the different parts of the country. This hospital attracts patients specially because of the availability of both ayurvedic and allopathic treatments. The hospital has 100 beds for indoor patients.

### *River Front*

A crying need of the city is the arrangement for the repairs of its crumbling ghats. An association known as the Kashi Tirth Sudhar Trust was created about the year 1927 for the purpose of preventing pollution of the river and improving the ghats. It was with the efforts of this Trust and the assistance of the high officers of the Government that a survey of the ghats was undertaken and the Indian States owning the various ghats were approached for attention being paid to their properties in Benares. His Highness the Maharaja of Scindia was pleased to sanction the reconstruction of the Scindia ghat which has now been completed at a cost of above Rs. 7,42,000. The Manikarnikaghat was renewed at the expense of the Board costing Rs. 58,000 under the guidance of Dr. Panna Lal when he was Commissioner at Benares and the Lalghat was consolidated at the generous

expense of Raja Baldeo Das Birla who has also constructed a retiring room for the poor pilgrims and the persons accompanying dead bodies at Manikarnikaghat. The Trust has not been able to make much headway in recent years. Another body known as the Tulsighat Reconstruction Committee took up a scheme for the reconstruction of the Tulsighat under the patronage of Pt. Madan Mohan Malaviya and collected certain contributions including a promise of Rs. 10,000 from Raja Birla, 5,000 cash from the Municipal Board with a promise for further help. But as this was not sufficient, the scheme is still hanging fire. The ghats are hundreds of years old and some of them are in a dangerous condition. A few of them have already toppled down. It would be a pity if they are allowed to run into decay and the magnificent site is spoiled. The task is a huge one and is beyond the powers of the Board, but its urgency and importance cannot be minimised and it deserves the attention of the Government, the States and the rich people of the country in general.

Boats are available at some ghats the Dasaswamedh Ghat, the Manikarnika ghat, the Harish Chandra ghat, the Assighat, the Samne ghat and some others. The largest number of boats ply from Dasaswamedh ghat to Ramnagar ghat on the opposite side of the river. Export and import of both raw and finished goods is still carried on to a certain extent by river.

### *Conclusion*

With the exception of political events, the general public is more interested in Municipal administration than in any

other public affair, and there is a good deal of criticism, some of which is well-informed while much of it is made in ignorance. Apart from the necessary wastage involved in the administration of a body consisting of 29 members, most of the income of the public is, I should say, on the whole well-spent.

The necessities of a town are complex and it is desirable that the functions of Municipal administration should be widened so as to include the control of the police and the administration of justice. There is also the necessity of bringing in a greater measure of public representation. Certain drawbacks in the efficiency of administration have to be overcome and additional sources of revenue have to be tapped. The position was re-examined by two committees set up by the U. P. Government two years ago and a new measure of self-government was under consideration when the Congress ministry resigned. Much improvement is expected in this line after the war in Europe is over. In the meantime Benares is plodding its way along with other cities, better in some respects, toddling behind in others, misunderstood in some of its well-meant efforts and misrepresented in cases by interested parties. It muddles through and never grows old or weary and continues to lead its inhabitants to Shiva's blissful abode.

It is a privilege to be born in Benares : it is a still higher privilege to be of some use to Benares.

## EDUCATION IN BENARES

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**B**ENARES has always been a centre of learning from times immemorial. In one of the Jātakas we read that in the reign of one Brahmadatta, King of Kāshi, the Bodhisattva was born as a Brahmin and he became a famous teacher teaching the three Vedas and the eighteen Vijjas to the twice-born. In another Jātaka it is said that a "world-renowned professor of Benares gave instruction in science to five hundred young Brahmins." In the days of the Buddha, its importance as an educational centre is sufficiently clear from the fact that the Lord chose to preach his gospel for the first time at the Deer-Park (Sārnāth) because it must have been "a University of philosophy of its own age." It is said that Pāṇini's famous Samskrit Grammar, Gautama's Nyāya-shāstra and Yāska's Nirukta were all written at Benares. Even the well-known ṛshi Kapila is reported to have enunciated his Sāṅkhya philosophy here for the first time and later on Shankarāchārya first taught his new doctrine of Vedānta to the pundits of Benares and converted them to his own views. This educational reputation has been, perhaps, due to Benares being a very important place of pilgrimage where many of the most learned pundits have flocked to propagate the doctrines of their own faith. The highest kind

of knowledge and culture have been imparted here by men who have been well-versed in the many branches of Samskrit learning. So great has been the influence of this traditional learning that not even the worst persecutions of some of the heterodox mediæval rulers have been able to banish it from the realm. Unlike Taxilā and Nālandā, it has survived all the shocks of time and many of the branches of Hindu Philosophy and literature are still expounded by orthodox pundits who are unmindful of the modern methods of teaching sciences and arts and who are working away without any hope of great worldly reward. Their authority is still unquestioned especially in matters of ancient rituals and worship. Even their pupils are acknowledged to be authorities in their own way throughout the length and breadth of India.

The Āin-i-Akbarī records the fact that Benares was a great centre of Hindu Learning in the 16th century. In the 17th century Bernier is said to have observed that Benares was a kind of university, though it had no regular classes as in our universities. "It resembles," he says, "rather the schools of the ancients, the masters being spread over the different parts of the town in private houses, some having four and some six pupils but none teaching more than fifteen disciples at a time." In their Despatch of 1814, the Board of Directors of the East India Company referred to this aspect of Indian educational organisation when they expressed their apprehensions that the propagation of western sciences could not be carried on through the medium of public colleges. They say: "We are inclined to think that the mode by which the learned Hindus may be disposed to concur with us in

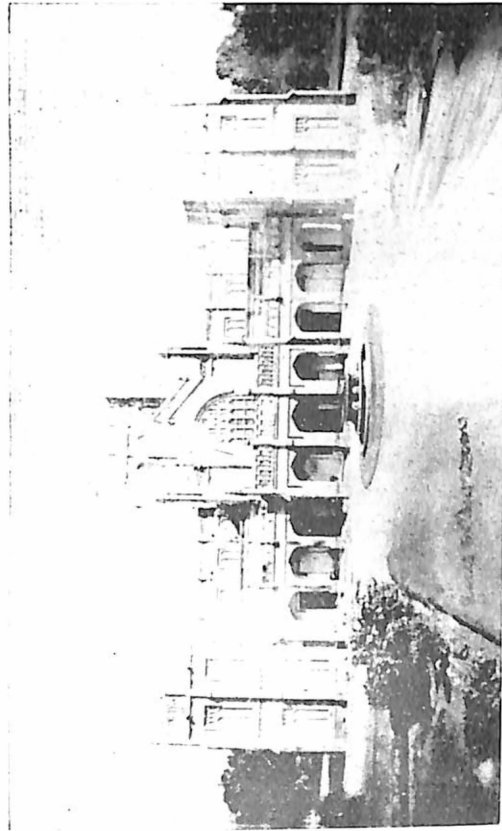
presenting these objects would be by our leaving them to the practice of the usage long established among them of giving instruction at their houses and by our encouraging them in the exercise of their talents by the stimulus of honorary marks of distinction and in some instances by granting pecuniary assistance." A hundred years later Sister Nivedita wrote : "Benares is not only an Indian Canterbury, it is also an Oxford. Under the shadow of temples and monasteries cluster the schools and dwellings of the pundits or learned Samskritists, and from all parts of India the poor students flock there to study the classics and ancient rituals of Hinduism. The fame of Nuddea is in her Samskrit logic, but that of Benares in her philosophy and Brahman lore. Thus she remains ever the central authority on questions of worship and of the faith, and her influence is carried to all ends of India by every wandering scholar returning to his own province. It is a medieval type of culture, of course, carried out in the medieval way. It takes a man twelve years here to exhaust a single book, while under the modern comparative method we are compelled to skim the surfaces of a score or more in a single year. It follows that we have here a study of the contents rather than the relations of a given work ; significance rather than co-ordination."

There are in all about 60 such pāthashālās which are officially recognised and aided by the department of Education in the province. Nearly 200 teachers impart instruction to about 2,500 scholars in Veda, Vyākaraṇa, Sāhitya, Nyāya, Vedānta, Mīmāṃsa, Sāṅkhya-yoga, Dharma-shāstras, Jyotiṣha, Itihāsa-Purāṇa etc. Besides these recognised institutions there

are many tols conducted through the private efforts of learned pundits who not only impart instruction to their pupils but arrange for their food and shelter. There is no central organisation like a University to which all these institutions are affiliated. Some of them prepare candidates for examinations conducted by the Government Samskrit College located in the Queen's College buildings. Others again sit for examinations conducted by the Oriental Faculty of the Benares Hindu University. The certificates, diplomas and degrees granted by these two bodies are recognised throughout India.

While Benares still maintains the spirit of all that is best in eastern culture and civilisation, it yet contains some of the most progressive educational institutions based on western model. The oldest amongst these is the Jai Narain High School which was founded as far back as 1814 by Mahārājā Jai Nārāin Ghoshāl Bahādur of honoured memory. There is an element of historical romance and interest connected with the story of its foundation. This Mahārāja, who was an owner of a big estate in Bengal and who owned a large landed property at Benares, fell very ill and moved partly by the consideration of having a change of climate and also perhaps by the idea which inspires every orthodox Hindu to pass his last days at Kāshi, he came to Benares. Here he came into contact with Jonathan Duncan, the then Resident, who introduced to him an amateur physician named Mr. Wheatly. The Mahārājā put himself for some time under the treatment of Mr. Wheatly who treated and cured him without asking for any remuneration. Seeing himself cured of the ailments which had not hitherto yielded to expert





Queen's College (old Sanskrit School)



treatment, the Mahārājā was so pleased with his physician that he felt impelled to show his appreciation of Mr. Wheatly's services in some marked manner. After consulting friends and Mr. Wheatly himself, it was agreed that an English School be opened in 1814 in a part of the building occupied by the Mahārājā himself. After a few years, difficulties cropped up in its proper management and the noble founder transferred its control to the Church Missionary Society promising a monthly subsidy of Rs. 200/- for its maintenance. In 1819, the Government of the Marquis of Hastings gave a monthly grant of Rs. 252/-. This grant is being contributed to the present day. In 1845 a College Department was added to the school. The college was affiliated to the Calcutta University. But it suffered a gradual decline till it ceased to exist in the seventies of the last century. Since then this institution has been an aided high school and the Church Mission has been manfully running it until very recently when its head quarters in England refused further aid and there is now a proposal of transferring its control to any public body that may carry out the original intention and purpose of its generous-hearted founder.

Chronologically the origin of the Queen's College is slightly earlier than that of the Jai Narain High School because it developed from the Sanskrit College which was founded in 1791. In reality, however, it was started in 1829 when English classes were added for the first time to the Samskrit College. Its stately building constructed in the Gothic style of architecture is one of the glories of Benares. It was constructed by Major Kittoe during 1847-52 at a cost of Rs. 1,30,000/-.

"It is considered the finest Gothic building in Asia and has been aptly described as appearing like a perfect dewdrop settled down from the heavens". The Queen's College continued to be a good first grade college affiliated first to the Calcutta University and then to the Allahabad University when it was started till 1921. Then the status of the college was reduced to the Intermediate stage on account of the conversion of the Allahabad University from an affiliating to a teaching and unitary university. This college has played a very honoured part in the advancement of higher education in northern India and some of its alumni have been taking a very important part in the public life of this country.

Another educational institution which was started in the Pre-Mutiny days is the Bengali Tola High School which was founded in 1854 to meet the educational requirements of the local Indian Community. The term "Bengali," does not restrict its admissions to merely Bengalis. In fact, the school has always maintained its non-communal character. It is so called because it is situated in one of the most ancient quarters of the city called Bengali Tola. The popularity of this institution may be gauged from the fact that in 1865 it obtained a grant-in-aid of Rs. 45/- and it is at present receiving Rs. 10,000/- by way of a government grant.

Soon after the Mutiny, the well-known poet and dramatist, Bhāratendu Babu Harishchandra founded the school which is now named after him. Born with a silver spoon in his mouth in an Agarwal family, conspicuous in the days of the Moguls and also of the East India Company for its loyalty,

its riches and its spirit of enterprise, Harishchandra inherited from his ancestors their wealth, their wisdom and their religious fervour ; to these virtues he added his intense patriotism and a remarkable love of learning. His own school education was cut short. This was perhaps due to his own originality and genius which did not find sufficient scope for their expression in the confined atmosphere of a school. It might also be due to the prevailing belief of those days that the study of English brought in its wake a certain scepticism in the order of society. Be that as it may, this great poet of Hindi who was much ahead of his contemporaries preached in his writings in his own inimitable manner the ideals of progressive education. In 1886 he opened a school in his own residential quarter and himself taught boys attending it. He bore all expenses in connection with the school till it received a small grant from the Government and the Municipal Board in 1880. After Harishchandra's death in 1885 the school fell on evil days. It was languishing when it attracted the attention of Babu Govind Das, one of the most courageous and public-spirited citizens of Benares. It was through his driving force and resourcefulness that the school was able to get the patronage of the Collector and the Commissioner who consented to serve on the management. The school has been recently raised to the status of an Intermediate College and is affiliated to the Board of High School and Intermediate Education, Allahabad.

By the close of the last century and the beginning of the 20th century, the western type of schools and colleges came to stay in India. But even when the popularity of these

institutions was at its highest, there were many far-sighted persons in India who were keenly alive to the draw-backs of the system of education which eliminated religious instruction from its curriculum of studies and advocated a foreign medium of instruction. It was with a view to make up for the defects of a purely secular education that some of the well-known citizens of Benares founded the Hindu College and its collegiate school in 1898 under the leadership of the late Dr. Annie Besant of beloved memory. Her dynamic personality attracted a noble band of ardent and selfless workers and it became soon apparent that a new movement had been ushered into our country for the "education of Hindu Youths in their ancestral faith and true loyalty and patriotism." The munificence of the then Mahārājā of Benares, Sir Prabhū Nārāin Singh Bahādur, G.C.I.E., enabled the college to have its habitation in one of the healthy quarters of the city. The Mahārājā not only gave his own palace containing an artistically built hall but all the adjoining fields and buildings covering about 13 bighas of land. A temple in white marble was soon built for the worship of Goddess Saraswatī so that the students may worship and invoke her blessings while entering the college compound for their daily lessons. Both the college and school soon became famous all over the country for their high moral tone and for creating a peculiar educational atmosphere which combined the ancient ideals of family spirit and service with the modern ones of efficiency and alertness. In 1913 the management of both the college and the school passed on to the Hindu University Society to form the nucleus of the Benares Hindu University.

The college was removed to the new site of the Hindu University at Nagawa in 1921 and the Central Hindu School and the Teachers' Training College came to occupy the huge building. With the growing expansion of the Central Hindu School, however, even the Teachers' Training College has been removed to a separate building not far off from the old premises. The Central Hindu School is the biggest of all the schools in Benares and is one of the best and biggest high schools in the whole of India.

Almost about the same time, the Anglo-Bengali Intermediate College had its early beginnings. It owes its origin to the genius and industry of Babu Chintāmaṇi Mukerji who counted amongst his best friends some of the important members of the Central Hindu College. As a teacher he came to be painfully conscious of the fact that teaching in ordinary schools was more an exercise of memory than of intelligence, the main object being the passing of examinations while the acquisition of knowledge was really lost sight of with the result that the scholars took no real interest in their work. In the case of the boys of his own community there was the further disadvantage of having to learn another foreign language besides English, the languages of the province being Urdu or Hindi. To see what he could do to obviate this difficulty and to establish a closer relation through love and sympathy, he began his first educational experiments with a group of boys who were sent to him by his friends. His experiments attracted the attention of the public who offered to raise funds for a school. He continued to work as its Honorary Head Master and Secretary to the Managing

Committee. The school was soon raised to a high school and grew steadily in popularity as a high school until in 1938 it was recognised for the Intermediate Examination, both in Arts and Science by the Board of High School and Inter Education, U.P. The new school building costing about a lac of rupees is situated on a site measuring 9 acres of land which was given as a free gift by His Highness, Sir Prabhu Nārāin Singh, the Mahārājā of Benares.

The Udai Pratap College and Hewett Kshattriya High School owe their foundation and continued existence entirely to the foresight and philanthropy of Raja Udai Pratap Singh C.S.I., a big Talukdar of Oudh. Both the school and the college are completely residential and admission is confined only to Kshattriya boys. Though run under European direction, the tuition and hostel fees have been fixed so low as to make it easy for the poorest Kshattriya boy to receive the benefits of higher education. This has been possible only on account of the liberality of its founder and his family who have donated about eighteen and a half lacs.

Benares being one of the most important places of pilgrimage, it has naturally attracted many missionary societies to start their denominational schools. The Christian Missions maintain a number of institutions; some of them being especially reserved for girls. The Wesleyan and American Missions maintain a High School, an Industrial School and a Training School for Primary Teachers. The Church Mission maintains a Normal School for the training of women. Then the Ārya Vidyā Sabhā, Kāshī, representing the Ārya Samāj maintains the Dayānand Anglo-Vedic College, The Nityānand



Sanskrit Pāthshālā and a Primary School for girls. The life and soul of these institutions is at present Pandit Rām Nārāin Mishra who has devoted all his life to education and who has taken up the administration of these institutions after the death of his life-long friend, Babu Gauri Shankar Prasād, who donated a great part of his life's earning as a lawyer to the upkeep of these institutions. The orthodox Hindus also maintain a few institutions of the modern type. The best of these is the Sanātana Dharma High School and the Gurjar Pāthashālā. The local Muslims maintain a high school of their own. The Indian section of the Theosophical Society runs a residential co-educational school in its beautiful compound at Kamachha. Boys and girls are educated together up to the age of 11 +. Arrangement is made for their lodging and boarding separately. Religious teaching is an integral part of its studies and the fraternity of religions for which the Theosophical Society stands is emphasised at this school.

In marked contrast to these institutions where religious instruction of a particular type is given, there are three institutions run by the Rishi Valley Trust where "formal religious teaching is no longer considered as necessarily an integral part of the educational curriculum." Two of these institutions are situated at the confluence of the Ganges and its tributary, the Varuṇa, amidst beautiful and peaceful surroundings far away from the city. Their beautiful red buildings are visible from the Dufferin Bridge from the railway train as they are only at a distance of about five minutes' walk from the Kāshi station. The third college, called 'The Vasanta College for Women, is still held in the city. The

promoters of these institutions believe that, with the right kind of education the guidance required by the child can be evoked directly without the aid of Religion. "They believe, that if the child is surrounded by the right atmosphere of refinement, enthusiasm, the absence of domination, he will very quickly feel for himself the things which are right to do and the thing which he should avoid. The character-building aimed at in the new direction in education will make a vital individual who will select or create for himself a religion, if he needs one, and if he does not, will have, in the highest sense of the word Religion, a strong spirit of consecration of great ideals both of self-realization and the service of others." These institutions are unique in as much as they have succeeded in creating in them an environment of Beauty and Love which are bound not only to affect the children who read in them but influence in time for the better the city where they are situated thus maintaining its prestige as a progressive centre of education.





The Venerable Pt. M. M. Malaviyaji

# BENARES HINDU UNIVERSITY

By

B. N. SINGH, D.Sc.,

*Irwin Professor of Agriculture, University Professor of Plant  
Physiology, Head of the Institute of Agricultural Research,  
Dean of the Faculty of Technology,  
Benares Hindu University.*

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*"This finely conceived and finely executed plan is therefore very bright with promise. It can well claim to be an All-India University."*—HIS EXCELLANCY LORD IRW.N.

*"It is the greatest thing Indians have done in this century."*—Col. Wedgewood, M. P.

*"This will attract the Indian youth piously seeking knowledge, and the scholar piously teaching it. Here India has its chance of showing what is in it. The Hindu University of all Indian Universities has the best chance of following high ideals."*—MR. RAMSAY MACDONALD.

## FIRST ALL-INDIA TEACHING AND RESIDENTIAL UNIVERSITY

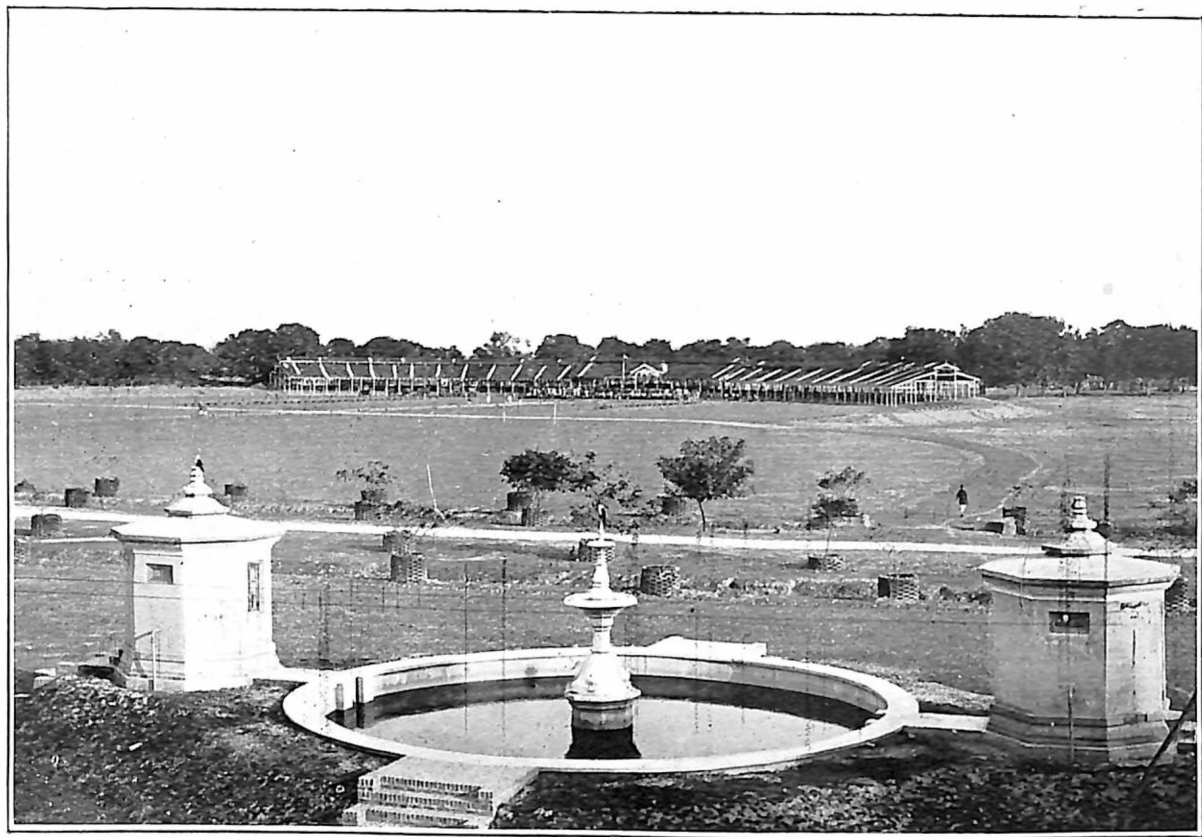
THE Benares Hindu University was founded in the year 1916 with the support of the Government of India, the Princes, and the People of India as the first all-India teaching and residential university in the country. It clearly represented a bold departure in the history of education in India for all existing models of Indian universities at that time conformed to the examining type of universities. As an advance towards a new ideal in education it aroused the most intense interest whose practical expression was the generous contribution that flowed from the Princes and People of India and that enabled the starting of this University on a sound financial footing.

The idea of a Hindu University arising out of the dream of Pujya Pandit Madan Mohan Malaviyaji stirred to its very depths the imagination of India not only because of the wise novelty it represented in its teaching and residential character but also because the promoters early felt that the East and West can no longer be isolated in thought or life and with true prescience provided in the objects of the University for the cultivation of the noblest in Hindu religion and civilization side by side with the Western arts and sciences.

#### OBJECTS OF THE UNIVERSITY

The objects of the University were thus formulated in the Draft Scheme of the Proposed Hindu University :

- (i) to promote the study of the Hindu Shastras and of Sanskrit Literature generally as a means of preserving and popularising for the benefit of the Hindus in particular and of the world at large in general, the best thought and culture of the Hindus, and all that was good and great in the ancient civilization of India ;
- (ii) to promote learning and research generally in Arts and Science in all branches ;
- (iii) to advance and diffuse such scientific, technical and professional knowledge, combined with the necessary practical training, as is best calculated to help in promoting indigenous industries and in developing the material resources of the country ; and
- (iv) to promote the building up of character in youth by making religion and ethics an integral part of education.



Fountain and Amphitheatre.





The Ceremony of laying the foundation stone of the Benares Hindu University was performed by His Excellency Lord Hardinge, Viceroy and Governor General of India on 4th February, 1916 before a very distinguished gathering of the Governors of provinces, Ruling Princes, and "the flower of India's intellect." Lord Hardinge has by his liberal support to the cause of higher education, and in particular the sanctioning of the establishment of a private university secured for himself an honoured and an abiding place in the affections of the great Hindu community of India.

The Benares Hindu University was brought into legal existence by the coming into force of Act XVI of 1915.

#### BUILDING UP CHARACTER BY IMPARTING RELIGIOUS EDUCATION

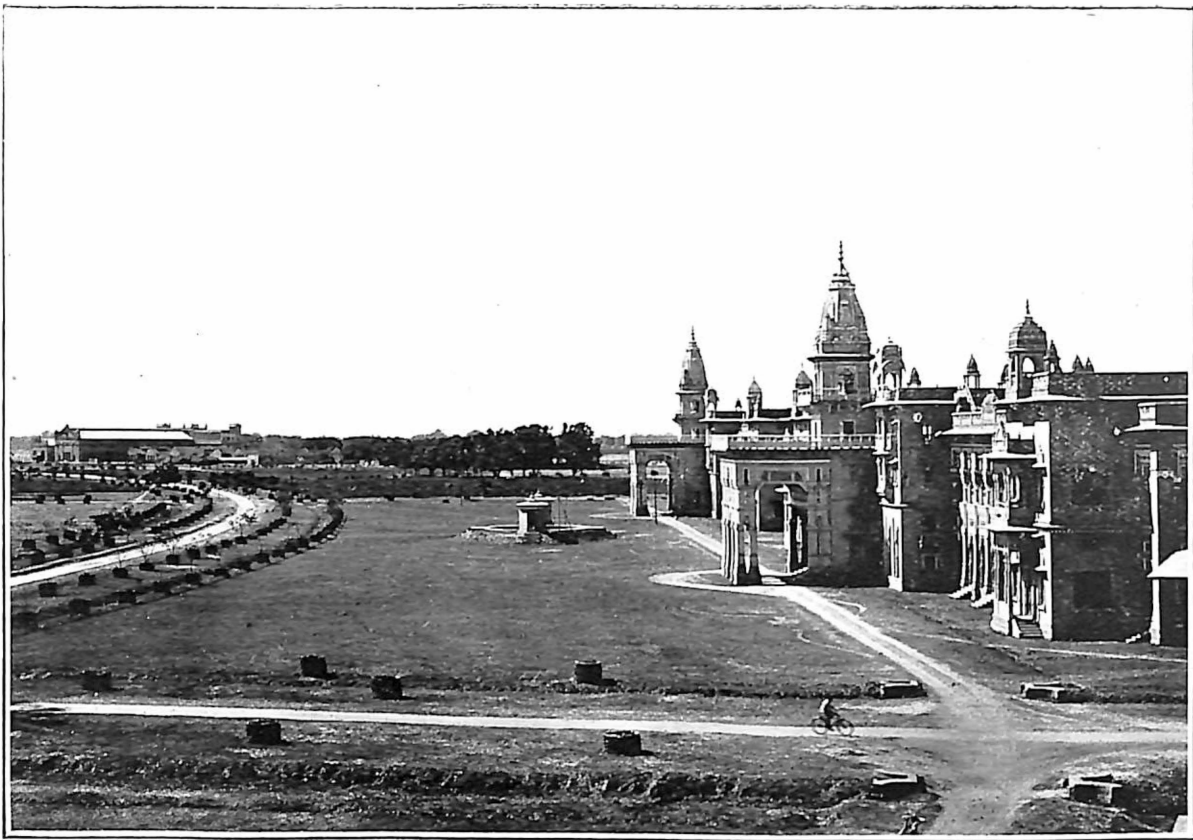
By providing for the pursuit of the study of Hindu Religion and civilization in the objects of the University, the promoters of the University laid the surest foundation for the building up of character in the youth of India who flock to this fount of learning. In the words of Lord Hardinge "though something may be done by mental and moral discipline, and something by the precept and example of professors, these are but shifting sands upon which to build character, without the foundation of a religious teaching and the steadying influence of a religious atmosphere." The history of this University has fully supported the belief that a living faith in and a reverence for one's own religion fosters a spirit of respect for the religious convictions of others and promotes mutual tolerance and good will.

### SECULAR EDUCATION UPTO THE HIGHEST STANDARD

While this University may be said to be unique in laying special emphasis on the preservation and promotion of the best in Hindu culture and tradition it is second to none in its ambition to push forward Western arts and science. In fact it was the ambition of the promoters of this University movement to make the education imparted within the precincts of this University such as to make it unnecessary for Indian students to go to foreign countries for their studies.

### THE CONSTITUENT COLLEGES

The Benares Hindu University is divided into thirty-three departments of instruction and research upto the highest degree, and has eleven constituent colleges and institutions : the College of Arts, the College of Science, the College of Theology, the College of Oriental Learning, the Ayurvedic College, the Engineering College, the College of Technology, the Women's College, the Teachers' Training College, the Law College, and the Institute of Agricultural Research. The total number of students in the university is over 3,500 and that of teachers over 200. Over a thousand students of the university who have taken a Degree or Diploma in Electrical and Mechanical Engineering or Mining or Metallurgy or Geology or Agricultural Botany have found employment in cities and towns, in mines, in cotton and sugar mills, in factories and workshops, in agricultural farms and dairies, in colleges and universities all over the country. By founding a number of institutions of applied science and technology this university has "opened new avenues of employment for the youth of the land and afforded opportunities to a trained band of well-



Science Colleges.



qualified young men to promote the cause of Indian industries in a variety of directions."

#### FACILITIES FOR EDUCATION IN APPLIED SCIENCE AND TECHNOLOGY

The pioneering work which this University did in the field of technological education by the establishment, right at the start of the University, of the Jodhpur Hardinge Chair of Technology ; the increasing provision of facilities for theoretical and practical education in mechanical and electrical engineering ; and the rapid strides which this University has made in the realm of scientific and technological education has rightly earned for it an All-India reputation at once enviable. The high standard of education which this University has provided in mechanical and electrical engineering, mining and metallurgy, geology, industrial chemistry, ceramics, glass technology, pharmaceutical chemistry and agricultural botany has considerably limited the exodus of Indian students to foreign countries for purposes of education in these subjects.

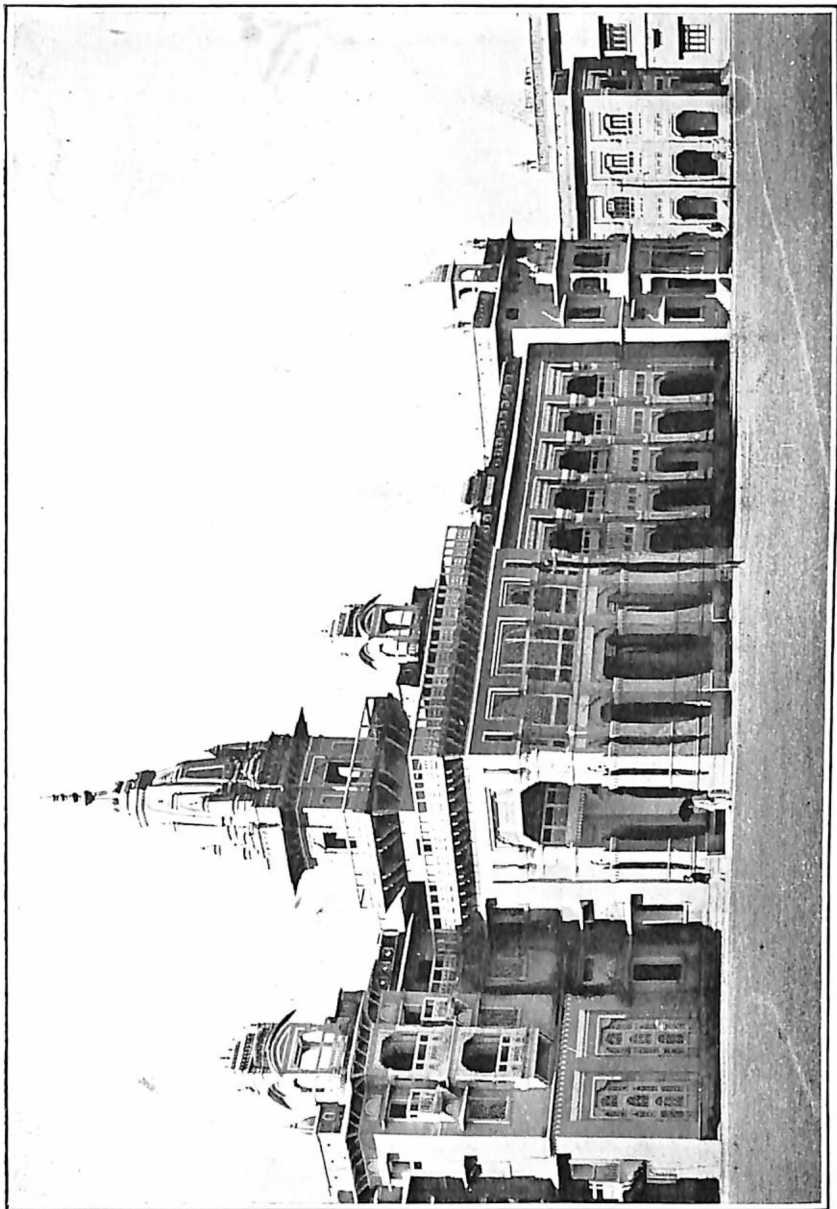
The first important provision for the establishment of a Department of Technology, as already said, was made as early as 1912 when the Jodhpur Darbar endowed the Jodhpur-Hardinge Chair of Technology with the handsome annual grant of Rs. 24,000/- in addition to a grant of Rs. 2 lakhs in a lump. The second important step taken in this direction was in 1918 when His Highness the Maharaja of Patiala gave the munificent grant of Rs. 5 lakhs and a recurring grant of Rs. 24,000/- and ear-marked it for a Chair of Mechanical Engineering and for another Chair of Electrical Engineering. The

Hon'ble Raja Sir Moti Chand endowed a Chair of Industrial Chemistry with a donation of over 1 lakh. His Highness the Maharaja Rana of Dholpur has given a donation of 1 lakh ear-marked for the Ceramics Branch of Industrial Chemistry. His Highness the Maharaja of Jodhpur has further given the munificent donation of 4 lakhs for promoting the study of Agriculture at the University by constituting an endowment for Jodhpur-Irwin Chair of Agriculture. His Highness the Nawab of Rampur has endowed the Rampur Chair of Chemistry and His Highness the Maharaja of Tehri has endowed the Maharaja Sir Kirti Shah Chair of Industrial Chemistry. The endowment of the last two chairs has been made with permanent recurring grants of Rs. 6,000/- a year each.

The Department of Mining and Metallurgy was established in 1923. For practical training students are sent to mines and metallurgical works all over the country. The sister Department of Geology undertook the investigation of the occurrence of floods and earthquakes in Bihar. These two departments are able to undertake many investigations of an industrial character.

The section of Glass Technology works in co-operation with the U. P. Government Glass Technologist whose headquarters have been fixed by Government in the Department of Glass Technology at the Benares Hindu University. A grant of Rs. 10,000/- was sanctioned by the Government for equipment and laboratory work of the department.

The Benares Hindu University offers advanced training in Pharmaceutical subjects and received a grant of Rs. 5,000/-



Arts College.





from the U. P. Government for research work on the manufacture of alkaloids.

The Engineering College, which is easily the foremost institution in India of its kind, has maintained its reputation for its high standard of work in mechanical and electrical engineering. The college has now been recognised as a centre, under the supervision of the Principal, for the Studentship and Associate Membership Examinations of the Institute of Mechanical Engineers, London. The Military Authorities, Government of India have selected this College as a centre for training air mechanics for the Air Force and mechanics for Indian Ordnance Factories and other industries.

The Industrial Chemistry Department which has been producing oils and soaps on a semi-commercial scale has started a new section of hand made paper with a subsidy from the Government of the United Provinces.

Instruction and research at this University in Plant Physiology as applied to Agriculture date back to 1920. The Institute of Agricultural Research attracts a large number of research workers from all parts of India.

A wide variety of researches embracing vernalisation studies, plant hormone studies, chloroplast pigment studies, vitamin content studies in a number of economic plants, studies in storage of fruits and vegetables, studies in the absorption of salts by plants, studies in the absorption of nutrients by weeds, studies on the influence of fertilisers upon photosynthesis, chlorophyll content and respiration rate, studies on the water requirement of crop plants and studies in photoperiodism is in progress at the Institute.

Recognising the importance of the above work the Imperial Council of Agricultural Research have made a grant of about Rs. 68,000/- spreading over 5 years for a scheme on the physiology of cane and wheat.

The distinguishing feature of the Ayurvedic College of the Benares Hindu University is that here the Hindu medical science is taught alongside the European system of medicine and surgery, and the graduates turned out by this college after a strenuous course of study for six years combine in themselves the qualifications of a competent physician and surgeon. Till the establishment of this college there was little provision for the scientific training of Kavirajes or Vaidyas in the Hindu system of medicine in this country.

#### THE UNIVERSITY LIBRARY

The Benares Hindu University Library whose foundation stone was laid by His Excellency Lord Irwin, Viceroy and Governor General of India in 1927 came into its own imposing building in 1930. The funds for the building were generously provided by His Highness Sir Sayaji Rao Gaekwad of Baroda after whom the library is named. The building is so planned as to admit large future extensions. The university library possesses 108,089 books and a large number of scientific and technical journals.

#### THE UNIVERSITY TOWN

The University has planned and has been steadily building up an entirely new town extending over 1,800 acres of land. It has laid out 21 miles of road, 13 miles of which has been metalled. The campus of the Benares Hindu University

is one of the largest of university campuses in the world, and is described in a later section.

#### WATER SUPPLY AND LIGHTING

Being situated outside the municipal limits of Benares, the University has to bear the cost of maintaining its own roads and roadside trees, to provide its own supply of water, its own conservancy service, and to supply electric light to the whole of the University town. In June 1919 the university started with a second-hand steam set of only 20 kilo watts and its load now exceeds 200 kilo watts. There are now over 7 miles of electric line, and over 5 miles of pump line and 80 pumping sets in the University ground and over 6500 electric points installed throughout the various colleges, hostels, laboratories, workshops, and residences.

#### THE FINANCIAL ADMINISTRATION OF THE UNIVERSITY

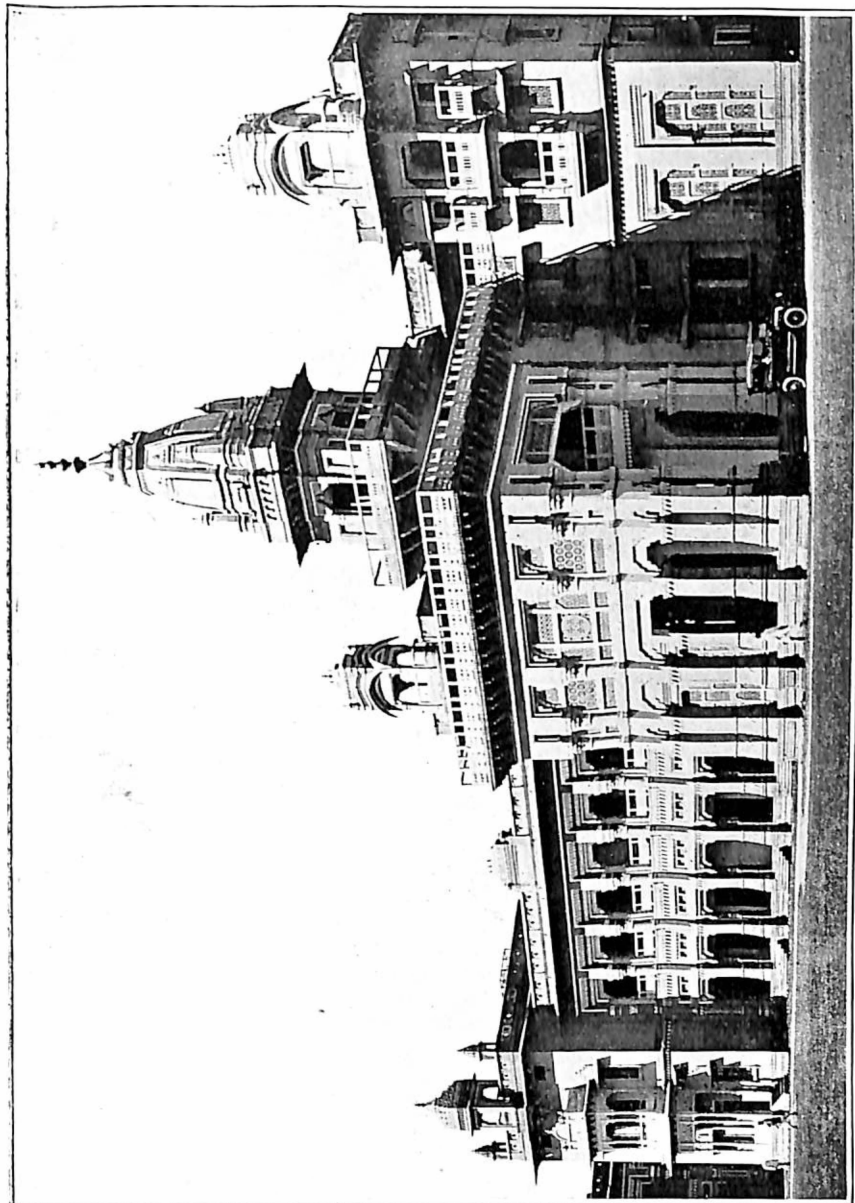
The University has collected up-to-date over a crore and fifty one lakhs of rupees. This is by far the largest amount that has been collected in this country for any institution. Of this sum, over a hundred and thirty lakhs have been contributed by the Indian states and the people of India, and 21 lakhs by the Government of India. The site and the buildings has cost to the tune of Rs. 69 lakhs, the equipment of class rooms and laboratories Rs. 33 lakhs, the endowment of scholarships Rs. 3 lakhs, and another Rs. 36 lakhs is held in Government securities as part of the permanent endowment of Rs. 50 lakhs required by the University Act to meet recurring expenditure. The remaining Rs. 14 lakhs are made up by the capitalized value of the permanent grants sanctioned by some Indian States.

UNIVERSITY VIRTUALLY THE CREATION OF  
PT. MADAN MOHAN MALAVIYAJI

The collection of this stupendous contribution, the wise planning of the university, and the steady pursuit of those wisely laid out plans are the achievements of that great and revered personality, Pandit Madan Mohan Malaviyaji who has nourished this University with his life blood from the time the project of the University was first mooted, down almost to the present day, when he can see his life work accomplished. Increasing infirmity due to old age led Pandit Malaviyaji to give up the Vice-Chancellorship of the University in August 1939, a position which he adorned as its third Vice-Chancellor for about two decades. He has the satisfaction of leaving the University in very competent hands in the person of his able successor, Sir S. Radhakrishnan, whom he himself nominated.

CONCLUSION

We can perhaps best conclude this small article on the Benares Hindu University by quoting from His Excellency Lord Irwin's Address when he laid the foundation stone of the new library of the University: "In the choice of their site and the character of their buildings they have striven to create the real academic atmosphere, impalpable but always powerful, to influence the mind of those who are brought within its range. They have afforded opportunities for the study of a wide variety of subjects, intellectual and practical, theological and scientific, adequate to give a young man the mental equipment he needs to face the manifold problems of life."



Science College (Chemistry section)



*"Benares has an honoured name for learning...I trust that you may be able to feel about your University what I felt about mine ; and that this feeling may be a source of strength and comfort to you in your lives and help to place your University among the great Universities of the world."*

HIS ROYAL HIGHNESS THE PRINCE OF WALES (LATER HIS MAJESTY KING EDWARD VIII) 1921.

*"I hope the Hindu University would soon acquire reputation as a great centre of learning."* MAHATMA GANDHI.

## PLACES OF INTEREST IN BENARES

B. C. BHATTACHARYA, M.A., F.R.G.S. (Edin.)

**B**ENARES is known to the outside world as one of the oldest and most mysterious cities of the East. Who first colonised this wonderful city on a rising mound between the twin rivulets—the Assi and the Baruna—a geographical device, which has protected the city from all possible floods and inundations, is a mystery lost in the oblivious path of antiquity. Myths, legends, traditions, Hindu, Buddhist and Jain have clustered together in the long chain of its History. The importance of the place as the greatest religious centre of India has been noticed throughout her ancient literature and acknowledged in all epochs of the Indian History. Unfortunately now, its old temples and shrines are gone, its oldest ruins were long embedded into the stratified earth of undetermined ages. The present city is the development of a model mostly built in the 17th and 18th and 19th centuries of the Christian era. Without attempting a detailed history of the pictures, drawn in the Pali and Sanskrit books, and in writings of the different travellers, who visited Benares, of the descriptions of the invading raids of the Mohammeden kings and conquerors, preserved in their court chronicles, I may pass on to a systematic description of the places of interest standing out in the city for the specific purpose of our esteemed delegation of the Indian Science Congress.



In the style of buildings now preserved in the city, we find a mixture of many types of Architecture—Aryo-Dravidian, Indo-Saracenic and Gothic. The places of interest in the city may be broadly divided under two heads:—*A.* The ancient temples, *Ghāts*, old tanks, all sacred with hoary traditions attracting pilgrims for a religious visit. *B.* The modern buildings comprising the Government Offices, Hospitals, Educational institutions, semi-Government and purely Indian buildings consisting of colleges, schools, libraries, palaces, museums etc.

#### THE RIVER FRONT AND GHATS

*The River front and Ghats:* The religious character of the city of Benares is best epitomized in its picturesque river front. In place of fortresses, ramparts, docks, commercial *entrepôts* and ware-houses, which commonly line the river bank in a big city, a visitor views from the river here a long procession of sacred ghāts, architectural temples, and palaces that rise tier above tier from the water's edge from the *Assi sangam* down to the Duffering bridge. The *ensemble* of the view from the latter is majestic, specially at early dawn when the rays of the sun light up first—the slender minarets of Aurangzeb's mosque and then the tower and gilded pinnacles of the temple that are massed upon the river front. The *ghats* which decorate the bank of the Ganges and are held in highest sanctity and popularity number about forty. The five principal ones visited by all pilgrims, are reckoned from the south—1. *The Assi Sangam*. 2. *Dasasvamedh* (Dasasumedh). 3. *Mani-Karnikā*. 4. *Panchagangā*. 5. *Barunā Sangam*. (The junction of the Barna river with the Ganges).

A visit to the five ghats named above is in itself a complete course of pilgrimage and the merit of bathing in *Dasasvamedh ghāt* is equal to that of a pilgrimage to Prayāg where the Jamuna unites its waters with those of the Ganges. There are legends connected with each ghat which are too numerous to be recorded here in full. As a visitor has to start his river trip from the Assi Junction down to Rajghat, we shall describe below the principal ghats, which must be noticed by him.

The principal ghāts :—*The Assighat* : The junction of the Assi and the Ganges ; it is a bathing place without a stair way. The ghat is a sandy beach touching the water where pilgrims take ablutions. The story goes that Durga after vanquishing the two demons Shumbha and Nishumbha rested at Durgakund and there let fall her sword (Skt. Asi), which curved out the channel of the Assi.

Below Assighat is the *Tulsighat*, so called from the celebrated Tulsidās, the greatest Hindi Poet and a devotee of Rama, who lived at Benares for many years and died here in 1623. Many relics of the poet are preserved with care in his temple, notably the image of Hanuman, which he worshipped and the portion of the boat in which he crossed the river daily. The next two or three ghats are unimportant and need no special mention.

The third in importance comes the *Shivāla ghat*. The fortress above it was the residence of Raja Chaitsingh till his rebellion in 1781, when the British troops were massacred in the outer courtyard. The window from which the Raja

fled to the river bank is still pointed out as one of the five small openings in the upper story of the north wall. The palace which is very strongly built with high walls and bastions is now the property of the Government.

Next to Shivāla ghāt comes the *Harishchandra ghāt*, associated with the legend of the king of the same name of the *Satya* age. As he was cursed to be a chandal burning the dead bodies here in Benares, this particular ghat having a burning place preserves the memory of the king's ill fate at this spot.

The *Kedārghat*:—Named after the famous temple of Kedareshwar built by a ruling prince of Bundi (Rajputana). The temple stands in the middle of a spacious court at the four corners of which are four domed temples, while the *verandah* running round the inner side of the enclosure contains a number of small shrines and an immense collection of images. The principal temple is in the centre of the quadrangle and is similarly domed. At the base of the stairway of the *Kedarghat* is a well called the *Gaurikund*, the water of which is reputed to cure fever. Next follows a long succession of ghats too insignificant to be described but crowned with lofty buildings, among them some of the finest and most celebrated in Benares. The first is that of Amrit Rao of the Peshwa family; it is also known as *Chhatarghat* from the Chhatar or satra which surmounts it. Near this are *Muneswarghat*, *Gangāmohalgāt*, *Choushattighāt* connected with a large and old temple of Choushatti Debi in Bengalitola.

The next is the famous *Dasaswamedhghāt* adjoining the raised platform of *Sitalāghāt*. This ghat is most frequented

by people as the main Dasaswamedh Road directly leads down to it. In all *melas*, specially connected with the *Durga Pooja* festival and the eclipse, thousands of visitors and pilgrims crowd in the road and walk up and down the broad steps of the ghat. It is the reputed scene of the celebration of ten horse sacrifices (*Asvamedh*) by the God Brahmā and is one of the five holiest places of pilgrimage on the bank of the Ganges. Within a furlong from here comes the *Manmandir-ghāt* so called from the celebrated observatory constructed here in 1693 by Raja Jay Singh of Jaipur, the successor of Raja Mansingh. The gigantic instruments of masonry are similar to those erected by the same prince at Delhi, Muttra, Ujjain and Jaipur. A survey of these astronomical instruments was made by Pt. Sudhākar Dwivedi, who described them in his book called "Manmandira varnanam." A short distance beyond *Mānmandir* is the Nepaleese temple, almost entirely built of wood and decorated with grotesque carvings.

Next comes the *Jalsaiḡhāt* or burning ghāt where dead bodies are cremated before committing their ashes to the waters of the sacred river. The place is under Municipal management but is regarded as one of the most sacred spots in the city.

Just near it is the famous *Manikarnikāghāt*, the third of the five prominent places of pilgrimage. The name *Manikarnikā* is derived from the well in which the earring (skt. *manikarnikā*) of Durga is said to have fallen. The place is regarded as the most famous cremation ground in the whole of India.

Then passing over some small ghats such as the *Bhonslāghāt*, the *Rāmghāt*, the visitor comes to see the great *Panchagangāghāt* being one of the sacred places of Benares. Five rivers, four being invisible to the mortal eyes are supposed to meet at Panchagangā. Their names are given as *Dhutpapā*, *Sarasvatī*, *Kiranā*, *Jarnā* (Alics Yamuna-Jamuna) and Gangā. The most notorious evidence of Aurangzeb's bigotry is the mosque above the *Panchagangāghāt*, the minarets of which (142 ft. high) are by far the most imposing edifices of Benares. The mosque largely built with Hindu materials occupies the site of a large ancient temple dedicated to Vishnu as *Bindumādhav*, who is still worshipped in a smaller temple in its vicinity.

Again passing through some unimportant ghāts such as the *Sitlaghāt*, *Lalghāt* and *Gaighāt*, we come to the *Trilochan-ghāt* named after the name of Trilochan, the three-eyed Siva. The quadrangle in the temple is of great antiquity. This is practically the last ghat before one reaches the *Rajghāt*, which is not a sacred bathing place. On the high bank below the bridge stood the old Rajghat fort, said to have been built by Raja Banār and undoubtedly a place of great antiquity.\*

Beyond this at a short distance is the *Barna Sangam* which a place of great sanctity and here once stood a small fort.

*The principal temples, sacred wells and tanks.* After the two marauding raids of the Mohammedans in the city of Benares, one by Mohammad Ghori and the other by Aurangzeb, nearly

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\*As a result of recent excavation made by the E. I. Ry., many rare and important antiquities have been discovered here.

all the important Hindu Shrines were utterly destroyed through the iconoclastic hands of these Muslim invaders. During the predominance of the Maharattas in the eighteenth century and still after the establishment of the British power, temple building, which had been tabooed by the Mohammedan rulers, received a great revival and hundreds of new temples had been constructed. It was, therefore, only when the Mohammedan power was beginning to decline, the present temples were built and rebuilt mostly from old materials, and in some cases with Jain and Buddhist materials. About forty years ago, the number of Hindu Temples of Benares was estimated as 1454 and now it must be considerably greater.

In this brief account, we shall have to describe the most important and most ancient of the crowds of temples which promiscuously raise their heads throughout the length and breadth of the city.

### THE TEMPLES

Let us take up the temples from the northern part of the city.

*The Adikeshab Temple.* It stands on a rising ground above the *Baruna Sangam*, where the streamlet Baruna unites with the Ganges. This temple is dedicated to Vishnu and the temple contains a four-armed Vishnu image.

*The Bhaironāth Temple.* Bhaironāth or Kālabhairava is supposed to be the divine *Kotwal* or chief of police under Viswanath, the Sovereign God of Benares. He is bound to keep the city free from malignant spirits and evil persons.

He rides round the city every night on a dog. His lofty temple situated near the Biseswarganj was erected by Baji Rao, the Peshwa of Poona.

A short distance to the east of this is the *Navagraha Temple*, dedicated to the Moon and the seven other Hindu planets.

Beyond this is the *temple of Dandpān*, the huge stone truncheon with which Bhaironath chastises offenders. The stone, about 4 feet in height is sometimes capped by a silver mask and is specially worshipped on Sundays and Tuesdays.

In the neighbourhood is the *Kālkup*, the well of Fate to which pilgrims resort at midday, when failure to see one's shadow in the water signifies inevitable death within six months.

*The Briddhakāl Temple.* Situated to the north of Biseswarganj market. Historically, it is one of the oldest Hindu edifices in Benares. There is a well called the *Briddhakāl kup*, the water of which has healing power over many diseases.

*Kāshi Devi Temple.* Situated in Kashipura Mohalla which is believed to be the centre of the city. Kāshi Devi is known to be the tutelary Goddess of the city.

Having described the principal temples of the northern area of the city, we pass on to the central area where the most famous temples can be visited.

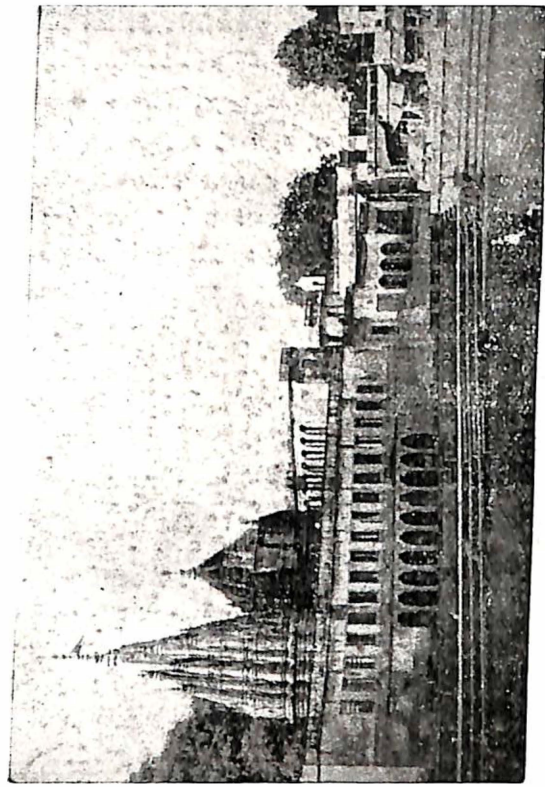
*The Adi Bisveswar temple.* This is situated to the north west of the Carmichael Library and supposed to be the most

ancient of all the Benares Shrines. An archeological inspection proves that the position of the original temple of Biswanath demolished by Muhammad Ghorī in 1194 is close by and marked by a small mosque built out of very early Hindu materials on the high ground near the same Library. The lofty mosque of Aurangzeb standing to the south of the library marks the site of the second temple of Viswanath which the iconoclastic Bādshāh rased to the ground. In front of the same mosque, is the *Jnān kup* or the well of knowledge into which the second Viswanāth image was consigned during the barbaric vandalism of Aurangzeb.

Close by the courtyard of this well is the most famous temple of Viswanāth, the sovereign deity of Benares region built by Ahalyābai of Indore in the 18th century. This comparatively modern temple is noted for its dome and tower covered with plates of gilt copper, the gift of Maharaja Ranjit Singh of the Punjab. Not far from the Viswanath temple in the Viswanath lane stands the *Temple of Annapurna*—the Goddess whose name means a “store-house of food,” where a dole of grain is distributed daily. In the quadrangle of the temple are shrines at each corner dedicated to the Sun, Gouri-shankar, Hanuman and Ganesh. The temple was built by Peshwa Baji Rao about 1721. At a short distance from this is situated a small shrine dedicated to the Deity Ganesh under the title of *Sakkhi Vināyak*. Pilgrims on completing their journey of the Panch Kroshi Road must visit this shrine in order that the fact of their pilgrimage must be certified.

In the western area of the city there are some ancient temples which deserve mention. Near Ausanganj, stands





Durgaji Temple and Tank



the celebrated temple of *Bara Ganesh* containing a huge red figure with silver hands and feet, which is said to be the largest image of the elephant God in existence. The temple attracts crowds of pilgrims throughout the year.

The most important place of pilgrimage in the quarter of Chetganj is *Pisāchmochan*, a large tank lying to the south west of Chetganj crossing. It was named after a demon called Pisach from whom the city was delivered by Bhaironāth and all pilgrims are enjoined to visit the place before proceeding to more holy shrines.

In the western quarter of the Dasaswamedh ward, a visitor will find a surviving example of sun worship at the *Surajkund* or sun pool. In the same region a temple is dedicated to *Dhruveswar*, the personified pole star, another temple is dedicated to the Moon God. Not far from these temples is the tank called *Lakshi Kund* with a temple of Laksmi Nārāyana.

In the southern area of the city there are three ancient places to be noticed specially.

*The Jain temple*, is situated just to the east of the Water Works and marks the birth place of Pārsvanāth, one of the most famous of the Jain Tirthankars.

*The Durga temple* and the *Durgakund*, situated at the southern end of the city. The original shrine was built in the time of king Mahipāl of the Pāla Dynesty. The present building was erected by Rāni Bhavāni, the famous princess of Bengal. In front of the main entrance is a *Nahabatkānā* standing on twelve finely-curved pillars, and open on all sides where the priests beat a big drum three times a day. A

magnificent tank adjoins the temple on the north and is known as the *Durgakund tank*.

*The Lolārak kund*, situated near the pumping station of the Water Works. This peculiar tank is almost in the shape of a well of which the water can be reached by a flight of steps inside the walls. A bath in the tank is supposed to remove the barrenness of women. A large fair is held every year in the month of August which is known as *Lolārakchhat*.

#### OTHER PLACES OF INTEREST

*The modern buildings :* Of the large number of buildings which house the Government and semi-Government offices such as the Courts, Hospitals, the Municipality, Intermediate Colleges, Schools, Libraries, etc., we shall pick up those which stand out unrivalled for either their architecture or for their educational and technical importance.

*The Nandeswar Palace.* This building surrounded by an extensive garden is the town residence of the Maharaja of Benares for distinguished visitors and high officials. The building has some historical importance being the residence of Mr. Davis the Magistrate, who in 1799 gallantly defended himself with a few sepoy against the followers of Wazir Ali, the deposed king of Oudh.

*The Queen's College.* Including the Government Sanskrit College is the second oldest College established in India dating from 1791. The institution had the fame of having the most illustrious orientalists as its principals. Constructed in a finely carved Gothic style, the building is most imposing as a

piece of architecture. The inside and outside of the building have a charm, which must attract all visitors.

*The Saraswati Bhavan.* Just to the north-east of the Queen's College stands this modern building built in ancient Indian Style. It houses a large oriental library and a very rare collection of Sanskrit Mss. It is under the management of the U. P. Government.

Passing from the north-western area of the city, we come to the area known as *maidagin* where some modern buildings are worth a visit.

*The Nāgari Prachārini Sabhā.* Established some forty years ago for the progress of Hindi Language and Literature. This Hindi academy is now the centre of Hindi Culture and Publication. Connected with this is the *Bhārat Kalā Bhawan*, a Museum of art and archæology established through the wonderful zeal of Rai-Krishnadas.

Turning from Chowk to Godowlia and thence towards the western side of the city, we come to the Luxa area, where are situated the *Ramkrishna Mission Buildings* with a temple and a hospital and the *Theosophical Society* established by the illustrious Lady Annie Besant. Near the Theosophical Society stands the old *Central Hindu College* buildings which formed the first nucleus of the Hindu University.

The latest modern building of importance is the *Mātā Bhārat Mandir* situated on the Vidyāpitha Road. Within the walls of this building is a wonderful relief map of India, wrought in white marble and executed with highest precision in respect of measurements and geographical minutæ. On

the walls, have been painted the historical maps of India. The founder is B. Shiva Prasad Gupta.

*The Water Works.* The Water Works is one of the finest in India, the Intake Station whereof is situated on the bank of the river Ganges adjacent to the Tulsighāt. From this Intake Station the water is pumped to the Distributing Station at Bhelupur. The Water Works building is not only the best of its kind in India, but stands foremost in comparison with several water works of other countries as well. Originally the pumping was by steam plant, but since the year 1928 it is being run by electricity and has been supplying over 10 million gallons of water a day. Khan Bahadur P. S. Dastoor, A.M.I.M.E., the Superintendent of the Water Works, is very keen in keeping the plants and the surroundings in a ship shape manner and is extremely fond of not only manufacturing all the spare parts required but of turning out several machineries and articles of importance in the Workshop attached to the Water Works, and only recently, he made a Centrifugal Pump capable of supplying more than half million gallons of water per hour. It is supposed to be the biggest of its kind ever manufactured in India as stated by one of the Government officers.

**Hindu University Building :—**In conclusion, it is felt that this concisely-detailed account of Benares will remain incomplete without even a passing notice of the Hindu University Buildings. The picturesque site and the magnificent buildings of the Univerity stand in perfect harmony with the old architectual atmosphere of the city of Benares. Standing on

a high tower, a spectator, while taking a bird's eye view of of Benares, sees no difference between the long-stretching templed city of Benares and the temple-headed edifices of the University town but one unconnected panorama of gorgeous city of religious buildings and shrines. The colleges and hostels have been all designed in the best style of oriental art. The *facade* of the Ayurvedic college with its dome in the *Vesāra style* of architecture, the ornamental crowning tops of the hostels in the true *Āryavartta* style, the temples surmounting all the colleges like the Buddhist *chaityas*, the porticos with decorated pillars and latticed screens all display an artistic lay-out of the University. All these towering structures have been built in several rows in a crescent form, (or a Japanese fan) which again comes in harmony with the crescent river frontage of Benares itself. The plan and the architecturally designed buldings of this University not only create an atmosphere of oriental grandeur but nurture and educate the modern minds of the students in truly ancient surroundings.

## APPENDIX A.

### *The Colleges :—*

1. The Anglo-Bengali Intermediate College.
2. The Rajghat College.
3. The Udai Pratap College.
4. The D. A. V. Intermediate College.
5. The Harishchandra Intermediate College.
6. The Queen's College.
7. The Besant College for girls.
8. The Vidyāpitha College.

### *The Schools :—*

1. The Jaynarayan School (Formerly a college, estd. 1818).
2. The Bengalitola High School.
3. The Central Hindu School.
4. The Theosophical School.
5. The Cutting Memorial School.
6. The Sanatan Dharma School.
7. The C. H. C. Girls' School.

### *The Sanskrit Pāthshālās :—*

1. The Government Sanskrit College.
2. The Ranvir Pāthshālā.
3. The Tikmani Sanskrit College.
4. The Goenka Sanskrit Pāthshālā.
5. The Marwari Sanskrit College.



## APPENDIX B.

### *Markets and Commercial lanes :—*

1. The Biseswarganj Grain and vegetable market.
2. The Thātheri Bazar for brass and copper wares.
3. The Chowk Fruit Stalls.
4. The *Kachaurigali*—A sweetmeat market.
5. The Dasaswamedh—Vegetable and meat market.
6. The Viswanāth Gali for Silk products and brass wares.
7. The Kalitola gali—For Bengali Sweetmeats.
8. The Khojoā grain market.
9. The Satthi bazar for vegetables.

# SARNATH

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## PART I

### *Importance :*

SARNATH, about four miles to the north of Benares town, is one of the four principal spots in India sacred to Buddhists all over the world, the other three being Lumbini grove (now Rummindei or Rupādei\* inside the Nepalese border), near Kapilavastu, where the Buddha saw the light ; Bodhgaya, the place of his enlightenment or spiritual evolution to Buddhahood ; and Kusinagara (modern Kasia in the Gorakhpur district), the scene of his *parinivvāna* i.e. demise. Sarnath is associated with another memorable event in the Master's life. It was there that he delivered his initial discourse, or, as the Buddhist texts declare, "turned the wheel of the Law" (*Dhammacakka-pavattana*), and made the first five converts to his Doctrine. Thus the importance and sanctity of Sarnath rest on its being the birth-place of Buddhism†.

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\*The exact site is marked by a monolithic Aśokan column bearing the words : "Here the Blessed One was born."

†The *Mahāparinivvānasutta* represents the Buddha himself as enjoining upon his adherents, shortly before his decease, the duty of visiting the above mentioned four places.

*Names*

The name Sarnath is of recent origin, and is presumably an abbreviated form of "Sāraṅganātha" denoting "Lord of the deer." It is sometimes taken to be an epithet of the god Śiva, whose modest shrine, perhaps not very old, still stands at a distance of a few furlongs from the excavated area. The other suggestion that the term "Sāraṅganātha" signified the Buddha, however, appears more plausible, for according to a legend he was leader of a herd of deer here in one of his previous incarnations. We are told that at his intercession the then ruler of Benares, who used to kill a large number of deer in his hunting excursions, agreed to be content with only one antelope daily. Once, it was the turn of a doe big with young to be slaughtered for the royal kitchen (*mahānasa*), but she showed unwillingness to go because under the circumstances her destruction would result in the loss of two lives. Although she belonged to a flock led by another stag, who in a subsequent birth is said to have become Buddha's cousin, the notorious Devadutta, the deer-Bodhisattva out of sheer pity offered himself in her stead and proceeded towards the palace. When the king heard that even an animal was capable of such an act of self-sacrifice, he felt deep remorse for his past wanton cruelties, and thenceforward he altogether eschewed chase and allowed the deer to roam freely and without fear in that hunting-ground. This story is found in some Pali works, which, it may be observed, nowhere mention the name Sarnath, but call it Migadāya (literally, given over to the deer) or Migadāva (deer-forest). Another name occurring in Pali

literature is Isipatana meaning 'the abode of Rishis,' or Isipattana i.e. 'descent of the Rishis.' The latter variation enshrines an interesting legend of the fall in this locality of the material bodies of 500 Pratyeka Buddhas, who rose to the sky and with divine grace attained *Nirvāṇa*.

### *History :*

Sarnath first emerges into the light of history at the time of the Buddha. It was thither that he repaired after gaining the "supreme knowledge" under the Bodhi Tree in his 35th year to meet the five ascetics, his quondam associates in the forests of Uruvela, which they had left thinking Śramaṇa Gotama to have abandoned the hard path of austerities for the pleasures of the palate. On descrying him, Ajñāta-Kauṇḍiṇya and his companions decided to give their old comrade a cold shoulder, but as he drew near they were struck by his serene majesty and spontaneously received him with due honour and courtesy. He solemnly announced to the *Pañcavargiyas* that he was no longer a mere seeker after Truth and should not be addressed as Gotama. He had become the Buddha endowed with the divine Wisdom (*samyak Sambodhi*). He then revealed to them "the four noble truths" (*cattāri ariya-saccāni*), viz., sorrow, cause of sorrow, cessation of sorrow, and the path leading to the cessation of sorrow. He said : All existence involves suffering (*dukkha*), and its cause is thirst (*tanhā*). Suppression of this thirst or desire means the end of suffering, and the way to it is the "noble eight-fold Path" consisting of Right Views, Right Resolve, Right Speech, Right Action, Right Living, Right Effort,

Right Recollectedness, and Right Meditation. One should avoid the extremes of sensuousness and self-mortification, for both are equally low, degrading, and unprofitable. Such was the inspiring sermon preached by the Buddha at Sarnath to the five anchorites, who soon professed faith in him. Having won other followers—merchants, house-holders, and peasants—from Kasi, the Buddha exhorted them to go in different directions propagating the Law. Thus, with these humble beginnings he initiated that dynamic movement, which in the course of centuries has profoundly affected the cultures of many a land far beyond the frontiers of India, and provided spiritual solace to countless millions of people.

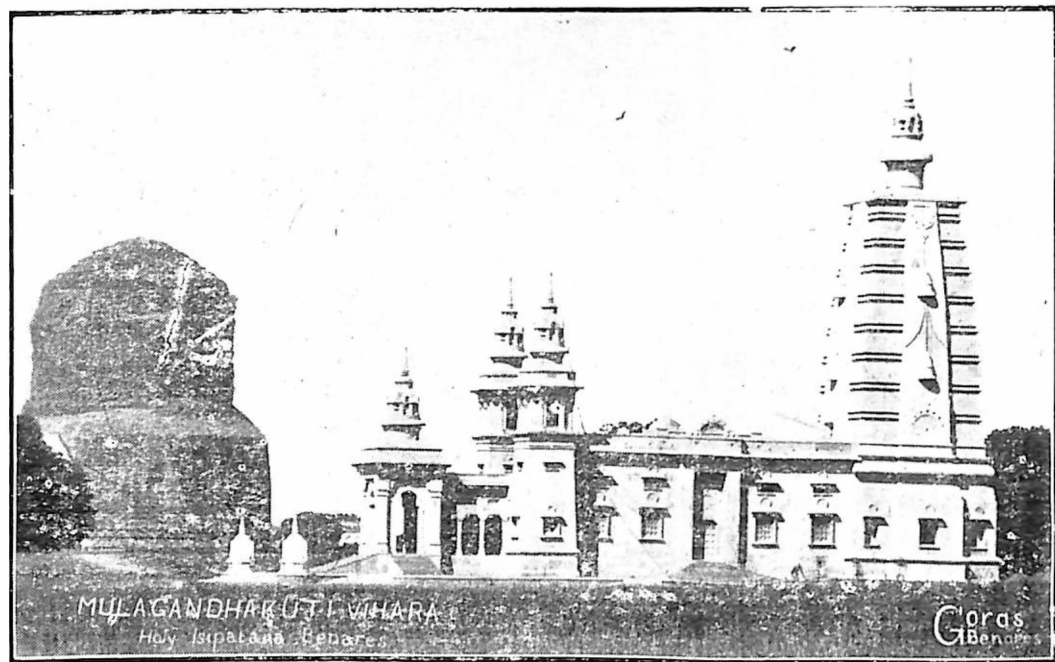
After the "Wheel of the Dhamma" had been set in motion, the Buddha untiringly travelled up and down the country for the next forty-five years carrying his message of universal peace, *ahimsā*, and brotherhood. It is likely that during this long ministry he occasionally retired to the sylvan quiet of the Deer-Park in the company of some of his disciples, but if there grew up any regular monastic establishments, all traces of them have disappeared, probably because they were then constructed of easily perishable materials. In the two or three centuries following the time of the Buddha, Sarnath is hidden from our view by a thick veil of darkness. There is, however, no doubt that with the cession of Kasi to Kośala-devī by Pasenadi, the Kosalan monarch, as pin-money and the settlement of the subsequent dispute arising out of it, Bimbisāra of Magadha and his successors exercised sway over Sarnath. So also did the Nandas and the Mauryas. The earliest relics so far unearthed are to be assigned to the reign

of Aśoka (C. 273-92 B.C.), who must have in a spirit of devotion visited the scene of Buddha's first triumph as a teacher. At any rate, it is known with certitude that the great Emperor went to Bodhgaya in his tenth regnal year (R.E. VIII) and to Lumbini *grāma* in the twentieth (Rummindei P.E.). We may, therefore, safely assume that he included Sarnath, which lay within his far-flung empire, in his pilgrimage. Here he erected a massive monolith with an edict engraved on it prescribing the penalty of expulsion from the *Saṅgha* for such monks and nuns as attempted to create schisms. It is supposed by some scholars to stand on the very site where the Tathāgata promulgated the Law\*; curiously enough, however, no inscription commemorates this great landmark in the religious history of mankind. A little farther to the south of the pillar are the remains of a brick *Stūpa*, usually ascribed to Aśoka by archaeologists. The foundations, which are still extant, clearly indicate that it must have been a magnificent structure, but the pitiless operations of man and nature alike have obliterated all its pristine grandeur. Near the ruins of the *Stūpa* is a stone-railing which is believed to have originally crowned the edifice reared by Aśoka.

When the Maurya empire fell, Puṣyamitra founded the Sunga dynasty. Sarnath certainly formed part of their extensive dominions, but except a few railings and pillars with the names of the donors inscribed on them it has not yet yielded any monuments of the Sunga age. The *Mahābhāṣya* of the grammarian Patañjali deposes about a Yavana incur-

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\*This distinction may be claimed either by the Aśokan column or Dharmarājika *Stūpa*, or by the "Main Shrine."



Dhamek Stupa and Mulgandha Viharkuti (Sarnath)





sion into the interior of the country during the reign of Puṣya-mitra, and if the same event is referred to in the *Gārgī Saṁhitā*, a work on astronomy, we learn that the Pañcāla region was overrun, Sāketa (Ayodhyā) stormed, and even Pāṭaliputra was threatened. In his victorious advance eastward, the invader must have directed his hostile attention towards Kasi and Sarnath also. After the subversion of the Sunga dynasty, Sarnath passed into the hands of the Kaṇvas, but nothing has survived to remind one of their rule here. Our information is no less vague for the period when the Sāta-vāhanas and the Śakas were the principal actors on the stage of Indian history. An inscription engraved on the Aśokan pillar in characters current about the commencement of the Christian era, however, testifies that a king named Aśvaghōṣa flourished then and was in some way connected with Sarnath. The next glimpse of it we get during the time of Kaniṣka, for in the third year of his reign, according to an epigraph on the pedestal of a statue of the Bodhisattva, discovered at Sarnath, Vanaspara was Kṣatrapa (governor) here under Mahākṣatrapa Kharapallāna, who appears to have been the great Kushan Emperor's Viceroy at Mathura. Thus, there can be no doubt that Kaniṣka's authority extended right upto Sarnath. The disintegration of the Kushan empire made the Nāgas (Bhāraṣivas) supreme in northern India. But being Śāivas, they had hardly any attraction for this Buddhist locality. Travelling down the stream of time, we come to the epoch of the Guptas, who were the mightiest power in India from about the fourth century A.D. to the beginning of the sixth. During their sway, Sarnath was

certainly in a prosperous condition, as is proved by the ruins of temples and monasteries and the large find of coins and images of the Buddha belonging to the Gupta age. Most of the Gupta monarchs were themselves devout Vaiṣṇavas, but they were tolerant of Buddhism and other faiths. Indeed, it was probably in the reign of some Gupta king (some, however, assign it to the Kushan period) that the construction of the Dhameka *Stūpa* at Sarnath was undertaken. Here were also unearthed two images of the Buddha with inscriptions mentioning the names of Kumāragupta (II) and Budhagupta, whose respective dates, as recorded in them, are G.E. 154 : 473 A.D. and G.E. 157 : 476-77 A.D. When the celebrated Chinese pilgrim Fa-hian visited Sarnath about the opening years of the fifth century A.D. in Chandragupta II Vikramāditya's reign, he noticed there four big *Stūpas* and two monasteries tenanted by monks. Perhaps they were adherents of the Sammatīya sect, an offshoot of the Hīnayānic Vatsi-putriyas. At any rate, an inscription in letters of the 4th or 5th century A.D., inscribed below Aśoka's edict on his pillar, indicates that they were the predominant fraternity at Sarnath then. But it appears from certain other records that shortly before the rise of the Guptas the principal Buddhist school represented there was the Sarvāstivādin of the Sthaviravāda. Still earlier, perhaps another sect had its establishments at Sarnath. When we enter upon the sixth century A.D., the Hūṇas descend upon the fertile plains of India like swarms of locusts. They overwhelmed the Gupta empire, conquered Central India, and probably even pressed on Magadha. Of course, their chief, Mihirakula, was ultimately

defeated and driven out by the arms of Yaśodharman and Bālāditya, but it is likely that in their onward rush the Hūṇas wrought some destruction in Sarnath. After the Hūṇa menace was averted, the Later Guptas controlled the destinies of Sarnath for a time, and they were soon supplanted by the Maukharis of Kanauj. At the advent of the seventh century, a resplendent star arose on the political horizon. For, Harṣa-vardhana (A.D. 606-47) was not only a great ruler and conqueror, but also a noble patron of religion. Himself a devotee of Śiva at the start of his career, Harṣa leaned towards Buddhism in the latter part of his life. Some of his activities distinctly bore a Buddhist flavour, although it is difficult to say with certainty that he was responsible for the building or enlargement of the Dhameka *Stūpa*, as has sometimes been supposed by scholars. Whatever be the truth, it is apparent from the testimony of Yuan Chwang, who spent several years travelling in Harṣa's dominions, that the prosperity of Sarnath suffered no decline in his reign. Yuan Chwang saw at Sarnath a superb shrine containing a life-size brass statue of the Buddha in the attitude of turning the Wheel of the Law (*Dhammacakka*). Besides, the pilgrim mentions the Aśokan *Stūpa* and column and other *Stūpas* and monasteries, where resided no less than 1500 monks of the Sammatīya school. The death of Harṣa plunged northern India into anarchy, and his minister O-la-na-shun or Aruṇāṣva seems to have stepped into the shoes of his master for a short time. The usurper, however, soon met his doom at the hands of a Chinese mission under Wang-huen-tse, whom he had maltreated. Then followed a period of obscurity, and unfor-

tunately all our sources of information regarding the dominant power in the Gangetic valley are cut off. But there are grounds to believe that the importance of Sarnath as a centre of Buddhist pilgrimage continued undiminished. The Chinese itinerant I-tsing, for instance, prior to his departure from home in 671 A.D. is reported to have uttered: "I would sometimes direct my thoughts far away to Migadāva (Deer-Park)." When light pierces through again, we find Sarnath, as before, included in the kingdom of Kanauj, and it was probably during the reign of Yaśovarman (C. 725-52 A.D.) that another Chinese palmer Ou-Kong visited the place.\* After Yaśovarman, Sarnath was held successively by the Āyudhas and the Pratihāras of Kanauj, among whom the most prominent monarchs were Nāgabhaṭa II, Mihira Bhoja, Mahendrapāla I, and Mahīpāla. Not being themselves of Buddhist persuasion, they have left no monuments of their own at Sarnath. But some of the contemporary princes of the Pāla dynasty appear to have made certain additions to the number of its structures. For, a fragmentary inscription mentions the name of Jayapāla, a cousin of king Devapāla (C. 815-55 A.D.), in connection with the building of ten *Caitīyas*.† We further learn that in the time of Mahīpāla, the Gauḍa sovereign, two brothers Sthirapāla and Vasantapāla erected in 1026 A.D. a new stone "gandhakuṭi" and renovated the edifices called *Dharmarājika* and *Dharmacakra*. Their decay was perhaps due to natural causes; at any rate, it had

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\*B. C. Bhattacharya, *History of Sarnath*, p. 56.

†D. R. Sahni, *Catalogue of the Museum of Archaeology at Sarnath* D(f) 59, p. 245.

nothing to do with the destructive raids of Mahmud of Ghazni, who shattered the Pratihāra Empire in 1019 A.D., since he is not known to have advanced so far eastward as Sarnath. The fall of the Pratihāras gave free play to the ambitions of many an adventurer. In 1033 A.D., Ahmad Nialtigin, the governor of the Panjab, attacked and plundered Benares, and very likely Sarnath, too, invited his rapacious attention. It is noteworthy that according to the Moslem historian, Al Baihaki, this region was then in possession of "Gang," who has rightly been identified with Gāṅgeyadeva Cedi (C. 1018-41 A.D.). His power was eclipsed by Bhoja Paramāra (C. 1000-50 A.D.), after whom Kaṇṇadeva Cedi (C. 1041-72 A.D.) planted his standards in northern India. When the people were sorely distressed by these ever-recurring depredations, an enterprising chieftain, named Candradeva, of the Gahaḍavāla clan arose and carved out a kingdom with Kanauj as the capital. The charters of the Gahaḍavāla rulers prove that Benares was a sort of second capital of their realm, which at its zenith extended to Mudgagiri (Monghyr) in the east and even beyond it. Sarnath was thus under the Gahaḍavālas from about the ninth decade of the eleventh century A.D. We are told in an inscription that during the reign of Govindacandra (C. 1114-54 A.D.), queen Kumāradevī built a *Vihāra* at Sarnath and restored the Dharma-cakra-Jina in accordance with the form in which it existed in the time of Dharmāsoka.\* It is interesting to note that an orthodox Hindu king like Govindacandra was broad-minded enough to allow his wife to profess the Buddhist faith and patronise it so openly.

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\**Ep. Ind.* IX, pp. 325, 328.

With this last flicker of the ancient glory of Sarnath, darkness descended upon its fortunes. The Moslem marauders had now definitely turned their longing eyes towards the alluring plains of Hindustan, and Govindacandra had to contend against them. Indeed, in a Sarnath inscription he is described as one "commissioned by Hara in order to protect Bārānasī from the wicked Turuṣka warrior."\* Although Govindacandra succeeded in stemming the tide of the Moslem aggressions, the Gahaḍavāla authority eventually received its death-blow in 1194 A.D. during the reign of Jayacandra at the hands of Sihābuddin Ghori, who marched to Benares "the centre of the country of Hind" and destroyed there "over 1,000 temples raising mosques on their foundations.† He appointed Qutbuddin as his Viceroy at Delhi, and the latter with the help of his able lieutenant Altamash overran and reduced northern India completely in the course of a few years. Sarnath did not escape the fury of the Moslem iconoclasts, and soon it became a mass of crumbling ruins. That the site was suddenly destroyed or abandoned, and was also subjected to a devastating fire is amply demonstrated by the discovery of pulses in earthen pots and burnt rice etc. in certain cells here. Thenceforward for about seven centuries and a quarter the tolling of the temple bells ceased, and no longer were heard at this sacred spot the elevating sermons or solemn chants of the devout monks. Pious Buddhist pilgrims may have continued to come here from afar defying difficulties,

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\**Ibid.*, IX, pp. 324, 327, verse 6.

†Briggs (Firishta), Vol. I, p. 179; Elliot, *History of India*, Vol. II, p. 223.

but there were no resident Bhikṣus to welcome them or take them round the *Stūpas* and monasteries. Almost all these objects of their veneration had collapsed and were buried under earth except the Dhameka *Stūpa*, another monument ascribed to Aśoka, and the Caukhandi *Mound*, which still stood proudly commanding the landscape to bear testimony to the past greatness of Sarnath. The dead silence of the ages is, however, broken for a while in *Hijri* 996 = A.D. 1588, when, according to an inscription recorded on a stone slab, Emperor Akbar built an octagonal tower on the Caukhandi *Stūpa* to commemorate the visit of his father Humāyun. Happily, at the dawn of the present century Sarnath has again been rescued from oblivion, thanks to the Archaeological Survey of India and the unremitting efforts of the late Śrī Devamitta Dharmapāla of Ceylon, who founded the Mahābodhi Society for the revival of Buddhism. Since he built the celebrated Mūlagandhakuṭi *Vihāra*, Sarnath is once more pulsating with new life, and bids fair to regain its old position of being the heart of Buddhism.

## PART II

### How to go

Most visitors to Sarnath will go there from Benares by car or lorry. It is a pleasant half an hour's drive on a *pucca* road with shady mango trees on both the sides. The B.N.W.R. also touches Sarnath about half a mile from the ruins, but as conveyances are not easily available at the station, it is not so convenient to go by rail, especially with children or if one has got luggage to carry.

## OBJECTS OF INTEREST

(a) *Caukhandi* :

While approaching Sarnath, a short distance from it, one sees on the left of the road a huge mound of brick with an octagonal tower surmounting it. It is now called Caukhandi. According to an inscription in Persian recorded on a stone slab, the upper structure was raised by Emperor Akbar in *Hijri* 996=A.D. 1588 to commemorate the visit of his father Humāyun. The mound probably represents the remnants of a *Stūpa*, but the interior, when bored by Sir Alexander Cunningham, did not yield any relics. It is believed that the Buddha met at this spot the five ascetics, who, as already mentioned, became his first disciples.

(b) *The Ruins* :

Proceeding a little further to the north the visitor reaches Sarnath, ancient Migadāya, itself in a few minutes. On one side of the road is the excavated area, and on the other we have the Museum. Before entering the latter building, one would be well advised to go round the ruins and see other objects of interest.

(i) *Progress of Excavations* :—That Sarnath was a promising field for the archaeologist's spade was revealed accidentally in the year 1794 A.D., when Dewan Jagat Singh of Benares got a big brick *Stūpa* pulled down to obtain materials for building a market after his name (Jagatganj) in the city. The demolition of the edifice brought to light certain relics, which attracted the attention of antiquarians to this place. In 1815 A.D., Colonel Mackenzie unearthed some sculptures



here, and then Cunningham carried out excavations from December 1834 to January 1836. Sporadic work by Major Kittoe, Fitz-Edward Hall Mr. Horn, Rivett Carnac and others continued from A.D. 1851 to 1877, but the bulk of the antiquities were found subsequently during the operations conducted in the course of almost two decades by a number of able officers of the Archaeological Department like Oertel (1904-05 A.D.), Sir John Marshall (1907 A.D.), Hargreaves (1914-15 A.D.), and Daya Ram Sahni (1917-22 A.D.). As a result of their labours, numerous sculptures, remains of *Saṅghārāmas* and *Stūpas*, and other monuments now peer through the dust of centuries silently and dimly unfolding the grandeur that was ancient Sarnath.

(ii) "*Kittoe's Monastery*":—To inspect the excavated site one should start with the ruins of a monastery exhumed by Major Kittoe. It has the usual plan of a *vihāra*-cells on all sides for the residence of the *Bhikṣus* with a courtyard in the middle and in front an entrance and guard-rooms. The surviving walls are so thick that the building seems to have been double-storied or more. Experts are of opinion that it dates from about the ninth century A.D., and the well in the courtyard also probably belongs to the same age. There are grounds to suppose that the monastery was destroyed by the cruel blow of an invader; at any rate, the discovery of cooked rice, pulses, cakes etc. in certain cells indicates that it was deserted all of a sudden.

(iii) *Dharmarājika Stūpa*:—Leaving to the west of "Kittoe's monastery" the remnants of another similar structure, one comes to a circular object. This represents the

foundations of the *Stūpa* dismantled by Diwan Jagat Singh of Benares in 1794 A.D., as referred to above. From it was recovered a marble vessel containing some bones and decayed pearls, which were all thrown into the Ganges by the ignorant despoilers. Probably the bones were a part of the corporeal relics of the Buddha or of some celebrated Buddhist teacher. For, it was the Buddhist practice to enshrine the ashes of the departed worthy in *Stūpas*, which were "normally hemispheres or smaller segments of circles upon drums," built of brick or stone, or sometimes of both. Here it may be noted that the marble casket is not traceable now, but its stone lid is preserved in the Calcutta Museum. This *Stūpa*, formerly misnamed after the name of Jagat Singh by archaeologists, has been identified with the famous Dharmarājika, which we learn from Yuan Chwang was constructed by Aśoka. Some scholars believe that the monument was on the same site where the Buddha first "turned the wheel of the good Law." Was that the reason why it was particularly renovated by pious rulers several times before its final destruction?

(iv) *Votive Stūpas* :—All around the Dharmarājika were other structures—Votive *Stūpas*—raised mostly in "the mediaeval period"\* by devotees as memorials of their pilgrimage to Sarnath.

(v) *A square stone-railing* :—A little further, one notices a small brick *Stūpa* enclosed by a smoothly polished square stone-railing, which originally appears to have surrounded the "Tee" or umbrella that crowned the Dharmarājika. When it was fixed at the present spot is unknown.

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\*Sahni, *Guide to the Buddhist Ruins of Sarnath*, p. 18.

(vi) *Aśokan pillar* :—Nearby is the lower portion, *in situ*, of a broken stone column with a highly burnished surface.\* It was set up by Aśoka, who also got an edict inscribed on it declaring “whoever, monk or nun, breaks up the *Saṅgha* must be made to wear white garments and to take up an abode in a place other than a monastery.”† Aśoka here prescribes penalties for any attempt at creating dissensions in the *Saṅgha*, and thus acts as a sort of Defender of the Faith. It was indeed an appropriate edict to be promulgated in the birth-place of Buddhism. Besides this, there are two more inscriptions on the pillar—one mentions a certain ruler named Aśvagoṣa and the other refers to the Sammatiya sect. The column was surmounted by a capital with the figures of four lions on it set back to back, and these in turn supported a colossal stone wheel symbolising the *Dharmacakra*. The Lion-capital is one of the finest pieces of art, and may now be viewed in the Museum. The pillars of Aśoka show a high degree of engineering. They are huge tapering monolithic shafts, generally 40 to 50 feet in height and having an average weight of fifty tons. They are of Chunar sandstone, and one can well imagine what an immense amount of money and labour it must have cost Aśoka to get them fabricated there and then transported and erected in widely separate localities.

To the west of the Aśokan column, Hargreaves discovered the remains of an apsidal temple and a monastery, as also pieces of exquisitely carved sculptures and architectural

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\*Other pieces of the pillar lie a few feet away.

†Mookerji, *Aśoka*, pp. 193-94.

stones, which perhaps belong to an age not far removed from that of the Sunga.

(vi) "*Main Shrine*":—The next noteworthy monument is what is described in archaeological publications as the "Main Shrine." Some believe that it was built in the eleventh century A.D., but on a consideration of its style of construction, materials used, and the discovery of two epigraphs of the third or fourth century A.D. proving the hold of the Sarvāstivādins, Pt. Dayā Ram Sahni assigned it to the Gupta period.\* He further identified it with the temple mentioned by Yuan Chwang as marking the exact spot where the Buddha sat down to preach his first sermon. The shrine consisted of a big hall with rectangular chapels on three sides—all having elegant images—and a portico in front. Its exterior was embellished with decorative designs, and if we get any indication from the thickness of the walls, it must have been of sufficiently imposing dimensions. Immediately in front of it is a rectangular court, perhaps formerly used as a hall, where the *Bhikṣus* and other devotees assembled to hear religious discourses and exchange thoughts. The vast open courtyard to its east appears to have been added later in mediaeval times. It contains one or two chapels and some small *Stūpas*, one of which, adorned with beautiful carvings, is particularly interesting. The courtyard has also a drain and at its entrance there is a brick reservoir, then filled with water in order that the monks and nuns may wash their hands and feet before stepping inside the sacred area.

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\*D. R. Sahni, *Guide to the Buddhist Ruins of Sarnath*, pp. 19-21.

(viii) *Monasteries I-IV* :—Advancing a little to the north, the visitor will find the ruins of at least four monasteries. The one called Monastery No. 1 has been identified with the shrine of the Dharmacakra Jina constructed by Kumāradevī, the Buddhist queen of Govindacandra Gahaḍavāla of Kanauj (C. 1114-54 A.D.). It had a well in the *āṅgana* and an underground passage, where the *Bhikṣus* perhaps retired sometimes for quiet meditation, and an inscription on a stone slab discovered near one of the gateways grandiloquently describes the edifice as “an ornament to the earth.” To the west of this *Vihāra* is Monastery No. 2, which seems to have been raised upon the remains of an earlier building of the same nature. Monastery No. 3 is to the east of Kumāradevī’s temple. It stands on a low level, and is fairly well preserved. Its brick-paved courtyard, traces of wooden doors, and a covered drain deserve special mention. Monastery No. 4 is also below the ground level. All these three monasteries (Nos. 2, 3, 4) conform to the usual plan of such buildings (*Catuḥśālā*), and probably date from the late Kushan or the Gupta period.

(ix) *Dhameka Stūpa* :—Now, one may turn to the south to see the far-famed Dhameka *Stūpa*. The name Dhameka appears to be derived from Sanskrit *Dharmekṣā* meaning “pondering of the Law.” Or, is it a corrupted form of Pali “Dhammacakka”?\* This *Stūpa* is one hundred and four feet high, the lower portion—37 feet in height and 93 ft.

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\*The term would first change into Dhammaka, Dhamaka, and then become Dhameka. It is interesting that a seal was recently discovered here with the inscription “Dhamak” on it.

in diameter—being built of blocks of stone joined together by iron cramps ; and the upper one is of brick. The whole structure is solid, and is vastly different in form from the older *Stūpas* at Sanchi and other places. Indeed, the Dhameka *Stūpa* looks very much like a massive Śiva-līṅga. The stone basement has got eight faces, each having niches, which formerly contained images of the Buddha. The stones are ornamented with floral arabesques and carvings. The style and size of the bricks show that the Dhameka *Stūpa* was probably erected in the Gupta age, although it is possible that additions and repairs were made in later times. Some scholars, however, assign it to the seventh century A.D. on the ground that Yuan Chwang does not mention this monument ; and secondly, a stone slab with the well-known Buddhist creed inscribed in characters of the seventh century A.D. was found in it when Cunningham bored its top.

A little to the west of the Dhameka *Stūpa* are the remnants of a small monastery, perhaps belonging to the eighth or ninth century A.D. It was probably built on the ruins of an earlier structure.

(c) *Modern Buildings etc. :*

(i) *Jaina temple* :—Adjacent to the Dhameka *Stūpa* is a Jaina temple dedicated to the eleventh Tirthaṃkara Śreāṇśanātha. It is a comparatively recent shrine, having been built in 1824 A.D. On the other side of the road, there is also a Jaina *Dharmasālā* in an enclosed garden.

(ii) *Sculpture Shed* :—This shed to the west of the Jaina temple was erected in 1905 A.D., and at present houses certain



Lion Capital of Asoka at Sarnath

Brahmanical and Jaina sculptures, which were unearthed elsewhere and not in Sarnath. Among the Brahmanical antiquities, the most remarkable are those of the goddess Yamunā and the *Navagrahas* (nine planets). The Jaina images are of the *Tīrthaṅkaras*—Ādinātha, Śāntinātha, Mahāvīra etc. It is hoped that these pieces of art will find a better shelter.

(iii) *Mahābodhi School and Library* :—These useful institutions have been established by the Mahābodhi Society of India. They are extremely modest efforts to spread knowledge, but who knows even such little beginnings may have a great ending, and Sarnath may one day again become the centre of Buddhist religion and learning, as in the past it undoubtedly was both the “Canterbury and Oxford of Buddhism in India.”

(iv) *The Ārya Dharmasālā* :—This comfortable rest-house was built by the great philanthropist and business-magnate Birla. It fulfils a long-felt want, and visitors may now conveniently stay at Sarnath for a short time if they so desire. The railing in front of the Dharmasālā recalls to our mind those found in early Buddhist structures.

(v) *The Burmese Rest-house* :—It is about a furlong to the west of the excavations, and was constructed by the Burmese. It is a double-storeyed building with commodious rooms and a chapel containing a Burmese image of the Buddha.

(vi) *The Mūlagandhakūṭi Vihāra* :—This is the most important and magnificent modern building at Sarnath. It represents in concrete form the vision of the late Śrī Devamitta



Dharmapāla, and it materialised largely owing to the munificence of Mrs. Mary Foster of Honolulu. The term "Mūla-gandhakuṭi" occurs in an ancient inscription discovered at Sarnath ; it signified the chamber occupied by the Lord Buddha himself. It was generally perfumed because of the offerings of flowers and incense, etc. to him. Thus the name of the *Vihāra* has been appositely chosen. The shrine proper is a pyramidal tower of nine storeys surmounted by an *amalaka* or crest. The towers at the front corners of the large rectangular hall are proportionately smaller than the principal *Śikhara*. There is also a porch with a bell-shaped capital at the entrance to the hall, which may be compared to the *maṇḍapa* of a temple. The edifice on the whole gives one the impression of symmetry, harmony, and beauty. Inside the *sanctum sanctorum* is installed a graceful statue of the Buddha in the attitude of preaching (*Dhammacakka pavattana*). It is an imitation of an image of the Buddha, assigned to the Gupta period, which may now be seen in the Museum. On the walls of the hall are paintings, by a Japanese artist Kosetsu Nosu and his assistant Kawai, of the main incidents in the Master's life beginning from Māyā's conception to his *parinivāna* or passing away. The work is chiefly due to the encouragement and generosity of Mr. B. L. Broughton, a former Vice-President of the British Mahābodhi Society. Some of the paintings are so elegant and realistic that one is at once reminded of the famous frescoes at Ajanta.

(vii) *Sapling of the Bo-Tree* :—According to tradition, Aśoka had sent a branch of the Bodhi Tree, under which the Buddha had obtained enlightenment, to Ceylon. In course

of time it grew into a mighty tree at Anuradhapura. Its saplings were transplanted at Sarnath when the Mūlagandhakuṭi *vihāra* was constructed and opened in 1931. Thus the tree within the enclosure to the east of the *vihāra* is a descendant of the Bodhi Tree itself.

(viii) *The Chinese Temple* :—This is the latest addition to the buildings at Sarnath. Its plan is rectilinear, with rooms for the residence of monks on the back side, and is being built by Mr. Lee, a Chinese merchant of Singapore. The style is supposed to be entirely Chinese. The Mongolian features of the marble image of the Buddha are also noteworthy.

(d) *Śiva Mandir* :

It is popularly called the temple of Sarnath, and a fair is held here each year. It does not appear to me an old structure. Inside the shrine are the usual symbols of Śiva, and outside there are two stone *nandis* or bulls (the *vāhana* or vehicle of Śiva). A platform has also two images of the Buddha—one in the protection-granting posture and in the other he is depicted as descending from heaven where he had gone to preach to his mother. It is curious how these images are found in a Śaiva fane.

(e) *The Museum* :

No account of Sarnath would be complete without a description, howsoever brief, of the numerous antiquities collected in the Museum, which was built by the Archaeological Department of India in the year 1905. The exhibits consist of sculptures, bas-reliefs, pottery, terracottas, seals, stone inscriptions etc., and range in date from Aśoka's time

(C. 273-32 B.C.) to the downfall of Hindu rule in northern India at the end of the 12th century A.D. Here we shall mention just a few select specimens.

(i) *The Lion-Capital* :—As one enters the Central Hall, one is struck by the beauty and brilliant polish of the Lion capital, which originally surmounted the Aśokan column. The lower part of this monument looks like a Persepolitan bell, but it may represent, as conjectured by Havell, an inverted lotus flower with sixteen petals. Then there is the round necking, and on the abacus are carved in high relief the figures of elephant, bull, horse, and lion between four *caltras* (wheels). It is sometimes said that these four noble beasts (*mahājaneṣa*) are merely decorative : traditionally, however, the elephant is considered as the guardian of the east, the bull of the west, the horse of the south, and the lion of the north, and so they may symbolise the proclamation of the “Saddhamma” in all the four directions. But according to another view they respectively stand—being their *vāhanas* (vehicles)—for Indra, Śiva, Sūrya and the goddess Durgā. Thus the idea was perhaps to show that these Brahmanical deities were subordinate to the Buddha and his Law. D. R. Sahni, on the other hand, believes that these animals indicated the celestial Anotatta lake, which is said to be guarded at its four mouths by them.\* A still more plausible explanation is that they are connected with the Buddha himself. Probably the elephant is the symbol of his conception by Mahāmāyā, who

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\*D. R. Sahni, *Guide to the Buddhist Ruins of Sarnath*, p. 40. The Buddha is said to have often bathed in this lake, and Māyā, too had a bath with its waters before her conception took place.

saw in a dream a white elephant entering her womb ; the bull of Buddha's nativity, which occurred in the sign of the Zodiac Taurus ; the horse of his wandering away from home into homelessness on the charger Kanthaka ; and the lion stands for the Sākyasimha (Buddha). Next, over the drum are four lions with gaping mouths and set back to back. These figures are wonderfully vigorous and life-like, and Sir John Marshall is of opinion that there is nothing to equal them in the plastic art of India.

(ii) *Pieces of Stone Wheel* :—In a glass case are preserved some fragments of a huge stone wheel, which was originally the crowning feature of the lion-capital. Presumably it symbolised the *Dhammacakra*, the wheel of the Law, put in motion by the Buddha.

(iii) *Statue of Bodhisattva* :—This is a red sandstone standing statue of the Bodhisattva (i.e. one who is on the way to becoming the Buddha). It was originally protected by a stone umbrella, lavishly ornamented with lotus and other designs. The recovered pieces of the umbrella have been joined together, and are at present kept in a corner of the hall. An inscription on the backside of the base of the statue informs us that it was consecrated by *Bhikkhu Bala* in the third year of Emperor Kaniṣka's reign when Vanaspara was Kṣatrapa and Kharapallāna governed as Mahakṣatrapa.

(iv) *Image of the Buddha in preaching posture* :—It is undoubtedly a masterpiece of Gupta art, and has been taken as model for the new image of the Buddha installed in the Mūlagandhakuṭi vihāra. It expresses vividly the whole event

for which Sarnath is famous in the history of Buddhism. The Buddha is seated cross-legged (*yogāsana*) on a lotus with his fingers raised in the attitude of preaching. Behind the head is the aureole, and on the sides are two celestial figures flying on their wings. Below on the pedestal are depicted the "Pañcavargiyas," the first five disciples of the Buddha, and the sixth figure is perhaps that of the donor of the statue. The dignity and serenity of the face and the naturalness and grace of the sculpture in general speak highly of the artist's skill in chiselling.

(v) *Other Statues of the Gupta Period* :—A number of images of the Buddha, belonging to the Gupta age, are preserved in the Museum. On the pedestals of two of them, donated by Bhikṣu Abhayamitra, are inscriptions dated G.E. 154=473 A.D. and G.E. 157=476-77 A.D. respectively in the reigns of Kumāragupta (II) and Budhagupta. These Gupta statues are characterised by close-fitting and transparent garments, a halo round the head, and a peculiar arrangement of the hair resembling the whig of an English Judge.

(vi) *Heads and bas-reliefs* :—In room No. 2 may be seen some small heads of images separated from their trunks. They are all to be assigned to the Gupta period. Besides, there are interesting bas-reliefs depicting *Jātaka* stories and events from the life of the Buddha.

(vii) In the same room are other elegant images of the Bodhisattva Mañjuśrī (the god of wisdom); Bodhisattva Avalokiteśvara ; the Mahāyānic goddess Tārā, the "Energy" (*Sakti*) of the Bodhisattva Padmapāni ; Marīci, the Buddhist

goddess of dawn ; and Vasundharā, the earth-goddess. The visitor will also find here the stone inscription of Kumāradevī and some big earthen jars.

(viii) *Statue of Mahādeva* :—At the western end of room No. 3 is a colossal statue of Mahādeva in the act of killing the Asura Tripura with his trident (*triśūla*). The god is delineated in his fierce form with ten hands holding various weapons.

(ix) *Door-lintel* :—It is in the *verandah* in front of room No. 2. It depicts a *Jātaka* story according to which the Buddha in one of his previous incarnations, as Kṣāntivādin, was tortured to death by a king of Benares named Kalabu for preaching a sermon to his *nautch* girls.

(x) *Room No. 4* :—This room contains exhibits of minor importance. One may see here pottery, household utensils, earthen seals, carved stones, bricks, and such other things.

We have now finished our rapid survey of the history and antiquities of Sarnath. There are still some mounds on the northern and eastern side awaiting the archaeologist's spade, and one does not know what artistic treasures lie hidden in them. The future may thus reveal more of the noble past of Sarnath.

## BENARES HINDU UNIVERSITY CAMPUS

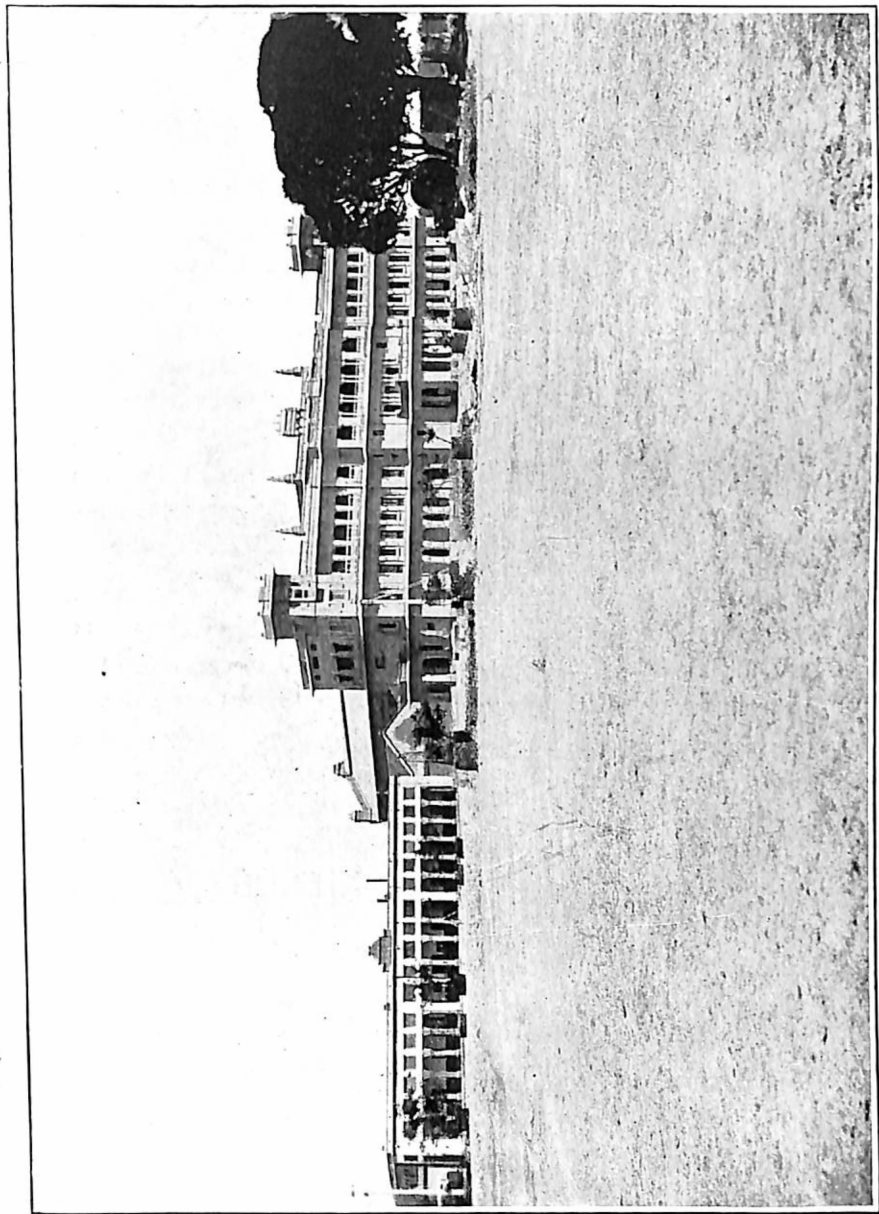
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THE Benares Hindu University, which owes its conception, inception and development to the genius of Pandit Madan Mohan Malaviya, has become one of the three principal sights of Benares, the other two being Sarnath, where Gautama Buddha preached his first sermon over 2400 years ago and the long line of ghats on the western bank of the holy Ganges where thousands of devout Hindu pilgrims from all parts of India congregate daily for a purifying bath and prayer.

2. Over ten thousand persons now visit the University annually, including many from foreign countries. Not only is there no formal pass or permit necessary to visit the Campus but members of the staff have instructions to afford every possible facility to visitors in seeing the buildings, equipment and working of the University.

3. The University buildings have been laid out on a fresh site having an area of over two square miles and situated near the bank of the Ganges about 2-3 miles south of the City of Benares. The river which has a general south-easterly course takes a great bend round the University area and then flows northwards for a few miles past the picturesque ghats of the city before resuming its normal course. The most



College of Electrical and Mechanical Engineering.



convenient railway station for the University area is Benares Cantonment, about 5 miles to the north.

4. The Campus is a rectangular area of almost level ground, measuring about 2 miles from north to south and about  $1\frac{1}{2}$  mile from east to west. From about the centre of the eastern side, which may be called the "centrum," eleven straight roads radiate symmetrically to the boundaries of the area, dividing it into ten blocks, all converging to the centrum. These are subdivided into sixty blocks by means of seven concentric semi-circular cross-roads, with the "centrum" as centre.

Thus there are two sets of main roads, the eleven straight and the seven curved, all the former converging to the centrum and all the latter running round it at varying distances. Each of the sixty blocks is therefore bounded by straight roads on two opposite sides and curved roads on the other two. The blocks get larger and larger as we go further and further away from the centrum. The larger blocks are therefore subdivided into two by means of further radial roads. Most of the college and hostel buildings face the centrum. These roads total a length of over twenty miles and are being maintained by the University. Double rows of trees on most of the roads and single ones on others have been planted by the University in great variety, and now that most of them are over fifteen years old, promising avenues delight the eye in many parts of the Campus.

5. The first curved row of blocks round the centrum is reserved for colleges of Fine Arts,—Music, Painting, Sculpture

and Architecture. The second is left vacant for gardens and lawns. The third is meant for the colleges of Theology, Oriental Learning, Arts, Law, Commerce, Medicine, Science, Engineering and Technology. The fourth forms a series of playgrounds. The fifth is a row of students' hostels. And the sixth is studded with teachers' residences, each in the centre of its own little garden. The central portions of the third and fourth rows of blocks will be utilised for a Temple of Vishvanath, the Senate Hall, the General Library, a Museum and an Observatory. A part of the General Library has been built already and foundation of the Temple has been laid.

6. It has been estimated that it would cost about three crores of rupees to fill the plots with buildings and equipment as at present designed. Over a crore and a half has already been collected, out of which about 80 lakhs has been spent on buildings (over 250 buildings having a total floor space of about a million square feet), about 40 lakhs on equipment, and about 50 lakhs is in deposit as the permanent endowment fund. As money becomes available, the more pressing needs are being met, the building programme being pursued on the various plots in accordance with the original lay-out plan as far as possible. Roughly speaking, about half of the projected buildings have been constructed and equipped since the foundation stone was laid by Lord Hardinge in 1916.

7. As one enters the University Campus from the Benares City side and proceeds along the avenue of Golmohur trees, the first building on the left with a large compound wall that

greet the eye is the Women's College. Situated in the same compound is the Women's hostel founded in the name of the late Seth Makanji Khatau, a Bhatia merchant-prince of Bombay. It has accommodation for one hundred students.

A staff of women-teachers is employed for imparting instruction in various Arts subjects, including the special women's subjects—music and domestic science—and classes in these subjects are held in the Women's College: but if any woman-student wishes to take up, with the consent of her parents, any subject for which provision has not been made in the Women's College, she is allowed to attend classes in that subject along with the men'-students in the college concerned.

Various outdoor games and sports are provided for the women students within the walled compound of the college. The students have also organised their library, social and dramatic societies.

8. On turning to the right, one sees a beautiful building on the right, again in a large compound. This is the combined University Hospital and Ayurvedic College. The former bears the name of the late Sir Sundarlal, the first Vice-Chancellor of the Benares Hindu University, who had rendered invaluable services in bringing this University into existence. The Sundarlal Hospital has both indoor and outdoor departments and each department is again divided into Ayurvedic and allopathic sections. The indoor department has accommodation for one hundred beds. A modern surgical theatre is also attached to the Hospital. In the Ayurvedic College,

a six-year course is provided, open to matriculated students, and a synthesis is attempted of the ancient Ayurvedic system of medicine and surgery based on the teachings of Charaka and Susruta, and the modern allopathic system of the West, based on anatomy, physiology, materia medica, and pathology. Thus students who may be studying Charaka and Susruta in original Sanskrit and practising at Ayurvedic Pharmaceutical preparations in part of the day or year, may be seen dissecting human bodies, studying plants and bacteria under the microscope, making chemical experiments in a modern chemical laboratory, or attending a modern surgical operation, in another part of the day or year. It is too early at present to judge the merit of this synthesis, but the experiment is a most interesting one. The Government of the U. P. have been making the University an annual grant of Rs. 50,000 towards the cost of this experiment. Opposite the Hospital building is a farm where various Ayurvedic herbs are grown and behind the farm there is a dissection hall.

Close to the farm there is an Ayurvedic pharmacy where a large number of Ayurvedic medicines are prepared from Indian plants and minerals according to prescribed formulae under expert supervision.

These plants, minerals and medicinal preparations are also available on sale to the public. The Ayurvedic and allopathic departments of the Hospital treat not only cases of illness amongst the students and members of the University staff but also hundreds of cases coming daily from the neighbouring villages.

9. Proceeding further, one notices a small building on the right, just beyond the fence of the Hospital building, with an open masonry platform in front. This is the residence of Pandit Madan Mohan Malaviya.

Although he has now retired from the Vice-Chancellorship of the University, he is never happier or feels more at home than when he is in the University Campus.

10. Proceeding further, one soon comes to an important crossing of the roads. The curved road straight on passes in front of the long line of several elegant buildings which are the students' hostels.

The road to the right leads to the quarters of the members of the University staff. The long road to the left leads to the line of the various colleges and is the one usually taken first by the visitors. Following this road to the left for about three furlongs, one passes the Botanical Garden on the left. This garden is in the charge of the Botany Department. The various genera and species of plants required for the teaching of Botany are grown here and are distinctively labelled. There is a fern house under a cluster of shady trees.

11. Immediately after passing the Botanical Garden, one turns to the right and notices a curved line of three massive sombre-looking buildings in true Hindu style of architecture, with temple-like turrets and golden kalashes on them.

The parts are so well proportioned that one does not realise the actual size until one goes near the buildings. The first of them is the Arts College, where classes are held upto the M.A. standard in the following subjects :—

Ancient Indian History and Culture	English
Sanskrit	History and Civics
Hindi	Philosophy and Psychology
Urdu	Economics and Political Science
Bengali	Mathematics
Marathi	
Arabic and Persian	

The upper story of the eastern wing accommodates for the present the office of the Pro. Vice-Chancellor (the end room) where the meetings of the various University bodies are usually held, the office of the Registrar (the adjoining room) and the Accounts office. The central hall of the building is used for general lectures, Ekadashi Kathas, receptions, Court meetings, students' debates, theatricals, etc.

12. The middle one of the three adjoining College buildings is primarily the Physics Laboratory, but owing to want of other accommodation, the Departments of Botany and Zoology are also housed in it at present.

These three departments are well equipped with instruments and apparatus for the study of these subjects upto the M.Sc. standard. Two lakhs of rupees has been spent for the equipment in Physics and two and a quarter lakhs for Botany and Zoology together. Until recently each department carried in a very accessible position a fairly good departmental library containing books and journals and current magazines for ready reference by the workers in the laboratory but now the departmental libraries have been shifted to the

Central University library situated at a distance. The departments of Physics, Botany and Zoology have got their respective small museums on the laboratory premises which is a great advantage. The Physics Department is equipped with X-Ray and Wireless apparatus for teaching those branches of the subject. All the Departments have got suitably fitted lecture-theatres for large classes.

13. The last (westernmost) of the three buildings is primarily the Chemistry Laboratory, but owing to want of other accommodation, the Department of Mining and Metallurgy is also located for the present in the eastern wing of the building and the Department of Geology in the western wing. The ground floor of the western wing contains the Department of Industrial Chemistry.

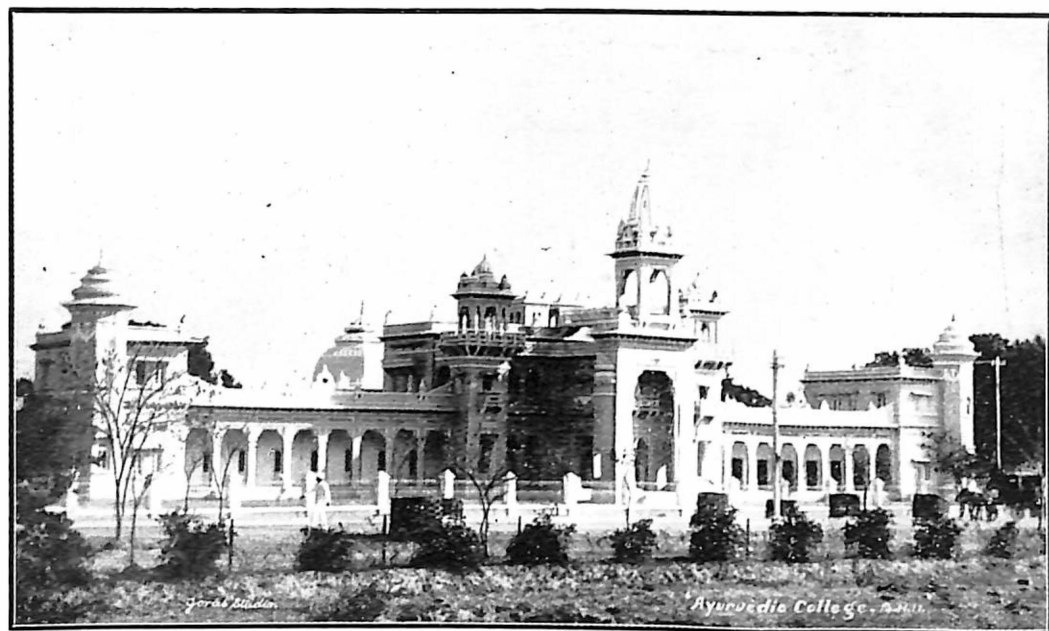
The laboratories in Chemistry, Industrial Chemistry and Geology are equipped for imparting instruction upto the M.Sc. standard. Two lakhs of rupees has been spent on equipment for Chemistry, one lakh for Industrial Chemistry and half a lakh for Geology.

13. The last (westernmost) of the three buildings is primarily the Chemistry Laboratory, but owing to want of other accommodation, the Department of Mining and Metallurgy is also located for the present in the eastern wing of the building and the Departments of Geology and Industrial Chemistry (Oils and soaps branch) in the western wing. The laboratories in Chemistry, Geology and Industrial Chemistry are equipped for imparting instruction upto the M.Sc. standard and for research work in those subjects.

14. As there are only three or four Universities in India that have developed courses in Industrial Chemistry and as the mind of science under-graduates is now gradually turning from pure science to applied science, particularly towards those branches in which there is scope in India for establishing small factories in favourable localities, the Industrial Chemistry courses of the Benares Hindu University are steadily gaining in popularity. The branches at present developed are (a) Oils and soaps (b) Pottery and porcelain (c) Metal Enamelling (d) Glass (e) Pharmaceutics. A number of commercial products (hair oils, essential oils, soaps, inks, chalk-sticks, glazed and enamelled clay-ware, toys, &c.) are regularly placed in the market by this Department, so that the students get the benefit of studying production methods under semi-industrial conditions. A small museum of these commercial products is being maintained in the Department. The branches (b), (c), (d) and (e) mentioned above have recently been shifted to more commodious new buildings near the Engineering College.

15. The Department of Mining and Metallurgy is the only one of its kind attached to any University in India. Its establishment in 1923 was made possible by the munificent gift of two lakhs of rupees by the Jodhpur Durbar. It has two 4-year courses, open to I.Sc. passed candidates, leading to the degree of B.Sc. in Mining or Metallurgy. The students are sent to selected mines and metallurgical works all over the country for practical training during the long vacation every year. The Department is housed mainly on the ground floor of the eastern wing of the Chemistry building, and partly





Sir Sundar Lal Hospital and Ayurvedic College.



in an extension block built on an adjoining plot. There is also a shed for various furnaces.

16. Before leaving the site of the three College buildings just described, the visitor will have noticed a large Amphitheatre and a large play-ground in front of, i.e. to the south of, the three College buildings. This is the place where the important cricket, football and hockey matches are played, where the U. T. C. parades and the annual sports are held, and where, pending the construction of the Senate Hall, the annual Convocation for conferring degrees is held under canvas.

17. Continuing westward on the road in front of the three College buildings, one passes on the right the new General Library building recently completed. It is the result of the munificent donation of two lakhs of rupees made by His Highness the late Sir Sayaji Rao Gaekwar of Baroda when he was the Chancellor of the University and whose honoured name it bears. Its foundation stone was laid by Lord Irwin. The building has been so designed and so located that it can be extended later without loss of architectural beauty. The University library has over 100,000 books.

18. The next building one passes on the right soon after continuing westward is the Institute of Agricultural Research. The University has long contemplated establishing a full-fledged Agricultural College. Schemes have been prepared and recommended by expert committees. The last scheme, which required eight lakhs of rupees, is held up for want of funds. In the meantime, the Jodhpur Durbar has generously patronised the cause of Agricultural education at the University

by donating four lakhs of rupees, for a chair of Agriculture in the name of Lord Irwin and agricultural education. The best way in which the University could utilise this donation was by establishing an Institute of Agricultural Research where an M.Sc. course in Agricultural Botany is being developed, open to graduates in Botany or Agriculture, and where suitable problems likely to benefit Indian agriculture are taken up for investigation. It is hoped to establish soon a full fledged Agricultural College.

19. Long before reaching this stage of the visit, the visitor must have noticed the tall smoking chimney in the distance, further to the west, and conjectured that the group of buildings near the chimney belongs to the Engineering College of the University. If so, he is correct. Thanks to the munificent donation of five lakhs of rupees by the Patiala Durbar and the endowment of a two-thousand-rupee Hardinge chair of Technology by the Jodhpur Durbar, the Engineering College was established in 1918 as one of the early units of the University. At first the College had two kinds of courses—the Degree and the Diploma; and in each kind, the final year student specialised in either Mechanical or Electrical Engineering. The Diploma courses have since been abolished, and the Degree course has been made a combined Mechanical and Electrical course to the end, so that the College now concentrates on only one type of graduates.

20. The visitor will probably first enter the large Power House and machine shop by the western gate. There he will probably find students at work on various types of lathes. On the elevated part of the floor he will find a steam-engine-

driven 200 kilowatt 220-volt D.C. generating set which supplies light and power not only to the Engineering College but to the whole of the University Campus. Close to this will be found fitted a large 1000 kilowatt generating set which was brought in 1919 in the expectation of undertaking the supply of light and power to the Benares City but the scheme did not materialise. Adjoining the Power House to its south is the boiler-house and to its north, the foundry and blacksmith's shop. The next long hall to the north is the carpentry shop and near by will be found various repair-shops. The next room to the north is a repair-shop for electric motors &c., and the last set of rooms further to the north constitute the electrical laboratory, well equipped with various types of dynamos and motors, switch-board, electrical measuring instruments, radio receivers, &c. There is also a transformer set giving 110,000 volts.

To the east of the buildings comprising the Power House and workshops is the new Applied Mechanics Laboratory, fitted with various models and machines including a 30-ton Avery tensile testing machine. The Applied Mechanics laboratory is one of the most important parts of a modern engineering college.

Further east, a new large building has recently been constructed which is to form part of the main Engineering College building, in the semi-circular line with the other colleges of the University. It comprises lecture theatres and the drawing office, and is to accommodate the Prime Movers laboratory, the Hydraulics laboratory, &c. It is an impressive sight to see over a hundred students silently absorbed in

drawing. The drawing office is the brain of the modern engineering workshop.

21. A little to the south of the Engineering College buildings will be noticed a group of new buildings with several small chimneys sticking out of sheds. These are the new premises of the Departments of Ceramics and Glass Technology, now forming part of the college of Technology. Degree courses in pottery, porcelain and glass manufacture and metal enamelling are being developed here.

22. A little beyond these is the new home of the Department of Pharmaceutics which started as a department of Pharmaceutical Chemistry in the Science College some years ago. A B.Sc. course in the subject is now well developed and an M.Sc. course has recently been started.

23. Further south is the University Press where nearly all the printing work of the University is now being carried out. The Press has a Monotype machine. The establishment of a type-foundry and a photo-mechanical plant is contemplated.

24. Returning via the Engineering College, the visitor will notice two large white double-storeyed buildings, about three furlongs to the west of the college and facing the college.

These are the hostels for Engineering students. The one to the south is known as the Limbdi hostel because the Thakor Sahab of Limbdi (in Kathiawar) has paid substantially towards its cost, and the one to the north is known as the Rajputana hostel at the desire of the donors, Seth Ramchordas Birla, who contributed Rs. 100,000 towards its construction



Raja Birla Hostel.

and Seth Ramgopal Shivaratan Mohta of Karachi, who contributed Rs. 35,000 towards its cost. Each of the two hostels is built in the form of a square, with rooms all round and a large open quadrangle in the centre. A verandah runs all round on the inner side. Each hostel has 200 rooms, size 12 ft.  $\times$  8 ft. The two hostels are thus meant to accommodate 400 students and when the number exceeds this, some of the rooms have to be shared by two students each.

Part of a third hostel, called the Dhanrajgiri hostel after the name of the principal donor—Seth Dhanrajgiri of Hyderabad (Deccan)—similar to the above two, has been constructed in the adjoining block to the north and will be completed as soon as money becomes available. Students of Mining, Metallurgy and Agricultural Botany reside here.

The plot of ground between the Engineering College and the Engineering hostels is used by the students of the college for their outdoor games and sports.

25. Taking the road immediately in front of the Engineering hostels and proceeding northward along the curved road, one passes the sites of future hostels on the left and the site of the University Temple on the left. The canal which is to run round the Temple has already been constructed. After traversing about half-a-mile, one comes to an important crossing under a shady Peepul tree, from where the road to the left goes to the staff-quarters, the one to the right to the colleges, and the one straight on runs between the long curved line of three hostels on the left and a series of playgrounds on the right. These are the same three palatial hostels which had feasted the eye on the inward journey after passing the



Vice-Chancellor's lodge, and from the corner of which the visitor probably took the left turning in order to see the college buildings first.

26. Let the visitor pause a while under the above-mentioned shady Peepul tree and gaze round. His eye will be first drawn to the imposing line of hostels more than half a mile long. Well may he envy those who now reside in them. These hostels were constructed during the years 1919-1923, much earlier than the Engineering hostels described above, when financial stringency was not yet felt. These hostels are of the open access type, with verandahs on both sides.

Each of the first two hostels is divided into six blocks of 52 rooms each for administrative convenience, each block being in the charge of an Assistant Warden who resides on the second story. The hostel first on the left (as the visitor views it from the Peepul tree) is known as the Sangidas Shapurji Broacha hostel, and the second, i.e. the middle one, as the Raja Baldevdas Birla hostel, after the names of the respective donors.

The last, i.e. the easternmost, which is single-storeyed, is known, by the name of its principal donor, as the Ram Narayan Ruiya hostel. The students are distributed in these hostels irrespective of the subject they are studying, the provinces they come from, or the castes or religions to which they belong. This is deliberate. They form their own messes in such groups as they desire, manage them themselves and share the expenses. Non-vegetarian food is prohibited in the hostels. The students also have their literary and debating unions, athletic associations, Seva Samitis, study circles, &c.

Discipline is maintained by means of a set of hostel rules which include a roll call in the evening and provision for study hours.

27. On looking to the right from the Peepul tree, the visitor will wonder what the huge hall overlooking the playgrounds is for. It is the hall of Physical Culture and is appropriately named the Shivaji Hall. It has akharas for wrestling and provision for other gymnastics for giving systematic courses of instruction in physical training to the students of the University.

28. The expanse of playgrounds in front of the three hostels is best visited late in the afternoon, when it will be gay with the alumni of the University playing at Hockey, Football, Cricket, Tennis, Volleyball &c. after their day's work in the colleges.

29. The University has also got a military Training Corps, the U.T.C., of three platoons, which meet three times a week for parades and once a week for rifle practice at the rifle-range. The Benares U.T.C. has always had the lion's share of prizes, medals, cups and other distinctions at the annual inter-University battalion competitions held at various centres in the U.P.

30. The quarters for the members of the staff are constructed in eight more or less standardised designs, A, B, C, D, E, F, G and H. Many new quarters of improved design have been constructed recently. Rents are charged on these as a percentage of the cost of construction. There is a University Staff Club where indoor and outdoor games and magazines

are provided and lectures of general interest occasionally held. A post and telegraph office is situated in the staff quarters area. There is also a Staff Ladies' Club and a Staff Children Primary School.

31. I may conclude this guide to visitors by giving the text of the Alma Mater song of the University which is sung on ceremonial occasions. It was composed by Dr. S. S. Bhatnagar when he was University Professor of Chemistry at the University.

## *The Song of the Alma Mater*

मधुर मनोहर अतीव सुन्दर, यह सर्वविद्या की राजधानी ।  
यह तीन लोकों से न्यारी काशी ।  
सुज्ञान धर्म और सत्यराशी ॥  
बसी है गङ्गा के रम्य तट पर, यह सर्वविद्या की राजधानी ।  
मधुर०—॥

नये नहीं हैं यह ईंट पत्थर ।  
है विश्वकर्मा का कार्य सुन्दर ॥  
रचे हैं विद्या के भव्य मन्दिर, यह सर्वसृष्टी की राजधानी ।  
मधुर०—॥

यहाँ की है यह पवित्र शिक्षा ।  
कि सत्य पहले फिर आत्म-रक्षा ॥  
बिके हरिश्चन्द्र थे यहीं पर, यह सत्यशिक्षा की राजधानी ।  
मधुर०—॥

वह वेद ईश्वर की सत्यवानी ।  
बने जिन्हें पढ़ के ब्रह्मज्ञानी ॥  
थे व्यास जी ने रचे यहीं पर, यह ब्रह्म-विद्या की राजधानी ।  
मधुर०—॥

वह मुक्तिपद को दिलानेवाले ।  
सुधर्मपथ पर चलानेवाले ॥  
यहीं फले फूले बुद्ध शङ्कर, यह राज-ऋषियों की राजधानी ।  
मधुर०—॥

सुरम्य धारायें बरुणा असी ।  
नहाएँ जिनमें कबीर तुलसी ॥  
भला हो कविता का क्यों न आकर यह वागविद्या की राजधानी ।  
मधुर०—॥

विविध कला अर्थशास्त्र गायन ।  
गणित खनिज औषधि रसायन ॥  
प्रतीचि-प्राची का मेल सुन्दर, यह विश्वविद्या की राजधानी ।  
मधुर०—॥

है मालवी की ये देशभक्ति ।  
यह उनका साहस यह उनकी शक्ति ॥  
प्रगट हुई है नवीन होकर, यह कर्मवीरों की राजधानी ।  
मधुर०—॥

# BENARES HINDU UNIVERSITY

## Silver Jubilee

*Listen to the sound of conch on this new year morn,  
Wake up dear Benares youths ! Arise from your dreams. Your  
ALMA MATER needs your help at this-hour. Ye are many thou-  
sands in number. Let each one of you be a torch-bearer of learning.  
Join together, and work for the good and glory of your ALMA  
MATER.*

*One longs to see a reunion of all the Benares University  
men and women that are spread throughout the land. When  
would they meet ?*

*The Silver Jubilee comes this spring, when golden bells  
would chime from the many College towers, calling out one by  
one, all the children of the Benares Hindu University.*

*First get together, join together and then work together and  
see the miracle that will happen as a result of your conjoined  
efforts.*

*A tree is judged by the fruit it bears. The Benares Hindu  
University is the tree and ye, twenty thousand and more students  
past and present are its fruits. Let it be said that this good tree  
of Benares University, brought forth good fruits.*

*Let this tree of knowledge, that has grown so large and beauti-  
ful, in these twenty five years, resemble that other more beautiful  
Banyan tree—the wonder-tree of Hindustan.*

*Let the Benares University grow larger and larger still,  
increase in size and stretch out its arms to perfection in the service  
of the poor and illiterate.*

*Let each Benares student, like the branch of the Banyan  
tree, that throws out its own roots and become a parent tree, be a  
source of nourishment to the ALMA MATER.*

*When such a glorious thing will happen, I have no doubt  
this noble institution will remain a symbol of the Divine, and  
All India will worship this National shrine of National culture.*

V. A. SUNDARAM

ESTD. 1917

ESTD. 1917

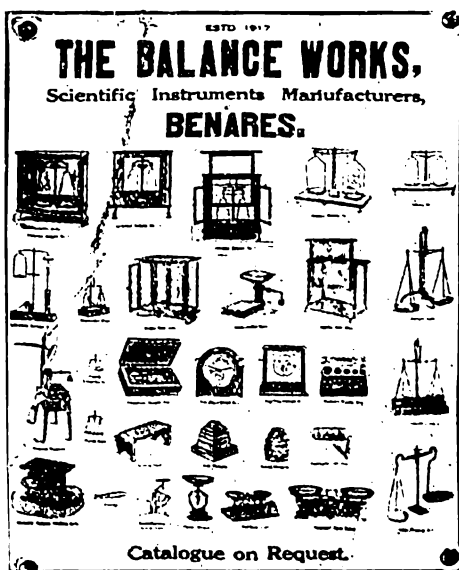
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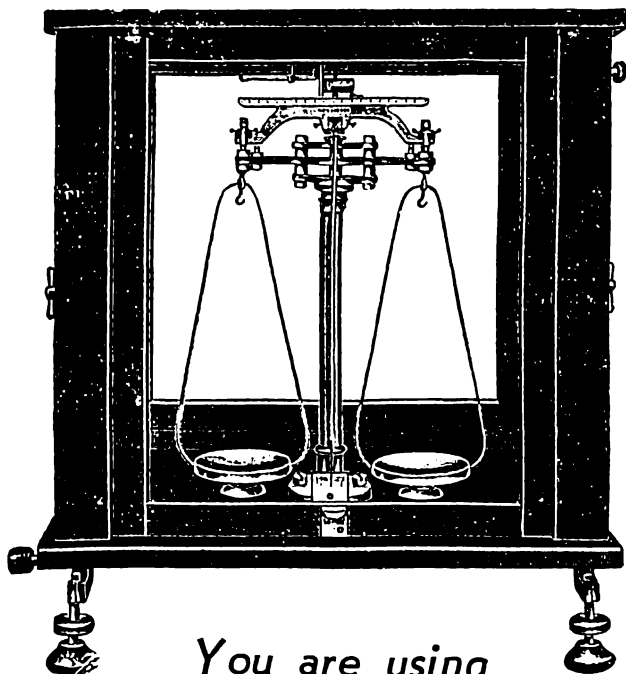
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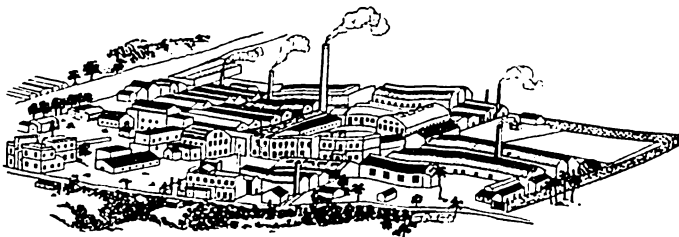
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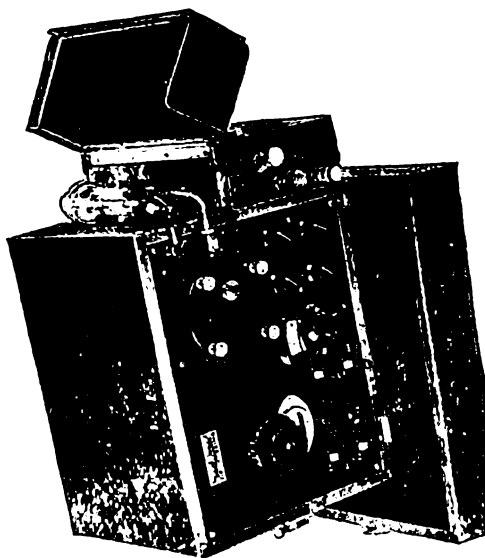
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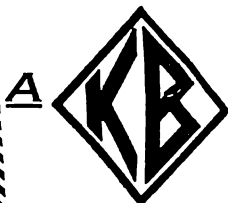
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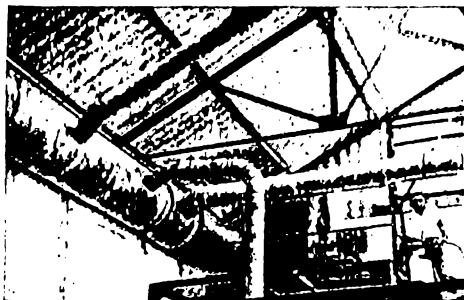
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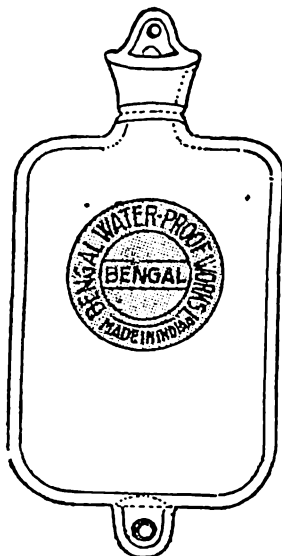
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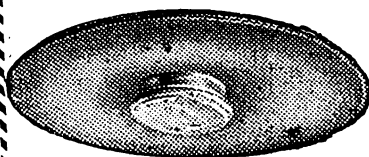


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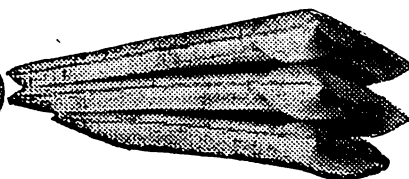
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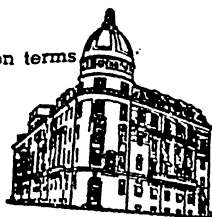
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